

UNESCO
ITS PURPOSE
AND ITS PHILOSOPHY

by

JULIAN HUXLEY

PREPARATORY COMMISSION OF
THE UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANISATION

1946



CHAPTER I

A BACKGROUND FOR UNESCO

A BACKGROUND FOR UNESCO

I. THE AIMS LAID DOWN FOR UNESCO

Unesco—the United Nations Educational, Scientific and Cultural Organisation—is by its title committed to two sets of aims. In the first place, it is international, and must serve the ends and objects of the United Nations, which in the long perspective are world ends, ends for humanity as a whole. And secondly it must foster and promote all aspects of education, science, and culture, in the widest sense of those words.

Its Constitution defines these aims more fully. The preamble begins with Mr. Attlee's noble words—"since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed": it continues by stressing the dangers of ignorance—"ignorance of each other's ways and lives has been a common cause, throughout the history of mankind, of that suspicion and mistrust between the peoples of the world through which their differences have all too often broken into war": and then proceeds to point out that the late war was made possible by the denial of certain basic principles—"the democratic principles of the dignity, equality and mutual respect of men"—and by the substitution for them of "the doctrine of the inequality of men and races."

From these premises it proceeds to point out that "the wide diffusion of culture, and the education of humanity for justice and liberty and peace, are indispensable to the dignity of man and constitute a sacred duty which all the nations must fulfil in a spirit of mutual assistance and concern": and draws the notable conclusion, never before embodied in an official document, that a peace "based exclusively upon the political and economic arrangements of governments" would be inadequate, since it could not "secure the unanimous, lasting and sincere support of the peoples of the world," and that "the peace must therefore be founded, if it is not to fail, upon the intellectual and moral solidarity of mankind." And finally, the States which are parties to the Constitution assert their belief "in full and equal opportunities of education for all, in the unrestricted pursuit of objective truth, and in the free exchange of ideas and knowledge": they agree "to develop and increase the means of communication between their peoples and to employ these means for the purposes of mutual understanding and a truer and more perfect knowledge of their lives": and they "hereby create the United Nations Educational, Scientific and Cultural Organisation," whose purpose is then specifically laid down as that of "advancing, through the educational and scientific and cultural relations of the peoples of the world, the objectives of international peace and of the common welfare of mankind, for which the United Nations Organisation was established and which its charter proclaims."

In Article I of the Constitution the methods for realising these aims are broadly defined under three heads.

In the forefront is set Unesco's collaboration in "the work of advancing the mutual knowledge and understanding of peoples, through all means of mass communication," and in the obtaining of international agreements "necessary to promote the free flow of ideas by word and image."

Next is listed the giving of "fresh impulse to popular education and to the spread of culture." Here there is asserted "the ideal of equality of educational opportunity without regard to race, sex or any distinctions, economic or social," and the specific aim is included of suggesting "educational methods best suited to prepare the children of the world for the responsibilities of freedom."

And finally we have the enormous scope of the third head, to "maintain, increase and diffuse knowledge." The methods here listed are, first "the conservation and protection of the world's inheritance of books, works of art and monuments of history and science"; secondly "co-operation among the nations in all branches of intellectual activity," which is to include "the international exchange of persons active in the fields of education, science and culture," and also "the exchange of publications, objects of artistic and scientific interest, and other materials of information"; and thirdly the initiation of "methods of international co-operation calculated to give the peoples of all countries access to the printed and published materials produced by any of them."

These broad statements need amplification and occasionally clarification. Thus nothing is said as to whether co-operation between the nations in intellectual activities should go so far as the setting up of research or other institutions of truly international character, under Unesco's aegis; and there is, perhaps, an under-emphasis on the artistic activities of man as against the intellectual, and on the creation of new works of art and literature as against the conservation of old ones. Such matters, however, can clearly be solved *ambulando*, and the clarification of detail will be provided as Unesco gets to grips with its concrete tasks.

II. A PHILOSOPHY FOR UNESCO

But in order to carry out its work, an organisation such as Unesco needs not only a set of general aims and objects for itself, but also a working philosophy, a working hypothesis concerning human existence and *its* aims and objects, which will dictate, or at least indicate, a definite line of approach to its problems. Without such a general outlook and line of approach, Unesco will be in danger of undertaking piecemeal and even self-contradictory actions, and will in any case lack the guidance and inspiration which spring from a belief in a body of general principles.

From acceptance of certain principles or philosophies, Unesco is obviously debarred. Thus, while fully recognising the contribution made to thought by many of their thinkers, it cannot base its outlook

on one of the competing theologies of the world as against the others, whether Islam, Roman Catholicism, Protestant Christianity, Buddhism, Unitarianism, Judaism, or Hinduism. Neither can it espouse one of the politico-economic doctrines competing in the world to-day to the exclusion of the others—the present versions of capitalistic free enterprise, Marxist communism, semi-socialist planning, and so on. It cannot do so, partly because it is contrary to its charter and essence to be sectarian, partly for the very practical reason that any such attempt would immediately incur the active hostility of large and influential groups, and the non-cooperation or even withdrawal of a number of nations.

For somewhat similar reasons it cannot base itself exclusively on any special or particular philosophy or outlook, whether existentialism or *élan vital*, rationalism or spiritualism, an economic-determinist or a rigid cyclical theory of human history. Nor, with its stress on democracy and the principles of human dignity, equality and mutual respect, can it adopt the view that the State is a higher or more important end than the individual; or any rigid class theory of society. And in the preamble to its Constitution it expressly repudiates racialism and any belief in superior or inferior “races,” nations, or ethnic groups.

And finally, with its stress on the concrete tasks of education, science and culture, on the need for mutual understanding by the peoples of the world, and on the objectives of peace and human welfare on this planet, it would seem debarred from an exclusively or primarily other-worldly outlook.

So much for what Unesco cannot or should not adopt in the way of philosophies or guiding principle. Now for the positive side. Its main concern is with peace and security and with human welfare, in so far as they can be subserved by the educational and scientific and cultural relations of the peoples of the world. Accordingly its outlook must, it seems, be based on some form of humanism. Further, that humanism must clearly be a world humanism, both in the sense of seeking to bring in all the peoples of the world, and of treating all peoples and all individuals within each people as equals in terms of human dignity, mutual respect, and educational opportunity. It must also be a scientific humanism, in the sense that the application of science provides most of the material basis for human culture, and also that the practice and the understanding of science need to be integrated with that of other human activities. It cannot, however, be materialistic, but must embrace the spiritual and mental as well as the material aspects of existence, and must attempt to do so on a truly monistic, unitary philosophic basis.

Finally it must be an evolutionary as opposed to a static or ideal humanism. It is essential for Unesco to adopt an evolutionary approach. If it does not do so, its philosophy will be a false one, its humanism at best partial, at worst misleading. We will justify this assertion in detail later. Here it is only necessary to recall that in the last few decades it has been possible to develop an extended or general theory of evolution which can provide the

necessary intellectual scaffolding for modern humanism. It not only shows us man's place in nature and his relations to the rest of the phenomenal universe, not only gives us a description of the various types of evolution and the various trends and directions within them, but allows us to distinguish desirable and undesirable trends, and to demonstrate the existence of progress in the cosmos. And finally it shows us man as now the sole trustee of further evolutionary progress, and gives us important guidance as to the courses he should avoid and those he should pursue if he is to achieve that progress.

An evolutionary approach provides the link between natural science and human history ; it teaches us the need to think in the dynamic terms of speed and direction rather than in the static ones of momentary position or quantitative achievement ; it not only shows us the origin and biological roots of our human values, but gives us some basis and external standards for them among the apparently neutral mass of natural phenomena ; and it is indispensable in enabling us to pick out, among the chaotic welter of conflicting tendencies to-day, those trends and activities and methods which Unesco should emphasise and facilitate.

Thus the general philosophy of Unesco should, it seems, be a scientific world humanism, global in extent and evolutionary in background. What are the further implications, practical as well as theoretical, of such an outlook ? We must examine these in some detail before coming down to a consideration of Unesco's activity section by section.

III. UNESCO AND HUMAN PROGRESS

Our first task must be to clarify the notion of desirable and undesirable directions of evolution, for on this will depend our attitude to human progress—to the possibility of progress in the first place, and then to its definition. If the discussion at first seems academic and remote, yet it will speedily appear that it has the most direct bearing upon Unesco's work.

Evolution in the broad sense denotes all the historical processes of change and development at work in the universe. It is divisible into three very different sectors—the inorganic or lifeless, the organic or biological, and the social or human. The inorganic sector is by far the greatest in extent, comprising the overwhelming bulk of the cosmos, both of interstellar space and of the material aggregates we call stars. On the other hand, the methods by which change is brought about in this sector are almost entirely those of mere physical interaction, and the highest rate of evolution so slow as to be almost beyond our comprehension, the "life" of a star being of the appalling order of magnitude of 10^{12} years.

The biological sector is very much limited in extent, being confined to the outer surface of the single small planet Earth, and perhaps to the very few similar situations in the universe. On the other hand, with the emergence of the two basic properties of

living matter—self-reproduction and variation (mutation)—a quite new and much more potent method of change became available to life, in the shape of Natural Selection. And as a result the possible rate of evolution was enormously speeded up. Thus the entire evolution of life, from its pre-cellular origins to man, took little more than 10^9 years, and quite large changes, such as the evolution of the fully specialised horses from their small and generalised ancestors, or that of the first true birds from reptiles, could be achieved in a period which is nearer to 10^7 than 10^8 years.

Finally there is the human sector. This is still further restricted in extent, being confined to the single species, man. But once more a new and more efficient method of change is available. It becomes available to man through his distinctively human properties of speech and conceptual thought, just as Natural Selection became available to life as a result of its distinctive properties of reproduction and variation. Objectively speaking, the new method consists of cumulative tradition, which forms the basis of that social heredity by means of which human societies change and develop. But the new method also has a subjective aspect of great importance. Cumulative tradition, like all other distinctively human activities, is largely based on conscious processes—on knowledge, on purpose, on conscious feeling, and on conscious choice. Thus the struggle for existence that underlies natural selection is increasingly replaced by conscious selection, a struggle between ideas and values in consciousness.

Through these new agencies, the possible rate of evolution is now once more enormously speeded up. What is more, there has so far been a steady acceleration of the new rate. Whereas in lower palaeolithic times, major change required something of the order of 10^6 years, by the late upper palaeolithic the unit was nearer 10^4 years, and in historic times soon came down to the century or 10^2 years ; and during the last hundred years each decade has seen at least one major change—if we are to choose ten such, let us select photography, the theory of evolution, electro-magnetic theory with its application in the shape of electric light and power, the germ theory of disease, the cinema, radioactivity and the new theories of matter and energy, wireless and television, the internal combustion engine, chemical synthetics, and atomic fission. To-day, indeed, even the most momentous changes, such as the discovery and practical application of atomic fission, may take only half a decade, and there is as yet no sign of the rate of acceleration slowing down.

Evolution in the human sector consists mainly of changes in the form of society; in tools and machines, in new ways of utilising the old innate potentialities, instead of in the nature of these potentialities, as in the biological sector. Man's inherited mental powers cannot have changed appreciably since the time of the Aungriacian cave-dwellers : what have changed are the ways in which those powers are used, and the social framework which conditions their use. This is not to say that what has happened since the Aungriacian

period or since the time of ancient Greece, is not evolution : it is a very astonishing bit of evolution. Nor does it mean that man's innate mental powers could not be improved. They certainly were improved (presumably by natural selection) in the earliest stages of his career, from Pekin man through the Neanderthals to our own species ; and they could certainly be improved further by deliberate eugenic measures, if we consciously set ourselves to improve them. Meanwhile, however, it is in social organisation, in machines, and in ideas that human evolution is mostly made manifest.

These three sectors have succeeded each other in time. Perhaps the next fact that strikes one concerning the process as a whole is that the physical basis and the organisation of what evolves becomes more complex with time, both in the passage from one sector to the next, and within each sector. Most of the inorganic sector is composed of atoms or of the still simpler subatomic units, though here and there it attains the next higher level of *molecule*. Further in a few rare situations it must have reached the further stage of organic molecule (macro-molecule), which can comprise a much larger number and more complex arrangement of atoms, owing to the capacity of carbon atoms, in certain conditions, to combine with each other to form the framework of large molecules, having the shape of rings or chains or elaborate branched structures. It was from among organic molecules that the living or self-reproducing molecules of the biological sector were later evolved. These are far more elaborate, consisting of hundreds or possibly thousands of atoms. And their vast but still submicroscopic complexity provided the basis for an even greater visible elaboration. The complexity of the bodily structure of a bird or a mammal is almost inconceivable to anyone who has not systematically studied it. And this visible complexity has increased with time during biological evolution : a bird or a mammal is more complex than a fish, a fish much more complex than a worm, a worm than a polyp, a polyp than an amoeba, an amoeba than a virus. Finally, in the human sector, a new complexity is superimposed on the old, in the shape of man's tools and machines and social organisation. And this, too, increases with time. The elaboration of a modern state, or of a machine-tool factory in it, is almost infinitely greater than that of a primitive tribe or the wooden and stone implements available to its inhabitants.

But it is not only complexity which increases with time. In the biological sector, evolution has led to greater control over the environment and greater independence of the changes and chances of the environment. It has also promoted a higher degree of individuality. And this trend is connected with another which has led to increase of mental powers—greater capacities for acquiring and organising knowledge, for experiencing emotion, and for exerting purpose. This last trend, towards fuller knowledge, richer emotion, and more embracing purpose, is continued (though by different methods) in the human sector, and is continued at a much increased rate. But to it is superadded another trend—an increase in the capacity to appreciate values, to appreciate experiences that are of

value in their own right and for their own sake, to build on knowledge, to work through purpose, and to inject ethical values into the process of social evolution itself.

The ethical values may be limited and primitive, such as unquestioning loyalty to a tribe, or high and universal, like those which Jesus first introduced into the affairs of the world : the point is that only in the human sector do they become a part of the mechanism of change and evolution.

These broad trends are not universal. In the biological sector, for instance, stability may under certain conditions be the rule instead of change, or change may be restricted to the quite minor alterations involved in producing new species or genera of an already existing general type.

Even when broad trends exist, they need not be desirable from the long-term point of view. Thus most trends observed in life, like that seen in the horse or elephant stock, are only specialisations. These, after tens of millions of years of one-sided improvement for a particular way of life, lead inevitably to an evolutionary dead end, after which no further major change is possible. However, a few trends do occur which promote an all-round improvement of organisation, such as the evolution of early mammals from reptiles, or early man from mammals. These do not close the door on further major change, as was demonstrated by the large-scale evolution of mammals in the Tertiary, or of man's societies since the Ice Age ; they are thus the only changes which are, from the longest-range point of view, desirable, the only trends which deserve to be called progressive.

In addition, we now know much about the methods of biological evolution : the existence of several quite different types of selection ; the conditions which promote or retard change ; the subordinate position of mutation as against selection in directing the course of evolution ; the evolutionary roles of the degree of specialisation and of progress shown by an organism, of its biological environment, and of its physical environment respectively, and the interaction between them ; the evolutionary conflict between the limitations set by an organism's nature and past history and the requirements of the present, and its solution by means of some new adjustment—or its lack of solution, followed by extinction.

This last point immediately recalls the thesis, antithesis, and synthesis of Hegelian philosophy, and the Marxist "reconciliation of opposites" based upon it. Indeed, dialectical materialism was the first radical attempt at an evolutionary philosophy. Unfortunately it was based too exclusively upon principles of social as against biological evolution, and in any case was undertaken too early, before either the facts or their analysis were adequate to support any such vast superstructure. To-day it is possible at least to begin the construction of a comprehensive philosophy of evolution ; and many of its conclusions will be of value in formulating

details of Unesco's own philosophy. For the moment, however, we have no space to discuss any except the one key principle of evolutionary progress.

For it is of major importance that biology has enabled us to detect a direction in evolution as a whole, and not merely within the small domain of human life, to which the term progress can properly be applied. This evolutionary progress, we find, is directed towards an increase of the following characteristics. Throughout evolution, an increase in complexity of organisation ; on this, in the biological and human sectors, is superposed a more important trend towards greater control over and greater independence of the environment, and, in later phases, one towards an increase of mental capacities ; and finally, in the human sector alone, an increase in the understanding and attainment of intrinsic values, which now in its turn becomes the most important characteristic of progress. Throughout, progress has the further characteristic of always permitting further progress, never shutting the door on later advance.

Of special importance in man's evaluation of his own position in the cosmic scheme and of his further destiny is the fact that he is the heir, and indeed the sole heir, of evolutionary progress to date. When he asserts that he is the highest type of organism, he is not being guilty of anthropocentric vanity, but is enunciating a biological fact. Furthermore, he is not merely the sole heir of past evolutionary progress, but the sole trustee for any that may be achieved in the future. From the evolutionary point of view, the destiny of man may be summed up very simply : it is to realise the maximum progress in the minimum time. That is why the philosophy of Unesco must have an evolutionary background, and why the concept of progress cannot but occupy a central position in that philosophy.

The analysis of evolutionary progress gives us certain criteria for judging the rightness or wrongness of our aims and activities, and the desirability or otherwise of the tendencies to be noted in contemporary history—tendencies of which Unesco must take account. Thus mere increase of our control over nature is not to be valued for itself, yet appears to be a necessary foundation for future progress. Put in a way more closely affecting Unesco's programme, research may be perverted, and its material applications may be over-valued ; yet without them we shall not advance. This conclusion applies *a fortiori* to mere complexity of social organisation. Again, even knowledge that appears to be wholly beneficent can be applied in such a way that it does not promote progress. Thus, the application of medical science may increase the number of human beings in a given area but lower their quality or their opportunities for enjoyment of life : and if so, in the light of our basic criterion of evolutionary direction, it is wrong. We are brought by a new route to realise once more the need for a Unesco policy balanced between many fields—in this instance, Unesco policy would have to include, besides the application of medical science, studies on agricultural productivity (soil erosion, mechanisation, etc.) and on social welfare, and also the provision of birth-control facilities.

In general, Unesco must constantly be testing its policies against the touchstone of evolutionary progress. A central conflict of our times is that between nationalism and internationalism, between the concept of many national sovereignties and one world sovereignty. Here the evolutionary touchstone gives an unequivocal answer. The key to man's advance, the distinctive method which has made evolutionary progress in the human sector so much more rapid than in the biological and has given it higher and more satisfying goals, is the fact of cumulative tradition, the existence of a common pool of ideas which is self-perpetuating and itself capable of evolving. And this fact has had the immediate consequence of making the type of social organisation the main factor in human progress or at least its limiting framework.

Two obvious corollaries follow. First, that the more united man's tradition becomes, the more rapid will be the possibility of progress: several separate or competing or even mutually hostile pools of tradition cannot possibly be so efficient as a single pool common to all mankind. And secondly, that the best and only certain way of securing this will be through political unification. As history shows, unifying ideas *can* exert an effect across national boundaries. But, as history makes equally evident, that effect is a partial one and never wholly offsets the opportunities for conflict provided by the existence of separate sovereign political units.

The moral for Unesco is clear. The task laid upon it of promoting peace and security can never be wholly realised through the means assigned to it—education, science and culture. It must envisage some form of world political unity, whether through a single world government or otherwise, as the only certain means for avoiding war. However, world political unity is, unfortunately, a remote ideal, and in any case does not fall within the field of Unesco's competence. This does not mean that Unesco cannot do a great deal towards promoting peace and security. Specifically, in its educational programme it can stress the ultimate need for world political unity and familiarise all peoples with the implications of the transfer of full sovereignty from separate nations to a world organisation. But, more generally, it can do a great deal to lay the foundations on which world political unity can later be built. It can help the peoples of the world to mutual understanding and to a realisation of the common humanity and common tasks which they share, as opposed to the nationalisms which too often tend to isolate and separate them.

It can promote enterprises which, by being fully international from the outset, demonstrate that nationality and nationalism can be transcended in shared activity. Examples of such enterprises are the Unesco Centre of Applied Mathematics proposed in the Natural Science Chapter dealing with the International Reconstruction Camps, proposed in the Education Chapter as a contribution to reconstruction, the activities centred round the World Bibliographical and Library Centre and the International Clearing House for Publications proposed in the section dealing with libraries, the

International Home and Community Planning Institute envisaged in the Chapter on Social Science, the International Theatre Institute proposed in that on the Creative Arts, and the production of internationally-conceived films and radio programmes envisaged in the Chapter on Mass Media.

Unesco also can and should promote the growth of international contacts, international organisations, and actual international achievements, which will offer increasing resistance to the forces making for division and conflict. In particular, it can both on its own account and in close relation with other U.N. agencies such as the F.A.O. and the World Health Organisation, promote the international application of science to human welfare. As the benefits of such world-scale collaboration become plain (which will speedily be the case in relation to the food and health of mankind) it will become increasingly more difficult for any nation to destroy them by resorting to isolationism or to war.

In the specific cases of atomic fission, bacteriology and microbiology, Unesco can do a great deal by large-scale campaigns of public education designed to throw into contrast the disastrous effects of using our knowledge for new warlike purposes, in the shape of atom bombs and the still greater horrors of "biological warfare," and the wonderful opportunities that open out if we use it for increasing human welfare—by making new sources of energy available to mankind in general and to certain backward regions in particular, and by harnessing micro-organisms as the chemical servants of man, as well as by banishing germ-caused disease. And since practical demonstration is the best form of education, Unesco should stimulate to the utmost extent the application of nuclear physics and of microbiology to peaceful ends.

With all this Unesco must face the fact that nationalism is still the basis of the political structure of the world, and must be prepared for the possibility that the forces of disruption and conflict may score a temporary victory. But even if this should occur, Unesco must strain every nerve to give a demonstration of the benefits, spiritual as well as material, to be obtained through a common pool of tradition, and specifically by international co-operation in education, science, and culture, so that even should another war break out, Unesco may survive it, and in any case so that the world will not forget.

QUALITY AND QUANTITY

There is one other general implication of the fact of evolutionary progress, which Unesco must take into account—the importance of quality as against quantity. Throughout evolution, progress has consisted in the raising of the upper level of certain properties of the "world stuff" of which we, as well as the stars, are made. And in the human sector, progress has been increasingly concerned with values—intellectual, aesthetic, emotional and moral. In the realm of values, quantity, whether in regard to number, size or

extension, is irrelevant to progress. The bulk of the inorganic sector of the universe is almost infinitely greater than that of the biological sector: yet it is in the latter alone that material organisation has revealed its astonishing possibilities. Again, there are over a million separate species of plants and animals as against one in the human sector; but this single species Man is the only one in which evolution has produced the full flowering of mind and spirit.

Unesco must guard itself against the tendency, current in some quarters, of reducing everything to quantitative terms, as if a counting of heads were more important than what was going on inside them. This tendency to think only or mainly in terms of quantity is partly a reflection of our mass-production age, but partly due to the debasement or misconception of the principles of democracy, in rather the same way as militaristic nationalism has been founded on a misconception of Darwinian principles.

The Age of the Common Man: the Voice of the People: majority rule: the importance of a large population:— ideas and slogans such as these form the background of much of our thinking, and tend, unless we are careful, towards the promotion of mediocrity, even if mediocrity in abundance, and at the same time, towards the discouragement of high and unusual quality.

Let Unesco have a clear mind on this subject. Quantity is of importance—but as a means, a foundation for quality. It is true that one could not carry on a high modern civilisation in a population the size of a bushman tribe, any more than life could evolve the mental powers of a higher mammal in an organism the size of an amoeba. There is, however, an optimum range of size for every human organisation as for every type of organism. A land animal ten times the weight of an elephant would be biologically extremely inefficient, just as a committee of two hundred members would be socially extremely inefficient. Similarly, there is an optimum range of human population density, and of total population in the world.

Meanwhile, Unesco must devote itself not only to raising the general welfare of the common man, but also to raising the highest level attainable by man. This applies to the opportunities of experience and enjoyment generally available, to the quality of training provided and to the human material itself. Human progress consists partly in the raising of the average level within pre-existing limits of achievement and possibility, but also in raising the upper level of these limits and embarking man upon new possibilities.

The encouragement of variety of genius, of quality in general, however incomprehensible to the multitude, must be one of the major aims of Unesco.

The methods of realising this aim demand the most careful study. The first pre-requisite is to make the world realise that proper social organisation can be made to promote, and is indeed the only adequate means of promoting, both the degree and the variety of individuation among the members of society. In the

present phase of history, the tendency has been to regard efficiency of social organisation and high degree of individuality as an inevitable opposition. At one extreme we have the exaggerated individualism, found mostly in the U.S.A., which still looks on "government" and all organisation of society as somehow inimical to the people as individuals. At the other extreme we have the philosophy of Fascism, in which the State is regarded as embodying the highest values, and any undue development of the individual is suppressed as inimical to the State. However, this apparent contradiction is a false one, and the "opposites" of society and the individual can be reconciled. Though that reconciliation will not be easy, it is, with the prevention of war, the most important task now before existing humanity.

SOME GENERAL PRINCIPLES

Against this background, our scientific humanism can pick out certain general principles which will be useful as general encouragements or detailed guides to Unesco in pursuing the broad aims laid down for it.

In the first place, our evolutionary analysis shows clearly enough that a well-developed human individual is the highest product of evolution to date. This provides external and scientific support for the democratic principle of the dignity of men, to which by its Constitution Unesco is committed. It also constitutes a complete disproof of all theses, like those of Hegelian philosophy, of Fascism, or of Nazism, which maintain that the State is in some way higher than the individual, and that the individual exists only or primarily for the State.

On the other hand, we have been brought to realise that the evolution of man, though a natural continuation of that of the rest of life, is quite a different process, operating by the essentially social method of cumulative tradition, and manifesting itself primarily in the development of societies, instead of in the genetic nature of the individuals composing them. And this at once makes it equally obvious that the opposed thesis of unrestricted individualism is equally erroneous. The human individual is, quite strictly, meaningless in isolation; he only acquires significance in relation to some form of society. His development is conditioned by the society into which he is born and the social traditions which he inherits; and the value of the work he does in life depends on the social framework which benefits by it or transmits it to later time.

Thus Unesco's activities, while concerned primarily with providing richer development and fuller satisfactions for the individual, must always be undertaken in a social context; and many of its specific tasks will be concerned with the social means towards this general end—the improvement of social mechanisms or agencies, such as educational systems, research organisations, art centres, the press, and so forth. In particular, Unesco must clearly pay

special attention to the social mechanism of cumulative tradition in all its aspects, with the aim of ensuring that it is both efficient and rightly directed in regard to its essential function of promoting human evolution.

As we have seen earlier, the unifying of traditions in a single common pool of experience, awareness, and purpose is the necessary prerequisite for further major progress in human evolution. Accordingly, although political unification in some sort of world government will be required for the definitive attainment of this stage, unification in the things of the mind is not only also necessary but can pave the way for other types of unification. Thus in the past the great religions unified the thoughts and attitudes of large regions of the earth's surface ; and in recent times science, both directly through its ideas and indirectly through its applications in shrinking the globe, has been a powerful factor in directing men's thoughts to the possibilities of, and the need for, full world unity.

Special attention should consequently be given by Unesco to the problem of constructing a unified pool of tradition for the human species as a whole. This, as indicated elsewhere, must include the unity-in-variety of the world's art and culture as well as the promotion of one single pool of scientific knowledge. But it must also eventually include a unified common outlook and a common set of purposes. This will be the latest part of the task of unifying the world mind ; but Unesco must not neglect it while engaged on the easier jobs, like that of promoting a single pool of scientific knowledge and effort.

From this global aim, another principle immediately follows. It is that Unesco should devote special attention to the levelling up of educational, scientific and cultural facilities in all backward sectors where these are below the average, whether these be geographical regions, or under-privileged sections of a population. To use another metaphor, it must attempt to let in light on the world's dark areas.

The reason for this is plain. For one thing it will be impossible for humanity to acquire a common outlook if large sections of it are the illiterate inhabitants of a mental world entirely different from that in which a fully educated man can have his being, a world of superstition and petty tribalism in place of one of scientific advance and possible unity. Thus mass campaigns against illiteracy and for a common fundamental education must form part of Unesco's programme. Further, a satisfactory common scale of values can obviously not be attained so long as large sections of mankind are preoccupied with the bare material and physiological needs of food, shelter, and health.

Again, science will not achieve its optimum rate of advance, either in research or in its application, until its light is more evenly shed over the dark surface of the world's ignorance, so as to provide a more equable distribution of scientists, of apparatus, and (equally important in the long run) of popular understanding of science.

With art and the appreciation of beauty, much of the "dark area" is differently situated—in the centres of industry and among the proletariat of industrially advanced sections. But the task of lightening the dark spots in this field is no less urgent than in education or in science.

Furthermore, social mechanisms must be constructed in the right way if they are to provide the basis for realising the right values and for providing individuals with the fullest opportunities and satisfactions. An educational system, for instance, can just as readily be made to promote the idea of a chosen race or of a privileged caste as it can that of the dignity of men and the equality of their opportunity. A scientific system can be based on secrecy and focussed on war or on economic rivalry: or it can be focussed on increasing human knowledge and human welfare, and founded on freedom. A mass-production system can indirectly destroy creative initiative and aesthetic appreciation, and lead to apathy or escapism, as readily as it can be made to function directly to produce for real human needs.

Thus broad studies of various social mechanisms and their effects, conducted in the light of some general philosophy, will necessarily form part of Unesco's programme. One such item, which has been given a high priority, is that of the effects of mechanisation on civilisation.

THE PRINCIPLE OF EQUALITY AND THE FACT OF INEQUALITY

Finally we come to a difficult problem—that of discovering how we can reconcile our principle of human equality with the biological fact of human inequality. Perhaps the problem is not so difficult as it appears when stated in this paradoxical form; for the contradiction largely disappears as soon as it is realised that equality is used in two very different senses. The democratic principle of equality, which is also Unesco's, is a principle of equality of opportunity—that human beings should be equal before the law, should have equal opportunities for education, for making a living, for freedom of expression and movement and thought. The biological absence of equality, on the other hand, concerns the natural endowments of man and the fact of genetic difference in regard to them.

There are instances of biological inequality which are so gross that they cannot be reconciled at all with the principle of equal opportunity. Thus low-grade mental defectives cannot be offered equality of educational opportunity, nor are the insane equal with the sane before the law or in respect of most freedoms. However, the full implications of the fact of human inequality have not often been drawn and certainly need to be brought out here, as they are very relevant to Unesco's task.

At the outset, let it be clearly understood that we are here speaking only of biological inequality—inequality in genetic endowment. Social inequality, due to accident of birth or upbringing, is something wholly different.

Concretely, genetic human inequality is of two types. First, there is the inequality of mere difference. Some people are fair, others dark ; some are tall and thin, others short and stocky ; some have a natural gift for music, others for athletics ; some are introspective, others practical and extrovert. Indeed, we can now definitely state that no two human beings, with the single exception of the members of pairs of identical twins, are biologically equal in the sense of possessing the same genetic constitution, so that biological difference is, for all practical purposes, universal. Furthermore, the range and degree of genetic variety in man is greater than that to be found in any other animal species. This is largely due to one of man's biological peculiarities, namely that his local differentiation into races is not continued to the stage of separate and intersterile species, as in almost all other organisms, but has always been followed by migration and interbreeding. But whatever its cause, the resultant high degree of variability is a fact, and one of considerable evolutionary importance.

Secondly, there is difference in quality or level. Human beings are not equal in respect of various desirable qualities. Some are strong, others weak ; some healthy, others chronic invalids ; some long-lived, others short-lived ; some bright, others dull ; some of high, others of low intelligence ; some mathematically gifted, others very much the reverse ; some kind and good, others cruel and selfish.

It is usually not so easy to say how much of this second sort of inequality is due to heredity and therefore relevant for our purpose, how much only to the effects of physical or social environment. But in most cases we now know, and in almost all can be reasonably sure, that some at least of the difference is genetic. This is certain, for instance, of length of life, physical strength, and, most important for our purpose, for intellectual gifts—both special ones like mathematical aptitude and general ones like intelligence ; while it is highly probable for some aspects of moral qualities, though the situation here is more complex.

It is therefore of the greatest importance to preserve human variety ; all attempts at reducing it, whether by attempting to obtain greater "purity" and therefore uniformity within a so-called race or a national group, or by attempting to exterminate any of the broad racial groups which give our species its major variety, are scientifically incorrect and opposed to long-run human progress. On the contrary, Unesco should aim at securing the fullest contribution to the common pool from racial groups which, owing to their remoteness or their backwardness, have so far had little share in it. While the social difficulties caused by wide racial crossing may be too great to permit the deliberate large-scale use of it as a means of still further increasing the extent of human

genetic variability, we must assuredly make the best use of the variability which already exists.

The fact of human difference has another implication for Unesco. Every encouragement should be given to the study of distinct psycho-physical types. Such work has been begun by men like Kretschmer, Draper and Sheldon, but needs to be pushed much further before secure generalisations can be drawn from it. When the time comes, however, they will be important. For one thing they will be of great value in job selection, in picking those who are most likely to profit from a particular sort of training or are most suitable for a particular kind of work. Conversely, we shall then be enabled to lay down that certain types of men should be debarred from holding certain types of positions.

Already considerable progress has been made, though largely on an empirical basis as yet, in fitting the right man to the right job—notably by the Selection Boards for officers which were set up during the late war.

Still more important, any such generalisations will give us a deeper understanding of the variations of human nature, and in doing so will enable us correctly to discount the ideas of men of this or that type. Thus it already seems clear that fanatics and over-zealous doctrinaire moralists are generally of the general type christened *asthenic* by Kretschmer: and the time will doubtless come when we shall be able to be more precise and say that a particular sub-type of asthenic is definitely prone to over-rigid moralising, depending on an exaggerated guilt-complex combined with a tendency to introversion, and therefore that men of this type should not be allowed to do what they are likely to be itching for, namely to be arbiters of morals or in any way responsible for the punishment of offenders. We may, perhaps, also look forward to correlating some recognisable variety of Kretschmer's pyknic type with a pedestrian form of practical extroversion; and if so should beware of allowing such men to be promoted from routine administration (at which they are likely to be good) to positions where imagination and intellectual generalisation are required.

There remains the second type of inequality. This has quite other implications; for, whereas variety is in itself desirable, the existence of weaklings, fools, and moral deficients cannot but be bad. It is also much harder to reconcile politically with the current democratic doctrine of equality. In face of it, indeed, the principle of equality of opportunity must be amended to read "equality of opportunity within the limits of aptitude." Thus it is a fact, however disagreeable, that a considerable percentage of the population is not capable of profiting from higher education; to this point we shall return later. It is equally a fact that a considerable percentage of young men have to be rejected for military service on grounds of physical weakness or mental instability, and that these grounds are often genetic in origin. Again, many people are not intelligent or not scrupulous enough to be entrusted with political

responsibility—a fact which unfortunately does not prevent quite a number of them from attaining it.

To adjust the principle of democratic equality to the fact of biological inequality is a major task for the world, and one which will grow increasingly more urgent as we make progress towards realising equality of opportunity. To promote this adjustment, a great deal of education of the general public will be needed as well as much new research ; and in both these tasks Unesco can and should co-operate.

This does not mean, of course, that Unesco should aim at labelling, docketing, or dragooning humanity. It means that it should encourage all studies and all methods which can be used to ensure that men find the right jobs and are kept away from the wrong jobs—to ensure that individuals find outlets satisfying to their temperament, and work appropriate to their talents, while at the same time ensuring that society is not overburdened with people in positions for which they are inadequate or, still worse, which they are likely to abuse.

Biological inequality is, of course, the bedrock fact on which all of eugenics is predicated. But it is not usually realised that the two types of inequality have quite different and indeed contrary eugenic implications. The inequality of mere difference is desirable, and the preservation of human variety should be one of the two primary aims of eugenics. But the inequality of level or standard is undesirable, and the other primary aim of eugenics should be the raising of the mean level of all desirable qualities. While there may be dispute over certain qualities, there can be none over a number of the most important, such as a healthy constitution, a high innate general intelligence, or a special aptitude such as that for mathematics or music.

At the moment, it is probable that the indirect effect of civilisation is dysgenic instead of eugenic ; and in any case it seems likely that the dead weight of genetic stupidity, physical weakness, mental instability, and disease-proneness, which already exist in the human species, will prove too great a burden for real progress to be achieved. Thus even though it is quite true that any radical eugenic policy will be for many years politically and psychologically impossible, it will be important for Unesco to see that the eugenic problem is examined with the greatest care, and that the public mind is informed of the issues at stake so that much that now is unthinkable may at least become thinkable.

But, although one of the tasks before Unesco is the clearing of its own mind on fundamental issues, it has before it a concrete and immediate job of work in a number of fields. The next chapter will be devoted to a general consideration of these fields of activity, and the principles which should guide Unesco in its approach to work in them.

CHAPTER II

THE PROGRAMME OF UNESCO

THE PROGRAMME OF UNESCO

These considerations have led us far afield. Under their influence we have turned back to retrace the remote history of our world, the adventures and frustrations of life, its failures and achievements, and in particular to trace the long, unbroken, but tenuous ladder of evolutionary progress on which we men have mounted to our present unique position. We have also been forced to throw our gaze forward into the possibilities of the remote future, and to realise that if we are to achieve the fullness of our destiny (in doing which we shall also be achieving the destiny of all life), we must find means to continue the upward building of that ladder of progress, but now by new and conscious means, aware of the dangers which beset our future evolution if we swerve from the right direction.

They have also led us to a deeper grounding and also a more precise understanding of the democratic principles of equality, of respect for human dignity, of the pre-eminence of the individual over the state, and have given us some general guidance on desirable trends in social and international organisation.

It now remains to come down to a more concrete and more immediate task, namely the discussion of the programme which Unesco can hope to undertake in the first years of its existence. But in so doing, we shall constantly find it helpful to bear in mind our background of world evolutionary humanism, and the consequences we have been able to draw from it.

The broad objectives of that programme, it is useful to remind ourselves, are laid down in the constitution of Unesco as including international peace and security, collaboration among the nations, and human welfare; and some of them are there more precisely defined as the furtherance of the democratic principles of the dignity, equality and mutual respect of men, as well as respect for justice, for the rule of law and for the human rights and fundamental freedoms affirmed in the Charter of the United Nations.

However, the general implications of these objectives have already to a large extent been dealt with during our previous discussion. It now remains to come to grips with the content of the programme. Unesco by definition and title, must be concerned with Education, with Science, and with Culture; and under its constitution it is expressly charged to concern itself also with the spread of information through all media of Mass Communication—in other words, the press, the cinema, the radio and television.

We must now take these major subjects and see how they should be approached and treated by Unesco. But before doing so, one or two general points should be underlined. In the first place, it is obvious that Science is not to be taken in the narrow sense in which it is sometimes employed in the English-speaking countries, as denoting the Mathematical and the Natural Sciences only, but as broadly as possible, to cover all the primarily intellectual activities



of man, the whole range of knowledge and learning. This, then, includes the Natural Sciences, the Social Sciences, and the Humanities—in the logical German terminology, *Naturwissenschaft*, *Sozialwissenschaft*, and *Geisteswissenschaft*. It thus runs from mathematics to theology, from physics to philosophy, and includes such subjects as history and sociology, archaeology and the study of classical literatures, as well as chemistry or bacteriology, geology or social psychology. And, as we shall see in a moment, Unesco must consider all the applications of knowledge as well as its pure pursuit.

The word *Culture* too is used broadly in our title. First of all it embraces creative art, including literature and architecture as well as music and the dance, painting and the other visual arts; and, once more, the applications of art, in the form of decoration, industrial design, certain aspects of town-planning and landscaping, and so forth. Then it can be used in the sense of cultivation of the mind—directed towards the development of its interests and faculties, acquaintance with the artistic and intellectual achievements both of our own and of past ages, some knowledge of history, some familiarity with ideas and the handling of ideas, a certain capacity for good judgment, critical sense, and independent thinking. In this sphere, we can speak of a high or a low level of culture in a community. And finally it can be employed in the broadest sense of all, the anthropological or sociological one, as denoting the entire material and mental apparatus characteristic of a particular society.

It is clear that Unesco must concern itself with the arts, as indispensable agencies both of individual and social expression, and for the full development and enrichment of personality. It must also concern itself with the level of culture in the second sense, since cultural backwardness, like scientific or educational backwardness, are a drag on the rest of the world and an obstacle to the progress that we desire.

With culture in the third sense, Unesco must of course be concerned, as a subject of study by the Social Sciences. But it must also be concerned with it to some degree in its own right, in the same sort of way that it must be concerned with art as creative activity as well as a subject for analysis or historical study. In so far as the material culture and the prevalent beliefs and ideas of a society condition its educational and scientific and artistic achievements, or limit its future progress or the welfare of its inhabitants, or cause it to be in any way a danger to peace or security, Unesco must be concerned with them, even though it be debarred from interfering directly with such as are essentially matters of domestic jurisdiction.

THE APPLICATION OF SCIENCE AND ART

There is next a general point which we have already touched upon in particular instances. Unesco cannot be highbrow and confine itself solely to “pure” science, and “fine” art. It cannot do so, because it must concern itself with the whole of humanity,

not only with the specialists, the highly educated *élite*, or the privileged few, and is expressly charged with advancing the ideals of equality of educational opportunity ; and this is not possible if Unesco's concern with science and art is confined to the encouragement of the scientist and the artist and to the learned study of their achievements. It cannot do so for another reason—because its Constitution lays upon it the duty of advancing the common welfare of mankind. For the advancement of human welfare depends in the main upon the right application of science—physical, biological, psychological and social—and also, in the sphere of emotional and spiritual satisfactions, upon the application of the arts.

Unesco must therefore concern itself with the widest extension and the fullest application both of the sciences and of the arts. It has, of course, neither the right nor the wish to deal with the detailed problems of nutrition and agriculture, medicine and health, to however great an extent they depend on the applications of science, since, to cope with them, other agencies of the United Nations have been created. With the scientific bases of these questions, however, it must concern itself and must therefore establish a proper liaison, with clear delimitation of functions, between itself and the FAO and the World Health Organisation. The same holds for those applications of the sciences which, because of their importance for labour welfare, fall to be dealt with by the ILO, and of those which, because of their military importance, fall within the province of the Atomic Energy Commission of the Security Council.

Further, it is clear that practical problems of economics and of social structure and welfare, in so far as they are to be dealt with by an international body, must be the concern of the Economic and Social Council ; while certain sectors of social anthropology, such as culture-contact between more and less advanced cultures (which include problems not only of applied science but also of art and literature and of education), will be the primary concern of the Trusteeship Council and of the section of the Economic and Social Council dealing with non-self-governing peoples.

This overlap, however, far from debarring Unesco from concerning itself with the applications of the sciences and the arts in general, makes it all the more imperative that it should do so, and should do so in a particular way. These other agencies and organs of the United Nations which we have mentioned are concerned with particular fields or problems, some larger, some more specialised. Unesco alone is charged with the comprehensive task of studying and promoting all the higher activities of man and their applications, and of doing so in a co-ordinated way, subject to a definite set of purposes.

What Unesco can do in this vast sphere of the practical application of creative knowledge and art, is accordingly to study the problems in correlation, to endeavour to promote the best

methods of translating theory into practice, and to give guidance as to right application. The terms *best* and *right* are not used merely in the technical sense of most immediately efficient, but as definitely implying value-judgement. It is possible to exploit new agricultural methods in a way that is in the long run technically disastrous to agriculture itself, by causing soil exhaustion or erosion, but it is also possible to do so in a way which is technically sound but socially wrong—by causing over-population, for instance, or by ruining natural beauty or causing the extinction of striking or interesting species of animals and plants, or by creating a depressed agricultural class with unduly low standards of living. Similarly, it is possible to devote too much attention to exploiting the discoveries of mechanical, physical and chemical science, to the grave detriment of interest in the arts and appreciation of the value of beauty in everyday life and of artistic creation as a human activity ; while a contrary effect is also all too readily possible, when religious prejudice or cultural obscurantism puts obstacles in the way of scientific research and new knowledge, or their beneficent applications.

Again, there are fields with which other agencies are not expressly or immediately concerned. No other United Nations agency deals with the important question of seeing that the arts are properly and fully applied, or that provision is made for satisfying man's need for aesthetic enjoyment, whether of scenery and natural beauty, of the everyday furniture of life, of buildings and cities, or of great works of art and music and literature. Nor is any other agency concerning itself with such important applications of the sciences as the disciplining of the mind to produce so-called mystical experience and other high degrees of spiritual satisfaction ; or with the application of psychology to the technique of government, or to preventing the abuse or the exploitation of democracy.

Thus in this general field Unesco should pursue three main objectives. First, it should discover what applications of science and art are not being considered by other United Nations organisations, and then pick out from among them those it thinks most important to promote or to study. Secondly, it should study the practical applications of science and art as a particular social problem, to discover what are the reasons which prevent, frustrate or distort them, what are the effects of undue speed or undue delay. Such a study should be of considerable help in promoting the technical efficiency of this process—a problem which will become steadily more pressing with the increase of scientific knowledge and of social complexity. And the third objective, the most difficult though perhaps also the most important, is to relate the applications of science and art to each other and to a general scale of values, so as to secure a proper amount and rate of application in each field. If such a task were satisfactorily carried out, and if its findings were acted upon, this would constitute one of the most important contributions towards discovering and pursuing the desirable direction of human evolution—in other words, true human welfare.

function of a world society, in addition to its functions in relation to national societies, to regional or religious or intellectual groups, or to local communities.

Next, that education must seek not only to confer knowledge, skills, habits, and outlook upon individuals, but also to bring out and develop their inherent qualities and aptitudes, and to help them to realise their potentialities to the fullest degree possible.

And finally, that education must not confine itself to objectives which are practical in the restricted sense of having immediate utility, whether for the individual or for society. On the contrary, it must include in its scope activities which are valued for their own sake, whether in the intellectual, the aesthetic, or the moral sphere—knowledge for the sake of knowing, discovery for the sake of discovering, beauty because it is beautiful, art and music and literature for their power of moving the human spirit, morality for the sake of living a good life, nobility of character because it is an end in itself. This does not, of course, imply that such activities may not also be of utility to individuals and of importance to societies: it is merely a reminder that they have value in and for themselves, and that, for that reason, they must be included in our educational purview.

As illustrative of problems which need to be given a place in Unesco's educational programme in the near future, we may mention the following specific projects.

First, the attack on illiteracy. This demands a high priority in view of our general principle that the lightening of the "dark zones" of the world must claim a major share of our efforts in all fields. It demands it also specifically, because literacy is a prerequisite for scientific and technical advance and for its applications to the general welfare through better health, more efficient agriculture, and more productive industry; for full intellectual awareness and mental development; for that social and political consciousness which is the necessary basis for democracy and for national progress; and for international awareness and the knowledge of other nations.

On reflection, however, it is speedily seen that a campaign for mere literacy is not enough. It needs to be linked with the general system of education, and, among illiterates above school age, to be coupled with general social education, notably in relation to health, current methods of agriculture, and citizenship. That is why, in Unesco's programme, literacy campaigns have been merged in a more comprehensive study of Fundamental Education.

The problem of illiteracy illustrates not only the need for avoiding narrowness of subject-matter, but also the dangers of an uncritical or one-sided point of view. Literacy is not enough, for by itself it by no means guarantees the above-mentioned benefits, even if it be a necessary step towards obtaining them. Certainly for some people, literacy has meant little more than the provision of new ways of filling time, new forms of mental dope, new ways of avoiding mental effort, new forms of escape from reality—in the

EDUCATION

We can now turn to the major subjects with which Unesco has to deal ; for only by fully understanding the nature, aims, and possibilities of these activities and aspects of human life can Unesco hope to develop the details of its programme.

Education (apart from the few limited and rudimentary instances to be found in lower mammals and in birds) is a distinctively human activity : in its developed form, as a cumulative social process, it is entirely confined to Man. It is the process by means of which knowledge, skill, technique, understanding, ideas, emotional and spiritual attitudes, are transmitted from individual to individual and from generation to generation. It is also a major part of the process by which the latent potentialities of the individual are actualised and developed to their fullest extent. It includes the broad sense of adult education and self-education as well as the narrow sense of schooling and training. It is a special field with its own methods, an art which is in process of substituting a scientific basis for an empirical or an *a priori* one. But the scientific basis of education has not yet been fully explored, and what has already been discovered is neither widely enough known nor widely enough applied. Furthermore, it is a field which has never yet been adequately cultivated on the international level, and one whose international possibilities can still hardly be guessed at.

These things being so, it becomes clear that the approach of Unesco must adopt certain general principles concerning education—not only that it should equip the growing human being to earn a livelihood, not only that it should fit him to take his place as a member of the community and society into which he is born, but certain further principles, which have been lacking in many previous (and existing) systems of education.

First, that education can be and should be a permanent and continuing process : the mind is capable of growth throughout life, and provision must be made for assisting its growth—in other words for education—among adults of all ages and not only in children and young people.

Next, that education has a social as well as an individual function : it is one of the means by which society as a whole can become conscious of its traditions and its destiny, can fit itself to make adjustment to new conditions, and can inspire it to make new efforts towards a fuller realisation of its aims.

Thirdly, that scientific research is capable of improving the technique of education to a very large extent, and that accordingly Unesco must give every encouragement to research in this field, and to the full dissemination of its results.

Further, since the world to-day is in process of becoming one, and since a major aim of Unesco must be to help in the speedy and satisfactory realisation of this process, that Unesco must pay special attention to international education—to education as a

shape of cheap newspapers and magazines and a majority of films—instead of sending them to the stored treasures of human art and wisdom, instead of promoting a fuller enjoyment of reality or a deeper understanding of nature and human life.

Nor is literacy, once achieved, necessarily going to lead either to democracy or, even if it does so, to a right development of society. Nazi Germany demonstrated all too clearly the way in which one of the most literate and most thoroughly educated peoples of the world could be led into false ways and anti-democratic developments ; and in democratic countries the manipulation of the press and the debasement of literature and the cinema for financial or political ends is all too possible. Nor, finally, if literacy helps to achieve international awareness and knowledge, will this necessarily promote peace and international goodwill. In some cases fuller knowledge—about Nazi Germany for instance—could only produce *less* goodwill. Again, knowledge may easily be incomplete knowledge and information be distorted, and these are among the most potent sources of international ill-will.

Thus here, as in almost every other particular project on our programme, we are brought up against the need for studying it from the widest possible angle, with all its consequences and implications ; and the value of an organisation which, like Unesco, is by its constitution many-sided and concerned with all the higher activities of man, is once more demonstrated.

Furthermore, we must heed our general principle of quality as well as that of quantity. It would be wrong, for instance, if Unesco were to throw all its efforts into the task of raising the educational level of the least advanced sections of the world's population. The world cannot carry on, let alone advance, without highly trained technicians and specialists, without universities to train teachers or the trainers of teachers, without well-educated men and women on whom to draw for its administrators, politicians, and statesmen. To take but one example, a recent official survey finds that the number of trained natural scientists available in Britain in the near future will fall far short of requirements unless steps are taken to increase output. The present number of qualified scientists in the country is about 55,000, with an annual output of about 2,500 scientific graduates per annum. The number estimated as the minimum for Britain's needs in 1955 is 90,000 ; and to achieve this, the annual output will have to be doubled. Clearly, Unesco should encourage surveys of this type in every country, and for every type of specialist—be they social scientists or architects, doctors or lawyers, artists or philosophers—and should endeavour to help in filling the gaps which undoubtedly most of them will indicate.

The problem of quality must also be tackled from the opposite end—the quality of the human raw material to be educated as opposed to the type of special educational product required. Here it will be necessary quite soon to face the fact that only a certain fraction of any human population is equipped by heredity to be able to take full or even reasonable advantage of a full higher or professional

education. Up till very recent times, this fact did not obtrude itself, for the simple reason that this fraction is quite large, and was very far from being taken care of by existing educational systems. But to-day the extension of the upper limit of education in certain areas, as exemplified, for instance, in some of the State Universities and Colleges in the United States and the British Dominions, where higher education for anyone who wants it is regarded as a right, has made it very obvious, in the unduly large numbers (sometimes a majority of the entrants) who fail to qualify for further study at the end of their first year.

The fact has also been emphasised by the development of intelligence testing, some authorities in this field going so far as to assert that only 10 to 20 per cent. of the population are capable of profiting by a university course. While this particular estimate is almost certainly too low, there can be no doubt of the basic fact. Those who can profit by working for a university degree of the present type constitute only a proportion of the population, whether the proportion be 20 or 40 or even 60 per cent. : for the remainder to attempt it is waste of their own youth, of the time and talents of university teachers, and of public money.

The more Unesco succeeds in the task expressly laid upon it, of promoting equality of educational opportunity, the larger this disagreeable fact of nature will loom. It is thus urgent for Unesco to encourage the accurate study of the distribution of intelligence and other educational aptitudes, in as many populations as possible. Only when this has been satisfactorily done can the system of higher education be properly planned. Such a system would discharge the function which is now in the main that of existing universities, polytechnics, specialised higher colleges, and the like, of training leaders in thought and in affairs, teachers, doctors, architects, lawyers and members of other learned professions, administrators, and specialists and high-grade technicians of various sorts. But it would also, we may assume, have to include provision for some new type of higher education for those with quantitatively lower I.Q.s and aptitudes, who yet desire (or are desired by society), to devote some of their post-adolescent period to further education instead of to earning a living. And when the time comes, it will obviously be for Unesco to help in working out the requirements, both in content and methods, of this new type of higher education.

But the problem of quality does not only concern degree of intelligence ; it concerns also differences in innate aptitudes and in temperamental type. It is well known, for instance, that mathematical and musical aptitudes have a genetic basis ; and proper analysis will undoubtedly confirm this, though perhaps less obviously, for other types of aptitude, such as that for the visual arts, for natural history, for mechanical science, and so on. It will be important for Unesco to aid in the working out of proper methods for determining degrees of special aptitudes of this sort, and later in the development of educational systems to fit the facts thus to be discovered.

Again, temperament may predispose for or against a certain career. Educationists have drawn attention, for instance, to the special problem presented by the "sensitive adolescent," often intellectually or emotionally gifted, whose over-sensitive temperament prompts him to mistrust of self, to withdrawal from the full life of his community, to disbelief in his capacity for practical affairs or social responsibility. As a result, many such types tend to land up in the ranks of the pseudo-intellectuals and dilettantes, or in work not demanding initiative or responsibility, whereas many of them, if their education had been truly efficient, could have been rescued from the effects of their temperament, and could have found employment where sensitiveness and scrupulousness is most needed (though it is too often in short supply) in public service and affairs of state. Even when they successfully embrace an intellectual career, it might have been better for society if their shrinking from the rough-and-tumble of life had not kept them out of public service. For the gifts of men and women of this type to be fully developed and best utilised, it will be necessary to carry out specific studies; and these too should find a place in Unesco's programme.

There is also the converse problem—of seeing to it that power does not fall into the hands of those who should not possess it—the lovers of power for its own sake, the megalomaniacs, the over-ambitious careerists, the sadists, the insensitive coarse-fibred apostles of success at any price. But this, though Unesco must certainly sometime face it, is a more complex question, and one to be considered by the social scientist as well as the educationist.

One other item which Unesco should put on its programme as soon as possible is the study of the application of psycho-analysis and other schools of "deep" psychology to education. Though some repression into the unconscious seems to be indispensable if the human infant is to develop a normal moral sense and a full personality, yet it is equally obvious that over-strong or one-sided repression is capable of producing various distortions of character and frustrations to full development, and notably a hypertrophied sense of sin which can be disastrous to the individual or to others. If we could discover some means of regulating the process of repression and its effects, we should without doubt be able to make the world both happier and more efficient. This would mean an extension of education backwards from the nursery school to the nursery itself.

To conclude with a more immediate problem, Unesco is proposing to support further study and experiment in regard to the discussion group method. Every extension of democracy, whether political, economic, or cultural, makes it more necessary to have a general awareness among the people at large of the problems, tasks, and possibilities which confront them. The discussion group, properly led and properly serviced by bodies such as the Bureau of Current Affairs, seems to be one of the most fruitful methods to this end, and Unesco must investigate its potentialities in different types of societies and for different special purposes.

A converse problem is that of Public Relations, notably in government. These are in modern conditions indispensable agencies of adult education for citizenship. But they can readily degenerate into organs of justification for government departments or ministers, and can equally readily be distorted into mere propaganda organisations. The most careful study of their uses and abuses, their possibilities and limitations, from the joint angle of education and social science, is of great importance and considerable urgency at the present stage in human evolution.

NATURAL SCIENCE

Unesco's title includes Science and Culture as well as Education. Under these two heads fall most of the human activities which have high intrinsic value—as being not mainly or merely means to an end, however important, such as agriculture or building, transport or manufacture, but, though they will always have the character of means in some respects, as being also ultimate ends and for themselves.

Science in Unesco's programme, as we have seen, must be taken to include all aspects of the pursuit and application of organised knowledge of phenomena. In the last few centuries, this set of human activities has become increasingly dominated by what is generally called the scientific method. Negatively this implies the rejection of purely dogmatic authority, whether of tradition or revelation, and the cessation of reliance primarily on erudition or pure reason, let alone hearsay or anecdote. Positively it implies first the development of the age-old practical method of trial and error and of empirical practice into that of scientific research, whereby new discoveries (as well as old ideas) are regularly checked against the broad facts of nature, by experiment wherever experiment is possible, by observation or by mathematical analysis where it is not; and secondly it implies the development of the equally immemorial intellectual methods of myth, rationalisation, and logic into that of scientific explanation, whereby increasingly comprehensive theories are built up (again with constant reference back to the touchstones of fact and confirmatory experiment) to account for the body of established phenomena.

The scientific method has firmly established itself as the only reliable means by which we can increase both our knowledge of and our control over objective natural phenomena. It is now being increasingly applied, though with modifications made necessary by the different nature of the raw material, to the study of man and his ways and works, and in the hands of the social sciences is likely to produce an increase in our knowledge of and control over the phenomena of human and social life, almost as remarkable as that which in the hands of the natural sciences it has brought about and is still bringing about in regard to the rest of nature.

“Almost as remarkable”: the reason that we cannot expect quite so remarkable a result lies in the difference of the facts with

which the social sciences have to deal. The natural sciences concern themselves with attributes of external reality which in the last resort can be brought to the test of observation through the senses. All other possible attributes or relations—values, emotions, purposes, significance in a general scheme—can be neglected. As a result, an ever-increasing proportion of the raw material of natural science consists of measurements and becomes quantitatively commensurable.

Out of this quantitative approach, there has developed an increasing use of mathematical treatment, until to-day in highly-developed sciences like physics and to a lesser degree genetics, the pure reason, working through mathematical methods, is able to reach new conclusions, sometimes of great complexity and of fundamental importance, from the starting point of a few established facts and principles.

As we shall have occasion to remark later, values cannot be wholly banished from the natural sciences: in certain branches of biology, even if originally disregarded, they re-appear later with results of some significance. *Naturam expelles furca, tamen usque recurret.* But in the social sciences they can never be wholly banished, and even to disregard them temporarily is dangerous. Even when social data can be put completely into quantitative form, as for instance in demographic or medical statistics or in economic returns, human feelings, values and purposes must be taken into account before we can either understand the phenomena properly or hope to exercise proper control over them; and values are incommensurable on any quantitative scale. Thus demographic statistics and their mathematical analysis can demonstrate a temporarily inescapable population trend. But only an understanding of the motives which induce people to have many, few, or no children will help us to alter that trend if we so desire; and their motives depend on their scale of values.

However, it remains true that the scientific method is by far the most important means at our disposal for increasing the volume of our knowledge, the degree of our understanding, and the extent of our control, of objective phenomena; and further that the consequence of discovery in natural science may produce changes in human society (including often changes in our scale of values) greater than those brought about by any other means.

Science, it is often and rightly stated, is by its nature opposed to dogmatic orthodoxies and to the claims of authority. It grows, keeping its mind open and if need be changing it, by the discovery of fresh facts and by new interpretation of old ones. It is sometimes forgotten, however, that this permanent attitude of suspended judgment, this intellectual humility which lays claim to no final or complete explanation, does not in the least imply that science does not produce its own certitudes. The difference between dogma, whether religious or philosophical, and scientific truth is this. Dogma lays down that, whatever anyone else may say, such-and-such facts

are so, that such-and-such explanations are eternally and completely true—an attitude which has the implication that further investigation is accordingly either unnecessary or impious. Science, however, on the basis of its fruitful experience, asserts with confidence that *a priori* reasoning is inadequate to arrive at truth, that truth is never complete and explanation never fully or eternally valid. On the other hand, the scientific method, within the very wide limits of its applicability, leads steadily to more truth, both in the quantitative sense of a greater amount of truth as well as in the qualitative one of a fuller, more accurate and more complete truth.

It also produces an ever-increasing body of tested knowledge which is permanent and irrefutable. Those who dislike or fear science often assert that, since science is always changing its mind, there can be no such thing as scientific certitude. This, however, is quite incorrect. It is the comprehensive theories which change, not the tested facts which the theories set out to order and explain. The new theories may result in the discovery of new facts ; but that need make no difference to the old ones. They may also lead to an alteration of the old facts, but this is never a rejection, only a quantitative correction or an unsuspected elaboration.

Thus nothing could have been more radical in the domain of theory than the substitution of an Einsteinian for a Newtonian universe ; but it made no practical difference to the vast body of facts established on Newtonian principles—the trajectory of projectiles, the movements of the planets or the tides, and so on. Gravity is no longer what Newton supposed it to be, but the Newtonian formulae remain adequate except in limiting and special conditions. Similarly the discovery that atoms had an exceedingly complicated organisation led to a radical change in our ideas on the structure of matter. But, although it made the continued use of the word *atom* itself etymologically unsound, it did not invalidate the fundamental scientific fact discovered by Dalton, that matter is particulate, and that the ultimate unit-particle of each of the chemical elements is what we still call an atom.

Other tested and permanent elements in the body of scientific knowledge, in addition to those I have just mentioned of terrestrial and celestial mechanics and of the particulate structure of matter, include the fact of evolution (as against special creation) ; the facts of chemical combination (as against alchemical transmutation) ; the fact of biogenesis, or continuity of substance in reproduction (as against spontaneous generation) ; the fact of the microbic causation of many diseases (as against exhalations, humours, or divine punishment) ; the facts of chromosomal or mendelian heredity (as against spermism, ovism, maternal impressions, telegony, and the rest of the welter of superstition and speculation on the subject) ; the facts of modern geology and physiography (as against catastrophism and special creationism) ; the facts of psychological repression and dissociation (whether they be interpreted on a Freudian, a Jungian, a behaviourist, or any other basis) ; the facts of plant

growth and physiology (as against the magic theories of early agricultural peoples or the vitalistic theories of later centuries) ; and so on in every domain of natural knowledge.

Such facts may be modified and extended, but not overthrown. Though not dogma, they may, perhaps, properly be described as scientific doctrine. Unesco must see that its activities and ideas are not opposed to this body of established scientific doctrine, just as it must encourage the use of the scientific method wherever it is applicable. Thus it cannot and must not tolerate the blocking of research or the hampering of its application by superstition or theological prejudice. It must disregard or, if necessary, oppose unscientific or anti-scientific movements, such as anti-vivisectionism, fundamentalism, belief in miracles, crude spiritualism, etc. In order to do this effectively, widespread popular education is required in the facts of science, the significance of the scientific method, and the possibilities of scientific application for increasing human welfare.

On the other hand it must not itself become dogmatic, and deny *a priori* the possibilities of radical extensions of knowledge, though it is justified in additional caution when they appear not to square with the established body of scientific principles. In general, it should pay special attention to seeing that borderline fields, especially those neglected by orthodox or organised science, are properly explored. As one example, we may take what is now generally called parapsychology—the study of unusual and at the moment, scientifically inexplicable properties of the mind, such as extra-sensory perception of various kinds. The painstaking researches of one or two recent workers in this unpopular field seem to have established the reality of some degree not only of extra-sensory knowledge, but of pre-cognition. It is urgent that these phenomena should be thoroughly investigated so that a new and more comprehensive scientific framework of knowledge may be erected.

Or to take a somewhat different example, that of the astonishing control which, in virtue of elaborate techniques and exercises, Hindu yogis and other mystics are able to exert both over their bodily functions and their mental states. The general facts are undoubted ; but neither the physiological and psychological mechanisms involved, nor the general scientific implications are understood. It would seem desirable to have careful studies made of the phenomena by trained physiologists and psychologists, including some who would be willing to undergo the training themselves. Not everyone would be suitable for this long ordeal ; but the results ought to be of the greatest importance, not only in enlarging our scientific knowledge but in making the attainment of the spiritual satisfaction of so-called mystical experience more widely available to the men and women of all countries.

Still another and quite different type of borderline subject is that of eugenics. It has been on the borderline between the scientific and the unscientific, constantly in danger of becoming a pseudo-science based on preconceived political ideas or on assumptions of racial or class superiority and inferiority. It is, however, essential

that eugenics should be brought entirely within the borders of science, for, as already indicated, in the not very remote future the problem of improving the average quality of human beings is likely to become urgent ; and this can only be accomplished by applying the findings of a truly scientific eugenics.

Natural Science is one of the fields in which two of Unesco's general principles—of thinking in global terms and of relieving the darkness of the “dark areas” of the world—are most obviously applicable. Science is already the most international activity of man, and represents in most developed because most conscious form man's new method of evolutionary advance, by means of cumulative tradition. Put in more immediate terms, the application of scientific knowledge now provides our chief means for raising the level of human welfare.

It is of the essence of scientific advance that results should be freely and fully published—in other words that scientific knowledge and ideas should be pooled. The more complete that pooling, the more rapid will be the advance. But for complete pooling, especially on the side of application, it is necessary to have science advancing in every part of the world, not merely in a few favoured countries, for the problems to be solved and the methods of application differ from region to region. In pursuance of this aim, Unesco will, among other things, make a study of the proportions of the government budget and of the national income spent by different nations on scientific research of different types and grades, and will give full publicity to the results.

Unesco, as has already been set forth, must deal with applied as well as pure science. It is worth pointing out that the applications of science at once bring us up against social problems of various sorts. Some of these are direct and obvious. Thus the application of genetics in eugenics immediately raises the question of values—what qualities should we desire to encourage in the human beings of the future ? But many are indirect. To take but one example, industrialism has not only transformed and largely destroyed the old way of life in the countries where it has taken its rise, but is also doing so in the remotest and most primitive countries, with whose life it is now coming into contact. In conjunction with *laissez-faire* and capitalist economic systems it has not only created a great deal of ugliness (much of it preventable), but has turned men away from the consideration of beauty and of art, and of their significance and value in life—partly by its insistence on money values, partly by the fascination exerted on the young mind by the products of mechanical invention. Thus Unesco, which is concerned with all the higher activities of man, must endeavour to see that science is tempered with art, that the classical tradition in education is not replaced by some new system, equally rigid and one-sided, based on natural science, and, in general, that society is imbued with a proper scale of values.

With this, we are brought into the sphere of Unesco's next section, the Social Sciences and Humanities.

HUMAN VALUES : PHILOSOPHY AND THE HUMANITIES

In philosophy, the humanities, and the arts, scientific method though necessary, is no longer sufficient. It is not sufficient, because in them value-judgments are involved as well as questions of fact and of intellectual comprehension. History is concerned with men's thoughts and principles as well as with their material surroundings. The history of art gives us, explicitly or implicitly, a history of the changes and developments of aesthetic judgments and values, and comparative religion and the history of morals do the same for moral judgments and values ; while aesthetics and ethics, as branches of philosophy, go further still, since they aim at finding criteria for correct judgments in aesthetic and ethical matters.

This necessary bridge between the realm of fact and the realm of value, between the business of practical control and the creation of what is good or right, between means and ends, can be strengthened by the use of those social sciences which utilise the scientific method, but endeavour to apply it to values, or at least to fields where values are involved. They can for one thing discuss the physical and biological correlates of values, as well as their historical origins and possible evolutionary basis. And for another, they can make a comparative and analytical study of the effects of different dominant values on society.

Unesco cannot be neutral in the face of competing values. Even if it were to refuse to make a conscious choice between them, it would find that the necessity for action involved such a choice, so that it would be driven eventually to the unconscious assumption of a system of values. And any such system which is unconsciously assumed is less likely to be true than one which is consciously sought after and studied.

The same is true of the scientist who says he does not believe in philosophy, but in point of fact unconsciously or uncritically makes certain far-reaching philosophical assumptions in approaching his work ; it is true of the man in the street who, when he says "I don't understand art, but I know what I like," has in point of fact set up for himself a whole scale of aesthetic values ; it is true of all those who refuse to examine their beliefs on morality, but yet, in every action they undertake or opinion they utter, are operating according to a scale of ethical values which is all the more insidious because not consciously recognised as such.

Unesco must accordingly promote the study of philosophy as an aid in the clarification of values, for the benefit of mankind in general. It must also do so in order to have its own clearly thought-out scale of values to guide it in its own operations, both positively in what it should undertake or assist, and negatively in what it should avoid or discourage.

Here it will be guided by the philosophy of evolutionary humanism which I adumbrated in my first chapter. Such a philosophy is scientific in that it constantly refers back to the facts of existence. It is the extension and reformulation of Paley's Natural

Theology and those other philosophies which endeavour to deduce the attributes of the Creator from the properties of his creation. It is an extension because it deals with the range of nature in time as well as in space, so that it endeavours to discover direction rather than static design ; and it is a radical reformulation because it does not presume to translate the facts of nature into supernatural terms, nor to jump to the conclusion that an observed direction must imply a conscious purpose behind it.

It will accordingly relate its ethical values to the discernible direction of evolution, using the fact of biological progress as their foundation, and shaping the superstructure to fit the principles of social advance. On this basis, there is nothing immutable and eternal about ethics, yet there are still ethical values which are general and lasting—namely those which promote a social organisation which will allow individuals the fullest opportunity for development and self-expression consonant with the persistence and the progress of society.

The social aspect of this dual function imposes itself because social mechanisms provide the chief basis for rapid human evolution, and it is only through improvement in social organisation that progress can be secured. And the personal aspect arises from the fact that the individual human being is the highest product of evolution, and that it must be through his further development that progress can be made manifest. Looking at ethics from this point of view, we can see that some systems of ethics have laid too little emphasis on the claims of the individual, others too little on those of society ; or again, we perceive that some have laid too much emphasis on the present, and attempted to bind a dynamic process in static ethical bonds, while others have gone to the opposite extreme and have so much disregarded the present that they have sought to relate their ethics not to this world but to the next.

Further, even if there are broad ethical principles which are general and lasting, yet their detailed formulation will and must change from age to age. The ethics of tribal life differ inevitably from those of feudalism or of industrial civilisation. Our ethical systems to-day are still largely predicated on a pre-scientific and nationally fragmented world. We have to relate them to our new knowledge and our new closeness to each other. Thus, for instance, the rise of modern bacteriology at once gave new ethical responsibilities to man, in such fields as water-supply, pasteurisation of milk, quarantine regulations, and public health in general ; while the shrinkage of the world has for the first time made a famine in China or an epidemic in India a matter of ethical concern to the peoples of Europe and America. Similarly the new techniques of mass murder carried out by Hitler's exaggerated nationalism have led at Nuremberg to the formulation of a new crime against international law—the crime of genocide. In general, we may say, it is becoming necessary to extend our personal ethical judgments and responsibilities to many collective and apparently impersonal actions—in other words to undertake a considerable socialisation of ethics.

It will be one of the major tasks of the Philosophy division of Unesco to stimulate, in conjunction with the natural and the social scientists, the quest for a restatement of morality that shall be in harmony with modern knowledge and adapted to the fresh functions imposed on ethics by the world of to-day.

Still more generally, it will have to stimulate the quest, so urgent in this time of over-rapid transition, for a world philosophy, a unified and unifying background of thought for the modern world. In my first chapter, I have discussed some aspects of such a general philosophy. Here it only remains to say that this represented only my personal views, and that in this matter Unesco must clearly proceed by means of conferences and discussions between leaders of thought from every region of the world and from every domain of thought and learning. The only assumptions that Unesco can make are that success in this task is possible, that certain ways of thinking are inadmissible—the dogmatic, for instance, or the exclusively logical, or the uncompromisingly absolutist, that scientific method can play its part, and that constant reference back is needed to scientific data and principles on the one hand, and to the subjective facts of human consciousness on the other.

In addition, the Philosophy section of Unesco will certainly have to undertake a number of special tasks which are philosophical in the narrower sense—such as a clarification of the philosophy of science and scientific method ; a new formulation of aesthetics which will take account of the arts of primitive peoples, the various modern movements in art, the relation of deep psychology to aesthetic expression, and the function and value of art in the life of the individual and in the community ; or an examination of semantics in its most general aspects.

The section of Philosophy will no longer uphold the view (which during certain periods of history could be justified) that philosophy itself should embrace the whole of human knowledge, or that philosophers can arrive at results of value by pure cerebration or in solitude. On the contrary, it will work on the assumption that in the world of to-day philosophy has, broadly speaking, a twofold function. First the function of general criticism—criticism of the assumptions of the scientist, the artist, the mathematician, the political thinker, the man in the street ; criticism of man's methods of thinking in general, including the critical faculty itself ; this does not involve the direct pursuit of new knowledge, although it may help to promote the advance of knowledge by improving the methods of knowing. And secondly the function of synthesis, of relating the findings of all other activities of the human mind, moral and aesthetic as well as intellectual, to each other and to philosophy's critique, and distilling the product in unitary form. For both these functions, philosophers must be in close contact with all other higher activities of man, both with the workers in the various branches and with their works.

The Humanities, using the word in the extended sense to cover all humanistic studies as well as the classical field envisaged in the term *Literae Humaniores*, also deal with subjects involving human values, and also largely or wholly repudiate the validity of the methods of natural science in their fields. But they are more discursive and concrete in their approach than is philosophy ; for their fields of study are history, literature, art, and culture in general. "The classics," in the sense of the classical antiquity of Greece and Rome, should rightly receive full attention, but to-day must be studied and inculcated from the comparative and historical angle, instead of in the temporal and spatial isolation that has too often been customary. The battle between the Ancients and the Moderns that began in the late seventeenth century was inevitably lost by the Ancients ; to-day, however, we can see that there need be no battle, but a reconciliation of the apparently conflicting claims of antiquity and modernity in the single evolutionary process of history.

The chief task before the Humanities to-day would seem to be to help in constructing a history of the development of the human mind, notably in its highest cultural achievements. For this task, the help of art critics and artists will be needed as well as of art historians ; of anthropologists and students of comparative religion as well as of divines and theologians ; of archaeologists as well as of classical scholars ; of poets and creative men of letters as well as of professors of literature ; as well as the whole-hearted support of the historians. Throughout, of course, the development of culture in the various regions of the Orient must receive equal attention to that paid to its Western growth. Once more, Unesco can help by being true to its many-sidedness, and by bringing men together from all these various fields to help in one or other facet of this huge work.

As I have indicated above, the increase of social organisation which is the machinery of human progress must be reconciled with, and must indeed be made to promote, the fuller development of individuality which is among our chief evolutionary aims. To provide guidance in this crucial problem of our times must be one of Unesco's objectives : to do so, we require a profound and comprehensive survey of human individuality in its relation to social structure. This survey, if it is to be of service, must be quite novel in its approach. It must be scientific as well as humanist in the old sense, and it must enlist in its service art and morals as well as intellect.

Science as we know it consists almost wholly of statistical laws, derived from the study of mass phenomena. This, however, is due to the historical fact that the physico-chemical sciences, being simpler, have developed faster than the biological and human sciences. The individual particles of physics and chemistry, be they electrons, atoms or molecules, are almost inaccessible to scientific observation, and even where accessible, their behaviour has not been

made amenable to scientific analysis. In biology, on the other hand, individuals are readily accessible to observation. Furthermore, the degree of individuation tends to increase during evolution, until among higher animals, notably higher mammals, we are forced to recognise something of the same nature as human individuality. This process did not stop with man : on the contrary, the tendency has been for human individuals to become more differentiated and for human individuality to reach greater heights of development, from the mere tribal unit of various primitive cultures, and the robot masse masses and class-types of ancient Mesopotamia and Egypt, up through the first deliberate encouragement of personal individuality in classical Greece, the Christian emphasis on the spiritual worth of the individual soul, the medieval discovery of the enhancement of the personality through romantic love, and the exaggerated individualism of the Renaissance, to modern times, where the conflict between the development of individuality and the function of the individual as a cog in the social machine has posed itself in new and acute ways.

For such a survey we need to enlist the services of the biologist, the historian, the artist, the anthropologist and the sociologist. In human biology, a beginning has been made with the problem of seeing whether a truly scientific description can be given of individuals as distinctive psycho-physical units. This involves the development of a new methodology, since science is normally concerned with the mass and not with the individuals within it, with regularities and not with particular differences. Unesco should encourage this attempt, notably by organising small conferences of workers in this new field.

Art can be of help in two ways. First, because every work of art is an individual unity, so that the problem of the description and analysis of individuality can be pursued here too, and along lines differing from the biological. And secondly, because the art, notably the visual art, of a people or a period, gives us information as to its attitude to the individual and the degree of individuation achieved by its members. This information will sometimes overlap that provided by the studies of the historian or the analysis of the anthropologist, but can often be obtained from no other source. And, as just indicated, the historian and the anthropologist can make their contribution—but only if their attention is directed to the importance of the problem.

Approaching the subject from the other or social end, the social historian and the sociologist can study the evolution of social organisation, with reference not merely to its political or economic efficiency, but also to its effects in damping or encouraging human differentiation and individuality.

In the course of a few years, we might expect a really valuable contribution to this subject, vitally important although as yet scarcely explored, of the development of human individuality and its relation to evolutionary progress.

THE SOCIAL SCIENCES

The social sciences are almost coterminous with the study of man. At any rate, since social life based upon self-reproducing tradition is the distinguishing feature of man, they can claim to be dealing with the essential features of the human sector of the evolutionary process.

Though we do not, with Pope, restrict "the proper study of mankind" to man, we must certainly agree with him that, unless that study is made, man will remain a prey to confusion, in contradiction with himself :—

"In doubt to deem himself a God, or beast ;
... Great lord of all things, yet a prey to all ;
Sole judge of truth, in endless error hurled ;
The glory, jest and riddle of the world."

In many studies concerned with this vast and complex field (vast and complex although dealing with one species only), the wide co-operation we have just suggested will be of value. Thus the nature and social function of religion cannot be fully understood (still less the desirable directions for its future development be suggested) without calling in the aid of religious music, painting and sculpture, without enlisting the anthropologist to show us the extent of the advance which religion has made since its crude and sometimes repulsive or horrifying beginnings, without the historian to warn us of the false paths which organised religion may enter, the evil causes to which it may commit its adherents—*Tantum religio potuit suadere malorum*—, without the psychologist to help us understand the unique qualities of our moral sense, without the study of the mystic, the saint, the fakir and the ascetic, to demonstrate both the heights to which the religious impulse may bring men and the aberrations to which it may subject them.

In general, we need a new approach, at the same time social and evolutionary, to many basic problems of existence, an approach in which aesthetic and moral values are considered as well as objective facts within scientific analysis. Thus one can envisage a study of the evolution of man's emotional appreciation. This would bring out historical facts, such as the Christian introduction of the idea of general altruism as opposed to tribal solidarity, the emergence of the ideal of romantic love between the sexes in medieval times, and still more recently that of the love of nature and of landscape beauty. It would relate these to the general process of enlarging the emotional capacity of mankind and increasing the possibilities of emotional satisfaction ; and it would also draw certain practical conclusions, concerning the means for providing such satisfaction in a modern society—through drama and painting, through national parks and nature preservation, through the beauty of fine architecture and good planning, through world community.

Similarly, surveys of the evolution of moral codes and ethical values, or of the social functions of art, would be important contribu-

tions to the thought and we hope the practice of the coming generation.

However, if Unesco is to have a real social policy, it must not confine itself to such general studies, but must also face up to particular problems which press on the modern world. Simply as illustrative examples, I will mention population, the conservation of wild life, and semantics. The recognition of the idea of an optimum population-size (of course relative to technological and social conditions) is an indispensable first step towards that planned control of populations which is necessary if man's blind reproductive urges are not to wreck his ideals and his plans for material and spiritual betterment. The recognition of the fact that the wild life of the world is irreplaceable, but that it is being rapidly destroyed, is necessary if we are to realise in time that areas must be set aside where, in the ultimate interests of mankind as a whole, the spread of man must take second place to the conservation of other species. And the study of language, notably of semantics as its scientific basis, is a necessary step towards improving language as a tool of description and communication, and safeguarding ourselves against promoting misunderstanding instead of understanding.

There is, however, a general point which I should like to make, namely the importance of psychology to every branch of social science (as well, of course, as to education). Admittedly both deep analytic psychology and social psychology are in their infancy. But the one is revealing in the Unconscious a new world just as unexpected and important as that new world of the invisible revealed by the microscopists of the seventeenth century; while the other is indispensable as a basis for any truly scientific sociology as well as for the successful application of the findings of social science.

One of the most important things which Unesco can do in the field of the social sciences is to see that they pay attention to their own methodology. In them, as already set forth, scientific method is no longer sufficient, since values are involved as well as ethically or aesthetically neutral facts, and special methods must accordingly be devised for taking values into account. In addition, however, the strictly scientific methods which can be employed in social science cannot be identical with those used in natural science, especially in the physical sciences. For one thing, controlled experiment is rarely, if ever, possible; and for another, the number of variables involved in a problem is almost always very large. This is not to say that the worker in the natural sciences does not run up against large numbers of variables; but for the purpose of obtaining new knowledge he can restrict his problem in such a way that the number is reduced. He can do so either by isolating the problem in thought, as for example, when the physiologist intent on understanding how the digestive system of a monkey performs its functions, deliberately excludes any thought of the monkey's evolutionary past or of its present biological relations with other organisms. Or he can often do so by the further method of experiment, in which he controls all the variables save the one whose effects he wishes to study

Put in another way, the social scientist is always confronted with multiple causation, and must work out methods for coping with this fact. The methods of correlation and other statistical methods which have been developed to deal with certain non-experimental branches of biology, are proving of great importance to the social sciences, and the same will doubtless be true of the techniques of "operational research" worked out during the late war.

Concretely, the method of multiple team-work will often prove of value in meeting the difficulties presented by the multiple causation due to an excess of variables. Thus the housing of the population, if regarded as a problem of applied social science and not merely as a task to be got through by traditional, empirical, or makeshift methods, can only be undertaken on the basis of a piece of co-operative survey and research in which physicists, engineers, psychologists and sociologists all take part, and scientific attention is paid to the inter-relations of problems in such diverse fields as heating, sound-conduction, illumination ; strength and insulating properties of materials ; comfort, health, motion-study and general convenience ; aesthetic satisfaction ; types of family group to be catered for, and other demographic problems ; etc., etc.

There is also the comparative method, long a chief standby of the observational sciences, and the begetter of such remarkable scientific achievements as Comparative Anatomy and Comparative Embryology. In point of fact, the comparative method is only fully justified when applied to evolutionary data, where genetic relationship is involved. It has, of course, been fruitfully employed in such social studies as comparative philology, ethnology, and cultural anthropology in general. But its full usefulness in the social sciences will only be achieved when a thorough study has been made of the difference between evolutionary relationship in biology and in sociology. In biology, evolutionary relationships, with few important exceptions, are dependent on genetic descent from a common ancestor, and so can theoretically be represented in the form of a branching tree. In man's social history, on the other hand, the existence of communicable tradition as a new type of heredity, operating by methods quite different from those of biological heredity, has meant a quite different form of evolutionary relationship. The pattern of the tree gives place to that of the network, in which convergence as well as divergence occurs, and branches may unite and fuse as well as diverge and separate. In addition, it is much less easy than in zoology to distinguish true genetic relationship from independent convergence—a fact well illustrated by the dispute that still rages between the diffusionists on the one hand and on the other their opponents who believe in parallel and independent evolution of cultural patterns and achievements. Thus here, too, methodological research is urgent—in the shape of a thorough analysis of the bases of the comparative method as applied to human culture, and the extent and validity of the conclusions to be drawn from it in each field.

A more restricted problem in which biological analogy is important is that of social organisation in general and the machinery of government in particular. As I have already pointed out, social organisation is the mechanism on which man must rely to effect evolutionary progress. And government is the central part of this mechanism. As the problems of government grow more complex, so must the machinery for dealing with them. In general, the problems are similar to those which beset a higher animal, and are met by means of its central nervous system. A higher vertebrate must co-ordinate the activities of its various different organs, and adjust the claims of its different innate impulses. It needs mechanisms for providing information about its environment, especially about changes in it ; for correlating different kinds of information ; for storing experience and profiting by it ; and for appropriate action. *Mutatis mutandis*, these are the problems of a modern society—but, of course, with the basic difference that the individual human being has claims quite other than those of the single cells or organs of the animal body.

Furthermore, as we trace the evolution of higher from lower vertebrates we find the organisation of the brain growing more complex, and doing so in a particular way. Putting the matter in somewhat over-simplified terms, we may say that a series of conducting centres is introduced, one above the other in a hierarchy, each conducting the messages from the centres on the next lower level. Finally, in man, the highest element in the hierarchy, namely the association centres of the cortex, bring impulses and messages of all kinds into relation in a way much more full and flexible than is done in any of the lower centres, or any of the lower animals. It would be of the greatest interest to bring together some of the world's leading comparative neurologists with a group of experts in administration, to see how far the study of what we may call "the machinery of government" in the animal body can help us in solving the same problem on the social plane.

Here I must leave this vast and as yet scarcely charted field of human knowledge, but not before proclaiming my firm belief that the application of scientific method in appropriate forms to human affairs will yield results every whit as important and almost as revolutionary as those achieved by the natural sciences in the rest of the universe.

THE CREATIVE ARTS

The arts differ from the sciences in one fundamental respect. In the sciences, quantitative amount is important as well as high level of performance ; and individual discoveries and achievements, however distinctive and in a sense beautiful they may be, can be and are pooled with others in a common store of knowledge, so that a single onward movement is possible. There can and should be a single indivisible body of knowledge, a single unified effort of research.

But in the arts, matters are quite different. Here we are within the realm of values. The individual work of art is pre-eminent, and no amount of quantity can offset low quality. And since each work of art, be it poem or play, painting or sculpture, symphony or ballet, is by its nature an individual creation, it can never simply be pooled with others ; and accordingly variety and multiplicity must always be encouraged. Thus what Unesco must here aim at is not the promotion of a single movement, but the orchestration of diversity. The only unity which can be contemplated is a world unity comprising regional and local diversities, in the same sort of way that diverse elements are fused into the single expressive unity of a symphony or a drama—in L. K. Frank's words, the orchestration of diversity.

The field of the arts includes music ; painting ; sculpture and the other visual arts ; ballet and dance ; creative writing, from poetry and drama to the novel and the critical essay ; architecture and the film, in so far as arts ; and all the applications of art, from interior decoration to industrial design.

In treating of this important group of human activities (which has never previously been adequately dealt with by any inter-governmental organisation), Unesco will insist on keeping their creative aspect sharply distinct from their aspect as objects of learned study. It seems for some reason much simpler for an organisation to concern itself with the history of art than with the encouragement of contemporary painting, with the study of classical authors than with helping living writers, so that Unesco must be careful that creative side of the arts shall not elude it. This is not to say that the conservation of books and pictures in libraries and museums, or their study in histories of literature and art, or the analysis of art in a philosophy of aesthetics, are not important for Unesco. They are ; but they must be dealt with in other divisions from that concerned with living art.

Creative art, as a subject in its own right, presents problems of crucial importance for Unesco's programme. Art includes all those activities of man which share certain characteristics. In the first place they serve to express complex situations, experiences or ideas, with their bases and overtones of emotion and feeling ; secondly they express them in communicable form, even if not everyone is capable, or capable without some preparation, of receiving the due impression from them ; and thirdly they express them by means of particular and individual works of art, each of which has its own distinctive organisation, unifying its parts into an organic whole.

Art by no means necessarily deals only with beauty. The predominant emotion or sentiment expressed by Grünewald's crucifixion is anguish, by Picasso's *Guernica* is horror ; by Beethoven's *Verlorene Groschen*, humour ; by Swift's *Gulliver's Travels*, satirical contempt.

Nor is art concerned only with representation. That is self-evident for music, but is equally true of the visual arts. The painter may choose to represent ; but he may also choose to select, to

distort, to symbolise, to transmit emotions, to express ideas, to paint his imaginings instead of reproducing what he sees. And the same applies, *mutatis mutandis*, to literature, whether poetry or drama, essay or novel.

All that is necessary is that the whole, whether a painting or a poem or a piece of music, should produce its impact as a work of art. To do this it must have aesthetic form, and must arouse the aesthetic emotion, in addition to any other emotions which its creator wishes to express and transmit. Volumes have been written on the nature of the aesthetic question, and I do not propose to attempt any definition here. I will only say that the successful work of art always produces an emotional impact; further, this impact has something almost physiological about it, certainly something irrational and intuitive in its nature. In addition to this basic, unconsciously-acting component, the true work of art always also provides a certain distillation of conscious experience. This may be only implicit, as in a folk-tune or a cave-man's painting, or extremely explicit, as in Bach's *Mass in B minor* or in Goethe's *Faust*. In any case it is always a fusion of many elements into a single artistic whole.

Then the true work of art must be alive, capable of survival through the effect it makes upon the minds of other men. That is why we speak of the creative arts, and give the artist the proud title of creator. And this inherent life springs from the fact that the true artist in a sense unites himself with his objective. This union of subject and object in an act of pure emotion—love, wonder, admiration, exaltation—occurs in every aesthetic experience, whether of nature or art. But in the artist it is far more powerful, since in the realisation of his idea through the physical creation of his work, he has to bring into action his whole being, in its full depth and height, with all its strength and all its sensitivity, if the result is to be a good work of art. His task is, in Coleridge's words:

“From outward form to win

The passion and the fire whose fountains are within.”

As Sir William Rothenstein wrote in his memoirs: “It is this inner life, be it lyrical or dramatic, which outlasts that of its creator, and distinguishes a fine work of art from a merely skilful one. . . . If the quick soul be not within, it is merely a doll to be thrown aside. . . . (Artistic) creation is (accompanied by) intuitive self-surrender. . . . The artist . . . loses himself in active union with the object of his desire.”

I have spent some time on this general discussion, because without some understanding of the nature of art we cannot begin to appreciate its importance in human life, or to make up our minds how an organisation like Unesco should deal with it.

Art has important social functions. It can serve to express, as no other medium can do, the spirit of a society, its ideas and purposes, its traditions and its hopes. It can serve as the focus for national pride, and so provide a justifiable and beneficent outlet for nationalism, in place of the usual glorification of size or wealth, of

political or military power ; in a friendly rivalry in the things of the spirit, instead of in hostile competition for material aggrandisement. It can bring enjoyment and fulfilment to a people, in ways of which no other activity is capable—through good architecture and fine sculpture in public places, through music, through the varied and deeper visions of reality expressed by artists in their painting, through the writer's creative expression, through landscape planning, through the satisfying design of objects of everyday use. And its practice can liberate and develop the personality, whether the growing personality of a child, or the incomplete personality of an adult, and help to heal many of the distortions of neurosis.

I have said that art can perform such functions in society. Unfortunately, all too often it does not do so. The great mass of the people in modern industrial nations, middle and working classes alike, live in surroundings deprived of any beauty, and with no understanding of what the arts could do for their lives. Indeed, there is a general disinclination to think of the question. Too many people are afraid of using the word beauty, afraid often of beauty itself. They resent the demands which art makes upon them, preferring to be merely entertained. To take but one example, for the great majority of English-speaking people, the word " pictures " now means the films, and the escape from reality which it is the aim of most films to provide ; while the real pictures, the paintings which can give a deeper and more extended insight into reality, remain largely unvisited in museums and galleries.

It is quite true that to enjoy a great work of art demands effort, in the shape both of previous discipline and present mental and spiritual activity. To expect to be moved and enriched by Hamlet, or one of Beethoven's posthumous quartets, or Giotto's frescoes in the Arena Chapel at Padua, without some preparatory effort, is like expecting a man with flabby untrained muscles to enjoy and to derive immediate benefit from a twenty-five mile walk in the mountains.

The analogy with physical training is indeed close. A large section of the population realises that some discipline of the body is good for them, and paves the way to a greater enjoyment of many things in life. One of the aims of Unesco should be to create a corresponding realisation that some discipline of the mind and spirit is good for people and paves the way to many fuller enjoyments, and that understanding and appreciation of art in one or other of its forms is one of the methods of training in this interior life, and at the same time, one of the most satisfying enjoyments.

On the other hand there is an intuitive appreciation of beauty which can enjoy the simpler manifestations of art without special preparatory discipline. It arises naturally in the uncorrupted mind ; but in this respect (as in many others) the mind is easily corrupted, and can fall into bad taste, blunted or distorted sensibility, vulgarity or indifference. It is therefore of great importance that beauty and art should be physically provided in people's material environment, and that the love of and desire for them should be encouraged by their social and mental environment.

To this latter, educational, task I shall return. The physical provision of beauty and art must, in the world of to-day, be largely an affair of government, whether central or local. For this, it is necessary that the men and women in charge of public affairs shall be aware of the value of art to the community. This value lies not merely in providing what is often thought of as self-centred or high-brow enjoyment, but in providing outlets for powerful human impulses, and so avoiding frustrations which are not only a cause of unhappiness, but may contribute to unrest, waste and disorder.

The physical provision of aesthetic satisfaction must include at least fine architecture, town planning, landscape beauty, and good design of everyday objects. In this respect the "have-nots" or "backward areas" are not so much the economically and industrially backward countries of the world, as the urban inhabitants of most industrial nations. There are cities in Britain, in the United States, in Western Europe, in which the inhabitants live a life deprived alike of natural beauty and of art. Unplanned, dirty, with architecture either mean or florid and bad; with the local countryside spoilt, and few and poor parks; with little save shoddy or vulgar design visible in furniture, wallpaper, textiles, crockery, glassware, ornaments and all the furnishings of a home; with not a single piece of good painting or sculpture in the place or at best a few tucked away in a little-visited gallery; with bleak and ugly surroundings in the schools; the physical environment provided by such cities is a denial of one entire aspect of human life.

One remedy for this state of affairs must be sought in education. Unesco intends to make a basic study of the role of art in general education, and of the methods involved. The scattered experiments which have been made in this field show that art in general education has two main functions. First, to give the developing human being not merely some intellectual understanding of art, but that real understanding which is at the same time love, and desire for further satisfaction through art. And secondly, to secure the development of a fuller and more solid personality in the child. The existence of this second function has been fully realised only in the last few decades. In the past, the intellectual, informational, and moral aspects of education have been allowed too exclusive a domination. It was not understood that the aesthetic creative urge is fundamental and needs to be satisfied if the personality is not to be incomplete or frustrated; expression through art can spell liberation, or resolution of conflict, or self-confidence in advancing into the strange unknown world that surrounds the child.

To achieve both these functions, correct methods are necessary. Wrong methods (like those too often adopted in teaching children "literature") may kill all interest in the subject, and accentuate frustration instead of reducing it.

Art also has a social function, in relation to the community as a whole, as well as functions only or mainly related to the individual. It would be more correct to say that it *can* have a social function, for too often (as in the type of industrial town spoken of

above), that function is non-existent. Art is capable of expressing the life of a city, a nation, or an epoch. The architecture and the drama of ancient Athens were not only an expression of its life, but an essential part of it. In mediaeval Italy, painting was one of the great expressions of religious feeling, later of civic and personal pride. Nineteenth-century Germany found in Wagner an expression of its traditions and its hopes.

In the world of to-day, in which nationalism is in dangerous conflict with itself and with internationalism, art provides the most important of those outlets for national feeling which can be regarded as permanently legitimate and indeed desirable. Just because each nation is a section of humanity with its own distinctive environment, its own traditions and ways of thinking and of expression, often with its own language, it will have its own characteristic literature and art. What could be more striking than the differences between the literature and art of England, France and Germany—three contiguous nations within a narrow geographical region ?

Every nation will, of course, have achievements to its credit in science and philosophy and learning ; but, as previously indicated, these are bound to be to a greater degree part of a super-national movement, less distinctive as expressions of national life. Nor do I forget the constant culture-contacts, the influences which sweep across frontiers to affect the arts : but it is of the nature of art that such influences are absorbed, as it were, and become incorporated in a living movement, a local expression.

It is right and proper that every nation should be fully conscious and duly proud of its own artistic achievement ; the more the national rivalry can be transferred from the plane of hostile physical competition to proud competition in art and other cultural achievements, the better.

This fact has two implications involving Unesco. One concerns the arts of so-called primitive peoples and of non-industrialised countries in general. These are often of extraordinary beauty or force, and show us new modes in which the spirit of man can express itself and its reactions to life. We need only think of the art of the negro peoples of West Africa, the primitive but striking art of the Melanesians of the Pacific, or the more sophisticated art of Bali. In some cases, as with Negro sculpture, such work has exerted a marked effect on modern Western art.

But these arts and their accompanying crafts are in danger of disappearing entirely or of being debased or distorted by contact with industrial civilisation. The main reason for the decay of indigenous arts is that they were intimately bound up with the religious and social ideas and structure of the community and that these are being undermined or wholly destroyed by the impact of Western civilisation, with its commercialism and individualism. A second reason is the flooding of the local markets with cheap mass-produced goods of poor design and in bad taste. This not only helps to destroy the market for local products, but debases

indigenous taste. A third reason is the influence, when present, of an unregulated tourist trade in "curios". When, as usually happens, this demands cheap and spurious designs, it debases the standard of local artists and the quality of their work, even though it may result in increased employment for them.

A number of attempts have been made, with varying success, to remedy this state of affairs. In some cases, native artists and craftsmen have been employed to turn out exact replicas of the traditional work previously produced, while arrangements have been made for the marketing of the results to tourists. While this may employ a number of artists, and is certainly better than allowing their arts and crafts to die or to be debased and distorted, it tends to produce fossilisation and a cleavage between art and life. The arts will tend to become traditional and sterilised, without any vital reference to the needs of the society ; while the life of the community is bound to change under the impact of external influences and will demand its own aesthetic satisfaction and expansion.

One of the most successful experiments has been that of the bureau of Indian Arts and Crafts Office, U.S. Department of the Interior, with regard to the arts and crafts of the Indians of the south-western U.S.A. As a result of this, not only have high aesthetic standards been preserved and monetary returns from sales been increased, but originality and change have been allowed for and encouraged, with excellent social results.

In any case, let us remember that an extinct art can no more be revived than can a species of animal, once exterminated, be re-created. And the preservation of the remains, whether of the art or of the animal, though better than nothing, is a very poor substitute for the preservation of their active life.

Like all results of culture-contact between cultures at very different social or technical levels, this problem is a difficult one. But it appears to be capable of solution. In regard to it, Unesco should attempt two things. It should help to secure understanding, both by the world at large and the people of the regions concerned, of the value and interest—which is always a unique value and interest—of the art of non-industrialised peoples the world over. And it should undertake a survey of the various methods so far employed to prevent the extinction or debasement of such arts, with a view to making recommendations for action.

The second implication involves the industrially advanced countries. For, paradoxically enough, it is precisely in these that the possibilities of art as a means of community expression are often least realised. There are exceptions such as France, but both in Britain and the U.S.A., for example, it is fair to say that the creative artist, even if he has not retreated into an ivory tower, too often caters only for a highbrow or an intellectually escapist minority

or for a group so unrepresentative of the community as to deserve the name of clique. This is not to imply that the creative artist is ever likely to reflect the ideas of the majority. He may, however, truly express something essential in the life of the community, regarded as a social organism, and will often be the spearhead of its perception, the pioneer of new modes of vision and expression. Furthermore, in some epochs—as in ancient Athens, or the Renaissance—the artist may fulfil this social function of expression with better art than in Victorian England, for instance, or may represent the community more fully than in the troubled period since 1918. When art is thus unrepresentative or is neglected by the dominant class or the authorities, the state of affairs is bad for the community, which lacks the outlet and sounding-board which it ought to have in art, and turns to escapism or mere entertainment, to the sterile pursuit of the fossil past in place of the living present, or to bad art—cheap, vulgar, inadequate—instead of good. It is bad also for art, which tends to grow in upon itself, to become esoteric, incomprehensible except to the self-chosen clique, devoted to the sterile pursuit of art for art's sake instead of for life's sake, and so rootless that it ceases to have any social function worth mentioning. And, *a fortiori*, it is bad for the artist.

To remedy this state of affairs, we need to survey the whole problem of the patronage of the arts, most of which is inevitably, if in some ways regrettably, destined to swing over into public patronage by the State or the local community, and out of the hands of the private patron. Public, like private patronage, has its dangers for the artist and for his art: we must try to guard against them. We must also study the problem of the young artist—first how he is to keep himself alive before recognition comes, and secondly how he is to be made to feel not only a vital part of his community, but in some degree its mouthpiece. And of course this must go hand in hand with the education of the general public and of the authorities, local and central, to understand the value and significance of art in the life of a society.

We have already pointed out some of the social functions of art. Another exists in the field of public relations. Every country has now woken up to the need, in our complex modern world, of public relations, which is but a new name for propaganda, that term which unhappily has grown tarnished through misuse. In a world which must be planned, governments must often assume initiative and leadership; and for this leadership to be effective, the general public must be informed of the problem and of what is in the government's mind. This is the essential function of "public relations" in the modern State. But it is only a few pioneers, like Tallents and Grierson, who have begun to grasp how public relations should be conducted. Art is necessary as part of the technique, since for most people art alone can effectively express the intangibles, and add the driving force of emotion to the cold facts of information. "It is the artist alone in whose hands truth

becomes impressive.” Perhaps especially it is the art of drama which is most essential in bringing life to the issues of everyday life—but that art can, of course, operate elsewhere than on the stage—most notably on the films. Whatever the details, it remains true that one of the social functions of art is to make men feel their destiny, and to obtain a full comprehension, emotional as well as intellectual, of their tasks in life and their role in the community. Rightfully used, it is one of the essential agencies for mobilising society for action.

Each of the creative arts has its own special role to play in life. Music makes the most direct approach to the emotions, without the intervention of any barrier of language other than its own. The visual arts, besides revealing in tangible form the intenser vision or the private imaginings of the artist, have a special role to fill in relation to architecture ; and fine architecture has its own role—of giving concrete expression to the pride and the functions of the community, whether city or class or nation (or, let us add, the international community), and of adding much-needed beauty to everyday life, especially in great urban agglomerations. Opera and ballet, each in its special way, symbolises and expresses emotional realities and, as Aristotle said of the drama, “purges the soul” of the spectator. Ballet, through its nature, is capable of exerting a strikingly direct and almost physiological effect on the mind.

Prose writing finds itself at the other end of the scale from music, in that it must operate through language, and is the medium or vehicle most apt for expressing ideas and for making approach to the intellect ; while poetry (like painting) can transmute the brute facts of experience into new forms and new expressions which are none the less real and true for being imbued with a quality of magic. The drama has the capacity of giving immediacy and concreteness to human conflicts, whether of character or destiny or idea. So too does the film, but with certain advantages in its ability to transcend time and space in all sorts of ways (as well as with certain disadvantages owing to its costliness). The documentary film in particular has the capacity of converting mere information or instruction into art, and thereby giving life and emotional urgency to the commonest or the apparently most impersonal activities.

This is not the place to discuss the different treatments which are dictated by these differences in the nature of the various arts. I will conclude by recalling that Unesco is the first international agency expressly charged with concern for the arts ; and by reiterating the fact that the rise of science and technology have led the modern world to lay undue emphasis on the intellect as against the emotions and on material as against spiritual satisfactions, with the result that the arts to-day are neglected or distorted. It will be for Unesco to help see that in the world of tomorrow art takes its place on terms of equality with science, and plays an equally important role in human affairs.

LIBRARIES, MUSEUMS AND OTHER CULTURAL INSTITUTIONS

There are a number of institutions and organisations which are devoted to the twin functions of preserving the world's scientific and cultural heritage and of making it available when preserved. According to the particular field involved, and to the relative emphasis on preservation or on availability, these may take various forms—libraries, reading rooms, art galleries, art centres, museums of all kinds, zoos, botanical gardens, nature reserves, national and historical monuments, even national parks under one aspect. However, the term *Libraries and Museums* will cover most of them, if education and public availability are stressed so as to cover reading rooms and the like, and if living and outdoor museums are included.

Since such institutions are brought into existence to perform a particular kind of function in relation to culture and science, it follows that in relation to them an organisation like Unesco will largely be concerned with techniques and their improvement. As libraries grow, and as they become internationally more linked up, the need for a highly developed and uniform standard system of classification and cataloguing becomes urgent. Unesco must facilitate the search for such a system, and its international adoption.

As the weight of published knowledge and learning becomes so immense as to threaten to stifle its own growth, the need is acutely felt for new methods of making that knowledge available to the right people in the speediest way. Unesco must explore new systems of publishing the results of scientific research ; must strive to extend and improve the arrangements for abstracting scientific papers as they appear, and for the periodic reviewing of advances in every field ; must foster all methods which, like microfilm, make for easy storage, multiple reproduction, and rapid transmission of knowledge.

Again, as the works of art and the scientific specimens accumulate in the world's museums, the old methods of exhibition and of possessive storage no longer suffice. Unesco must explore all methods for sharing these treasures more widely, whether by redistribution, by rotating between store-rooms and exhibition galleries, by loan or travelling exhibitions, or by improved methods of reproduction ; and must equally explore all methods of making them more fully available to the public, by improved techniques of exhibition and popularisation (alas, sadly absent in too many places), by new methods of adult education for visitors, and by linking museums and galleries intimately with the school system. Equally it must explore all the new means of projecting museums and their collections outside their walls—notably by films and television, as well as by abundant and improved reproduction.

Unesco must seek to extend the notion of library from its original restricted sense of a collection of books and manuscripts to include collections of films, sound records, illustrations and reproductions. There is already in existence a trend away from the old conception of a library as just a place to house books and other materials to

the new conception of a library as part of a public service. Unesco must seek to promote this trend, must help in exploring ways by which librarians can anticipate the demands of the most varied groups, must help the movement towards popular and travelling libraries, and in general must help in discovering the right ways of making people use the library service in their everyday lives.

Unesco must seek to find new fields in which the technique of the museum can be useful. The Scandinavians have successfully developed the Folk Museum. But there are many other specialised types of museum possible—the local museum, the museum of history, of prehistory, of health, of education, of agriculture, of natural resources ; a beginning has been made with some of these, but the principle needs developing in a comprehensive way, and with the latest techniques.

Zoological and botanical gardens can properly be regarded as living museums ; but if they are to exercise their museum functions properly, their techniques of exhibition and education must in many cases be radically reformed. However, the concept of the living museum is in reality still more general. It is in part a reaction against the idea which originally gave birth to our modern museums—the idea of a museum as merely a place to house a collection, whether of curiosities or real rarities or just the objects of this or that manifestation of the collecting urge. In part also it is a reaction against the all-too-natural impulse of the museum curator to pay more attention to the past than to the present, to the demonstration of existing objects rather than to the creation of new ones, to the care of dead specimens rather than to the presentation of living creatures or of nature in action.

In the field of the arts, Unesco should encourage the movement by which exhibitions of the work of contemporary artists are given in museums or art galleries ; in the field of science it should in general encourage more showing of films, working models, actual applications ; in the field of natural history it should promote the establishment of museums attached to nature reserves and national parks, in which the biology and geology are illustrated, and illustrated as far as possible by means of living animals and plants, and by rock exposures *in situ*. Finally museums and art galleries and libraries can “come alive” in yet another way—by providing facilities within the fields of their competence for ordinary people to do and achieve something—to use the library as a source of ammunition for debates or discussion groups ; to encourage the work of the amateur naturalist, whether in the study or in the field ; to establish workshops and studios where citizens can enjoy creative work in painting or one of the handicrafts. In general Unesco should study ways and means of setting up “art centres” or “cultural centres” of this sort, whether attached to a library, a museum, a school or any other public institution.

We conclude by amplifying the point from which we started—that libraries and museums and kindred establishments have the double function of conserving and making available the

world's heritage, both cultural and scientific, both human and natural. These two functions are sometimes referred to rather baldly as storage and preservation on the one hand, public exhibition and use on the other. But they are really more than this. The first includes not only dead preservation, but also the active conservation of nature with its living beauty and interest, and of creative human activity. And the second must be extended so as to cover a great deal of the general educational servicing of the public in the fields of science and culture.

MASS MEDIA

In the first Article of its Constitution, Unesco is expressly instructed to pursue its aims and objects by means of the media of mass communication—the somewhat cumbrous title (commonly abbreviated to “Mass Media”) proposed for agencies, such as the radio, the cinema and the popular press, which are capable of the mass dissemination of word or image.

Here Unesco finds itself confronted with something new in human history. It is true that printing with movable type has a respectable antiquity, but the press in the modern sense of the word is a thing of yesterday, or at most of the day before yesterday, depending as it does on the mass production of cheap paper from wood pulp, the technical invention of the rotary printing press and other methods of printing at speed, the further inventions which are at the basis of telecommunication of all sorts—“cable and wireless”, together with air transport of mats and the like—and the building up of huge and powerful organisations for the collection and transmission of news. The film and the radio are even more recent, and even more revolutionary in their results.

What are the main effects of these innovations, of which Unesco must take account? First, the possibility of a much wider dissemination of information of every sort, both within and across national boundaries. This means that public opinion can be built up more rapidly and can be better informed than ever before. There is, however, another side to this picture. National public opinion can also be built up by means of propaganda, on the basis of false, distorted or incomplete information, and though the mass media, as I have said, provide the possibility of spreading information across national boundaries, this possibility is often not realised, and indeed often deliberately fought against, by means of censorship, official control of press and radio, and the creation of psychological barriers in the minds of the people.

Thus, although it is true that the mass media provide the first agencies in history through which peoples may speak to peoples, instead of communication between countries being limited to small minorities, yet it is also true that what they say to each other through these agencies may be false, and what they hear may be limited by man-made barriers or its effect distorted by previous propaganda.

Accordingly, as one of its earliest aims in this field, Unesco must seek to discover what are the various barriers to free, easy, and undistorted dissemination of news and knowledge between nations, and to see that they are lowered or if possible removed. This, however, is an essentially negative task. Unesco must also avail itself of the force and inspiration which derives from a positive aim. And this, as Grierson says¹ must depend on the indivisibility of interests of the people who populate the world. "Wandering about the world, one finds that while countries differ in their expression and in their local idioms, they are in one respect identical. We are all divided into groups of specialised interests and we are all, at bottom, interested in the same things. There are the same essential groups everywhere. Here is a group interested in town planning, or in agriculture, or in safety in mines, or in stamp collecting. Whatever the different language they speak, they speak the common language of town planning, agriculture, safety in mines, and stamp collecting." Interests are indivisible and therefore transnational—and so, we may add, are human needs, from simple needs such as food and shelter to more elaborate (but perhaps no less basic) needs like those for intellectual development or emotional and spiritual satisfactions.

Above and beyond all other interests and needs at the moment is the need for peace and the interest of large groups in every country in achieving peace. Merely by preaching peace we shall not achieve much. We can achieve much by indirect methods—by demonstrating the fact that interests and needs transcend national boundaries, and by building a world in which international co-operation is actually operative, and operates to promote better health, and full employment, and the provision of adequate food for all, and safety and ease of travel, and the spread of knowledge. Finally, however, we can achieve a good deal more if we can give people the world over some simple philosophy of existence of a positive nature which will spur them to act in place of the apathy, pessimism or cynicism which is so prevalent to-day, and to act in common instead of in separate groups.

I am sure this can be done if we try hard enough. We need to paint in the scientific background, showing the reality of human progress in the past and its further possibility in the future, reminding men that setbacks like the war and its aftermath are only temporary, and are but some of many in the past which yet have not stood in the way of the secular upward trend. Reminding men also that by all valid criteria humanity is not old but young, and has for all practical purposes unlimited time before it. Demonstrating by concrete examples that scientific discovery has at last made it possible to satisfy the basic needs of all humanity, thus establishing a foundation on which we can proceed to build a superstructure nearer to the heart's desire. Reminding people that one of the basic needs of men is the need for giving, for devotion to something other than self, for service and love of others, so that concentration

¹ "Grierson on Documentary," ed. F. Hardy, London, 1946, pp. 165, 231.

on satisfaction of selfish needs will spell incompleteness and frustration ; showing also, and again by tangible examples, that progress is not automatic or inevitable, but depends on human choice and will and effort. Taking the techniques of persuasion and information and true propaganda that we have learnt to apply nationally in war, and deliberately bending them to the international tasks of peace, if necessary utilising them, as Lenin envisaged, to "overcome the resistance of millions" to desirable change. Using drama to reveal reality and art as the method by which, in Sir Stephen Tallent's words, "truth becomes impressive and a living principle of action," and aiming to produce that concerted effort which, to quote Grierson once more, needs a background of faith and a sense of destiny. This must be a mass philosophy, a mass creed, and it can never be achieved without the use of the media of mass communication. Unesco, in the press of its detailed work, must never forget this enormous fact.

The other main task of Unesco in this field will concern the use of the mass media to foster education, science and culture as such. Regarded from this angle, the mass media fall into the same general category as the libraries and museums—that of servicing agencies for man's higher activities, which offer new technical opportunities to the scientist, the artist and the educator. In this field Unesco will have a great deal of detailed work to do. Granted the services of the mass media to education, science and culture—of the book and the magazine in regard to literature and the spread of ideas ; of the daily and weekly press and the radio, in disseminating news and information ; of the documentary film as a form of public relations service ; of the radio in extending musical interest and raising musical standards : yet the fact remains that they have also rendered many disservices—in the vulgarising of taste, in the debasement of intellectual standards, in the avoidance of real issues, in the erection of false ideals. The gap between possibility and actuality is often all too wide ; and Unesco must, in every field of its competence, set out to see that it is narrowed. The techniques and the tactics involved in realising this aim are complex and intricate, and will differ for the different mass media ; however, we need not consider them here.

One necessary piece of work which Unesco must undertake is a study of the real effects of radio and film on illiterate peoples hitherto cut off from general thought. At the moment nothing very definite is known about this ; yet we must know it if we are to make the best possible use of these revolutionary methods. There are thus two tasks for the Mass Media division of Unesco, the one general, the other special. The special one is to enlist the press and the radio and the cinema to the fullest extent in the service of formal and adult education, of science and learning, of art and culture. The general one is to see that these agencies are used both to contribute to mutual comprehension between different nations and cultures, and also to promote the growth of a common outlook shared by all nations and cultures.

CONCLUSION

Not much remains to be said in conclusion, but what remains is important. It is that the task before Unesco is necessary, is opportune, and, in spite of all multiplicity of detail, is single.

That task is to help the emergence of a single world culture, with its own philosophy and background of ideas, and with its own broad purpose. This is opportune, since this is the first time in history that the scaffolding and the mechanisms for world unification have become available, and also the first time that man has had the means (in the shape of scientific discovery and its applications) of laying a world-wide foundation for the minimum physical welfare of the entire human species. And it is necessary, for at the moment two opposing philosophies of life confront each other from the West and from the East, and not only impede the achievement of unity but threaten to become the foci of actual conflict.

You may categorise the two philosophies as two super-nationalisms ; or as individualism versus collectivism ; or as the American versus the Russian way of life ; or as capitalism versus communism ; or as Christianity versus Marxism ; or in half a dozen other ways. The fact of their opposition remains and the further fact that round each of them are crystallising the lives and thoughts and political aspirations of hundreds of millions of human beings. Can this conflict be avoided, these opposites be reconciled, this antithesis be resolved in a higher synthesis ? I believe not only that this can happen, but that, through the inexorable dialectic of evolution, it *must* happen—only I do not know whether it will happen before or after another war. Since another war would be so appalling as to set back the march of human progress by centuries, I am convinced that the task of achieving this synthesis in time to forestall open conflict must be the overriding aim of Unesco.

In pursuing this aim we must eschew dogma—whether it be theological dogma or Marxist dogma or philosophical or any other form of dogma : East and West will not agree on a basis for the future if they merely hurl at each other the fixed ideas of the past. For that is what dogmas are—the crystallisations of some dominant system of thought of a particular epoch. A dogma may, of course, crystallise tried and valid experience : but if it be dogma, it does so in a way which is rigid, uncompromising and intolerant. What, for wanting a better term, I have called doctrine may also embody valid experience : but it may be flexible, may be capable of growth and development and adjustment. Some dogmas may represent a more recent past than others ; but that does not render them any the less rigid and accordingly any less dangerously out of date, any less incapable of reconciliation with opposing systems. If we are to achieve progress, we must learn to uncrystallise our dogmas.

The two opposing philosophies of to-day differ essentially on one point—the relation between the individual and the community. But this one central difference provides differences in every field

with which Unesco has to deal, as well as in many others. It engenders different moralities and systems of ethics ; different methods of education ; different conceptions of the role of art in society ; different economic systems ; different ways of integrating science with national life ; different interpretations of the fundamental human freedoms ; different conceptions of the possibilities and limits of international co-operation.

I believe that these differences, though they will undoubtedly become irreconcilable without armed conflict if they are permitted to express themselves as dogmas, to embody themselves in rigid social systems, and to become translated into terms of politics and power, can in principle be reconciled. They can be reconciled along the lines of some such evolutionary humanism as I have sketched in my opening sections, in which, though the full development of the individual is recognised as the central aim and criterion of further evolutionary progress, the proper organisation of society is recognised as the indispensable mechanism of that progress. Put in another way, society as such embodies no values comparable to those embodied in individuals ; but individuals are meaningless except in relation to the community (though that community transcends the nation both in space and in time), and can only achieve fullest self-development by self-transcendence, by interpenetration of the self with other reality, including other selves. The problem is thus not one of metaphysics or dogma, but essentially practical—how best to adjust or still better to reconcile the claims of two concrete sets of realities—individual human beings, and human social organisations. Accordingly, I believe that this reconciliation can be approached from two directions. It can be approached from above and from outside, as an intellectual problem, a question of agreement in principle : and it can also be approached from below and from within, as a practical problem, a question of agreement through action. The world is potentially one, and human needs are the same in every part of it—to understand it, to control it, and to enjoy it. Anything that Unesco can do to satisfy these needs through promoting education, science and culture, will be a step towards a unified way of life and of looking at life, a contribution to a foundation for the unified philosophy we require.

And finally, I believe that a body such as Unesco, which is charged with promoting both the higher activities of man and their practical application, and of doing so on an international scale, is the most likely agency to make this dual approach and so to speed up this necessary process of reconciliation.

PRINTED IN GREAT BRITAIN BY
THE FREDERICK PRINTING CO., LTD.,
23, LEONARD STREET, LONDON, E.C.2.

UNESCO/C/6 Corrigendum
(Issued in English only)

PARIS, 21st May 1947

UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANISATION.

UNESCO

ITS PURPOSE AND ITS PHILOSOPHY

by

JULIAN HUXLEY

Corrigendum to English text :

Page 29 should be renumbered 30

Page 30 should be renumbered 29 .
