THE ARYAN PATH

Point out the "Way"—however dimly, and lost among the host—as does the evening star to those who tread their path in darkness.

—The Voice of the Silence

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"THUS HAVE I HEARD"—

"The killing of a human being by the authority of the state is morally wrong and also an injury to all the people; no criminal should be executed no matter what the offence."

These words were penned by William Quan Judge in 1895. He was a great Theosophist, a practical Occultist whose knowledge of the invisible and of the human constitution was deep.

Every Sage, Seer and Religious Reformer has asserted the truth of the sacredness of all life, human and animal, and has given the same command as Jesus did—"Thou shalt not kill." Six hundred years before Jesus, in our India, the great Buddha named Pity as the first of the five virtues to be practised by monk and layman alike.

Kill not—for Pity's sake—and lest ye slay
The meanest thing upon its upward way.

To this day the Pancha-Shila, along with the Three Refuges, are accepted by one about to become a Buddhist. Even the murderer is careening on the upward way.

It is with very satisfying pleasure then that we have read the words spoken in the Indian Constituent Assembly on 3rd June by the Law Member of Pandit Nehru's Cabinet, Shri B. R. Ambedkar. Referring to the necessary legislation in the matter of the Death Penalty, Dr. Ambedkar uttered words that were acclaimed with cheers:—

The other view, rather than the provision of power for the Supreme Court to hear criminal appeal in cases of death sentences, is the abolition of the death sentence itself....This country by and large believes in the principle of non-violence. It has been her ancient tradition. Some people may not be following in actual practice but all certainly adhere to the principle of non-violence. The proper thing for our country therefore is to abolish the death sentence altogether.

This is as it should be. We are glad our Constituent Assembly is showing courage and foresight in this matter, and we trust it will set an example to the British House of

Lords and the present Labour Government, which has been pusillanimous in the matter.

Lest this reform be considered merely a matter of sentiment, it will be well to reflect upon a couple of ideas related to capital punishment. The immortality of the human Soul and its survival of bodily death are innately believed in by vast masses of people everywhere. This innate idea is one of those divine intuitions which cannot be destroyed, let materialism do what it may. And it has done plenty !

But the doctrine of the Immortality of the soul is neither illogical nor unscientific. More than ample evidence is available for any one who is unprejudiced and not fettered by the bigotry of modern science. Similarly the states of the surviving consciousness have been described, allegorically and otherwise, down the ages. The *Garuda Purana* and Dante's *Divine Comedy* are but instances. No less a scripture than the *Gita* refers to them directly ; and the most cogent reference to the subject of capital punishment is implicit in VIII : 5-6. " Last thoughts strong in death " affect each one of us. What about the thoughts of the executed, surcharged with the fierce emotions of hatred, revenge and the like ? The nature, the passions, the state of mind and the bitterness of the criminal have to be taken into account ; for the condition in which he is when cut off from mundane life has much to do with this subject of Capital Punishment.

Violent death is different from natural death, hence the religious supplication, " From sudden death, Good Lord, deliver us." There is truth underlying this. Explains Mr. Judge :—

A natural death is like the falling of a leaf near the winter time. The time is fully ripe, all the powers of the leaf having separated ; those acting no longer, its stem has but a slight hold on the branch and the slightest wind takes it away. So with us ; we begin to separate our different inner powers and parts one from the other because their full term has ended, and when the final tremor comes the various inner component parts of the man fall away from each other and let the soul go free. But the poor criminal has not come to the natural end of his life.

What about the executed ?

Floating as he does in the very realm in which our mind and senses operate, he is for ever coming in contact with the mind and senses of the living.

It is good therefore if India is determined to abolish Capital Punishment, not only cruel for the executed but dangerous to the executioner—the State and its citizens.

SHRAVAKA

Crime is not inherent in human nature, and therefore the father in the family, and the Government in the State, are responsible for the crimes committed against filial piety and the public.

—CONFUCIUS

THE JUDICIARY IN A FREE DEMOCRATIC STATE

[**The Hon. Shri H. V. Divatia** is Chief Justice of the High Court of Saurashtra at Rajkot. His great legal knowledge and long legal experience makes this outstanding article a very valuable contribution to the discussion of a highly important subject. We wholly agree with our esteemed contributor that in free and independent India the judiciary should function altogether independently of the executive. Only thus can it properly use its power and maintain its prestige.—ED.]

The important place of the judiciary in a Free Democratic Government has evoked much interest in India since the country's achieving of its independence and with the immediate prospect of its being a Sovereign Republican State. Under the British Rule, the judicial administration of India was one of the notable achievements, except that it was not made independent of the executive. With the advent of freedom and the drafting of the new Constitution, the subject has acquired much importance and it is necessary that it should be appreciated by lawyers as well as by laymen.

The judiciary consists of that department of the State which administers justice according to law. In the constitution of modern democratic Governments, there are three authorities which are connected with law :—

(i) The law-making authority ;
(ii) The law-administering authority ; and
(iii) The law-enforcing authority.

These correspond to the Legislature, the Judiciary and the Executive. The function of a democratic Government is to maintain these separate and independent of each other. At one time there was no distinction between them, and they were all invested in one and the same person who formed the head of the State. The King maintained the social order and discipline among the subjects. The social progress was on different lines according to the culture attained. In India, the King was the protector of Dharma, which was construed in its widest sense, as including not only the relation between man and God, but also the relation between man and man. The King was responsible for the security as well as the orderly progress of the State, and for that purpose he took the help of learned men who compiled the Institutes which are known as Dharmashastras. These Shastras had not merely a secular but also a semi-religious authority, and the King was expected to administer the country according to the principles laid down from time to time in these Shastras.

Although, however, he took the law from the Shastras, the responsibility for administering the law rested with him, and that responsibility was discharged by him through his agents who were appointed as Judges.

It is important to note that the people as a whole had no part in laying down the law by which they were governed. That was exclusively left to the learned men who alone were competent to advise the King as to what the law was. In Western countries the function of the Government was also similar, and there also the law was administered by the King in his own name. A good King took the advice of the leaders of the people in laying down the law, while in most cases autocratic Kings laid down their own laws which were not necessarily in the interest of the people. But in the West the law-making and the law-administering authorities were separated about seven centuries ago.

The earliest revolt against the King by the people was in England where, on account of the tyranny of King John, the people forced the King to grant them the Magna Charta, which was a charter embodying what we know at present as the fundamental rights of the people. About a century later the people took the law-making power into their own hands, and the first Parliament in the World was created in England for the purpose of enacting laws. From this time on in Western Jurisprudence the law-making function was separated from the King. The judiciary, however, remained under the King, and the Judges who administered the law were regarded as his agents, though they were created by Acts of Parliament. In course of centuries the power of Parliament became stronger and stronger and the King, who had till then been regarded as having the divine right to rule, was gradually deprived of his autocratic power and became the constitutional head of the State. But even as such constitutional head, he remained the head of the judiciary inasmuch as the highest judicial authority was the King as advised by the Judicial Committee of the Privy Council.

With the growth of democratic States, the elective principle was applied on a wider scale but, although legislators and Ministers were elected by the people, the highest members of the judiciary were appointed in the name of the King. After the French Revolution, when the Kingly authority declined and republics were established in various countries of Europe, the constitution of the judiciary varied from country to country. In some republics the President had the same power over the judiciary that the King had, while in others, like the United States of America, the President, who is the chief executive head of the republic, also appoints the highest members of the judiciary, subject to the approval of the Senate, with the result that the judiciary has become tinged with a political colouring.

In countries like England, however, although the King was reduced to a strictly constitutional monarch, the judiciary remained practically independent of the legislature as well as the executive, and the King is still regarded as the fountain-head of justice. No doubt the judges are appointed by the Lord Chancellor, who belongs to a political party, but in the administration of his judicial functions he acts purely on judicial and not on political considerations. It is true that a Judge can be removed by impeachment in Parliament, but his tenure and his privileges do not depend entirely upon the will of the executive.

In India the High Courts were established on the model of the British system with some modifications, but the lower forms of the judiciary, especially the Magistrates, are not independent of the executive. In the interests of a strong and awe-inspiring administration of the country, it was thought desirable that the executive should be armed with judicial powers for maintaining law and order, especially in places remote from the headquarters of the Provinces.

The Indian National Congress from its very birth agitated against this system and for the separation of judicial and executive functions but, even though the principle of separation has been accepted in theory, it has not yet become effective, even since the establishment of the Congress Government. It is only recently that attempts are being made to make the judiciary entirely independent of the executive by taking away the judicial powers of the executive officers, clothing them with only such judicial functions as are necessary for maintaining law and order, and making them subordinate to District and Sessions Judges and not to Collectors.

This separation is absolutely necessary now that we have obtained a free democratic Government because it is in the early formative stages of a democracy that there are greater chances of interference, by the executive officials and leaders of the people, with judicial administration. Experience has shown that the elected members of the Legislature, and in some cases even the Ministers, are prone to regard the judicial department as subordinate in the same sense as other departments, and there have been occasional cases of interference. The judiciary must as much be kept independent of the executive as well as of the legislature as the legislature must be kept independent of the executive.

The independence of the judiciary requires to be preserved in a more vigilant manner in a republic than in a constitutional monarchy. The King is generally above party politics while, in the case of a republic, the President is a party man and when he becomes the head of the State there is great danger of the interests of the judiciary being subordinated, as has happened in the United States, where the President is the head of the Executive also. In order to

guard against this result, it is necessary that the fundamental rights of the subjects should be safeguarded in the Constitution, and that the Supreme Court of the judiciary should be empowered to adjudicate on these rights.

A democracy without an enlightened democratic spirit in the people is apt to degenerate into totalitarianism. We have seen what has happened in Italy, Germany and Russia. A democracy which is run on the elective method in all departments of administration does not promote that impartial and independent outlook which is of the essence of a sound judiciary. The judiciary has to deal with disputes not merely between subjects and subjects, but also between subjects and the State. This is the greatest danger of a democracy, especially in its formative stages. There is a tendency for a weak democracy to assume the form of State Socialism which, if not checked by enlightened public opinion, is likely to develop into a totalitarian Government.

So far as the judiciary is concerned, it should be left free from the turmoil of party polemics and power politics. Its supreme function, *viz.*, to protect the people from the excesses of the executive can be discharged effectively only if it is kept above political pressure, and occasional pin pricks from executive authority. The recruitment, promotion and transfer of judges and magistrates should be left with the High Courts under the supervision of the Supreme Court only, and the Judges of the High Court and the Supreme Court should be appointed by the President of the Republic on the advice of the Chief Justice of the Supreme Court.

Any violation of the fundamental rights of the people as embodied in the Constitution should be adjudicated upon by the Supreme Court. The highest judicial tribunal of the country should, therefore, be not only the highest law-administering authority, but also the Constitutional-rights-preserving authority in the country, to be invoked by due process of law.

The same reason would apply to the principle of elected judges. All elections are held on controversial issues, whether economic or political, and judicial elections are bound to be dominated by party bosses. Judges can never behave in a purely judicial manner when their tenure depends on the uncertain votes of belligerent parties. The system which now prevails in India is the best for the higher judicial appointments, namely, the selection of Judges by the Chief Justice of the High Court and the Governor of the Province with the approval of the Chief Justice of India; and the person so selected should be formally appointed by the Governor-General, *i.e.*, the future President of the Indian Republic.

The salaries to be paid to the judges should be sufficiently high to attract efficient and experienced lawyers from the Bar. It is indeed unfortunate that in the Constitution of

India which is being framed, it is sought to reduce the salaries of the Judges on the ground that they should be proportionate to the salaries of other high Government officials. If such a change is adopted, the calibre of lawyers who would accept a seat on the Bench is bound to be lower than that which exists at present. Whatever economies may be effected in other directions, it is a false economy to reduce the salaries of the Judges of the High Court and the Supreme Court, especially in these days when it is difficult to maintain the position of a High Court Judge even on the present salary. If, however, the Constituent Assembly decides to reduce the salaries, we may hope that senior members of the Bar who are earning much more than the Judges may be induced to accept a seat on the Bench as an act of public service.

The judicial system in the future republic as inherited from the British Rule, though not without its defect of being a costly institution for the litigants, is on the whole based on sound principles, and it may be hoped that its future position in the growing democracy of India may be secured on the principles stated above. Most of these principles it is sought to embody in the Indian Constitution. The only reform that is necessary now is to make the judiciary independent of the executive, and when that independence is secured, there is no doubt that, with its past traditions, the Indian Judiciary will be a valuable institution, not only in maintaining law and order in the country, but also in preserving the rights and liberties of the people.

Even with all these safeguards, the success of the judiciary in discharging its functions effectively and maintaining its prestige among the people depends largely on its personnel. A democratic country should produce men who are not only learned in law but also possessed of sound common-sense and moral integrity. Very often the public blames the judges for decisions which are correct on the law as it stands but the law is either harsh or queer. The Legislature makes laws which may be good, bad, sometimes stupid, and judges have to take the law as it is. But a good judiciary can give a lead to the Legislature in many respects by commenting on the law while administering it. In a new democracy, its elected representatives in the Legislature are prone to sanction all sorts of legal enactments in a spirit of excessive zeal for the public welfare. The Courts have to respect the law whether they like it or not, but they can indirectly help the public by exposing its defects and suggesting improvements. After all, the judiciary in a free State is also one of the voices—quiet yet considerate—through which the Demos speaks.

H. V. DIVATIA

EDUCATION FOR THE GREAT VALLEYS

[It is an important concept of region-based education which **Aubrey Haan** of the Department of Elementary Education in the University of Utah develops here. It needs a care, however, that the education begun in the valley does not end there, as far as outlook and sympathies are concerned. Regional groupings should subserve national and international unity, but do not always do so. It is encouraging that the necessity of relating education to life is so widely recognised today. The fixing well of the centre must, however, be the prelude to the widening of interests in ever-expanding circles if education is to fit man to his world environment.—ED.]

There is no resting-place for our generations. Whitehead wrote that, when the time span of important change was longer than that of one human life, mankind could properly be trained to adapt itself to fixed conditions. Now that this time span of change is shorter than one human life, our education must prepare individuals to face novelly developing situations.

The power of the individual to participate in an ever changing society needs to be developed. This is the basic assumption of democratic education. It is also fundamental that democratic education must result in the improvement of the general welfare. All this must be done in the midst of a shifting social scene.

Our concept of the democratic process broadens. From narrow political assumptions it has developed to include all that is psychologically, spiritually, materially and physically good for people as they live together in a sensitive and intelligent relationship. The democratic process becomes the most difficult achievement of man. The blithe presumption that a generation inherits democracy falls. Each generation struggles to learn to share, to participate, to respect the personality of the individual, to use the scientific method in the social process. Furthermore, it learns these things in terms of the very specific problems of its own day.

Now in educating ourselves the difficulty arises that schools, which bear a heavy responsibility in all this, deal parsimoniously in real experience and copiously in words. And words mean various things to different people. For example, tolerance as a word is widely accepted; equality as an abstract term arouses emotional approval. But if democracy is to work, and tolerance and equality are aspects of it, it must be reduced to the relations between human beings, the things that human beings do to each other, the way we treat each other. Democracy reduced to action becomes the most controversial and difficult process.

To illustrate still more specifically,

democracy involves the destruction of barriers to the improvement of the living conditions of all people everywhere. The irrational prejudices of race, creed, religion and nationality must be fought and beaten in the re-education of man. Reduced, as it must be, to such actions as the elimination of racial and religious restrictive covenants in property deeds, the end of segregation in schools, colleges, theatres, restaurants and transportation facilities, the end of sex discrimination, the destruction of the subtle snobberies and discriminations which divide classes; reduced to these things democracy comes alive...and becomes dangerous to espouse. It is for its failure to attack such realities as these that democracy is now questioned at the bar of world opinion. As the principal tool of democracy, education has not accomplished its mission. What can the schools do?

Everywhere, again, uninformed and fascist minds work against the concept that the intelligence of common men can solve the problems of our welfare. The defeatist and selfish elements among us are busy again destroying our faith in the potential good in men, in the educability of men. The scientific method gains wide acceptance in the physical sciences and in its application to war. It receives paltry support and recognition for the solution of the problems of human relations. Certainly democracy will not survive the complexities of this technological morass unless human problems are approached through the scientific method. But the unbiased approach of the scientific method applied to human problems means the end of privilege and will be fought. How can we bring it to bear in the education of people?

Now, out of all this, questions arise as to how to proceed: how do we plan so that people participate, share, grow in the process and direct their destinies in co-operative effort? Who plans? And for whom is the planning done? Where is the school in this? Where is adult education in this?

Planning is inevitable, of course. The complex social-economic problem of the age will yield only to comprehensive planning. The danger is that someone will do it for us. The danger is that the values in terms of which our society is planned will not be decided upon in the interest of all, that we as men of ordinary status will not participate in the determination of these values.

Much planning has been done. Most of it has not been carried into action. A reason for this is that planning done without reference to the needs and interest of people generally fails. Grass-roots planning, democratic planning, seldom fails. All who now speak of planning must combat the connotation of regimentation which the word has acquired because so many plans have been made from the top. Planning by the few, as in the Fascist State, has had temporary success and is the

method thought of by many when the need for planning for the general welfare is discussed. Our planning must be done democratically, the needs arising from organisations on the local level being co-ordinated with the needs of other areas and finally combined into working plans for river valleys, regions, nations and world society.

As we look about for the means to reanimate democratic principles, the great river valleys of the world appear to offer one means of developing democratic planning. The Tennessee Valley, the Missouri Valley, the Columbia, the Niger, the Danube, the Indus, the Yangtze, the Ganges, are a few that come to mind at once. The river valleys exhibit roughly the physical and cultural homogeneity essential to effective regional planning. The region is a study in human ecology and as such the interrelationships of men in the valley regions become of primary importance in the planning of its physical, social, economic and spiritual life. The planning of river valleys involves four aspects: (1) a survey of the valley's present development; (2) laying out what is needed and wanted by the people of the valley; (3) planning for specific development of the valley and (4) the execution of the plans agreed upon. These steps are sometimes successive and sometimes coincidental. At every stage education enters in.

Education becomes part of the rebuilding of the great valleys and of the democratisation of the living process. Lewis Mumford in *Culture of Cities* said this very well:—

We must create in every region people who will be accustomed, from school onward, to humanist attitudes, co-operative methods, rational controls. These people will know in detail where they live and how they live; they will be united by a common feeling for their landscape, their literature and language, their local ways, and out of their own self-respect they will have a sympathetic understanding with other regions and different local peculiarities. They will be actively interested in the form and culture of their locality, which means their community and their own personalities. Such people will contribute to our land-planning, our industry planning, and our community planning the authority of their own understanding, and the pressure of their own desires. Without them, planning is a barren externalism.

The Tennessee Valley Authority has given us an example of planning by people in the valley for the welfare of the valley and of the country. Here adults and children alike have dug down into the meaning of their own culture, have participated in the reorganisation of the valley's agriculture, the conservation of its soil, the increase in transportation facilities, the addition of recreational assets, the improvement of diet, the provision of decent housing. There have been classes, lectures, committees, planning groups, and there has been sharing, planning, co-operating in the performance of

necessary work. The rebuilding of their valley has been their education and the schools, for youth and for adults, have lent themselves to the learning of the specific things necessary to improve the welfare of people.

A valley is a complex thing. It consists of resources—soils, forests, minerals, water, wild life; of topography conditioning the use made of the valley. It includes the use made of land, agricultural practices, the development of the power resources, the production of goods and services, the means of carrying goods, the housing of people, the social organisations, the care of people's health. It means music, literature, art and the religion of the valley's people. It is made up also of the complex economic institutions and organisations.

It is in understanding their valley and in participating directly in the solution of its problems that the people grow. Democratic education in the great world valleys gets down to the specific actions which will rebuild them for human benefit.

What does the school do with resources? Examine the educational process as it applies to the soil resources in the valleys. All the children of the valley learn its soils, their origins, the kinds and their capabilities. They develop a feeling and understanding for the meaning of the soil to them, to the valley, in terms of income, housing, schools and diet, for example.

Education follows the principle of study followed by action; in the elementary school, children study through field trips how the soil is destroyed by erosion and how it is reclaimed by planting, damming, contour cultivation and basin listing. They participate as far as their age permits in some reconstruction of the soil. They study life in the soil, the organisms which give the inorganic particles life. In secondary schools the students work with community agencies to survey the present use of land. They grow food, forage, trees. But education is for all ages in the valley development; all work on its problems and are educated in its realities.

This becomes the stuff of education in great degree. Out of direct experience and study the concept is developed in all that the soil is held in trust by each owner for future generations and that his responsibility for passing it on unimpaired is one of his greatest responsibilities.

In this way we try to reteach this generation its greatest lesson: Participation. A widespread cynicism concerning the ineffectiveness of the individual contribution is paving the way for a threatened democratic decline. David Lilienthal described this in the conclusion to *TVA—Democracy on the March* in this way:—

> The people, working through their private enterprises and public institutions which are democratic in spirit, can get substantially the kind of community and country they want. The...job will be done. If not dem-

ocratically, it will be done in an undemocratic way. It will be done perhaps by a small group of huge private corporations, controlling the country's resources ; or by a tight clique of politicians ; or by some other group or alliance of groups that is ready to take this responsibility which the people themselves decline to take. The smooth-talking centralisers, the managerial élite, cynical politicians, everyone without faith in the capacities of the people themselves to find a way, will be hard at work seeking to draw off the benefits and control the development of the resources by which in turn they will control the lives of men. These are the gravest dangers.

Schools must take on the complexion of their valleys. Where forests are a principal resource, the schools will have forest farms and will participate directly in the programmes of management and reforestation. Where irrigation is the characteristic agricultural method, the schools will have experience for children on irrigated farms. Adult education will be directed toward similar ends.

In our valleys, most of our cities are badly planned, developing along lines most profitable to the individual owners of the land. The reconstruction of town and city living is an aim of education in the great valleys. Children and adults participate in activities appropriate to their age and in the acquirement of knowledge designed to improve the basic facilities of urban living: Transportation, sewage disposal, distribution of recreational facilities, provision of medical care, improvement of housing, increase in civic beauty, elimination of slums and many other aspects.

Throughout the experience of co-operative work and democratic planning our children and ourselves must develop the habit of planning and the skills necessary to it and the strong emotional bias favourable to participation in the affairs of our communities.

Valley by valley the world over we catch the vision of free men working out their destinies in democratic planning. The schools, however, must surrender their preoccupation with the abstract verbalisations and work with youth and adults active in the improvement of their communities.

Education is concerned not only with the material development of the great valleys but with the improvement in the spiritual life of their peoples. This spiritual development is taught and tested in the quality of human relationships, in our co-operativeness, in our tolerance, in our respect for the personality of any man.

In the concept of democratic planning for the great valleys of the world lies a new dynamic for education and for democracy.

AUBREY HAAN

EARLY KINGS OF CEYLON AS IN THE CHRONICLES AND INSCRIPTIONS

[**Dr. Bimala Churn Law, D. Litt., Ph. D., M. A., B. L., F. R. A. S. B., F. B. B. R. A. S.,** Honorary Member, Royal Asiatic Society of Great Britain, is an authority on archæology, Buddhism and Jainism, with some forty works in these fields, in ancient Indian history and in geography to his credit. He reveals in this scholarly study the great difficulties which the historian faces in unravelling the mysteries of ancient chronology in the East.—ED.]

The chronicles of Ceylon, written in Pali or Sinhalese, are mostly concerned with the early history of the island from the reign of Vijaya to that of Mahāsena. The notable exception to the rule hitherto known is the *Cūḷavaṃsa* which is a continuation of the *Mahāvaṃsa* chronicle of the kings of Ceylon from Kitti-Siri-Meghavaṇṇa to the last independent monarch. A laudable attempt is made to bring the account even down to the present day. Among the earlier monarchs, the four who appear as the milestones are Vijaya, the king eponymous, Devānaṃpiya Tissa, the great younger contemporary of Dhammāsoka; Duṭṭhagāmaṇi, the great national hero, and Mahāsena, the great exerciser of royal authority in the matter of the Buddhist fraternity.

Chronology, which is the backbone of history, is conceived in the chronicles of Ceylon in terms of two *paramparās* (successions) known as the *rāja-paramparā* or the royal line and the *thera-paramparā* or the apostolic line, one backed by the other. Parallelism between the chronological succession of the kings of Ceylon and that of the kings of Magadha is sought to be established by the contemporaneity of the rulers of the two countries from Vijaya to Devānaṃpiya Tissa, on the one hand, and from Ajātasattu to Dhammāsoka, on the other. The starting-point of the *rāja-paramparā* of Ceylon is the year of the demise of the Buddha and that of the *thera-paramparā* is the date of the First Buddhist Council, convened in the city of Rājagaha under the presidency of the Venerable Mahakassapa. The thread of synchronism of the rulers of Ceylon and India is not continued beyond the contemporaneity of Devānaṃpiya Tissa and Dhammāsoka although the post-Devānaṃpiya history of Ceylon is presented as a continuation of the glorious history of Buddhism which had started and gone through its early development in India.

The reader of the chronicles is in a comfortable position if he complacently and unsuspectingly places his reliance on the legendary history of the island of Laṅkā, Sīhala or Tambapaṇṇi. He cannot but receive a rude shock when he is told that

the historical legends produced and left behind as national legacies by the most revered Theras of Ceylon were "the mendacious fictions of unscrupulous monks." That the elders "tried at least to speak truth" is not precisely the consolation he needs. He may find indeed some amount of solace in the statement that "the hypothesis of deliberate lying, of conscious forgery, is generally discredited" and perhaps a good deal more in the observation of Rhys Davids:—

> No hard words are needed; and we may be unfeignedly grateful to these old students and writers for having preserved as much as we can gather from their imperfect records.[1]

The scientific method of history, with its rational attitude and its critical spirit and apparatus, is not, however, to be dreaded or discarded in favour of the legends because of their greater emotional appeal. It is to be regretted if its aim is simply destructive or negative and if it has nothing constructive or positive to offer. There are difficulties and uncertainties in every kind of history, especially where it is called upon to tell us something with accuracy and definiteness about its background and early beginnings. The political history of Ceylon, precisely like that of any single territory in India, is that of the Indo-Aryan rule, having in its background a state of things which witnessed the unworthy, uncouth and despicable life of the aboriginal tribes and races, the *yakkhas* and the *nāgas*, the worshippers of the demons and the serpents. The first king or hero eponymous is the founder of the first Indo-Aryan rule, and if he is allowed to pass as the victor, it is for no other reason than this, that he was able to wrest the country from the control of its rude natives or earlier settlers, be he a Prince Vijaya, the banished son of Sīhabāhu, or a merchant prince Siṃhala. It is certain that the political history of Ceylon began somehow or other. At what point of time it is difficult to say.

Even so far as the legends are concerned, there is this sharp difference between them—as to whether the establishment of the Indo-Aryan rule was the result of a gradual process of settlement and colonisation, which went on along with the trade relations of India with Ceylon, or that of an accidental advent of a valiant prince on the island. It is undeniable that the chronicle account of Vijaya's conquest of the *yakkhas* is the same, *mutatis mutandis*, as that of Arjuna's conquest of similar rude natives as described in the *Mahābhārata*, Sabhā-parva, 27.16:—

> *Pauravaṃ yudhi nirjitya Dasyūn parvata-vāsinaḥ |*
> *gaṇān utsava-saṅketān ajayat sapta Pāṇḍavaḥ ||*

(After having conquered the Pauravas, Arjuna conquered the seven Dasyu tribes of the hills, availing himself of the indication (given by a fifth column) as to the opportune moment of attack-

[1] *Buddhist India*, pp. 274 ff.

ing them when they were gathered together for a feast.)

The chronicles mention just five kings as the predecessors of Devānaṃpiya Tissa. The first of them, called Vijaya, dies without leaving a son to succeed him. The second, represented as his brother and successor, is called Paṇḍuvāsa or Paṇḍu Vāsudeva, and he veritably figures as the leader of a band of warriors in the guise of wandering ascetics. The line after the third ruler, called Abhaya, is deflected, and the government of the island is seized by a rebel from the mountainous region called Pakuṇḍaka, alias Paṇḍuka Abhaya, who is represented as a nephew (a sister's son) of Abhaya. From this Pakuṇḍaka or Paṇḍuka Abhaya we really get a definite beginning of the political history of Ceylon.

Pakuṇḍaka-Paṇḍuka's son and successor is Muṭasika, the end of whose reign brings us down to the middle of the reign of Dhammāsoka. From Muṭasiva we easily pass on to the long and prosperous reign of Devānaṃpiya Tissa, "the unseen friend" and younger contemporary of Dhammāsoka. The contemporaneity of the two Devānaṃpiyas, namely, Tissa of Ceylon and Piyadassi of India, is treated as "a sheet anchor of Indo-Ceylonese chronology." The question still remains open whether the leader of armed warriors in the guise of merchants or warriors in their banishment, or warriors in the disguise of wandering ascetics, or the rebels in the hills should get the real credit for founding the first civilised rule in the island.[1]

The chronicles open the Asokan history of Ceylon and Buddhism with the parts played by two heroes, namely, Devānaṃpiya Tissa as the secular hero, and the Thera Mahinda as the spiritual hero, one extolled as a distant ally and the other as the first-born son of Asoka. The legends in Pali and Sanskrit agree in so far as they tell us that the Elder Mahinda successfully led the first Buddhist mission to the island of Tambapaṇṇi or Siṃhala. According to the chronicles, he went through the sky from Western India, and according to the legend as known to Hiuen Tsang, he went first to the country of Malayakuṭa in South India to the south of Drāviḍa and from thence he went across to the island of Siṃhala. Leaving the element of miracle out of account, it is now conclusively proved that there existed a land route from Western India to the Kāverī region *via* Mysore. The existence of such a route is proved as much by the evidence of the two Sanskrit epics as by the testimony of Hiuen Tsang. It is moreover proved that Hiuen Tsang's Malayakuṭa with Mt. Po-ta-la-ka (Vaidūryaka) as its rocky landmark is the same country as Tāmraparṇī, located in the *Mahābhārata* to the south of Pāṇḍya or

[1] Beal, *Buddhist Records of the Western World*, ii, pp. 239 ff.; Barua, *Ceylon Lectures*, pp. 38 ff.; B. C. Law, *Chronicles of Ceylon*, pp. 47 ff.

Drāviḍa. This Tāmraparṇī corresponds with Tambapaṇī which the edicts of Asoka definitely place to the south of Pāṇḍya (*R. E.* II, *R. E.* XIII). As the chronicles indicate, the Tambapaṇṇi division of Ceylon, as distinguished from Laṇkā and other divisions, denoted originally the middle part of Western Ceylon between the river Kalyāṇī and the Nāgadīpa or the modern district of Jaffna. And the entire island of Taprobane, as known to Megasthenes, was divided from the mainland of India only by a river.

Taking all these facts into account, it cannot be doubted that the first Buddhist mission directed to Tambapaṇṇi (Tāmraparṇī) was a mission as much to the Tinnevelley district of the southern extremity of the Deccan as to the island of Tambapaṇṇi or Ceylon. Similarly it is reasonable to presume that Asoka's political relationship with the country of the Tāmraparṇyas meant also his alliance and communication with the island of Ceylon. The only doubtful point in the evidence of Asoka's edicts is that it tends to speak of the Taṃbapaṇṇi of his time as a tribal territory rather than as a monarchy. Here the chronicles come to our rescue and tell us definitely that the contemporary rulers of the island of Tambapaṇṇi were King Muṭasiva and his son and successor Devānaṃpiya Tissa.

The chronology of the kings of Ceylon from Devānaṃpiya Tissa to Mahāsena, as presented in the chronicles, seems undisputed. One begins to feel as if the historian stands on a *terra firma* of the dynastic succession. The historical narratives begin to gain in credibility. The authenticity of the tradition regarding the despatch of Buddhist missions by the Thera Moggaliputta Tissa is proved, partly at least, by certain relic-casket inscriptions of the Buddhist stūpas of Sāñcī. The sense of certainty begins to fail when the early history of the kings of Ceylon is tested in the light of its ancient inscriptions.

These inscriptions are all written in Asokan Brāhmī script or its somewhat later forms [1] and their language bears all the distinctive characteristics of a Prakrit dialect once current in the Eastern Punjab and near Mansehra where a set of Asoka's rock edicts is to be found retaining some vestiges of an Iranian dialect. They enable us so far to envisage a political history of Ceylon from King Uttiya who is represented in the chronicles as the younger brother and successor of Devānaṃpiya Tissa to Gajabāhukagāmaṇi (A. D. 173-195) and more definitely, as suggested, from Saddhātissa. The employment of *Devanapiya* as an honorific affix to the name of the ancient kings of Ceylon who find mention in the inscriptions goes, no doubt, to prove that the tradition of Dhammāsoka was kept in the island up till the second century A. D., if not still later.

But the question still remains—are the kings mentioned in the inscriptions correctly identified?

[1] *Epigraphia Zeylanica*, I, pp. 12 ff.

Even if so, can they be placed in the chronicle order of chronology?

The kings of Ceylon other than Uttiya[1] who find mention in the inscriptions as donors of certain caves are named as Gamiṇi Tisa, Tisa Abaya, Gamiṇi Abaya, Tisa, and Puṭikana (Kuṭikaṇṇa) Gamiṇi Abhaya. The second of them, Tisa Abaya, is introduced as a son of Gamiṇi Tisa. The first king, Gamiṇi Tisa, is identified with Saddhātissa, who figures in the chronicles as the younger brother and successor of Duṭṭhagāmaṇi the national hero of Ceylon. Tisa Abaya and Gamiṇi Abaya are identified with Saddhātissa's two sons and successors, Lajji (or Lañja) Tissa, the eldest son, and Vaṭṭagāmaṇī Abhaya, the third son. Tisa and Puṭikana Gamiṇi Abhaya are identified with Vaṅkanāsika Tissa and Gajabāhuka Gāmaṇi respectively. Two of the ancient caves are recorded as donations of their Eminences, Utiya and Tiśa, introduced as two sons of her Eminence Anuḍi, who is identified with the Queen Anulā (Anuḷā of the chronicles).

The epigraphic riddle can indeed be solved if the father Gamiṇi Tisa be identified with Saddhātissa, his son Tisa Abaya with Lajji Tissa and Gamiṇi Abaya with Vaṭṭagāmaṇī Abhaya, the third son of Saddhātissa. Unfortunately, none of the three names is precisely the same as that given in the chronicles. As a personal name, Gāmaṇi-abhaya is applicable, according to the *Mahāvaṃsa* (22.71) to Duṭṭhagāmaṇi Abhaya. To identify the Gamiṇi Abaya of the inscriptions with the Vaṭṭagāmaṇī Abhaya of the chronicles is to place the history of Ceylon almost a century and a half later than the reign of Dhammāsoka. If, on the other hand, the Gamiṇi Abaya of the inscriptions, be identified with the Duṭṭhagāmaṇī or Gamaṇi Abhaya of the chronicles, on the authority of the *Mahāvaṃsa*, the *rāja-paramparā* as maintained in the chronicles is bound to be challenged. In the absence of an indication of family relationship it is difficult to be certain about Uttiya standing as the brother and immediate successor of Devānaṃpiya Tissa. According to the chronicles, Devānaṃpiya Tissa erected a stone pillar and caused an inscription to be incised on it, but this is yet to be discovered. The early inscriptions have nothing in them to corroborate the truth about the tradition of the Thera Mahinda and his sister Saṃghamittā.

In view of all such uncertainties as those created by the inscriptions, it is difficult to solve the question of the contemporaneity of Devānaṃpiya Tissa with Devānaṃpiya Asoka. This question should not simply be shelved nor should its importance be minimised. Its final decision depends on the progress of archæological discovery. The most disappointing feature of the early inscriptions of Ceylon is that they are all short labels and none of them is an official record like the edicts of Asoka. This much, however, is certain, that these inscriptions speak of a far simpler state of things than what appears in the chronicles.

B. C. Law

[1] *Ibid.*, I, pp. 141 ff.

YEATS AND HIS CIRCLE

[Both those who hold with **Mr. R. M. Fox** that William Butler Yeats was the greatest of the Irish poets and those who would give the genius of Æ (George William Russell), of whom Mr. Fox wrote in the February 1943 ARYAN PATH, the higher place, will find this essay of absorbing interest. Both men came in their younger days under the influence of Theosophy and the attraction of India for both persisted, though what for Æ continued to be the main source of his inspiration and his aspiration seems with Yeats not to have gone so deep.—ED.]

W. B. Yeats—the greatest of our Irish poets—died at Mentone in January 1939, but only recently has it been found possible to carry out his wish to be buried in Drumcliffe graveyard in his native Sligo, beneath the shadow of the massive Ben Bulben Mountain. Ireland paid its tribute when he came on that last journey from Nice to Galway and thence to Sligo. His body was brought on the Irish corvette *Macha* and at Galway was received with military honours. In his day he held the attention of the literary world and brought honour to the Irish nation. Yeats was the leader of the "Celtic Twilight" period of the Irish literary movement, about the beginning of the century. He was, too, the founder and chief inspirer of the Abbey Theatre in Dublin and a poet of such distinction that he received the coveted Nobel Prize.

Poet, essayist and dramatist, he was, besides, an unforgettable personality. Well-proportioned, he stood over six feet and had a massive, finely-shaped head with white, waving, leonine locks. Perhaps in no capital city but Dublin would the police hold back the traffic while a poet sauntered across the busy street with a faraway look of abstraction in his eyes. Whether he was pondering the rhythm of a poem or listening in his mind to the beating of the waves round Ross's Point I do not know. But I can see him now crossing the street with unhurried step while the burly, smiling policeman held up his hand and angry motorists honked their horns at the disregard of the traffic signals. Yeats did not worry about this for he believed that the world should wait for a poet.

He entered the Abbey Theatre in the same lordly way, that theatre which, with Lady Gregory, he had created and where, on the stage, he had faced angry mobs to demand a hearing for the plays of J. M. Synge and Sean O'Casey. He had that rare toleration that made him stand for the right of expression for others even when he did not share their vision. His collection of prose sketches *Celtic Twilight*, published in 1893, launched the new literary movement. His first play, *The Land*

of Heart's Desire, was written a few years later and produced in London at J. T. Grein's Independent Theatre.

In 1899 he began his dramatic work in Dublin with the Irish Literary Theatre, producing a play of his own, *The Countess Cathleen,* which was fiercely denounced at the time. But it was not until 1904 that the Abbey Theatre was established through the generosity of Miss L. Horniman of the Manchester Repertory Theatre. She had seen some of the Irish productions in London and been so impressed that she endowed the theatre for the first six years. Even then Yeats and Lady Gregory gave years of service, nursing the new theatre which played often to almost empty houses. Yeats proved himself a master of theatrical controversy and gave a new spirit and technique to Irish drama which up till then had been satisfied with the rhetoric of Boucicault.

Even before the Abbey Theatre was launched—in 1902—his best known play *Cathleen Ni Houlihan* was produced in Dublin. It was written for Maud Gonne, the woman for whom Yeats wrote many lovely poems and who played in the title rôle at its first production. Yeats and Maud Gonne were associated very early in Irish national activities. She was very tall and of a breath-taking beauty—Yeats called her the most beautiful woman of her time—and they must have made a striking pair at the gatherings which they frequented together.

Yeats was never much at home in crowds. In his earlier years he was a tall, willowy poet with a stray lock of dark hair that hung over one eye. His portrait now hangs in the foyer of the Abbey. Maud Gonne, who loved the excitement and thrill of national agitation, dragged Yeats into all kinds of turmoils and tumults for which he was temperamentally unsuited. Yet even in his old age he gloried in belonging to the "indomitable Irishry." Maud Gonne MacBride still lives in Dublin and she retains that air of gracious distinction which marked her out in every gathering.

Another distinguished contemporary of Yeats was G. W. Russell (A. E.) who edited *The Irish Statesman* from his watch-tower in the Plunkett House. Yeats first interested Sir Horace Plunkett—a co-operative enthusiast—in A. E. and when that man of affairs annexed Russell, he was said to have grafted a sprig of poetry onto his economic tree. A. E. was poet, philosopher and painter besides being an authority on the practical details of agricultural co-operation. A. E. looked like a burly farmer with a touch of the artist-craftsman after the William Morris pattern.

Yeats and Russell lived next door to each other and one of the most popular cartoons of its day was that by Mac (Miss L. McNie) showing Yeats going up the steps of Plunkett House to call on A. E., with his hands clasped behind him, gazing up at the sky. At the same time A. E. came down the steps to meet Yeats with

his thoughtful face turned to the ground. So they passed and missed each other. Besides being droll, this cartoon caught something of the personalities of both men in their attitude to life. Yeats and A. E. had the Grand Manner and their passing marked the end of an epoch.

Yeats gave precise instructions concerning his final resting-place. He wrote :—

Under bare Ben Bulben's head
In Drumcliffe Churchyard Yeats is laid,
An ancestor was rector there
Long years ago ; a church stands near ;
By the road an ancient cross,
No marble, no conventional phrase ;
On limestone quarried near the spot
By his command these words are cut :
CAST A COLD EYE
ON LIFE, ON DEATH
HORSEMAN, PASS BY !

This verse is a good example of his later style, that hard, bare use of words which took the place of his earlier shadowy, romantic poety.

He was a man of proud bearing and aristocratic spirit, with an air of reserve. When Ernst Toller tried to secure his backing for the nomination of Ossietsky, the victim of Hitler's Concentration Camps, to receive the Nobel Prize, Yeats refused and retreated into proud isolation. He was Irish, he said, and the Irish did not meddle with Continental politics. And he was a poet, too, who loved his ivory tower. Toller answered that he himself was a poet but that did not absolve him from the claims of humanity. Ethel Mannin, the English novelist, who described the scene, spoke of the tears in Toller's eyes. But though she added her plea to his, Yeats was obdurate. It was hoped that with the backing of two Nobel Prize winners—for Toller had also gained the award—something could be done for Ossietsky. As it turned out the Prize was awarded to Hitler's victim but too late to help him, for he died in the hands of his captors. This episode does not show Yeats in a particularly good light. He could be insensitive to wrongs outside his range.

Yet this proud, aloof, aristocratic man came out on the side of the Dublin tenement dwellers in the great Labour struggle which rent the city in 1913. He poured scorn on those people who prevented the hungry children of the strikers being sent to homes in English cities on the ground that it would harm them spiritually to leave Dublin. Others said it would only make them more discontented on their return. So they were compelled to remain in conditions of wretchedness and squalor. The indignation of Yeats was paralleled by that of G. W. Russell. Both wrote on the Labour side. For some time there had been an estrangement between the two men but their common sympathy with the poor and their hatred of hypocrisy brought them together again in close friendship. This should be remembered to the credit of Yeats as a man when tributes are paid to him as a poet.

In his early poetry his love of the Sligo country is evident. The names of Knocknarea, Lissadell, Droma-

haire and many others familiar to those who know the district, shine out with a magical glory. Eva Gore-Booth—second only to Yeats as a lyric poet—has also written with the same affection of the Sligo country which was her home land.

The foamless waves are falling soft
on the sand at Lissadil
And the world is wrapped in quiet
and a floating dream of gray;
But the wild winds of the twilight blow
straight from the haunted hill
And the stars come out of the darkness
and shine over Knocknarea....

The stars will shine now over Yeats's grave with his own words cut deep in the stone, just as his poetry cut deep in the hearts of his countrymen, giving them fire and courage in the dark days of the national struggle when, with Eva Gore-Booth and her sister, Constance Markievicz, so many could say;—

I have seen Maeve of the battles wandering
over the hill.

Yeats put some of the towering beauty of the Sligo mountains into his poems and Eva Gore-Booth added the gracious quality of her "Little Waves of Breffny," one of the loveliest things she wrote:—

The great waves of the Atlantic sweep
storming on their way
Shining green and silver with the hidden
herring shoal
But the little waves of Breffny have
drenched my heart in spray
And the little waves of Breffny go stumbling through my soul.

Eva Gore-Booth died in June 1926, some years before Yeats. When they went, all the wild sweet poetry of their time vanished to give place to the petty poetising of the cautious bureaucracy who set the tone of the post-revolutionary era in Ireland.

W. B. Yeats, writing to Eva Gore-Booth in the fateful year of 1916 when Ireland's destinies were being decided, said,—"Your sister (Constance) and yourself, two beautiful figures among the great trees of Lissadell, are among the dear memories of my youth." It is good that he has left these lines evoking the life of those days.

It may easily happen that the horseman will ride by casting his cold eye on life, on death, as Yeats directed. But the time may come when the wild steeds will pound the earth again and the old impetuous feeling will spring to life. If that time ever comes, Yeats, for all his aristocratic aloofness, will quicken to life. His words will always be remembered as part of the crusade against ugliness, meanness and evil. He stood for the truth of the artist which stands alongside every other truth in the world. For Yeats and his contemporaries were servants of truth and of beauty in the era of struggle.

R. M. Fox

BHASKARA'S LEELAVATHI: ITS CULTURAL IMPORTANCE

[This essay by **Shri K. S. Nagarajan** on a unique mathematical treatise ascribed to Bhaskaracharya was first presented at the Indian Institute of Culture, Basavangudi, Bangalore, on January 6th, 1949. Shri Nagarajan refers to the harmonious combination of mathematics and of music which this work represents. It is interesting in this connection to recall that Pythagoras, who in the sixth century B. C. derived much of his vast wisdom from India, brought together in his famous school at Crotona the study of mathematics and of music.—ED.]

It is a pity that the cultural importance and the charms of Bhaskara's *Leelavathi*, an ancient Indian work, as lovely in its music as it is profound in its mathematics, are known only to a few even in India. To evaluate properly its cultural importance, some understanding of the vitality and persistence of Sanskrit and of the rich cultural heritage of ancient India is necessary. These have greatly influenced the Indian social and economic structure, though Indian mathematics and the glory of Indian womanhood suffered a set-back from the foreign invasions from which we have not yet been able to recover. Sanskrit, once the language of the people, helps one to think, act and speak nobly. We shall be doing a great disservice to our country if we neglect the study of that celestial language, necessary for the revival of India's ancient glory. Now that India is free, a revival of Sanskrit study, combined with substantial progress in the discovery of ancient relics, and the unearthing of some of the mighty works of the past which indicate the progress made in the exact sciences, must be commenced in earnest.

Bhaskara's *Leelavathi* is the name given to the first part of the *Siddhanta Siromani*, a mathematical work of ancient India, attributed to Bhaskaracharya, one of our greatest mathematicians, who is said to have flourished during the twelfth century A. D. It consists of four parts, namely, *Pāṭī Gaṇita* (Arithmetic) *Goladhyaya* (Spherical Trigonometry and Geometry), *Ganitadhyaya* (Astronomy) and *Bija Ganitadhyaya* (Algebra), all dealing with various branches of mathematics. Bhaskara says in his *Goladhyaya* that he was born in 1037 of the Saka Era and that he was able to write this mighty work when he was just thirty-six years old. This approximates 1150 A. D. There are as many as fourteen commentaries on it in Sanskrit, none of them having at any time attracted popular attention. Of these only two, namely, the *Buddhi Vilasini* of Ganesha and the *Manoranjana* of

Ramakrishna Deva are worthy of mention.

There are various reasons advanced as to why the first part alone is called "*Leelavathi.*" The most interesting explanation is that it was named after his beloved daughter, who became a virgin widow within a year after her marriage, in spite of the best efforts of her father, the learned Bhaskara, to avert the disaster. Some say that this story has been woven by some contemporary or disciple of Bhaskara. But, judging by the internal merits of the work itself, we are obliged to conclude that it is a labour of love. Had it been otherwise it would not have been so exhilarating. The other parts of the *Siddhanta Siromani* cannot be placed on a par with this part in either excellence or beauty.

Bhaskara was the son of one Pandit Maheswara who lived in a village near Sahyakuta in Central India. He does not fail to mention his indebtedness to the galaxy of earlier mathematicians like Brahmagupta, Aryahatta, and Varahamihira. The *Leelavathi* comprises thirteen chapters. Though it is called *Pāṭīgaṇitādyāya* (arithmetic) the problems dealt with also belong to Algebra, Geometry and in some stray cases to Trigonometry. Arithmetic in those days included a bit of mensuration and problems involving the right-angled triangle and some parts of algebra, like progressions and *Kuṭṭaka* (the theory of indeterminate equations), emphasis being laid on the arithmetical side and on concrete problems. This explains why the *Kuṭṭaka* Chapter appears in both *Leelavathi* and in *Bija Ganitadhyaya* (Algebra), the emphasis in the latter being algebraic. The original work in Sanskrit has been translated into English by the celebrated H. T. Colebrooke. This was subsequently edited with notes by Prof. Haran Chandra Banerji of Calcutta. There is also a Hindi translation of the entire *Siddhanta Siromani* by Pandit Sudhakara Dvivedi (Benares, 1899). It has just been translated by me into Kannada, with critical notes and comments.

Leelavathi is not only a reputed mathematical treatise but is also a poetical composition abounding in lovely descriptions of natural scenery, historical anecdotes, enchanting ideas and figures of speech and other embellishments which are the special features of a *Mahakavya* in Sanskrit. There is strict observance of every rule of grammar, rhetoric and prosody, and we fail to discover any flaw anywhere in the work. It is a rare combination of poetry and mathematics. While poetry has in it dispelled the dreariness of mathematics, mathematics has improved the imaginings of poetry. Both are used not only for mutual benefit but also for the decided advantage of humanity. It is a remarkable piece of work, the like of which it is impossible to find in any literature of the world. No other nation has produced scientific works, as far as we are aware, much less mathe-

matical works, in poetry.

That Bhaskara was an erudite scholar is revealed by a stanza at the end of *Leelavathi* which is attributed to one of Bhaskara's admirers or disciples. It runs thus :—

The author of *Leelavathi* is the great poet Bhaskara, of immeasurable learning and fame, who knew eight systems of grammar, six treatises on medicine and surgery, six on logic, five branches of mathematics, the four Vedas and the six systems of philosophy.

In its simplicity and elegance, it can be stated without fear of contradiction, Bhaskara's *Leelavathi* ranks as high as the *Ramayana* of Valmiki or the dramas of Bhasa. The problems dealt with embrace all branches of mathematics, disclosing the versatility of the learned author. In the language of modern mathematics they deal with such branches of higher mathematics as permutations, progressions and the solution of indeterminate equations of the 1st degree of two unknowns. The work is technical and of unbounded academic interest to an earnest student of mathematics. But space does not allow a technical treatment by way of solving those problems and indicating the relation they bear to modern mathematics. What is, in my opinion, of greater importance is the cultural aspect of the charming work which is a harmonious combination of mathematics and music, which are generally understood to be poles apart.

But in *Leelavathi* can be seen almost all the embellishments of poetry of a very high order. Hundreds of instances could be cited in support of this statement, but it is enough for us here to examine the depiction of sentiment in this mathematical work.

The following problem is a beautiful example :—

In a quarrel of love that arose between a husband and his wife a pearl necklace is broken and the beads are scattered all over the room. When the quarrel is patched up, they are both engaged in serious search for the lost pearls, one-third of the total number being found on the floor, one-fifth on the bed, one-sixth by her, one-tenth by her husband and the remaining six were hanging on the string. It is required to find the total number of pearls.

The answer is 30 but the picture that is placed before us is so superb that we find ourselves almost lost in it.

The sentiment of pathos is exquisitely conveyed in the following problem in quadratic equations :—

Out of a swarm of bees which went out to gather honey, eight-ninths of the total number, together with the square-root of half the number, went up to a jasmine bush, but one faithful bee was humming throughout the night outside a lotus inside the petals of which was caught her lover, he having been attracted by the fragrance of that beautiful flower. My daughter, tell me the total number of bees.

This is a simple question in quadratic equations and the answer is 72. Apart from the mathematics in this beautiful stanza, it has a

pathetic appeal. The bee cannot go home leaving her lover imprisoned in the centre of the lotus, whither he had gone during the day and, intoxicated with an excessive draught of honey, is not aware of nightfall. This conduct on the part of the drone is tolerated silently by the bee, even as a chaste and loyal wife puts up with all the arrogance and indecorum of her husband. What a touching picture! This is an outstanding example of the author's highly cultured mind and artistic capacity.

Then again there is a masterly treatment of the sentiment of courage, known as *Vīrarasa*, in the following problem which also falls under quadratic equations in algebra :—

Arjuna, the great warrior of ancient India, being tired of the fight against his opponent, Karna, pulled out from his quiver with great indignation a certain number of arrows, with half of which he warded off his enemy's network of arrows, with four times the square-root of the number he killed his horses, with six he killed the charioteer, with three he broke the flag, the umbrella and the bow of the foe and with the remaining one cut off the head of Karna. Tell me quickly, my dear, the number of arrows he took.

The answer is 100. This is no doubt a fine problem in mathematics, but with the harmonious construction and combination of the musical syllables we are lost in the narration. The instance he has drawn is from the epic, the *Mahābhārata*, and is pregnant with meaning.

One more stanza deserves mention as it reveals a fund of information and paints a lovely picture besides indicating a good problem which can be solved by the principles of Geometry or Trigonometry. It runs thus :—

There is a burrow at the foot of a pillar on the top of which is seated a playful peacock; the pillar being nine units in height. The peacock sees a serpent moving towards the foot of the pillar at a distance on the ground equal to thrice the height of the pillar and swoops down to catch it. Assuming the velocity of the two to be equal, tell me, my dear, quickly, where exactly (how far from the foot of the pillar) they meet.

The answer can be shown to be 12 units, either with the help of the Pythagorean theorem or with the help of trigonometrical propositions. This is no doubt interesting to a student of mathematics. Viewing it from the artistic angle, we see the fine way in which the teacher is capable of making a dry problem interesting to the student. There is no wonder that Leelavathi, Bhaskara's daughter, not only fell in love with mathematics, but was absorbed in it and attained the capacity to solve even difficult problems mentally and to give out the answer correctly in the twinkling of an eye.

Numerous instances can be quoted to indicate the rapid progress that our ancient Indians had made in mathematics and their masterly treatment of it. Almost every problem is clothed in mellifluous poetry,

carrying us to lofty heights of imagination and also filling our hearts with joy. Bhaskara has ended this part of his work with a superb finishing touch from the artistic and cultural point of view. The closing verse is as follows :—

Those who have this *Leelavathi* abounding in lovely words, full of fractions, multiplications, squares and square-roots and correct dealings at the tip of their tongue, they always will be the recipients of every prosperity in happiness and wealth.

[Or, alternatively] Those who are lucky enough to have Leelavathi (a charming lady) speaking in an enchanting manner, pure and chaste in her character, of high birth, conduct and class, hanging round their necks, will always be the recipients of prosperity in happiness and opulence.

Thus the versatile Bhaskara has woven a fine artistic and æsthetic *double entendre*.

Bhaskara's *Leelavathi* is not the only work which plays an important rôle in the cultural history of India. There may be many more such works which should be discovered by the earnest efforts of research scholars taking to the study and popularisation of Sanskrit without further delay. Such works enhance the prestige and glory of India in the eyes of the world. Let me close this short article with this fond hope :—

May the beautiful Sanskrit language flourish in Independent India with renewed splendour, delighting our minds.

K. S. NAGARAJAN

PEACE FOUNDATION IN INDIA

The decision of the Executive Committee of the Gandhi Memorial Fund to set up a Peace Foundation out of its funds is to be commended. For, nothing was dearer to the heart of Gandhiji than to propagate, by precept as well as by example, the basic principles of peace so that the whole globe may be girdled with good-will. The Committee, headed by Shri Kaka Kalelkar, appointed to report on the possibilities of such a Foundation, is, therefore, sure to keep in view these principles, which may be summed up in the single, sovereign Law of Love. To use Gandhiji's own words :—

> True love is boundless like the ocean, and rising and swelling within one spreads itself out and, crossing all boundaries and frontiers, envelopes the whole world. (*Young India*, Sept. 20, 1928)

The Committee may be assured in advance that its several proposals for working the project in question will receive the sympathetic consideration and moral support of all such associations and institutions as, in their own diverse, humble ways, have been working for years in the faith that the Brotherhood of Life, and therefore of Humanity, with its corollary of " Peace on earth and good-will among men, " is a practical proposition. Indeed, the Peace Foundation, when set going, is likely to give an added impetus to such organisations.

KNIGHTS ON CAMEL-BACK IN THE SAHARA

[Readers of THE ARYAN PATH who recall the intimate and fascinating glimpses which **Mr. M. A. Moyal** with his Near-East background and his cosmopolitan outlook has given in our pages, of little known peoples and their beliefs and customs, will read with special interest this account of the colourful Tuaregs of the Sahara Desert. One need not accept without reservations the theories of orthodox anthropology which Mr. Moyal mentions—of savage origins etc.—and yet one must recognise that the roots of the Tuaregs' culture stretch far, far into the past and that analogues to their customs are found in the most widely scattered communities, *e. g.*, the matriarchal succession in Malabar, South India, and totemism among the Red Indians of America. It is interesting, apropos of some of the resemblances cited by Mr. Moyal, that as long ago as 1859 Professor Retzius suggested in a Smithsonian Report a probable close physical relationship not only between the Guanches of the Canary Islands and "the Atlantic populations of Africa," *i. e.*, the Moors, the Tuaricks [or Tuaregs] and the Copts, but also between both these groups and the "*primitive dolichocephalæ*" or "long-heads" of America. Madame Blavatsky cited this hypothesis in her *Secret Doctrine*, in connection with the proofs for the existence of a prehistoric continent which extended from the coast of Venezuela, across the Atlantic Ocean, to the Canary Islands and North Africa, and from Newfoundland nearly to the coast of France.—ED.]

Centuries ago, the now sandy heart of North-east Africa was a country of milk and honey, but a progressive drying-up turned it into the Sahara Desert. The Tuaregs have witnessed this gradual drying-up of their country and they still are tied with its dessicated corpse, fighting against overwhelming odds with the invading nothingness.

They seem to have originated from Lybian stock. The Lybians used to bury their dead in a squatting position, teeth against knees, under conical or cylindrical stone heaps; such graves are not uncommon in the Hoggar Mountains, aerie of the Tuareg race.

They have in use an alphabet of their own—the Tifinar; they seem never to have put it to use for writing, but only for carving upon huge rocks. More than 3,000 inscriptions in this peculiar alphabet are on record, the latest not five years old, the oldest more than 2,000. The scribes of the Cretan King Minos painted the signs of this alphabet upon the walls of the Cnossos Palace 1,500 B.C. Perhaps the Tifinar script would bring valuable clues for the deciphering of these signs, until now baffling.

In the Hoggar region the cross is to be found everywhere, on the walls, as the pommel of the camel-saddle, on women's necklaces. This led to the fantastic and otherwise un-

warranted theory that the Tuaregs were a wayward branch of Christendom. As a matter of fact, the cross is a letter in the Cretan alphabet.

The great wave of Arabic conquest washed over the Tuaregs; they worship Allah and His Prophet, but you have only to scratch the surface to find very apparent traces of paganism. The boundaries of the mosques in their desert setting are outlined by pebbles. One finds in the lofty Hoggars one or two mosques with the traditional "*mihrab*" in the direction of Mecca, but close by you will notice concentric circles foreign to Islam. On digging in their centre you would turn up bones and nitre, remains of sacrifices of not so long ago. In certain noble families, side by side with orthodox saints, they invoke mysterious beings, beyond any doubt not wholly forgotten ancient gods. I do not remember their names, but they have struck me as not of Arabic origin. The Tuaregs do not keep the fast of Ramadan; the five daily prayers that give the Mussulman life its rhythm go unprayed. I must add that the Bedouins of the Arabian Desert are no more pious, for the *Koran* exempts the traveller from religious obligations. On arriving at their journey's end, however, they must fast the same span of time that all the believers have. I think that all these wanderers deem themselves never at their journey's end. The Tuaregs do not even know the words of the Koranic prayers; they do not speak Arabic, but their own peculiar language. I was introduced to a very learned Sheikh—or so they called him—but he did not understand the most usual Arabic words and took one for the other.

Among the Iforass Tuaregs, I found the name Koçeila common. One who bore it was vanquished and slain not far from Biskra, Sidi Okba, the first Arabic conqueror of the region. Though the Iforass Tuaregs have lost all memories of this battle, this fact does not go without a meaning; it bears witness to a racial pride resistant to assimilation.

All point out that these very interesting people are an ethnographic archaism, they are very fine specimens of a very far past, long before the Roman conquest. Some particulars in their ways and in their tools take us far back into prehistory, bordering on the Neolithic era.

Though their tribal laws provide a kind of formal wedding, they have not yet reached the family state. One finds very clear instances of matriarchate, the social state previous to the patriarchal family constitution. Among the Australian aboriginals, some small matriarchal communities were studied.[1] It seems that primitive mankind attributed all birth to parthenogenesis. The word "father" was meaningless and the children were the mother's own. To be sure, the Tuaregs are not so naïve, but the matriarchate has survived until now

[1] Frazer, *The Golden Bough*, Part IV, Chapter XI.

in their tribal customs. In the Hoggar the father has no legal existence; he is, no doubt, conscious of his paternity; he is a father in the sentimental and domestic sense, but legally, his children belong to the mother's clan; they have only the inheritance and the rights that she transmits to them and their nearest male relative is their maternal uncle. It is he who is the real head of the matriarchal family, the venerated one. On the death of the "*amrar*" (the tribal chieftain) or the "*amenokal*" (the Tuareg overlord) his authority does not pass to his son, but to his sister's son.

On these grounds naturally the woman occupies an exalted position in Tuareg society. Every married or unmarried lady has her "*salon*" in the shade of a gum-tree. The "*amzad*," a primitive kind of violin takes the place of the piano. And the suitors' bearing and conversation are ruled by an elaborate etiquette. All this points to the ladies' being well-informed, of independent means and not wholly occupied in domestic chores. After years of courtship, the Targui (singular of Tuareg) gets married. I have even found instances of old maids and bachelors; you will never find such in really backward communities.

According to some theories, totemism or animism as professed by the American Indians and the Australian aboriginals must have been the primitive religion of mankind. To these peoples, the Tuaregs may be added. They observe very peculiar diet taboos, beyond any doubt anterior to Islam. For love or money, you could not get them to eat eggs or poultry; the Hoggar is perhaps the only corner of the world where no hens are to be found. Other Sahara tribes are very fond of a kind of big lizzard, named "*ourane*"; no Targui would eat the ourane for it is held to represent the uncle's people on the mother's side —a blatant instance of totemism.

Everybody knows that the Tuaregs cover the face, except the eyes, with a blue veil. Their local nickname is "the Blue-Veiled Men." For this peculiar habit of theirs, Occidental rationalism has sought hygienic grounds; this veil would protect the skin and the lungs from the fiery desert winds. It is hard to imagine such a weakness in people so near to nature. On the other hand, I have observed that it is during their long journeys on camel-back that the Tuaregs dispense with this veil. It is chiefly an article of ceremonial garb, something akin to gloves with the Occidental. It strikes the Targui as an indecency to show his mouth in society and, moreover, he would consider it reckless. In the light of Frazer's theories, we can easily understand this point of view. For the primitive, the breath is the same thing as the soul. The mouth and nostrils are open doors through which it can escape; the veil, by shutting these natural openings, obviates this danger.

I have noticed in the Hoggar weapons and iron tools of European or Sudanese make, but the Tuaregs still preserve industrial traditions that could be traced directly back to the stone age. They are keen about rocks that could be handily hewn into grindstones or stone armlets for adornment. They have quarries and stone workers. Their iron hatchet is still fitted with the stone-pattern helve; in place of a socket, it has leather thongs tying the iron head to the helve.

Instances of such societies with evident traces of matriarchate and stone age survivals are not uncommon in far-away corners of the world, difficult of access. But the Tuaregs are the only white primitives, of Caucasian stock. According to some anthropologists they originated from the primitive Cro-Magnon man, who had roamed Europe more than fifty million years ago. From this ancestor, they are claimed to have inherited their dolichocephalic skulls, their tools and their peculiar habits of carving huge animals upon rocks.

But the Tuaregs are far from being mentally deficient; there is a huge gap between their real intellectual gifts and the neolithic remains in their society and their tools. Perhaps they are distant relatives of the giant white Guanches found in the Canary Islands in the fifteenth century but for the last two or three centuries extinct as a separate race.

A similar altogether superior but backward race was found in Polynesia. As a matter of fact, there is a certain analogy of geographical situation between their far-flung atolls and the high mountains in the Sahara Desert.

The Tuaregs are not only a living ethnographic museum; they were for centuries in command of the Sahara Desert. They were called cut-throats and highway robbers but that is only from a narrow point of view. A French cavalry captain was ordered to go in hot pursuit after a caravan that had fled by night from Timbuktu without bothering about such trifles as market dues. On his return, the Tuaregs, endowed with a keen sense of humour, gaily chaffed him: "You are a fellow-plunderer; we also, when we hold up a caravan, do so for exacting passage dues through our territory!"

These fiery warriors, with their swords and spears, kept at bay for more than a quarter of a century all the French military might. They routed and killed almost to the last man several French columns armed with quick-firing weapons. But after the battle of Tit, where the flower of their manhood was decimated by the Chaambas Irregulars under French command, they have sought the "*aman.*" The Military Administration wisely leaves the Tuaregs to themselves and allows them a little margin for plunder now and then, but they must not go in for it on too big a scale.

When speaking with a Targui, I was impressed with his mania for drawing graphs on the sand. The

Targui willingly answers questions about topography and has proved a boon to the military cartographers. After centuries of wandering in the open spaces of the desert, the Tuaregs have developed a sixth sense, akin to the homing pigeon's. On passing once, even by night, through an unknown stretch of sand, the Targui will remember its least features years after.

The description of the Adrar-Ahnet, the dreaded "Land of Thirst" was written under the dictation of a Targui prisoner in Algiers, Tachcha ag Seragda, and the map was the exact reproduction of a sand-relief that he did in gaol. For more than half a century, African maps were based on the directions of this untutored "savage." Twenty years ago the Adrar-Ahnet was at last explored—and the work of Tachcha ag Seragda turned out to be accurate to the last detail!

M. A. Moyal

SCIENTIFIC RESEARCH

The oneness of humanity and the similarity of the problems with which it is faced are nowhere more apparent to the disinterested observer than in scientific research. The correlation of the findings in different fields with a view to their welding into a synthetic philosophy of science seems only less pressing than the integration of efforts in the several fields. In the absence of the latter, needless duplication is inevitable, and the endless repetition of experiments in various laboratories, which means marking time for the science concerned and a shocking waste of human energy to say nothing of resources.

The recently received statement of the "History and Activities of the Science Co-operation Office for South Asia" brings out how much this important branch of Unesco can contribute along this line. Among its more spectacular achievements are mentioned the collection of information on problems of organic manures so vitally important to the agricluture of South Asian countries from places as far as South America and South Africa, the arranging of exchange of unpublished meteorological data between scientists of two rival countries who refused to correspond with each other directly; the supply of scientific publications (in microfilm reproduction) to a scientist, the absence of which prevented him for eight years to publish his own results.

What has so far been accomplished in the way of fruitful collaboration, through the help of scientific journals and such dissemination of findings as the Smithsonian Institution, for example, has made possible, can be powerfully supplemented by the efforts of Unesco, if only the necessary willing co-operation is forthcoming from the scientists of the world. And incidentally, the prospects of world peace as well as scientific progress will thereby be furthered.

NEW BOOKS AND OLD

Spires of Liberty. By VISCOUNT SAMUEL, SALVADOR DE MADARIAGA, PROFESSOR GILBERT MURRAY, BENEDETTO CROCE, DENIS SAURAT AND OTHERS. (Herbert Joseph, Ltd., London. 115 pp. 1949. 6*s.*)

The near approach of a General Election, which may decide the fate of parliamentary democracy in Great Britain, lends topical interest to a restatement of Liberal aims by leaders like Lord Samuel, Professor Murray and their Continental equivalents. *Spires of Liberty* contains a number of speeches made by Liberal spokesmen at two international conferences, one held at Oxford in April 1947, the other at Zurich in May 1948, together with essays by various hands on "what Liberalism means." The speeches and the essays are claimed to herald "a new force in world politics," although all that they reveal is why Liberal candidates, at bye-elections, have almost invariably forfeited their deposits. Indeed, a conference of retired gas managers, convened to denounce the menace of electricity, would have about as much bearing on current world problems as the meetings at Oxford and Zurich which this volume records. No breath of reality seems to have disturbed the minds of the eminent intellectuals taking part in them, most of whom appear to inhabit an ivory tower erected in the reign of Queen Victoria. The book contains no reference to the revival of American Liberalism, on which so much depends, nor does any speaker or essayist discuss the terms of Mr. Henry Wallace's famous Open Letter to President Truman. The text of this important document, which provides the basis for a Liberal Foreign Policy which millions of English voters would support, was released in September 1946 but has been almost entirely ignored by the Liberal press. The warnings of Lord Boyd-Orr and other ecologists that, owing to the rapid wastage of the top-soil by which we live, the human race in two or three decades will go rumbling to destruction unless the politicians come to their senses and the peoples of the world co-operate in time, are passed over in silence.

Lord Samuel, as might be expected, says many true things in impeccable prose but he nowhere relates his comments to political action. He points out, correctly, that the Atlantic Charter, which provides a blue print for a peaceful and progressive world, "embodies the essence of Liberalism," but his essay gives no clue to the reasons which have induced the British Liberal Party to welcome the Atlantic Pact which undermines the very foundations of U.N.O. Prof. Gilbert Murray thinks the real division in Europe is the "conflict between Freedom and Tyranny," not, as the hungry and war-weary European working-classes see it, the conflict between production for use and production for profit. What the British "floating electorate" asks of the clique who today control the Liberal Party machine is a programme of Peace by agreement, based on an all-round reduction in armaments, the outlawing of the atomic weapon and a return to the principles laid down by the late President Roosevelt, which his suc-

cessor has reversed, with the willing co-operation of Mr. Churchill, Mr. Bevin and Mr. Clement Davies.

The strange voices out of the past which echo through the pages of this book only emphasise the dangerous political vacuum which, in Britain, the moral collapse of the once great Liberal Party has created.

DOUGLAS GOLDRING

Human Ecology : The Science of Social Adjustment. By THOMAS ROBERTSON. (William Maclellan, Glasgow. 534 pp. 1948. 21s.)

This is a deeply disturbing and challenging book. It is a diagnosis not merely of man, but also of society. On reading it, one feels as if one has been standing all these days on slippery sands. The world that we have built is not like a house built upon a rock, but like a ramshackle tenement built upon volcanic land which an earthquake, whose rumblings we hear, might swallow any moment. This kind of thesis has been put forward by many thinkers, but few have done it with such force, knowledge and insight as Thomas Robertson. His wealth of knowledge, his clear-sighted analysis, his grasp of fundamentals and his lucid and penetrating style are such as grip the attention of even the most casual reader. Yet it is a book which one should not merely read but also ponder over. It is a clarion call to timely action so that the world may be saved from its doom. According to Thomas Robertson the villain of the piece is our conception of finance. It is the financial clique with its weapons of negative money and debt and usury that is keeping the world down and is responsible for the sorry state of affairs. Yet finance does not sit apart like a malignant deity, but has extended its tentacles into every aspect of life and society. It has falsified history and warped people's minds. It has made them withdraw from reality to live in a world of dangerous make-believe. It has completely enslaved man through the mechanisms of industry, administration, the police and the army, politics, education and religion. So great is its hold that the truncated man believes in an illusory world. Such is the spell cast by it on man and society that both of them have come to love the very disease from which they are suffering and instead of thinking of curing it, are blindly and unknowingly trying to aggravate it. The world, however, needs the integral man and an integral society. The integral man will satisfy his basic needs without sacrificing his freedom for he will live in a society where religion occupies the first place, and education and politics are so regulated that they subserve human ends. In fact, he envisages a kind of society in which religion, politics and social needs have been harmonised. He says :—

> In exchange is equally needed the spiritual power and wisdom of the East for the regeneration of Europe and Africa; and this indeed is the only basis for a world order in which economic exploitation and racial and religious exclusiveness will have been expunged.

Even if one does not agree with all that the author says about finance and its mechanisms, the diagnostic part of this book, one agrees with his conclusions—the cure part. The world can be reconstructed only on a spiritual basis, of which the blue prints can be found in the East, in China but more especially in India.

DIWAN CHAND SHARMA

Incidents of Gandhiji's Life. By FIFTY-FOUR CONTRIBUTORS; edited by CHANDRASHANKER SHUKLA. (Vora and Co., Publishers, Ltd., Bombay 2. 344 pp. 1949. Rs. 10/8/-).

Hundreds of books about Gandhiji have already been written. Many more are pouring in. But this book edited by Chandrashanker Shukla is unusual in many ways. It was planned while Gandhiji was alive but is quite unlike the bigger and brighter volume presented by Dr. Radhakrishnan on Gandhiji's seventieth birthday. The contributors are eminent persons who have been in close contact with Gandhiji during his life and know him well, even though living in distant parts of the world. The editor, who contributes a glowing pen-portrait of twenty-five pages describing "How some of his decisions were made," is a competent, devoted and yet critical disciple who sat at the feet of the master for twenty-five years. He has discharged his duties remarkably well.

A volume contributed by such a variety of authors, disciples, devotees and politicians cannot have the charms of a well-finished biography, yet the pen pictures are generally accurate and well-balanced. Exaggerations and eulogies have been disallowed by the lynx-eyed editor, and yet the individuality of the writer cannot be suppressed. Behind the misty cloudiness of the crowd of contributors, Gandhiji shines effulgent in his glory and greatness, exposing the pettiness of the world. Subtle expressions like the "famous feasts of fasting," "his trial or bridal ceremony," the "mysterious and mystifying Mahatma," the "pucca business man" may jar on the ears of many a devotee but are most interesting as they reflect effectively the mental make-up of the writers.

It is difficult to select any single contribution but there is nothing to beat the outright sincerity and the great historical value of Rajen Babu's description of the Champaran episode or the depth of genuine feeling behind the Polak couple's reminiscences or the outspokenness of the Nayyars, brother and sister, who lived with Gandhiji and shared his confidence for years. The book will supply first-hand reliable material for the social and political history of the period and, together with the other four linked books planned by Mr. Shukla, will be a most valuable source book of current history. Such authentic volumes will, it is hoped, preserve the living and truthful memory of this great man, avoiding the apocryphal literature that sprang up round Lord Buddha or Jesus Christ.

Those who think that Gandhiji's work ended with "redeeming the Indian nation from centuries of bondage and giving to India her freedom and her flag" are mistaken. The whole world is the family of the great, and Gandhiji's heart poured itself out to suffering humanity irrespective of country or colour or religion. He was a great nationalist and yet a great internationalist. The teachings of fearlessness and the capacity for suffering in the cause of justice, which led to the foundation of Indian nationhood during the last thirty years of his domination of Indian politics, are nothing as compared to his doctrines of *satyagraha* (truth-force) and *ahimsa* (non-violence) though it must be said that what he has successfully preached and practised in India is yet to be accepted by the West. The war-weary

world, suffering from spiritual stagnation and still seeking physical power and prosperity, may not be able to recognise his worthiness for the Nobel Peace Prize. Nor may the United Nations Organisation officially recognise the Gandhian Philosophy, yet the spirit of Gandhism is the only soul force which will protect the menaced world. The future of universal peace rests no longer on politics, diplomacy and atom bombs but on non-violence and good-will, which Gandhiji tried to establish throughout the world. It behoves every Indian to understand Gandhiji's message in its proper perspective and to live and walk in a manner befitting his great name so that India may continue his incomplete work and fulfil his vision by spreading non-violence and good-will throughout the human race. Mr. Shukla's four volumes about Gandhiji will be of great help in establishing this world good-will movement.

P. G. SHAH

John Keats: The Principle of Beauty. By LORD GORELL. (Sylvan Press Ltd., London. W.C.I. 126 pp. 1948. *7s. 6d.*)

This little book is avowedly a labour of love; that personal love which all who write upon Keats must feel, or they fail fundamentally. Keats is, of course, too great to need an affectionate advocacy, a special pleading, but cold praise, impartial assessment, however skilful, can never, as in the case of his master, Shakespeare, do full justice to the felicity of his verse, the "spiritual hieroglyphics" of his testament of beauty. All that he wrote—and, alas, how little it is—is instinct with some quality innate in us all. We must love to understand.

Lord Gorell brings that love in full measure, a devotion lifelong. His book is valuable, not only as the personal expression of a sensitive, distinguished exponent, but as an interpretation of Keats's poetry in a form less austere, of more general interest than that of the specialist; an interpretation rendered the more interesting, the more telling by a graceful thread of narrative running all through. His book is both pleasant to the matured enthusiast and useful to the young student. To the less informed he widens a knowledge of Keats beyond the great familiar poems to those, often of great beauty and always of strong individual charm, cherished in general only by the adept.

Lord Gorell follows Keats's development from the young romantic who cried: "O for a Life of Sensations rather than Thoughts!" to that careful artist who in 1819 spoke of himself as "moulting: not for fresh feathers and wings: they are gone, and in their stead I hope to have a pair of patient sublunary legs." This development, plainer to us than of any other poet because of the full rich letters we possess, is summed up here by a happy analogy: "His early Poetry bears the same relation to his later as apple-blossom bears to apple; the one is the outcome of the maturity of the other." Surely Lord Gorell chose for his simile not by fortunate accident, but deliberate art, the fruit and blossom of a tree indigenous to this island, anciently rooted in our folklore; in other words, a tree as English as Keats himself.

DOROTHY HEWLETT

The Collected Poems of John Gawsworth. (Sidgwick and Jackson, Ltd., London, W.C.I. 143 pp. 1949. 10*s.* 6*d.*)

John Keats wrote in the bloom of his poetic youth: "If Poetry comes not as naturally as the Leaves to a tree it had better not come at all"; but the work of his maturity, when he had developed "a pair of patient sublunary legs," shows, in the few manuscripts we have, much altering, many happy emendations. One may guess that John Gawsworth too, in achieving the deceptive simplicity of his verse, practises a careful craft. His thought, modern, flexible, is clothed in traditional form. His early master was quite clearly the delectable W.H. Davies, of whom he writes, in wistful memory,

> Sweetness he gave
> In the sour day.

This collection, plucked from eleven published volumes and gathered from fugitive sources, sixty-five of the poems being for the first time published in England, brings to Mr. Gawsworth's admirers, with 205 poems in all, a rich miscellany. He sings of love in its complexity, of the beauty of women, of nature and especially bird nature, of dear Italy and of men caught in the cruel net of war. The last pieces celebrate the rich exotic loveliness of the East. It was in Calcutta on V-J Day that he put into words for us that painful numbing of the spirit, "the feel of not to feel it," which has harassed so many after the strain of senseless war is eased:

> Nothing ever comes now
> Into my mind
> Which once was an asylum
> For the spirit's wind.

It is too early to assess John Gawsworth's ultimate place in the hierarchy of our modern poets, but the judgment of Lascelles Abercrombie, that knowledgeable man, may well be quoted: "John Gawsworth's poetry just *is* poetry—what poetry always has been (and always will be). There is real, firm, shapely, and self-subsisting beauty in what he writes." What more can be said?

DOROTHY HEWLETT

The Story of Human Birth. By ALAN FRANK GUTTMACHER, M. D. (Sigma Books, Ltd., London. 214 pp. 1949. 7*s.* 6*d.*)

This book gives a very dramatic account of the growth of a baby body from the union of the first cells to the birth of a full-time child. The story is told with the simplicity and clearness which is very much needed at the present time to enlighten many who are completely ignorant as to the working out of the laws of nature governing the building up of the human body. The contrast between the old beliefs, customs and practices on the birth of a child in the sixteenth century and those of the present time is very interesting. Abnormalities are also described with clearness.

In reference to the prenatal state more could perhaps have been said about the close relationship between the mother and the small body she is building, through the power of her own thought and imagination.

The diagrams are clear and easy for any average person to understand, thereby supplementing a useful, authentic account of that very fascinating subject—human birth.

F. B. S.

Reflections on Our Age: Lectures Delivered at the Opening Session of UNESCO at the Sorbonne University, Paris, with an Introduction by DAVID HARDMAN and a Foreword by STEPHEN SPENDER. (Allan Wingate, Ltd., London, W. 1. 357 pp. 1948. 18*s*.)

It is impossible to convey in a review the richness of material in this book. I must, therefore, content myself with a brief conspectus.

The implications of the atomic bomb are dealt with in two lectures, by Prof. Joliot-Curie and A. H. Compton. Another scientific lecture deals with the remarkable sculpture and cave-paintings of Altamira in Spain and Lascaux in France.

In his "Reflections on an Apocalyptic Age," Emmanuel Mounier calls impressively upon mankind to choose:—

> "The great tidal wave of barbarism is at our gates" said Nietzsche in 1873....The great tidal wave of barbarism is in our empty hearts, in our lost heads, in our incoherent works, in our acts that are stupid in their short-sightedness.

Jean-Paul Sartre in "The Responsibility of the Writer," maintains that everyone is responsible for everything that goes on in the world. It must not be said of writers that "they saw the greatest world catastrophe coming and they kept silent."

In his lecture on "The Intellectual and Action," Pierre Bertaux defines the Intellectual as "not merely a man of fair words," but one who thinks out what he does.

Professor Radhakrishnan, speaking on "Indian Culture," objects to speakers' forgetting India when referring to certain "ancient" civilisations. Indian Culture has an uninterrupted continuity; has been, throughout its history, an assimilation and a synthesis. Its fountain-heads were not mere "intellectuals" but "Seers." If we are loyal to its spirit, he believes, we can meet the present challenge; "India must take the risk of her own character."

Prof. Louis Massignon in his lecture on "The Influence of Arab Civilisation on French Culture," dwells on the simplicity and beauty of Arab culture; the Arab is in need of wealth, but to him, "all the same, wealth is not everything." He describes Arab thought as "a lesson in spiritual serenity for our romanticism."

The lecture on "Greek Culture" by the Greek poet, Soloris Skipis, is poetical and moving, for he speaks of the Greece that is "the youth of the World." He asks the United Nations and the Big Four to do justice to her small claims and

> to allow her to breathe a little, to regain the serenity of her soul, so that she can astound the world once more with beauty and nobility in every sphere of human activity.

Herbert Read, speaking on "The Plight of the Visual Arts," believes that unity of style, lacking today, is the characteristic of all great periods of civilisation; there is unity of style when men express themselves in accord with the fundamental harmony of existence. Can we, he asks, so orient the activities of our institutions—even of UNESCO itself—that they will serve art in a creative, and not merely a conservative fashion?

Five lectures are grouped directly under "Education," including Dr. Julian Huxley's "A Re-Definition of Progress," in which he maintains that "our acceptance of the fact of progress and our understanding of the doctrine of progress" themselves constitute the major prerequisites of our further advance.

N. A. NIKAM

The Jewel in the Lotus: An Outline of Present-Day Buddhism in China. By JOHN BLOFELD. (Sidgwick and Jackson, Ltd., London, W.C.I. for the Buddhist Society, London. 207 pp. 1948. 15*s.*)

Here, at last, is a book which deals with the whole field of Chinese Buddhism and gives a valuable indication of the religious position of modern China. It is up-to-date, comprehensive, explicit and charming. The author is particularly well-equipped for the writing of such a responsible book as he combines an authoritative scholastic knowledge with the practical experience of many years of contact with the Chinese people.

It is rare to come across a work so packed with facts that is as enjoyable to read as this. Mr. Blofeld starts with the religious background of China, including a summary of the whole history of the Buddhist religion, and gives a masterly *précis* of the Mahayana faith—more clear and simple than many books which set out to treat of this subject alone. There he takes us among the Chinese people in a really personal way. We meet the faithful and the superstitious, the devotees and the sceptics. We are also taken on a pilgrimage and see a great centre of monasteries and temples at festival time through the eyes of an average educated Chinese. What fascinating anecdotes! And how delightfully told!

The second part of the book is devoted to a classification and outline of the main sects and branches of present-day Chinese Buddhism. This section is well-balanced and impartial. The important Chán (or Zen) Sect, which presently takes up much of the attention of Western students, is given first place but does not steal the picture; and the Pure Land Sect, often shortly dismissed, is given a chapter of serious consideration.

In the conclusion we are faced with the author's depressing but sane pessimism as to the chances of the survival of Buddhism, or indeed of any organised religion, in China. It *can* happen, and in fact it *is* happening now. Herein lies the importance of this book. A momentous chapter of history is being written, the consequences of which will undoubtedly affect the future course of humanity. It may well be that the accurate and sympathetic picture which Mr. Blofeld has given us is one of the last general eye-witness accounts of a great panorama of Human Religion.

The book contains a preface by the President of the Buddhist Society, London, and twenty-five excellent photographs.

A. F. PRICE

Rabindranath Tagore: Poet and Dramatist. By EDWARD THOMPSON. (Second Edition. Geoffrey Cumberlege, Oxford University Press, Indian Branch. 330 pp. 1948. 16*s.*)

One must be great to describe the greater, said Emerson. So also to evaluate a poet of such universal acceptance as Rabindranath Tagore, his critic should himself be born with poetry in his soul.

Edward Thompson cannot impress Tagore's admirers on the score of his ability to enter into the spirit of Tagore's poetry. Still the fact that he was a personal friend of the poet in the latter's lifetime and also that he brought to bear on his criticism of the

poet's works adequate powers of analysis and selection mark him out as eminently fitted for the task of an honest critic.

But beyond these credentials of his, there is not enough in his book, which in its second edition has evidently undergone much revision and change, to prove that he himself knew much of India. For to know India well is to know a country where for long poetry and religion have been deemed as one and the same experience. This shortcoming accounts in a great measure for some of the writer's judgments on the poetic merit of Tagore not really commending themselves to us either as borne out by any reasoning based on æsthetic standards familiar to us or as sufficiently convincing by any poetical experience drawn from our classics.

In five parts, here called Books, are collected biographical details of a life no less significant for its eventful wanderings through some of the most important countries of the world than for its rich harvest of poetic impressions and images gathered from an uncommon pantheistic union with nature. Naturally, therefore, this volume abounds in such information as would easily satisfy an inquisitive mind seeking to know fairly everything about the poet's days and dreams. Boundless sympathy there is no doubt for Tagore the man, though for the writer in him there is not much quarter given from an unsparing critic's pen. One truly finds after a perusal of this book of three hundred odd pages, that the author's knowledge of the Indian poet is not considerable enough either as regards the atmosphere in which poetry sprouted in the heart of the erstwhile Nobel Prize winner or as regards his birthright as the proud inheritor of a great lineage from world-famous poets like Valmiki and Kalidasa.

But in assessing the value of a book of this kind and shape, we cannot but be sensible of the earnest endeavours of the well-meant critic in Mr. Thompson to hold the scales even between the unmitigated eulogy of Tagore's own countrymen of Bengal and the somewhat uninformed criticism of his detractors outside his country and sometimes in India outside his own Province.

K. CHANDRASEKHARAN

The World Turned Upside Down: A Modern Morality Play. By CLIVE SANSOM. (Frederick Muller, Ltd., London, W.C.I. 62 pp. 1948. 5s.)

This mystic-poetic play is based on the universal legend of the Divine Birth though picturing more definitely the Christian version. The parents of the newly-born are represented as true Science and true Religion, the Saviour-babe as a new-old Faith, fruit of their harmonious and perfect union. The characters present in serious and sharp relief—though sometimes humorously—attitudes of mind prevailing amongst all peoples today: Nationalists, Soldiers, Refugees, Inspectors, False Religion, False Science, Health, Humanity, Wisdom, Imagination, Truth; are represented. But above all, either inspiring or disturbing, is the VOICE. This play itself bears witness to the fact that this VOICE still speaks through human hearts.

E. T.

The New Authoritarianism. By LANCELOT HOGBEN, F.R.S. (Watts and Co., Ltd., London, E.C. 4. 44 pp. 1949. 2*s.*); *The Cycle of War and Peace in Modern History.* By G.N. CLARK. (Cambridge University Press, London. 28 pp. 1949. 1*s.* 6*d.*); *Third Annual Conference of the Rationalist Press Association.* (Watts and Co., London. 16 pp. 1949. 1*s.*)

Science today determines the shape of society and the character of international conflicts. The true orientation of science, and the complete freedom of the scientist from authoritarian control are prerequisites for future progress from the present near-chaos and insecurity, to peace, plenty and security in a world made one.

The scientist, it happens, is also a human being. It may be hard for a scientist engaged on work after his own heart at £1,000 a year to refuse an offer of £5,000 a year to work under direction for other purposes. Yet this sort of thing is happening every day and it is a trend that operates against healthy conditions of research. Often the scientific worker's integrity must become involved; authoritarianism can prostitute science and bring the scientific worker to his knees through fear of want or worse.

Professor Hogben would have the scientific worker turn his eyes now and then from his scientific objective to consider the world about him, and himself as a citizen of it.

Like most distinguished mathematicians who write, Professor Hogben uses English with great distinction of style and notable clarity. This will not surprise those who know his *Mathematics for the Million.* In this Conway Lecture, he sounds a warning that the world would do well to heed.

Mr. G. N. Clark's essay on war and peace also takes the form of a reprinted lecture; this time, the Creighton Memorial Lecture at the University of London last year. Mr. Clark's theme is the rhythm of peace and war, the phenomenon of the cycle that appears to follow a regular pattern and, hence, to conform to some law. Rhythm is a theme that has been somewhat neglected by investigators. It governs the behaviour of most of nature's phenomena; it is measurable in the physiological activities of the human body; in most social trends, again, the same cyclic character appears; as, for example, in the movement, year by year, up and down the spectrum of the fashion-favoured colour.

Philosophically, the theory involves us in Determinism. But, putting that aspect of the subject aside, the question one may ask is: Is the statistical method the vehicle for the truth? Statistics may, perhaps do, establish a pattern, discernible throughout history, of the periodicity of war and peace. That does not prove a natural law of our being, but merely indicates the limits in the processes of civilisation beyond which we have as yet not managed to pass. That wars do not come in conformity with any law of rhythm is the conclusion of the lecturer. Most readers will agree.

Several of the addresses given at the Annual Conference of the Rationalist Press Association at Oxford have appeared in book form and have been reviewed in this journal. The present pamphlet is a general summary of these lectures.

GEORGE GODWIN

Poems of John Keats. Edited and with an Introduction by JOHN MIDDLETON MURRY. Decorated by MICHAEL AYRTON. (Peter Nevill, Ltd., London, S. W. 7. 305 pp. 1948. 12*s.* 6*d.*)

The book is so well got-up that it is a pleasure to own it. It contains a "Selection from the best of Keats's poems"; the selection is extensive and the book contains almost all the poems of Keats that one would care to read. The illustrative drawings by M. Ayrton are exquisitely appropriate. The selections are printed in the chronological order which clearly brings out the rapid growth of the mind and art of Keats. In fact, the development of Keats's mind during the last four or five years of his brief life (1795-1821), was phenomenal. Indeed the rapidity of Keats's "progress" from one great poetic achievement to another was such as to obscure its gradualness.

In Murry's Introduction we are informed that the only problem that the task of selection presents is "whether or not to include the whole of *Endymion*"; though the critic is aware of the received opinion that "it is very unequal in quality." One cannot unreservedly accept the critic's view that Keats's inspiration flagged at the end of Book I, which is far superior to any one of the other three Books of *Endymion.* It is more correct to say that none of the four Books has a sustained quality; and that every one of them contains passages of fine melody and vivid imagery. One will find beautiful passages of "pictorial clarity" in the last three Books, as well as in the first. Shelley would recommend printing about fifty pages of fragments from the entire poem. Further, Murry tells us that the allegorical idea of the poem is "that love in its sublime is creative of essential beauty." These words of Keats are not very illuminating; but the critic's exposition of these words in his *Studies in Keats* reminds one of Byron's insistence that some critics have to explain their explanations.

The critic says that the crystalline note, sounded in the "Ode to Maia," and brought to perfection in the "Ode on a Grecian Urn," is what justifies calling Keats "the most Greek of all our poets." No doubt Keats is Greek by temperament. But is the crystalline note perfect in the "Ode on a Grecian Urn"? The third stanza of this poem is really obscure; the logical connection of its last three lines with the rest of the poem is not obvious. We are told that "the peculiar Greek quality" of Keats informs perhaps a hundred lines of his poetry. Six or seven lines of "The Epistle to J. H. Reynolds," and the "Ode to Maia" (14 lines), and the "Ode on a Grecian Urn" (50 lines) are obviously among the hundred which, according to Murry, have a magical clarity—"the pure serene." The whimsicality of this view is apparent, when one recollects such masterpieces as "The Ode to a Nightingale," "To Autumn," "Hyperion," and "The Fall of Hyperion: A Dream." Keats exhibits this magical clarity even in the intensely romantic poem, "The Eve of St. Agnes."

The Introduction throws very little light on such great poems as "Lamia," "The Eve of St. Agnes," and the two versions of "Hyperion."

This review is rather severe. But a hostile review of this kind might promote the sale of the book quite as well as a favourable review. If the hostile reviewer is wrong, he does harm to nobody but himself.

K. A. R.

Pistis Sophia : A Gnostic Miscellany etc. Englished, with an Introduction and Annotated Bibliography. By G.R.S. Mead, M.A. (John M. Watkins, London. 325 pp. Second ed., second impression, 1947. 21*s.*)

The second impression of the second edition of this important work has been long and eagerly awaited, and its late appearance is no fault of the publisher, who is to be congratulated on at last achieving its publication.

To all students of the Christian religion and its origins, this scholarly rendering into English of the Askew Codex by the late G. R. S. Mead is of very considerable interest and importance, as enabling them, with the aid of the excellent translations of the Bruce Codex which are also available to them, to assess and understand the teachings of the Gnostics as presented by themselves, without being forced to rely upon the prejudiced and partisan writings of the heresiologists, who, by careful selection and unfair emphasis, were able to place a truly lofty and spiritual faith and doctrine in the most unfavourable light. Indeed, when it comes to deciding between the true and the heretical, it is not easy to determine with any certainty whether the orthodox Fathers would have triumphed had they not resorted to force and to methods of persecution which redound but little to their credit.

To facilitate study Mr. Mead supplies the reader, at the end of the Introduction, with a skeleton of the scheme which underlies the *Pistis Sophia*, which scheme is also reproduced in his excellent *Fragments of a Faith Forgotten.* This classifies the Cosmos and its rulers under three main headings, but I feel that it would have been better had the division been fourfold, the fourth region comprising those parts shown as III (ii) and (iii).

I make this minor criticism because the Gnostic teachings show, as might be expected, numerous and striking parallels with the doctrines of the Qabalistic tradition, which was essentially a fourfold scheme.

Within the limits of space available, it is impossible to do justice to the work under review, but its importance more than amply justifies this very welcome reprint.

E. J. Langford Garstin

The Teachings of Lenin and Stalin on Proletarian Revolution and the State. By A. Y. Vyshinsky. (" Soviet News," London. 120 pp. 1948. 2*s.*)

This book is for the converted. It assumes assent to the proposition that the system of government now prevailing in Russia, and thirty years old, is the absolute pattern for all men everywhere. It assumes assent also to the proposition that this system has largely been directed by the infallible insight of two men, Lenin and Stalin. Unlike other men they have never made a mistake.

These assents being assumed it is only necessary for the author to quote oracular statements, without criticism and with little appraisal, upon what is called the " dictatorship of the proletariat." These statements being oracular not because of their content but because of those that uttered them, any men who differ from them have not seen the light, and are consequently morally blind. Thus, these men are " scum, " " vulgar philistines, " " lackeys, " and, worst of all of course,

"capitalists."

If one has by chance been born into the "proletariat" then one has the right to dominate other men. A miner, for instance, has the right to dominate the peasant, schoolmaster, or university professor. The miner possesses this right because, being a proletarian, he, or his ancestors, or others like him throughout the world, have been exploited. This exploitation by some kind of unexplained mystic power gives him the capacity to establish, for the first time in history, the absolute form of government.

In spite of being proletarians, however, the miner and, of course, other proletarians need guidance. Where can it be found? Obviously in the "great leader." He is appointed—in theory—by the proletariat, and thus must naturally have a greater vision than that possessed by any other man. Hence, in this book, any reference to Lenin's works tends to draw the word "immortal," and Stalin cannot be mentioned too frequently without demanding the genuflection at the laudatory word.

Well, this is another myth. One must have faith that through it all "the pathetic peoples still plod on through hoodwinkings to light." And one must learn from the cruel evils in the world why men so easily believe such a myth as this.

E. G. LEE

Religion and Psychotherapy. By A. GRAHAM IKIN, M.A.,M.SC.,PS.F. (Rylee, Ltd., London and Birmingham. 112 pp. 1948. 5*s*.6*d*.)

This book, originally published in 1935, has now been reprinted with the addition of a foreword and an epilogue by the author. Miss Ikin writes not only for the doctor, or the psychologist; she writes *about* us, *for* us, here and now; and the theories she expounds with such lucidity are matters of vital import to us all. She draws a vivid picture of the unhappy state of mankind today. The increasing neuroses, the lack of harmony in man, the unit, producing lack of harmony in the nation, the larger unit—and this in its turn producing international disharmony and mistrust.

She then gives the remedy: Start with the unit. The neuroses are due, in the vast majority of cases, to man's having lost his spiritual background—his "faith." And by "faith" she does not mean the blind acceptance of illogical dogma, but "the acceptance with conviction of an idea in the presence of spiritually apprehended grounds for its acceptance." So, she would have the Church, the medical fraternity, the psychiatrists and the psychologists join hands in endeavouring to restore to man his mental health and his faith. And, once again, by the Church is not meant any special denomination, but all those Great Ones, such as Buddha, Christ, Plato; mystics, sages and seers of all ages who, through deep search, anguish and travail, have discovered their own Divine within themselves, and so are able to help others achieve the same supreme goal.

A book to be read not only once, but again, and then pondered over.

CARA BERNARD

Our Plundered Planet. By FAIRFIELD OSBORN. (Faber and Faber, Ltd., London, W.C.I. 192 pp. 1949. 10*s.* 6*d.*)

The facts that confront the investigator into the World Food problems are sobering. More than 175,000 babies are born into the world every day to swell the two billion human beings already here. Only six generations have passed while the number of people on our planet has increased from 700 million to the present two billions.

Coldly unemotionally, watching man's struggles as one studies an insect under a microscope lens, Fairfield Osborn points out the stages of human development and endeavour from prehistory to the present day. The greatest and ultimate conflict is raging—not the battle between nations but the world-wide struggle with nature.

Osborn pin-points the fact, so frequently forgotten, that man is as much a part of nature as the vegetables and animals he eats, as the flowers whose beauty he enjoys and the gold and coal he mines. Let him before it is too late remember that the "living resources of his life are derived from his earth home and not from his mind power."

Dealing first with man's part in the general scheme of nature Osborn shows how living a thing is the soil and how erroneous the idea that sterile lands can rapidly be restored to fertility by the use of chemicals. Investigations now in progress may prove that certain modern diseases may be related to wastage and deterioration of the top-soil of the earth. There is a relationship between land health and human and animal health.

In the second half of the book we read how man in his attempts to reach the stars has destroyed his life sources as he has risen. In the desert sands are remains of once flourishing civilisations; vast regions are ruined by erosion; dust sweeps over what were rich pasture-lands. Man cannot survive, Osborn claims, unless he accepts the fact that he is but part of the great biological scheme. Nation must co-operate with nation, "the time for defiance is at an end."

This is a timely book. It cannot be ignored any more than the facts it presents can be neglected. It will make you feel uncomfortable. So much the better, for unless we act swiftly we shall act too late. There is, of course, a different and rather more optimistic view-point. It is that the nature of man's needs is constantly changing. Human beings of the far future are unlikely to need the same types of nourishment as those which, to us, are still essential.

A. M. Low

Through the Gates of Gold : A Fragment of Thought. By M. C. (Theosophy Co. (India), Ltd., Bombay. 84 pp. 1948. Rs. 2/-; 3*s.*) *

Through the Gates of Gold is a remarkable work. Its object is to foster the manifestation of the God in man. Based on the formula that man is more than an animal because there is the God in him and also more than a God because there is the animal in him, this book elucidates the meaning of

* [In the case of works of special significance we like wherever possible to have them presented to our readers from both the Eastern and the Western points of view. Mr. Claude Houghton reviewed in our June issue this new edition of an important book long out of print; Sir C. P. Ramaswami Aiyar gives his reaction to it here.—ED.]

pain and discusses, with marvellous clarity, the indisposition of man to assume or to accept responsibility, the instinctive desire to avoid or to relieve pain by seeking to alleviate it, and the importance of merging pain and pleasure into one for the purpose of obtaining profound peace.

The waste of effort involved in the search for pleasure, the manner in which the initial effort to cross the threshold of realisation brings to the individual the secret of the strength arising from profound conviction, and the moral power originating from such strength—these are among the phases of thought presented to us. That life should never be limited to the known and that so-called virtues may become so rigid and formal as to be hampering rather than liberating influences are among the apparent paradoxes that are dealt with by way of investigation of man's duality and the method of escape from habit and routine.

When ultimately analysed, the mode of approach envisaged in this arresting and stimulating book is not intrinsically different from that outlined by Hindu sages. The Upanishads equate the personal soul with the Oversoul, which is regarded as indivisible and all-embracing, and lay down that self-forgetfulness, self-restraint, generosity and compassion are the three infallible prerequisites of progress and that courage or fearlessness is indispensable for attainment.

The *Gita* elaborates these maxims and enunciates that "not by inaction does one attain realisation but by living a full life and carrying out one's duties with equanimity and efficiency." The sojourner in this world does not eschew activity but pursues with concentration the path that lies before him until he attains the goal but in the process he is not concerned with the results but rather with the one-pointed quest.

C. P. RAMASWAMI AIYAR

Gods and Men: A Testimony of Science and Religion. By SIR RICHARD GREGORY, BT., F.R.S. (Stuart and Richards, Ltd., London. 283 pp. 1949. 12*s.* 6*d.*)

It must appear presumptuous to suggest that so famous a man as Sir Richard Gregory has written a superficial book on Science and Religion. It is a valuable compendium of discoveries, beliefs, philosophies and what is called social progress. To absorb it will endow readers, who have only vague notions as to the growth of religious systems and the advance of knowledge, with a liberal education. But it makes no attempt to answer the questions which it provokes or even to state them in any but conventional terms.

Sir Richard accepts, for example, the theory that worship is a desire natural to human beings—"as natural as hunger." That is not borne out by investigations into the origin of worship, which came at a later stage than the ritual observances designed to ensure the fertility of the soil, adequate rainfall, security of life and possessions. The blood sacrifice, which is the most prominent rite in so many religions, surviving still in the Roman Catholic Mass, was instituted for these purposes, as were all the earliest ceremonies of which we have record.

Nor can it be said that the adoration of divinities is any more "natural" to the human race today than it was to

those ancestors of ours whom we call primitive. Nor is there record of any community which, having acquired religion, allowed it to influence deeply its habits, principles or acts. Individuals here and there may have done so—Gandhi did; but it is noticeable that all these individuals had their own ideas about their god or gods. They did not take them ready-made; they invented them for themselves, and their inventions were not at all like the deities of institutional religion. The God of St. Francis of Assisi bore no resemblance to the Roman Catholic God of the thirteenth century or any other age.

No instance has been produced of worship being practised without being taught and there would be no objection to teaching it if that were done provisionally, as science is (or should be) with the proviso that it may all turn out to be wrong. But religion is always dogmatic. Logic is ruled out to make room for faith.

One result of teaching religion without regard to reason or probability is that very few of us are able to think straight on any subject. Our minds are twisted from the start. I am painfully aware that mine was. We are put into blinkers from our earliest childhood so that we may see nothing but what our teachers wish us to see. That is why in an age when straight thinking is necessary if the world is not to be plunged again and again into more and more disastrous conflicts, few of its rulers are able to perceive the logic of events. The very steps are taken which lead, not away from, but towards catastrophe.

Another strange and very unfortunate result of worshipping a deity presumed to be all-knowing and all-powerful and at the same time a kind father of mankind is that we have never considered with any care the relation between God and Nature. Did God create Nature to make nearly all animals, including ourselves, live by killing and eating one another; to starve millions through drought, drown them in floods, crush them by earthquakes, burn them by volcanic eruptions? Or is Nature independent of God, and God can do nothing about it?

Man is "Nature's rebel son," in Ray Lankester's phrase, and Man is proud of it. He does everything he can to alter Nature's scheme of things. Is he altering God's arrangements? Or does God look on at the struggle between Man and Nature, favouring neither side? Theologians have side-stepped this difficulty, as Sir Richard Gregory does.

If I believed that the God I worshipped knew best what His children needed and would see that they got it, I should call myself both a fool and a traitor to my belief if I tried to improve things myself. By doing that professed Church Christians show that they have no genuine belief.

It is all very puzzling. I wish Sir Richard would write another book, discussing these contradictions between faith and logic, religion and commonsense.

HAMILTON FYFE

ENDS AND SAYINGS

" _____ *ends of verse*
And sayings of philosophers."
HUDIBRAS

The intimate relation of diet and peace is too often overlooked. That nations of vegetarians are generally less contentious than nations of meat-eaters is traditional, and it is worth noting that the four greatest pacifists of modern times—Shelley, Thoreau, Tolstoy, Gandhiji—have been also advocates of vegetarianism. Roy Walker brings out the latter point, with others of more serious import, in his brochure, *Bread and Peace* (The C. W. Daniel Co., Ltd., Ashingdon, Rochford, Essex, England. 1s.)

Insufficient food obviously constitutes a standing threat to world peace, and estimates are cited, based on the arable acreage available, which indicate the impossibility of feeding the present world population, to say nothing of future increased numbers, as such countries as the U. S. A. and Britain are fed today. The reason is not far to seek. Dr. Norman C. Wright, later Scientific Adviser to the Ministry of Food, declared in 1944 that in pre-war Britain 3,000,000 acres had been devoted to human food crops against 27,000,000 to maintaining the country's livestock. Not only in acreage but also in calories is meat production uneconomical. In the League of Nations' Report, *Food Famine and Relief*, John Lindberg brought out in 1946 that four or five feed calories were required to produce one calorie in the form of milk, and that eighteen or more were necessary to produce one in the form of beef or eggs.

A recent League of Nations' report is cited :—

> . . . it is possible to construct diets meeting all known nutritional requirements on the basis of whole-grain bread, fruits, vegetables, and milk.

And on a fairly conservative estimate of a half-acre per person for a vegetarian diet with some dairy products, Mr. Walker affirms the possibility of supporting on such a basis twice the present world population at full nutritional standards.

If fat pigs or cattle in one country may mean starving children in another, is it not worth while for individuals and groups to consider what they, by reforming their own food habits, can contribute to freeing the world from the threat of war ?

The very understanding of "the *fact* of world interdependence" is still generally lacking, declared the Deputy Director-General of Unesco, Dr. Walter H. C. Laves in his address on "The Universities and International Understanding." His speech, delivered at the Preparatory Conference of Representatives of Universities, which Unesco convened at Utrecht last August in collaboration with the Netherlands Government, is published in the recently received Report of that Conference.

How great is the task of the institutions of learning in furthering this understanding is apparent when one observes the many signs

of ethnocentrism, nationalism, provincialism, and racial and religious prejudice, still manifested in public discussion and public policy, even when the consequence is to endanger peace and human welfare.

The cultural and scientific history of mankind needs to be presented, he implied, in contrast to national histories. He called also for studies in social and human relations, that the means for living harmoniously and peacefully together might be established. Dr. Laves saw the problem of peace as

the problem of keeping group and national tensions and aggressions within manageable proportions and of directing them to ends that are at the same time personally and socially constructive, so that man will no longer seek to exploit man.

He did well to recognise that even fundamental changes in social organisation will be inadequate for achieving this goal without fundamental changes in our ways of thinking. Foremost among these we should place a wider spread of understanding of man's true nature, of his place in the scheme of things, of the fact of universal brotherhood and of the obligations arising therefrom.

Dr. Laves spoke approvingly of the first words of the United Nations Charter: "We, the peoples...." We submit that, though this is an improvement over the national approach to the Supranational State, "We, the people ..." would be still more appropriate to introduce the basic propositions for a working brotherhood of all mankind.

"Sanity: Basis for Enduring Peace" is the subject of Dr. Winfred Overholzer, well-known American psychiatrist, in *Freedom and Union* for March 1949. The present need for "collective and individual sanity...for self-reliance, for willing ability to face situations and deal with them adequately" needs no argument. And the analogies between normal and abnormal conduct in individuals and groups of individuals are only too easy to recognise. Just as the individual has to learn to accommodate himself to those who surround him, to modify his desires in terms of conscience and the practicable, to direct and control instinctual needs for the benefit of the group, so does the group *vis-à-vis* the nation; the nation *vis-à-vis* the world.

Reactions of human beings, as of animals, to dangerous or disagreeable situations may be to run away, to fight or to preserve immobility. Alcoholism, drug addiction, nervous or mental breakdown, suicide, are manifestations of the first; another is to evade unpleasant situations instead of dealing honestly and frankly with them. Psychosis is an exaggerated form of fight; "facing the facts" comes also in this category; so does the over-aggressiveness which is resorted to to master fear, and of which jingoism or blustering, even war-mongering, is the expression. The "freezing" of the cornered animal is parallelled in man by attempting, out of fear of change, to maintain the *status quo*. "Isolationism" and the rise of neo-orthodoxy in the present-day United States are cited.

Among the reactions that can be expected in the healthy-minded man are the following, cited from Dr. Crichton Miller's summary in an article on "The Stewardship of Mental Health":—

a reasonable confidence in his fellow man,... a broader tolerance of other people's idiosyncrasies, and a sense of responsibility which manifests itself only in those who recognise that social contribution is a prerogative rather than a duty.

"Greater tolerance of the foibles of our world neighbours and a greater readiness to comprehend their viewpoints" are at once the sign-manual of mental balance and "the basic requirement for an enduring peace."