

HOW TO
RULE THE
WORLD
IN THE
THIRD
MILLENNIUM

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To our children

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PREFACE:

THE STATE OF MANKIND ON THE EVE OF THE MILLENNIUM

This book is not about morals or politics per se. It is about protecting that most precious of resources: the world we live in. Most people, when asked about what they perceive to be the world's major problems, will cite social concerns, such as warfare, ethnic strife, religious concerns, women's issues, youth delinquency, discrimination or oppression by one or more groups. These are of concern to us all; however, without a world in which society (in one form or another) can function, such concerns are meaningless.

Many of the above social concerns relate to morals, or lack thereof. Unfortunately, one person's morals may not be the same as the next person's, and therefore conflict will always arise. The same is true of politics - there is no one political system that will satisfy everybody. There is, however, one issue that nearly everybody should be able to agree on - the need to protect the world we live in for ourselves and for future generations.

Now, I believe there are three states of Mankind - personal, social, and responsibility. They relate to the individual, the nation, and the world, respectively. The first state, personal, relates to an individual's morals, religion, beliefs, desires, and hopes for the future. These are unique to every individual and are an integral part of their being - no nation can take these away from the individual, no matter how hard they try. It is also the reason why morals are intrinsically personal, despite what some organisations may believe. Therefore, when one person or organisation tries to enforce their morals on another there will always be conflict. The spreading of what are perceived as "good" morals can only be done through mutual consent.

The second state relates to individual's relations with one another. Society functions because it places limits on a person's behavior in such a way that one individual's beliefs or desires do not adversely affect another individual. Thus the nation is responsible for law and order in society. It is also responsible for ensuring that the individual's hopes and dreams for the future are realised to the individual's satisfaction. This is often a tall order and can result in discontent in society because the individual's first state over-rides the second state. This brings us back to politics, and it seems reasonable to assume that the nation would wish (in

the long-term) to ensure that the majority of its citizens are content. The best way of ensuring this, it stands to reason, is through democracy because if the majority are not content they can remove their government through established procedures.

The first and second states have already been reached and are, in fact, ancient. The third state, environmental responsibility, has been reached in a limited sense by some ancient tribes after they have come to some accommodation with nature within their confined territories. On a world-wide scale, however, this third state has never been reached, and that is what this book is about. I consider this to be a natural evolutionary progression, and one that is becoming more imminent and necessary as time progresses, particularly as over-pollution and over-population combine to tremendously increase the stress on our environment.

This book draws on many threads and ideas, although there are only two references used. These are Gaia (James Lovelock, 1979), who pioneered the scientific idea that the Earth is a self-regulating entity, and The Web of Life (Fritjof Capra, 1996). Capra's book is a well-written account of a change in thinking from the deterministic or particular towards the systemic or the whole. Capra also draws on current Chaos Theory and systems logic, which are at the fore-front of scientific thought today. These ideas have influenced and in many cases been incorporated into my book. In some cases, they have been extended and applied to new areas, resulting in some very original ideas, such as in education and history.

How to Rule the World in the Third Millennium (www.howtoruletheworld.com) is a short, compact, and pointed argument about how we could save the world from Mankind's neglect. As the title would suggest, this book covers a broad range of topics and in some cases, out of necessity, technical terms are used. This book is, however, designed for the general reader in order to reach as wide an audience as possible, and for this reason a small glossary has been included for some of the more technical terms.

The inspiration behind this book was a question posed to me by a friend; "What would be your ideal world?". My immediate thought was environmental protection, however other thoughts soon intruded, such as the right of everybody to live as they please as long as they do not adversely affect others. This leads to the idea of cultural diversity and tolerance, and the protection of indigenous lifestyles. My thoughts on education and what I call

"predictive history" are somewhat older, although I was able to incorporate them into the book as a useful tool for maintaining world security. Other issues, such as space exploration, were added to give the book some internal consistency and, I hope, logic, as well as giving it an overall unity.

Anthony Capri,
Port Douglas.
October, 1999.

CHAPTER ONE

INTRODUCTION: TODAY'S WORLD

Today's world is dominated by two opposing influences, namely that of unification and that of division. The unifying factors include the increasing globalization of the world economy, the end of the cold war, increased military cooperation, and the increased flow of information through such agencies as the Internet. There are many organisations that concentrate on a global perspective, such as the United Nations (UN), International Monetary Fund (IMF), World Trade Organisation (WTO), World Bank, various environmental organisations, and charity organisations. Dividing factors present in the world today include ethnic strife; global commercial competition between companies, nations, and trade blocks; the increasing gap between rich and poor nations; religious differences (not new); rich and poor; employed and unemployed; workers and bosses.

The dominant capitalistic world of today is the result of competition which at various times has been likened to Darwin's "survival of the fittest". Now competition is an individualistic pursuit by its very nature, in that it is concerned with beating someone else or someone else's team. Cooperation is concerned with working together to achieve some task, rather than simply beating someone else.

Competitive spirit pervades every aspect of modern western civilization. It begins in the classroom where everybody is rated according to their marks in tests. We are continually told in the classroom that our future employment prospects depend on how well we do in these tests. When we enter the workplace we continually compete with our workmates to enhance our prospects of promotion. Success is usually measured by how much money we earn.

In the business world competition is heightened to the extent that success can be equated with survival and failure with extinction. Current economic thought (rationalism) tells us that to survive, a business must expand. Current political thought tells us that a nation is an economic unit, and if economies do not grow, nations will become bankrupt.

On a global scale, economies can only grow at the expense of other economies, thus some economies will expand and others will become burdened with financial dependence. This is indeed what has happened in much of the third world. Economic rationalists will qualify this by pointing out that the world economy is expanding, and that with an expanding population and thus expanding markets, the world economy could expand indefinitely, to the benefit of all. It is true that the world economy has expanded tremendously over the last century, but common sense tells us that the world's resources are finite, and thus there must be some limit to the world economy.

I believe we are reaching that limit very rapidly, and indeed may already have exceeded it. If we have exceeded it, future growth can only be at the expense of future generations. Signs that we may have exceeded the limits of the world's resources are all around us, and are starting to intrude more and more on our everyday lives. The Greenhouse Effect and depletion of the ozone layer are just some of the latest signs of this. They are the result of the increased general pollution of the air, sea and land that have been with us for the last 150 years or so. The destruction of rainforests and wilderness areas in general have decreased the earth's ability to absorb the increased amounts of pollution.

According to the Gaia Theory (Lovelock, 1979), the earth can be considered a biological unit. In combination with the current Chaos Theory, this means that what we do in one part of the world will influence what happens in another part of the world, causing stress. The world is not nor ever was a static place, there are natural permutations all the time causing change. However, the world has generally been in a state of dynamic balance. When these natural permutations are combined with an undue amount of stress, cataclysmic events can take place.

It is believed that an asteroid struck earth 80 million years ago resulting in the extinction of the dinosaurs. The asteroid impact sent huge amounts of dust into the atmosphere, which affected the photosynthesis of plants and a whole ecosystem collapsed. The dinosaurs by this time had probably become too specialised and static to adapt to the new environment. Mammals, who were probably largely generalists at this time, expanded to fill the vacant niches left by the dinosaurs, and thus dynamic balance was restored.

On a smaller scale, the current controversy over Crown of Thorns Starfish (COTS) outbreaks on the Great Barrier Reef (GBR) can be taken as a case in point. COTS are an insidious predator that attacks coral in "pulse attacks". These attacks can ruin large amounts of coral in a short time, leaving coral devastated for years afterwards. COTS can produce millions of offspring in a season, and as a result outbreaks are very difficult to control, even with human intervention. This insidious creature does, however, perform a very important task in that it takes a preference for fast-growing coral (*Acropora spp.*). Without a natural check (such as COTS), *Acropora* could conceivably dominate large areas of reef due to its fast-growth and subsequent out-crowding of other corals. Thus COTS helps maintain the diversity of the reef. The "pulse attacks" are probably an evolutionary tactic to overwhelm predators in much the same way as coral spawning takes place over only four days of the year. This tactic involves producing huge amounts of potential food for predators in a short amount of time. The predators are unable to consume all of this food, and as a result large amounts of larvae survive. If spawning was to take place over a long period of time, predators may be able to build up their numbers to the extent that the food source will be efficiently exploited.

Now coral on the GBR is stressed by many factors other than the COTS, such as by cyclones, floods, and humans. Corals like clean, salty water for the photosynthesis required by their symbiotic algae. If there is an abundance of nutrients in the water, free-growing algae quite easily out-competes coral for the space required for photosynthesis. On many of the reefs of the GBR where COTS outbreaks have occurred, there is an abundance of nutrients. The presence of sugarcane farms on the mainland, fishing vessels, and tourism vessels, all of which discharge nutrients into the surrounding waters, may cause stress for the corals. This stress, in combination with the periodic "pulses" of COTS can create large-scale loss of coral. Thus it can be shown that the permutations of nature, when combined with stress factors, can create amplified effects that would not be evident if one looked at either factor independently.

The same concept could be applied to the world as a whole: the destruction of Amazonian, African, and South-East Asian forests lessens the world's ability to 'filter' pollutants and to resupply the world with oxygen. Destruction of mangroves and other "useless" wetlands severely diminishes the capabilities of the world's fisheries to re-stock themselves.

Fisheries in one part of the world can have detrimental effects on fisheries on another part of the world. Pollution from one part of the world can spread to other parts of the world via the atmosphere, rivers and oceans, on land through seepage, or via biological agents (of which dichlorodiphenyltrichloroethane (DDT) pollution is a well-known example). In short, pollution and over-exploitation are universal rather than local problems.

Given that the world can only support a given amount of animal biomass (based on the amount of plant biomass available which in turn depends on the amount of sunlight, water, and nutrients available), any increase in human biomass can only be at the expense of other animals. Therefore, we see human encroachments on natural habitats all over the world. A direct result of this has been massive deforestation and loss of species diversity, with many well-known species becoming severely depleted or extinct. It is believed at present only approximately 10% of species have been described, the rest, mainly insects and plants of tropical forests, are unknown. Considering that at least 1,000 acres of tropical forest are being lost every day, this constitutes an alarming loss of biodiversity in the world. In fact, the loss of biodiversity over the last few centuries is equal in magnitude to the catastrophe that spelt the end of the dinosaurs. This is very alarming when one considers that the only reliable

reason for such loss is the advent of man and the industrial revolution, rather than any purely natural catastrophe.

Indeed, some may consider that man is a natural entity, and so we are part of a natural process. If that is the case, we must take it to its natural conclusion and say that mankind is doomed to extinction through its own negligence of its environment. If we extrapolate the present situation into the future the world will be increasingly over-populated and over-polluted, and eventually the world will not be able to support its growing human population. This would result in environmental collapse and the break-down of society as we know it. The resulting loss of population would not restore the status quo, however, as future generations would still bear the burden of global pollution. Global pollution and the loss of a viable biosphere is what may spell the end of mankind. What would replace mankind and restore dynamic balance is anybody's guess.

The above argument is fine if we are to consider ourselves as unthinking, mindless agents of our own destruction. I prefer to think of ourselves as thinking, conscious entities that are willing to learn from our mistakes in a natural process of learning and social evolution. Some people today are quite happy to blame all our present ills on past generations. This is unfair in that past generations did not have the knowledge that is at our disposal. Today we have the knowledge and technology to minimise our environmental degradation.

Many people would consider a solution to the world's problems would be to turn the clock back and re-create a pre-industrial agrarian society. I consider this to be foolish, uninformed, and impractical. The industrial revolution has revolutionised the way people think, and short of world-wide amnesia, it is unrealistic to expect people to go back to the way they were. Besides, where would you put all the surplus population from the cities. Rather, I believe the industrial revolution was an inevitable result of social evolution, a point that we as a species have been moving towards imperceptibly over the aeons. It is now time to go into a new era of social evolution - one where we consider ourselves an integral and responsible part of the world's biosphere.

We thus need to move from national competition to international cooperation. Competition is useful in that it encourages the competitors to excel, and indeed, our modern world is largely the result of competition between European nations. However, competition can also result in over-exploitation and the pursuit of short-term goals. Thus competition rarely results in conservation. Conservation is usually achieved by appeal to common conscience. We thus need to delimit where competition is no longer useful and cooperation becomes a necessity. In terms of the environmental protection of the world, cooperation is needed by all nations in order to achieve a common goal which would be of benefit to all rather than the few. We need to shift our attention from the present to the future. I believe the best way to do that is to use the knowledge and technology that we have painstakingly built up over the aeons.

The true tragedy of mankind would be if we, knowing we are doing wrong, continue to do wrong, and thus lead ourselves to inevitable destruction.

CHAPTER TWO

TOMORROW'S WORLD

Tomorrow's world will rely on all nations cooperating and being responsible for the environment. Thus all nations will be responsible not only for the pollution in their own lands, but also that which is exported from their nations by the atmosphere, water, or other agents. In addition, all nations will be responsible for the survival of their endemic species, whether plant or animal. If individual nations are not capable of fulfilling their environmental obligations, international cooperation and perhaps intervention will be needed.

All nations will be responsible for their own individual societies and immigration. A limited number of international standards will apply, however, such as democracy and free-trade. Capital punishment, disfigurement, torture, slavery, child prostitution, and imprisonment of political prisoners will be outlawed internationally. Every family will be allowed access to safe family-planning devices. Cultural heritage will be the prerogative of every nation, however, facts concerned with that heritage, including archaeology and anthropology, will be international property.

Wars will be outlawed, and armies (but not police and border patrols) disbanded, including all their weapons. Conflicts within borders will be decided according to plebiscites. Thus it will be the individual nations responsibilities to manage immigration and borders. Every individual in the world is to be a citizen of at least one nation, and to have voting rights there.

It will not be the World Body's responsibility to concern itself with morality, health, education, industrial relations, or the general governance of nations except where that concerns the above matters. Governance of nations should be left to individual nations except in extreme cases such as: failure to meet environmental obligations; failure in a vote of confidence by its own people; intransigence concerning democracy, free-trade, world heritage; or a general break-down in law and order in that nation. In most cases intervention need only be minimal, and should in all cases be carefully stipulated according to laws.

The World Body would be created according to four major objectives, which in order of importance are:

1. environmental protection - this is the reason the World Body is needed, if it is not capable of doing this, it is defunct. The following objectives flow from the first objective.

2. security of the World Body - the security of the World Body is needed if it is to be successful in the first objective. Thus only the World Body would have an army which could act as a policeman to nations. Similarly, the security of the state would be undermined if large portions of the world were disenfranchised and unheard. Therefore, secondary objectives of security are democracy and free-trade. Free trade is needed to enmesh the world economy into a whole, giving the world unity and every individual in the world the opportunity to participate in it on an equal footing.

3. cultural tolerance - this is to be developed from first principles and includes the most primitive aboriginal groups. Every group, tribe, or nation should be able to live as they wish as long as it is condoned by the majority of the group, and it doesn't adversely affect another group. This is the reason why the World Body should not concern itself with morality - what is moral in one society may be abhorrent in another. For the same reason, medical practices and research should be at the discretion of individual nations. Archaeological sites and other artifacts of world heritage belong to the nation where they were found, however, the study of such artifacts should be open to all both for verification purposes and because those artifacts may be important to people who now live in different areas.

4. space exploration - this at first may appear to be a frivolous reason for a World Body, given the problems on our doorstep. However, I think this is important as an outlet for human endeavour and adventure. At present, there are many challenges facing the Earth, but when these are under control, the human spirit will need an area in which to expand. In the past, this adventurism has often led to war. If this energy can be directed to the responsible exploration of space, the human experience will expand tremendously, to the benefit of all. Further, understanding how other planets work may help us to better understand and manage our own planet.

SUMMARY OF RIGHTS

*i) **personal*** - for the purposes of this book, a person is deemed a person once severed from the mother's umbilical cord:

- right to believe whatever you like;
- freedom from torture, mutilation, slavery, child prostitution, political incarceration, and capital punishment;
- right to democracy (over, say, 21 years old);
- right of access to safe family planning devices (e.g. quality condoms).

N.B. Some may interpret this as a right to abortion. However, as this involves medical attention, and thus expenses, the question of who pays for it arises. For this reason, the question of abortion should be left to individual nations. All issues that involve medical attention (e.g. *in vitro* fertilisation) should be left to individual nations for the same reasons. That said, forcing a woman to have a baby against her will violates her personal integrity, and this should be outlawed as a type of slavery.

*ii) **social*** - social rights concern the rights of individual nations because nations regulate society:

- ownership of all lands and seas within their boundaries (and within constraints imposed by the World Body concerning environmental responsibility, security, and world heritage);
- right to impose laws on those in their lands (including non-citizens);
- right to their own political system (however, exposed to plebiscite by all citizens of that nation every 5 years);
- right to regulate their own society (this should not put constraints on free-trade except where a product is socially unacceptable or deemed unsafe within clear guidelines that apply to domestic products).

iii) environmental - rights of the World Body:

- right to protect individual species;
- right to protect world heritage (archeological, anthropological, geological);
- right to impose democracy (through 5 year plebiscites);
- right to impose the free trade of goods (not necessarily services, this is at individual nations discretion), as long as safe and culturally acceptable;
- right to defend itself and its principles.

Laws should be kept to a minimum and be very clear to allow individual nations maximum scope to develop their own societies within the above guidelines.

The World Body would consist of two bodies; the lower house, where nations are represented according to population; and an upper house where nations are equal. The lower house will be responsible for initiating legislation; the upper house will have the power of veto. The President would be elected by both houses, with both having equal weight. The President will have the power of both initiation and veto. Delegates will be elected directly by the people of their nation according to a one-person-one-vote principle.

Apart from the above practical concerns, if there was to be a guiding principle behind the creation of a World Body, it would be "the pursuit of truth, freedom of expression, and diversity of opinion".

These matters will be set out in more detail in the following chapters.

CHAPTER THREE

ENVIRONMENTAL PROTECTION

Environmental protection would involve two major directions; the maintenance of species diversity; and the control of pollution and environmental degradation. Environmental degradation can be considered a form of pollution if it involves sediment run-off, rising water-tables, or in any way adversely affects other habitats. Similarly pollution is a form of environmental degradation where it adversely affects habitats at the source or far away. Pollution can be localised or wide-ranging. Thus pollution and environmental degradation are closely linked.

The maintenance of species diversity is the first major direction for environmental protection and it is in this field that our success in environmental management can be evaluated. Many people would argue that the maintenance of species of themselves is secondary to maintaining their ecosystem and habitat in general. This is true, however, by protecting individual species we give ourselves a yardstick with which to protect whole habitats. Fortunately for us, most species that humans are interested in protecting are large, conspicuous animals. These animals generally need the largest habitats to support them and are often towards the top of the food pyramid. Such species are often called "umbrella species" in biological circles because by protecting them we also protect many other species that live in the same habitat. If these animals are towards the top of the food pyramid, they may need an entire ecosystem to support them. Thus, for example, the number of jaguars in a Central American jungle is a good indicator of how healthy that jungle is.

But what about small insects and plants? They also are individual species and as deserving of our protection as larger animals. This is a little trickier because they are often inconspicuous and/or inhabit inaccessible areas. Therefore, it is easy to wipe them out without even knowing that they were there. This is exactly how our great loss of species diversity is happening today. Unfortunately, many individual species of plant depend on an individual species of animal to pollinate them, and likewise that animal relies on that plant for food - if one disappears the other is doomed.

This extreme specialisation is very common in tropical forests and is the very reason that these habitats are the most diverse and species rich on the planet. It is also, unfortunately, these habitats that are being depleted most rapidly today.

The maintenance of species diversity is important if we are to maintain habitats such as rainforests. These habitats behave as an ecological unit and if a part of that unit is lost, the entire system is weakened, making it more susceptible to other hazards, such as fire and disease. Thus it is important to preserve every species. The loss of species not only lessens the richness of the world, but also of humans, and not only from an aesthetic point of view. Most of our modern drugs and many other useful products were developed from tropical plants. By losing species, we are also losing that great variety of different chemicals that each species uniquely possesses. Therefore, by protecting individual species we are also preserving the genetic diversity that creates a bewildering variety of drugs and other products. This huge genetic diversity is something we are only beginning to understand; it is estimated that we have discovered less than 0.01% of the drugs available in the plant world alone. These should be protected before they are lost forever.

Therefore, although it is important to protect large conspicuous animals; small plants and insects should be protected too. The only way to protect these things is to find out what and where they are. To do this detailed surveys must be completed before any new habitat is destroyed. Any new development that involves habitat destruction must be preceded by an intensive survey to find out exactly what will be destroyed.

Many drug companies actively survey rainforest habitats in search of new species in the hope of finding in them a new drug that may be beneficial to the cure of diseases such as cancer or Auto Immune Deficiency Syndrome (AIDS). These companies then patent the drug that was developed from these species, and create huge profits. There is clearly an incentive here to preserve these species. That incentive should be passed on from the drug companies to those nations in which the species occurs. In this way, nations may have an economic motive for protecting their forests.

Therefore, patents for drugs and other useful products derived from species within a nation, should belong to that nation. One might argue that this would be a disincentive for drug companies to produce new drugs, and thus the incentive for preserving the forests would be gone. On the contrary, there will always be a market for new drugs and by giving the economic advantage to the nations involved, there is an incentive to preserve the forests. Any cooperation between drug companies and nations should be on that nation's terms.

Nations should be responsible for their territorial seas and have jurisdiction over them. This implies that they also have the responsibility of ensuring that marine species are protected. If they are not capable of this, international intervention would be required, as it would for terrestrial species. The marine environment is more complicated than the terrestrial environment, however, as pollutants can affect a much larger area. Thus a good barometer of the environmental health of a nation may be the health of its surrounding seas. Over-fishing within a nation's territorial seas should be that nation's responsibility, except where that over-fishing endangers a species with extinction.

The open seas should belong to the world as a whole. Thus profits from the open sea should go to the World Body, to be distributed throughout the world (including land-locked nations). This would be effective in dispelling the myth that the open seas are a free-for-all, with profits to be taken as quickly and effectively as possible, without any regard for the future. Thus a nation's argument that they have over-fished their territorial seas is not a valid argument for their over-exploitation of the open seas.

The World Body would need to continually monitor stocks to ensure they are being fished sustainably. It could then lease-out fishing rights to interested companies depending on their environmental track-record and conformity to international standards. These companies would have to be transparent in their fishing quotas and their by-catch, and allow immediate access to international officers. The need for a World Body to ensure protection and the sustainability of species is nowhere more apparent than in the open seas.

Globally, the best way to preserve the world's diversity of species is, firstly, to find out what is there. This can only be done by extensive surveys.

Global surveys can give an idea of how much we do and don't know, and be a base from which other surveys can be compared. This would be very cost and labour intensive. With a World Body and the resources at its disposal it should be possible to produce a World Status Report every five years. Only by doing this can we attempt to manage our resources and have any idea if we are being successful.

Generally, species need populations in excess of 200 to be genetically viable. Smaller numbers suffer from inbreeding and subsequent genetic weakening resulting from the accumulation of undesirable traits. Thus in many cases captive breeding programs are useful for mixing genetic material in genetically isolated populations. This, however, is far from ideal, and nature reserves should have natural corridors that allow natural mixing to occur. The use of zoos to ensure the survival of a species should be a last resort, and an admittance of failure to protect the species in the natural environment. However, as a last resort they may be an extremely useful tool for the maintenance of biodiversity, as well as a tool to expose the general public to a greater understanding and appreciation of the world's immense biodiversity.

Some people would argue that extinction is a natural state of affairs, which is true. However, the present rate of extinction is equivalent to the last great extinction of dinosaurs, although in this case it is due primarily to man alone. This is unacceptable if we are to share the world with other animals. Generally, species are in a state of dynamic balance with their environment. If they have sufficient genetic diversity, as stated before, species should be able to gradually adapt to a changing environment - this indeed is how evolution occurs. It is only when there are rapid changes in the environment that extinctions occur. Thus, an argument that a particular species was doomed to extinction should be vigorously analysed by biologists to determine the exact cause of the species decline. In most cases it will be found that a human induced variable will be the reason behind the decline, whether direct exploitation, environmental degradation, or the introduction of an exotic pest. Again, captive breeding in zoos should be considered a last resort, although it is better than the extinction of the species concerned.

The second major direction in which environmental protection should take place concerns pollution and environmental degradation.

This would involve nations and companies being liable for their pollution. If one nation suffers from another's pollution, for example from acid rain, that nation should be able to sue the other nation for damages. As this applies to individuals, it is justifiable to apply it to nations as well. However, with the current globalization of economies, it should be recognised that many companies with bad track records on the environment will move to poorer nations where environmental regulations are not as strict. In such cases, the companies concerned should be held liable in lieu of the nations who may be sued. Advanced nations should have their own mechanisms for suing companies involved in pollution.

This is not anti-development. Companies make huge profits by supplying the consumer with products at the lowest possible price. Any increase in environmental regulation will often (but not always) result in higher prices for consumers. Thus the consumer will pay for increased environmental regulation as much as will the companies involved. However, it needs to be emphasised that environmental degradation affects us all. It is most potent when it is localised and effects people's quality of life, for example from smog or when sewage stops us from swimming in the sea. However, it is also true that cities can adversely affect the agricultural output from surrounding regions due to acid rain or other air-borne contaminants.

Globally, pollution can have an effect on fisheries, the ozone layer and the health of the atmosphere in general, as well as in insidious processes such as the pesticide DDT intruding on the chemical composition of every living thing on the planet. Thus, pollution and environmental degradation in general affect us all, whether locally, regionally, or globally. A more disturbing aspect is that it affects future generations. Some pollutants may not affect our generation at all (although produced during our generation), but will affect future generations in such a way that they may despise our generation for its shortsightedness. An example of this type of pollution may be radioactive plutonium, which can leach out to the environment for 250,00 years after it is buried. Therefore, we are all liable for our pollution. The principles stated above only recognise that fact.

Some people may consider that this rather basic solution overlooks perhaps the greatest problem concerning environmental protection, namely over-population.

Unfortunately, the areas most in need of environmental protection suffer from chronic over-population. Over-population results in increasing pressure on the natural environment due to the increasing demands on the land itself. This manifests itself through increased clearing to produce new farmlands, increased use of wood for fuel, and general encroachments on wilderness areas. As will be stated later, population concerns will be the prerogative of individual nations, although the availability of contraceptive devices will be universal.

It is a well-known fact today that the richer the nation, the lower its birth rate. Thus it would appear to be obvious that we need to encourage well being in poorer nations in order to lower the birth rate. This would involve education as well as the availability of birth-control methods. Additionally, nations can gear themselves in such a way that large families are discouraged, through taxation and/or incentives for smaller families.

Another prerogative of individual nations will be to prevent the loss of endemic species. Now species do not conform to national boundaries, and as such should be considered as individual entities. Thus, in one nation a species may be in a healthy condition whilst in another it is endangered. Our concern should be for the species as a whole. In the case of a species being endangered worldwide, international vigilance will be required. The natural habitat of the species will need to be protected. If individual nations are incapable of doing this they will have to declare themselves incompetent and the World Body will takeover the areas concerned. This will probably result in social dislocation and tension, however, it is essential that the World Body can manage such situations - otherwise the World Body is useless, and we are doomed to the fate mentioned before.

CHAPTER FOUR

WORLD SECURITY

A World Body would need to be able to defend itself and its objectives. Therefore, security of the World Body, and the world itself, would be the second major objective that a World Body would be founded upon. The first objective, environmental protection, was discussed in the last chapter, and in itself is the reason behind the need to create a World Body. However, without security, the first objective would amount to little more than empty rhetoric.

Security of the World Body would largely involve the policing of nations, whereas the nations themselves would be free to police their own citizens and those on their lands. Certain principles would be worldwide, however, such as the availability of safe family-planning devices; the abolition of capital punishment, disfigurement, torture, slavery, child prostitution, and the imprisonment of political prisoners. The abolition of capital punishment would not only apply to criminals of heinous crimes, but to citizens as a whole. Thus murder, genocide, and war in general would logically be outlawed. Likewise with the punishment of disfigurement, as practised in some nations. Slavery, which may be the result of force or debts (some of which are extended over many generations), and child prostitution would be outlawed on purely humanitarian grounds. Political prisoners will be a thing of the past. People will only be imprisoned as a result of specific crimes, such as bombings or murder, but not as a result of holding a particular belief.

The abolition of these practices world-wide would in itself be a major achievement, and give the World Body glowing accolades in future history books. Of course, these restrictions would apply to the World Body as well. Some may argue that this would severely hamper the World Body's ability to secure itself in order to fulfill the first objective. For example, what if an armed minority rose up against the majority in a nation, and that nation decided to use armed force against the minority in order to appease the majority. Another example, how would the World Body be able to enforce a directive against a recalcitrant nation if that nation rose in arms and an armed conflict is unavoidable.

In both cases rebellion might be justified as a case of self-defence against an aggressor that was enforcing its ideals against the way of life of a people. These examples involve the third objective of the World Body, cultural tolerance, which will be discussed in Chapter 7. In the first example, World Body intervention would be required. Any differences could ultimately be resolved by a plebiscite and the creation of a new nation if necessary. However, such plebiscites should be resolved before armed conflict occurs.

In the last example, armed conflict between World Body forces and that of a recalcitrant nation would appear to be outlawed due to the abolition of capital punishment, and thus murder and war. If the armed rebellion took the form of not allowing World Body officers to carry out their functions, self-defence would be justified to the extent that those officers can carry out their functions. Now armed rebellion by a nation would be the result of it not complying with the World Body's directives, by the use of arms. This could occur due to a disagreement in any of the fields discussed below.

Disagreements could occur due to a failure to comply with environmental regulations, human rights, democracy, free-trade, heritage of world importance, or a general break-down of law and order in that nation. It should be noted that these issues concern the nation as a whole, rather than specific individuals. To illustrate, suppose one nation's (A) industries, which are very close to another nation (B), cause nation B severe ecological degradation, resulting in nation B suing nation A for reparations. The World Body finds nation A is at fault and must pay reparations and clean up its industry in that area. Industry leaders in nation A object and pressure the government to defy the World Body, citing huge profit losses. Nation A thus decides to defy the World Body, and to test its strength by force of arms. The World Body would thus be forced to the use of arms to ensure that its directives are met. The World Body would only use as much force as was needed to ensure the protection of its personnel, and their ability to carry out their functions. In a worst-case scenario, this may involve the taking over of the government in question. This would involve the World Body governing that nation for a period not greater than five years, after which free elections would be held.

The principle of self-defence may be used by some nations to justify capital punishment. The argument would run thus: we need to defend our citizens against persons of heinous crimes, such as mass murderers or particularly gruesome murderers, and the best way to do this is to enforce a deterrent, in the way of capital punishment. However, I am not aware of any studies that have shown that capital punishment lowers the incidence of heinous crimes. In fact, most criminals of the above calibre would prefer death than living in a prison with only their conscience as company. But what if they escape? Nations that are unable to contain their worst criminals should declare themselves inept in this regard and allow the World Body to manage the incarceration. The fact of the matter is that the criminal is restrained until the punishment is carried out, and therefore, on a more individual basis, self-defence arguments are absurd.

Now the World Body would govern nations concerning basic human rights, as discussed above, environmental responsibility, discussed in the previous chapter and above, democracy and free-trade, and in heritage of world-wide importance, as discussed in Chapter 7. Democracy and free-trade will be needed to give the world some cohesiveness. Democracy could be considered a people's right according to the principles of human rights as such, but it is also an important barometer to indicate whether people are happy with their governance. Using democracy as a barometer, it might be possible to head-off problems before they become too serious. Therefore, democracy could be considered an important secondary objective within the main objective of world security.

Likewise with free trade. Free trade is important because it is a means of distributing the world's wealth. The lack of free trade is a major cause of friction between nations; the removal of trade barriers would remove a major source of dissension, and possibly war, between nations. The free trade mentioned here concerns goods. Trade in services should remain at the individual nations discretion. At present, the world is divided into trade-blocks which seek to benefit their members at the exclusion of others. Thus, the European Economic Community (EEC) seeks to maximise its strengths (largely manufacturing), and minimise its weaknesses (such as farming). Thus the EEC can import cheap raw materials from third parties, manufacture it, and re-export it to the third party at huge profits. This is because the EEC nations are very skilled and experienced at manufacture.

However, the third party cannot maximise its strengths (eg. farming) because the EEC places tariffs and subsidies on its farming products to protect the electorally important farming constituency. This results in a major trade deficit to the third party and often financial dependence. With the removal of trade barriers every country should be able to maximise its strengths, perhaps resulting in the disenfranchisement of groups in the same field in other nations. This is unfortunate, however it simply recognises the inevitable. Tariff protection is a purely artificial means of protecting inefficient industries, and as well as often resulting in 'trade wars', results in inflated prices of products in the home country. In other words, the consumer pays for the protection of an inefficient industry.

Subsidies are a more complicated question. They generally take the form of tax concessions or incentives for ineffective industries. Thus money is taken from the general tax base and given to these industries. Across a country, this will mean that the country as a whole will be burdened by the subsidies because another group/s will have to pay more tax to support the subsidised industry. If a country persists in subsidising its inefficient industries, it will be a burden to the nation itself, and lessen the efficiency of its efficient industries. This could be considered a type of natural justice, and this, as well as the extreme intricacy of subsidisation programs, may indicate that such programs should be left to the discretion of the countries involved. In the long term it may be found that the burdens of subsidies outweigh their short-term benefits.

Free trade should be encouraged to allow all nations the equal opportunity to participate in the world's economy and a share of the world's wealth. Thus nations should be able to maximise their strengths in farming, mining or manufacturing on what is termed in economic circles as a "level-playing field". One of the incentives for growth of poorer nation economies is their low labour cost. This attracts many labour-intensive industries to those nations, and has been a major factor in the growth of the "Asian tigers" during the 1990's. As a nation's wealth increases, so do the standards of living via increased wages. As wages increase, the labour-intensive industry competitiveness declines, and they may move to yet poorer nations. By this mechanism, poorer nations can attract industries and thus improve their economic well being.

This could conceivably be a major force in spreading the world's wealth, and in some way counter-act the tendency for the accumulation of wealth in the richer nations. As a nation's wealth increases, it may be necessary to move away from labour intensive industries and focus on the countries natural advantages, for example in tourism, industry, or farming. Therefore, a worldwide free-trade policy would be advantageous to poorer nations in two related areas; lower labour costs would attract labour-intensive industries, and the produce of that nation would be very cost-competitive against richer nations.

Apart from the stipulations outlined above, individual nations will be totally self-governed and allowed maximum freedom in internal affairs. Thus, nations will be responsible for their own education, labour relations, health-care, social security, transport, law, policing, and borders. Nations will retain their ownership of land and its resources, which could be leased out according to that nation's best interests. The only exception to this might be where the world's security or principles are compromised, and this should be carefully stipulated according to law. Free trade will only be hindered in nations that have legitimate concerns about the safety (health) of a product, or that product is socially unacceptable in that nation. These concerns may be extended to foreign control of the media. These stipulations should not include family planning devices where these products are undeniably safe (such as quality condoms), because family planning should be the right of every family. Products produced in prisons would not be available for export. They could, however, be made available to the domestic market.

Democratic principles will be upheld through plebiscites every five years in each nation. This plebiscite would take the form of a referendum on whether the people are happy with their form of governance and would apply according to a one-person-one-vote principle. People who don't vote would be considered as a no-vote, thus nations would be encouraged to ensure as many people as possible voted. This would encourage civic responsibility and civic discussion in the nations involved. All people over a certain age (say 21 years) would have the right to vote, including convicted criminals and the supposedly insane.

Generally, the five-year cycle would run thus: the first three years the nation would be left to its own devices according to international principles; on the fourth year an International Status Report will be made of that nation in which all aspects of the nation will be recorded, with emphasis on the state of the environment and endemic species, and a general census undertaken. During the fifth year the plebiscite mentioned above will be undertaken. At the same time, representatives of that nation into the World Body will be elected, again on a one-person-one-vote basis. This vote would only be valid if more than 50% of people vote. In the advent that a referendum failed (a vote of no confidence in present governance) an open and free election would be held after a suitable period of time (to allow politicking to take place). In this election, anybody could run for the election of a new (or old) government and form of government. Thus, in theory, a tyranny could be voted in by the people for a period of five years. This is the people's prerogative and the government thus elected would have a mandate to rule for the allotted period of time as long as it adheres to international principles. Again a one-person-one-vote principle would apply, but the people should have the opportunity to vote for the previous government and thus renege the no-confidence vote.

As mentioned previously, the World Body would consist of two chambers - the upper house and the Lower House. The Lower House would consist of members of each nation and have voting powers corresponding to the population of that nation - they would be responsible for initiating legislation. The upper house would consist of members of each nation, with each nation having equal voting powers, regardless of population - they will not initiate legislation of their own accord but will have the power of veto over legislation. The President, voted by the combined chambers, with each chamber having equal weight, will have the power of both initiating and vetoing legislation. He/she would also be commander-in-chief of security.

Now the World Body's powers would be carefully stipulated according to law in the areas previously outlined. Thus there might be four councils assisting the President in the areas of concern to the World Body, namely: environment and pollution; democracy; free trade; and world heritage. Additional councils might be concerned with world security, and space.

So how would the World Body be able to enforce its directives? The system should involve volunteers from any nation who would be trained and employed as the world's security officers. Defence forces per se would be outlawed in all nations except as internal police and border patrols. Their equipment likewise should be limited to what they need to ensure effective policing of the above. Thus, nuclear weapons and intercontinental missiles will not be required by individual nations. All such extreme weapons should be in the hands of the World Body. But why not outlaw nuclear weapons entirely, and have them destroyed? Nuclear weapons could conceivably be developed at any time by itinerant groups, and they should not be allowed to hold the world at ransom. By keeping a store of nuclear weapons and advanced weaponry, the World Body would prove to be an effective deterrent to such renegades, as was effectively proved during the Cold War.

How would all this be payed for? The World Body would impose a 10% tax on the Gross National Product (GNP) of all nations. This would be stipulated according to law and would not be increased except in emergency situations, and then only for a limited time (say five years), after which the nations should have a five year breathing space whereby taxes are brought back to 10%. This 10% tax would be less than many nations currently spend on defence force funding.

CHAPTER FIVE

EDUCATION

Officers of the World Body should have as broad an educational base as possible. This should be done so that they can collate information from many different sources and fields and make a balanced judgement according to that information. For the last 50 years or so there has been a marked specialisation in all fields such that a specialist in one field cannot communicate with specialists in other fields. This has resulted in a huge fragmentation of knowledge and a tendency to look at parts within one's speciality rather than the large picture. This is fine if one's only interest is to further knowledge in that speciality, however, it is increasingly being found that knowledge from other fields can be applied resulting in huge advances in understanding. Thus, today, there is a huge dichotomy between the specialist or particle approach and the holistic or systemic approach. A particle approach concerns itself with the parts of the whole, and holds that by understanding the parts we can better understand the whole. A systemic approach concerns itself with the interactions of the parts within the whole - a study of the system itself.

It has increasingly been found in the sciences, particularly in biology and physics, that the particle approach has been found wanting. This is illustrated, in physics, by the controversy surrounding the beginning of the universe, the origin of matter, and the failure to find a "theory of everything". The standard approach to these questions has been to divide matter and energy into increasingly smaller parts in order to find a common source for all matter and energy. This approach has failed and it is only beginning to be considered that the approach to the question may be wrong. The lead in the shift from a particle to a systemic approach has been taken in biology.

Here the two approaches can be seen thus: a particle approach may see a species as a group of populations, which in turn is a group of individuals. Individuals are made up of a group of organs and tissues, which in turn are made up of cells. Cells are made up of organelles and peptides, which are encoded by Deoxyribose Nucleic Acid (DNA).

Thus all life can be reduced to its constituent DNA. DNA is made up of molecules which are made up of atoms, atoms are the result of specific arrangements of protons, neutrons, and electrons. Matter itself is made up of energy according to Einstein's well-known law $E = mc^2$; and on it goes. From a biological point of view, it is unsatisfactory to reduce the incredible richness and diversity that is life into its constituent parts. There are clearly patterns that occur at each level of complexity that cannot be explained merely by reference to its constituent parts.

Thus there evolved a systemic approach that looks at the relationship of the parts with each other and with the whole. In ecology one looks at a species interactions with other species and with the environment as a whole. If one went deeper, one might look at the energy budget of an individual and see how that relates with other individuals and other species, and the effect the environment has on that. If one looked inside that individual one might ascertain that the individual needs such an energy budget as a result of its size, shape, arrangement of organs, and the physiological processes within these organs. On a time scale, one may see that individual as a result of long evolution, whereby selective pressures over the aeons has resulted in an individual being very well-adapted to its way of life. One may look at the species on which it feeds, or which feeds upon it, and see that they too have evolved, often in competition with it. The individual is very intimately shaped by its environment, and an ecological unit behaves as an intricate complex which involves the cumulation of all the interactions of individuals amongst themselves and with the environment. Ecological units themselves interact with each other, and this leads to the concept of the "biosphere" which encompasses us, and indeed the whole world, including the non-living component of it. The biological and non-living world are intricately related through such processes as water-transfer, the composition of the atmosphere, and geological processes. Thus it can be seen that the study of the relationships between parts are at least as important as the study of the parts themselves. There is much truth in the old adage "the whole is more than the sum of the parts".

The systemic approach has found new credibility in the field of Chaos Theory in recent years. It has been found that this theory has applications over a wide range of specialties, but is best illustrated by application to meteorology.

For a long time weather forecasters have been trying to improve the accuracy of long-term forecasts. This would prove invaluable for anyone trying to plan a trip or outdoors event. Using a particle approach it is believed that if enough data was taken forecasts could be extended indefinitely, depending on the quality and quantity of the original data. However, weather is extremely sensitive to initial conditions, and a tiny lack of initial data could amplify itself into major un-forecast events. Thus the famous saying, "a butterfly's wings flapping in Beijing could cause a storm in New York", otherwise known as the "butterfly effect" (Edward Lorenz, *in* Capra, 1996). Now it is impossible to know the initial conditions of any system exactly. In the above example, one could not simultaneously measure every point of the atmosphere for temperature, humidity, and wind speed. Even if it were possible to measure every point, one is still limited by accuracy: even if one measured temperature to 0.0001°C, one has not measured 0.00001°C and smaller increments. Therefore, one can hope for more and more accurate approximations, but an exact measurement is impossible. Any weather forecasts are at best approximations (as everyone knows), and the further one attempts to forecast, the less accurate it is less likely to be.

That small changes in initial conditions can result in major un-forecast changes in the final outcome is one of the major discoveries of Chaos Theory. It can be applied to many fields, ranging from economics and sociology to engineering and biology. Chaos Theory makes us realise we cannot know everything. Specifically, it shows us that we cannot understand the whole simply through intensive study of the constituent parts. However, it gives us an enormous opportunity to explore the boundaries between the knowable and the unknowable. This boundary area may be as fascinating and intricate as anything on either side of it, and in itself lead to major discoveries. I do not say there is a limit to human knowledge, new discoveries and ideas may result in the boundary area being breached on occasion, resulting in the discovery of a new boundary area. However, like the weather forecasts, we can become more and more accurate without being exact.

I do not state that a particle approach is useless, only that it is not the only approach. Indeed, a particle approach is very useful when seen within the context of a systemic approach. They are not mutually exclusive but should compliment each other, depending on the question that is asked. This is particularly so in the field of education.

Now education in its basic elements consists of the three R's - reading, writing, and arithmetic. This is fine as preparation for the basic necessities of modern living. However, as one progresses through the education system classes become more and more specialised, according to one's preferences. Thus we have university graduates in fields as diverse as Medieval English Literature and Solid-State Physics. This is fine within the context of their respective specialties. However, it would be nice if these two graduates shared some common ground and at least an understanding of each other, if not for the sake of their respective fields then at least for their own personal development.

This would be particularly so for officers of a World Body. For example, officers taking part in a status report of a particular nation would collate material from a wide variety of diverse fields, such as art-history and its effect on contemporary society; psychology; sociology and politics; natural resources; and ecology. From these various sources one may need to make an assessment of contemporary life in that society and its future directions and prospects. Further, these officers may be asked specific questions concerning the likely outcomes of a new development on that society, and make quality judgements on whether that change would be advantageous or not.

I propose a new system of higher education, which would apply after a student has reached the stage of education that one needs to be a functional member of society. This system would be all encompassing and touch on or at least mention every field of endeavour that the human mind has tackled. In this sense it would be specialist, but each specialty would have a place in the whole in such a way that the whole would be given more meaning. Basically, this would be a system that linearly progresses on three fronts: 1. logically, 2. an educational or user-friendly basis, and 3. on an evolutionary time scale.

Now we have reached a stage in scientific knowledge that it is possible to reconstruct (albeit with many gaps and controversies) a broad history of the universe. This would begin with the Big Bang and the forces of the universe eventually producing matter. Matter and energy eventually produce galaxies and stars. Nuclear fission and supernova explosions produce the heavier elements of the universe, and re-forming stars collect the heavier elements around them in the form of planets and planetesimals. On these planets geological processes take place that may result in atmospheres and oceans. Complex organic compounds in a friendly environment may produce the beginnings of biochemical processes

that eventually lead to life, probably in the form of bacteria. Commensal bacteria may combine to form eukaryotic cells, which may cooperate with each other to form higher life forms.

Natural mutations, in alliance with the evolution of sex, allows a great variety of life forms to evolve. The forces of natural selection ensure only the fittest survive and through competition species progressively become better adapted to their environment. Thus there is a natural evolution from bacteria to eukaryotic to multicellular species. Multicellular species very early break-up into three Kingdoms: Plant, Fungi, and Animal. In the Animal Kingdom a type of sea squirt converted its free-swimming larval stage into an adult stage and fish appear. Fish radiate over the world's seas and into fresh-water bodies. Drying of some fresh-water bodies give a competitive advantage to fish that can survive that drying process, and eventually amphibians appear. The radiation of amphibians on land give a competitive advantage to those amphibians that were not as reliant on water for their life cycle, and so reptiles and eventually mammals and birds appear.

After the great Dinosaur extinction, many niches became vacant, allowing for the tremendous radiation of birds and mammals. One group within the Primate Order of mammals took advantage of spreading grasslands in Africa to adopt an open-ranging attitude resulting in bipedalism. These species found they could hunt and protect themselves better in a hostile environment if they formed groups. Thus society was born. Competition between groups resulted in increased brain size and eventually the development of language and complex societies and religious rituals. Further competition between bipedal primate species results in the extinction of all such species except *Homo sapiens* - of which we belong.

H. Sapiens was very successful and spread out of Africa to occupy all the continents of Earth except Antarctica. The drying of the Middle East resulted in some groups finding refuge around oasis', in which it was found that advantageous plants could be induced to grow. Thus agriculture was born. Agriculture meant that an area could support many more people than would be possible in a hunting and gathering society. Increased populations meant that there was increased conflicts between groups, and defence was needed to protect areas under agriculture - thus states were formed. States generally needed a place where all politicking and commerce could be concentrated, and religious festivals held. Thus cities were formed that depended on the surrounding countryside for food and water. Increased

commercial activity and complexity of land ownership lead to the development of written language whereby transactions could be recorded. Thus written history is born. Technology developed mainly as an accompaniment of improved agricultural techniques and warfare. Thus mankind progressed through the Stone Age into the Bronze Age and Iron Age until we arrive at the Electronic Age that we now live in.

Now this is a very simplistic and broad history, and is told as it could be told to any child. The mere re-statement of events does not constitute education. We are interested in how we come to believe things. This is a very intricate and complex issue, and involves real thinking and thus education. The following outline constitutes a map that can be used to navigate oneself through the huge accumulation of knowledge that is at our disposal today. It is presented here as a type of curriculum.

A broad outline of the curriculum, on a linear time scale, would be this: education, philosophy, mathematics, physics, chemistry, geology, biochemistry, microbiology, botany, zoology, ecology, evolution, psychology, anthropology, archaeology, and thence history. History in itself is a complex issue, and would be arranged thus: art; religion; technology; commerce and economics; management, law and politics; military science; and finally predictive history, as will be discussed later. Again this will be done on a linear time scale.

Obviously, the above constitutes a huge block of knowledge and there are many overlapping areas. However, most of human knowledge could be placed somewhere in this scheme. It appears to me to be the best compromise between a logical, user-friendly, and evolutionary sequence. The amount of information presented in these varying fields may appear over-whelming, however, in its basest form, I believe the above curriculum could be completed in one year (full-time). Officers of the World Body may require a more extensive curriculum - 3 or 5 years. It would not make anybody an expert in any of the fields, but it would provide an insight into methodology and current issues and controversies, as well as a general knowledge of the subject itself.

The curriculum could be broadly divided into two equal parts - science (philosophy to psychology) and humanities (anthropology to military science); with an introduction (education) and conclusion (predictive history). The curriculum should combine practical and theoretical aspects of each field. Within each field there should be a presentation of facts

(survey), followed by discussion of those facts (theories), and the means of examining those theories (methodology). Some fields will be better suited to the presentation of facts than others, for example, astronomy, microbiology, botany, zoology, and anthropology would be well suited to surveys of what is present in the world (or universe) today. Other fields are better suited to theoretical discussions (eg. philosophy, mathematics, and economics); whereas methodology would lend itself better in others (eg. chemistry, archaeology).

However, where possible, all subjects should encompass an embodiment of facts, theories, and tests of theories (ie. methodology and experimental techniques). Additionally, each subject should contain a history of the study of that subject and conclude with a discussion of current controversies and future trends. Of course, different topics within subjects may be handled separately, but each should hold, as much as possible, with the general outline above. However, these outlines should be regarded as guidelines only and each subject should be considered as an individual case, and where possible should mesh in with the curriculum and its objectives as much as possible.

The amount of information present in the above subjects would amount to several lifetimes study. It is beyond my capabilities to discuss all the subjects in any detail. This would require many competent specialists in each of the subjects - specialists with one eye on the subject in question and another eye on the curriculum as a whole. However, a very simplistic outline may be as follows.

As mentioned before, each subject would include an introduction and conclude with present controversies and future trends. It would begin with education - aims and objectives; history and methods (eg. rote learning); and current aids to education (memory retention, speed-reading, study techniques etc.). After current controversies and future trends there will be an introduction to the curriculum as a whole - its aims and objectives; and may include a general run-down of the history of the universe as it is now perceived.

The next subject would be philosophy. This would be important as a basis for the inquiring mind to question all assumptions that would follow in the curriculum. Philosophy enquires into every aspect of who and what we are; therefore a history of philosophy would include inquiries into ethics, religion, mathematics, music, humanities, politics, and modern science. This would conclude with modern philosophy and philosophical techniques.

Philosophy would naturally flow into mathematics, as all mathematics has ultimately a philosophical basis, and uses philosophical techniques. A history of mathematics might incorporate numbers theory; algebra; geometry and trigonometry; calculus; probability theory and statistics; and conclude with chaos theory. Mathematics is the tool that physicists use to inquire about the universe, however, we now move from purely abstract thought into practical or physical thought as it can be applied to observed phenomena. This requires a movement in philosophical thought from "thought experiments" to modern scientific experimental techniques, which gives us a method of testing whether theories hold true in the real world. This "quantum-leap" in philosophical thinking is what makes the technological world we live in different from the world of the ancient philosophers, with their circular thinking.

We thus move away from the abstract sciences into the 'hard' sciences of physics, chemistry, geology, and biology. However, for the benefit of the student, it may be prudent to take "time-out" at this stage and take a tour of the heavens. This would constitute an introduction to astronomical phenomena, beginning with a tour of our own solar system using all the pictorial devices that are now at our disposal. This would move on to the different stars and star systems in the Milky Way and beyond; different galaxies and to phenomena at the very edge of the known Universe.

This is a legitimate aside as the attempted explanation of the movement of the heavenly bodies has been one of the driving forces behind the advancement of physics. After the introduction of physics one may inquire into the philosophy of modern science and the use of mathematics as a tool. The history of physics may incorporate basic physics (force and energy etc.); Newtonian physics; Einstein's physics; quantum physics; and astro-physics. Physics runs naturally into nuclear chemistry and is used as a tool in many fields of chemistry, such as in physical chemistry. The history of chemistry may incorporate: early theories; alchemy; analytical chemistry; physical chemistry; inorganic chemistry; and organic chemistry. Organic chemistry runs easily into biochemistry, however, before we start looking at life processes we should look at geology so we can ascertain the stage on which life appeared.

Geology would incorporate not only rocks and land formations, but also meteorology and oceanography. These fields have been studied quite separately, however they are all

concerned with the physical environment in which we live, and as such are interconnected. After the introduction and history of the subjects concerned; one may begin by inquiring into the formation of the solar system; and the Earth itself. This may lead to the discussion of the structure of the Earth; plate tectonics; and the origins of the three main rock types - igneous, metamorphic, and sedimentary. The discussion of sedimentary rocks may lead to a discussion of meteorology and oceanography, as these both play a part in sedimentary rock formation, as indeed do biological processes. A discussion of sedimentary rocks may also lead to the subject of palaeontology and fossil formation. Thus one could survey a history of life on this planet as shown through fossil evidence. A study of palaeontology leads naturally to the study of archaeology, because many of the same techniques are employed. However, before archaeology is studied, one must have an understanding of the vast complexities that constitute life.

A study of biology would begin where organic chemistry left off - biochemistry. This may begin with a study of theories about how life began and work towards a study of the basis of all life - DNA and genetics. From this basis we may begin a survey of life on this planet and incorporate chemical processes involved with each, for example, photosynthesis in plants. This survey would begin with microbiology. Bacteria (Kingdom Protista) incorporate most of the chemical processes found in higher organisms, in addition to many that are not found elsewhere. Microbiology would incorporate a survey of three of the five kingdoms that incorporate life: Protista (bacteria); Eukaryota (one-celled organisms, or colonies of these); and Fungi.

The eukaryotes contain organisms that could be called animals or plants, some combine characteristics of both. Thus the two higher kingdoms, animals and plants, are introduced. The next topic in the survey would involve botany, mainly because plants, through photosynthesis, are the primary element in the food chain - all animals ultimately rely on them for food. Thus one may advance through algae, ferns, cycads and conifers to the flowering plants, examining each in its evolutionary context.

Similarly with animals. One begins with the sponges, which are little more than a colony of specialised eukaryotes, through the Cnidaria (jellyfish and anemones), Platyhelminthes (flatworms), roundworms, and so on through the invertebrates with each phylum becoming more and more specialised and complex. The invertebrates incorporate all

animals that are not vertebrates (animals with backbones). The vertebrates include ourselves and a survey of these would progress from sea squirts (which are not in fact vertebrates but are in the same phylum: Chordata) through the various classes of fish to amphibians and reptiles, and eventually to birds and mammals. The study of zoology would incorporate a study of the behaviour of the organisms within the context of the environment they live in.

The next stage of biology would be the study of ecology - the interactions of all the organisms within an ecosystem, and with the environment as a whole, whether biological or physical. Thus ecology ties in rainfall, soil nutrients, and general topology and climate with the organisms and the habitat they live in. This leads to the concept of succession and the formation of a habitat. Succession is the progression of one habitat into another, mainly through the agency of plants. Thus a sand-dune community of grasses may stabilise and secure the sand to the extent that the growth of shrubs and then trees is possible. This leads to the formation of new habitats that animals may be able to exploit.

The study of ecology and succession leads to the study of evolution - changes over a long period of time. In evolution one may tie in various fields to the better understanding of the one phenomenon. Biochemistry and genetics gives a mechanism for life's diversity; the theory of natural selection, as formulated by Darwin, gives a direction in which evolution can occur. Palaeontology gives us a sketch of past-life, and ecology gives us a context in which to apply it. Genetic drift and other theories can lead us through the evolutionary maze until we arrive at *Homo sapiens*. It is important here to recognise that many factors are at work. Evolution works not only through interactions of its biological components, but also through interactions with the physical world. Thus changes in continental drift result in different climates that can be exploited by different organisms. Evolution is an engine that is powered by the world at large.

The study of evolution leads to an inquiry into the rise of Man. This can be studied within an evolutionary context but it is here that we begin to cross the indefinite line between hard science and the humanities. The rise of Man was a direct result of evolutionary pressures. Thus we can study the advancement of Man and his concurrent psychology and sociology within the context of his habitat. However, other forces come into play, and as a result we cannot study Man without first understanding his psychology.

In this we are fortunate in that it is relatively easy to study one's own kind.

With a study in psychology one can better gain an insight into the driving forces behind Man's activities. Thus a study of psychology would move from the study of the individual into a study of group psychology. The next subject of study would be anthropology. This would include another 'tour' of the different societies and beliefs in the world today. This may begin with the most ancient societies and advance through agricultural societies to the modern nation-states in the world today.

Geography would be incorporated into anthropology because it has had a profound effect on humanities development. In geography we can tie in four different fields of endeavour - geology, which through its topology affects climate and the amount of water present in a landscape, climate has a bearing on the type of plants and their attendant animals, and lastly, all these factors have a bearing on the type of human occupation possible or desirable.

From a survey of Man in his present state we may turn to his past, as shown by the various archaeological techniques. As mentioned before, this flows from palaeontology and the subject may begin with a study of the rise of Man and his effects on the environment. However, as one comes closer to the present time, archaeology begins incorporating artefacts such as tools, sculptures, paintings, and the remains of rudimentary architecture. Archaeology would concern itself not just with the development of society, but with movements of people, development of languages, and written records. This last item incorporates history proper, but archaeology contains the means of reconciling written history with physical evidence. Thus archaeology may close with a survey of written history. History per se is for me a difficult subject, as it contains events not just over time but in different places, and in different places society progresses at different speeds. Added to this there are many different threads that make up history, each with an apparent life of its own. Thus the rich tapestry that makes up history is a very complex issue. I have chosen here to tackle history thread by thread - this is not the only method of studying history, nor perhaps the best one - but it gives one the means to study the various aspects of modern society before the threads are drawn together.

Thus history is a means of exploring the different fields that make up the humanities. As such, each field will be studied in its own right, and not just within the historical context. Thus this section will include six subjects: art; religion; technology; commerce and economics; management, law and politics; and finally military science.

One begins with art because this is the best means of inquiring into the thoughts of early man, and indeed of modern man. Thus one may gain insights into the psychology of group through its art. Also, artwork is one of the most extensive artefacts in the archaeological record. Indeed, archaeology began as a study of ancient art. The next field is religion - this can be studied through artwork and other artefacts such as burial mounds which have been very conveniently left for us through the ages. Written history and anthropology also give us a great store of information. Religion gives us further understanding about how ancient man thought about himself and the world around him. After religion comes technology, and this may be studied through tools and other artefacts from the archaeological record. Most religion has a philosophical background, as does higher technology. Thus the advent of agriculture was a result of a new way of thinking and had a

concomitant effect on religion. The advancement of technology can be traced to philosophy, and in particular, to mathematics and its attendant sciences.

The core humanities of art, religion, and technology are intricately bound to one another - each has an effect on the development of the other. From these evolved what I call the applied humanities, in that they move away from a philosophical or abstract context to a purely practical context. Thus technology straddles the boundary between core and applied humanity. The first subject of commerce and economics follows naturally from technology because the spread of new technologies is often the result of trade. Artwork, often the object of trade, advances as new techniques are discovered and mastered. Thus pottery made on a potter's wheel may have better quality and thus fetch a higher price than pottery made purely by hand. Trade and commerce lead to the study of economics - the theoretical inquiry into the accumulation of wealth.

The study of commerce and economics and the concomitant accumulation of wealth leads to methods of managing that wealth. The management of wealth is one of the driving forces behind the formulation of laws, and this in turn introduces us to politics. The study of politics in itself is a complex issue but the ultimate tool of politics is force. This leads to the final, ultimate, and to many people insidious subject of military science and strategy. This subject is left to last because without a proper understanding of the reasons behind any war, a successful conclusion to a war may be in doubt. If one does not apply oneself to the reasons behind grievances, war will always be simmering away just below the surface, ready to boil over at any moment. The object of war is always to end war.

This is a brief survey of my curriculum, and before I move on to the last section, predictive history, I will make a few comments. The preceding section was intended as outline of the way the educational curriculum could appear, it is not set in stone, and indeed any contributions would be welcome. As I said before, the task and amount of knowledge involved is beyond the capacity of one person to master in any detail. However, I hope that I have given some indication of what I propose, and that it could serve as a template for something much bigger and grander. It is intended as a navigational education tool, a structure that can be built upon and used as an effective curriculum from which other fields can be introduced. It is not intended to replace the specialities involved, indeed advances in the specialities could be incorporated into the curriculum. I hope that it provides an

alternative way of looking at the vast complexities of human endeavour. One has probably noticed that not all fields are mentioned. This is the problem with the linear format that is writing, or education for that matter. However, I believe most fields could be introduced into the above format, if not directly, then at least as an interesting aside. For example, medicine may be introduced in the biological section, after evolution. Engineering may be introduced after physics (or chemistry), and further developed in the section on technology.

CHAPTER SIX

A NEW HISTORY: PREDICTIVE HISTORY

Predictive history is here explored as a separate subject from education, although it would be the last section of the preceding curriculum. This is because I believe it is a new field; and one that stands separate from education per se. Predictive history would involve all the skills of the preceding curriculum, and for this reason is placed last. It is designed purely as a disciplined tool used to answer specific questions. I call it predictive history because that is exactly what it would be - it would predict a most likely outcome and a worst possible scenario. It would thus combine the discipline of science with the interpretative skills of the humanities. Interpretative skills are needed because one is dealing with that most complex of organisms - Man and his attendant idiosyncrasies. Scientific discipline is needed so one can have a standardised format within which to work, explaining in detail the methods one has used to arrive at a conclusion. Thus, after an event, one can examine why that prediction was good or bad. This can work as a feedback loop, whereby methods can be fine-tuned over time to make more and more accurate predictions.

I believe we have reached that stage in history where the amount of precedents, both past and present, give us access to a vast amount of knowledge from which we can draw. Obviously, any event is unique, and occurs within its own contexts. That is why predictive history would not be an exact science, and would draw on many fields. The problem with predicting an outcome of an event is the same as that facing weather forecasters, as mentioned earlier. However, I believe general outlines are possible, and would be increasingly so as this field progresses. General outlines could proceed from the study of humanities response to various pressures - eg. population, military domination, economic turmoil, new ideas. Every society has different responses to particular pressures, as a result of its own historical background and attendant psychology, however, if one has an intimate knowledge of that society I believe it is possible to predict a most likely outcome of a particular pressure. If a society has a long written history, the powers of prediction would be increased. Even though historical records are often xenophobic and always patriotic, one could draw on its psychological content to analyse what past leaders considered prudent to tell their subjects. In many cases it would be found that facts about the past are not as important as perceptions about the past.

So what format would this new field possess? Because we are dealing with humanity there are many possible sources of error. It is for this reason that I formulated the preceding curriculum. The most important criterion would be psychology, particularly group psychology. This would investigate how people perceive themselves and any possible threats to their way of life. It would also investigate how national governments manipulate mass psychology to their own ends. A study of past history would inquire into how effective this type of manipulation has been in the past. The manipulation of mass psychology is not new, and occurs even in the free-est of nations. The purest of free democracies, for example ancient Greece and some tribal societies, exploit group psychology to the maximum through such devices as rhetoric and the playing of commonly held fears.

Therefore, a format for predicting a societies response to some change must incorporate group psychology. Into this should be incorporated past precedents, not only of that society but for humanity as a whole. An analysis of psychology would include art, religion, technology, economics, politics, and the military disposition of the people. Problems encountered by a society would require an understanding of natural resources, biology, anthropology, and sociology. Into this context one could gain an insight into present circumstances and future trends. One could then factor in a particular problem and investigate probable outcomes.

I will use a brief hypothetical example to illustrate a possible format for an investigation into a potential problem:

Title: Pastoral Encroachments on the Habitat of the Spectacled Gibbon in Mareebia

Background: Due to over-population in Mareebia and the degradation of existing farmland, the pastoral tribe of Zolta have been forced to seek new lands for their cattle. They have thus begun to encroach on the jungle to their west which is the last remaining habitat of the Spectacled Gibbon. Due to new medical techniques and the abolition of tribal warfare, the population of the Zolta has increased. Although some of the excess population has moved to the cities to find work, there is not enough land to maintain the existing population in a state of subsistence. The habitat of the Spectacled Gibbon contains many unique inhabitants and has been declared a World Treasured Site (WTS).

Psychological Profile: The pastoral tribe Zolta, in common with many other pastoral tribes, measure their wealth according to the number of cattle owned. Increased wealth results in increased prestige among their tribesman, and a greater choice amongst possible wives, whose families must be paid a dowry. There is thus a huge incentive to increase one's herd. All land is commonly held by the tribe, thus limits to wealth are the ability to acquire more cattle and be able to look after them. The larger the herd, the more labour required to herd them. Manpower is usually supplied by sons, whereas daughters are valuable because of the dowry they bring in. Thus, provided one is able to feed them, there is a natural incentive to produce large families. All necessities for life are provided by the cattle and the trade in them for unavailable items such as grain or iron, which is provided by nearby tribes.

Proposed Solution: Place armed patrols around the perimeter of the Site to prevent incursions and expel residents.

Precedents: On occasion, the Zolta have had land conflicts with neighbouring tribes, however this is usually avoided by reference to tradition. There is a well-established method of dispute resolution whereby the leaders of tribes meet according to certain rituals and precedents. However, if dispute resolution fails, the Zolta are not adverse to warfare, and it is fear of this warfare that has prevented most tribes from encroaching on their lands.

Elsewhere on the continent it has been found that armed patrols have had limited success. Although they do reduce the number of incursions, the successful incursions have maximised the amount of damage they have done. Therefore, patrols need to be very vigilant. In some nations, there have been armed confrontations between patrols and insurgents, of which the insurgents have bettered the patrols on a number of occasions due to larger numbers. When the insurgents are pastoral tribes who desperately need more land to maintain their way of life, these armed conflicts can escalate until a solution is found that compensates the tribes for their perceived loss of livelihood. This has often taken the form of compensation, or more enduringly, alternative forms of employment.

Most Likely Outcome: The Zolta, desperate for more land to pasture their cattle, will aggravate amongst themselves for armed conflict with the park patrols to force a resolution. This will intensify until there is found a method to placate the tribespeople.

Worst Possible Scenario: Armed conflict will intensify. If there is no resolution, they may direct their attention towards their neighbours. There may thus be inter-tribal warfare, resulting in massive displacement and a refuge problem. The nation may declare for the Zolta, placing increased pressure on the integrity of the WTS.

Alternative Solutions:

1. Compensation - give the Zolta monetary compensation equal to their perceived loss of income.

Most Likely Outcome - This will placate the tribespeople for a period of time. However, they may spend their money frivolously and the pressures described above will return.

Worst Possible Scenario - As above, then the Worst Possible Scenario outlined above, allied with increased disillusionment, alcoholism, and breakdown in law and order.

2. Compensation and increased employment opportunities - employ the tribespeople as rangers and assorted personnel at the WTS, compensate others that are not employed.

Most Likely Outcome - May provide an outlet for their energy and compensate for their loss of income in the real world. Will give the tribespeople an interest in preserving the WTS.

Worst Possible Scenario - Tribal breakdown. Compensation results in alcoholism and other problems related to disillusionment. Park rangers are not good employees due to disrespect towards the employers.

Suggested Solution: No. 2 above (with reasons)

Conclusion: (refers to the difference between the suggested solution and the proposed solution)

The proposed solution will heighten problems within the tribe by barring them from what they perceive as virgin areas ripe for exploitation without giving a solution to the problems that have caused this situation to arise. If we can give these tribespeople an incentive to protect the WTS many of the problems will disappear. The best incentive is to employ these people as rangers and to allow the rest of the tribe to make monetary returns from any allied industry, such as tourism. The core of the tribe should be allowed to maintain their tribal way of life with cattle etc., however, the boundaries of their land should be specified, as well as their responsibility towards it.

Notes: (as may apply)

This is only a suggested format for an analysis of a situation. The approach should be flexible to account for different situations. Predictions are important because we can then analyse if and why they are wrong. This may lead to improved predictions in the future, and as a result dispute resolution will be improved. Students of predictive history would probably become specialised during the course of their career, and indeed during their study. This would enhance their ability to understand a situation within a certain context. For example, a student of China may find their problems and best solutions are different from those of, say, Arabia.

CHAPTER SEVEN

CULTURAL TOLERANCE

Cultural tolerance would be the third major objective of the World Body. This is an important objective and follows from world security issues. By being tolerant towards cultural diversity throughout the world we give ourselves a far greater variety of solutions to possible worldwide problems. This is because, for any perceived problem, there are a variety of solutions, depending on the cultural context. Throughout history, the same problems have been solved differently depending on the time and place. This has given us a vast store of knowledge about possible solutions. No one culture can claim a monopoly in finding solutions to problems, and it follows that a homogenised world would be decreased in its ability to handle crises'. Thus the principle of "the pursuit of truth, freedom of expression, and diversity of opinion".

It is important here to note that the World Body is concerned with international relations. Thus we can have cultural tolerance when we relate it to individual nations, however this does not apply to individuals within that nation. Thus I am not advocating that every nation on Earth becomes multicultural - that is the prerogative of the nation involved. In fact, if every nation became multicultural, the world would eventually become homogenised into one worldwide culture. If that is the will of the nations, so be it. However, I believe it should be every nations right to be different if it so wishes. Thus immigration will be that individual nations prerogative.

Therefore, it is important to give individual nations the maximum freedom to pursue their own lifestyle, and allow them to perceive the world in their own individual way. This, of course, must be done within the constraints indicated in the first and second objectives - environmental protection and world security, respectively. Cultural tolerance should be extended not just to nations, but also to individual tribes whose traditions and culture are different from the majority in that nation. I will explore this from an anthropological view and work up from the most ancient tribes towards the most advanced technological nations.

Let us say there is a tribe somewhere that has had no contact with the outside world; that they perceive the world to consist of the lands that they inhabit. This is not an unrealistic

scenario, it has happened many times in the past and contact has generally resulted in tribal breakdown and disillusionment. An encounter with modern man with his attendant technology would be equivalent to what an encounter with aliens would be for us.

I believe the ideal method for such an encounter would be to approach them on their own terms. This would involve consummate skill. One would first have to learn as much as possible about them, from chance encounters or neighbouring tribes. The best approach would be in native garb and to set up camp just outside their lands in a native habitation. Some may argue that it would be best to leave them alone, however, if modern man is encroaching on their lands it is inevitable that an encounter will take place, and this could be disastrous for their culture. By this method, contact can be controlled with the least possible impact on the tribes' way of life. Additionally, we could learn more about that culture before it is irreparably damaged.

When the camp is established, one would let the tribespeople approach the camp in their own free time. This would be more likely if the camp is in their own style, or that of their neighbours, and the people inside not too different from themselves. Logistics and other technological equipment should be left away from the camp where it would not be seen by the tribespeople. Information would be given to the tribespeople on a wish-to-know basis. After initial contact, two people should gain the confidence of the tribespeople. These should be well trained in anthropology, biology, and languages. They will study and record as much as possible about their lifestyle, culture, language, foods, and medicines, without being intrusive. After the tribal boundaries are established, a buffer zone could be placed around it to prevent encroachments from outsiders. The tribe could then be left to its own devices, with no interference from outside. However, a base camp left outside the perimeter would serve, as it did before, as a contact between the tribe and the outside world. Here reciprocal trust would be of the utmost importance, and again information should be given to the tribespeople on a wish-to-know basis. Tribespeople should be given information if they wish it because they are not museum specimens. They should be allowed to adapt and evolve as they see fit. If answers are not forthcoming, the tribespeople may be tempted to find answers elsewhere.

We will thus gain a better understanding of the varieties of human lifestyles on this planet and preserve the attendant culture and skills for posterity. We will be better able to

manage such areas for the benefit of the tribespeople because we will understand their needs and expectations. These areas should be protected under international mandate.

Likewise for tribespeople that have already come into contact with modern man but wish to preserve their ancient culture. In many cases these people may already have come to some accommodation with their respective states, and if they are happy with this, well and good. However, if a tribespeople find their way of life being destroyed against their will, for example by their land being taken from them such that they cannot feed themselves, international intervention may be required. International intervention should only concern itself with protecting the ancestral lands of these people in such a way that they can maintain their traditional lifestyle. No money or other technological benefits should be involved, for this equates with interfering with their tribal way of life. If these people wish to obtain modern benefits, it should be done through their own hard work. If they wish to adopt a monetary economy, they should be taxed, as the rest of us are. Thus international intervention will only lay the groundwork for the way of life, anything else they may require should be done by bartering with their neighbours or by some arrangement with the Host State.

Of course, some of the more modern and populous tribes, or confederations of tribes, may wish to form their own nation. This would be their right, and would be undertaken by plebiscite, as it would for any other people. However, once they have formed their own nation, their obligations and responsibilities would be the same as for any modern nation.

Nations will retain their responsibility for their citizens. They will thus be responsible for taxation, education, health, social security, law and order, industrial relations, and transportation. All lands and resources will inherently belong to the nation involved. Foreign ownership of land and resources will only be acceptable on a lease basis, which the host nation can annul at any time. Thus, theoretically, the nation could declare itself a communist nation and nationalise all lands and industry. If this is the case the nation only owns the land and resources, it does not own the equipment on the land, and thus sufficient time (say one month) should be allowed for the removal of such items. A nation's territory would include its territorial seas, and jurisdiction would include this. The only cases where the World Body would interfere with a nation's inviolability may involve environmental, security, or world heritage issues such as anthropology, archaeology, or unique geological formations.

The anthropological and archaeological riches of the world belong to the world, as do unique geological formations. They should all be protected. This applies to nations as well as to tribes. Thus archaeological evidence found in one nation should be open to scrutiny from specialists from around the world. This ensures verification and allows other nations access to information that may be relevant or important to them.

In general, therefore, a nation should be left to follow its own development course, within the outlines stated above. This allows nations tremendous scope for developing their own unique lifestyle, within the family of nations. However, cultural tolerance is the third major objective of the World Body. Therefore, the first and second objectives, environment and security, take precedence. If there is a conflict between cultural tolerance and either the environment or security, and a meaningful compromise cannot take place, the objective of cultural tolerance must be put aside.

CHAPTER EIGHT

SPACE EXPLORATION

Space exploration is the fourth and final objective of the World Body. This may not seem important in itself but it does provide an outlet for humankind's excess energy and ambition. In the past this excess energy has often taken the form of military adventures; if we can direct it towards some useful and fulfilling purpose such inclinations may be diminished. Further, with the creation of a World Body, the world's resources and knowledge could be put at the disposal of some reachable goal.

The exploration of space is the next phase of human evolution after the creation of the World Body. Once Earth has been put in order and its sustainable future is assured, our attention will naturally turn to space. This may prove to be the most fulfilling and awe-inspiring period of human evolution. The collective consciousness and experience of humankind will soar tremendously. Having said that, it is important that we prove ourselves good custodians of our own planet. It is not prudent for us to destroy our own planet and then move on to another before destroying that. This would be the equivalent of being the harbingers of death and destruction upon the face of the Universe. Rather than being a form of pollution, humankind should be an agent for life and light. Only in this way can we truly fulfil our destiny. By expanding our experiences and knowledge on other planets and moons, we could better understand, appreciate, and manage our home world.

We now begin to move into the field of science fiction, whereas before we looked at ways of solving problems that are with us here and now. However, as a purely intellectual exercise, I will attempt to map out a possible course of direction for future space exploration. As of 1999, we have sent probes throughout the Solar System, and have mapped much of it. Landings have been made on our Moon, Mars, Venus, and a probe will be sent through the atmosphere of Jupiter. Manned landings have been made on the Moon. The other major advance has been the construction of manned space stations around Earth's orbit, pioneered by the Russians. Of course in this technological age, satellite communication is taken for granted.

There has been much talk of manned landings on Mars, and the building of a Moonbase, for at least 30 years - since the first manned landing on the Moon. With the formation of a World Body we should be able to realise these dreams. The first step, as I see it, would involve the construction of a viable space station around Earth's orbit that could be used as a staging post for shuttles going to and from the Moon. In the zero gravity of such a station many experiments and technological innovations have and will take place. From here one could hold equipment from the heavy-gravity of the Earth for shipment to the Moon and the construction of a Moonbase. An astronomical base on the far side of the Moon would prove invaluable for observations without the distorting influence of Earth's atmosphere. The nearside would provide spectacular views of the Earth in all its glory. The vacuum that exists around the Moon may provide further technological advancements. The Moon may provide a staging-post for Mars, if it is possible to produce steel and other products there using the Moon's natural resources. In this case, heavy equipment could be produced on the Moon and shipped into orbit at a fraction of the cost it would if it came from Earth. Simultaneously, manned landings could take place on Mars with a view to a permanent base there.

Mars holds great promise for mankind, not only for being the first planet visited apart from our own, but for the possibilities of terraforming the planet. If this is possible, the amount of biological experiments that could take place is astounding. The colonisation of the Moon and Mars would be what I call Stage I. Stage II would involve Mercury, Jupiter, Saturn, and Pluto. Mercury would be a good place to study solar flares and the Sun's activities in general, because these have a profound effect on Earth's weather. Of course, Mercury is a very inhospitable place, and most instruments there would be robotic. However, a base could be placed under the rubble of the planet to protect the instruments and provide temporary shelter for any scientists that visit there. Jupiter is almost a solar system in itself, and a base could be established on many of its 30-odd moons. As a scientific endeavour, the exploration of Jupiter and its moons would prove invaluable. Likewise with Saturn, its rings and the enigmatic moon Titan hold many secrets. Pluto would be useful as a sentinel on the outskirts of the Solar System, not only could we study our nearest stars with clarity, but we could investigate what enters the Solar System as comets and related phenomena. Allied with this Second Stage could be exploration and a possible base on the Asteroid Belt, perhaps on Ceres, for future mining; further investigation into the terraforming of Mars; exploration of Uranus and Neptune; and investigating the possibilities of terraforming Venus.

The Third Stage may involve the actual establishment of bases on Ceres, Uranus and Neptune's moons. The terraforming of Mars may be well underway, and the lessons we have learnt from Mars may be applied to Venus. Venus may prove to be a greater jewel than Mars - it is nearer the Earth's twin in terms of size and density. The major difference between Earth and Venus is the atmosphere, and the dense sulfuric atmosphere of Venus may prove totally inhospitable to life. However, life is very adaptable, and there are many bacteria on Earth that survive very (to us) inhospitable environments, such as volcanic vents. If they can be induced to live on Venus they may prepare the way for higher life forms to inhabit that planet.

These bases should be manufactured in such a way that they are as self-sufficient as possible. This involves producing as much of their own materials as possible and living in an enclosed ecosystem. Thus food, air, and water should be produced within their own environments and be recycled continuously. Manufacturing may require outside input, but again this should be kept to a minimum because of the distances involved. If mankind can learn to manage a confined ecosphere as would be found on these bases, our ability to manage the biosphere of earth would be increased through their knowledge.

The next obvious step is to explore surrounding stars. This could begin in any of the stages outlined above. I believe we have the technology now to achieve most of these stages, however, as we progress our knowledge should increase and a Solar-System-Wide complex could evolve that would be both self-sustaining and be capable of undertaking major projects. At our present level of technology, any exploration of the stars would take lifetimes. To achieve this we need a stable home-world government and an emphasis on working towards the future, in a self-sustaining and self-perpetuating way.

CHAPTER NINE

HOW COULD ALL THIS BE ACHIEVED?

First of all, tell a friend! The dissemination of information and the creation of ideas are one of the driving forces behind human evolution. The mass of humanity is an unstoppable engine that makes and breaks empires, world systems, governments, and tyrants. None of the above can survive without the consent of the masses. It is true that there have been tyrants that have ruled despite the wishes of the masses, however it could be considered as a law of politics that without the consent of the masses a government is, at best, short-term. Generally, the more oppressive the government, the more violent its overthrow.

The main idea of this book is to supply a template for ideas about how the future could be governed. I believe I have supplied many pregnant ideas about the future management of the world and its attendant riches. The scope is obviously huge, and I have purposely tried to keep it simple. I am sure that volumes could be written about some of the topics I have mentioned. It is for this reason that I have combined this book with an Internet Chat-room: (www.howtoruletheworld.com). We are fortunate in this day and age to be able to interact easily and instantaneously through agencies such as the Internet. In this way ideas can be discussed and refined and disseminated to the wider audience in a way that has never been possible before.

If this book has made you think about the future, then it is a success. Many of the problems with the world today are common knowledge, and there are many agencies in the world that disseminate information about it. However, I am not aware of any books or agencies that provide a comprehensive solution to the world's ills. I believe I have supplied an easy, practical solution, that would disrupt people's lives minimally. I have purposely stayed away from politics per se because I believe this should be up to individual nations, within a democratic framework. What works in one nation may not be acceptable in the next; the most important issue, for me, is that the people consent to it. What this book requires of the reader, however, is a shift away from thinking about the here and now, the particular; to a thinking about the future, and the whole. It is this general thinking that needs to be disseminated throughout the world if we are to have a successful future. The situation is bad, and is bound to become worse. The time is now, we have to start.

There are two ways to effect change: top to bottom and bottom to top. Top to bottom involves government heads trying to persuade the masses that change is in its best interests. As pollution and other side effects start to affect people's way of life, this is not hard to do. It is harder to persuade people to change their way of living. However, people in power have a vested interest in continuing our way of life - namely exploitation of the environment and the production of profits. Top-to-bottom agencies most likely to achieve change include agencies that are international, particularly the United Nations (UN). It should be possible to pressure the UN into establishing a basic tenet in that each nation is responsible for its own pollution. If this can be achieved, the fundamentals of ensuring worldwide environmental protection are possible. Another top-bottom change would occur if governments decided that development and exploitation should be sustainable. Although rare, this change in attitude has occurred in the past.

The second method is bottom-to-top. This is how Western democracies work. If there is a ground swell in public opinion, governments are forced to act. In this the Internet and other mass media are imminently suitable. Thus the first sentence of this chapter - tell a friend! By increasing discussion on this topic, governments will be forced to take an interest because they are always interested in public opinion.

Over time, many interested parties may contribute to the discussion, particularly those that may feel threatened. These parties will have to be answered, either to allay their fears or to tell them why they must change their ways. There are obviously huge global concerns at stake here. They must be answered, and if debate can show that some interests are narrow and short-term, half the battle towards a better world would be won.

The main idea behind this book is to stimulate discussion about possible futures. I believe the importance of this will increase as time progresses. I therefore encourage all discussion on this topic. It is quite possible that some of my ideas may be impractical or misinformed. I cannot claim to be an expert in all the areas that I have discussed, although I believe there is a consistent logic throughout. With help from intellectual contributions and discussion I hope that a more refined and comprehensive vision may evolve. I therefore conclude with the hope that many people will share their thoughts with the Chat-room - whether they be criticisms, contributions, corrections, new ideas, or the general discussion of issues. Hope to hear from you soon.

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BIBLIOGRAPHY:

Capra, F., 1996. The Web of Life. HarperCollins, London.

Lovelock, J., 1979. Gaia. Oxford University Press.

GLOSSARY

Alchemy - chemistry of the Middle Ages concerned with the transmutation of base metals into gold, the universal solvent, and the universal remedy. Formed the basis of modern chemistry.

Anthropology - the science of mankind.

Astro-physics - the branch of astronomy that deals with the physical and chemical properties of the universe.

Big Bang - the explosion of dense matter, believed to be the origin of the Universe.

Biochemistry - the science dealing with the chemistry present in living organisms.

Biodiversity - diversity of life.

Biomass - the total quantity or weight of organisms within a given area or volume.

Biosphere (= **ecosphere**) - a region of space (including planets) where conditions are suitable for life.

Calculus - a branch of mathematics involving infinitely small increments.

Commensal - an association between two species whereby one benefits and the other derives neither benefit or harm (*cf.* **symbiosis**).

Continental Drift - the movement of land masses over geological time (see **plate tectonics**).

Ecology - a branch of biology dealing with the relationship of organisms with each other and with their surroundings.

Ecosphere - see **Biosphere**.

Ecosystem - as in **Ecology** + system.

Endemic - having an ordinary habitat in a certain country (as opposed to **Exotic**).

Ethics - recognised rules of conduct.

Eukaryote - an organism consisting of a cell or cells in which the DNA (in the form of chromosomes) is contained within a distinctive nucleus. This is the basis of all higher life-forms, and does not pertain to the bacteria.

Exotic - (see **Endemic**) ordinary habitat in another country.

Food Pyramid (*cf.* **food chain, food cycle**) - a series of organisms each dependent on the other for food (=chain), each higher level of the chain contains a smaller biomass (=pyramid), an interdependent chain (=cycle).

Genetics - the science of heredity and variation in organisms.

Genetic Drift - random changes in the genetic frequencies of small isolated populations.

Greenhouse Effect - a phenomenon where relatively high surface temperatures are maintained on a planet, usually due a greater transparency of the atmosphere to visible radiation from the sun than to infra-red radiation from the planet.

Humanities (= **human science**) - concerned with Mankind, especially historical or social factors.

Igneous Rocks - rocks produced by volcanic activity.

Inorganic Chemistry - a branch of chemistry concerned with inorganic (mineral) substances.

Invertebrate - an animal without a backbone or spinal column (*cf.* **Vertebrates**).

Metamorphic Rocks - rocks that have undergone transformation as a result of heat and/or pressure.

Meteorology - the science of climate and weather patterns.

Methodology - the science of method; the suitability of techniques employed for empirical research.

Microbiology - the science of micro-organisms or microbes.

Nuclear chemistry - the study of the atomic nucleus.

Oceanography - the science and study of the oceans, particularly ocean currents, but also concerning ocean physics, chemistry, geology, and biology.

Organelles - small structures found within **eukaryotic** cells that function as organ entities, e.g. chloroplasts, mitochondria.

Organic chemistry - a branch of chemistry concerned with organic substances (i.e. hydrocarbons and their derivatives).

Ozone Layer - a layer in the stratosphere (high atmosphere) containing a high concentration of ozone that absorbs most of the sun's ultraviolet radiation.

Palaeontology - a branch of geology or biology concerned with fossil organisms.

Plebiscite - the public expression of the wishes or opinion of a community.

Peptides - (chemistry) compounds of amino acids (a type of organic compound).

Photosynthesis - a process where carbon dioxide is converted into organic matter under the influence of light, as occurs in the chloroplasts of plants.

Phylum - a group of organisms related genetically. The major subdivision in life Kingdoms.

Physical chemistry (=physical+chemistry) - the study of physical forces as they affect chemistry.

Plate tectonics - rigid pieces of the Earth's surface (plates) which move relative to one another, as shown in areas of volcanic activity, earthquakes, and other tectonic activity (see **continental drift**).

Probability theory - probability as a measurable quantity.

Psychology - the science and study of the human mind.

Quantum physics - the study of discrete amounts of physical quantities, esp. energy.

Referendum - the practice or principle of submitting a question at issue to the whole body of voters.

Sedimentary rocks - rocks formed by the deposition of sediment, whether physically or biologically.

Sociology - the study of human society.

Species - a group of organisms that can freely and successfully interbreed.

Species Diversity - as in **biodiversity** specifically concerning species.

Symbiosis - (as in **symbiotic algae**). An association of two different species which live attached to one another, each contributing to each other's support (*cf.* parasitism, **commensal**).

Terraforming - transform a planet so as to resemble the Earth, esp. concerning life.

Vertebrates - animals with backbones, a subphylum of the Chordata.