

'The Awakening Earth' - A Vision of the Future

'The image of a society has of itself can play a crucial role in the shaping of its future. If we fill our minds with images of gloom and destruction, then that is likely to be the way we are headed. Conversely, more optimistic attitudes can actually help promote a better world. A positive vision is like the light at the end of a tunnel which, even though dimly glimpsed, encourages us to step on in that direction'.

These are words extracted from the preface of an exciting and thought-provoking book entitled 'Awakening Earth - Our Next Evolutionary Leap' authored by Peter Russel. It challenges many view points which are familiar to us and prods us on to new effort.

Those who are privileged to view the earth from space, no longer think of national boundaries, communities, races or religions, but think of humanity as a whole. This is what Astronaut Mitchell has to say about the view of the earth from space :

'It was a majestic sight - a splendid blue and white jewel suspended against a velvet black sky. How peacefully, how harmoniously it seemed to fit into the evolutionary pattern by which the universe is maintained. In a peak experience, the presence of Divinity became almost palpable and I knew that life in the universe was not just an accident based on random processes. This knowledge came to me directly - poetically . . . It was not perceptible by the sensory organs, but it was there nevertheless - an unseen dimension behind the visible creation that gives it an intelligent design and that gives life purpose.

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' . . . At the very moment when I was so privileged to view the planet from 240,000 miles in space, people of earth were fighting wars, committing murders and other crimes; lying, cheating and struggling for power and status; abusing the environment and polluting the water and air, wasting natural resources and ravaging the land, acting out of lust and greed and hurting others through intolerance, bigotry, prejudice and all the things that add up to man's inhumanity to man.

' . . . It was also painfully apparent that the millions of people suffering in conditions of poverty, ill health, misery, fear and near slavery were in that condition from economic exploitation, political domination, religious and ethnic persecution, and a hundred other demons that spring from the human age. Science, or all its technological feats has not - more likely could not - deal with these problems stemming from man's self-interestedness.'

Such a detached view can only come to those who are privileged to view the planet from a distance. Viewed from this universal perspective, national boundaries, communal, racial and religious hatreds disappear, and earth appears as a harmonious peaceful-looking planet. How we wish it were possible for us to develop such a detached outlook!

James Lovelock and the Gaia Hypothesis

The new geology has taught us that our planet is not dead but is living, is dynamic and throbbing with life. This is also the gist of the

Gaia hypothesis formulated 25 years ago by James Lovelock. (Gaia incidentally, in Greek myth, is the name of the goddess of Earth, daughter of chaos ; she was the mother of Uranus and by him of Titans). According to this hypothesis, the earth is self-regulating: 'The entire range of living matter on earth from viruses to whales, from algae to oaks, plus the air, the oceans and the land surface, all appear to be part of a giant system able to control the temperature and composition of the air, sea and soil so as to maintain the optimum conditions for the survival of life on the planet'. In essence, the biosphere is considered an all adaptive control system that can maintain the earth in equilibrium.

This concept, it will be noted, has a close similarity to the view of the earth visualized by the Upanishadic sages and embodied in the Sacred Books of the East - the *Bhagawad Gita*

मयि सर्वमिदं प्रोतं सूत्रे मणिगणा इव ।

Mayi sarvamidam prōtam sūtrē maṇiganā iva

- 'Everything on this earth is strung on me as rows of gems on a string'

The idea of interdependence and a sense of balance is beautifully expressed.

मयाध्यक्षेण प्रकृतिः सूयते सचराचरम् ।

हेतुनानेन कौन्तेय जगद्विपरिवर्तते ॥

Mayādhyakshēna prakṛtiḥ suyate sacarācaram

Hetunānēva kauntēya jagadviparivartate ॥

'Under my guidance Nature gives birth to all things - those that move and those that do not move and by this means the world revolves'.

Behind this universe, therefore, unperceived by us, there appears to be a hidden hand guiding it energetically. The realization of the Omnipresent *Vasudeva* who is everywhere and in everybody and in everything dawns on us.

This is what Gaia hypothesis apparently also wishes to convey. It conceives of a state of equilibrium - much in the same way as the body temperature is maintained in the human body - over the entire universe through adjustments and modifications of the key components. The steadiness of the earth's temperature, the salinity of the ocean, the stabilization of oxygen concentration, the existence of the ozone layer - all these functions, according to the Gaia hypothesis, has been maintained at optimum level to allow life to exist on this planet. The whole world is treated as an *inter-connected hierarchy of matter and energy*. The evolution of life itself is viewed as an act in a far grander cosmic play. Life, according to this hypothesis, could be a widespread phenomenon throughout the universe, a natural consequence of chemical evolution, the production of aminoacids, enzymes and proteins growing in increasing complexity with progress of time.

What then is creation? It is one aspect of what the Indian philosophers have identified as *Brahma*. It is indestructible and eternal. It is full of energy, dynamic and is perpetually in motion. It does not stay at a place even for a second. This *Brahma* is indestructible. When it is inactive, it gets locked up in the seed. But it is not dead. The transformation of the seed into a tree is creation or '*Srushti*'. Conversion to seed state is destruction or '*Pralaya*'. Processes of creation and destruction are characteristic of every object in the universe. They happen to be only the middle chapters in a great story which has neither a beginning nor an end (D. V. Gundappa — *Purusha Sukta*).

There is no vestige of a beginning or creation as such. Everything is automatic, once the system is set going. The state of equilibrium continues over long periods and gets now and then punctuated by changes both in organisms and environment. Such changes move the system to different states of equilibrium. Lovelock points to the changes which occurred between the anaerobic Archaean and oxygenated Proterozoic as a jump of this kind. Evolution then, is both gradual and punctuated.

Some have rejected the Gaia hypothesis as 'silly, dangerous, pseudo-scientific and myth making'. To the geologist, however, dealing with time in millions of years, it has a great appeal. It explains many facts which were puzzling and provides a view point which is at once satisfying and edifying. It reiterates once again in scientific language the fundamental truth expressed by the philosophers of India a long time ago. While Plate Tectonics offers a mechanism for understanding the earth's physical features, the Gaia theory provides a working model for the operation of the entire universe. The theory encourages holistic thinking, universal brotherhood, interests all the different scientific disciplines, establishes a relation between animate and inanimate objects and above all, provides a vision of a nobler future.

To the Indian mind this philosophy taught in the Sacred Books of the East, that all the diversity we see around us is one and indivisible, governed by a universal law, is the most satisfying.

The currently predominant world-view, Peter Russel observes —

'Of man the dominator and manipulator of nature, internally aggressive and materialistic, with the principle goals of productivity, material progress, economic efficiency and growth . . . Science is seen as the supreme approach to knowledge, ultimately able to explain all, using technology as the means to achieve anything that is desired.'

Valuable though the adoption of such a view has been, it has clearly failed. Too much is going wrong for us to ignore its implications.

'If we are to avert a collective catastrophe, there should be major changes in our outlook—in the way we relate to ourselves, our bodies and surroundings, changes in our needs, changes in the demand we make of others and of the planet, and changes in our awareness and appreciation of the world'.

'A new world view is, therefore, needed—one that is holistic, non-exploitative, ecologically sound, long-term, global, peaceful, humane and cooperative. We need to shift to a truly global perspective in which the individual, the society and the planet are all given full recognition'.

The words of Einstein are worth recalling in this connection,

'A human being is a part of the whole, called by us universe, a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest - a kind of optical delusion of this consciousness. The delusion is a kind of prison for us restricting us to our personal desires and to affection for a few persons nearest to us . . . Our task must be to free ourselves from this prison by widening our circle of companions to embrace all living creatures and the whole nature of its beauty'.

The teaching of the *Bhagavad Gita* has not been much different :

सर्वभूतस्थमात्मानं सर्वभूतानि चात्मनि ।

ईक्षते योगयुक्तात्मा सर्वत्र समदर्शनः ॥

*Sarvabhūthasthamātmānam sarvabhūtāni cātmani
ekshatē yogayuktātmā sarvatra samadarshinah*

'He sees himself in all beings and all beings in himself - he sees the same in all'.

It is difficult for the generality of mankind to reach this ideal state. Nevertheless, it is an ideal worth striving for. One should strive to have 'a glimpse of the road that leads from being to becoming'. In spite of the encircling gloom, we still hope India will continue as a classical example of unity in diversity and that it will not be allowed to degenerate and disintegrate through unwise policies and narrow sectarian considerations. Nationalism, provincialism, communalism, casteism, religious fanaticism are out of context in the present nuclear and electronic age. Technology of communication is forging bonds of unity.

What then are the choices before us? Let me quote Peter Russel again :

'To hold a positive image of the future does not mean that we should fill our minds with naive optimism and sit back hoping that all will be well. Humanity is indeed in a state of severe crisis, and there is no law of nature that says we will necessarily survive. Even if humanity does experience the kind of transformation envisioned here, the current problems are almost certainly going to get steadily worse and it may well be that we have to descend into some very major global instabilities before a new level of integration finally emerges'.

'From the perspective of dissipative systems theory these crises can be seen as the catalysts pushing humanity on to a new evolutionary level. If humanity successfully adapts to the crises, it may break through to a higher level of organisation. But if it fails to adopt, it may, if the crises are severe enough, break down and collapse completely . . .'

'It is a test of whether or not humanity is psychologically and spiritually fit to live on planet'.

' . . . Unlike other species, humanity can anticipate the future, make conscious choices and deliberately change its own destiny . . . We are no longer passive witnesses of the process, but can actively change the future . . . Within our own hands - or rather, within our own minds - lies the evolutionary future of the planet'.

A vision of the future beckons us - a future of 'a changed Earth and a nobler and happier humanity' (Aurobindo).

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