The pattern which Connects

Why do schools teach almost nothing of the pattern which connects? Is it that teachers know that they carry the kiss of death which will turn to tastelessness whatever they touch and therefore they are wisely unwilling to touch or teach anything of real-life importance? Or is it that they carry the kiss of death because they dare not teach anything of real-life importance? What’s wrong with them?

What pattern connects the crab to the lobster and the orchid to the primrose and all the four of them to me? And me to you? And all the six of us to the amoeba in one direction and to the back-ward schizophrenic in another?

I want to tell you why I have been a biologist all my life, what it is that I have been trying to study. What thoughts can I share regarding the total biological world in which we live and have our being? How is it put together? ... What is the pattern which connects all the living creatures?

My central thesis can now be approached in 10 words: The pattern which connects is a meta pattern.

It is a pattern of patterns. It is that meta pattern which defines the vast generalization that, indeed, it is patterns which connect.....

... We have been trained to think of patterns, with the exception of those of music, as fixed affairs. It is easier and lazier that way but, of course, all nonsense. In truth, the right way to begin to think about the pattern which connects is to think of it as primarily (whatever that means) a dance of interacting parts and only secondarily pegged down by various sorts of physical limits and by those limits which organisms characteristically impose....

... Most of us have lost that sense of unity of biosphere and humanity which would bind and reassure us all -with an affirmation of beauty. Most of us do not today believe that whatever the ups and downs of details with our limited experience, the larger Whole is primarily beautiful..... We have lost Shiva, the Dancer of Hinduism whose dance at the trivial level is both creation and destruction but in whole is Beauty.

[Wisdom is glorious in form and is like nectar, Wisdom is golden and pervades the entire universe, Wisdom is powerful and is sought after continuously, Let Wisdom come to us with love and favour us.

- Medha sukta: Vedic hymn]

Economically Small and aesthetically Beautiful

Another aspect of cost-effective construction is its aesthetics. Cost effective, Eco-friendly construction technologies allow the builder to boldly experiment with form and space. Light and shadows can be made to play wonderful dynamic patterns in the walls in a very natural manner.

These technologies allow your building to enter into an organic and dynamic relationship with the surrounding. They do not compartmentalise you from the exteriors but they make you part of the exterior environment so that you can feel connected.

Generally there is a misconception that eco-friendly cost-effective building technologies are not aesthetically pleasing. Let us enter the world of eco-friendly, constructions that are also innovatively beautiful.

Symmetry, arches and curves confer not only strength and stability to the buildings but also beautiful interiors with light naturally forming patterns pleasing to the eye. While the conventional building technologies often concentrate on the outward appearance the eco-friendly construction technologies take into consideration the inner space (in ways more than one) and creates an ambience which can only be experienced.

The above photographs show how the ferro-cement technology can be used in creating a beautiful exterior with innovative approach. A garden can be changed into a rich looking place with such installations. They can be constructed in such a way as to combine both water harvesting as well as adding aesthetic dimension to the exteriors.

Next we will see the use of the technology in aesthetic creations in the already existing buildings.
We cannot cheat on DNA. We cannot get round photosynthesis. We cannot say I am not going to give a damn about phytoplankton. All these tiny mechanisms provide the preconditions of our planetary life. To say we do not care is to say in the most literal sense that “we choose death.”

– Barbara Ward
The protection of an animal or of a plant will be ineffectual so long as we do not also preserve that organism’s conditions of life... – Franz Kühnert

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The protection of an animal or of a plant will be ineffectual so long as we do not also preserve that organism’s conditions of life. – Franz Kühnert

Training programme on Bio-methanation plant was held at TRC, Kalluvilai. This was conducted on 28th of this month. 12 beneficiaries attended the programme and the Resource Person was Shri.V.Ramakrishnan and his team.

Happenings: This month for Sustainable Agriculture

Workshop on “Solid Waste Management” was held at Technology Resource Center, Kalluvilai. It was sponsored by the Commissioner of Nagercoil Municipality. It was conducted on 27th and 28th, 37 persons attended the programme. The resource persons were: Dr.P.Kamalasanan Pillai, Sis.V.Saraswathy, Shri.V.Ramakrishnan and Sri.S.Rajamony

Networking This Month

A Camp for children was conducted in two batches. The aim was ‘To Create a Scientific Temper in the Minds of School Children’. It was sponsored by Department of Science and Technology, (RVPSP) Division, New Delhi, TRC, Kalluvilai

- The first batch was held from 3rd to 7th May and 65 students attended.
- The second batch was held from 8th to 12th May and 45 students attended.

Sustainable Agriculture This month:

Dr.P.Kamalasanan Pillai visited three districts namely, West Gothavari, Nizamabad and Kurnool of Andhra Pradesh for establishing mother nurseries from 15th to 20th May 2011. This was part of the Andhra Pradesh Azolla programme sponsored by NABARD, Hyderabad.

Sustainable Agriculture This month:

30 Farmers under ATMA scheme had exposure visit to Vivekanandapuram Kanyakumari on 10th of this month. Dr.P.Kamalasanan Pillai showed them various projects and sustainable agricultural technologies used in farming practices

Enjoying the nature adventurously during the camp: at top Maruthuvazhalal

Interesting games as a part of the Syllabus during camp on “Scientific Temper”
There is no risk in making the flat statement that in a world devoid of other living creatures, man himself would die. This fact — call it a theory if you will — is far more provable than the accepted theory of relativity. Involved in it is, in truth, another kind of principle of relativity — the relatedness of all living things. - Fairfield Osborn

Excerpt from 'Sacred Ecology' by Fikret Berkes (Routledge, 2008)

The graph shows the ecological footprint of countries. While the footprints of India, Indonesia and Bangladesh are fully sustainable. On the other hand, the USA’s footprint of 9.4 gha is surpassed only by the United Arab Emirates. Australia and Canada both have footprints over 7 gha. In simple terms, their populations require more than three times their fair share of the world’s bio-capacity.

“Traditions include ideas of religion, patterns of artistic expression, and familial relationships, for example, in addition to knowledge of economically valuable resources. However, close examination will reveal that it is not possible to divorce the ecological aspects of a tradition from the religious, the aesthetic, or the social. For example, among native American people of the Columbia Plateau, moral precepts are inculcated by means of a body of ‘Coyote stories,’” … An elder from the Columbia Plateau tribes may know more than sixty such stories, each one constituting a full evening’s performance. To appreciate the meaning these stories convey requires an intimate knowledge of the local natural environment, local animals and plants being the main characters and local places the stage on which they act out the human drama. Children learn the moral precepts that will guide them in their social and ecological relationships by listening to their elders tell these stories. Thus religion, art and ecology are one. Traditions are thus ecological in the sense that they represent a complex and integrated system of practices and beliefs.

Excerpt from 'Sacred Ecology' by Fikret Berkes (Routledge, 2008)
It is only on this earth that too in this human body that one can choose one’s line of development and take the means to progress accordingly. . . . For truth is to be realized here in this life. . . . It is vain to expect that things will change and improve after death in worlds which are happier than ours. – Kularnava Tantra

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**Echoes of Eco - Newsletter, Vivekananda Kendra – nardep, May 2011 Vol. 3  No: 3**

Eco-conscious in Everyday Life (Tamil)

Every day we are faced with a lot of choices in daily life. From what kind of tooth paste to use for brushing to whether to attend a marriage ceremony or not, we are plagued with a million choices. Further the consumerist society we live today also encourages us with extravagant choices and bombards us with countless consumer goods. In such a situation, this book introduces eco-awareness as an important factor in our day to day choices.

This is a tough book, not because of the language or content, but because of the lifestyle and worldview it advocates. With constant awareness towards the kind of environmental crisis that the world is facing and the added awareness that our choices do make a difference or contribute to further ecological destruction, the reader will find it tough when he or she evaluates one’s own life in the frame of values that the book offers.

And in that lies the importance of the book. There is no doubt that the book will make many readers feel guilty about their day to day lifestyle. Next time a person shops he or she will feel uncomfortable with every purchase one makes.

But that is perhaps the success of the book. Because the modern economy and consumerist culture has put price tags on every item while at the same time hiding the real costs. This book lays bare the hidden costs in terms of ecological dimensions.

But the book is in reality a positive book. It gives the individual the hope that he or she can provide a healing touch to the everlasting sorrow that humanity is inflicting upon the web of life. It makes one realize that through our individual choices and through our constant awareness of hidden ecological costs in each and every purchase we make, we as an individual can make a difference. The book does not ask one to boycott or rebel. It asks one to change the lifestyle, in a very aesthetically appealing yet radical way.

Use public transport as much as possible. Consume home made traditional soft drinks. Sit on the floor and eat. If you are visiting a new town or a holy place then why not plant a sapling there in your memory? On the days of holy festivals why not plant trees and herbal plants? Let the family sit together and eat. Apart from increasing the family bonds, it also reduces the cost of food preparation. Like this there are 100 ecologically important meaningful lifestyle instructions in the book. And ultimately the book exhorts the reader to make a world where such books will not be needed anymore. What a touching way to finish a book! Each point has been elaborated upon explaining its ecological significance.

The book is authored by famous ecological thinker SrI. Dilip Kulkarni and has been translated into Tamil. Beautiful line drawing cartoons in every page add pleasure to the reading experience.

Thinasari Vazhkaiyil Puracchuuzhal Unarvu (Tamil) ; (Trans. SrI.M.Jaga Jothi); Pages 100: Year 2000

**Simple Living**

The more one lives alone on the river or in the open country the clearer it becomes that nothing is more beautiful or greater than to perform the ordinary duties of one’s daily life simply and naturally. From the grasses in the field to the stars in the sky, each one is doing just that; and there is such profound peace and surpassing beauty in nature because none of these tries forcibly to transgress its limitations.

- Rabindranath Tagore

**REAL ACT OF WISDOM**

An Indian Hymn that Inspired Gandhiji

For a bowl of water give a goodly meal;  
For a kindly greeting bow thou down with zeal;  
For a simple penny pay thou back with gold;  
If thy life be rescued, life do not withhold.  
Thus the words and actions of the wise regard;  
Every little service tenfold they reward.  
But the truly noble know all men as one,  
And return with gladness good for evil done.
In our total preoccupation with exploitation and consumption, we have become impoverished spiritually. The ultimate source of our solace, inspiration, companionship, and sense of place has always been nature.

- David Suzuki

A Prayer

O Great Spirit,

Your voice I hear in the winds and
Your breath gives life to all the world: hear me.

I am one of your many children. I am small and weak. I need your strength and wisdom.

Let me walk in beauty and make my eyes ever to behold the red and purple sunset.

Make my hands respect the things you have made, my ears sharp to hear your voice. Make me wise, so that I may know the things you have taught my people, the lessons you have hidden in every leaf and rock.

I seek strength, O Great Spirit, not to be superior to others but to be able to fight my greatest enemy, myself. Make me ever ready to come to you with clean hands and straight eyes so that when life fades as the fading sunset, my spirit may come to you without shame!

- White Cloud

Native American Chief

A Prayer

Nature we see
Nature we hear
Nature we observe with awe, wonder, and joy

Nature in nether regions
Nature in the skies
Nature in the whole creation

Nature in the sacred texts
Nature in all reflection
Nature in food, in water, in garments, and in love for all
Nature in species, kinds, colors

Nature in life forms
Nature in good deeds
Nature in pride and in ego
Nature in air, water, and fire
Nature in the soil of the earth.
All nature is yours,

O powerful Creator,
You command it,
You observe it, and
You pervade all within it

- Guru Nanak
First Sikh Guru

... and A Story

A powerful although probably apocryphal story tells of a student who asked to work for a Ph.D. in the lab of a great German zoologist. The professor handed the student a common minnow and told him to come back when he had learned everything about it.

The student measured the fish, dissected it, inspected its scales, and a week later came back with a notebook filled with information. “Go and study it some more,” the student was told. So he collected other specimens, looked at their internal organs, checked reproductive cells under the microscope, and six months later returned with several notebooks full of material. “You still have more to learn,” the professor said, sending him away once again.

The student realized that he hadn’t studied the animal in its natural habitat, what its predators were, or how it behaved with its own kind. He went away to do more studies—and never returned.

- White Cloud

Native American Chief

- David Suzuki

Environmentalist

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