Eternal Bhoomí

Ecological Wisdom

Social Justice

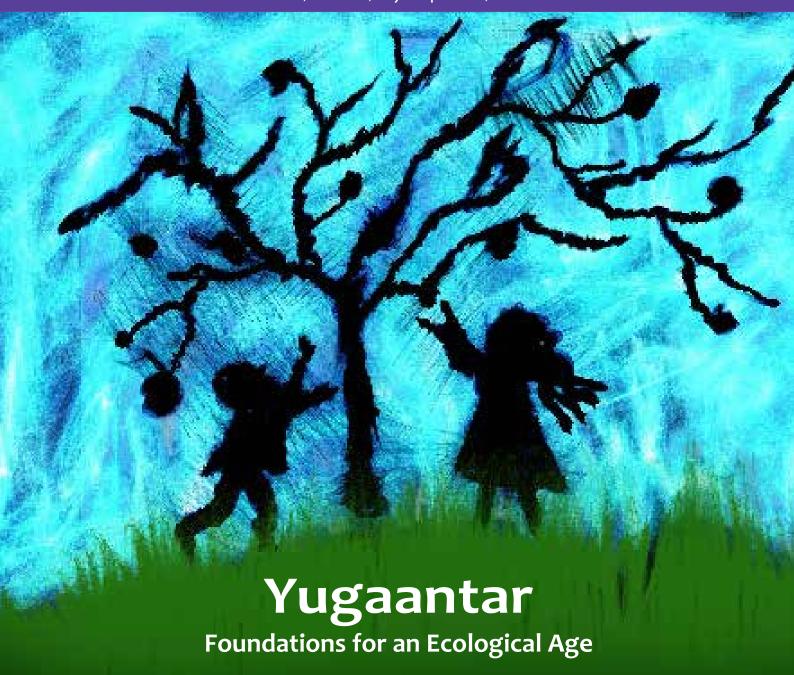
Holistic Thinking

Positive Action

BANGALORE

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Nature and Human Beings are one Satish Kumar

Listening to Tagore
Aseem Shrivastava

Livelihoods versus Deadlihoods Ashish Kothari

In a Rhino, Everything
Charles Eisenstein



Dear Reader,

Yugaantar is a journey we are embarking on, with the faith that many co-travellers will join in and enrich and add to the offerings through the Resource Hub that is also being launched.

As the tag line says, Yugaantar is meant to be a 'think space' for the youth of India, as well as for educators who are closely associated with them. While plenty of books, articles, films and other material on ecological living exist today, we need channels that make them accessible and available to youngsters. We need to make these rich resources available in a more engaging format – through short videos, documentaries, material for social media, stories and articles.

We also need to make the path breaking books and reports that are available into shorter, simpler versions, set in the Indian context so that they become meaningful to the majority of school and college students. Also much original thinking and practices which are essential to understand the way forward need to be shared in authentic forms.

Bhoomi Network and your magazine hope to play a catalytic role to make the Yugaantar Resource Hub happen. We welcome you to join this group of Yugaantar co-creators in any way you wish to!

- The Bhoomi Team



Sharing is Natural

To live is to share. Whoever or whatever we are. sharing is inevitable - we at least share the air we breathe, the space we live in, the sources of water we use, the culture we are immersed in and much more.

By consciously sharing we are merely acknowledging or owning up our natural selves. By creating spaces to share in, we merely enable those who share our part of the Earth with us to get together, to live naturally, in a world that has often attempted to isolate us from others and from Nature.

This issue of Eternal Bhoomi marks an important milestone for us. We bring to you a new beginning, the start of the Yugaantar journey. This journey is essentially about sharing - leading thinkers and doers sharing their wisdom and struggles, youngsters sharing their enthusiasm, skills and insights, and everyone who wishes to, sharing their passion and support towards a more Earth conscious and humane way of life.

This issue is also about the launching of the Yugaantar Resource Hub - a way to share thoughts and stories on ecological living with our youth, and with educators who are closely associated with them.

In Sanskrit, the word "yugaantar" means the tough transition period between two historical ages. It aptly describes present - day life and living. Leading thinkers agree that, with climate change, pollution, deforestation, social injustice, violence and other crises created by the industrial age, the imperatives of an ecological era are, today, increasingly apparent. We live in a "yugaantar."

The idea of the Resource Hub emerged over several meetings and unfolded as a three day workshop and a conference held in Bangalore this April. The three themes we focused on during these four days included - Philosophy for an Ecological Age, Livelihoods and Economics of Wellbeing and Education and Holistic Thinking.

Editor-in-Chief of the Resurgence & Ecologist Magazine, Satish Kumar, who has been a guiding spirit to so many eco-ventures around the world, was present to inaugurate the sessions. Apart from engaging with all of us and spreading his warm and optimistic vibrations, he spoke on the need to feel 'one with Nature'. His talk is our opening article for this issue.

Other anchors for the Yugaantar programmes included Ashish Kothari and Aseem Shrivastava, (coauthors of Churning the Earth - The Making of Global India). Extracts from their talks and articles are presented here, in 'Listening to Tagore' and 'Livelihoods and Deadlihoods'. They offer a broad overview of basic philosophical ideas that have governed our modern civilization and some ground realities of life and livelihoods today. Dhrubajyothi Ghosh, R. Sridhar and Sonam Wangchuk were other speakers whose talks/articles are presented in this issue too.

Yugaantar is a space to share for all of us who are concerned about humanity's relationship with Nature today. We hope that you will join in to share and participate, to co-create resources for ecological living through Yugaantar.

> Seetha Ananthasivan (seetha.bhoomi@gmail.com)

Eternal Bhoomi is committed to bringing you holistic perspectives on Nature and ecological living from leading writers and thinkers as well as practical ideas and examples of earth conscious living from people around the world.

Yugaantar - Foundations for an Ecological Age

In Sanskrit, the word "yugaantar" means the tough transition period between two historical ages. Yugaantar is the theme of this issue, and we offer here are extracts from the talks of some of the speakers at the 'Yugaantar' workshops and conference organised by Bhoomi Network.

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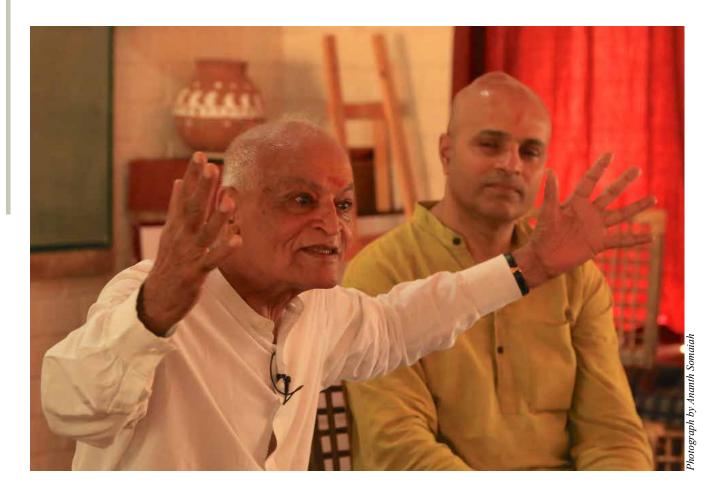
Bhoomi Utsav



2nd October 2016 @ Bhoomi

Celebrate the earth...

Celebrate food and the growers of food, Interact with farmers, craftspeople and eco-pioneers. Enjoy local food and music. Celebrate Gandhi Jayanthi!



Nature and Human Beings are One

In his talk at Bhoomi Network's Yugaantar Conference, Satish Kumar says that the name Yugaantar is very symbolic of what we are experiencing today; the time is now to look for answers within for all the mess we have created on this bountiful planet.

Though I left India for England 40 years ago, I carry India in my heart and soul and continue to nurture the Gandhian way of living through the magazine Resurgence. It happened to me by chance when I met with the great E F Schumacher who had been looking for an editor for 'Resurgence' and he felt I would fit in well for the role and persuaded me to stay back and make 'Resurgence' a Gandhian magazine. 'Resurgence and 'Bhoomi' are in that sense closely related as our mission is one and the same.

Coming to the theme of this conference, the name 'Yugaantar' has been very aptly coined. If we split it ino two words 'Yuga' and 'Antar', the word 'Antar' has many meanings to it, one of them being to go deeper within. This is very symbolic of what we are experiencing today; the time is now to look for answers within for all the mess we have created on this bountiful Earth.

What are we made up of? We are the 'pancha bhootas' (the five elements) Earth, Water, Fire, Air and Sky; We have for some time now completely ignored these facts and have begun to imagine ourselves as the "masters of Nature". This is a farcical notion that we are living with.

Ecology and Economics

The root of this notion is our inability to understand that Ecology and Economics go together. The word Economics is derived from the ancient Greek words 'Oikos' and 'Nomos'. 'Oikos' means home, our planet and 'Nomos' means management, so the word Economics symbolizes management of planet earth. And Ecology means knowledge of the Earth. However Management schools around the world are churning out graduates who have no clue about the working of

They are flying to different parts of the world only to make a mess of the ecosystem. This trend continues in London School of Economics (LSE) as well. During one of my visits to the University, I was surprised to find out that they did not have a department of Ecology. The Professor there was offended with my enquiry and defended her stance by saving they only dealt with Economics and the rest was not their concern. Ecology and Economy go hand in hand and should not be ignored. The focus should be on what is spiritual, artistic; friendship and growth in relationships, and not just economic growth.

Devendra Sharma earlier mentioned Earthworms and their benefits. These amazing creatures toil from dawn to dusk to nurture the soil. They work without expecting any wages or leaves for round the clock hard labour. They work on the earth very gently and "Human Rights are the most talked about and discussed topic in today's world, but I am deeply saddened to see that nobody ever broaches on 'Rights of the Earth' or 'Earth Rights'. How can we have a healthy humanity on a sick planet?"

compassionately to turn about 6 tonnes of soil every month, where as tractors ruin the soil. Today these tender creatures have totally lost their well being.

The Rights of the Earth

Human Rights are the most talked about and discussed topic in today's world, but I am deeply saddened to see that nobody ever broaches on 'Rights of the Earth' or 'Earth Rights'. How can we have a healthy humanity on a sick planet? Well-being of a person and well being of a planet are interconnected. In this age of chronic consumption we have left our common sense behind. By plundering the resources in terms of drilling the earth, polluting the rivers and deforestation we are only walking towards doom. Human Civilization is more than 6000 years old and our ancestors kept our nature intact until the age of stupidity dawned in the form of Industrialization.

Now the big question looms over us as to where is this industrialization taking us? Are we going to only wake up when the pristine nature around us is totally ruined?

Alternative Paths

There interesting many organizations started around the world to help nurture the idea of

co-existence. Brilliant work has been done by Ashish Kothari through Vikalp Sangam which lists more than 100 alternative organisations across India; and 'Blessed Unrest', a book by Paul Hawken has listings of over thousand examples around the globe on Ecology and holistically just movements. These portals discuss the initiatives taken by thinkers and activists who are working closely towards reviving Nature.

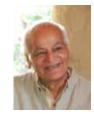
James Lovelock created a science called 'Gaia', in this science, Earth is a body and we are organs of the same hence we constitute tiny bits of this cosmos. It also reminds me of Buddha's concept of 'Śūnyatā' which means emptiness; the absence of an independent and substantial "self". Hence we are not separate beings but one energy form. So, when this is the case even slight disturbances can leave lasting impacts on generations to come. Most of which we are experiencing at this moment itself.

We should move from the Anthropocene era, to what Thomas Berry calls Ecozoic era. Our local economies should be nurtured and encouraged. Our cottage industries have their roots in sustainability which harness goodness in Nature. This will help in bringing massive changes to the environment we are living in.

Time to Change

It is distressing to see the city of Bangalore being reduced to a garbage heap. The city's vanishing lakes and disappearing flora and fauna speak volumes of the residents' priorities. There is no magic wand coming from anywhere to clear up the chaos, each one of us has to work towards it. It's time now to make the change. It's time now to inculcate the fact into our children that nature and human beings are 'One'. 'Vasudhaiva Kutumbakam', whole world is a family, should be the epitome.

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Satish Kumar has been the guiding spirit behind a number of ecological, spiritual and educational ventures around the world. He is the Editor-in-Chief of Resurgence & Ecologist Magazine and the co-founder of the Schumacher College, U.K. He is also a member of the Panel of Advisors of Bhoomi College.

This article includes extracts from Satish Kumar's inaugural talk at the Yugaantar Conference organised by Bhoomi College at Bangalore, April 2016



Lessons from Edo



Azby Brown describes a time in Japan when industry, art, agriculture and sustainability all flourished.

confront we the many environmental and demographic challenges that loom so threateningly over our future, we would all benefit by learning what the experience of the Edo period of Japan has to teach us. In fact I would argue that we could use it as a model of how to flip impending environmental collapse into sustainability, and for allowing a rich and insightful mindset rooted in centuries of experience and wisdom to guide decisions.

The Edo period began in 1603, at the close of 200 years of civil war, and lasted two and a half centuries, coming to an end in 1868. This was when the country opened to the world and was first exposed to the fruits of the industrial revolution. Most of what we think of as 'traditional' Japanese design comes from this era, when shoguns ruled and society was a strictly delineated hierarchical pyramid with samurai at the top, merchants at the bottom, and farmers and craftsmen the bulk of society - in the middle.

During this time the population rose to about 30 million, roughly comparable to Poland or Argentina today, and the city of Edo - renamed Tokyo in 1868 - was home to over 1.3 million residents.

At the beginning of the Edo period, the people found that, having deforested their mountains, they were suffering from a cascade of ill effects, such as damaged watersheds and decreasing agricultural productivity. Most resources, such as iron ore and

At the beginning of the Edo period, the people found that, having deforested their mountains, they were suffering from a cascade of ill effects, such as damaged watersheds and decreasing agricultural productivity. Most resources, such as iron ore and potential fuel sources, were scarce; firewood itself was at a premium.

potential fuel sources, were scarce: firewood itself was at a premium. Even more significantly, there was very little arable land, and by the mid-18th century all the land that could be used for farming was already cleared and under intensive cultivation.

The period began with shortages and famine, but after two or three generations of wise management, the large population was enjoying a high quality of life, arguably higher, in fact, than in any contemporary European country. The forests had been saved, agricultural production had increased manyfold, and culture and literacy were on the rise. Beyond this, creativity and innovation were flowering, and in most spheres of life the practical was inseparable from the aesthetic, even for those on the lower rungs of society, because beauty had become linked to both the optimum use of resources, and an avoidance of conspicuous consumption that went so far as to celebrate poverty.

Those familiar with environmental remediation will not be surprised to learn that reversing the slide into

Edo society was literate and informed, and one of the government's major roles was the protection of the environment, which it did through forestry ordinances, waterworks, and promoting good agricultural practices by sponsoring how-to manuals and almanacs.

ecological catastrophe began here with regenerating the forests. Edo society was literate and informed, and one of the government's major roles was the protection of the environment, which it did through forestry ordinances, waterworks, and promoting good agricultural practices by sponsoring how-to manuals and almanacs.

This was not through any sense of altruism or for the spiritual advancement of the rulers, but to ensure the safety and security of the realm and the longevity of the Intriguingly. government policy was most effective when the central bureaucracy laid out the goals and principles but each region was encouraged to develop local solutions. In many ways, this local thinking and responsibility lay at the heart of the success of the programme to achieve self-sufficiency and sustainability on a national scale.

The culture as a whole was pervaded by a sense of time in which outcomes were measured in centuries, and in which it was nearly impossible to plan even simple tasks without a broader awareness of the chains of consequences that would emerge from one's actions, or of the origins, destinations and connections among the people and things, which supported human life like a vast web of interconnected spirit. As is the case in so many pre-industrial societies, people were trained from an early age to be generalists, to be multi-competent, and to always be aware of the big picture.

The Edo culture specialist Yuko Tanaka has pointed out another important aspect underlying the success of Edo Japan: that after several centuries of economic and colonial expansion debilitating overseas.

wars, and widespread environmental despoliation, the newly centralised government embarked on a conscious policy of de-growth and downsizing. Overseas trade was cut to a minimum, expansionist dreams abandoned, and the nation's energy turned inward and applied to making the country selfsufficient, stable and prosperous.

The population continued to grow, and environmentally sound ways were found to increase food production accordingly. In the area of material culture, recycling, reuse and full utilisation of all resources was the expected norm, and this ethos evolved into pervasive ethical values that influenced decisions at all levels. This was in addition to the tremendous economic incentives against waste that such limited resources presented. So in many ways, this period provides a model of the benefits of planned economic localisation and downsizing - an ecological transition success story.

For me, learning about this side of Edo Japan triggered one 'aha' moment after another. I have lived in Japan for 28 years, first studying about traditional carpentry, where I was exposed to the deep environmental soundness that underlies all traditional crafts in Japan, and later turning my attention to the many successful approaches to living with limited resources that make contemporary Japan such a beacon for compact home design, energy-efficient appliances, vehicles and materials of every sort. But it was when I set out to describe, for my book, how the Japanese of the earlier eras had achieved their impressively enduring sustainable society that the biggest 'aha' hit me.

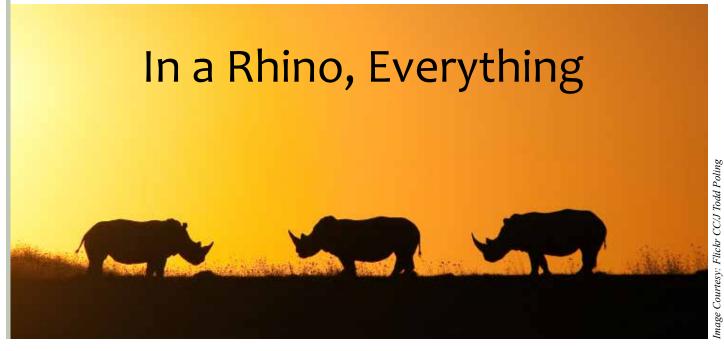
Explaining the parts would not suffice. I had to focus on the connections. What happens when the forests, the

watershed, agricultural land and urban areas are allowed to develop into mutually supportive systems? What happens when decisions about fuel use take the side effects of transportation and waste products into account? Or when ways are found to use agricultural by-products (such as rice straw) as abundant, recyclable and nearly costfree primary materials for a bewildering array of daily necessities? Edo Japan was able to perfect its sustainable material economy because its people were led by necessity and sensibility to look for the interdependencies that surrounded them, both in Nature and as people. And this remains the most valuable lesson for me of all.



Azby Brown is an architect and design theorist whose in-depth study of Japan provides inspiration for the future of sustainable urban living. He has written books profiling the ingenuity of spaceconstrained Japanese architecture and showcasing the bold solutions from preindustrial Tokyo to fend off environmental and resource catastrophe. Now serving as the director of a design lab and think tank, Azby connects the cultural, creative, and economic dots that illustrate the rich potential of sustainable design.

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A world where the last white rhinos age in zoos is also a world of war, racism, poverty, and ecocide. It's impossible for one to exist without the others. All are part of the same unholy matrix, says Charles Eisenstein.

I received the following email from a young woman, a student at an elite law school.

I don't cry very often. But this week I cried twice. For the rhinos. It breaks my heart that they're going extinct. I read some articles about the last, aging, white rhinos in zoos around the world and I fall to pieces. How can we have failed so badly? And you're right Charles, it's grief for the dying biosphere (I have long since stopped equating the environmental crisis with global warming, and I HATE it when people do that).

There's this kid in my class who really gets under my skin. He says annoying things like, "I love it when I see pictures of McDonald's in other countries, or African kids wearing Nikes, because it's like we've won. Our culture is supreme." I gave him a look when he said this. And he knows how I think because we've had conversations so he said, "I can't help it, I'm pro-American." And I said, "I'm pro-biosphere." And he says, "I think we should only keep the animals that we need to survive." And I'm so shocked by this stupidity that I'm rendered speechless. I literally couldn't talk to him for a few minutes. I didn't WANT to talk to him. I felt a little nauseous. Finally, I said, "I don't think that's possible." And he said, "Well we can TRY." Like it's a good thing to

try for. He gives me a panicky feeling because I think what if he's right? What if the future just contains concrete with cows, pigs, chickens, and their shit? What would we do with all their shit? (Previously he has told me that he could never care for an animal, that an animal's suffering has no effect on him).

The scariest thing about this kid is that he's totally pro-carbon controls. He believes in global warming and that it's a threat and that we should do something about it. I would prefer a climate change denier with a love for animals. Really, I would.

I'm really trying not to bother him. I sat next to him in class this semester

Sometimes it is a seemingly tiny thing that brings me to tears or heart-wrenching agony: a parent shaming a two-year-old child, a woman unfairly fired out of sex discrimination. Or it could be a singular incident of brutality out of millions that gets under my skin. Each of them represents the rest. In fact, each contains the rest.

because I know I have something to learn from him. I try to be kind to him, even though the things he says make me ill. And it's not from a place of moral purity either. I'm trying to understand this behavior, this kind of thinking, because if I never understand it I'll never be able to confront it in a meaningful way. It's a challenge, though. Sometimes I feel my innate snarkiness rising to the surface, but I know this is just a defense mechanism on my part. Any suggestions?

There's something, though, besides grief. The grief is compounded by that horrible sense of helplessness. I feel like I have absolutely no control over the fate of the rhino. I do my work, you know? I made all A's last semester... I'm disciplined. I'm studious. But I'm not doing anything real.

Like this young woman, I do not know why some tragedies penetrate me with grief while others do not. There are endless things to weep for.

Because we cannot weep for each one that comes across our awareness, we might form emotional callouses just in order to function. And then from time to time something pierces those callouses, and all the other unmourned tragedies follow it through the breach. Sometimes, therefore, it is a seemingly tiny thing that brings me to tears or heart-wrenching agony: a parent

shaming a two-year-old child, a woman unfairly fired out of sex discrimination. Or it could be a singular incident of brutality out of millions that gets under my skin. Each of them represents the rest. In fact, each contains the rest. Next time you travel to another planet and see caged wild animals there going extinct, you will know that planet also warehouses its elderly in nursing homes. A world in which the last white rhinos are aging in zoos is also, necessarily, a world of incarceration, war, racism, poverty, and ecocide. It is impossible for one to exist without the others. All are part of the same unholy matrix.

Because each of these contains the others, when we grieve one of them we grieve them all. It doesn't matter if it is the rhinos or police brutality that pierces you. They are all expressions of the same underlying mythology: the story of a discrete and separate self in a desacralized world that is other. A level up from there live the usual systemic culprits: racism, usury-based capitalism, patriarchy, the industrial system, and so on.

Consider classmate the she describes. One would like to indulge in snarkiness and call him some clever variant of stupid or evil. Actually, he is blinkered by the story he lives in. I mean something deeper than the mythology of American exceptionalism, neoliberal and technological development, triumphalism. It goes all the way down to metaphysics. If you take for granted a universe of generic building blocks, devoid of the qualities of a self, devoid of an internal intelligence or evolutionary will, then our license to manipulate nature and materiality suffers no limit except for that posed by perverse unintended consequences that we can, in principle, predict and control with just a little more information and technological know-how. Why not, then, keep only the animals that are useful to us? In the story of separation, we are fundamentally separate from the rhinos. What happens to them needn't affect us. Sentimentally it might, but not rationally. (And here we see how the dominant worldview pits sentiment against reason and heart against mind.)

The same goes for the biosphere as for the rhinos. In the story of separation, what happens to the biosphere needn't affect us, except as a temporary

practical matter until we develop the technology to make us independent of nature. That is the world of concrete and pig shit that my friend dreads. It is a myth, that story. In fact what happens to the rhinos does affect you and me. When you look at that picture, can't you feel part of yourself going extinct too?

Here is why her observation that she would prefer an animal-loving climate change denier to this person rings true. Love violates the story of separation. Love is the expansion of self to include another, whose well-being becomes part of one's own.

The healing of our planet will not come without love for our planet. It certainly won't come from technological solutions that seek to more competently deploy resources and manage consequences. That is the path toward biofuel plantations, nuclear power plants, and geoengineering schemes that threaten catastrophic consequences. If someone loves the rhinos, and loves the mangroves, and loves the forests, and loves the coral reefs, and loves the West Virginia mountaintops and the rain forests threatened by stripmines and the waters threatened by oil spills, it doesn't matter if they believe in climate

change, they will oppose every new coal mine, oil well, fracking project, and copper mine. Conversely, without love behind it, no carbon controls will make a difference in the long run.

If we want to change the minds of people like the woman's classmate. head-on debate isn't going to work. No one can logically persuade somebody to fall in love.

We might be able to convince them to support one policy over another on utilitarian grounds, but engaging the planet as an instrument of our utility is what has gotten us into this mess to begin with. Similarly, when we say, "Let's stop using fossil fuels or we're screwed," and adopt anthropocentric interest as our primary argument, there is little to say for the rhinos.

Why not try to create a world of concrete and shit, if we can do it, with maybe a few parks for aesthetic relief? Seeing the futility of overcoming such people through debate, I have turned toward deeper levels of engagement.

Why would he and millions like him be attracted to the story of separation that seeks to exploit and manipulate the world? Maybe it has something to do with he himself feeling like an

Love violates the story of separation. Love is the expansion of self to include another, whose well-being becomes part of one's own. The healing of our planet will not come without love for our planet. It certainly won't come from technological solutions that seek to more competently deploy resources and manage consequences.





In the story of interbeing, what happens to anything happens in some way to everything. We are free then to listen to what calls forth our passion, our care, and our gifts, whether the need that calls them seems large or small, consequential or invisible. Because each contains all, we can be peaceful in our fervor and patient in our urgency.

instrument, exploited, manipulated... He is in the same position that he wishes to put the animals and the planet. He feels out of control and near panic in the face of uncertainty. Therefore he wants to feel like he is in control, and humanity (as a proxy for the self) being in control of things feels good to him too.

Not to psychoanalyze the poor guy, but if we are serious about changing the beliefs that drive ecocide (rather than gaining the psychological gratification of winning an argument) it is important to understand the experience of life behind those beliefs.

I think this young woman is therefore on the right track, showing him kindness while - and this is essential - not allowing herself to be dominated by him. In a worldview of winning and losing, no one will go out of their way to serve your interests unless you dominate them, force them, pay them. In its extreme, that world has no love, no real kindness, no generosity that isn't a device to get more.

That is why unforced kindness and generosity have the power to puncture the story of separation. The kindness my friend shows her classmate and the

desire to understand his experience of the world translates onto the level of systems and politics.

What is the story our opponents stand in, the perpetrators, the ones we want to blame? What kind of life experience attracts them to that story? What are the secret ways that it lives in ourselves? When we know what it is like to be them, we will be far more capable of disrupting the narratives that scaffold our world-destroying machine. This is called compassion. It isn't a substitute for strategy and action. It illuminates new strategies and makes all action more effective, because we can target them at the deep causes rather than forever battling the symptoms.

What is it like to be a rhino? To be a policeman? A corporate executive, a terrorist, a killer? What is it like to be a river? These questions arise naturally in the story that Thich Nhat Hanh named interbeing, that holds us as interdependent on every level, even that of basic existence. It is the successor to the story of the separate self, and it opens us to compassion and grief alike.

The lens of interbeing also relieves

the helplessness the woman speaks of at the end of her letter. Even as the crises of the world each contain the others in an unholy matrix, the same is true for the responses. To respond to any is to respond to all. I imagine myself talking to a rhino in a cage. She asks me, "What were you doing with your life, while I was going extinct?" If I answer her, "I was working to save the coral reefs," or "I was helping to stop the navy from using whale-deafening sonar," or "I spent my life trying to free men from death row," then she is satisfied, and so am I.

We both know that somehow, all of these endeavors are in service to the rhinos too. I can meet her gaze without shame. In the story of interbeing, what happens to anything happens in some way to everything. We are free then to listen to what calls forth our passion, our care, and our gifts, whether the need that calls them seems large or small, consequential or invisible. Because each contains all, we can be peaceful in our fervor and patient in our urgency.

We can be peaceful in our fervor and patient in our urgency. We let in the grief, and compassion and clarity follow it in. We stand in awe of the intelligence that weaves it all together and orchestrates the mysterious causal pathways that link the rhinos to the prisons to the corals to the cancer wards. I leave you with some words from Chogyam Trungpa: "When you can hold the pain of the world in your heart without losing sight of the vastness of the Great Eastern Sun, then you will be able to make a proper cup of tea."



Charles Eisenstein is a teacher, speaker, and writer focusing on themes of civilization, consciousness, money, and human cultural evolution. He is the author of Sacred Economics.

"When old words die out on the tongue, new melodies break forth from the heart; and where the old tracks are lost, new country is revealed with its wonders." - Rabindranath Tagore

"A man cannot despair if he can imagine a better life, and if he can enact something of its possibility. It is only when I am ensnarled in the meaningless ordeals and the ordeals of meaninglessness, of which our public and political life is now so productive, that I lose the awareness of something better, and feel the despair of having come to the dead end of possibility."

- Wendell Berry

"All the stories that fill the newspaper - war, chaos, they are there because they are unusual. They are not as great a story as the millions of acts of human kindness throughout human history."

- A.C.Graylind

Musings about Yugaantar

Before we look at foundations for an ecological era, we need to re-visit the seed ideas of our modern civilisation and the Industrial age, says **Seetha Ananthasivan.**

I spend an hour or so every day in my backyard. I am truly grateful that this space is available to me—to just sit and stare or to potter around doing odd jobs in my comfortable shabby clothes; sometimes I harvest vegetables, dig a bit, weed out some parthenium or listen to the calls or screeches of the koel, kingfisher or other birds. There are times when I need to catch and kill those invasive African snails that gobble up all the tender shoots – I am adding this to set the record straight that it is not always nice and sweet work!

Most of all, there is something new everyday, every moment I spend there. Little things you notice but forget very soon. But I am not overly excited; I just don't bother to record anything. This is just time and space to free-float, being there, belonging there. No deadlines, nothing to achieve. I must mention though, that my backyard is not over-maintained. There are enough corners with wild growth that I feel especially happy about.

Sometimes these small wilderness areas are where I feel most alive and most at home. The world and its cares seem very different when you feel embedded in a bit of wilderness; it seems then that the worst deprivation we have inflicted on our children is robbing them of wild nature.

One could say that being with Nature in this way is nothing much – not by the world's standards - no spectacular sights, no scientific or intellectual findings, nor anything special. Yet if I were to be asked what would be the one thing in my home space that I would like to hold on to, it would be this time in my backyard.

The first thing on my wish list for Yugaantar therefore will be that we beckon to everyone to get in touch with Nature, within and around us; an perhaps learn from Nature what we are not able to teach each other. That said, what else do we wish for through the Yugaantar process?

Seed Ideas of a Civilisation

The vision of Yugaantar is to offer engaging and meaningful resources to school and college students about ecological living. We decided therefore to hold workshops (April 2016) on "Foundations of an Ecological Age", to begin by looking at seed ideas that shape a civilization. It may sound quite bombastic and ambitious, but how will we support our children to ground themselves sensibly if together we don't see the larger picture, the truer picture?

Before we look at foundations for an ecological era, we need to re-visit the seed ideas of our modern civilisation and the Industrial age. We usually keep working with 'end-of-branch' issues and forget the root level issues that continue to bring in more problems to solve. So among other things, the Yugaantar vision is to draw attention to these and to look at the need of seed ideas or foundations for an ecological era.

The view of economists that human beings are primarily selfish and look for materialistic growth for themselves is perhaps the most damaging seed idea of our industrial age. This has spawned an economic system and technologies including media that succeed very well in keeping this image alive, that we are basically consumers.

Corporate power and globalization have been seeded by the elites to be protected from public accountability in many ways; Science has become reductionist, with Descartes and Bacon seeding the conquest and desacralisation of nature and making us increasingly anthropocentric. All this has contributed to popular aspirations to being a big consumer, or one who creates the most consumers. The story of the hero as an achiever today is disconnected from Nature as well as the long-term wellbeing of humans and other beings of the earth.

Education as we know it today, focuses on supplying a workforce to our factories and offices and is little concerned with helping children see the reality and make choices from a true understanding of the world. When formal schools began in the eighteenth century, some of the seed ideas they were built on included inculcating a time-consciousness that was needed to run machines, a fear of authority and ability to do boring work. It also made nature, farming and crafts go to the fringes, appear to be part of the 'less educated' way of living.

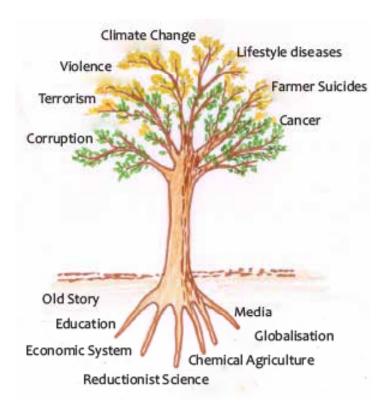
Foundations for Ecological Living

So what are the seed ideas we need for an ecological age? What are the root level issues we need to think about if we are to make our offerings real and grounded? To start with we focussed on philosophies for ecological living, livelihoods and economics for wellbeing and holistic thinking and enquiry in education as themes to work on.

Philosophy has been relegated to academia or as an indulgence for the elderly. How do we bring back the idea of philosophies for practical living? Satish Kumar talked about Nature and humans being one, and AseemShrivastava about 'anthropo-responsiveness'. In what ways do we share our beliefs and perspectives with the hope that it will strike a chord in the young?

Many alternative schools have sprung up in different

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Root We usually keep working with 'end-ofbranch' issues and forget the root level issues that continue to bring in more problems to solve.

corners of the world. Many others are into unschooling and deschooling. But how do we touch the majority in main stream schools? How do we attempt to shape policy? What about Public Interest Litigation to question outdated curricula? Building model schools based on holistic enquiry? Make documentaries and write articles and books for the young? We need them all and more.

Livelihoods that connect us to Nature, give us basic needs of food, water, clothes and housing have been trampled upon systematically in the name of development. What has actually happened is also that a huge number of livelihoods have often been destroyed to create far fewer jobs in factories.

A case in point is the story shared by Sridhar, from Thanal, Kerala, about the Grasim Industries factory arm twisting local governments to get bamboo at the rate of Re.1/- per truck load. They destroyed livelihoods of over 3,00,000 bamboo workers, fisherfolk and others to create about 3000 jobs - and the factory ended up polluting the Chaliyar river, causing cancer in the region and finally had to be closed down after prolonged protests.

Another little known story that should be part of geography books around the country is the work of Dhrubajyoti Ghosh. He was responsible for the wasteto-food model of Kolkatta's fisheries that has become internationally acknowledged. He stresses that in an age of unsustainable living, traditional knowledge systems can provide solutions to local and sustainable food, dealing with urban messes and more.

How do we share such stories and insights that need to inform young minds? Perhaps, as suggested by Ashish Kothari, we bring out educational material on "livelihoods and deadlihoods" - especially for those on the threshold of When we experience a sense of wholeness and oneness, our view of the common aspirations of humans today can be shifted to include more contentment, wisdom and what Wendell Berry calls, quite simply, 'Good Work'. Work that is connected to our part of the Earth, modestly scaled, honouring the source of materials and local traditions.

new careers or for those jaded by a couple of decades spent in front of the computer.

Holistic Enquiry

My backyard musings reinforce my belief that the best foundation for children especially is to some time and space with Nature. A connection with plants, trees and other forms of life that gladdens the heart and cleans up the glasses we use to see the world.

Life today is so planned out, sanitized and immersed in man made goodies, that seeing ourselves as part of Nature is not 'natural' or part of our daily lives. Many species that have gone extinct must have had some vulnerability - the human weak point seems to be our fantastic mind. We are so capable of living with illusions - over our whole lifetime even, and also over generations.

When we experience a sense of wholeness and oneness, our view of the common aspirations of humans today can be shifted to include more contentment, wisdom and what Wendell Berry calls, quite simply, 'Good Work'. Work that is connected to our part of the Earth, modestly scaled, honouring the source of materials and local traditions.

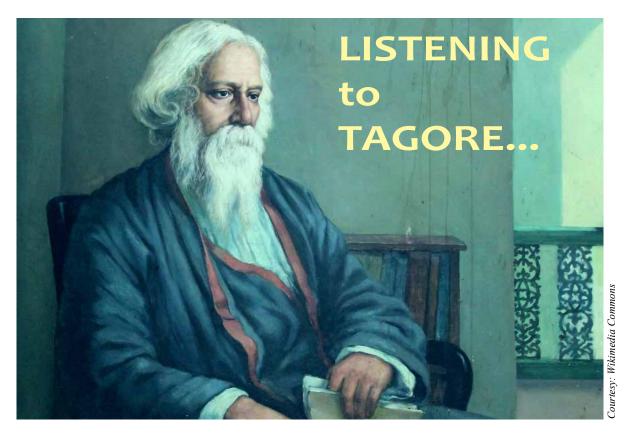
In education, perhaps the most important aspect of a holistic enquiry that we can include is a respect for such Good Work; and understand its opposite - Bad Work - which has dominated the world today and been responsible for the unprecedented crises humanity faces today.

Talking about the meaning of Yugaantar, Satish Kumar said, "It also refers to "a Theerth" which is the shallow part of a flowing river that allows one to cross over to the other bank. Thus Yugaantar also means an attempt to share with and support people to cross over from the bank of separateness, human superiority and consumerism to the bank of togetherness with nature, renewal and wholeness."

We do need many such 'theerthas' to move towards an ecological age.



Seetha Ananthasivan has a deep interest in understanding how we can build communities which are coherent with Nature's principles. She is passionate about the development of holistic education as well as organic food and farming. She is the Founder -Trustee of the Bhoomi College and Prakriya School and the Editor of the Eternal Bhoomi Magazine.



Aseem Shrivastava connects Tagore's perspectives on nature with the crying need today for a philosophy for an Ecological age.

It is fascinating to see how poets experience the world in their exquisite description of nature. The immediate humanization and personification of the moon in a passage by Tagore tell s us a lot about the way he perceived things. We see both the naturalisation of humans and the humanisation of Nature that Tagore seems to experience in a simultaneous process.

Much of Tagore's work primarily describes the various ways of looking at the relationship between nature and human beings; there is a lot of spontaneity and expression of free spirit in the life of Tagore. No doubt it had something to do with his having had the courage to step out of Macaulay's education system at the age of 14. He had his ears so firmly planted to the earth that he was able to connect with many things that most of us would miss

Our lives in cities on the other hand are a far cry from such a connection with Nature. A poster I have seen encapsulates what is considered "normal" today; getting dressed in clothes to get ready for work, driving through terrible traffic in a car that you are still paying for in order to get to the work, so that you can afford the house you leave vacant all day to get to the

work you do. That's the definition of life in its maturation today.

The period before the earth was circumnavigated by the earth explorers - first the Chinese and the Europeans, had a different perspective. Our relationship as a species with the natural world before the 15th century was one where we were dominated by nature; we were subject to elements much more, life span was short and infant mortality high.

By the time we reach the well springs of the Industrial Era, towards the end of the 18th century, ideas of conquest of nature were certainly on the march. As we traverse into the 19th century, the vision of Francis Bacon

Tagore's Much work primarily describes the various ways of looking at the relationship between nature and human beings. He had his ears so firmly planted to the earth that he was able to connect with so many things that most of us would miss.

matured and the human species began dominating nature to such an extent that people believed that we could conquer other planets as well.

Being responsive to Nature as well as Human needs

Today, humanity needs to redefine its relationship with nature in order to determine a new balance where neither are we dominated by nature and nor do we dominate nature. The word I would like to use is anthropo-responsiveness. This basically means catering to our deepest and highest faculties, calling to our spiritual nature, other than our material nature, where we cautiously experiment to look at alternative ways. A very clear and vivid example of this is what has been undertaken by Mr Wangchuk in his work in Ladakh. [See extracts from Mr. Wangchuk's talk at the Yugaantar Workshop in page 24 of this issue]. We live today in Yugaantar - the cusp of Industrial Age and Ecological age, an age of transition. The man-made world rests on the foundations of fossil fuel that is very strictly non-renewable. So it seems obvious that the challenge is how do we make the human economy align with Nature's rhythms and cycles. However, the prevailing modern belief is that we are smarter than than Nature. that we can conquer Nature.

How did this come about?

We often forget that war is at the heart of the ecological crisis. From the times of Columbus and Vasco de Gama entire economies have been designed on a system of warfare and conquest. Therefore, it comes as no surprise that competition was and continues to be a cardinal value. War becomes a practice of daily life as it is visible in the ways people drive on the streets or the way parliament functions. It is either you or me but never us. The fact that both may be wrong never enters our imagination.

The core value that I am trying to question here is the one concerned with a kind of monarchy. There is a monarch in all of us with dreams fueled by the temptations and seductions of power-"I can do anything, I can do everything, the sky's the limit and not the Earth." This is the prevailing definition of freedom. So one doesn't have to take nature, cosmos and other elements of the ecosystem into account because one subconsciously, over the generations believes in the idea of becoming the conquerors and masters of the universe. Something that our children grow up learning through their schools, television screens and films.

Wholeness, Reciprocity and Renewal

The three key words which I would now like us to deliberate upon are Wholeness, Reciprocity and Renewal. We often use Wholeness interchangeably with Totality, Reciprocity with Exchange and Renewal with Sustainability, though they are very contrasting and mean very different things.

Modern society thinks of exchange as a one on one affair wherein I do something for you and you do something for me. Reciprocity on the other hand is for the group together and it is the product of the ancient past, the distant future, the present, the otherness, the ecology and the cosmos, much of what we owe others and the rest of the nature.

Is there a way we can think of passing it on? One has to ask oneself, what is it that has truncated our vision that we cannot see anymore the wisdom handed down to us by tradition. Can those things be restored? Can we have a greater sense of reciprocity in our lives, in our economic system? Renewal is not the same as sustainable. The whole gamut of Sustainable Development was conceived by the UN. Briefly, sustainability is really about the way the powerful elites have

The whole issue philosophy for an ecological age is connected with the question, what is nature? What would we include or exclude in nature?

adjusted the public rhetoric regarding the emerging ecological realities to keep the same economic system going.

The word Renewal gears us towards renewable energy or to shift and adapt to the natural rhythms around us. For instance, renewal is about how one doesn't mess with the water or the soil cycle. Nothing is more disastrous than the modern human sanitation systems because it interferes with the soil and water cycles. When we talk of renewal, it is not just ecological but also cultural renewal. This would imply borrowing some aspects of traditions of our part of the world which will serve our needs best. What of the past are we rejecting and why; what of the present are we choosing and why? What are good beliefs and practices, what are not? That choice has to be democratically undertaken, it can't be done from the top. And so all that that is coded in the word Renewal is not implied in the word Sustainability. Sustainability talks about how long can we keep going the way we are going and what all can we go on doing without our children getting terribly hurt?

The idea of wholeness is extremely important and it should be distinguished from the idea of totality. For example, when we talk of infinity, we may imagine counting and hitting against it - but it's a concept that cannot be measured. Works of poets like Tagore enable you to see things that are otherwise not visible. There is something greater in a sense of wholeness, something one cannot own and it exists as it is. When you have accessed that, consider yourself fortunate.

Totality on the other hand is literally total. Its when you have desacralized nature and when trees are solely stands of timber and when you total it up and add it to number of planks generated. IBM's marketing theme of building a smarter planet has innumerable hidden meanings attached to it. It sends a message that, in the near future, technosphere will take over the biosphere - which would actually render millions of people redundant and aid a privileged few. This is exactly the opposite and rejection of wholeness.

But, the hunger for wholeness is inevitable and in one way or the other, we find it in the search for unity. Political leaders have managed to galvanize human emotions in the direction of a fake unity around totality and material success which surpasses seeing the wholeness of humans, their emotions and spirit.

These distinctions between wholeness and totality, renewal and sustainability and reciprocity and exchange are needed to understand what's going wrong in the way we view nature, human society and its politics. It goes without saying that philosophies for an ecological age need to be embedded in wholeness, renewal and reciprocity.

The whole issue of philosophy for an ecological age is connected with the question, what is nature? What would we include or exclude in nature? Where is the breath? Is it in us or in nature? One needs to understand the significance of breathing in order to have a different view than the normal. Where is it located? There is no inside or outside with breathing. It is the most fundamental process which every living creature is a part of. We can evolve a meaningful philosophy for a new Yuga only with a deeper understanding of our oneness with Nature.

This I am sure is the essential message of poets like Tagore.

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Aseem Shrivastava writes extensively on issues associated with globalization. He holds a doctorate in environmental economics from the University of Massachusetts, Amherst. He has taught economics for many years in India and the

This article includes extracts from his talk at the Yugaantar Workshops, April 2016



Rousing a Generation in Deep Slumber

The era of radical change can only come from a deep sense of belonging to a place, says R Sridhar, in his talk at the Yugaantar Conference on Livelihoods and Economics for wellbeing.

Mahatma Gandhi tried to use nonviolent methods to chase the British away through the salt movement and the charkha, and he succeeded. This story gives us the hope to keep persisting. however terrible maybe the repercussions on us.

I will begin with a reference to Mr Aseem Shrivastava's example of our Prime Minister launching the Make in India movement to further the Foreign Direct Investments which invites the rest of the world to come and make in India instead of Indians making in India. This includes nuclear installations rejected by the French Government to be brought here too. The image that is represented and what Indians are made to believe in, is that we are inefficient. We do not understand the process of creation, manufacturing and selling and thus whatever we produce is costly. However, the foreign industries are believed to have found more effective and efficient methods to teach us about manufacturing and hence what they produce in our land will be cheaper.

I always thought that the government was the most corrupt and inefficient system in our country. If inefficiency is the logic for bringing in FDI, then I believe that we need to stand up and make a strong case to bring in FDI in government to counter

the arguments around the country's potential.

We have been relying excessively on government systems and external agencies to solve problems for us. We need to involve ourselves in the problems because we belong to the land and can know best how to solve our own problems. Everyone wants to either Stand up in India, Sit up in India, Make in India, but I say Act in India.

Our roots are calling us!

The organization called Center for Disease Control (CDC) in the US studied the amount of chemicals in the placenta of a mother and her newborn baby to figure out the concentration of massive chemical use in the US. A

We have been relying excessively on government systems and external agencies to solve problems for us. We need to put ourselves into the problem because we belong to the land and know how to solve the problem. We need to rise up to the problems.

new born American child has nearly 180 types of chemicals in the form of toxins, neurochemicals etc in its body. No wonder that we suffer from diseases like cancer, arthritis and other deadly diseases. It may be a grim picture that we do not want to dwell on, but what do we do about these issues and how do we take them up?

I grew up in Trivandrum in Kerala and I have felt a deep sense of belonging to the place and to the people around me. The trees that were planted when I was a child have now grown old with me. But developers now want to chop them because they are jutting out in the street!

Most of us seem to have lost our sense of belonging to a place. The question to ask then is, why did we stop belonging? What is it that kept us out? When we see a tree being cut or open waste being burnt on the road that contains dioxins and can cause deadly diseases, we remain passive because we don't belong there. We are now transitioning into an era which has equality and justice as its foundation. Not everyone feels they can fight for what is right. The plea is, we can't all be like Devinder Sharma or Satish Kumar.

People act, not because they are special... they have a deep sense of belonging to their place and hence couldn't see their land deteriorating. If you think you're not doing anything meaningful, then it means you're not belonging anywhere and you need to start belonging!

Stories of Hope

In Kerala, Grasim Industries was set up to produce rayon clothes - for the rich - but deprived poor people of their livelihoods, farmers of their farms, fishermen of their produce and bamboo makers of bamboo. There was a panchavat head named Rehman who opposed the factory from day one when he saw the smoke from the factory rising and the effluents releasing in the river nearby killing the fish. He just walked in and asked them to stop the industry from day one.

We had to put in a lot of effort to close down the Grasim factory that brought in cancer to an entire region. It claimed to give 3000 jobs but wiped out 3,00,000 livelihoods. It took 45 years of struggle for us to close down this industry. This struggle started in 1957 when we were at the hieghts of the Industrial Era. Ironically, Nehru said, Industrialize or Perish. And Now we are talking about IT industry where at the age of 30, people are perishing working like slaves - but that's another story.

Another example we have is of getting a ban on endosulfan, a pesticide sprayed on the plants. It began in 1975 and by 1981 people were already suffering from the diseases caused by endosulfan toxins.

Laxmiamma, a housewife and a mother of two children, rose to the issue when she saw her own children suffering. In 1992 she filed a case against endosulfan use in the municipal court and continued her battle into the the sub-courts and high courts. By 2003, we got a state ban on endosulfan and by 2010, we got a national and a global ban on endosulfan.

We are beginning to see the fallouts of the Industrial Era. The pattern shows that it takes fewer years now to bring about change from the time we started... From Grasim to endosulphan, the time for the struggle has reduced from 45 years to 25 years - it seems that now people have begun to listen! So, why don't we stop someone when we see them burning plastic on the road? Do we hesitate to speak up because we

We need people who are committed to making that change. We need to to give a land to our people free of pesticides and full of greenery. Maybe we will not live to see this world but our children will and until then, some of us will have to say, I will not sleep.

do not care, we do not belong, or do we believe it's the government's job?

Era for radical change

The endosulfhan and Grasim Industries issues are one time issues. But GM crops can bring in a perpetual problem. Why are so few fighting abainst GM? Why is it that even when we are aware of the danger of GM crops and pesticidein food, we continue to buy the same produce from the shop?

We did have a movement against Bt Brinjal in this country - pushing up 20 to 30 MPs and MLAs to stand up against the GM production, and we were able to stop Bt Brinjal.

government however The is continuing its support of GM producers. After all GM crops will help the GDP grow - by the sale of GM seeds and pesticides, by getting people ill, polluting land with wastes and so on.

So when we are aware, how do we make the Government act? The only way to do it, is to understand at least two requirements of transition: the most important one is to develop a sense of belonging. The second is to care to communicate! I have spoken about GM crops to you and I implore you to please go to ten other people and do the same.

Just a few people standing up and protecting the country against GM crops can get the prime minister to eliminate GM from the country. We need to do this at least in our own selfinterest - cancer is not selective. It can affect anyone. We know we don't want to be martyrs in this battle. In Kerala, as activists we do not get funding from people easily, but we have managed to get most people to listen to us. This can happen in other states too.

Kerala is under a debt of 1.5 lakh crores and with one light push, things could be as bad as Greece. India is a country is on a similar path; looking to build new industries, taking loans from banks that hold crores of rupees in the form of debts from the non-performing assets.

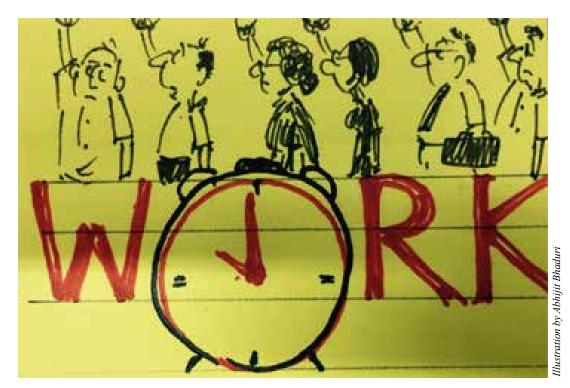
We believe that the solution is to push hard for a green ecological movement in Kerala. So we deliberately engage with the political parties and leaders as well as with civil society. When people have realised the dangers of chemical farming, they want an organic farming movement. I believe that all we need is four people who will not sleep until we have resolved the issue. We need people who are committed to making that change. We need to give a land to our people free of pesticides and full of greenery. Maybe we will not live to see this world but our children will and until then, some of us will have to say, I will not sleep.

It is possible to activate civil society that has the power to change the system. People are working towards organic farming and 200 schools in Kerala have now adopted the green movement with children practicing farming. We have put the right seeds for the future that gives them the belief that farming is also an option as a livelihood.

We cannot trust our governments and our economic system to bring us good livelihoods and well-being. The only thing that will save us is our ecology, making our farms and lands revive and thrive and having our children's minds open to this truth.



Sridhar Radhakrishnan is with Thanal, an NGO based in Trivandrum. An Engineer by profession he has taught in various institutions for 8 years. He has worked on issues related to industrialization. industrial pollution, waste, pesticides and its impacts and presently is Deputy National Coordinator of the Save our Rice Campaign. He is also Convener of a movement in India called the Coalition for GM-Free India, which is striving towards keeping India free of GM crops and food, as well as advocating sustainable agriculture.



Livelihoods & Deadlihoods

Ashish Kothari writes on how we need to break the false divisions between work and leisure and make both more meaningful.

Economic development and modernity have transformed livelihoods into deadlihoods. They are wiping out millennia-old livelihoods that were ways of life, with no sharp division between work and leisure; and replacing them with dreary assembly line jobs where we wait desperately for weekends and holidays.

Economic progress, we are told, is about moving from primary sector jobs to manufacturing and services. And so the livelihoods that virtually keep all of us alive - farming, forestry, pastoralism, fisheries, and related crafts - are considered backward.

In India, this marginalises 700 million-800 million people, two-thirds of its population.

The results? Horrendous ones like thousands of farmers' suicides in the last decade; or the displacement by so-called development projects of 60 million people from their farms, forests, and coasts.

Less visible is the pauperisation of many others deprived of the natural resources they depend on, as their lands and waters get taken away for industry, infrastructure and cities. Entire new forms of poverty are being created by development.

Assembly line drudgery

Let's assume that this is inevitable and desirable. As the narrative goes, who wants to continue the drudgery of farming and fishing? What are we replacing these with?

For the poor, either no employment at all, or insecure, exploitative and unsafe jobs at construction sites, mines, industries, dhabas, and other places that can hardly be called less drudgery. A staggering 93% of Indian jobs are

Economic development and modernity have transformed livelihoods into deadlihoods.... For the poor, either no employment at all, or insecure, exploitative and unsafe jobs at construction sites, mines, industries, dhabas, and other places; The vast majority of those in modern sectors of work such as the IT industry, are mechanical cogs in a vast assembly line stretching across the globe.

in the informal sector, an increasing number of these in exploitative conditions.

And are the middle classes and rich better off?

In terms of remuneration, they are much better off - a recent study shows 1% of Indians owning over 50% of its private wealth (built on the backs of severely underpaid labour).

But what about the quality of work?

The vast majority of those in modern sectors of work such as the IT industry, are mechanical cogs in a vast assembly line stretching across the globe. Early morning to late night, slouched on a computer terminal, or providing rote responses at call centres, or desperately seeking news to feed the incessantly hungry 24x7 news channels, or staring at stock market numbers - who can honestly say that these are not deadlihoods, suppressing our independence and innate creativity?

If this is not the case, why do we wait so restlessly for the workday to end, or for the weekend to come? Why do we need retail therapy, superficially trying to get happiness by going shopping?

Meaningful work

Over the last few years I've been taking sessions on development issues at alternative learning centres like Bhoomi College in Bengaluru and Sambhavana in Palampur. A large percentage of participants in these are IT professionals who want to drop out, to "do something more meaningful".

Long ago I lost count of the number of people who've expressed envy about my enjoying my work. These folks have realised that they are not practicing livelihoods, even if they are making a pot of money.

I do not mean to say that all modern jobs are deadening, nor that all traditional livelihoods were wonderful. I am well aware of the inequality, exploitation, and even drudgery in the latter. But this bathwater needs to be changed without throwing out the baby of meaningful livelihoods.

Live examples of this include the Deccan Development Society and Timbaktu Collective, helping sustain and improve the social and economic status of once-poor peasants (including Dalit women farmers who are now also filmmakers and radio station managers); or Dastkar Andhra and Jharcraft, bringing back viability and providing new dignity to craftspersons. And so too that rare meaningful job in a modern sector: the field biologist who loves being in nature, the music teacher enthusiastically bringing out the talents of students, a chef in love with cooking in charge of an organic food kitchen.

Respect physical labour

For these counter-trends to gain ground, fundamental change is needed in education. In school and college, we are inculcated with the attitude that intellectual work is superior to physical labour. Our minds are trained, to the exclusion of building the capacity of hands, feet, and hearts. We are given role models of people whose success is based on conquest of nature and climbing ladders while kicking other people down. And so we grow up undervaluing producers. The horrendously low prices that farmers get for their produce is a symptom of a society with warped priorities; we do not want to pay adequately to someone who keeps us alive, but we are willing to pay through our noses for branded shoes and gadgets. And in relation to the latter,

Let's question whether we want to continue being deadened cogs in a mass production system that enriches only a few. Let's see how we can combine the best of old and new, to make both more meaningful and fulfilling. This could be the start of bringing back livelihoods and leaving behind deadlihoods.

we don't even care what the actual factory worker gets.

So another crucial change is in economic structures: community tenurial security over land and natural resources, worker control over means of production, social control over markets. In Greece recently I went to a detergents factory taken over by its workers. They now run it democratically, have converted the machinery to produce ecologically safe cleaning agents, and have won support from nearby townspeople including consumers. They spoke of how fulfilling their lives are now, compared to earlier when under the yoke of a capitalist owner.

The next time we come across nomadic pastoralists steering their sheep through the traffic-laden streets of our cities, think of this. Yes, perhaps they are anachronisms, soon to disappear. But who is to say the same will not happen to our IT or digital media or call centre jobs? Perhaps a generation from now robots with artificial intelligence, seeing some of us staring at a computer screen, will smirk about how inefficient and outmoded we are. Not only farmers and fishermen will have become anachronisms, but humans as a whole, except perhaps the few controlling the buttons. Science fiction? Perhaps, but a lot of what was science fiction has become fact.

Revisit our role models

Before we end up in a future where humans are redundant, we could do some serious reconsideration. Perhaps we can transition from being only an IT professional or writer of articles, to being more of the human that we have the potential to be.

Perhaps we can facilitate farmers to also be researchers and filmmakers (as Deccan Development Society's women have become) - variants of Marx's vision of being hunter-fisher-pastoralist-critic all rolled into one. Many people I know (who'd be embarrassed to be named here) are accomplished researchers, farmers, musicians, parents, explorers, all in a seamless whole, breaking the false divisions between work and leisure, physical and mental, old and new. Imagine if these were the role models given to our kids, imagine if as youngsters we were encouraged to be self-reliant, inquisitive, respectful of diversity, and a responsible part of the community of life. Imagine if we redefined work to include enjoyment and pleasure?

I believe this will happen, sooner or later. Till then, let us at least appreciate ways of life that have engaged respectfully with the earth for millennia, unlike the alienated modern jobs many of us have. And let's question whether we want to continue being deadened cogs in a mass production system that enriches only a few. Let's see how we can combine the best of old and new, to make both more meaningful and fulfilling. This could be the start of bringing back livelihoods and leaving behind deadlihoods.



Ashish Kothari is a founder-member of Kalpavriksh, a 30-year-old environmental research and action group. He has been a member of people's movements against destructive development projects, including the Narmada dams. He coordinated the Technical and Policy Core Group to formulate India's National Biodiversity Strategy and Action Plan.

Ashish is also a member of the panel of advisors of Bhoomi College.

He spoke on the same topic as this article at the Yugaantar Conference.

Education For a New Yuga?



Isn't this time of ecological crises a time for active engagement and opportunity for deep involvement, particularly in the field of education, asks Rema Kumar

Yugaantar, a period of transition -a tough phase of movement, shifting and realigning. Many thinkers and philosophers describe the age we are living in as a Yugaantar. What does this mean for us as a species? Don't we need to take stock and review? Or should we just carry on with 'a business as usual' attitude? The industrial era has outlived itself. The signs are there for all to seein the total disregard for and utter degradation of our delicate biosphere, the inequalities and the injustice, the disconnect and the alienation. The imperative thus is to move towards an ecological era.

So what does it take to lay the foundations for an ecological era? One key area to focus on is education. How should education respond to the needs of an ecological era? What ought to be the purpose of education in such a scenario?

- To question the story of separation from earth, the story of the dominance of our species and rewrite a new story of relatedness.
- To accept that the so called march of progress and development is an illusion and the benefits from it has come at a huge price.
- To realize that we are 'of the earth' and establish a new relationship with the 'living, animate earth.'

- To engage with limitations of reductionist science and technological fixes and move towards a holistic spirit of enquiry which enables people to see the inter-linkages and clue in with the whole picture.
- Affirm that the purpose of education is not to just produce tailormade work force but to enable people to live wisely and sustainably on earth.

How will this turn-around pan out? What are the processes involved?

Earth-centered curriculum

"There are hundreds of ways to kneel and kiss the ground."

- Rumi

There certainly are hundreds of ways to revere earth and accord her the respect due to her. We just have to collectively rediscover the will for the practice. To begin with what is required is a movement away from celebrating abstract knowledge based, marks oriented curriculum which fosters an 'object' relationship with earth and legitimizes competitive acquisitiveness. The curriculum and content will certainly have to have sharper earth centeredness, a subjective relationship and intimate connecting with earth. This would then mean a lot more of being outdoors in

nature, hands-on work that is needed for ecological living and collaborative work in small communities.

We would also have to shake off the arrogance/superiority that is part and parcel of formal education system and have the willingness to learn from communities living in close proximity/ intimacy with nature, learn and adopt ways of treading gently on earth. It would also mean valuing their knowledge systems and finding a place in the curriculum for indigenous non text based learning. These people who have their eyes, ears and hands close to earth and whose knowledge systems are based on years of closely observing nature's rhythms and cycles will need to be heard and listened to. This would enable children to be earth citizens and feel that they are a part of the fabric of

More localised, place based schools will need to be fostered that focus on the particular issues of the place-be it food, water, impacts of increasing numbers in human population on a bio region and how to live within the limits of that bio region. Systemic thinking to address particular problems/issues that are 'live' in the present context, and search for solutions needs to be a way of life in schools. Specific skill sets required in terms of growing food, conserving water or taking care of tree cover/biodiversity needs to be given prime importance. Thus food literacy, water literacy and forest literacy would be essential for the new age. Real life projects where students engage with 'real issues' of their bio region with its complexity and work hands-on with the spirit of holistic enquiry rather than short term, fixing the problem

Earth centric processes

One significant way in which the modern education system has failed is the mistaken, simplistic notion that it instills that we are independent beings who only need to keep a sharp focus on our own endeavours. The fact that a community can be a rich source of learning, discovery and enrichment is missed by many. When confronted with complex, myriad problems, a sense of deep loneliness and helplessness can ensue. Being part of a community can provide a sense of reassurance and ease; and in searching together, truths emerge not only from within but in a dynamic living field of connectedness. The paths then become a natural consequence and walking on them become effortless.

The stories of diverse communities whether they are engaged in issues of safe food, food security, seed autonomy, water security, forest conservation, alternative education, bear testimony to this essential truth. And these could possibly be what is most required in this phase. Schools can be the seeding ground for fostering a sense of true community.

Communities can also nurture processes of collaboration which reinforce the fundamental principle interdependence rather than competitiveness. Schools can also be spaces which actively celebrate and respect diversity rather than uniformity and enable children to have a sense of identity as members of a large earth community.

What a culture celebrates becomes a way of life in that culture. If consumption is what is celebrated, then role models would also be those who consume conspicuously. Practicing voluntary simplicity, holding in reverence all that we receive so abundantly from earth and celebrating stories of people who do the same needs to be the norm in schools. We need to help children build perspectives which will enabe What a culture celebrates becomes a way of life in that culture. If consumption is what is celebrated, then role models would also be those who consume conspicuously. We need to help children build perspectives which will enabe them to question the given and widely accepted notions of a 'Good Life' and connect with 'Real Heroes'.

them to question the given and widely accepted notions of a 'Good Life' and connect with 'Real Heroes'. There is a dire need for exposure to very different and inspiring stories, and role models. This would enable them to see beneath the falsely important, falsely attractive and superficial so as to feel and taste the flavour of deeper and enduring values. There is also a need to go beyond narrow allegiance to your state/country and build perspectives on forging a deeper allegiance to earth.

Is all of this an utopian dream? Now more than ever is the time to ask the question: What is Education for in the context we are in now?

The purpose of education as stated so beautifully by David Orr is to "draw out our affinity for life...which would then lead to a kind of awakening of potentials and possibilities that lie largely dormant and unused in the industrial-utilitarian mind."

process Yugaantar workshops, meetings, conferences and the resource hub) envisions addressing and answering this broad question, and in time enabling communities to awaken the affinity for life that lies dormant in each one of us. As an educator experiencing Yugaantar, was a mixed bag of emotions for me. The stories of hope, strength and resilience we came face to face with during the workshop/conference filled me with hope and determination. The possibility of sharing them with others to inspire, stir into action or to just look at the world in different ways and through different eyes is itself a journey to undertake. The plain truth that so many times fundamentals just

get missed for short term gains appals and saddens me everytime. Misplaced priorities of successive governments and administrators arrogance, or does one call it ignorance, is shocking. The fact that we don't seem to be learning from our mistakes or taking time for reflection stokes the fire of unrest within.

However this crisis is a time for active engagement and an opportunity for deep involvement, particularly so in the field of education. There is no time to lose, especially so for educators. I see infinite possibilities for re-imagining education, to focus on essentials to enable keener ecological sensibilities. I feel convinced that a brave, wise new generation would emerge, albeit with a lot of painful struggle, who would make decisions keeping in mind the needs/limits of the world we are embedded in. There would be people concerned about eco-system services with the deep understanding that one cannot mess with complex, invisible connections that exist, in the certainty that one can restore them!In time we will then have a citizenry with deep affection and reverence for life and who have the skill set needed to practice it. That certainly would be a strong foundation for an ecological era.

It may seem like an idealist's dream; but to many co-travellers it seems be the only way forward, the only way out. The only way to ensure, that many different species including the human species continue to thrive on Earth.



Rema Kumar is a educationist with over 20 years of ecpereince . she has been involved with Prakriya Green Wisdom School Bangalore since its initial years. she is currently the Director, Bhoomi college. A passionate teacher who has keen interest in deep ecology and education for Sustainability

Education for Real Life



The revolutionary founder of SECMOL Sonam Wangchuk shares how he, along with a group of likeminded people, transformed the education system in ladakh.

I am from Ladakh, and to greet you in Ladakhi, I'll say 'Juley'. And with Juley you can travel to Ladakh, because Juley means Namaste, it means Goodbye, it means thank you, it means Goodnight. All of it. It's a very well designed word!

What I will share with you now is the story of our struggles in Ladakh in the field of education. environmental solutions and activism; more as a victim of absurdities and environmental assaults. I speak here today about reforms in education from the standpoint of a victim than someone who is qualified with a long list of degrees.

Situated in the northern most part of our country, Ladakh is bordered by Tibet on the east and Pakistan on the west. The intense cold and harsh terrain is what people most often think about when they think of Ladakh. Most villages/settlements are at an altitude of 3500m or more but some villages can go up to an altitude of 14,000 feet. But even if it may appear harsh and unlivable, people have not just survived but have thrived here for centuries; and a vibrant culture of languages, religions, dances, ways of life with animal rearing as well as farming has flourished at these heights.

Ladakh was opened to the world with the building roads, in the 60s. In the 70's it was opened up to 'development'. With this opening up, the Ladakhi way of life and local economy came under threat.

Disconnect from Reality

What was also imposed was a standardised, centralised curriculum totally irrelevant to the context. I can share some examples with you. We need to teach a child an abstract concept like a letter of the alphabet by bringing in a tangible object, to lead a child from the known to the unknown. But for a child at 11000 feet neither 'd' for dolphin, 'e' for elephant nor 's' for ship would make any sense!

Another example is from my teacher training experiences. I came across children memorizing from the text book that, "rice is grown using monsoon rain" and the reality of a desert like Ladakh is that barley is grown using glacial melt water! In fact we have a saying that ridicules villages for waiting for the rains to begin farming. And so when I asked the teacher, what if some children write in an exam that we grow barley using glacial melt water, her reply was, "Well, I would give them a zero!" So in

such a system the teacher was trained to rate students, not on what the reality was but based on the content in some book even if it was totally disconnected from reality!

Another anomaly was the medium of instruction and what the child is subjected to. In the beginning they are introduced to Urdu(an alien language) and they would be reprimanded/ slapped for saying a word in Ladakhi, instead of in Urdu. But after picking up the language, in 9th grade the medium of instruction is suddenly changed to English with hardly any preparation. No wonder with all these factors the pass percentage was abysmally low in our schools. The statistics showed that 95% of the students were failing the Matriculation Examination.

So I got interested in what was wrong with the system. If 95% of the students were failing the exams then you better look into the system and reform it. How ill designed the system was struck me starkly when I began tutoring students of class 9 and 10 to support my own higher education.

A group of like-minded people decided to question the system, get to the root causes because we wanted to change the system.

We listed the following as the main causes for an ill adapted system-

- alien medium of instruction
- irrelevant curriculum
- untrained teachers
- no scope for community involvement
- general mismanagement and lack of accountability

Operations New Hope

We started addressing the causes rather than blaming the system, the teachers or the children. We launched Operation New Hope - a triangular collaboration between community, state and civil society organisations. Before applying it on a mass scale or taking the proposal to the government we piloted, or prototyped it in a school, the Saspol Village School in 1991. We changed one school and in one or two years the results were obvious. The children and teachers were happy and the results were better.

We then wanted public ownership of the idea. The need for change, the hope for change and the possibilities for change had to reach the people. We enlisted the support of the higher secondary and college students to take the idea to the villages and mobilise support. The idea then spread from one school to thirty three schools and at that time the government adpoted it.

And today it is a very interesting collaboration, for example, government publishes the primary school text books designed by us which are contextual and relevant for our environment. There are many other such collaborations too.

For us Operation New Hope became not just a movement for educational reforms but a movement for real democracy as well. When people took ownership for long term goals like quality education and moving away from a short sighted focus only on subsidy for food and power, they were able to affect change on a larger scale. Education then became the priority for the politicians, bureaucrats and other stake holders as well and it was not left to the teachers group alone to solve the problem. This movement got a further impetus in 1996 when the when the first Ladakh New Hill Council Government was set up.



Operation New Hope became not just a movement for educational reforms but a movement for real democracy as well. In people taking ownership for long term goals like quality education and moving away from short sighted focus only on subsidy for food and power.

- They declared education as their top priority.
- They adopted Operation New Hope as their official policy on education.

This is perhaps the first elected set up in India to declare education as their priority. Not because the council was enlightened, but because people were demanding it. It was easy for them, because everyone everywhere was asking for good education.

The change happened partly because it was owned by the people therefore owned by the government. The change also happened because the existing system made no sense. So to begin with we had to train teachers to teach in the way children should be treated and taught. We also had to remake textbooks and imbue in them the spirit of our place, our context.

We needed to respect to our way of life, to connect to land, to farming so that children don't grow up alienated from it. So in the study of history we tried to bring alive Ladakh's past and study about monuments like the palace of Leh rather Outub Minar or the Tower of Pisa. And if it is environmental studies, we started with animals that you find in Ladakh. And using science to solve issues that has relevance in their immediate life. For example, 'how will you use sun in your life to make yourself more comfortable in a cold

region like Ladakh?' With this approach and governmental ownership, children started doing well and the results showed a dramatic improvement: 70 -75% pass percentage by the year 2013. In a decade and a half this change was visible to all.

But what is to be considered is that people initially just accepted the situation as an ultimate reality- that failure comes at the end of every year like the seasons follow each other. They didn't think of questioning the system or changing it

The SECMOL story

While the overall situation had improved a failure percentage of 25% still existed and we decided to address this. We had solved some part of the problem but more needed to be done. This search led us to setting up our initiative in alternative education, SECMOL (Students Education and Cultural Movement of Ladakh) for the so-called failures and dropouts. This is not just an experiment to address the question of how to do the right kind of schooling/education. It is also an experiment on how to live sustaiably and yet have basic comforts.

This is a completely solar powered campus and we have been off the grid for 20 years. We have tried to do things differently, learning which is practical, sensorial and about real



Our way has been to find solutions to the challenges faced in Ladakh using innovations that are in rhythm with nature. Also to launch our former students as young entrepreneurs who can deliver these solutions.

life. The children are in the driving seat and take complete ownership of the school. In fact it is run like a mini state with members being elected, taking responsibility and holding accountability. Each person is given an opportunity for this. The leader allots portfolios and the students work in governing councils, media centres, magazines, campus radio, organic farm, cooking in solar powered kitchens etc. The related tasks become their books and curriculum and they learn by doing. The children are also required to sell the produce that they grow and do it in a way that they are able to generate sufficient funds for a tour in the neighboring city. This becomes a way of learning economics and commerce. They design their own marketing strategies and campaigns to sell their produce.

The next approach to learning is by connecting to the real world, something children can apply in their daily lives. For example, if we are talking about the Germ Theory in Sciences then we look for places to connect it in real life. Children apply that in jam fruit preservation where every summer, when the apricots are ripe in the village we conduct a jam festival.

The children make jams where half the produce is stored for consumption and the other half is kept aside for sale. The routes they take while distributing the produce becomes their geography lessons and they come and talk about their experiences on the campus radio and thus several skills are learnt on the journey. Innovation is an important

part of the campus culture. We spend time thinking about new solutions connected to the elements of nature around us- earth, sun, ice and fire. The buildings are designed keeping in mind the rhythms and movements of nature.

The sun moves from southeast to southwest during the winters. The students' building is placed at an angle of 15 degrees to thr sun so that the building warms up one hour before the children arrive to study in the classrooms. So a little play with natureharnessing solar power and trapping the heat generated through the air flow of convectional currents in the building can help us meet our needs. We do not need to resort to the conventional ways of generating electricity and increasing carbon emissions. While it is -150 to-200 outside we manage to keep the room temperatures to $+15^{\circ}$ to $+20^{\circ}$ inside. We also look at altering our life style to depend more on natural lighting and minimise our usage at night.

Another innovation is around ice. The Ice Stupa is a project done by students of SECMOL and me. The idea was conceived by a senior project engineer when he tried to conserve the water collected from over summers to preserve it as ice. We came up with a geometry figure to preserve the water in the form of cones that require minimal surface area and hence do not melt with the rising temperatures All we needed to do was lay a pipe to change the flow of water which allows it to spring out in the form of the fountain.

Due to gravity, the water falls down

and gets collect as ice in the conical form on the melting stupa that last even in the most scarce months of April and May. The village gathers around the stupa to celebrate and plant trees that are fed water by the melting ice on the stupa. If these trees don't die we can scale it up with entire villages. Our way has been to find solutions to the challenges faced in Ladakh using innovations that are in rhythm with nature. Also to launch our former students as young entrepreneurs who can deliver these solutions. We also wish to share our experiences through two International Courses on Passive Solar and Earth Architecture. Finally we are trying to upgrade the school experience into a "Univer-city" of the future where the township and community becomes the basis of learning. The philosophy of learning is to nurture bright heads, skilled hands and a kind heart!



SonamWangchuk is an education activist who along with his brother and five peers, formed the Students'Educational and Cultural Movement of Ladakh (SECMOL) in

He has been coaching school students and offering vocational training courses todropouts ever since.

To make your politics practical...

Suppose you had the revolution you are talking and dreaming about. Suppose your side had won, and you had the kind of society you wanted. How would you live, you peronally, in that society? Start living that way now!

Whatever you wold do then, do it now. When you run up against obstacles, people, or things that wont let you live that way, then begin to think about how to get over or around or under that obstacle, or how to push it out of the way, and your politics will be concrete and practical.

- Paul Goodman



"One meaning of Yugaantar is a 'Theerth' which refers to the shallow part of a flowing river that allows one to cross over to the other bank. Thus Yugaantar is an attempt to share and support people to cross over from the bank of separateness, human superiority and consumerism to the bank of togetherness with nature, renewal and wholeness"

- Satish Kumar





















"Knowledge can only be got in one way, the way of experience; there is no other way to know", said Swami Vivekananda

We hope the Yugaantar process will help us search for answers together with others, through our experiences in life rather than through academics, the internet and recorded knowledge alone.







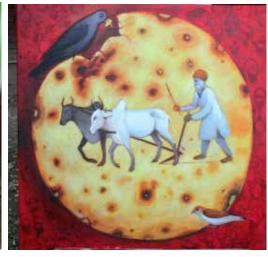






Photographs by Ananth Somaiah





When artists stand up for the cause of farmers

The annadata is in crisis and the nation cannot remain absolved from the kind of economic hardship he is faced with, says Shri Devinder Sharma

"Art cannot change the future, but it can touch the present" -- Liu Bolin

I still remember an advertisement on the radio which was quite regular when I was a child. It was an advertisement for a desi ghee brand called Mohan Ghee. "Mohan Ghee kya khaya gaon se nata hi toot gaya." (Translated, it meant: After I started consuming Mohan Ghee, my link with the village has gone). At a time when Dalda ghee was easily available in the urban markets, one had to look to the rural areas to get a regular supply of desi ghee.

Mohan ghee is no longer available. I find the moment a village lad gets educated and lands a job in a mofussil town, his/her connection with the rural areas gets snapped. Over the vears I have seen many of them, not all of course, develop a kind of contempt for anything rural. I have heard many successful people blame the rural folk for not being able to emerge out of poverty. They lack the entrepreneurial spirit, are dependent on government doles, and have to blame themselves These are the common refrains. So when reports appear about farmers committing suicide, you can see the urban educated frowning. I receive quite a lot of absurd and stupid reactions when I tweet about a farmer committing suicide. Many feel offended to even talk about it.

Over the years, the disconnect has been widening. The back-to-back drought that a large part of India witnessed in 2014-15 and 2015-16 is a classic example of how severe the disconnect is. In my travel to Bangalore, the capital of Karnataka, where 28 of the 30 districts are reeling under a severe drought, you don't get any inkling of how tough it is in the countryside when you walk through Bangalore. If it were not for a court case filed by an activist against the IPL cricket matches in drought-affected Maharashtra, I am sure the mainstream media would have simply ignored the drought. The worsening plight of farmers, who inhabit these drought affected regions. has not evoked much sympathy. People generally believe as if it is happening somewhere far, perhaps in Africa.

Re-establishing the connect is therefore very important. It is time people in the cities are sensitised about the rural life, about the farm crisis, farmer suicides and lack of development in the rural areas in general. It is with this objective, Dialogue Highway, a registered trust, organised an #ArtistsForFarmers painting workshop in Chandigarh on (May 29, 2016). The basic objective was to bring the tragedy of the farm closer to the people in the cities. The event was therefore organised in a public place, and Chandigarh's famed Sukhna lake was an appropriate location

considering a huge turnout expected on the weekends. Seventeen artists from Chandigarh/Punjab/Delhi came together for a painting workshop on the theme of farm crisis. They painted for 4 to 5 hours, and during this time the crowd mingled with them, and a strong contingent of Punjab farmers was at hand as an act of solidarity. The interest and curiosity that ordinary people demonstrated showed that art is perhaps one powerful tool to provide the missing link. The response was overwhelming indeed.

The #ArtistsForFarmers event was the first of its kind in the country. I am very hopeful that it will now become a regular event across the country. Activities like this are very crucial to bridge the gap that exists between rural and urban India. People need to know that how tough it is becoming for the farmer who provides us our basic need -- food. The annadata is in crisis and the nation cannot remain absolved from the kind of economic hardship he is faced with.



Devinder Sharma is a food and trade policy analyst and an award-winning Indian journalist, writer, thinker and researcher. This essay is part of a series of excerpts from the State of Power 2016 report, published by the Transnational Institute this week. Devinder is also a member of the Bhoomi Advisory Board.



Andy Atkins argues that it is only by realising the links between environment, development and human rights that we can make a better world.

I don't really need a quick flick through the rolling news bulletins or my Twitter feed to remind me there are a lot of problems in the world. Conflict here, political repression there. Continuing poverty and economic hardship in poor countries, and the increasing gap between rich and poor. Environmental disasters around the globe, as 'freak' weather becomes the new norm in an age of climate change. Natural disasters, such as the recently reported loss of 400 million birds over the last 30 years.

We expect our governments to take action at home and abroad. Many people give to charities attempting to address these and other issues. But even committed donors and volunteers can feel overwhelmed by the multiplicity and scale of these problems. They don't know where to focus. They can lose hope. Yet if there is one thing we need it is for people not to lose hope but to see how we can make progress, faster, and to join us in ever-larger numbers. In this article, I want to explore a reason to hope: the connectedness of things.

Years of campaigning on 'human 'development' rights', and

'environment' gives me hope. It lies not in blind faith in God to save us from our folly (though I have a strong faith). Neither does it lie in the ultimate triumph of human good intentions: sorry, but I don't believe there is any guarantee of that - I have read Jared Diamond's book Collapse on the environmentally triggered ruin of several civilisations. My hope lies in the connectedness of things - healthy environment, stable economy, fair society, and respect for human rights. Growing public realisation of these inescapable bonds and solutions that work for all areas could accelerate comprehensive change.

Most people in the rich world don't get these connections - yet. We have compartmentalised 'sectors' of life so rigidly. I've met people passionate about human rights who, while respecting my right to enjoy birdwatching, would think that saving our remaining UK birdlife is peripheral to the 'real' issue of safeguarding civil rights. I know people ardent about protecting Nature who would find my defence of civil and human rights uncomfortably 'political'. I've had colleagues deeply committed

to alleviating poverty abroad who believed that the 'environment' was a luxury Western obsession. These are all good people, but people who, like most of us in the Western world, have been culturally conditioned to compartmentalise rights, environment and economic development.

The artificiality of this separation has come home to me on many work trips abroad. In the 1990s I worked closely with an Indigenous people's organisation in Honduras, Central America. Their communities lived off the plants of the forest and the abundant fish in the Patuca River. They were being threatened by the hired guns of the big ranchers and illegal logging companies, who were trying to intimidate them into abandoning their ancestral lands.

The communities knew that more logging and ranching would spell disaster for them, wrecking not just the forests but the river too - a living larder and transport route. Was the violent intimidation of this group of Hondurans a human rights problem, an economic development problem,



or an environmental problem? It was all of those, and more. It was a threat to life in all its fullness; and they were defending their life - not just the right not to be murdered, but the physical environment that gave them food, shelter and spiritual sustenance.

In the UK, with our long history of democracy, rich-world status and tradition of wildlife conservation, we have long acted as if these features of life were independent of each other. Now, however, grave environmental and economic trends are increasingly exposing that connectedness again. It may still be below the radar of most people, but the bleeps will get louder and more visible for all.

One example is flooding. The UK had its wettest winter on record in 2013-14, with relentless rainfall, frequent storms, and monster waves. Most of the headlines were focused on low-lying Somerset, a swathe of which became an inland sea for weeks, but families had to abandon their homes in numerous parts of the country, from the coast of Wales in the west to Norfolk in the east.

The government initially blamed the Environment Agency (whose budget it had cut) for failing to prevent flood damage. But eventually the prime minister acknowledged that the bigger picture cause was... climate change. The Met Office confirmed it: this extreme weather - threatening lives, crops and infrastructure, and costing UK plc billions of pounds - was driven by a global environmental phenomenon caused by particular economic activity (basically, running our economies on fossil fuel). Five million households in the UK are already at risk of flooding, 370,000 of them at 'significant' risk. Climate change, according to the government, could increase the number at significant risk to 1 million by the 2020s.

Another exmple is air pollution. To those of us who remember our parents' or grandparents' tales of 'pea-souper' smog in London in the 1950s, or see the TV footage of China's foul air pollution, the air in modern British cities looks clean. Yet it is killing many of us. At times, particulate air pollution, mostly from diesel road transport, makes simply stepping outside a hazard for many children and adults. Research suggests that there are 29,000 premature deaths each year in the UK from air pollution. Poisoning our environment is poisoning us.

Or take the consequences of the decline in our pollinators, such as bees. As Tony Juniper explains in greater detail elsewhere in this issue, University of Reading research has found that, were we to lose our pollinators and their free pollinating service, £1.8 billion a year would be added to the UK's food bill, largely because of the increased costs of hand pollinating our fruit and veg varieties. Hand pollination is technically possible - they already do it in bee-bereft parts of China. But the rise in food prices it would cause in Britain would hit the poorest hardest and hit their right to a decent, healthy diet.

People often see the inter-connectedness of problems as impeding progress. We use words like 'intractable'. But the interconnectedness of things can be an opportunity for faster progress.

If the problems are connected, so too are the solutions. There is growing, demonstrable evidence of this if you know where to look - stories of a healthy environment helping us.

A healthy environment saves us money. Healthy peat bogs act as natural water purifiers, reducing the need for artificial filtration, and healthy forests act as natural rain retainers, slowing run-off and reducing flood risk - and the need for artificial and expensive flood defences - in valleys below. This is not lost on some companies: for example, Yorkshire Water has a major programme to reforest water catchments in the North of England and is working with the Royal Society for the Protection of Birds (RSPB) to restore peatlands. Still in the early stages of restoration, this community science project aims to combat climate change while simultaneously engaging local citizens in science and their community.

Contact with Nature is good for our health. Who has not experienced the calming effect of a few minutes in the garden after that stressful phone call, or a walk in the park at lunchtime? A 2007 RSPB report showed that contact with Nature had a positive effect on, among other things, anxiety and stress, elderly people and those with dementia, concentration in children and office workers, and reducing crime and aggression.

People often see the interconnectedness of problems as impeding progress. We words like 'intractable'. But the interconnectedness of things can be an opportunity for faster progress. What would happen if we 'environmentalists' revealed and celebrated the positive connections whenever we got the chance? What would happen if we systematically reached out to other 'sectors' whose concerns are affected by the environment? What would happen if we sought out key opportunities to push together for specific change that would benefit all 'sectors' by reinforcing life in all its fullness? There are ample opportunities to do so.

Take fracking, for example. The UK government is bent on developing shale gas deposits in the UK, which requires hydraulic fracturing 'fracking'. Developing another source of fossil fuel when 80% of currently known fossil-fuel 'assets' must not be

used if we are to avoid runaway climate change is madness. Public awareness of fracking and its dangers has gone from negligible to considerable in just a few years.

Friends of the Earth, with others, has succeeded in stopping the commercial development of shale gas in the UK for three years. We have transformed public awareness and prevented commercial development by showing how fracking would affect a community's everyday concerns as well as contribute to climate change.

Fracking is likely to have significant local environmental impacts, however good the regulation. Legitimate concerns include deteriorating water quality, air pollution, despoliation of the landscape, increase in road traffic, and the need for long-term local jobs rather than the small number of itinerant ones that fracking offers.

Just as we have to stop the bad stuff, such as fracking and fossil fuels in general, we must roll out the good stuff - renewable energy and energyefficiency measures. Here too there are ample opportunities for uniting sectors and concerns. Take the case of solar energy - the cost of which has plummeted by 80% in the last 5 years. Friends of the Earth would be quite justified in promoting solar energy simply on the basis of its benefits for the climate. However, that ignores the complexities of life that individuals and organisations have to manage, and the wider array of benefits solar offers.

Our latest campaign, 'Schools Run on Sun', aims to encourage the adoption of renewable energy at community level by helping a critical mass of schools to fit solar panels. Schools may care about climate change; they also have limited budgets and are concerned at spiralling energy bills. They are independent organisations, yet frequently they are central to the life of the local community. They want to contribute, not just to education, but also to improving the quality of the local community.

Thus we are encouraging schools to 'Run on Sun' - not just to cut carbon, but also to reduce their energy bills so that they will have more to spend on their students' education, and to be beacons of clean energy in their local community.

If we can achieve faster progress by

joining the dots, we should proactively look for opportunities to do so.

Environmentalists organisations (there's that stereotype again) should explore and extol the rights and economic benefits of doing the 'right thing' for Nature and the wider environment. We should also challenge other sectors to identify and shout about the genuine environmental benefits of progress in their areas. All sectors - environment, human rights, development, health, and so on should challenge businesses at every opportunity in order to ensure that their products, production methods, prices and supply chains respect people's rights, fair wages and the environment. And we should work much more closely on opportunities for change in each, from local to global levels.

The answer to swifter progress on environment, global poverty and respect for human rights lies in recognising the opportunity of their connectedness. It lies in promoting solutions that recognise rather than

Locally, in Britain, we need a much bolder movement of people fighting for true progress in their towns and cities, progress that will restore Nature and a healthy environment, reduce and provide durable inequalities livelihoods.

With elections coming up in the UK, we need supporters and activists in each sector to tell candidates about the importance of all these issues. You should not have to be party political to want to vote for life in all its fullness, for evervone.

A critical opportunity for progress will be the international UN climate change summit in Paris at the end of 2015. Its ability to agree a global deal to cut greenhouse gases steeply by 2030, in a way that is fairest to the poorest countries, as well as to agree assistance to help the poorest countries adapt to an inevitable degree of climate change, has monumental implications for the rights of people and the resilience of economies. At the same time, however, the UN climate negotiations make virtually no mention of Nature. Yet with

climate change now posing a grave threat to the existence of many marine and terrestrial habitats and species, from coral reefs to polar bears, there is probably no more important 'Nature' summit on the horizon.

Joining the dots simply reflects the reality. It recognises and works with immutable physical and economic laws: that humans, and everything we make, do, sell, buy, breathe and eat, are a function of the natural environment and natural resources. The economy, politics, society all take place within the environment. Whether we are a member of a forest-dwelling tribe in Central America or a banker in the City of London, we are all ultimately dependent on the environment and the 'services' it provides. Orthodox economics is quiet about this; its voracious offspring, modern consumer society, is blind to it.

In any countries, those who point out the truth too loudly are increasingly subject to violence, to human rights abuse, for challenging a status quo that is ultimately unsustainable anyway. It is becoming so widespread a threat that Friends of the Earth International has a programme dedicated to protecting environmental defenders worldwide.

The answer to swifter progress environment, global poverty and respect for human rights lies in recognising the opportunity of their connectedness. It lies in promoting solutions that recognise rather than deny this truth.

It lies in forming determined alliances with others who see this truth. A movement for life in all its fullness. In this, I have hope.

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Andy Atkins wrote this article as the Executive Director at Friends of the Earth, he is now CEO of A Rocha UK.

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Recycling works!

The waste recyclers in the wetlands of Kolkata are an increasingly neglected community who provide an useful and eco-friendly service without any recognition or support from the authorities. They are the oldest proof that recycling works, says Dr. Dhrubajyoti Ghosh

The extensive wetlands on the eastern fringes of Kolkata are unique in the world for several reasons. Besides supplying a significant portion of the metro city's vegetables and fish, and providing an outlet for the annual flooding the city undergoes every rainy season, the wetlands also serve the extremely useful function of treating and recycling sewage and solid waste.

These vanguards of solid waste recycling need to be brought to the forefront. They are the bedrock of a large sub-structure of solid waste recycling and reuse, working for the city's manufacturing units for many decades.

Circular economy

There is another provocation for writing about waste pickers. We are in the midst of a new turn in the global ordering of economic models. We have started learning about circular economy. Circular economy is the latest currency in the development paradigm. In this version of food for thought for the future of the global economic order, a major driving force is the task of recycling.

In this brief account, I will discuss one of the oldest of such waste recycling practices that can still be traced within the tapestry of local manufacturing units of Kolkata. It is one of the least discussed, researched and intellectually attended phenomena of Kolkata's urban life and history.

Heritage of co-recycling

The year 1879 marked the beginning of a formal initiative of using the city waste of Kolkata for urban

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agriculture. Within a few decades, this initiative flourished into an outstanding co-recycling ecosystem where treated wastewater was used for irrigating the garbage substrate. Thus a splendid cycle of yearlong agriculture was set in place. Since 1967, one of the most unimaginative sagas of municipal assault demolished this outstanding heritage of co-recycling.

Today the system of co-recycling city waste to grow vegetables and fish hardly exists in the form and shape created and innovated since the turn of the 19th century. Can discourses on circular economy turn the attention of municipal authorities towards its healthy revival? There is still time for a course correction.

Along with the Dhapa farmers, another group of local villagers engaged themselves in collecting reusable goods from the city garbage after dumping. Theirs was an important role to convert the mixed garbage to a compostable one. Today, about 6,000 waste pickers from about 25 villages regularly collect reusable goods at the dumpsite. A major shift has been the overwhelming History can always conceal surprises. With the advent of the new discoveries on circular economy, Kolkata's waste pickers, the local knowledge and practices in co-recycling may have a chance to come back. The frontiersmen of urban waste recycling may get recognised for their foundational activities, which sustain the city's manufacturing units and provide a global tutorial for ecosystem management.

dominance of plastic goods in the city waste, so much so that sizeable plots of agricultural lands have been converted into informal or unauthorised units of preliminary processing of collected plastic debris.

Cognitive apartheid

It cannot be for nothing that we know so little about such a basic urban infrastructure so relevant in modern times where sustainability experts never lose any opportunity to discuss recycling. The British colonialists did put their best foot forward. The Dhapa Square Mile was one among only three other Crown Grants, parcels of land that remained tax-free at the discretion of the empire. The other two were the Kalighat Temple area and the Murshidabad Nawab's Khasmahal (palace) in northern Bengal.

The second great step was to find out and engage the most outstanding change maker in this part of the world, who succeeded in establishing the practice of urban waste recycling scientifically. This stalwart, about whom we know so little, was Bhabanath Sen. To go into the life and knowledge of Sen remains an excellent pasture for the study of the city's ecological history.

This work has missed the focus of the learned. I call this attitude cognitive apartheid, which flows through the bloodstream of a comprador psyche. We are taking time to reappear as neutral intellectual minds.

Politics of desertion

Towards the end of the 1970s, ostensibly as an act of pro-farmer jingoism, the age-old contract with the Sen family for growing vegetables on the Dhapa Square Mile was discontinued. More than anything else, a few thousand farmers lost their identity altogether.

The fact that the farmers had no right to till prompted me to come up with a formal census of the farmers who were active upon the Dhapa Square Mile. This work was carried out in my capacity as the Joint Director of the State Planning Board, Government of West Bengal. When the report was submitted to the Mayor of Kolkata, he said he had no obligation to act upon a consultant's report. It did not matter if in this case a senior employee of the state government did the work. The enumeration has faded into oblivion and there is little chance to revive the issue of rightful identity for the custodians of this unique knowledge of co-recycling urban waste.

Gruesome innovation

Overlooked by the municipal authorities or the state's pollution control board is the increasing presence of hemispherical cauldrons boiling leather waste increasingly appearing upon the agricultural fields adjacent to Dhapa. These huge cauldrons are the most prominently visible examples environmental destruction. debasement of governance and defeat of community voice.

The boiled output from the cauldron is then spread over barren fields which were previously used for growing vegetables, allowing toxins like chromium to perennially damage excellent agricultural lands. Only 20 years have changed a heaven into an inferno, unchallenged.

History can always conceal surprises. With the advent of the new discoveries on circular economy, Kolkata's waste pickers, the local knowledge and practices in corecycling may have a chance to come back. The frontiersmen of urban waste recycling may get recognised for their foundational activities, which sustain the city's manufacturing units and provide a global tutorial for ecosystem management.

The Wetlands of Kolkata at sunset



Image Courtesy: www.bradbeaman.wordpress.com



Dr Dhrubajyoti Ghosh is an engineerecologist, and has been among the earliest to incorporate ecological principles in engineering design and sustainable development. He has received UN Global 500 Role of Honour for his achievements in conserving the East Calcutta Wetlands, and innovating wastewater treatment and

His latest work with Kolkata waste pickers is being published by OUP where he has introduced the idea of Cognitive Ecology and the quality of resilience among the



Feet move the Soul

Once upon a time, walking was not just physical exercise, or an intellective lubricant, but a marker of civilization and even divinity, says Jaideep Prabhu.

Salve, amici! Every visit to the doctor these days seems to come with an exhortation to walk more. In the midst of a global obesity epidemic, the virtues of simple, low-intensity workouts like walking have seen a remarkable comeback, especially for the older among us and those with joint trouble. Walking comes to us almost as naturally as breathing, so naturally, in fact, that we think of it only in its absence—illness—or as a quiet act of solitary rebellion against the mechanization of society.

Whether by sheer numbers or necessity, the present association of walking with health has become so strong that we forget what an important part such a simple activity held in our cultural and intellectual development.

Before health concerns came to dominate our physical activity scenario in the post-fast food age, walking was seen as a joyous pastime that promised liberation from the humdrum. The mid-19th century saw the birth of the flâneur in Paris, the urban stroller

who explored boulevards and arcades, parks and cafés. Bourgeois intellectuals sauntered through the city, in imitation of the greats like Honoré de Balzac, Charles Augustin Sainte-Beuve, Charles Baudelaire, Franz Hessel, observing yet not participating in the ebb and flow of urban life. Walter Benjamin writes that it was fashionable to take turtles for walks in the 1840s; the chelonians would set the pace for the flâneurs.

The act of walking was at once of observing and being observed. It was an economic statement—that one could afford the idle luxury of a jaunt as well as a cultural one, taking a bird's eye view of city life, micro-history, and fashion; the city was a book to be read by walking. In the transience of walking was found a solitude of the crowded street, a detachment amidst the throngs, as Kierkegaard sought in Copenhagen, and Kant in Königsberg before him.

The urban walker, however, has been a bit of an endangered species in modern times. Whether due to the

Stürm und Drang intellectuals, the Romantics, or some other intellectual movement, the spirit of the age has been to wander in the wilderness.

Civilization was to be found in pristine nature rather than the trinkets of man. Jean-Jacques Rousseau was among the first who turned an intellectual gaze upon the mundane activity of walking, according it the status of a conscious activity and ascribing significance to walking for its own sake. Until then, walking had certainly been held in high regard but rarely in isolation.

Nature was the venue for these philosophers, away from the din and smog of the rapidly modernizing cities of Europe and America. Clean air, unpredictable breaks in the horizon, solitude, and the slow rhythmic pace were thought to rejuvenate mind and soul as the increasing popularity of Alpine resorts declared.

There is surely something to the persistent claim that the bodily rhythms of walking somehow correspond to mental processes; think, for example, of how Jews shukel while learning the Torah or during tefillah. Perambulatory mechanics serve a similar purpose, though on a significantly more expansive scale and in pursuit of secular perspicacity.

Walking was seen as a deeply meditative perhaps practice, marginally inferior to reading; to walk was to wander in the mind as much as on land, as to read was to journey in the mind and on the page. For some, like Woolf, walking activated melancholy and gloom, while others, like Thoreau, found their muse in their rhythmic steps.

To walk was to unchain the mind from the strictures of convention to let it revel in the barely plausible. As the activity of philosophers and poets, walking was seen as an eminently intellectual pursuit rather than physical exercise. Walking was clearly associated with health as it is today, but it was more of a psychological, perhaps even spiritual, tonic rather than a physical one.

Before the philosophers came the pilgrims. In the Middle Ages,

walking was the subject of poets, and pilgrimage was one of the fundamental forms walking could take. The view was neither physical exercise nor intellectual stimulation, but a quest for self-transformation, as much of the literature of the era, from Geoffrey Chaucer to John Bunyan, from Dante Alighieri to Thomas Malory, and Miguel de Cervantes to John Milton, reveals. Whether it is Virgil and Beatrice guiding Dante, Christian, or Persiles, the journey—walk—itself is central to the narrative and the protagonists are passively passing through.

The sanctity of a pilgrimage had diminished considerably by the 15th century as pilgrims had become notorious for their chicanery and hence objects of mockery and suspicion. This is at the root of the subtle ridicule Chaucer, Cervantes and others expose their bawdy and playful protagonists to. However, in the early Middle Ages, pilgrimages were difficult and fraught with danger, truly an act of penance.

To Romans, walking was a profoundly social activity; to be seen strolling with someone marked him as a good friend. The assumption of a constant audience made even the

smallest of acts markers of identity and character. Though Cicero accepts the contemplative aspects of walking in De Officiis, he makes it clear in his letters to Atticus (Epistulae ad Atticum) what the true importance of walking was company and coversation as a symbol of friendship.

So next time you go for a walk, remember-you are not only going to get some exercise but also to contemplate, meditate, display yourself, and participate in an act of civilization. Go ahead, reveal the divinity in you!

Until next time, stammi bene!



Jaideep A Prabhu is a specialist in foreign and nuclear policy; he also pokes his nose in energy and defence related matters. Original article on swarajya magazine.

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When The Grass is Not Greener

Jane Hurst urges an alternative to lawns for those planning their gardening year



Fig 1

From the Middle Ages in Northern Europe, the aristocracy boasted areas of lawn - managed by labour-intensive scything and shearing. With global warming, however, these lawns will become increasingly unsustainable.

The lawn has traditionally been one of the most treasured features of the British garden - whether a rough kickabout patch or an expanse of highly maintained, perfect sward. The latter has always been a much-ridiculed British obsession, even as the fashion for lawns has spread around the world.

From the Middle Ages in Northern Europe (where the climate is suitable for its cultivation), the aristocracy boasted areas of lawn - managed by labour-intensive scything and shearing. Seen as a status symbol, lawns continued to flourish through the 17th and 18th centuries - with André Le Nôtre's design at Versailles, and in England through the work of William Kent and Lancelot "Capability" Brown. And in 1830 the lawn was further popularised following the invention of the lawnmower by Edwin Beard Budding, an Englishman from Stroud.

With global warming, however, these lawns will become increasingly unsustainable. In those regions facing higher temperatures, increasing

irrigation will be necessary to prevent discoloration and dieback, putting pressure on water resources. In some parts of the United States, morningonly lawn sprinkling restrictions have been introduced.

Lawns will also continue to grow through the milder, wetter winters likely to become the norm in some regions under a changing climate, increasing the use of motorised mowers, which create noise and air pollution, and of chemical fertilisers, pesticides and herbicides with all their environmental disadvantages.

Naturalistic planting offers beautiful, more sustainable and less expensive alternative to lawns in gardens. Inspired by the aesthetics of wild plant communities, it aims to match closely the ecological requirements of plants with the conditions that prevail at the planting site. These schemes require little or no irrigation and are low-maintenance.

Naturalistic planting was brought to Britain in the 1990s by Piet Oudolf, the figurehead of the New Perennial movement, the roots of which go back 100 years to Karl Foerster in Germany and William Robinson in Britain. Oudolf's work in the UK includes the borders that lead down to the

glasshouse at the Royal Horticultural Society's garden at Wisley, the walled garden at Scampston in Yorkshire and, recently, the thrilling planting at the Hauser & Wirth gallery in Somerset. Oudolf has also created an extraordinary planting along the High Line, a disused railway line that cuts through Manhattan and has proved remarkably popular as a release from the pressures of New York city life.

Traditionally, borders are cut back in the autumn, but naturalistic plantings are left standing and look beautiful during the winter months, taking on an almost sculptural quality, especially after a hard frost. Oudolf says: "Dying in an interesting way is just as important as living." As well as their aesthetic appeal over winter, the plants provide a valuable food source and habitat for birds and other wildlife when pickings are lean.

The joy of naturalistic plantings is that they are an immersive experience. Whereas traditional borders are generally seen from a fixed viewpoint, naturalistic plantings are seen in the round, with paths leading through them, and seating areas created within them. They help define an area, creating the impression of far more space than is actually there, whereas the eye would simply wash over the equivalent area of lawn. They are also havens for bees, butterflies and other wildlife.

Fig 1 (previous page) shows a naturalistic planting that replaced an area of neglected, moss-dominated lawn in my garden five years ago. A mown grass path leads to a seat in the middle. The white-flowered Astrantia major 'Alba' has been a great success, flowering over a long period and in semi-shade. This plant used en masse would be perfect for replacing an area of lawn struggling under a tree's shade.

Fig 2 is an expansive, meadowlike planting in full sun. It receives no irrigation and is low-maintenance. The number of species is limited. Swaths of Penstemon 'Andenken an Friedrich Hahn', with bright pink flowers, provide brilliant colour for most of the summer. This works very well with the deepblue Salvia verticillata 'Purple Rain', which originates from a similar barren, well-drained habitat. A path leads through the planting to a seating area. In late summer, Sedum 'Herbstfreude' and the airy, mauve-flowered Verbena bonariensis join these plants and both encourage legions of butterflies.

Grasses are an important element in these plantings, moving in the



Fig 3



The joy of naturalistic plantings is that they are an immersive experience. Whereas traditional borders are generally seen from a fixed viewpoint, naturalistic plantings are seen in the round, with paths leading through them, and seating areas created within them.

slightest breeze and looking magical, especially in low light. In both these schemes, Nasella tenuissima ('pony tail grass') has been used. Even in the depths of winter (Fig 3) many grasses are still looking wonderful. The cost of maintaining a 5m x 5m area of perfect sward is approximately £700 a year, based on mowing and trimming edges 36 times, scarifying and aerating once, and weeding and feeding four times.

Lazily neglecting scarification and aeration for a couple of years resulted in a plague of chafer grubs in my lawn last spring. After a week's feeding frenzy by crows, the bulk of the lawn had transformed into a muddy, grassless expanse. The equivalent area of naturalistic planting would cost about £180 per annum to maintain. The planting is weeded up to four times a year. It is cut back in March and then a mulch of compost is applied, which helps to suppress weeds and retain moisture.

Naturalistic or perennial meadow planting is suited to a wide range of gardens, rural or urban, large or small, in sun or shade. The lawn could be reduced or dispensed with altogether. Shrinking a lawn to the size actually used - as a play area for children, for instance - and replacing the rest with an area of naturalistic planting cuts down dramatically on maintenance costs at the same time as benefiting the

environment. Look out of your window now, in mid-winter, and imagine wonderful, sculptural frosted spires, umbels and bobbles amongst gently swaying grasses, with robins, wrens and great tits weaving in amongst them, feeding.

Pam Lewis has created a haven for wildlife in her beautiful Dorset garden, Sticky Wicket. She writes in her book Making Wildflower Meadows: "I keep dreaming that if just 10% of that vast acreage of gardens became patches of meadow, we could reinstate 10,000 acres of butterfly and other wildlife habitat ... and leave a more gracious and sustainable environment for the generation behind us."

All images courtesy Jane Hurst



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5 Insights on Global Transformation

Rhonda Fabian

Last year, Kosmos commissioned a communication research study to better understand an emerging global movement and how groups within the movement could connect effectively.

A growing community of noted authors, local and global activists, world spiritual figures, economists and ecologists (Influencers) are speaking urgently of a world in crisis and the simultaneous awakening around the world to a 'new story' of transformation, a story no longer based on greed, competition, and scarcity, but one informed by fresh expressions of cooperation, indigenous wisdom, community-building, sharing, and innovation at all scales from local to global.

understand To this 'global transformation movement' better. how it is articulated, maintained and shared, the Connecting for Change Study used a combination of methods including nominal group technique; a survey targeted to 80 Influencers; and content analysis of 110 websites. These sources, along with ancillary data, led to the eventual consideration of 336 people and organizations comprising the study's area of inquiry. It was felt that combining the classic

methods of influence research with content analysis would return results that, while not statistically quantifiable, might yield rich, nuanced, and actionable insights. Participants selfselected by indicating that they agreed a global transformation movement was already underway.

Five Insights from the Study:

1. The Global Transformation Movement is self-organizing

The 'movement' belongs to no one person, group, or belief system. It is a story in process, based not on preexisting design, but rather as a product of dynamic self-organization. It is a story of people working together to address the world's most profound challenges. An interconnected 'network of circles' is slowly self-organizing, spanning distances, cultures, and other differences. Presaged by the Occupy Movement, there is an emphasis on power-sharing, affinity groups, and participatory democracy. Small

communities of practice help shape public policy on the local level and may include civic groups, economic cooperatives, art collectives, spiritual centers and more. Social media platforms and online communities provide a means to connect, scale, teach best practice, strengthen relationships, and share events in real-time such as political actions and performances.

Global Transformation Movement is a values-driven 'movement of movements'

Climate Justice, Peacebuilding and Human Rights are seen as interrelated and inseparable movements in the quest for positive global change. Access to food, energy and water, as obvious examples, are universal rights that are at the center of many conflicts, yet are also providing new opportunities for cooperation and sharing.

Personal transformation practices like meditation and consciousnessraising, often lead to the formation of small, strong, intentional communities

of practice which find expression through initiatives such as the Local and Living Economy Transition Town movements. spiritual and civic organizations, and more. The Commons, Biodiversity, and Sacred Ecology movements are also frequent mentions.

Reducing carbon footprint - at all scales - is an expressed goal, yet respondents generally describe desired 'outcomes' as a set of values, rather than specific milestones. Among these are the values of sharing, respect for diversity, economic and climate justice, and care for all life. Methods for advancing values and goals focus strongly on communication, education, resource sharing, and practice through local activism.

3. The Global Transformation Movement uses alternative forms of learning

From online courses to deep-nature workshops, respondents tend to seek and create their own customized learning experiences, choosing handson and place-based education over traditional classrooms. There is a sensed need to unlearn and discard old assumptions, regain indigenous wisdom, and 'relearn' practical skills such as agriculture and permaculture, building, crafting, and arts. Others seek to build leadership skills, deepen

spiritual practices, and gain expertise on specific issues. Traditional schools and universities are seen as reinforcers of the deeply entrenched status quo, or 'old story.'

4. The Global Transformation Movement emphasizes improvisation

Borrowing from the world of music and dance, improvisation is collaborative and spontaneous process that allows new kinds of order to emerge. Groups engaged in transformational work are increasingly ordered by improvisational principles. More akin to a meandering stream or a flock of birds, improvisation follows a natural fluid set of rules, rather than rigid imposed ones. Improvisation requires attention, intention, communication, awareness of self and others near to the self, and awareness of the larger picture or pattern that is emerging. Thus, improvisation is an emergent process, and one expressed abundantly in nature—in the natural ways that systems connect, change, and reassemble to create powerful new forms and ideas. It is precisely at the margins, or 'edge of chaos'—where there is just enough order to recognize a pattern, yet sufficient openness to allow new ideas to take shape—that the most powerful initiatives and practices are emerging.

5. The Global Transformation Movement is spiritual

Idea about collective consciousness, interbeing and Oneness connect many of the thinkers in our study. The related concept of 'global citizenship' emerges as a way of self-identifying that reflects cooperation with and belonging to the world. Rising ecological awareness is ushering in a new era of Gaiaconsciousness. Rather than viewing the Self as an isolated participant apart from Nature, the study reaffirms there is a growing belief that humans are an integral part of Nature's intelligent design. Beneath the political, ideological, and cultural divisions at the root of so many problems here on our planet, there is common purpose to thrive. Separateness is a fading story. Beneath all our differences a sense of unity is emerging.

Beneath the political, ideological, and cultural divisions at the root of so many problems here on our planet, there is common purpose—to thrive. Separateness is a fading story. Beneath all our differences a sense of unity is emerging.





Rhonda Fabian is a lifelong learner, educator, and the digital editor of Kosmos Journal. She is ordained in the monastic tradition of her teacher, Buddhist Zen Master Thich Nhat Hanh.

As co-founder and CEO of Fabian Baber Communication, a leading digital learning company for 26 years, Ms. Fabian garnered numerous awards as an instructional designer, writer and director of more than 800 educational programs for learners age 5 to adult.



Holding Water

Minni Jain on how we can transition from being water stressed to water blessed.

Ayurveda, a traditional health system, teaches us that prevention is better than cure. People should have the capacity to lead healthy lives and not fall ill in the first place. The same is true for nature. Prevention is better than cure. The role of water in mitigating climate change is very understated. If we want to prevent climate change from exacerbating, we must look after the health of the water on our planet and stop it from reaching critical levels of stress.

Globally, extreme weather events linked to climate change, are becoming increasingly common and we are experiencing an escalation in the occurrence of floods and droughts.

Even as I write this, India is in the grip of scorching temperatures, severe heat waves and massive drought across many of its states. In many areas, farmers are being rendered unable to revive their parched crops and in others, even drinking water has run out. Dusty and dry river beds and vast swathes of uninhabitable and desolate land is a sight confronting many people. At this very moment, water is being distributed by tankers or being

sent by 'water' trains from one state to another to stem the flow of migrants leaving their lands in search of water. (People can migrate to the cities but where can the animals in these parched lands migrate to? What happens to the rest of the natural world in the face of these water-led disasters?)

The level of water in India's 91 reservoirs is a quarter of what it should be. Various studies are showing water tables have been declining because of irresponsible extraction of water from underground aquifers without thought for re-charge. If not declining, then, as in the Ganges basin, they are so contaminated by arsenic and fluoride, heavy metals and biological waste that not much is alive in the 'sacred' rivers.

now "Rivers lamentably. are becoming a black, ceaseless flow of muck and misery," (Cid Reyes, Philippines). Across the planet, unfortunately, these words are beginning to sound all too familiar.

Just a few months earlier, many hundreds of thousands of people lost their lives and livelihoods or were displaced by unprecedented floods in

Chennai and other coastal regions of South India.

This winter, the UK witnessed a spell of extreme weather resulting in a number of record river flows and thousands of homes and businesses being flooded. Many of these homes were flooded with dirty water, with affected people still not able to go back to their homes 6 months after. The UK's traditional flood defence network was tested to the extreme and in many places was overtopped. Entire villages were cut off with access only by boats.

Similarities of case studies between the UK and India show that floods and droughts are comparable in cause and mitigating approaches.

Experience with traditional water management teaches us that when we look after water at the source and collect it upstream in the hills where the rain falls, then the flow in the rivers is restored. In a desert region, this slowing the flow of the water recharges the underground aquifers and enables a surface flow in the rivers. In flood prone areas, it decreases the rate of flow and keeps the downstream towns and

The role of water in mitigating climate change is very understated. If we want to prevent climate change from exacerbating, we must look after the health of the water on our planet and stop it from reaching critical levels of stress.

settlements clear of floods. Building small interventions in the landscape to hold water and slow its flow has been done successfully around the world for millennia. As the water stress being experienced in this age increases, why aren't we building more such natural interventions instead of a dwindling number of them?

The modern engineering mindset has erred in assuming rainwater to be a waste product which has to be drained away quickly. Globally, increasing deforestation, accompanied increased storm water runoff and soil erosion, is contributing to a lessened ability of the land to hold moisture. The man-made proliferation of impervious surfaces (especially in urban areas) that moves rainwater rapidly and directly into streams, preventing it from soaking into the landscape and entering the local small water cycle, also contributes to this weakened ability. Agricultural practices such as poor grazing management and aggressive tillage bring about soil erosion and excess drainage.

On a continental scale, these local actions add up to a significant reduction in groundwater and moisture for soil and vegetation, and a reduction in water vapor in the air above the continents. This drying up of ecosystems results in undesirable climate change including extremes of flooding, drought, heat, cold, and chaotic air currents.

The untold heartache of dealing with the devastation of floods and droughts can be avoided by adopting simple and successful intervention measures in the landscape. With the growing cost for increasing conventional protection (such as building ever higher flood or disaster management (sending trainloads of water to drought areas), there is a clear need to look at alternatives such as Natural Flood and Drought Management. Holding the water where the rain falls is the simplest solution for averting both floods and droughts and reviving the natural flow of rivers. The similarities between Indian Johads (water dams being used to restore drought-affected areas of Rajasthan) and the bunds and buffers being employed in UK for natural flood management are striking to say the least.

The 7 rivers that Rajendra Singh, the Waterman of India, has helped revive in the desert state of Rajasthan,

Holding the water where the rain falls is the simplest solution for averting both floods and droughts and reviving the natural flow of rivers. The similarities between Indian Johads and the bunds and buffers being employed in UK for natural flood management are striking to say the least.



India, has resulted in water availability for abandoned villages which have become re-settled and bare, brown earth which has become lush, green, fertile and productive. There has been an increase in biodiversity and a change in the climate of that region with increased rainfall. A nature reserve has been restored and now has a significant population of tigers and other animals.

Young people have returned to the villages from the towns. The natural cycle of existence has been able to re-establish itself. Crucially, the evaporation of water from the river has led to an increased pattern of rainfall. With the rejuvenation of the river, they were able to transform nature, agriculture and community throughout the region. When the river rejuvenates, all aspects of nature and community life rejuvenate with it.

Even after two years of a failed monsoon, these photographs (clicked by myself in Dec 2015) show ample ground water and lush green fields full of crops for the villagers - this is in Rajasthan, traditionally a desert state, when the rest of India is confronting dry river beds and distressed villagers fleeing drought..!!

How did this happen?

Water is at the heart of everything, whether we exploit it to make products or whether we live with its power to support whole communities thriving in harmony with nature. Of course technology can provide us with solutions. But technology cannot absolve us from all our responsibilities. Engineers and hydrologists don't involve civil society to do this work with them. The two have to go together. Community and Technology. The problem is not the lack of technique or expertise, the problem is that no one does the work. People need to take action. Where people take action - then the work produces the desired results!

When people come together in a spirit of community, only then the water flows naturally. When one is able to restore the flow of water in the landscape then everything else gets restored too. It needs a change of emphasis from control and profiteering, to an organic relationship between the community and nature. When we list our problems of climate



On one side is harvesting and conservation of water and on the other side is the disciplined use of that water. If we do these two simultaneously, our global water problems will be solved. Water harvesting is a hard but fulfilling challenge in which the whole global community should be included. Where we are now, we are called to transform the whole relation of life to water, not only at the level of a small, local community, but nationally and globally.

change, soil impoverishment, extreme weather events, poor ecological state of rivers, exposure of towns to flooding, community fragmentation, then all these problems are situated around the management of one thing - the flow of water.

What if we put in place a strategy for every community in the world to have access to the knowledge, tools, wisdom and finance to look after their own water resources? Can we give back to the communities the wherewithal and responsibility to restore the natural water holding capacity of their landscapes? The answer is YES. In Sao Paolo and in California, in India, and in China, in the Middle East and in Africa, people could pick up a spade and begin the work themselves to restore the healthy flow of water and reduce their water stress. Rural resilience is the driver for urban resilience. The long term work is about slowing and holding water in landscapes, adapting and changing our practices in connected rural and urban systems and re-engaging our communities in stewarding the natural health of their local regions.

Working with actual communities,

Rajendra Singh's work is a very powerful example showing us that rather than imposing generic global solutions, facilitating the flow of traditional wisdom and introducing appropriate modern knowledge will resolve issues like river flows and strengthen our capacity to adapt to threats such as climate change. It shows us that the way to tackle our problems from climate change is still by working in collaboration with nature.

On one side is harvesting and conservation of water and on the other side is the disciplined use of that water. If we do these two simultaneously, our global water problems will be solved. Water harvesting is a hard but fulfilling challenge in which the whole global community should be included. Where we are now, we are called to transform the whole relation of life to water, not only at the level of a small, local community, but nationally and globally.

All the Sustainable Development Goals of the UN can be achieved holistically at a community level and by applying a community's inherent capacities to address endemic problems.

As a global community individually, we must today make this change in our relation to water, from a free resource that we squander, into a precious, life giving gift of nature that we hold and serve.

Content and images courtesy Minni Jain ((with contributions from members of the Flow Partnership)



Minni Jain is a director of The Flow Partnership which is a growing global community of water professionals, scientists, universities, civil society organisations, grass-roots champions and countless volunteers. They do this through collaborative community work, building social capacity to solve local water problems through participatory action, empowerment of women, linking indigenous know-how with modern scientific and technical approaches and upending traditional patterns of development and resource use.



THE TRUE COST OF FASHION

A review of The True Cost, a documentary film that investigates the alarming environmental and social impact of the fashion industry.

Look at the clothes you're wearing right now.

Picture yourself shopping for them. Try to remember what you were thinking as you weighed whether or not to take those jeans up to the cash register, whether or not to click "add to cart" on those shoes. You may have considered cut, color, cost, comfort. You may have imagined how you'd style your new threads.

At any point in the process, did you think about where they were made? Did you picture a woman pushing rawedged fabric through an industrial sewing machine? Did you imagine a man with stained hands carrying leather through a tannery, or sheep being shorn of their wool, or a field fluffy with cotton bolls?

These are just the tip of an iceberg of questions that "The True Cost" documentary wants you to ask next time you're considering a new clothing purchase. This film investigates the fashion industry's impact on people and the environment. As such, it addresses fashion players you might expect—like a Bangladeshi garment worker and a British designer—as well as ones less often consulted in the fashion ethics conversation, like an American economist and an Indian environmental rights activist.

The end result is a movie that is a seriously worthwhile use of your time, whether you consider yourself a veteran in the fashion ethics conversation or have just started to realize that your shopping decisions have moral weight.

I appreciated the way "The True Cost" handled elements of the industry that can sometimes feel like abstract problems to Western consumers. Sure, I know in my head that garment workers in Bangladesh are affected by Americans' decisions at the mall. But hearing a 23-year-old Bangladeshi woman talk about the violent resistance she faced in her efforts to organize a clothing workers' union reminded me in my gut. I can intellectually assent to the idea that treating clothing as disposable is problematic, yes. But seeing garbage mountains filled with non-biodegradable clothing transforms that head-knowledge into a pit in my stomach.

The movie also brought up points I haven't spent as much time focusing on. It made a case for organic cotton based on the health risks of pesticides for farming communities. It pointed out that only 10 percent of clothing donated to charity in the U.S. stays in the U.S., while the rest is shipped to developing countries where it undermines struggling economiesflying in the face of the idea that as long

as we're donating our used clothes, it's okay to buy cheaply and frequently. It cited psychological research claiming that mental health problems like anxiety and depression increase in societies where materialistic values are on the rise.

I could keep talking about this film, but the truth is that I don't want to neatly summarize it for you. I want you to watch it yourself. If you've made hard choices in the pursuit of integrity regarding your clothing, it will confirm the importance of those decisions and renew your desire to shop and live responsibly. If you've never thought twice about the ethics of a purchase, it will help you begin asking good questions.

What are you waiting for?



Whitney Bauck is a photographer and art student whose passion is to help people engage the fashion world in an intellectually and spiritually robust manner. She blogs regularly about the intersection of fashion and faith at Unwrinkling.com.

Why the Economy **Should Stop Growing** - And Just Grow Up

David Korten, author of the renowned and influential book, When Corporations Rule the World writes on the need to reframe the question on growth.

"An active propaganda machinery controlled by the world's largest corporations constantly reassures us that consumerism is the path to happiness, governmental restraint of market excess is the cause of our distress, and economic globalization is both a historical inevitability and a boon to the human species", he says.

Listen to the political candidates as they put forward their economic solutions. You will hear a wellestablished and rarely challenged narrative. "We must grow the economy to produce jobs so people will have the money to grow their consumption, which will grow more jobs..." Grow. Grow. Grow.

But children and adolescents grow. Adults mature. It is time to reframe the debate to recognize that we have pushed growth in material consumption beyond Earth's environmental limits. We must now shift our economic priority from growth to maturity meeting the needs of all within the limits of what Earth can provide.

Global GDP is currently growing 3

to 4 percent annually. Contrary to the promises of politicians and economists, this growth is not eliminating poverty and creating a better life for all. It is instead creating increasingly grotesque and unsustainable imbalances in our relationship to Earth and to each other.

Specifics differ by country, but the U.S. experience characterizes the broader trend. Corporate profits as a percentage of GDP are at a record high. The U.S. middle class is shrinking as most people work longer hours and struggle harder to put food on the table and maintain a roof over their heads. Families are collapsing, and suicide rates are increasing.

The assets of the world's 62 richest individuals equal those of the poorest

half of humanity—3.6 billion people. In the United States, the 2015 bonus pool for 172,400 Wall Street employees was \$25 billion—just short of the \$28 billion required to give 4.2 million minimum wage restaurant and health care workers a raise to \$15 an hour.

Humans now consume at a rate 1.6 times what Earth can provide. Weather becomes more severe and erratic, and critical environmental systems are in

These distortions are a predictable consequence of an economic system designed to extract Earth's natural wealth for the purpose of maximizing financial returns to those who already have more than they need.



"How do we grow the economy?" is an obsolete question. Local initiatives across the world are looking for maturity instead as they rebuild caring, placebased communities and economies.



Image Courtesy: Flickr CC

But children and adolescents grow. Adults mature. It is time to reframe the debate to recognize that we have pushed growth in material consumption beyond Earth's environmental limits. We must now shift our economic priority from growth to maturity—meeting the needs of all within the limits

On the plus side, as this system has created the imperative for deep change, it has also positioned us to take the step toward a life-centered planetary civilization. It has:

- Globalized awareness humans' interdependence with one another and Earth,
- Produced a system of global communications that allows us to think and act as a global species,
- Highlighted racism, sexism, and other forms of xenophobia as threats to the well-being of all, and
- Turned millennials into a revolutionary political force by denying them the economic opportunities their parents took for granted.

We cannot, however, look to the economic institutions that created the imbalances to now create an economy that meets the essential needs of all in balanced relationship to a living Earth. Global financial markets value life only for its market price. And the legal structures of global corporations centralize power and delink it from the realities of people's daily lives.

Restoring balance is necessarily the work of living communities, of people who care about one another, the health of their environment, and the future of their children.

The step to maturity depends on rebuilding caring, place-based communities and economies and restoring to them the power that global corporations and financial markets have usurped. Local initiatives toward this end are already underway throughout the world.

"How do we grow the economy?" is an obsolete question. The questions relevant to this moment in history are, "How do we navigate the step to a mature economy that meets the needs of all within the limits of a finite living Earth?" How do we rebuild the strength and power of living communities? How do we create a culture of mutual caring and responsibility? How do we assure that the legal rights of people and communities take priority over those of government-created artificial persons called corporations? Living organisms have learned to self-organize as bioregional communities that create and maintain the conditions essential to

a living Earth community. We humans must take the step to maturity as we learn to live as responsible members of that community.



David Korten is co-founder and board chair of YES! Magazine, president of the Living Economies Forum, co-chair of the New Economy Working Group, a member of the Club of Rome, and the author of influential books, including When Corporations Rule the World and Change the Story, Change the Future: A Living Economy for a Living Earth. His work builds on lessons from the 21 years he and his wife Fran lived and worked in Africa, Asia, and Latin America on a quest to end global poverty.

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Pots Of Wisdom



Sangeeta Khanna turns the wheel back in time to give us a deeper look at Earthenware.

The potter's wheel evokes a sense of mystic bewilderment—the way those deft hands shape delicate smooth wet earth over the spinning wheel, and how the dried earthen pots are then fired at high temperatures to become tough. Some pots store water and some overflow with billowing froth of lentils cooked over slow fire. while other decorative pots are used to make yogurt or filled with syrupy rosogollas. A potter from Azamgarh, Uttar Pradesh, recently explained how potters have "seasons" for the kind of pots they make. During the wedding season, they make kalash and various shapes of handis and sakoras (shallow bowls) that are used for rituals. They make garden pots and decorative pottery thoroughout the year.

Potters have now started innovating with finer finish, smooth glaze and decorative elements.

Regional versions

Earthenware have numerous regional interpretations. For instance, the teacups from Azamgargh have a shiny black colour. A potter reveals the technique: the terracotta vessels are fired till they become fully baked and strong. In the last stage of firing the pots, they smoke the furnace by adding dried leaves. The smoke and soot coats the pots and gets baked along, making the pots sooty black. After the first baking, mustard oil is smeared on the pots, and then, a second round of firing fixes the black colour and the pots become shiny. The tradition of black pottery of Azamgarh is little known.

The potter's wheel evokes a sense of mystic bewilderment — the way those deft hands shape delicate smooth wet earth over the spinning wheel, and how the dried earthen pots are then fired at high temperatures to become tough.

While some potters are really poor and are looking for alternative livelihood options, others are making enough money to keep going. Take for instance the Manipuri potters, who make the traditional longpi pottery. This beautiful black pottery is made with a mix of a black stone powder and clay. The pots are then shaped and fired the same way as the terracotta pots. Longpi pottery is interesting as potters have inno-vated with new shapes and sizes making baking trays, beautiful kettles, tea cups and beer mugs, bowls and plates, salad bowls and serving platters. They also decorate the edges or handles using cane weaving. The educated Manipuri potters have made a mark and Longpi pottery is now available on some e-commerce websites.

Another interesting place to find exquisite pottery is Gundiyali, a village in Kutch region, Gujarat. The potters here have been making the same designs of pots and pans since 5,000 years, which apparently emerged from the

excavations of Harappa and Mohenjodaro. Interestingly, the potters not only use the spinning wheel to make perfectly shaped pots, but they also use a technique called Ghadayi, where they gently beat the half-made matka (ghada or round pot for water storage) from the outside using a flat wooden disc with a handle. The potters are so adept that they can create perfect round matkas using this technique with bare hands.

Some potters from Kutch have evolved a method to make pots and pans suited for modern kitchens. Their craft is available on a website (www. mitticool.in) which sells various types of kitchen and dining utensils made of terracotta. Some unorganised potters also make beautiful water bottles with lid, water jugs, insulated casseroles and dinner sets too. Even a tawa (griddle) with a handle and a metal base has started making waves among those who love using terra-cotta pots. Kutch potters are also known for their beautiful intricate paintings on the pots, much like the Kutch embroidery.

Renewable Resource

The sedimentary soil used for making terracotta pots is a renewable resource and the process of making pots doesn't burden the environment with toxic chemicals and pollutants. What's more, they are mostly similarly priced as mid-level ceramic or glass tableware, sometimes cheaper too.

The lifespan of a terracotta tea cup or a handi can be as good as a glass utensil.

Our festivals and religious rituals have helped survive the profession of a potter. Potters across the country make diyas (lamps) for Diwali, kalash and matkas for wedding rituals.

I remember the Kuldevta pooja (praying to the family deity) in our ancestral home where it was mandatory to cook the prasad in earthen pots over wood-fired chulhas. The village kumhar (potter) would be summoned during religious ceremonies to make specific sizes and shapes of pots to store water, milk and ghee and one kadhai in which the prasad is deep fried in cow ghee. The traditional art of the kumhar community has survived due to the constant demand of earthen pots throughout the year. Kumhars are also in demand for making idols of Gods and Goddesses for worship, especially during Durga



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pooja and Ganesh pooja. Interestingly, these idols are immersed in the nearest waterbodies after the festival is over. Imagine the fine sedimentary soil that is collected from dried up ponds. Hindus have a theory of being born of panchtatva (the five elements around which life evolves) and getting merged with panchtatva after death, and these earthen idols follow the same path. A potter's work is enchanting indeed

Enhanced taste

Apart from their aesthetic beauty, earthen-ware enhances the quality of food cooked. The terracotta tea pots and cups are a lot better than bone china and ceramic or even glass tumblers. Just take care to buy well-fired earthenware. Terracotta pots are also great for the dum cooking technique. In Kerala, chattis (pans) are still used for cooking fish and prawn curries, though it has become less frequent. Once heated, the terracotta pots need lesser flame heat to cook. People line the pots with banana leafs to slow cook food in minimal oil in Kerala. In urban kitchens, the terracotta pans can be lined with aluminum foil. In earlier days, each pot was filled with water for a few days so that the pores got filled with minerals in water. This way the pots did not absorb the aroma of foods being cooked, and the next food being

cooked would not carry the flavours of the previous curry.

To clean earthen pots and pans, just rinse them with water first and then use a hard sponge with diluted liquid detergent before rinsing them thoroughly with run-ning water. Let them dry completely in the sun before storing them. No need to sun the pots if they are being used every day.

One can even dry the cleaned pots in the oven. So when you plan to make some rustic daal or saag next time, try to get an earthen vessel and spend a couple of hours cooking for the family.



Sangeeta Khanna is a food and nutrition consultant. She is the author of the blogs Health food Desi videshi and Banaras ka Khana.

Article first appeared in Down To Earth, November 15-30, 2010 issue

Monsoon Recipes

All traditional communities in India have adapted to the seasons and their habitats in various regions in remarkable ways - especially when it comes to food. In particular the recipes of the monsoon season would include foods that also had significant medicinal value to protect or support people through the cold, cough and other illnesses that are common during the rains

We present a few monsoon recipes here by I.M.Pushpa



KORPURAVALLI (Doddapatre) CHUTNEY

Doddapatre is good for coughs and colds

Ingredients

- karpuravalli 10 leaves
- grated coconut 5 tbsp (add more if you like)
- Jeera 1/4 tsp
- Garlic 2 pods (optional)
- oil 1 tbs
- salt 1 tbs (to taste)
- green/red chillies 2 or 3

curd - 1/2 cup

(tamarind or raw mango optional as karporavallihas are tangy)

Instructions

- roast karpuravalli leaves in 1/2 tsp of oil till leaves wilt in the kadai
- blend the roasted leaves, jeera, red/green chillies, salt and coconut to a fine paste
- add 2 spoons of water while grinding the chutney for better consistency
- beat the curd and mix it well with the ground
- serve with rice or phulka

MAVINAKAI NEERU GOJJU

(Mango digestive juice)

Ingredients

- mango 1 medium size
- Jeera (cumin) 5 grams or 1/2 tsp
- mustard 5grams or 1/2 tsp
- green chilly 1
- oil 1/4 tsp
- salt 1 tbs (to taste)
- water 3 glasses (depends on the sourness of the mango)

Instructions

- grate the mango including the peel
- blend the grated mango to a fine smooth paste with green chilli
- add water to the ground paste and strain to remove the extra pulp
- add salt to this juice
- saute mustard and jeera in oil till it turns brown and add to the mango juice
- serve after lunch



MONSOON PALAK SALAD

(With Pepper and Turmeric)

Ingredients

- 1 tbsp oil
- 1/4 tsp mustard seeds
- 1/4 tsp pepper powder
- 1/2 tsp tumeric powder
- 1 large onion sliced
- 2 red chillies
- 1 green chilly
- 3 pods of garlic
- 3 tomatoes cut into big pieces
- 2 tsp cumin powder
- 300 grams of palak and some lettuce
- salt to taste

Instructions

- heat oil in a pan, add garlic pods, mustard
- add black pepper, tumeric powder and red
- add sliced onions and stir well until it turns soft
- add green chillies and the remaining garlic and saute for a minute
- Add tomatoes and cumin seeds powder
- stir well and leave it to cook for 5 minutes
- while occasionally stirring it add the greens
- and saute well for 2 minutes
- cover it for a minute so that the greens retain the colour
- finally add the lemon juice and add salt acccordingly



RIDGE GOURD SALAD WITH RADISH



Ingredients

- Corriander leaves 100 grams
- chopped ridge gourd 200 grams
- radish 100 grams
- grated coconut 50 grams (can add more if you like)
- grated carrot 100 grams
- raddish leaves 50 grams (cut lenght wise)
- Raw mango 1 small grated

Dressing

- green chillies 2
- ginger 25 grams
- oil (cold pressed groundnut oil) 5tsp
- salt to taste

Instructions

- blend green chillies, ginger, oil, salt to a fine paste. Mix all the ingredients together
- finally mix the paste along with the salt
- garnish with radish leaves



I.M.Pushpa is the Garden-in-charge and a Facilitator with Bhoomi College. She is passionate about working on the land, saving and distributing seeds, enriching the soil, and making organic fertilisers and biopesticides. She is wellversed in healing through home remedies, and enthusiastic about cooking and sharing her recipes with others.

SNIPPETS on **CLIMATE CHANGE**

Science Express -**Climate Change Special** train educates more than 2.3 million in India



Science Express Climate Action Special (SECAS) is a large scale Climate Change exhibition mounted on a custom-built 16 coach AC train reaching out to people across India. It received 2.32 million visitors, making it single largest mass awareness programme on Climate Change. SECAS travelled across India from 15 Oct 2015 to 7 May 2016 halting at 64 locations in 20 States, covering 19,800 km. The exhibition aboard SECAS aimed to create awareness, as to how Climate Change can be combated through mitigation and adaptation.

For its eighth phase journey of across India, The state-of-the-art exhibition aboard the 'Science Express Climate Action Special (SECAS)' aimed to create awareness among various sections of society, especially students, as to how Climate Change can be combated through mitigation and adaptation.

Each of the coaches of SECAS were thematically designed and broadly covered aspects like Understanding Climate Change (coach 1), Impact of Climate Change (coach 2), Adaptation (coach 3 & 4), Mitigation (coach 5 & 6), International Negotiations on Climate Change (coach 7), Handprint (coach 8), Biotechnology for bio-resources and nature conservation (coach 9), India's research and development initiatives

in field of Biotechnology (coach 10), Innovations in S&T, Science Education, DST Scholarships & Schemes, Careers in S&T, etc. (Coach 11).

SECAS conveyed a strong message about Climate Action and also provided a good opportunity to generate dialogue and discussions.

Source: www.cansouthasia.net

With women at the top. UN climate body has chance for real change



As of May this year, the six most influential positions within the UN process are all held by women, a significant increase on last year's total of two. It's just possible that on any given day, not a dark suit and tie will be spotted on the main podium of the negotiations, a forum long dominated by greying men.

That represents "notable development" says Mariana Panuncio, who leads WWF's advocacy in Latin American and the Caribbean. "Each has arrived because of their own merits," she adds. Since 2008, women on average have made up just over 30% of delegates at the annual summit, according to data supplied by the Women's Environment and Development Organisation (WEDO).

At the 2015 Paris summit, just over 38% of national delegations were women, with Peru, Hungary, Lesotho, Italy and Kiribati were among the most balanced delegations and Mauritius,

Yemen, Afghanistan and Oman the least. Outside the UN bubble, gender equality is far from a given, as a recent report published by the Overseas Development Institute and Climate Development Knowledge Network revealed. Focused on communities in India. Africa and Latin America. studies have determined that women are frequently left out of initiatives to improve resilience to extreme weather.

Source: Climate Home

Berlin to become climate neutral by 2050



The Berlin House of Representatives has voted to divest from oil, coal, and natural gas companies. The Berlin parliament also voted to blacklist investment into companies that are incompatible with the city's stated goal of going "climate neutral" by the year 2050. The policy will relate to Berlin's €750 million pension fund — which currently holds investments in E.ON, RWE, and Total, amongst others. The decision means that Berlin is following in the footsteps of a number of other prominent European cities — Paris, Copenhagen, Stockholm, etc. — and thusly, making a show of its move away from fossil fuel investment. The decision follows by all accounts. persistent 2-year campaign by Fossil Free Berlin to influence policy on the

The divestment process is expected to begin sometime before or by January 2017. Source: 350.org



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The Bhoomi College

- a participative space for deep, holistic, and practical learning

Calendar of Weekend Programmes, July – September 2016

2nd July 2016 Millets in your Daily Meals

By Pushpa and Rema Kumar

16th July 2016 **Experiential Learning for the Adolescent**

By Rema Kumar and Farah Khan

Talk on Emission and Alternatives 21st July 2016

By Dr. Sulekha, California Environmental Protection Agency

30th July, 2016 Family, Food and Gardening at Bhoomi Farm

By Ananth Somaiah and Nayan ND

1st – 6th August 2016 **Inner and Outer Ecology Programme** (Residential programme)

By Seetha Ananthasivan, Rema Kumar, Farah Khan

20th August 2016 **Learning from Kabir**

By Bhoomi Team

Ecological Food and Farming (One month programme) 22 August 2016

By Bhoomi Team

3rd September 2016 **Terrace Gardening**

By Pushpa and Nayan ND

17th September 2016 **Expression through Art & Craft**

By Ishita and Kalpana

For details of these workshops log on to – www.bhoomicollege.org

Contact us at – bhoomi.programmes@gmail.com ph - 28441173-080 9449853834

You like the idea of farming, but...

Bhoomi Organic Gurukul offers an opportunity to those who love the idea of farming, but cannot get into it just now.

On the third Saturday of every month you can spend the day at the Bhoomi Farm, at Gumalapuram, near Anekal (about 50 minutes drive from Electronic City, Bangalore.)

Learn about ecological farming, one day at a time...

For more information contact: bhoomi.programmes@gmail.com



Eco-friendly Food and Farming - 22 August to 23 September

The programme will include workshops on Permaculture, Organic, Biodynamic and Natural Farming by farmers and farming facilitators with over 2 decades of experience.

During this 1 month programme you will also go on field trips for 6 to 8 days, apart from sessions with documentaries, discussions and presentations.

This programme will be a great beginning for anyone who is seriously interested in farming



Creative and Experiential Learning 25 August to 2 September

This is a course for parents and anyone who wishes to understand the world of the child, become a co-learner with her and make learning an enduring and joyous process. Most of us have learnt in a chalk, talk and exam system, and hence may get on auto-pilot mode with similar methods with our children.

Through these workshops there will be an engagement with concepts, principles and practices, hands-on work and building perspectives

Discover the child in yourself, get in touch with the world of the child



Sankalan: Programme on Inner and Outer Ecology - 1 to 6 August 2016

This is a 6 day residential retreat in the serene Bhoomi campus to focus on our selves as well as to learn to apply principles of nature in our relationships. It will be useful to anyone who is working closely with people anywhere - children, groups, schools, colleges or communities.

These programmes are participative and experiential and support diverse interests and goals. It is non-directive and the group process evolves as a co-created process along with facilitators.

Explore your self, discover new possibilities and make choices that nourish your soul!



For more information about these courses, log onto www.bhoomicollege.org or email: bhoomi.programmes@gmail.com



The Bhoomi College

No. 40, Chikkanayakanahalli Road, Off Sarjapura Road, Bangalore - 560 035 Phone: 080 28441173, 09449853834 website: www.bhoomicollege.org

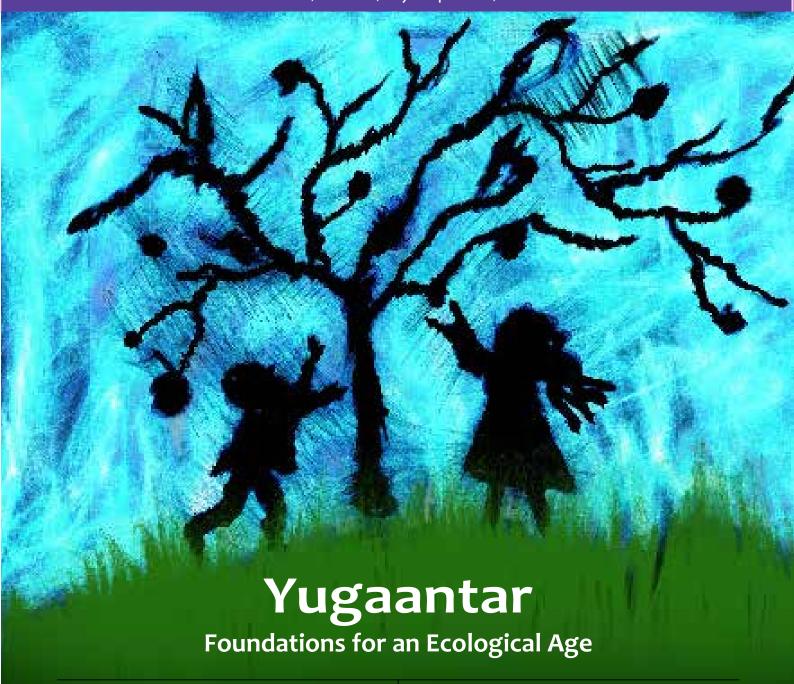
Eternal Bhoomí

Ecological Wisdom I Social Justice I Holistic Thinking I Positive Action

BANGALORE

VOLUME 7, ISSUE - 3, July - September, 2016

Rs.



Nature and Human Beings are one Satish Kumar

Listening to Tagore *Aseem Shrivastava*

Livelihoods versus Deadlihoods *Ashish Kothari*

In a Rhino, Everything Charles Eisenstein

Make a Difference... Live the Change...

Do you wish to do your bit about the mindless destruction of Nature that is happening today? Do you wish to take up green careers / activities or look be a teacher in alternative schools? Do you seek to empower children to become tomorrow's mature, responsible adults? Do you wish to learn in experiential, practical and yet meaningful ways? Do you wish to take a gap year / sabbatical to connect with Mother Earth?

If these aspirations are yours and you wish to be part of the solution, Bhoomi College will support you through these two intensive learning opportunities:

1 Year and 6 month Post Graduate Courses, 2016-17

Diplomain Science & Management for Sustainability

Starts July 2016

What this programme offers:

- An understanding of root-level social, economic, cultural and environmental issues, holistic thinking and & group processes
- Strategic affirmative-action approaches, including self exploration, to change the game for yourself and others
- · Knowledge and skills for pursuing green careers
- An ecosystem for operationalising your entrepreneurial ideas

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Diploma in Holistic Education *Starts July 2016*

- What this programme offers:
- Opportunities and support to explore concepts and philosophies in education, culture building and holistic learning
- Multiple possibilities to build on one's psychological, interpersonal and knowledge based strengths
- Hands-on engagement with children and adults to work with processes of co-evolving and co-creation in learning and living.
- Principles and practice of holistic thinking





What you can expect at Bhoomi College:

- - Labs to co-design learning projects and activities Internships with NGOs, schools and institutions
- → Hands-on practical work → Beautiful eco-friendly campus

Apply online through: www.bhoomicollege.org

or contact: bhoomi.college@gmail.com Phone: 080 28441173, 09449853834



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