

SCIENCE SHORE

exploring the ocean of life

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SHORT STORIES & ARTICLES

POETRY

HOBBY & ART

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**SCIENTIFIC
ARTICLES**



ARTIFICIAL INTELLIGENCE 101

BHAGYA SHREE RAM

“How crazy is it that YouTube always knows what I want to watch?” my twin exclaimed rhetorically one day. Peeping into her laptop, I glanced into the ‘Recommended’ list of videos that she was referring to, and was greeted by the pleasant sight of a list of videos featuring alligator fights and gene mutations. Huh! And...people say she has better taste.

That aside, I was pretty horrified by the lack of knowledge on my sister’s part about why and how YouTube shows you the things you see. And then I realized that not many people understand this. So here I am today to tell you the hows and the whys of technology in life around you.

I’m going to be talking about Artificial Intelligence. Now when we hear this term, thanks to how it’s been portrayed by the media, we imagine Elon Musk inventing a self-driving car, or maybe eccentric scientists aggressively hammering lines of code into a computer to save the world from a robot invasion. And sure, these are a few applications of AI. But there are so many more which actually hit close to home. Unless you live under a rock (which I hope you don’t; those would be extremely unhygienic living conditions) chances are you use applications of AI at least 3 or 4 times a day. Let’s say you book an Uber. The app identifies your current location and your desired destination, your rating (as given by your past cab drivers), and based on that data, matches you with a potential driver. Or let’s say you have to buy a book for a friend whose birthday is coming up. While you’re browsing Amazon, you are probably going to read past reviews from customers who have bought the same product. To calculate the overall star rating and percentage breakdown by star, Amazon doesn’t use a simple average. Instead, the system considers parameters like how recent a review is and if the reviewer bought the item on Amazon. It also analyses reviews to verify trustworthiness. While you’re placing the order, or once you’re done purchasing the item, you’ve probably seen a pop-up that says ‘Recommended for you’ or ‘Customers who bought this also bought...’. In all these cases, AI has been used to analyse past customer patterns and learn from them in order to make predictions of the customer’s future activity.

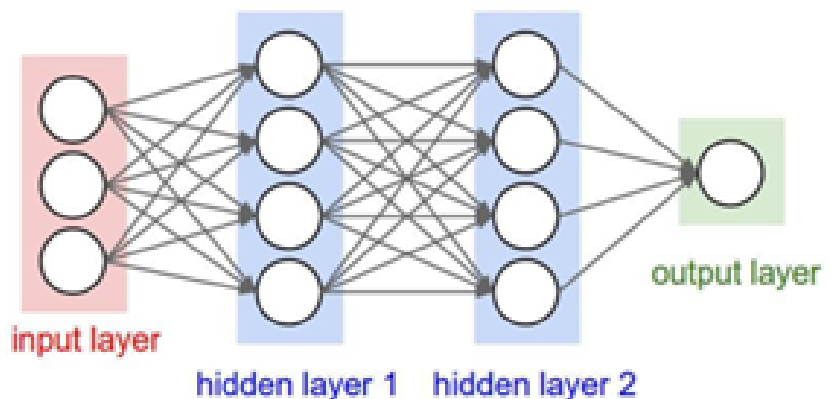
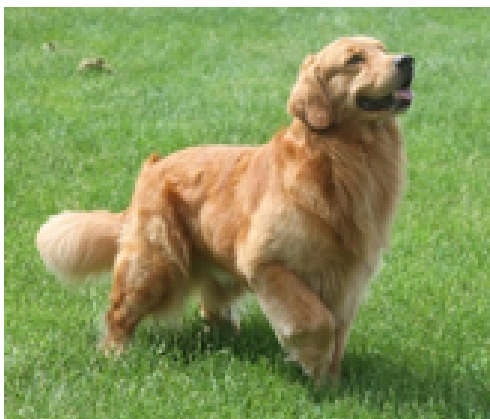
So, what really is AI? AI is any form of intelligence exhibited by machines. In more concrete terms, it involves the creation of agents that can plan out a particular sequence, understand the world around them and its entities, and learn from experience. The underlying point of AI is to create machines that can think and act in the same way humans do. One of the most popular applications of AI is Machine Learning.

Machine Learning, or ML, is the idea of getting machines to act without being explicitly programmed to do so. Let's say for example, that you want your program to be able to differentiate between breeds of dogs. You probably have to mention, in your code, the different characteristics that make each dog breed unique. If you make a mistake in this code, it's no biggie. But now imagine having to create a program in order to decide whether or not a person has a brain tumour. Not only would this code be exhaustingly elaborate to write out, but a small bug in the code might lead to a misdiagnosis, which could potentially lead to some pretty scary things.

This is where ML comes in. Instead of having to manually write out the code, you could instead 'feed' the machine a whole lot of data, which in this case would mean inputting several images of x-rays, both with and without brain tumours, so that the computer learns the difference. Not only healthcare, ML is also revolutionizing the way things work in just about every other field out there.

Now, something that I find particularly interesting is an application of ML called Deep Learning. This particular concept overlaps heavily with neuroscience, as it is actually inspired by the working of the brain! Remember earlier I had mentioned that the entire point of Artificial Intelligence is to teach machines to think like humans? Well, this accomplishes just that! The brain is made up of layers of neurons, and every piece of information you learn passes through these different parameters to get stored in your memory. This fancy concept is called neuroplasticity.

Let's say that you want to teach a child to differentiate between the dog breeds that we mentioned earlier. You first show the child pictures of a golden retriever. During this process, the neurons in the child's brain, which are connected to several other neurons, get signals, and they transmit these signals to the brain. This helps the child create a mental image of what a golden ret looks like, and they'll now be able to successfully identify one. This is exactly how artificial neural networks, or the networks created by humans as an application of deep learning, work as well. You input an image; the network receives thousands of pixels that make up an image; you set up a set of rules that make the connection of the neural network stronger if it guesses right, and weaker if it guesses wrong. The machine thus learns to identify a golden ret.



So this was a short introduction to Artificial Intelligence, Machine Learning and Deep Learning. To summarise: AI is about teaching the machines around you to identify patterns and make independent decisions. ML, an application of AI, is about getting a computer to perform a particular function without actually programming it to do so. Deep learning, an application of Machine Learning, is about making inferences from past data to come to a conclusion. Even with machines, it's all about studying, practicing, and putting your knowledge to good use. Happy learning!



THE AFFAIR BETWEEN THE MOSQUITO AND OUR EARS

DARSHANA YAZHINI

The mosquito – a rather impressionable insect needs no introduction. Since time immemorial it has earned a reputation as the annoying pest that leaves people deprived of a good night's sleep. We are familiar with the annoying buzz of a mosquito that magically and always accurately targets our ears, even when they are hidden beneath the sheets. How does it happen? After all, a mosquito lacks the brain and the vision to form well-developed and distinguishable images of objects. How does it know that it is not your ankle but your ear where it can buzz? But before answering that, let's answer the question of why the mosquito whines the way it does. Contrary to intuition, the sound isn't produced from its vocal cords. Infact, it lacks such an organ. The whine or buzz is the sound of its flapping wings. The male mosquito has a faster wing beat at about 600Hz to produce a high-pitched sound while the female has a slower wing beat at 500Hz and has a relatively lower sound pitch. This difference in frequencies between the male and female plays a role in communication, primarily as the mating call. When you slap a mosquito near your ear, the dying mosquito's wing beats become slower. This is why you hear the higher pitched whine tune into a low-pitch drone until it stops.

If you are a biology student, you might know that it is the female mosquito that bites for blood. The males are quite innocent. Females require a blood-meal because it supplies the proteins necessary to develop the eggs in their ovaries. They choose from a variety of hosts, including mammals, reptiles and birds. While much is unknown about their favorite spots in these animals, we know that the ears and the head are their choice of hovering spots in humans. If you are sweaty, you are even more attractive to them. Female mosquitos are triggered by both physical and chemical cues to find the location of the host. They possess a number of receptors on their antenna to detect host odors. Now the process of host seeking behavior is divided into three phases. The first phase is a non-oriented dispersal behavior where the mosquito is blindly guided by physical cues such as illumination level, temperature, humidity and wind velocity, to get closer to the chemical cues/stimuli from a host. For instance, usually the Aedes mosquito migrates from its emergence spot during twilight when humidity increases and the temperature drops. It is the perfect timing for it to find a host to feed on. The second phase is called the oriented host location behavior when the host is closer and the female mosquito senses stronger stimuli emanating from the host to guide it. In the third phase, the mosquito is attracted to its desired location on the target after coming in contact with the host. The second and third phases answer the question of why the female mosquito is drawn specifically to our heads rather than our ankles.

The first cue to orient the insect is olfactory by nature. The release of carbon dioxide (CO₂) by the host is the defining factor for attraction. But even plants release carbon dioxide. So how does the female mosquito target the animal specifically? Unlike plants, animals exhale carbon dioxide in plumes, whose concentration steeply declines as the distance increases from their nose. Our whining pests can detect the slightest change in concentration and fly upwind in a zig-zag pattern into the constant stream of CO₂ to draw closer to the source. Further, a complex mix of other chemical components also play a role in the desired host selection. These are lactic acid, ketones and a couple of phenolic compounds found in human excretions like sweat along with CO₂. In the final phase of orientation, the mosquito is guided by visual cues. A mosquito's eyes are developed enough to capture form, movement, light intensity, contrast and color. They are attracted to colors having low reflective luminescence or intensity, which means black is the most preferred color and white is the least. Attraction to red, blue and yellow vary from species to species with yellow being least attractive to all of them.

No wonder our hair attracts them, even more so because of the oily secretions on our head. The same analogy can be applied to ear-wax, an excretory material containing alcohol and fatty acids. But when colors can't be distinguished at night, they distinguish between target and background by the contrast in their colors. At such close proximity, temperature and humidity (presence of water vapor) also play a key role in navigating to the desired location. Female mosquitos love a warm and humid haven. Simply put, our nostrils and ear canal seem to be perfect attraction spots that meet all conditions. So even with your head buried under the covers, you can't escape these critters because thanks to your breath, body odor and hair color, they still know how to find your ears!

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CULTURE FIRST: WHERE DO WE FIGURE IN THE UNIVERSE OF FOOD, BACTERIA AND FERMENTATION?

DEBORAH

“One of the most prized and difficult things to smuggle past the security was that small container of curd...” my aunt said with a chuckle. Then she grew serious, “No, really, it was my only connection to Amma back then. The taste of that slightly sour, and runny curd was the sole reminder of home. I was elated when made my first batch of curd using it as a starter. The lineage still continues, 15 years later! Often, so many Indian families living nearby come and ask me for some curd to use as a starter. That thick, tasteless thing they sell here in the name of Yogurt is no comparison! I think my variety should be called New Jersey dahi, now...”. I didn’t expect microbial cultures to figure so prominently in the various immigration narratives I heard, but they were everywhere. Numerous stories preserved and pickled through family recipes and food involving some form of a fermentation process. Fermentation revivalist Sandor Ellix Katz, fondly called Sandorkraut, has pointed out that eating bacteria is one of life’s most pleasurable experience. Almost all known forms of gourmet food such as cheese, coffee, chocolate, cured meat, bread, wine and beer are fermented. For instance, chocolate makers attribute the fermentation of raw cacao beans as the most crucial step in deciding the quality of chocolate. During the 2–9 days of fermentation, beans begin to take on color and some of the flavors one recognizes as “chocolate”. Without this step, the beans would remain bitter and inedible. Our microbial kin are responsible for turning many such bitter, inedible, bland or fibrous raw materials into food bursting with life, literally.

‘You exist, therefore I am’

Where does my body end, and the world begin? This is not a question confined to the realm of philosophy anymore. There are more bacteria in the gut of an average human than there are stars in our galaxy. Our first brush with our lifelong companions begins at birth, when we pass through the vaginal canal or the skin incision from our mothers’ bodies. Studies now show that there could be long-effects based on the difference in this primal contact, since different bacterial colonies populate these areas (Mueller et al, 2015). While our cells carry 20-25 thousand genes, our resident microbes might carry over 500 times more. They are said to outnumber our own cells nine to one. Many responses in our bodies ranging from immunity, sleep cycles and digestion to ‘higher-order’ phenomena such as mood disorders and personality traits have been linked to microbial interactions in the body or environment (Winter et al., 2018). This isn’t surprising given that the human gut is lined with more than 100 million nerve cells. Now commonly termed as the microbiome-gut-brain (MGB) axis, the vagus nerve is involved in communication between the brain and the gastro-intestinal (GI) tract. Could our thoughts be the results of a million bacterial ‘Chinese whispers’? So much for the notion of enlightened individuality and rationality. Ed Yong recognizes the anxiety and implications of this thought as he writes, “we put such a premium on free will that the prospect

of losing independence to unseen forces informs many of our deepest societal fears.” It is indeed easy to create narratives of autonomy and individuality when much of the modern economy relies on obscuring the interdependence of processes, ecosystems and life forms involved in creating every material we depend on. Yet, in ignoring these relationships, we live in an impoverished world, and inhabit an equally sick body.

A dangerous war

The food we eat is a perfect embodiment of the tensions playing out in the ecosystem, as large agri-business corporations continue to monopolise and exploit the land, water and forests for monetary profit. Food grown in large monocultures through force-feeding of fertilisers and pesticides, irradiated, sterilised, stripped of matter that could impede its “shelf life”; all in the name of production and distribution efficiency is as much an assault on the planet as it is on our bodies and mind. The collateral damage manifests in food devoid of nutrition, taste and character. We desperately need to subvert our food system. My first ‘aha’ moment occurred at community farm when I saw nutrient rich compost being made in ways that mimic the formation of forest soil. After months of decomposition aided by animal excreta (cow dung and urine), the crumbly, black soil was teeming with life and saturated with white threads of mycelium (fungal and bacterial populations), intricately weaving into the roots of the plants. One volunteer pulled out a sapling to show the vigorous roots of a sapling grown in that soil, and compared it to one grown in the soil brought from a nursery (consisting of mainly sterile, red soil). There was no comparison. Ecologist David Wolfe once argued that we are “subterranean-impaired”. We can’t see, let alone understand the complexity of the land underneath us. Plants are then reliable messengers, if we could learn to listen. Edible plants even more so, by the virtue of the taste offered. The micro-nutrients absorbed by the plants are made available in the soil through symbiotic associations with microbes. These lend more complex flavours to the fruit, interpreted by our senses as delicious. The food thus is a reification of the relationships existing in the soil. Doesn’t the same story then extend to us? In our increasingly sterile, temperature-controlled bubbles, we are the wimpy equivalent of the plant grown in poor soil. War metaphors of immune-systems defending our body from evil pathogens are a gross misrepresentation of the complex relationships that need monitoring rather aggression. Gardening as a metaphor could more appropriately describe the relationship we should aspire to. Weeds may need gentle clearing, but it is far more important to simply tend to the plants by enriching the soil.

Returning home

Fermentation is one of the processes that celebrates the ecological opportunities waiting in our environment. In order to be true to the term ‘culture’ we need to reaffirm the relationships that sustain us. Sandorkraut writes, “The word culture comes from Latin cultura which is derived from colere, “to cultivate”. Our cultivation of the land and its creatures – plants, animals, fungi and bacteria – is essential to culture. Reclaiming our food and our participation in cultivation is a means of cultural revival, taking action to break out of the confining and

infantilizing dependency of the role of consumer (user), and taking back our dignity and power by becoming producers and creators.” In a small, but meaningful way I feel gratified to sow seeds, harvest fruits, ferment peels, make pickles, and participate in numerous other ways to celebrate the circle of life. May such cultures flourish. May the tribe grow.

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DNA SIMPLIFIED!

DIVYA SHREE RAM

What is DNA? How exactly do DNA and genes work? How can this thing called DNA contain information about our hair or eye color? These are a few questions several students (including me!) who study about DNA and genes for the first time might have.

To start from the basics, DNA stands for Deoxyribonucleic Acid and is present inside every single cell. DNA is basically a blueprint or a biological formula for a living organism. Genes are what makes us look like our parents. Each parent contributes to half the genetic material that the offspring inherits and this determines the gender and physical traits such as hair color and eye color.

DNA is always present in the form of double helix. When uncoiled, 1 strand of DNA is approximately 2 m long. The DNA double helix unwinds and each strand acts as a template for the formation of a mRNA strand. RNA is a replica of DNA except much shorter and can exit the nucleus into the cytoplasm. Genes are present inside certain segments of DNA. Genes use a language known as the genetic code which consists of A, C, G & T. These 4 letters which make up the genetic language are short forms of different chemicals. The order or sequence of the As, Cs, Gs & Ts in RNA decides what protein will be used to form a tissue and finally an organ.

Ribosomes are another organelle present inside cells; every strand of RNA passes through ribosomes three letters at a time and tells the ribosome which protein to use. This chain of proteins keeps growing longer and longer, finally forming tissues, organs and eventually life. In genetic cloning, scientists take the DNA of two different organisms, each with different, preferred characteristics and merge both the DNA to get one organism with a set of desirable characteristics.

Here are a few fun facts:

The human body has 10 trillion cells!

If you take all the stands of DNA from just one person and attach them all together, the length would be thrice the diameter of the entire solar system!!

Humans and monkeys share 96% of the same genes!

And finally, a banana and a human being share 50% of the same genes!

DNA and genes are a very interesting and intriguing aspect of life and there is still a whole lot of research going on in that field. One of the major areas the scientists are working on is gene mapping which would help in identifying the purpose of each gene and possibly finding a cure for genetic diseases.

The study of DNA is very crucial for the future of mankind. Understanding DNA is understanding life.

CURRENT NEWS

SERIES 1 – Indian Space flight

OUR NEAREST NEIGHBOURING WORLDS

GITA BHARATH

As residents of planet Earth, we have just begun an exciting interaction with our neighbors in the solar system. Space is definitely our next if not the final frontier. Even in near space, we need many satellites to enable communications, meteorology, geological mapping etc.

In our own country, ISRO or Indian Space Research Organization was set up in 1962 for harnessing space technology for development and to pursue space research. This year, on November 7th, 2020, its launch vehicle PSLV lifted off from Sriharikota carrying an Earth Orbiting satellite and nine customers' commercial satellites from USA, Luxembourg and Lithuania. This, in spite of the corona virus restrictions! ISRO has already carried out 109 spacecraft missions, 78 launches and 328 foreign satellites. Many mission names end with "yaan", meaning 'chariot'. Truly the sky chariots of the gods!

There are also a lot of thrilling missions set up for the near future. Some of these are : Gaganyaan at the end of 2021, which plans to put humans in orbit, in a capsule with a living space and basic needed facilities. Before the four IAF pilots, who have been trained in Russia, can take off, ISRO plans to put humanoid robots in the prototype Gaganyaan and study their reactions. Almost sci-fi in concept!

2023 is the deadline for launching Sukrayaan to Venus. This is also an orbital satellite which already has scientific instruments and tie ups with Russia, Germany, France and Sweden. This Venus orbiter will relay details about the Venus atmosphere, which has not been studied in detail yet.

After the hugely successful Mars Mangalyaan mission, which is still operating, sending information and pictures, Mangalyaan 2 has been planned for 2024, with an orbiter, lander, and a rover to explore the Martian surface. India was the first country to reach and orbit Mars at the first attempt, and the first country in Asia to succeed, earlier Japanese and Chinese missions had failed.

Chandrayaan 1 was successful in placing a probe at the lunar South Pole, making India the fourth country to place its flag on the moon. Among its achievements was the detection of water in the soil. Though it lasted only for ten months, instead of two years, it fulfilled most of its objectives.

Chandrayaan 2 carried a lander and a rover to explore the moon. However, though it was placed in precise orbit, the lander had a software glitch and land.

The third Chandrayaan is ready to be launched in the first half of 2021. It will carry a lander and rover, but no orbiter. Aditya L1, India's first solar mission is set for Jan 2022. It will study the corona and the continuing mystery of how the sun's halo or corona is much hotter at a million degrees Kelvin than the sun itself, which is at 6000 degrees K!

There are also radio imaging satellites like RISAT 2020 which send continuous images to help in disaster management, agriculture, military alertness, etc.

A new space launch station may be set up in Tamilnadu at Kulasekarapattinam. This will help the rockets to avoid the swerving move they have to make, currently, to avoid flying over Sri Lanka.

We hope to hear more amazing news from ISRO in the coming months.

HOW TO MAKE AN INCUBATOR EASILY

PRINCE R. BRIGHT

I am Prince R. Bright now studying in Eleventh standard in the Government Model school HSS, Thycaud, Trivandrum. I am sharing with you all about my first creation of an incubator I built at the age of 14 years when I was studying in 8th standard. I built it because my father has a farm as a serious hobby. My mother, sister and I take care of the farm animals. When I was studying in 8th standard I thought of making an incubator. I asked my father and with my father's help made an incubator. He bought me all the things required. It was quite easy and cheap.

It can be built using anything. Eg: old fridge, cardboard box or any old unused shelf. The method is simple too.

Things required are:

1. Two Bulb holders
2. A wire,
3. A Thermostat,
4. A small plastic tray which has holes in it to keep the eggs,
5. An Adapter of 12v dc, a small tray of water.
6. A small fan.

Method

Take a cardboard box and fix the holders side by side and the fan in the middle. Keep the vessel of water under the bulb. The fan regulates the humidity. Fix the Thermostat in a position where we can always see it. Connect the Thermostat with proper insulation and care. The 37.5°C at which the thermostat is being fixed is the temperature for hatching any bird's eggs. It only varies in time period, the time period for hatching a hen's egg is 21 days but that of a duck is 28 days.

This is how I made an incubator ; I hope everyone got an idea of building an incubator.

So go ahead and make an incubator and experience the joy of watching life hatching out of eggs. I hatch chicks, ducklings, quails and flying ducks in this small hatchery of mine.



MAKING AN ENLIGHTENED CHOICE BETWEEN A TEXTBOOK AND A TAB

SUJATHA VARADARAJAN

Introduction

There is a loud hue and cry to save papers in an attempt to avert many of the environmental damages caused by excess felling of trees. On the other hand, there is also widespread concern about the disposal of e-waste if one opts for electronic gadgets. Have you come across this conflicting situation? Can there be a scientific way to make an informed choice? This article explores a possible rationale approach to such decision making. The article discusses the importance of Life Cycle Analysis (LCA) for understanding the environmental impact of a product.

.....

Anoop: Asha, do you know my school has asked all the students to buy a tab?

Asha : Seriously?

Anoop: My principal is saying that we need to cut down the usage of paper.

Asha: Why should we cut down the usage of paper? Isn't production and usage of large quantities of papers an indicator of our economic growth? Wouldn't it be wiser to use more paper or textbook in that case?

Anoop: Yes! But I guess the manufacturing of papers must be felling a lot of trees and the process involved in manufacturing must also be adding to environmental degradation.

Asha: But manufacturing of tablets must be using a lot of resources too. It must have its own contribution to the degradation of the environment.

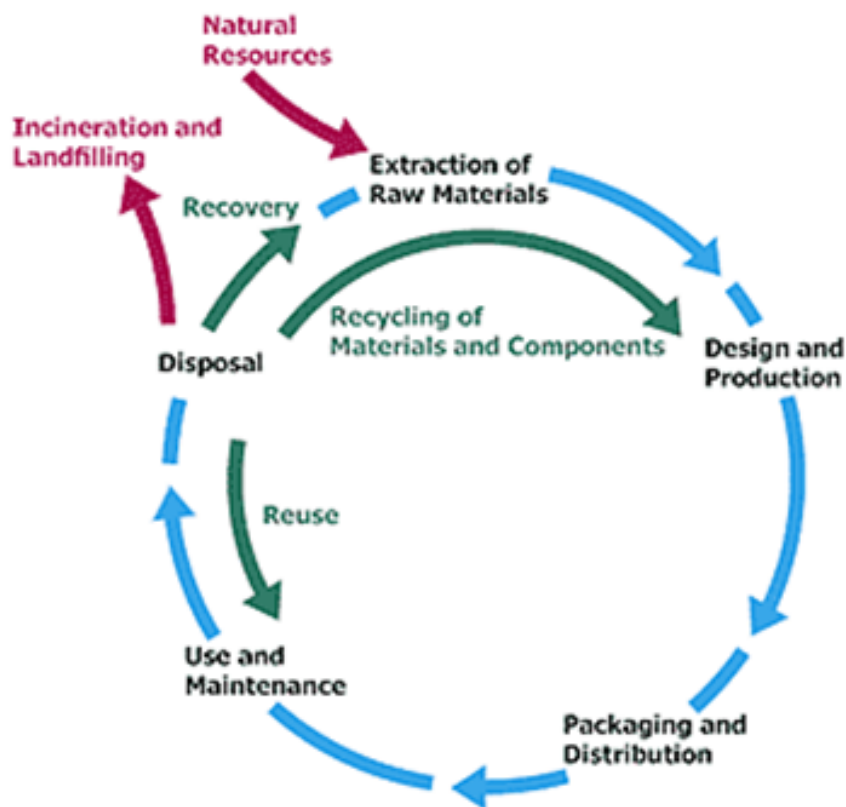


How to help Asha and Anoop decide what is better for them?

One of the ways to make a choice is by engaging in what is known as the Life Cycle Analysis. Life cycle analysis is known also as the cradle to grave analysis . It means we try to understand the raw materials and the processes used to make a product. Not stopping at that, the LCA also generates an understanding of the fate of the product. In other words, the way it is recycled or reused, and disposed beyond the prescribed life.

The purpose of the LCA is to understand the environmental impact of a product, as a result for developing strategies for better growth.

Life Cycle Analysis



Coming back to the problem Anoop and Asha had,

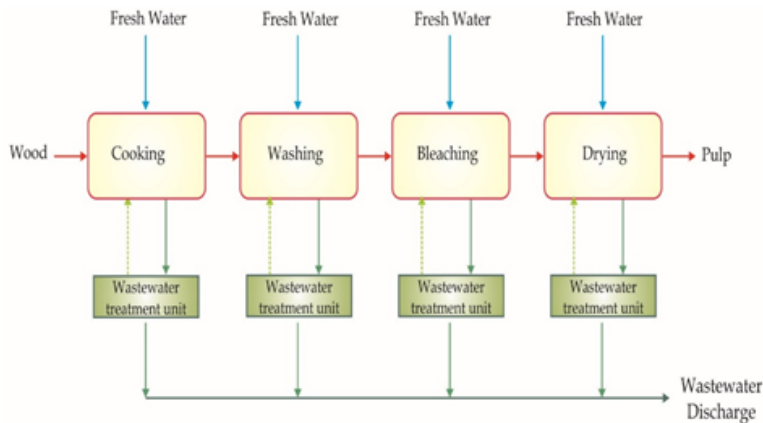
It is necessary to find out about the LCA of paper and that of a tab to compare which one works better for the environment. It may be interesting to visit a paper mill and an electronic manufacturing unit to make a choice between the two. We may also gather information through browsing the internet. But remember, we need to collect both qualitative and quantitative data. Data that describes the process and the impact are qualitative. Obtaining numerical values for various factors like energy, production, cost, etc., is quantitative.

LCA of Paper

Paper manufacturing involves chemical pulping. Chemical pulping utilizes a lot of chemicals, 90% of which are recycled. Bleaching of pulp improves the brightness of the pulp and uses chemicals like chlorine, hypochlorite, and chlorine dioxide. Pulping and bleaching are the major sources of water pollution. However, large manufacturing plants bring down water consumption for these processes by recycling to some extent.

On the other hand, we also need to take into consideration the foul smell emitted by the burning of the reduced sulphur emissions and the lime kiln in a paper mill and affects nearby residents.

Process diagram for manufacturing of pulp



Quantitative LCA of paper

S.No.	Description	Value	S.No.	Description	Value
1.	Raw Material: Hardwood Agro waste Recycled paper/fibres	31% 22% 47%	5.	Wastewater produced per ton	150-200m ³
2.	Employment: Handmade Paper Office paper Newsprint	10000 people 0.12 Million 0.34Million	6.	Solid waste produced per ton	1033 kg
3.	Production	75000 tonnes per annum	7.	Cost of 1 rim of paper (500 sheets)	Rs 198-250/-
4.	Energy per ton of paper produced	11134 KW			

Paper, after its intended purpose, could either be reused as paper bags or could be recycled for making second-grade paper or handmade paper.

LCA of Ipads/Tabs

Any e-product such as a tablet typically contains a Printed Circuit Board (PCB) display unit and a battery. The following are the raw materials

Ferrous materials = 50%	Nonferrous materials = 13%
Plastic = 21%	Other constituents = 16%
Cost of 1 tablet Rs 15000/- 20000/-	

Lead, mercury, arsenic, cadmium, selenium, chromium are toxic metals used in tabs. Gold, silver, and palladium are precious metals in tabs. There are also rare earth elements used to give bright colours to the screen while oxides of aluminium, silicon, and tin make the screen touch sensitive. You can guess that all of these contribute to the disposal issues. Faulty tablets that cannot be fixed typically go to smelters for the recovery of these precious metals.

Additionally, materials used in tablets are becoming increasingly complex due to the components that are a complex mixture of plastic and metals. There is no demonstrated ability to recover them effectively.

Further, usage of energy for charging a tab every day may be efficient, but there is indirect energy consumption in the networks and data centres for online usage of tabs and it is significantly higher.

Rapidly changing features and difficulty in repair is causing people to keep changing their tabs. Thus, some manufacturers are researching how fast the customers are changing their gadgets. If the frequency of buying a new one is more, then the manufacturers can reconsider the usage of precious metals. In this case, the lifespan would reduce and, the quantum of e-waste would increase considerably.

India generates close to 350,000 to 400,000 tonnes e-waste annually. Fifty thousand metric tonnes (50,000 MT) of e waste are imported illegally into the country.

80% of e- waste is transported to developing countries.



Can you discuss all the pros and cons of using paper and tab?

Understanding Life-Cycle Approach of goods can help us make choices. Everyone is connected somehow with cradle to grave life cycle of a product and has a role to play in its impacts on the economy, the environment, and the society. The impacts of all life cycle stages need to be considered seriously by all citizens, companies, and the government, when they make decisions on consumption, production, management strategies, and policies.

Any modern technology would have its own share towards environmental degradation but that does not mean we stop all science and technological advancement and revert to the life of early man. What we can do is to be prudent in choosing between what is essential and what is non-essential. An approach such as 'Satisfy the need and not the greed' would be a considerable contribution to resource conservation.

The advice to Anoop and Asha:

When you get attracted by the fancy value of any stuff, think twice about its utility and end of life. Take care to give the disposals to the right kind of recycler better if we educate them about the hazards of handling such materials.

A welcome response from Anoop and Asha would be :

Asha: I would like to collect e-waste from various household and send it to recycling units.

Anoop: I would like to interview people in the paper mills and present the report.

Asha: Let me find out how e-waste is recycled.

Anoop: I want to trace the working condition of those who are involved in recycling.

Here's

a list of units registered with MOEF/Central Pollution Control Board (CPCB) as recyclers/reprocesses having environmentally sound management facilities.

1.2DonateYourPC.in (or DYPC) is a service which acts as a bridge between people who want to donate their old PC/Peripherals for charity to NGOs/Schools.

2.<http://www.cseindia.org/content/how-dispose-e-waste>

HOW MUCH ARE WE CONCERNED ABOUT MONKEYS?

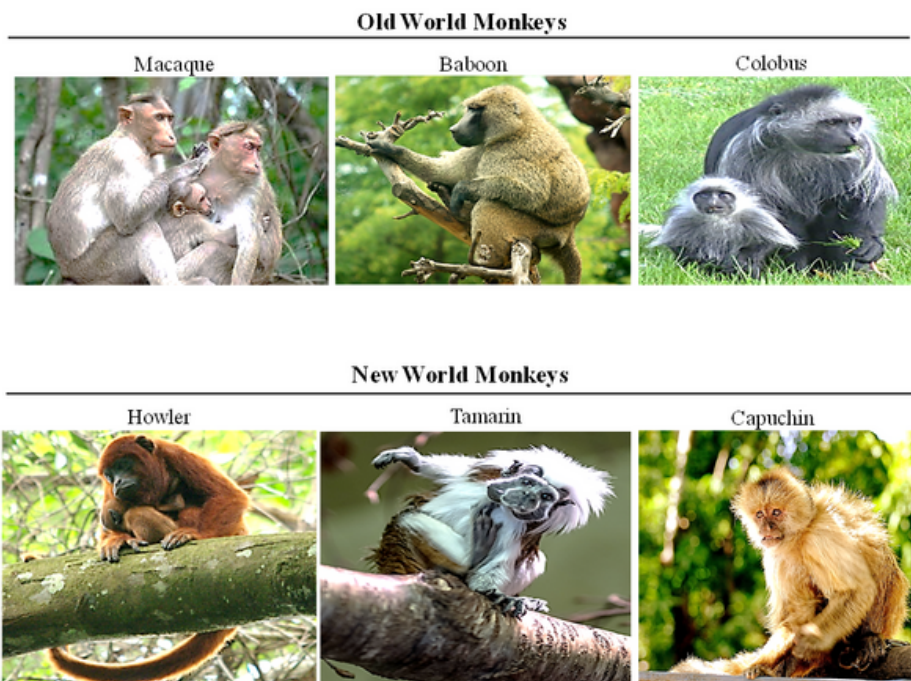
B.SUKESH and THIRUPURASUNDARI C. J

A battalion of monkeys: whenever and wherever we find these amazing creatures, they are always in group, isn't it? They're indeed intelligent, mischievous and sometimes mysterious animals! They play a vital ecological role in bringing tropical forests back to life. Being mankind's closest relatives, many of these primates are disappearing from the Earth, with some literally being eaten into extinction.

Types of monkeys, geographical location and population status

Monkeys are grouped into two viz.,
Old World monkeys and
New World monkeys

Old World monkeys are found in Africa and Asia like mangabeys, macaques, baboons, and colobus monkeys to name a few. New World monkeys like marmoset, woolly, howler, tamarin and capuchin are present in Mexico, Central and South America (Fig.1). There are approximately 634 monkey species worldwide and almost 50 percent are in danger of going extinct. India has 10 species and 30 subspecies of monkeys (1,2). In Asia, more than 70 percent of monkeys are classified on the IUCN (International Union for Conservation of Nature) Red List as Vulnerable, Endangered or Critically Endangered; meaning they could disappear from earth in the near future (4).



Habitat

Monkey species live in the tropical forests of Central and South America, Africa, Asia (4). They adapt at different levels depending on their habitat throughout the world. Most of them are arboreal (tree dwellers) while some are terrestrial (live on land).

Diet and Behaviour

The diet of monkeys is diverse and ranges from flowers, fruits, nuts, leaves and seeds to insects, birds' eggs, spiders and small mammals (2). They forage i.e., search food during the day and whenever they find a place to rest, they stop to chew and swallow their food (2,3). All monkeys use their hands and feet effectively to hold on to branches while some use their tails. They are known for their tree-swinging leaps which puts human acrobats to shame! Many species use the "arm over arm" technique to swing and move which, we might have observed in our children during their play times in parks and nearby trees (4). Like their hands, monkeys' feet are flexible too which help them travel through small branches in the canopies of rain forests. Some species, with their webbed toes can paddle and swim across a stream of water or river to escape from predators and/or to get food.

Groups of monkeys, called troops, travel together during daytime to find food. A troop can be between few individuals to hundred or more, depending on the species. They are social animals and communicate well to get along in their large groups. They use vocalizations, facial expressions, and body movements to convey their message and communicate with one another (4).

Monkeys exhibit affection and make peace with others by grooming each other. To keep family bonds intact, they engage in daily mutual grooming. Apart from keeping their fur clean of dirt, dead skin, and parasites, grooming helps them to build and maintain good social relationships. They use grooming as an important strategy to make peace after fighting or to make friends with other troop members!

Monkeys' role in Environment

Monkeys, like birds play an important role in the forests by pollinating flowers and dispersing seeds as they travel in search of food! They are crucial to the health of surrounding ecosystem they live-in (4). Through the seed dispersal activity and other interactions with their environments, they support a wide range of plant and animal species to sustain in the various tropical forests on this earth. Healthy forests not only provide vital resources to local human population, it can also absorb, store and contain carbon dioxide levels within them that otherwise causes climate change (4).

Impact of humans on monkeys' population

Tropical forests store 40% of the total carbon source on the earth's surface and removing trees from these areas itself accounts for 15% to 20% of the global greenhouse gases eventually leading to global warming and climate change (4). Long-living, thick and hardwood trees have large seeds greater than 12mm in size which can be dispersed through defecation only by large animals! These trees are also potentially good carbon storers. Such a useful living organisms have suffered huge losses from hunters who slash hardwood trees and in that place replacing softwood trees, which have smaller seeds and stores less carbon. Potential threats for monkeys are habitat destruction due to

- a. burning and clearing of tropical forests,
- b. logging,
- c. increased human encroachments,
- d. industrial scale farms,
- e. mining for oil and gas.

Agricultural practices like production of soy, rubber, palm tree for oil, livestock farming and ranching also have removed millions of hectares of forest which accounts for 76% of total monkey species on this planet(4)! Monkeys often are considered as pests and killed by farmers. Some are killed for fur, meat and medicinal concoctions. These animals are trapped and sold as pets.

Impact of human food provision to monkeys

Most of the monkey species in wild disperse seeds either by defecation or spitting (3). In the case of undamaged seeds handled and thrown by monkeys, it enhances germination which is good for many plant species. In many Asian countries, humans providing/provisioning food is a socio-religious practice. The impact of eating such varied food substances on these animals are manifold and potentially may lead to change in body size, fertility rate at the individual/troop level and/or behaviour at the population level. As they are used to eat food made for humans, in the long run, their required nutrition from different plant species which are present only in wild forests might not be met! During peak tourism period in various places, when humans provide food to these animals, regardless of natural fruit availability, their fruit intake is reduced by 42% and therefore, seed dispersal events also decreased by 50% (3). Moreover, the mean travel distance of monkeys in tourist places is very much reduced when compared to monkeys in wild forests. This reveals that seeds were dispersed to shorter distances by these animals fed in tourist places when compared to their wild counterpart in forests.

In theory, the greater the distance between the parent tree and the seed dropping site, the greater will be the chance of seed survival!! Is it really justifiable from human perspective to feed them? All animals, in specific, monkeys and mammals know how to travel and search food for themselves. Instead, they need their land which humans have occupied and are longing for it. It is better if humans focus on protecting trees and forests, which by itself protect all animals including monkeys and us!

Create awareness in conservation

Monkeys, being our closest living biological relatives are very important to humanity. Some of the following measures could be considered to protect monkey habitat.

1. Efforts of community outreach in local villages who live close to these species are paramount in protecting monkeys and monkey habitat! Encourage not to buy things made from monkey body parts. Be aware when buying things made from rain forest trees, unless that wood is certified. Products having labels describing how it helps protecting the rain forest must be encouraged and well-advertised. For example, Brazil nuts, helps to protect monkey habitats because they can only be harvested from healthy rain forests (4). Read the labels! Such measures also can be introduced in Asian countries.
2. Create awareness for recycled products. It helps to save all animal habitats by reducing the amount of resources used from the Earth.
3. Conserve forest fragments/patches and reforest them.
4. Create corridors within the forest fragments and connect into existing forests. Such measures offer various benefits of maintaining healthy ecosystems and water supplies and can reduce greenhouse gas emissions.
5. More monkey model system is required for behavioral and medical research. Fewer monkeys are used worldwide to understand various diseases for the benefit of humans. Many species have been poorly studied and focus should be to understand their social, dietary, and behavioral habits.

This could be the last and eleventh hour opportunity to reduce or even eliminate the human threats to primates and their habitats and to raise worldwide awareness. Unless we act, human-induced environmental threats in primate range regions will result in a continued and accelerated reduction in primate biodiversity.

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POST HARVEST TECHNOLOGY- CONCEPTS, CHALLENGES AND SOLUTIONS

THIRUPURASUNDARI C. J and B. SUKESH

The farmer is the only man in our economy who buys everything at retail, sells everything at wholesale, and pays the freight both ways- John F Kennedy

This article reiterates the key phases of post harvest value chain. All of us indeed, will agree that necessities of life, mainly foodstuffs are products of agriculture. World-wide, growth rate of agricultural produce and their demands are directly proportional. Our goal should be to potentially cope with production and demand.

However, developing countries like India are more dependent on agricultural produce and food security in many areas will not improve without substantial increases in local production. It is conventionally believed, that developing countries have had net surplus in agricultural trade. Though production is sufficient, problem exists in food security. Final phase of production obviously determines the success of a farmer. Irony is that, there is always a 50 % loss incurred by the immediate subsequent phase called the “Post Harvest Loss” (PHL). It is the farmer who dictates the limit of post harvest loss; inadvertently it imposes a greater threat to many.

1. Pre and post harvest practices

The distinctive attribute of a post harvest product depends on its pre-harvest practice. Pre- and post-harvest technologies vary in their social and economic structure, till it reaches the final customer. Pictorial representation below (Fig 1) best describes the aspects of pre-harvest practices towards post harvest quality.

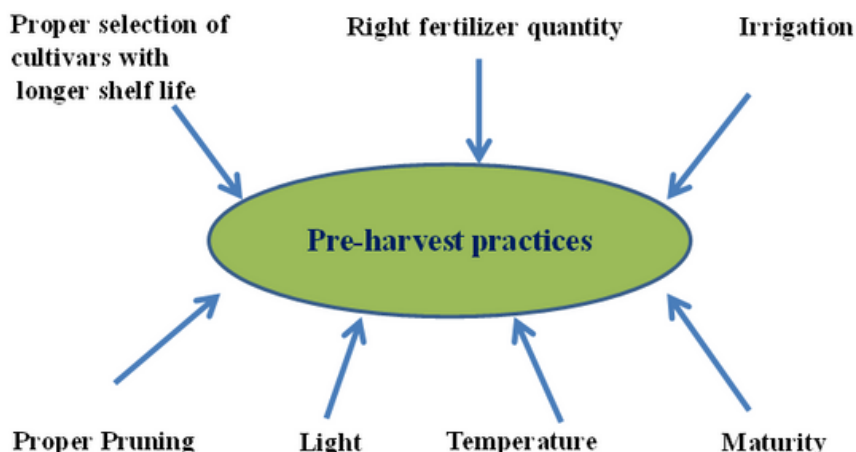


Fig:1 Pre-harvest practices

After harvesting the crop, a farmer might sell it, keep it for personal consumption or keep for selling in the future or may process and sell the product based on kind of crop. Once harvested, produce are subject to active process of senescence. Do you think, India being widely populated, can every individual procure farm fresh products? Is it possible? Have you ever thought what various intricate steps are involved in these products before reaching your dining table from the field? There is a value added chain involved before consumption which is termed as Post Harvest handling or Post Harvest Technology (PHT).



Source : socialprotection.org

PHT, by itself is a "science and technique" which focuses on horticultural produce after harvest for its protection, conservation, processing, packaging, distribution, marketing and utilization to meet food and nutritional needs of the people.

Post harvest handling comprises 🧐

- harvesting,
- processing , which includes:
 - precooling,
 - cleaning or disinfecting (insect control)
 - sorting and grading
- packing house operations,
- packaging,
- storage
- temperature and relative humidity control
- transporting
- marketing

These operations vary depending on the crop (1).

Prime importance is to maintain quality and extend shelf life, after harvest.

2. Post harvest shelf life

Post harvest shelf life refers to the time till which consumption is acceptable. Overall appearance, taste, flavor, and texture of the commodity are major determinants of shelf life. These methods include a combination of sensory, biochemical, mechanical, and colorimetric measurements.

For example:

Fruits and vegetables- a. sensory appeal
b. consumption
c. market value (1, 2, 3, 4).

Ornamental plants- a. sensory pleasure
b. serenity
(colour, shape and aroma decides it's identity).

Garden plants- a. cut flowers
b. foliage
c. stage of flowering plants

Commercial opportunities arise from their role in social, religious and economic ceremonies and occasions (5, 6).

3. Post harvest physiology

Post harvest physiology is directly related to storage and transport conditions that prolong shelf life (6, 7).

4. Post harvest diseases

Post Harvest diseases may develop on harvested products like seeds, fruits and also on vegetables during storage or way to market or even before their final consumption, causing rotting or decaying – partially or totally. Toxic substances may accumulate. All these can be differentiated from over maturity, wilting, mechanical injuries, growth abnormalities, injuries caused by harmful environments such as chilling, hypoxia, ethylene insensitivity, sun exposure.

5. Post harvest technology – Importance and Role

Why PHT is important: 🤔

Abundant supply of high quality food (coupled with taste) is demanded by consumers (even during off seasons). Another key factor is to eliminate the losses (7).

Exhibit below (Fig 2) highlights other vital roles of PHT

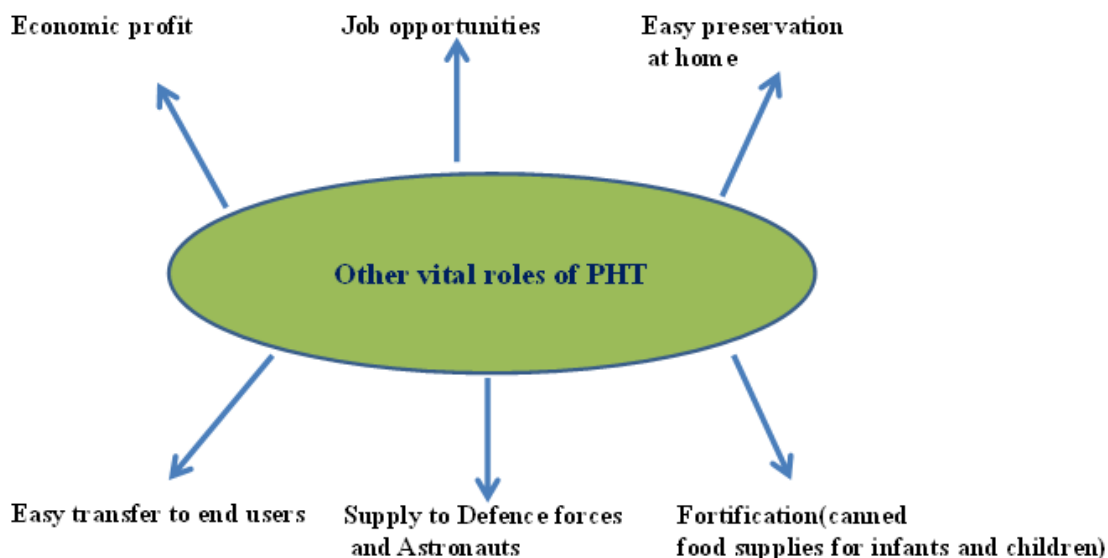


Fig: 2 Vital roles of PHT

6. Post Harvest Management (PHM)

Post-harvest management is always a challenge as it has to make more nutritive food items from raw commodities and meet food requirements of a growing population by eliminating losses and by proper processing. Purposeful storage of certain produce to yield better return adds to this time lag between farm and consumer, by extending the marketing periods into times of shorter supply. Thus currently, marketing puts increasing ultimatum on produce and creates the demand for the post harvest techniques that enhances quality retention over progressively longer period.

What are the fundamental inefficiencies in post harvest management that contributes to post harvest loss?

India produces 11% of the world's vegetables and 15% of all fruits, but its share in global exports is miniscule - 1.7% in vegetables and 0.5% in fruits. Only 2.2% of the total horticultural produce is being processed and 20-30% is lost annually due to inefficient post harvest handling (8 and 9).

Various parameters leading to post-harvest losses include:

1. Delay in the use of harvested produce (could affect palatability, appeal and nutritive value.
2. Fruits and vegetables contain 65 to 95 % water. Produce decays when food and water reserves are exhausted (9).
3. With increasing remoteness of production areas from population centers, the time interval from farm to market is considerable (inadequate market access) (10).
4. Improper market knowledge.



Source- fao.org

Guidelines to avoid post harvest losses

- Assess maturity
 - Check water quality
 - Create enabled environment
1. Check water temperature
 2. Avoid injury
 3. Keep your produce cool
 4. Proper Storage

7. Post harvest loss-Management

The magnitude of losses, if reduced generates significant value and address food insecurity. This loss not only robs labour and resources of the farmer and the nation but also abates a big profit of the farmer(10).

Core trends include:

- a. Government sector - Deployment of schemes and reforms to enhance storage and processing infrastructure.
- b. Private sector - Participation in food processing, retail and exports
- c. Good harvesting practices and primary processing activities like threshing, sorting and grading immediate to post harvest avoid crop damage, thereby improve produce shelf-life.
- d. New techniques in harvest and post-harvest farm can save time, effort, cost and favour better income to farmers.
- e. Problems like post-harvest crop losses due to decay, pests and diseases can be deployed with finer storage infrastructure and crop protection implementations.
- f. Certain processing near the farm gate can improve the value of agricultural produce.
- g. Government and the private sector proactively supporting direct market linkages is a win-win for all promoting groups and crop producers.
- i. Middlemen bridge gap between farmers and markets, earning margins at every stage of distribution chain, sparing little for farmers on one hand and exacerbating end consumers on the other (10). So government should help farm and end user linkage by participating in activities, negotiation, pre-selection and distribution of products at right time.
- j. Farmers should meet often and be aware of better market linkages, more effective training and scrupulously introduce efficient new technologies.

8. Role of post harvest technologists

- a. To provide quality, nutritious food.
- b. To develop new product & efficient technologies. (10)

Head way

Stimulated progress in post harvest practices, management, loss and its management will effectively improve livelihood, remarkable policies are needed in each phase. Any researcher must be aware that concepts and solutions are crop-specific, he/she needs to explore few further areas. Currently, swings in policy, participation and collaborations across these phases are unfolding.

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**SHORT
STORIES
&
ARTICLES**

MIND YOUR PLATE!

V. ANAND KUMAR

Food clothing and shelter – these are the three essentials of life for all human beings not only to survive but also to grow and live healthy. Among these three things food plays a predominant role in any living being as it is vital for survival and growth. While animals do not have much knowledge to realize the importance of food in their life, man has to pay much attention to what he eats for various reasons, because what he eats provides him with sufficient energy to maintain good and healthy life, without any diseases and discomforts. What to eat and how to eat? These are the main topics of discussion and that is why we have many dieticians and nutritionists with us.

Before that let us see what happens inside our body after we ate our day's food. Our food goes into many processes before it gets digested.

When food enters our mouth, our teeth start grinding it into small pieces and these pieces get mixed with our saliva and move into our food pipe. Muscles in our food pipe contract and relax in a wavelike manner called peristalsis, pushing the food down through the small canal into the stomach. The purpose of the stomach is to store food, while it secretes digestive juices which stir the food into creamy mass. This creamy mass of food goes into the small intestine. Small intestine is a twenty-two feet long tube inside our lower abdomen where most of the digestive process takes place. Here enzymes are produced which break down the food to absorb the nutrients into the body through small projections called villi. Other unwanted and unused food that is not digested here is taken into the large intestine as waste. Large intestine is about six feet long and this is an organ where most of the unassimilated wastes are collected and removed through the anus after absorbing a small amount of nutrients if any. This is how our food gets digested in our body.

This process goes naturally and continuously. But generally, we pay attention to our foods only when we become sick or when we realize that we are overweight, or under-nourished or our BMI has crossed the normal limit leading to obesity. Food needs our attention. Whenever we go to a doctor, the first thing he asks us is, "what did you eat?" Most of our scientists believe that food is a highly effective medicine. Let us see what to eat and how to eat and the effects of our food in our body.

God has designed our body so nicely that, though our taste buds are vulnerable to whatever we like and eat; our stomach is so clever that it will not digest what it feels harmful to our body. It doesn't allow such harmful and toxic materials in our body and that is why we become sick when we eat what is not good for our health. This is an indication for us that we have taken wrong food. Unhygienic and toxic foods are considered as wrong foods and when we take these foods, they affect our metabolic process resulting in indigestion, vomiting and diarrhoea.

These are detrimental to our health and we cannot compromise our health for these foods. Avoid eating such foods in order to live a healthy life. Especially our children are to be taught about these kinds of foods and we also should not encourage them to eat such foods. In this modern world junk foods and packaged foods have found a place in our plates and we become addicts to them and eat them endlessly and fall a victim to them easily as they are very much tempting. Instead we should substitute these foods by fresh vegetables and fruits which are available naturally in abundance.

What to eat?

To maintain good health we need carbohydrates, vitamin, protein, fibre, fats and other minerals in a balanced way. Food pyramid suggests that we should eat less fat, oil, sweets and salt, moderately meat and other alternatives and more vegetables, fruits, grains and cereals. As we grow old our digestive system slows down and our ability to taste food also declines because we lose most of our taste buds. Taking too much meat and animal products should be avoided in this stage. These foods take a long time to digest. As a result, we become lethargic and this way we accumulate more fat in our body and end up with many lifestyle disorders. Instead, we should take enough beans, nuts, seeds and fruits in order to maintain enough protein in our body. We require twelve glasses of water per day which should be taken at regular intervals. Milk and curd are good sources of energy for all ages. They are full of nutritious value consisting of protein, calcium, potassium, vitamin A, D and B12. Milk contains riboflavin and niacin which are otherwise known as Vitamin B2 and Vitamin B3. These vitamins are good for general health as they maintain our oxygen level in our body and maintain Cholesterol levels, besides lower cardiovascular risks.

Women who are above the age of fifty should take calcium-rich foods as reduction of oestrogen results in a drop in calcium level in their bodies.

How to eat?

Doctors and nutritionists advise us to take five small meals in a day. Our morning breakfast should be rich, and lunch should be adequate, and dinner should be in a limited quantity. It is always better to give three hours of gap between taking food and going to sleep at night.



CRICKET AND ME

ANANTHAKRISHNAN C. N

Preface

Cricket is a bat and ball game played between two teams of eleven players on a field at the centre of which is a 20-metre (22-yard) pitch with a wicket at each end, each comprising two bails balanced on three stumps. The batting side scores runs by striking the ball bowled at the wicket with the bat, while the bowling and fielding side tries to prevent this and dismiss each player (so they are "out").

Cricket for me is much more than a game. It's my life!

It all started in 2007 when I saw my first match on Television; Indian team was playing their T20 world cup finals against Pakistan. The sound of crackers after we had won that world cup! Happiness on our people's faces that frenzy feeling! The expression of our players completely changed my thoughts about the game. Patriotism is usually confined to the soldiers. Next, it is much evident in cricket. The spirit of the game is truly awesome. By default, I could sense this patriotism emulating, while watching the happiness on our players' face and our people. It all started in my 4th grade. My journey with my love took off like a jet. Since then this journey has been a one way trip without any regrets. The person I'm, is all of cricket. This wonderful game has completely transformed me. Each and every game has been a lesson, every moment has been cherished to a great extent. This game has taught me to cry for people whom I have not even met even once in my lifetime and their victories were celebrated like mine. Bouncing back from failures was never easy. Each and every cricketer has a role model because of whom they have come back stronger and all of these cricketing legends, role models have gone through all the tough periods in their journey and this is why they have inspired many people. I'm also extremely proud to say that I was inspired and not influenced by them and they will be my source of inspiration along with my lovely family.

Conclusion

There are some moments that cannot be explained through words or writing it down- perfectly ineffable. This I call, unconditional love. So I would conclude this never ending journey with ...(dots dots dots) which means there is no conclusion for my love towards cricket!

(The writer was in 11th grade while penning this write-up.)



PLAY WAY METHOD TO TEACH A LESSON “THE PLANTS”

J.P BHARATHI

A teacher has to have an innovative style in her teaching every time. What she tried today may become monotonous and boring for kids in the next class activity. An innovative teacher creates new enthusiasm in her students and can keep them attentive in her class. Also an innovative teacher can inspire, involve, innovate and impart with ease, within the four walls of a classroom.

So teachers can try using various play way methods and make the class interesting and also ensure to cover the topic which she has to teach. Let us discuss one such method now.

First let us say, the teacher has to teach the lesson on the topic “The Plants”.

As the teacher enters the class she can ask the students shall I take a lesson on “The Plants” or shall we have a drawing class. In the normal way students will be happy to say that they want a drawing class. Now giving the full freedom for the students to do their chosen activity, a teacher can ask them to draw on the topic- “The Plants”

Students will get involved in the drawing and coloring activity. Now the teachers job is only to monitor and guide the slow learners, as the rest of them are engrossed in their activity. As the students are drawing, a teacher can ask them what the tree needs to live. Slowly, students understand they need to draw a pond or well beside the plant. As she keeps moving, she can ask why the leaves are green in color, and slowly explain how it makes its food or photosynthesis. Here she can ask them to color a few leaves in brown and tell them how a leaf withers and falls down and how a fresh leaf starts growing.

As the students are getting curious about the drawing session, she can ask all the students to hold their breath for a while. Obviously, children express difficulty and their inability to do it for even a few seconds. At this stage, if she talks about oxygen and carbon dioxide, a child can understand in a very practical way. She can appreciate the plants as our best friends and tell the students that plants take away all the bad air, i.e., carbon dioxide and give us oxygen. Obviously, they will come out with stories, why there is no air in the surroundings and what should be done to increase oxygen and reduce carbon dioxide.

As the students get more involved she can tell them about the trunk and the branches. She can relate and tell how the tree stands grounded and remains stable with the help of branches on all the sides. She can also ask, what is the purpose of the fruits and flowers on a tree?

At this stage, the teacher can take a small break and tell them that plants are our best friends, they give us food, air to live on this earth.

As the plant is growing, a teacher can tell the students what are roots and why they grow in different directions under the soil. A teacher can demonstrate or show a video clip as to how the soil in the desert flows with the wind and ask them why it does not happen in the places where there are plants. Here students will first understand the difference between the soil where there are plants and no plants.

As the drawing is coming to a final shape a teacher can ask the student why a plant should grow in an open area and not in closed rooms. So, students start understanding that plants need sunlight to grow. The drawing will now include clouds, sun and also a few birds. Here the teacher can ask the students where the birds live, they will obviously understand the trees are the homes for many birds and insects.

As the drawing is coming to a close, she can find from all the students if they have included all the parts of the plants and also birds, insects, water, clouds, sky and the sun in their drawing.

A teacher can monitor the class, develop the topic along with the drawing activity and make every student understand the lesson on the plants.

She can also involve students and ask what if there are no plants in the neighbourhood. A teacher should dramatize and appreciate the students point of view and act as if she is learning from their stories. This way, students become responsible and take pride in saying that they discovered something new in the classroom activity. Now she can come out with small stories and also allow students to tell their own stories as to what happens if we do not plant trees in our yards at home.

At the final stage of the lesson, the teacher can help the students to learn the correct spellings. She can as well ask the students to carefully open the reader and note down the correct spellings. This gives them the pride of learning a full topic without any difficulty.

Now, she can ask students to go and explain the same to their parents as a home activity and bring more stories in the next class. As the topic gets more interesting they tend to learn the lesson on the plants from various sources and have an overall practical knowledge on the topic.

She can come to a few agreement points in the class and slowly tell them that they need to name the parts of the plant. This activity can be supported by an appreciation with grade points or a star. A teacher can easily complete her correction duty as the students always are eager to get the credit points for their class activity.

Every time, the lesson has to be revised, the teacher can ask them to open their drawing activity and start talking about the plants.

This method of involving a student has many advantages, like,

Involving the student completely in the class activity.

Making them think while doing the activity.

Understanding the concept clearly.

Giving the freedom of doing their passionate drawing and coloring activity.

Coming out with stories which give every student a chance for expression.

As the activity is very much clear, the students will obviously discuss the same at home and the home activity is complete.

As the student takes the help of the reader to write the spellings, they feel happy to learn a lesson without much efforts. They get their grades and a star as a reward by the end of the class.

The class teaching activity starts as a drawing session and ends with the completion of a lesson in class "The Plants". This way of teaching helps every student to become a performer in the class.



THE CHIMERA

CHAPTER 1 – SARAH AND CHAD

CHITRA RAMANAN

It was her fortieth birthday. She woke up just before the alarm and turned it off. She looked at her sleeping husband. He looked so peaceful and serene. It was always the same feeling – a blend of pride, love and contentment, that's what he made her feel. She planted a kiss and he smiled back in his sleep and wished her "Happy Birthday" without opening his eyes. "Rise and shine!" she told herself and opened the windows to let the morning light in. Her eyes adjusted to the brightness and involuntarily, she smiled at the beautiful sky muttering a silent prayer.

The coffee aroma filled her senses with sheer delight. She liked to sit in her favourite corner chair looking at the flowers and sipped her morning coffee. Sarah stuck to routine.

She played music and started her work in the kitchen. She looked up to see Chad rushing across and he exclaimed, hey baby! and hugged her. She playfully tickled him and shunned away saying "Am getting late to work." She replied with mischief, "Precisely, that's why!"

"You just be ready, I will come and pick you up for lunch and the whole day we will spend together, ok? And please do dress up for heaven's sake! I want you all bright and bubbly, the real you!"

"What do you mean by the real you?" She questioned him back, though she knew what he meant. He looked at her earnestly and said, "I don't like the upgraded android version and you know what I mean, Don't you?"

He sipped his tea, had breakfast and got ready to leave for work. She bid him goodbye and heard his car leave the parking lot.

She locked the door and went inside. The silence in the house engulfed her. Sarah was used to the silence. Silence in a hospital is eerie but silence in a place of worship is serene, likewise, Sarah had learned to differentiate the difference types of silences in her house. Silence is not always the same in a home – sometimes it can be a prelude to a thunderous storm, or it can mirror the inner peace, it can even represent vacuum that gets suspended when we run out of sentences and words and rarely it can even represent simply lack of noise. Her home quietly embraced her and she felt at peace.

The phone started buzzing and it was brimming with wishes from her loved ones. The next one hour just vanished in talking to all of them. She smiled to herself and tried to be cheerful.

She went around dusting and cleaning the house. She picked up the photo frame one by one and looked at each one of them. Her family pictures – Mom, Dad, Brother, Sister, in laws and the children. The children – she looked at them one by one.

Even after all these years, the longing never died. She picked up the paper in front of her and thought of all the pain she had endured for a child. She touched her womb and seemed lost in thought. A single word popped up in her mind and she wrote – Vestigial. Her uterus, she thought was a vestigial organ inside her. It had not served the primary purpose of procreation. Maybe it was meant to be rudimentary inside her body. She felt the familiar torment, building up inside her. She looked at what she had written for a long time and thought both science and nature were in the same page and jointly decided about her motherhood. A vicious joint decision she thought.

She picked up a book and went to the garden. The morning retreat with her book always clears her head. After an hour she showered and sat down to pray. She closed her eyes and started her conversation with her creator. She wished she got the answers today, to her burning questions.

TODAY'S WORLD

JELLIE N.WYCKELSMA

Having destroyed many rain forests, we have created new forests of skyscrapers in cities, where people are boxed in tiny flats and units, far away from the smell and the softness of the earth. Where rooftops are doused with foul air and where fresh air is supplied to us from air conditioners. Far below, down street level, traffic snarl and tempers rise.

We have created humans who are indoctrinated by the mass media, which in turn is manipulated by the world-wide commercial corporations. We have become robotic humans who blindly follow their often corrupt leaders. We are mere puppets on their strings.

Our eyes are constantly glued to screens, observing and digesting almost more than our brains can handle. We Skype and Zoom to communicate with colleagues, family and friends, never touching, nor hugging or kissing ... We have become addicted to a vast, unending cyber world network. Our natural environment is transformed into a new, cryptic reality.

When we escape our living quarters, our feet tramp along on concrete sidewalks, and our ears are deafened by the roar of never stopping machinery, constructing more high rise buildings to imprison more citizens. Our distant view is marred by smog.

In the hidden corner of our memory we stroll bare-feet along the beaches, see the ocean endless waves roll onto the shores, hear how they crash against the rocks, watch the seagulls trip on the wet sand, leaving a trail off tiny footprints. While high above near the clouds, sea eagles soar, oblivious of any one else, out of harms way. We smell the fresh, saline air, feel the sun on our bare skin giving us energy. While on other days we venture into a forest, admiring ancient oaks with bent branches that stood the test of time. After leaving the forest, meadows await us, all with colourful displays of wildflowers on green carpets, shining stars in their own world. Blue corn flowers and radiant red poppies greet us in fields wherever farmers grow wheat. How amazingly rich nature portrays life.

Yes, we can recall and visualize life as we used to know it; dreaming and hoping to enjoy this life again ...

MUSIC ~RHYTHM OF HEALING...

MADHUMATHI.H

There is always an incredible magic about music; the very word has a gentle rhythm that instantly energizes our mind. Beyond words and language, music travels through all the compartments of the wind, crosses horizons and territories, touching and ruling hearts. When the soul needs a lullaby, our anger - a vent, quivering aches a soothing balm, there is no elixir better than music. Music handholds all the rasas within us, to find expression. Music is an invisible healing, a tender cuddle that wipes away our loneliness. In just seven notes, infinite fountains of joy bursts! Isn't that incredible?

Research has proven, Music therapy is beneficial to improve physical and mental health. It improves mood, decreases pain and anxiety, helps cope with depression; enhances functioning after degenerative neurologic disorders. In Palliative care, the proven benefits are plenty.

Like the wind, percussion and stringed instruments, some voices are winged with multiple tones that either fill a chaotic mind with serenity, or feed a tired soul, with refreshing rhythm of the universe...Voices are like the generous rain that rejuvenates the parched Earth, like a whiff of Lavender, sandal or oranges to fatigue nerves. Music is a great escape, that discovers a better version of the self. A spontaneous invasive procedure that touches our soul, and heals.

Where is Music? What color is it? Well, where life is, there music is; music is a rainbow of infinite colors and shades. Kaleidoscope of joy. Music is felt even in the mellifluous melody of silence. Music is in the golden gates of the sky that open at dawn, in the greeting of the birds, in the gentle breeze that whispers hope into the buds, in the tall mountains, in the intoxicating moon, soul-drenching rain, in the rivers anklets, in the warmth of friendship, in a child's timid cry, in the tears of a lover, in the angst of a soldier, in words of compassion, in the hands that toil, in the shoulders we lean on...

There is music everywhere even beyond the notes, instruments and, beyond all the sounds in the universe; there is abundant music even for the hearing impaired, to listen with their hearts; there are songs to be sung by the speech impaired, through their kind eyes. The colors and fragrance of music can be seen and felt even by the visually challenged, through a receptive soul. When a melody can be a blossoming of a memory, it instantly enhances mood, then life itself is a song to cherish, a journey of music to be relished all the way; we unconsciously compose our own tunes, add our lyrics and, sing to our heart's content, the rhythm changing with each experience; with little efforts each day, we all can prevent dissonances, and create an opera of universal love. Music! Music is nectar to the soul. . .why wait? Let us be flowers and brim with sweetness; let us be the nurturing songs.



CHALLENGES OF PARENTING AND SOLUTIONS TO BUILD A RESILIENT CHILD IN PANDEMIC

MAHALAKSHMI SARATHI

The outbreak of COVID-19 remains challenging among people across the globe. Not only the adults but also young ones, especially, children grappled for social, mental and emotional health. Apart from illness, psychological disturbances at this growing period might continue to impact them throughout their life-time.

It affects socialization owing to negative impact on mental health. Lack of socialization would prevent children from learning their role in society and they even find it difficult to face normal situations. Social isolation for longer duration also affects their immune system as it triggers fight-flight stress signalling pathways and leads to depression among children. Generally, emotions play a vital role in governing productivity, creativity and even behaviour of children in everyday life. For instance, learning through virtual mode, forced to play only indoor games, missing celebrations, festivals and vacations, etc. might enhance grief and depression owing to violence and juvenile crime.

In this pandemic it is highly obvious that it is a tough situation for parents to engage their children productively. They need to play different roles like a caretaker, a teacher, a friend, a playmate, a classmate, etc. for the child. Though the uncertain situation is inevitable, it is the keen responsibility of being a parent to help their wards. And also it is the right time to teach their kids how to manage unexpected consequences. One of the possible ways to build a healthy and psychological resilient child is emotional literacy. It is nothing but recognizing emotions of not only theirs but also others. Several researchers reported that emotional literacy is linked with smarter, flexible and happier children. They suggested following ways for parents to overwhelm the emotional upheaval of their kids.

First and foremost, parents should be conscious of the change in kids' behaviour like aggression, depression, violence, etc. They should listen to the child's words which makes them easier to address kids' emotions. Sharing experiences with kids will make them think and realise the reality so that it will pull them out of trouble. Patience among parents is of remarkable importance to handle kids under depressed circumstances. Time and space must be provided to express their perspectives and feelings. Children should be encouraged to attain confidence, self-awareness and to improvise their creativity to deal with the troublesome circumstances. And also strong bonding with kids would provide them better opportunity to showcase their problems and regulate their emotions.

Beyond the smartness and confidence among children, if they fail to articulate their feelings they become inexperienced individuals who will need to face anxiety in their journey of life. A child becomes mentally strong only when they possess a positive attitude towards success and failure in day to day life. This perspective aids them not only to develop varied skills such as cognitive, social, creative, etc. but also to manage emotions. Unconditional love and lending a helping hand to children would strengthen their mental health and reinforce their lives now and to future. Even the anxiety and fear seemed to be a learning experience for them. And they start to approach the world around them with novel thoughts.

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BUILDING THE FUTURE

T.S. MANOHAR

“Where the vision is one year, cultivate flowers.
Where the vision is ten years, cultivate trees.
Where the vision is eternity, cultivate people.

Oriental saying.

The story goes thus. A village once initiated a milk collection for the poor children. It was agreed that before day break, every family in the village would contribute a glass of fresh milk. One villager thought, since the whole village is contributing, if I put in water instead of milk, nobody would find out. Also, if others contribute milk, mine will not make any difference. In the darkness of the morning all poured their quantity into the common container. At the appointed time, when the container was opened in the presence of the villagers, it was filled to the brim. But guess what ? Just water!

Here was a selfish man who thought that he could cheat through such deception. As members of society, we are all inter-connected, Deception, like in the above story by any segment of the society, be it business or government may not outwardly appear harmful but they pollute the system and the moral standard.

Today we talk a great deal about corruption in all walks of life. It is like a thorny bush on our pathway which we have allowed to grow and spread. It has grown to such an extent that it is blocking our path itself. We accept this cancerous growth as a social malaise and sometimes justify it too ! “You have to be practical, you see” is an often heard statement. However, everyone dreams of a clean and corrupt free society!

As members of the state we have different roles to play.

As a person per se,

As a parent

As a low end worker

As a professional

As a leader.

Honesty may be the best policy, but integrity is the best principle. We must inculcate doing the right even when you are not being observed is integrity. Character building and value creation is our responsibility. We often say that today the core values have disintegrated with the present generation.

BUT WHO IS TO BE BLAMED for this dismal state? I quote a poem in this regard.

We read it in the papers and hear it on the air
Of killing and stealing and crime everywhere
We sigh and we say as we notice the trend,
This young generation ... Where'll it end?
But can we be sure that it's their fault alone?
Are we less guilty, who place in their way,
Too many things that lead them astray,
Too much money and too much wasteful time
Too many movies of passion and crime
Too many books not fit to be read
Too much evil in what they are said
Too many children encouraged to roam
Too many parents won't stay home
Kids don't make movies, they don't write books
They don't paint pictures of gangsters and crooks
They don't make the liquor, they don't run the bars
They don't change the laws, they don't make the cars.
They don't make the drugs that muddle the brain
That's all done by older folks. Eager for some gain
Delinquent teenagers. Oh how we condemn
The sins of the nation and blame it on them.
Instead of placing the blame let's fix the cause
And remember as we pause
That in so many cases – it's sad but it's true
The title "DELINQUENT" fits the older folks too!

As responsible parents let us resolve not to give them the comfort zone and play it safe. Let us tell them to do the right, because it is right. As professionals we must apply the same high standards. As doctors we stand by the Hippocrates' oath. As lawyers, we don't bend the law. As builders we don't compromise on quality. As nation builders let us take the affirmation
Am I the one who makes things happen?
Am I the one who watches things happen? Or
Am I the one who wonders what happened?

ROLE OF THEATRE IN DEVELOPING THE ART OF OBSERVING, THINKING, LISTENING, AND LEARNING

ORBINDU GANGA

Abstract

Theatre serves as the most efficacious learning form for children. Children are subconsciously able to observe human nature, human behaviour, and situational challenges in life. Art of thinking is imbued into a child while performing an act and watching the play. Listening to the speaker and watching the play is absorbed by the child. Each learning form is well articulated within a play played in a theatre-making a child to learn many facets of life with ease. Driving the onus in the form of educating many, theatre has singlehandedly made the learning a pleasure. Learning every day becomes a habit with theatres driving the performers to strive for excellence.

Keywords: Theatre, children, art, observing, thinking, listening, learning, education.

Introduction

One of the most important aspects of human behaviour is the response to stimuli. Sharing our thoughts and experiences makes the journey of life more adorable. There is a beautiful relation developed when thoughts are exchanged and a synergy is developed. Sharing anecdotes in leisure time is a wonderful way to know different slices of life. We have been hearing stories from our school days. Those stories had a real-life, teaching us so many facets of life. As we grew up we huddled with our friends to share anecdotes. Humans evolved with the art of storytelling from home to the outside world. The art of storytelling has changed from an open space to a structured edifice of theatre. An open amphitheatre has replaced beautiful indoor designed theatres. They have further been differentiated with unique designed edifices on the genre of the drama conducted. Some have designed theatre to cater for a specific genre and the seating arrangement differs to give the audience experience for a lifetime. A theatre is a home of many creative platforms where one can see the artist performing drama, mellifluous classical music, opera, soothing ballet, or any activity where an artist communicates with an audience.[1] Though there is a humongous change in adroit actors, world-class designed theatre and knowledgeable audience, the emotions shared by the performer and the audience remained the same. The real essence of the synergy between the performer and the audience is a visual treat when the audience applause brings in the satisfying smiles in a performer. The communication between the performer and the audience cannot be matched by any superfluous edifices. Though the size of the audience can determine the decibel of applause the emotional connection of the audience cannot be weighed.

'Great theatre is about challenging how we think and encouraging us to fantasize about a world we aspire to.'

- Willem Dafoe

The visual treat of a play makes you think and get you engaged through the characters. They create a beautiful world in our minds to feel with our hearts. A world to fantasize and explore with our imaginations is created for us to delve into a wonderful world where we are the masters of our creations. Such a world makes us believe to exist. When we open our eyes, our dreams are shattered. Such a dream inspires us to create a beautiful world. Though it remains a big challenge for us to make it a reality. Together we can make the fantasy a reality.

'The most precious things in speech are pauses.'

- Ralph Richardson

Words have the power to communicate emotions very thoughtfully. They can inspire us deep into our conscience. But the pauses in between the words can make you listen to the breath. The silence does make you heave to listen to the song of silence, to read the emotional nuances. They carry life with the words, for a few to listen and understand the silence of their thought. The words and the silence whispers many unknown voices for the audience to capture. The most beautiful aspect of a play is when the audience is free to visualize the whole story in their colours. A journey where they can articulate and interpret the thoughts in their way.

'A talent for drama is not a talent for writing but is an ability to articulate human relationships.'

-Gore Vidal

A play has a story to make many glued to the narration. A narration is incomplete without the emotions being expressed. When a performer can connect with the audience with his prowess, he can make the audience think. Human relationship is a very complex subject. When the performer can express human emotions with ease to connect with the audience, the play is a success.

The ability to connect with the audience with the acting prowess, the performer can make the audience think and connect with ease. Theatre is an excellent medium for making people think, listen and learn. Such a learning medium should be encouraged from childhood. This can make a child see many shades of human nature and have better clarity as he grows. The importance of theatre painted by the children can create a bright future in producing erudite thinkers, listeners, and observers.

Theatre

Theatre is a collaborative art form presenting a real or imagined story with an expression in the form of dialogues and movements giving a visual treat to the audience. Being a beautiful medium expressing human expression, one can understand the finer aspects of human relationships. Many complex nature of human traits and characters can be visually understood.

The etymology of the word 'theatre' is derived from the word theatron which is a Greek word. The literal meaning of the word has a combination of two words together to form the meaning as 'an instrument for viewing.' [2] The word refers to the place of viewing where the audience watches the play.

The principle element in a theatre is about the language of the play. The narration is the most important aspect of a play. The language provides the act of communication for the audience to decipher. The second element impersonation where the whole play is underlined by the way the play is narrated where the characters enact the play with the script. The third element is the most important for which the play is organized, the audience. The audience has the word drawn from a Latin word for 'hear' (audio) which makes the narration of the play to be the cynosure of the act.

Theatre provides a platform for understanding and knowing the intricacies of human nature. It is an excellent platform for students to have a reflection of various aspects of life. Students will be able to know the sensitive subjects and how one needs to understand the nuances of it. With different perspectives, one can know different points of view to get lucidity in the area of interest. A wide range of literary stories can be watched from the world classics of Shakespeare to folk forms. The contemporary one has many takers but the classics remain the taste for many.

The foundation of theatre is based on understanding and developing communication skills. From school with role-plays, play becomes an integral part of our education. With creative writing and public speaking becoming activities in schools, theatre becomes more a precursor for sharpening our communication skills. This can go a long way if theatre is incorporated into the school curriculum.

History of theatre

The earliest known theatre can be traced from Aristotle's poetics where he has mentioned the theatre to be a place where sacred religious ritual activities were performed. The theatre did not have spectators, such a place was named as theatron.

Greek theatre dates back from 1000BC where the theatre was part of a culture in classical Greece which was included in religious rituals and festivals. The attendance at the City Dionysia was part of a larger celebration. Ancient Greece introduced different types of theatre genres as tragedy, comedy, and the satyr play. Amphitheatres were built by the ancient Greeks who hosted many plays based on the myths and legends. [3] The golden era of Greek theatres was blessed with Euripedes, Sophocles, etc.

Roman theatre, recorded from 753 BC had diverse art forms. The theatre was not restricted to three genres of drama but broadened the appeal to dancing and acrobatics. One of the most profound foundations started with the Hellenization of Roman culture which had an important role in thriving Latin Literature. Ancient Roman theatre had a similar amphitheatre but all the sides were enclosed, unlike the Greek theatres. The most important oeuvres were written from 240 BC by Livius Andronicus on comedies and tragedies.

The transition period from 500 to 1050 had a severe impact on the theatre. This was the period when the Roman Empire had a fall with the rise of Constantinople. When the Viking stopped their invasion in the 11th century, liturgical drama had spread from Scandinavian countries to Italy. The fall of the Romans led to the decline of theatres. The reintroduction of the theatres took place in the 10th Century where the play was restricted to religious dramas and mystery plays.

Italian theatre Commedia dell'arte emerged in The 1500s where the props and costumes were very popular. Italian theatre was at the peak during the 16th and the 17th century. It was a refreshing breath of new plays with the stories playing around struggling lovers. This became so popular that the concept was used in English and French.

Elizabethan theatre began in 1558 during the reign of Elizabeth 1. It was largely popular due to the emergence of the greatest dramatist in William Shakespeare. The credit of building the first English playhouse goes to James Burbage in 1576 known as The Theatre. James Burbage was an actor and theatre-builder who made the playhouse a reality with some of his friends. The wooden playhouses were the highlight of Elizabethan theatre. Many believe Christopher Marlowe would have been the greatest and not Shakespeare if he had lived longer. He died when he was 29 years old in 1593. He is credited with the characters like Dr Faustus and Barabas. He brought about changes in the form of blank and unrhymed verse in a dynamic manner. With the closing of The Theatre, a new theatre The Globe Theatre was established in 1599 which premiered Shakespeare's greatest plays like Hamlet, Othello, Macbeth, and King Lear.

The emergence of Kabuki theatres in Japan from 1600 made waves in Asia. They were known for their beautiful costumes and music. The content of the plays is usually on historical events. Initially, both men and women participated but in 1629 the women were banned from the plays. The highlight of Kabuki theatre is the unique stage with Trapdoors. A trapdoor is a platform which has a footbridge into the audience that rotates.

English Civil war had badly hit theatres. After the English Civil War from 1660 to 1714 began the Restoration theatre. The audience were from different strata of society. The contents were bold and sarcastic which was liked by the audience. The emergence of women doing the female characters, where men played the role of female characters got approval under King Charles II. This phase saw the emergence of the first professional woman playwright. Aphra Behn was the first English woman to earn by writing.

A theatrical genre was born at the beginning of the 18th century in France known as Vaudeville. It was originally a comedy based one, that later became light-hearted compositions. It later moved to America and Canada where it became so popular that it soon became the soul of a common man involving music, dance, singing, magicians, etc.

The Victorian theatre was the age of transformation in terms of technology in the 19th century. With the industrial revolution making a significant impact on the world around, the theatre saw a shift in the use of electric lights being the main attraction for a visual treat and the improved audio facilities, garnered many people to the theatre, making it the most popular source of entertainment. Oscar Wilde and George Bernard Shaw were two of the most famous playwrights of the Victorian era.

Modern theatre of the 21st century created a unique content to evince real life in the better use of prop with light, images, and symbols. The romanticism of the penury became the most loving act. Modern drama challenged the norms and created fresh content never seen before. Big musical events and plays became the cynosure among the masses on New York's Broadway. Theatre, more than being a source of entertainment, made the audience, to think, enlighten and educate.

What is the role of theatre in developing the art of observing, thinking, listening, and learning in children? Continuation of this article in the next issue...

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FOOD WASTAGE

PARVATHI

Food is one of the most fundamental needs of all living beings on earth. Be it animals, plants or human beings food is very essential. But we humans mercilessly waste food.

According to human beings, especially the fancy, rich, elite, food is nothing but lavish, colorful edible items, neatly arranged on the dining table. Precisely speaking food is a joke for the rich, dream for the poor.

Right here we shall discuss below -

What is food wastage

Reasons for food wastage

Steps to control food wastage

What is food wastage?

“Don’t bite off more than you can chew”

Food wastage means food is cooked or ordered in abundance much higher to our level of consumption and thrown away mercilessly.

Reasons for food wastage

Technology being accessible anywhere and anytime, has made our life simpler with easy downloadable food apps such as swiggy, zomato, uber eats etc. Upon the availability of these apps food is available easily on the move with a click of a button. Upon using these wonderful technological advancement today's youngsters order huge amount of food and end up wasting a lot.

Having not used to the art of recycling

Well the habit of reusing and recycling is not applied to plastics but also to food items as well. Our age old ("PazhayaSatham Kanji), rice made from previous days left over rice is very healthy and delicious but unfortunately people do not wish to consume excess leftover food the next day due to various reasons .

Social Media

Social media also plays a major role in wasting food. People upon visiting restaurants click pictures of the food, menu card and upload it on social media thus tempting others to visit the restaurant. People get carried away immediately and order the same food in excess amount thus resulting in food wastage.

Steps to control food wastage

1. Strict laws to be sued by the government against food wastage

There are huge amounts of food being wasted everyday on weddings, parties, companies etc. Government should impose strict rules on food wastage and take immediate necessary steps to bring down the same.

2. Awareness and campaigns on food wastage

Print media and social media should use their space for raising lots of awareness and campaigns on food wastage and educate people on methods of saving food and helping the needy rather than wasting them.

Reusing and recycling food might not go well with the elders in the family due to lots of reasons but we as matured youngsters having grown up with various appliances at home should be open to reuse and recycle food and save food wastage to the maximum.

3. Plan your portions accordingly

It is an undeniable fact that there is no sincere love than the love of food. Be it food prepared at home or hotels we simply love to eat and it is said that people who love to eat are the best. But just because we love food, let us not dump food on our plates. Instead of terribly wasting food by dumping let us learn to eat smaller portions of our favourite food to our hearts' content.

My dear friends as mentioned above food is something that is very important and with the so called unavailability of food people and animals go hungry every day. What an excess discarded food is to you is a dream, satiating meal for many. Countries like Yemen, South Sudan are facing extreme food shortage and we are lucky to have different kinds of food on our table. Upon wasting food we not only snatch a poor's dream and hunger but also pave way for rodents and pests to enter our homes.

Food is a gift from nature. Let us learn to share the same with animals and people inside and outside of our family. It is the right for every living being to have their share of food. Let us all come together, join hands to stop food wastage and ensure that all living beings on earth get their share of food.

HEALTH MATTERS

N. RAMAMANI SAMPATH

As a person who is bitten by the proverb bug, I often quote proverbs and adages during conversations, in classroom discussions and debates. Right from proverbs in alphabetical order to similar proverbs in my mother tongue became a part of my lexica. They conveyed a lot of good habits and virtues which slowly seeped into my system.

The one evasive proverb was, 'After dinner rest a while, after supper walk a mile'.

The Lockdown period has given us access to unlimited time but has also raised an alarm regarding our health and fitness to combat Covid19. Many have resorted to Yoga and some online regimen for practising agility indoors.

As a proud member of our safe neighbourhood, which is one long stretch of dead end road with independent houses jagged in a row, my daughter and I started walking the quarter mile stretch many times till we got exhausted.

Day after day we enjoyed our stroll and we poured our hearts out. The tranquil moon over us silhouetted by the branches and leaves of tall trees seemed synonymous with the present where time has become still forgetting the past or future. The chilly breeze in addition taught us to enjoy and live the present to the fullest with a light heart. We hit the sack with contentment that was truly serene. We hope to continue this habit even after the new normal commences.

THROUGH THE WINDOW

SHRADDHA RAJMOHAN

I can feel it. I can feel it coming. The sky is alive today. I look up and out of the window from my seat at my table. The sky is a menacing shade of dark blue and black, but it doesn't scare me. Clouds take gargantuan forms, but they don't scare me. I need to go out; I need to go out now. And just as I think it, I hear mama's ringing voice, telling me to stay inside and stay put.

I let go of the sheet and pencil in my hand and as I get up, off the table, the pencil clatters dismally to the hard-wood floors of the house.

I sit down on the ledge by the window, crossing my legs and folding down the unruly pleats of fabric streaming down from my dress. Slowly, I lift my eyes up to the sky. Thunder slaps my ears, piercing sharply through the balm of quiet that the day held up to them, and I jerk awake. I'm not scared.

The clouds rumble and groan with their weight, wanting to let go, yet wanting to keep me waiting. A flash, and the lightning falls, and chasing it is thunder again. In their urgency, the clouds let loose a few drops that fall precisely on the matted soil of the land.

And now it's rising, rising through the air, moving across the air. Past the crops in the field and to the house at its seams. Just as it reaches me, the sky heaves a heavy sigh and opens its reservoir, and the rain pours.

My eyes rush down with it and my face lights up with glee. I press my hands to the cold glass of the window and take in a deep breath. Rising, it has reached me. The beautiful smell of the earth reunited with its pith, with what gives it life - rain. It wafts and dances, spreading across the room, filling every corner with its joy.

As I look on endlessly at the sky and at the rain falling, I don't notice the tiny drop of rain that snakes through the window and finds itself on my finger. I turn my head towards it and see a small crack at the corner of the pane where the glass had broken away, making way for the drop of rain to enter, making way for me to enter the rain, through the window.

GOOD TEACHERS ARE MADE, NOT BORN

SETALURI PADMAVATHI

What the teacher is, is more important than what she teaches. A teacher who is innovative, industrious, gracious, gifted, disciplined and affectionate will impress her students as she can inspire hope, ignite the imagination and instil a love of learning. She is like a candle which consumes itself to light the way for others as she plays a vital role in the areas of learning and teaching processes.

Gandhi said, "Be the change you want to see in the world." Today, the students are exposed to a lot of information, cultures, diverse languages, methods of teaching, and most importantly the competitive world. They obviously expect modifications in classroom activities such as activity oriented lessons which are attractive, knowledgeable, impressive and easily comprehensible. A teacher should change herself to enhance their ability, language skills, textual information and exposure to the outside world. Teachers, as continuous learners, also should improve their teaching techniques, teaching and learning processes and subject knowledge as it creates a way to reach all types of students, by attending various workshops, seminars and group discussions among themselves.

"A good teacher is a master of simplification and an enemy of simplism." She is the one who teaches lessons in a simplified manner and moves amicably with her students. A better teacher is the one who teaches methodically, and brings out the innate talents of the students and regulates them for their prosperity that can help them come up in future. The best teacher is the one who suggests rather than dogmatizes, and inspires her listener with the wish to teach herself. Her inspiration will show them a right path to take, move on and achieve their ambitions.

Most of the students quote: "Without you, we would have been lost. Thank you teacher for guiding us, inspiring us and making us what we are today!" How true it is! Students are always grateful to their teachers for their selfless and seamless services in institutions. A teacher might slightly forget her students as the time passes, but she will be remembered by her students and their parents certainly. I strongly believe as a societal member, she develops a good rapport with the students and parents in any society. It gives her a good reputation and keeps her in high esteem without fail. Love and Understanding are the two important tools of a teacher that help her in developing unity, patriotism, good qualities and educational values among the students that transform them into good citizens. Today's young and energetic children are tomorrow's citizens and an asset to the nation.

A HUMBLE PLEA TO MY DEAR CHENNAITES

SUJATHA

As I watch Chennaiites, gripped in fear during the Nivar cyclone, I want to flip the other side of the coin- the same people complain about water shortage during the peak summer months (March-June). Why does this happen? Why aren't we storing adequate amounts of water instead letting our streets flood in monsoon and cry in summer?

Prof. Janakarajan, who is the president of South Asia Consortium for Interdisciplinary Water Resources Studies has studied with his team on the water crisis issue of Chennai and concluded that the poor maintenance of 3,600 water bodies in Tiruvallur, Chennai and Kancheepuram districts have pulled us to our current state. He says-“It is high time we respect monsoon, understand its characteristics and plan accordingly by preserving water bodies.”Drought and floods are extreme weather conditions which should be looked as an opportunity .We should take steps to desilt the waterbodies during drought. The sewage seeping into the waterbodies must be arrested.

The storage capacity of dams such as Poondi and Cholavaram can be increased by deepening them by 5-10%. It is also important for us to think about recycling sewage water -grey water recycling. We should tap this resource right away instead of ignoring this as an unpleasant source. Decentralized treatment plants could convert 700 million liters of sewage that the city produces every day. The sludge coming out of this plant could be used as bio manure.

Residents should also invest in rainwater harvesting which could revive the shallow aquifers. There are many DIY (Do It Yourself) rain water harvesting system videos available online that use simple tools such as barrels, funnels and hoses for building a robust rain harvesting system. It is the responsibility of every Chennaiite to preserve this precious natural resource. We can opt to bath in a bucket of water (11 liters) instead of a shower bath which consumes about 200 liters of water, repairing our leaky taps and opting for dry wash system of our vehicles-foam spraying at high pressure instead of 60 liters of water per bike, can make a huge difference in saving water. Royal Enfield and Hyundai have already taken up this initiative. It is important to arrive at sustainable solutions to curb the water problem that we are facing year after year to make Chennai an ideal place for happy living.

'NUTRITION – HEART TO HEART TALKS' BY A. ANNAPURNA SHARMA

REVIEW BY: GITI TYAGI



'One should not eat in order to please the palate, but just to keep the body going. When each organ of sense subserves the body and through the body the soul, its special relish disappears and then alone does it begin to function in the way nature intended it to.'
- Mahatma Gandhi

A. Annapurna Sharma, Deputy Chief Editor of Muse India e-journal and Advisor of Science Shore Magazine, an experienced Nutrition Lecturer and a published author of 'Melodic Melange' and numerous articles in Epics of Health, Hygiene and Pollution, is an expert Nutritional Counsellor. Her series of talks titled 'Nutrition – Heart to Heart Talks' based on Nutrition and Health, is an eye-opener and serves as a guide to the present oft-confused generation, dealing with innumerable unanswered questions and touching various aspects of Nutrition and Health.

Often when it comes to food, we tend to eat primarily from the emotional level and eat whatever we find good to taste. On the other hand, rising to the rational level, we may eat what is best in the interests of good health. For this, we ought to equip ourselves with the knowledge of the requirements of the body and the beneficial effects of various types of foods. The science of Nutrition, which embodies this knowledge, is an ever-growing and constantly enriching branch.

A. Annapurna Sharma, in 'Nutrition – Heart to Heart Talks', provides the current scientific knowledge about nutrition which is easily applicable in daily life. She emphasizes on the fact that eating a healthy diet can be simple and that to have a wholesome diet meeting our requirements in terms of current scientific knowledge isn't a Herculean Task.

Making choices in relation to health and eco-friendly options lead us towards a healthier, happier and better life. The dos and don'ts about foods are impressively dealt with, keeping in mind the mental stress that accompanies the denial and deprivation of palpable food items. The rule book of Nutrition, as propagated by certain Dieticians and Nutritionists, that often do more harm than good, isn't much emphasized in the Talks. The matter of that fact is, Annapurna Sharma emphasizes upon the wholesome effect of food on the physical, mental, spiritual and social development of the individual. Neither too less nor too much, rather moderation, is the key to good health. Judiciously chosen food ingredients, to provide all necessary nutrients in a diet, are the key factors that are constantly talked about.

Long cherished myths about various foods are dealt with expertise and vision and the popularized myths, often mistaken as facts, are tactfully cleared off. Factual scientific information and the practicality of the knowledge of nutritional facts are strong foundations that give a desirable direction to Annapurna Sharma's Talks.

In order to benefit the most, some long accepted beliefs ought to be shed off and with an open minded attentiveness, we need to imbibe the sound knowledge imparted through 'Nutrition – Heart to Heart Talks' by A. Annapurna Sharma.

In the present day world, the individual faces stress from multiple sources, resulting in a disequilibrium and imbalance of an otherwise tranquil internal self. Flooded with information of all sorts, the confused individual finds it difficult to find a definite path to tread, thus leading him astray. Often the misinformation occupies a front seat and the individual does more harm than good to himself. Annapurna Sharma's knowledge of Nutrition and her experience are of great help to the people who yearn to improve their health and stay fit, and to prevent themselves from falling into the trap of the misinformation loaded Nutritionists and Dieticians.

Mastery implies in the right and careful utilization of knowledge and self-control. Neither neglecting the food-desire nor indulging too much in it; food should be accepted as a source of purification, as inferred in Annapurna Sharma's Talks, and a necessity to armour us to be able to fulfill the purpose for which life has been bestowed upon us.

According to World Health Organisation:

“Health is a state of complete mental, social and physical well-being, not merely the absence of disease or infirmity.”

The blend of the modern scientific knowledge and the ancient wisdom by Annapurna Sharma in ‘Nutrition – Heart to Heart Talks’ provides a reliable and impressive clarity of views related to Nutrition in this ever-changing and ever-progressing world, with myriads of sources of information, facts and figures. The varied range of topics covered in ‘Nutrition – Heart to Heart Talks’ bring to light the hidden wealth and treasures of knowledge that shall enlighten the minds of millions of people and help them sail through the troubled waters, getting rid of their illnesses and preventing any disequilibrium in future.



TRAVELOGUE

DARASURAM - UNESCO WORLD HERITAGE SITE

HEMA RAVI

“Culture is not only entertainment or a means for attracting tourists. It is also a pillar of sustainable employment, and has a positive impact on social and economic development”

Bharat, with its amalgamation of cultures and traditions goes back to several millennia. The land of the seers, philosophy, languages, art, music, religion among others, has been and continues to attract the seekers of truth from far and near. Perennially, (until the Covid struck!) visitors from the country and overseas thronged, soaked in the grandeur of the magnificent Indian temples of centuries bygone remained deeply immersed for endless hours; the magnetic pull of the pristine ambience urged them to visit again and again.

One such exquisite locale is the Darasuram Temple, near Kumbakonam in Southern India. This historical marvel, along with the Brihadeeswara Temple, and Gangaikonda Cholapuram are part of the UNESCO world heritage sites. Built in the 12th Century CE by Raja Raja Chola II in the Dravidian style of architecture, these places are a veritable treat for connoisseurs of art.

Little did I imagine that an official tour would set off a plethora of explorations and cathartic moments for my spouse and me. I had received an invite to be a Resource Person for a ‘National Workshop on English Language Skills’ in a university at Kumbakonam. Therefore, we planned a three-day sojourn- one day for my seminar, the remaining time for soaking in these legendary places.

The first thing that struck us when we alighted at the precincts was the absence of shops and crowds in the vicinity, the land around the temple was verdant, well-maintained, and litter-free. In that vast expanse, gargantuan structures loomed high with their larger than life appearances.

Unconsciously, we were drawn into a time machine that first led us to the ‘singing steps,’ the chariot with ‘sun-dial’ wheels, the ‘mandapams’ that held massive pillars with intricate carvings and reliefs, the tranquil sanctum sanctorum with flickering lamps all around. Sonorous music emanating from stone idols held us captive for a while; in childlike glee, I inserted a twig into the ears of a female deity to watch it emerge out of the nostril. (Prompted by the guide, of course!)

After about six hours, the time machine stopped... Gone were Carl Sagan, the American astronomer, (who had visited this place) the Chola rulers, resplendent in their armour, the clay-covered, queer-faced sculptors crafting magic, the gigantic pillars, the alluring figurines, the gurgling Cauvery et al. In a trice, we were thrown into a cauldron of blazing heat-summer in Thanjavur!

What we had captured in the lens was the bare minimum, our hearts, however, were still brimming with that sublime experience. As I gazed at the crimson-gold sunset with the emotions still haunting, a silent prayer arose from my lips for the unsung heroes of the past.





POETRY

DREAMS

M. ARIVUKKARASI @ AAZHI (PEN NAME)

A Thousand Dreams,
Painted in the Air.
It's Shades being,
Black and White.

Black and White,
Because it's a dream.
If it's true,
A Thousand Hue.



TRUE LOVE

M. ARIVUKKARASI @ AAZHI (PEN NAME)

Stranded
Drenched in the rain
She was all alone
Staring at the darkness
That surrounded her
Silence and Remorse
Was all she could feel
For whatever she intended to do
Pounced back on her

A Hand came to
Comfort her
Another came to
Embrace her
But no one noticed
The tiny drops of water
That were dripping from
Her eyes

For they thought
It was the pouring rain
Which covered her
With its water

At last one hand came
It did comfort her
It did embrace her
But it didn't just stop there
It wiped away her tears

She looked up
And noticed a familiar face
In the darkness
From the distant light
From somewhere
She made out the
Woman draped in a Saree
And finally wailed out
Those three words
"Love You Mom"



WHO AM I?

ASHA RAJ GOPAKUMAR

I can proudly say...
I have myriads of names,
As Lord Krishna has.
The best among human values,
Like roses, I am a queen.
A chum of optimists,
As gleaming stars with shining moon.

I have a great power over human mind,
Like a blooming flower.
Achiever always, I am for all,
As milk chocolates for tiny tots.
I can change an enemy to a friend,
Like melting butter.

Some love only to gain me.
Some love to gain, share and give me.

I am not an enemy of anyone.
I am a friend of everyone.

Accept me, accept me, as your companion...
Learn to give and gain me.
For I am the one and only,
'APPRECIATION'.



LIGHT HOUSE

BHAGYASHREE MISHRA

From the nostalgic notes of days bygone
From the supple kernels of our kinship,
Often emerges an ambrosial fragrance
Embracing my being at hours of hardship.

Melodious moments sculpted on sands of time
Carry me into an idyllic world of nymphs and fairies,
Where sylvan homes sprinkle solace on soulmates
Where streams stroll and daises sway with sheer finesse.

Even after a night of peaceful slumber and joyous dreams
Just as laziness lingers on the shoreline of my eyes,
I wish you were here, despite the distance, holding me close
For your presence in my life resembles a bliss in disguise.

Ours is a bond as selfless as the sun and its world
The sun that burns itself to light up the whole world on all dawns,
An exotic pearl sparkling within my soul's oyster you are
A glance at you and all the gloominess is gone.

I often embark on a joyride, swinging on our mirthful memories
Does it even matter if we live a thousand miles away?
For I'm a solitary sailor, you're my steady lighthouse
Your flames put off my fear, rescue me whenever I go astray.



STRAYS

DHANYA

A meerkat eyed angel
The looks like that of innocence
But the environment that she was forced into
Made her halo glow dimmer.
Blood stained nails
For the fight for food
For the fight for shelter
For the fight for the babies
Who were forced into her because of nature.
She trots along the roads.
The traffic uncaring
Some try to run her over
The others pelt her with stones
A female all independent yet helpless
Sits forlorn on the steps of a shack
Where they feed her cigarette butts as food
Along with the remnants of poultry.
Some feel her pain
The others impart her pain
Yet she walks in fine demure everyday
This meerkat eyed angel with hazel coloured iris
Strung the chords of this poet's heart.
The elegance of her walk
The pride in her bark
The care as a mother of six.
An epitome of survival in this harsh cruel world
One look in your eye
And she holds your heart in those tiny paws
Yet here we are unhelpful to her.
Forbidden to be fed
Forbidden from home.
We are the ones who are her true foe.
Of the meerkat eyed angel.....



HIPPO!

GITA BHARATH

Do African *hippos* worry about adipose
Do they worry about their abs
After swallowing a few crabs
Along with river weeds
Do they exercise and swim
To become svelte and *slim*
Or do they just -- adjust
And look back
At a lifetime of eating greens
And FAT-*alistically* shrug
"It must be my genes! "



SINGLE-USE PLASTIC

GITI TYAGI

The inventor's dreams when fail to soar,
Crashed down from heightened heights galore,
One creation such to menace turned,
A household name yet greatly loathed!

Perception narrow, vision tunneled,
Convenience momentary, the future compromised,
The petty man's gain, the nature's loss,
The cows and whales with the plastic bag!

Decades ago, my grandfather said,
The humans in unison with nature flourished,
A sudden thought when changed the course,
The downward trend of earth imperiled!

The sixties * saw an advancement surge,
When Thulin's thoughts the reality turned,
The trendy bags with a limitless life,
Shortening spans, creatures' onerous thrive!

The plastic straw in the turtle's nose,
Reminds us of the beverage cold,
The joy we felt in every sip,
Was it worth the creature's life?

The earth's home to all the beings,
Not one the master of the universe crowned,
The humans misled into arrogance futile,
Risking life of earth and earthlings!

The soil, the air, the water, polluted all,
The birds, the animals, the fish, all periled,
The pathetic sights, the wailing the whining,
The shrieks, the screams on deaf ears falling!



O humans! Awaken thy own self,
The day's not far when perish you shall,
Let's save the air to breathe, the water to drink,
Let's boycott the single-use plastic!

(*The single use plastic bag was invented by Sten Gustaf Thulin in the 1960s.)





REMINISCENCE

JAYALAKSHMI

Day and night entwined as pouring ecstasies
Amid splashing pearls of momentary revels
 Is there a puddle left for me
 Mirroring childhood reminiscence?
Bewitching floor of teenage radiance
Shivers and sighs of dreams and despairs
 Is there a leaflet linger somewhere
 Faded itches of share and sacrifice?
Amid the festivity of fruits I gather
 Enthralled in fervid motherhood
Is there a seed of spring lying for me?
 To foster again a shade to rest?

THE UNIVERSE

JELLIE N.WYCKELSMA

With awe
I look up at the sky
Trying to comprehend
The vastness of the universe
My eyes travel from star to star
Where does the universe begin?
Where does it end?

My mind boggles by the infinity of it all
With binoculars in hand
The spectrum even widens
Comets, Black Holes
Fiery trails of falling stars
Like signs from Heaven sent.

The mystery of the universe
I will never fully understand
Simply accepting its existence
As by God sent.



THE LIVING LAMP

KAMAR SULTANA SHEIK

No. The clay lamp
Is not for casting aside ;
The wick may have burned away,
The oil gone.
Yes. The ashes scatter..
Yet the flame lives;
Turning my body-receptacle,
Into that sublime lamp,
Receiving the oil
Of my Master's Grace,
The wick of my devotion catches fire;
The flame dances in ecstasy..
I become a lamp, ever-living;
Lighting millions of others,
Until the stars complain
Of having become inconspicuous...
Such shall be the festival of lights, one day,
A great Deepotsav!

*** H₂O ***

VOICE OF WATER..

KEERTHANA RAVIKUMAR

I run here and there through every pebble, every rock.
I adorn the nature with music through my whooshing and rustling sound of flow.
I dance, sway and flow through every mountain high or low.
The trees and green bushes welcome me, to shower on them.
The fosterer of creatures, "forests," jump in excitement detecting my arrival.

The green fields filled with farmers enjoy every drop of me, owing their gratitude to God.
I am present everywhere urban or rural, oceans or rivers, ponds or lakes, blood or tears.
Utilizing me in proper means, will help you thrive with happiness.

I am common to all, without any partiality to the poor and rich,
Why fight in need of me, when I am common to all ?
I will be available in abundance when not wasted and cherished in right means.

With pride I shout out, "Every drop of me is precious."
And every tide of mine if needed can devastate any tiny being.
But with instruction from my four other counterparts, I will never deter to affect any.
The love I have for every tiny being stops me from playing a negative role.
Cherish, save and protect me and be gifted with more love from me.
As I have been created for all. - H₂O

(counterparts - land , air , sky and fire)



POMONA (A ROMAN MYTH)

LATHA PREM SAKHYA

Pomona, a tree nymph devoted,
Fruit trees, her perennial passion
Caring and sustaining trees, her burden
Her tools, a spade and a pruning hook.

Loosening the earth around her favourite trees,
Cutting away growths that sapped the trees' energy,
Grafting and pruning she created new fruits
Rejoicing as one tree bore two fruits.

Training vines on elms to grow,
Digging small canals to water the roots,
Destroying insects that killed the leaves,
Protecting each tree as her progeny.

During spring she watched Flora, her sister
Giving colour and fragrance to flowers
Never she left her trees, to call upon flora
Or to visit the shrine of Venus.

Dressed always in plain brown
A wreath of leaves on her head
To keep the sun away from burning her face
Was all she wore, yet beautiful was she.

She was the cynosure of every demigod
All yearning to woo her
For her waxing beauty and nature
To make her their heart's queen.

First came Silvanus to woo her
In a hunter's garb and spear in hand
She chased him from tree to tree
Out of her orchard she drove him away.



After one year he came back
A shepherd's guise he had taken
Yet, she turned him out of her orchard.
That very day Picus, his friend arrived.

Dressed in a scarlet cloak,
Confident of his good looks
And success with other demi goddesses
Dousing him with water she chased him away.

Running out of the orchard,
Spying Silvanus in shepherd's guise,
Hurling insults at him he started a brawl
Fighting until exhausted, they fell.

Building a wall around her orchard
Exiting never despite a gate, she dwelled.
Knocking at the gate came Vertumnus
Observing Pomona with love intent, one day.

Disappointed at her refusal he came back
Garbed as a reaper with a basket of barley ears
Refused, she, the gift and he went back.
To return a mower with grass on his brow.

Her refusal strengthened his determination.
In a ploughman's guise he came, only to be turned away.
Finally he came with a ladder, a tree lover but in vain
She ignored him forever.

An old woman one day, arrived at her gate,
Full of warmth and understanding
Pomona opened the gate
Inviting the visitor into her garden.

From tree to tree they walked admiring
Before an elm the old woman stopped
Pointing to a vine clinging on it, said she
"Look, the elm's life has become blessed.



How lovingly he supports the vine!
A mere timber he would have remained,
If the vine was not mated with the elm
It would lie flat on the ground and never bloom.

Likewise your fate if you refuse to wed
You will neither bloom nor grow.
Choose Vertumnus, she said
To make your life blossom."

So saying, her head dress fell and her face changed
Her eyes glowed with love and face softened
The wise crone transformed into a handsome youth
Revealing Vertumnus in all his glory.

Taken aback she stood gazing
At the splendour of love before her
Kneeling he proposed and lovingly she accepted
For such divine love can never be denied!



BOONS CHANGE BY ATTITUDE

LEENA RAJAN

If a cow comes once to us and stay,
Invariably we will try to send it away,
If it doesn't go despite much efforts,
It gives sweet ample milk nutritious.

By and by we consider it a fortune good,
Boon of lovely milk to all is provided.
But if the cow leaves us ultimately once,
Benefits of milk, enjoyed also we lose.

We see a utility too finally in its leaving,
We don't have to clean at all cow dung,
Work is nulled by its void by going away,
Which in disguise to us an asset by way.



“OMNIPRESENT MUSIC...”

MADHUMATHI . H

The sound of mustard and cumin,
seasoned in ghee
Chocolate, curiously unwrapped by a child
A sleeping baby's anklets, when its tiny legs tenderly move
The wind-fanning the flight of a crow, on a quiet afternoon
The distant train's chugging, in a haste-free village
Gentle stream's flow in a serene wood
Earth-hugging raindrops, in the crackle of fire...
There is music in moments
Rhythm in movements
If we are willing to listen...
If all these and more, have music and rhythm
Should I even say, what love has?...



DESERVE Vs CONSERVE

PADMAPRIYA KARTHIK

Should we conserve forest 'cause it provides valuable timber?
Or for its selfless protection of Ozone Layer?
Or 'cause it supplies precious, life saving medicines?
Or more trees contribute more rainfall be the reason?

Should forests be conserved to satisfy our unending selfish needs?
Do they not truly deserve meritorious space devoid of human greed?
Are they too not the children of Mother Earth
Who love to gift Mother the needed joy and mirth?

Long before the dawn of mankind,
They thrived, gifted bounty in every kind.
Should not we, their space duly assign
That once we snatched and declined?

Forests should continue to remain
Deny not their rightful terrain.
From reckless cutting of trees,lets refrain
And guard with pride the mother-child chain.



A NEW DAWN OF HOPE

ROOPA SUBRAMANI

whoever knows what it might bring forth, except that my sole faith rests upon the Grace Divine,
with,
hopes for a better and brighter tomorrow,
lighting the dark path ahead in a grand signalling towards ending the sorrow,
with,
hopes of starting afresh,
and the universe as a willing partner engaging itself in a mad eager rush,
with,
hopes of healing the entire humanity,
for I too am well aware of the sacred interconnectedness of our collective destiny,
So with much at stake and so little drive,
I urgently call upon my fellow beings to cast aside all doubts and take that deep dive,
towards a future that ushers a new dawn of hope,
for even though plunging ahead might seem to be heading down a slippery slope,
be rest assured that we will be given wings at the right moment to soar high in the sky well beyond
the
boundaries of our mind's limited scope,
and therefore, in an intuitive premonition,
a fresh new dawn of hope for the New Year 2021,
for even in the midst of flying towards that cloud of unknowing, my sole faith will forever rest upon
the Grace Divine.



YOU START DYING SLOWLY

SETALURI PADMAVATHI

If you don't begin the day with a smile
If you don't see the faces of your loved ones
If you don't listen to the sound of voices
You start dying slowly!

When you live for the sake of society
When you pretend you are loved
When you feel lonely amidst folks
You start dying slowly!

If you don't listen to the song of birds
If you don't feel the sound of raindrops
If you don't see the world around you
You start dying slowly!

If you don't dance and get drenched in rain
If you can't see a universe in a dew drop
If you don't take a chance from your routine
You start dying slowly!

When you stop reading your favourite books
When you stop enjoying dance and music
When you feel the world is within you
You start dying slowly!

If you love honestly what you're doing
If you find yourself amidst loving people
If you believe in your own conscience
You start living slowly!





A REAL WOMAN

SUDHA RAJENDRAN

Smells trigger memories.
Words bring thoughts.
If you hear 'house wife'
Certainly you will have some thoughts.
You may think of a boring, stupid,
extravagant, worthless, clumsy,
loud, lethargic, and demanding woman.
Well, she doesn't mind what you're thinking.
Because she is busy applying kajaI on her eyes.
She is combing her thick, not so black,
wavy, long and not so soft hair.
Now she is all dressed up
And she has stepped out of her house
to be respected.

THE ICE CREAM MEMORY

VIDYA SHANKAR

Four adorable things with happy, innocent smiles,
A little lass, her little sister and her little brother,
Flanking their little cousin,
Skipped hand in hand towards Joy Ice cream
That came to their doorstep every summer afternoon.

‘Today I will have your ice cream,’
Their little cousin had said,
And this had given more joy to the trio
Than the sweet, chilling Joy ever had!
But just as they reached the ice cream cart,
There appeared at the door
The menacing form of their aunt, their cousin’s mother,
And out rang her voice, pronounced with malice
That made her little daughter drop,
In that very instant, little loving hands.

‘No, you will not have their ice cream—
Plain milk ice meant for the beggarly, no!
My daughter deserves the best—
Choco-bar first, then any of the rest.’

The little cousin, she took out the coins her mother had placed
In the pocket of her frock,
Her quick arithmetic telling her it wouldn’t be enough
For four choco-bars, then any of the rest,
She made a hesitant plea,
‘For them also, mother?’

*‘Just buy for yourself and come back here,’
Hissed the intimidating aunt.
‘You will have your ice creams under my care.
Greedy, paupered eyes will but give you
A runny tummy, darling,
So get yourself your fill and return the instant.’*

The little lass, her little sister and her little brother—
Downcast eyes, watched as their cousin went on
To get her fill of Joy ice creams, and back to her mother,
The skip missing and eyes as downcast,
Not with a similar grief though, but to avoid
With conspicuous obedience, the paupered eyes.


'Dear sister, did our aunt call us greedy
Just because we can have only plain milk ices?
Because our father doesn't make as much money?
But plain milk ice is what I love.
So, why, dear sister? Please tell me why!?'

I stood by, helplessly watching the pain
In those six little paupered eyes;
Helplessly, for I didn't know what could I do for them—
After all, I didn't exist yet.

But just then,
Two children from the simple household next door,
Raced each other to the ice cream cart,
Held out small change, got their milk ices,
And relished them with rapturous joy.

I walked up to the little lass; I had to let her know—
She looked me deep in the eyes,
She understood; we smiled.

*'Sweet sister, and sweet brother too,
Our father doesn't make much money,
But he sure does make
A lot of love—
That we can give to others, yet be filled too,
That will melt hearts, like ice cream, yet linger longer,
That will grow with us in abundance
As we grow in years.
So come, my darlings, let's get our milk ices,
Plain though they may be, yet
Imbued generously with flavourful kindness.'*



I watched as the soul of my childhood
Led her little sister and little brother to the ice cream cart
To join their friends of the simple household,
And as the exuberant children reverberated the air
With laughter and squeals of delight over plain milk ices,
I returned to my poetry, grateful to my father
For the bestowment of love
That grew with me as I did in years.

(Inspired by the poem "If I Were to Meet" by Grace Nichols)

<https://www.theguardian.com/books/booksblog/2020/jul/27/poem-of-the-week-if-i-were-to-meet-by-grace-nichols>





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