

 **Greenenergy**  
A Green Concern!



# WATER WATER, CAN WE GUESS YOUR COLOUR? IS IT LIKE WHAT IS MIXED IN YOU?



**Ar. Pramod Chaugule**  
Editor, Greenergy

We generally listen to songs and just ignore the words. What if we really take heed of those words? Many of the gastric complaints of people in Sangli, will be relieved. This will lead to increased active man hours and the complaints of this and that not being proper, will reduce. We see with totally detached mind, the amount of water required to be provided through tankers in summers, the amount of distance covered by women on feet, to collect and carry drinking water, farmers staring at the sky, waiting for rains, award winning photographs of famine, articles in papers, lectures delivered, then pouring rains in rainy season, gutters, rivers and drainage systems flowing up to the brim. We also prepare mentally and physically for the upcoming famines. We comment on the next war being based on water and keep quiet.

In Sanskrit, we have a shloka, depicting the importance of mother, father and guru, as our Gods; I consider three mothers in a human being's life – Mother Earth, Mother River and Mother woman. Except a woman, the other two are totally neglected! Moreover, the rivers are pronouncedly neglected. I keep feeling about the rivers, assimilating the sorrows and gutter as well as drainage flowing dirty waters of humanity and still being totally deprived of attention and continuously being a point of dispute! Cherapunji in Assam has the highest amount of rainfall, 1.1 meter but still we are short of water. River Krishna, the life line of all the establishments on its bank, being continuously a point of dispute and as a result, large land masses under plantation are being under stress of being saturated with chemicals, leading to hard water!

We always consider water as our life, but are we not going to do anything for it? Aren't we at least going to do something for our own health? Let us at least get some information about this, which will be appreciated by our upcoming generations. Truly our health is wealth and as it is quoted, if our head is intact, we can wear many different types of crowns!

The only solution to reducing the level of hard water in all water tables and water bodies is recycling of rain water! It is my own experience of so many years that if nature is providing us with a solution, there cannot be any other better option! If naturally clean water is mixed with the hard water in the water storages, the hardness of water will be reduced, having a positive impact on our health!

Water recycling is a concept, which has been included and utilized in all our rich ancestral and traditional methodologies. History has many evidences of this fact!

In Hadappa and Mohan Jo Daro cultures, we observe that Manhar in the north and Mansar in the south collected all the rain water, a thirteen meters long slope connecting sixteen water storages, was enough to provide water to the whole establishment! For Old Delhi, water management was done in the same way, through Suraj Kund in Haryana (as it is named now!), in the Arawali Mountain ranges!

It has become a need of today, to reconsider such traditional concepts and designs, to connect areas with maximum rainfall, with those areas with minimum or no rainfall, so that maximum utility of naturally available water can be done. We can consider all water bodies for this, right from bore wells, wells to the built water tanks in domestic dwellings! The prime considerations in this are the surrounding environmental factors, the natural and geographical location, needs of the regional people, the help from government and the constructions accordingly done or to be done! The result of all this is that it is helping us in increasing the water resources as well as reducing the hardness of water.

Government is providing water to all dwellings and establishments, as per the requirement but because of enhanced and uncontrolled increase in population, the resulting lacunae in management of water and once again the thought coming to the fore, regarding the next war being based on “water”, as quoted by very forthright honorable late president Dr A. P. J. Abdul Kalam to all common leaders. Once again, all this has led to a lot of indisputable emphasis on water management and our contribution towards it would be thinking and re-thinking about the methodologies to be used and spreading the message to the masses, regarding all these conclusions.

I consider it my prime duty, as a professional in this field, to develop a feeling of social binding and through it, to implement this thought in my own house and contribute in a very small way, towards this objective. This can start with water recycling through rain water harvesting, in order to increase water table and reduce hardness of water!

An important part of this plan can be conveying the message about all the strategies that can be implemented, to the masses. This is already being done through all the strategies that are being planned and implemented, the experiences gained while doing this are helping but a significant part of this process is motivating specific components of the society to get dedicated towards this work.

An example can be taken of Saraswati Industries in Kupwad MIDC, where for the last three years the water accumulated on the roof top is being collected in a 50,000 liter capacity tank and rest 100000 liter water is being recycled. While marking the land, the rain water falling here, on the basis of geographical location, can be channelized into drains falling within the mark, on both sides of the road and used for refilling of the well, again falling within the mark. Similarly, at Sawali, in Shah Lulla estate town plan, in the first and second sections, almost 100 lakh liters of water has been recycled and used for refilling a well during the last two rainy seasons.

Till the time that we were using well waters, the water table level used to be more or less 30 to 40 feet in almost all regions. As the requirement of water increased, man started digging deeper and deeper for water.

A time came when these wells too dried up and then man started digging kupnalikas in thousands, creating a sieve of land. This led to a decrease in water table leading to increase in temperature of the environment. The only solution to the whole situation is tree plantation, on a large scale, water recycling and well refilling.

Rain water is a natural resource and available freely. It is necessary to store whatever water is available. The most pure water is rain water collected properly, filtered and stored properly, in closed tanks.

Human activities have dried up the clouds,  
Eyes fill up with water, for a mere drop of water!

We are facing fights over tap water and many people need to roam around in all directions for water. Man himself is responsible for this plight! The amount of rain water, degradation of the environment and unlimited pollution has disturbed the natural ecological balance. Water table is decreasing day by day because of decreasing rainfall.

Let us all turn back to nature, let us conserve nature. Let us rectify our mistakes so that the unhappy nature will become happy again and shower rains of blessings on us. Mother Nature will definitely pardon us and take us under her wings.

The love of Mother Nature is such that it is limitless,  
It accumulates the being of the whole universe, doubtless!!!

We are thinking of rain water harvesting today, which was being implemented in Rajasthan, hundreds of years back! We can observe that in Rajasthan various water collection and preservation methods are used like “a lake for a village”, huge wells, tanks, small wells and so on. As the water is salty in many parts, the only way is to collect rain water and store it for drinking over the whole year! Because of very meager rainfall, every drop has to be preserved which man has been always doing in Rajasthan.

We cannot but feel respect for a person staying in the desert for his tendency to collect water from wherever possible and preserve it in whichever way possible! We can learn a lot from them, how to consider just four drops of water as gift from nature and use them in the best possible way! Looking at all the methods and strategies used by them, it will not be an exaggeration to call them the “inventors of water harvesting”!

In rural areas, ground water is the biggest support system for drinking water. Today 85% rural population depends on it. But due to excessive taking out of water and it's not being refilled; these natural sources are getting depleted thereby leading to the failure of all types of strategies.

Thus refilling of natural bodies has to be emphasized. Presently, if one source dries up, stress is given on planning a new strategy. This is because the cost of water supply strategies includes the costs of development of water sources, distribution management and so on. Though no plans are made to overcome the situation and support the water supply if water sources dry up.

Some traditional methods include :

1)Removal of precipitates and debris in water supplies, which can hinder its natural percolation and reduce its storage capacity.

2)Increasing the depths of wells, as in summers, water level goes down.

3)Building check dams on rivers and streams so as to check the flow of water and preserve it.

This has been proved to be the most cost effective and advantageous methods available. It prevents soil and water from flowing away, thereby checking water and soil drainage and increases water table, providing drinking water.

Neither loan nor donation,  
Let us just develop work culture,  
This will lead to water scarcity solution!  
Earth is our dear mother,  
Avoid just fleecing out water from her,  
Engage yourself in water recycling,  
Care for her,  
like you would care for your mother!!!



**Dr. Jaya Kurhekar**  
Executive Editor, Greenergy

### WHAT THEY DO FOR US !!!



### WHAT WE CAN DO !!!



**MORE SUCH ROADS WILL CREATE HEAVEN ON EARTH !!!**



## Ar.Suvarna Lele

**“A great building must begin with the unmeasured, must go through the measurable means when it is being designed and in end must be unmeasurable.”**

**Louis Khan.**

Synthesis of elements comprising the space as structure, services, ecology, materials used, the mass, the character of space and relation of forms creates best Architecture.

The restraints on a design come in form of laws, economy, local site conditions and availability of materials, machine and labor. All these factor need to be considered to create a successful design. A residential structure for M.S. Jagdale is designed considering thoroughly all these potential limitations, positive aspects of the space and the requirement of the client.

The structure designed is totally modern but reminding one of the Architecture of by gone era, especially the colonial Architecture. The Landscape and interiors designed are in coherence with the structure

The first glimpse when one enters through the gate of the site is that of an imposing elevation of a two tiered residence. The roofs are arranged symmetrically on both the sides of structures showing a perfect sense of proportion. The combination of white walls, a red coloured Manglore tile roofing and a magnificent array of columns running all around the house create an interesting facade. An inviting verandah gives a feel of cozy colonial house with a huge wooden glass door for a warm welcome. The Indian structure as a 'tulshi vrindavan' blends with the surroundings. A beautiful spread of green lawn and a blue swimming pool is seen in the fore ground of the structure giving it an aesthetically pleasing look.

Entrance door leads you to a spacious living room which is divided into formal and informal sections for guests and family. An open staircase leads to first floor giving a feel of spaciousness to the total area. Ground floor is provided with all necessary rooms such as Kitchen, Dining, Puja, Store and a spacious bed room for guests with dressing and toilet.

The concept of minimalism and simplicity is reflected in every aspect of design. The interior used is having simple basic forms and the materials used are wood, steel and glass relating to the forms and are convenient for usage. The forms strictly follow the function. The oneness of the space is felt due to lack of un-necessary walls except for the walls of bedrooms. Provision of huge glass windows enhance the light and ventilation inside. The exact number of windows is calculated before using them for every room avoiding the direct glares but allowing the required amount of light. Sufficient cross ventilation is provided for each space to keep it airy and fresh naturally.

The sweet smells of flowers and plants enhance the freshness of surroundings. Verandah runs along living rooms and bedroom creating cozy outdoor spaces flanked by coloured flowerbeds near it. The centre of the space is provided with sky light illuminating the adjacent puja room and the spaces around. A dry landscaping is provided under the sky light acting as a focal point for the whole space.

The necessary amenity spaces like washroom, store, w.c., for servants and a DG set are provided outside the main structure. The external spaces are leveled as per requirements and provided with pavements of bricks or natural stones which compliment each other in forms, colours textures and add to the beauty of surroundings.

The first floor is approached by an open staircase leading to a passage which overlooks the living room below giving a feel of oneness to the total space. The passage opens in two bedrooms and a living space which is aptly provided with the comfortable furniture and modern entertainment gadgets like movie screen and home theatre. One the wall of family room is decorated with a screen of water having continuous bubbles. Master bed is provided with terrace overlooking a beautiful paved area and a garden with flowering plants and rocks. The pavements arranged are placed aesthetically with excellent workmanship.

The outdoor area is beautifully landscaped with all elements arranged in synthesis and coherence with each other.

Entrance compound wall shows a composition of natural rubble wall of red and black colour with concrete flower beds adjacent to compound wall. A stone pipe of 10” diameter runs at top of wall painted in brown colour maintaining the tone of adjacent earthy colours. A black stone slab with the name of the banglow engraved on it, enhances the beauty of compound wall. Structure is provided with a gymnasium to take care of the health of the family. The pavement near the gate leads to this well equipped gymnasium with massage room, parlor, steam, shower, changing room and toilet. The other pathway leads to main house through a beautifully landscaped avenue with various flowering trees and coloured planters. The pathway is built up of natural stone and stone chips. An imposing, freestanding pergola is constructed in between the pathway, which bear flowering climbers. The pergola is painted to give a look of natural wooden log which goes well with the surrounding natural materials and colors varied alternation of natural stones and brick pavements create interesting patterns on ground.

Rock gardens scattered all over add points of interest in landscape. A small pond for bird's bath is given in front of the house which is meant for variety of birds surrounding to drink water and bathe.

The raised laws stand imposing in forefront of the structure.

A swimming pool is provided on the lower level whilst the lawns are provided on higher level. The clear blue water of the pool reflects serenely landscaped area and an imposing structure. A lily pond near the pool carries lilies and the scenery can be enjoyed from lawns and swimming pool. A small area is provided as cricket pitch for recreation of the owners.

The other amenities like extra washing rooms, underground water tanks, gutters, rainwater pipes, ducts, sump tanks, filtration room, balancing tank, parking areas are taken care of as per requirements. Security cabin is placed near compound wall guarding entrance.

An aesthetically pleasing approach is taken while designing the landscape and interiors. Several imposing elements like of dry landscaping, flowering plants, textured and coloured pathways, pergolas, walls of different heights, rock gardens are used. All varieties of trees from huge trees to small creepers are seen in surrounding. Big trees include various beautiful palms, coconut, neem, silver oak to name a few and small varieties include ferns, crotons, verbenas, roses, magnolia, daffodils, lantana, jasmine, marigold and various others. The trees and the lawns planted are well maintained complementing the grandeur of structure.

It is necessary to mention the appropriate use of interior furniture where the planning is accurate and materials used are very simple, preliminary but are imposing giving a rich look to its surrounding. The colour schemes used for walls in interiors are very subtle like cream, off-white, beige and several pastel shades. They complement the colours of surrounding furniture. The concept of minimalism is reflected in usage and placement of furniture pieces where circulation and convenience of user are put on foremost list. Dry landscaping is used inside the house to create the points of interest. Similarly a splash of green is also seen inside in form of planters. The total approach to design is natural, simple, and earthy.

A successful design is one which leads to perfect decision concerning economy and ecology creating a comfortable environment to a human being and this structure designed by Architect Pramod succeeds in same.









## **BIRDS – OUR WINGED FRIENDS!**



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Birds – our winged friends are important components of our life cycle. They are also called as “Aves” and “Avifauna”. They are a group of endothermic vertebrates, with feathers, a beak with no teeth, laying hard-shelled eggs, with a high metabolic rate, a four-chambered heart and a lightweight but strong skeleton. Birds live worldwide and range in size from 5 cm bee humming bird to the 2.75 m ostrich. More than half of these are passerines, known as perching birds or as song birds.

Birds are the last surviving dinosaurs according to the fossil records, having evolved from feathered ancestors. Birds have wings which are more or less developed depending on the species; wings evolving from forelimbs, giving most birds the ability to fly. There are some flightless birds, including ratites, penguins and diverse endemic island species. The digestive and respiratory systems of birds are uniquely adapted for flight. Some bird species of aquatic environment have evolved for swimming. Birds played an important part in the inception of Darwin's theory of evolution by natural selection.

Some birds, especially corvids and parrots, are among the most intelligent animals; several bird species make and use tools, and many social species pass on knowledge across generations, which is considered a form of culture. Many species annually migrate great distances. Birds are social, communicating with visual signals, calls and bird songs, participating in social behaviors like cooperative breeding and hunting, flocking and mobbing of predators. A vast majority of bird species are socially monogamous, either for one breeding season at a time, sometimes for years, but rarely for life. Birds produce offsprings by laying eggs fertilized through sexual reproduction. They are usually laid in a nest and incubated by the parents. Most birds have an extended period of parental care after hatching. Some birds, such as hens, lay eggs even when not fertilized, which do not produce offspring.

Birds occupy a wide range of ecological positions. While some birds are generalists, others are highly specialized in their habitat or food requirements. Within a single habitat, such as a forest, the niches occupied by different species of birds vary, with some species feeding in the forest canopy, others beneath the canopy, still others on the forest floor. Forest birds may be insectivores, frugivores, and nectarivores. Aquatic birds generally feed by fishing, plant eating, and piracy or kleptoparasitism. Birds of prey specialize in hunting mammals or other birds, while vultures are specialized scavengers. Avivores are animals that are specialized at preying on birds.

Many species of birds are economically important. Domesticated and undomesticated birds (poultry and game) are important sources of eggs, meat and feathers. Song birds, parrots and other species are popular as pets. Guano (bird excrement) is harvested for use as a fertilizer. Recreational bird watching is an important part of the ecotourism industry. Some nectar-feeding birds are important pollinators, and many frugivores play a key role in seed dispersal. Plants and pollinating birds often co-evolve and in some cases a flower's primary pollinator is the only species capable of reaching its nectar.

Birds are often important to island ecology. Birds have frequently reached islands that mammals have not; on those islands, birds may fulfill ecological roles typically played by larger animals. Nesting seabirds may also affect the ecology of islands and surrounding seas, principally through the concentration of large quantities of guano, which may enrich the local soil and the surrounding seas.

A wide variety of avian ecology field methods, including counts, nest monitoring, capturing and marking, are used for researching avian ecology.

Since birds are highly visible and common animals, humans have had a relationship with them since ages. These relationships may be mutualistic, like the cooperative honey-gathering among honey guides and African peoples such as the Borana. Other times, they may be commensal, as when species such as the house sparrow have benefited from human activities. Several bird species have become commercially significant agricultural pests and some pose an aviation hazard. Human activities can be detrimental, and have threatened numerous bird species with extinction (hunting, avian lead poisoning, pesticides, roadkill, and predation by petcats and dogs are common sources of death for birds). Birds can act as vectors for spreading diseases like psittacosis, salmonellosis, campylobacteriosis, mycobacteriosis (avian tuberculosis), avian influenza (bird flu), giardiasis and cryptosporidiosis over long distances. Some of these are zoonotic diseases that can also be transmitted to humans. Domesticated birds raised for meat and eggs, called poultry, are the largest source of animal protein eaten by humans. Many species of birds are hunted for meat. Bird hunting is primarily a recreational activity except in extremely undeveloped areas.

Other commercially valuable products from birds include feathers (especially the down of geese and ducks), which are used as insulation in clothing and bedding, and seabird feces (guano), which is a valuable source of phosphorus and nitrogen. Birds have been domesticated by humans both as pets and for practical purposes. Colorful birds, such as parrots and mynas are bred in captivity or kept as pets, a practice that has led to the illegal trafficking of some endangered species. Falcons and cormorants have long been used for hunting and fishing, respectively. Pigeons were used as messengers in olden times. Such activities are more common either as hobbies, for entertainment and tourism or for sports such as pigeon racing, today.

Amateur bird enthusiasts (called birdwatchers, twitchers or birders) number in the millions. Many homeowners erect bird feeders near their homes to attract various species.

Birds prominently figure throughout human culture.

Birds play prominent and diverse roles in folklore, religion, and popular culture. In religion, birds may serve as either messengers or priests and leaders for a deity, as chiefs or as attendants. In several civilizations of ancient Italy and Roman religion, priests watched their activities to foretell events. They may also serve as religious symbols. Birds have perceived as Mother Earth or as monsters.

Birds have been featured in culture and art since prehistoric times, when they were represented in early cave paintings. Birds were later used in religious or symbolic art and design, such as the magnificent Peacock Throne of the Mughal and Persian emperors. Birds are important figures in poetry; for example nightingales.

Perceptions of various bird species often vary across cultures. Owls are associated with bad luck, witchcraft and death in parts of Africa but are regarded as wise across much of Europe. Birds are depicted in the process of transgressing boundaries between earthly and underground spiritual realms.

About 120–130 species have become extinct due to human activity since the 17th century and hundreds more before then. Human activity threatens about 1,200 bird species with extinction, though efforts are underway to protect them. Most common example is of common sparrows which are almost extinct, probably as a result of particular electronic waves which seem to harm them. Though human activities have also allowed the expansion of a few species, such as the barn swallow and European starling, they have caused population decreases or extinction in many other species. Many bird populations are declining worldwide, with 1,227 species listed as threatened by Bird Life International and the IUCN in 2009.

The most commonly cited human threat to birds is habitat loss. Other threats include overhunting, accidental mortality due to structural collisions or long-line fishing by catch, pollution (including oil spills and pesticide use), competition and predation from nonnative invasive species and climate change.

Governments and conservation groups work to protect birds, either by passing laws that preserve and restore bird habitat or by establishing captive populations for reintroductions. Such projects have produced some successes; one study estimated that conservation efforts saved 16 species of bird that would otherwise have gone extinct between 1994 and 2004. We all must protect, feed and preserve birds in whatever way we can, as they are an important part of our life cycle, which may get disturbed by their extinction.





# Birds...

Early morning.. foggy weather.. Cold winds.. pure oxygen.. n the beautifully chirping birds...how pleasing does this seem, right ? Birds add to this beauty of nature. They are beautiful, inspirational and international. They are excellent flagships and vital environment indicators. Being widespread, well studied, and highly responsive to environmental change, birds are very valuable indicators of the health of the natural world. They tell us what is happening to everything else. If birds go extinct, so will many other species.

Of more than 10,000 bird species 13% are threatened with extinction and over 190 are classified as critically endangered (highest threat category) according to the IUCN red list of threatened species.

If we don't act now. We could lose many birds within 10 years. They are now facing a wider range of threats than ever before, almost entirely as a result of human activity. Major threats include agricultural expansion, logging, over-exploitation and climate change.

## 20 Ways to Conserve Birds

It's easy to get involved in bird conservation, and like anything, some of your most helpful actions begin at home. Environment for the Americas surveyed biologists, educators, conservationists, bird watchers, and bird enthusiasts to get their best ideas for getting involved in bird conservation. In celebration of International Migratory Bird Day's 20th Anniversary, we selected 20 issues and simple solutions. Imagine how many birds you can help finish their migratory journey, have a successful nesting season, raise young, survive the winter, if you just...

**1. Prevent Bird Collisions with Your Windows** Collisions are one of the most frequent causes of bird deaths. Birds see nature reflected in the window or mistake houseplants inside the building for outdoor plants and fly into the glass. Putting up curtains or window decals helps make the window visible to birds.

**2. Protect Birds From Pets** Unleashed dogs and outdoor cats can harm birds by disturbing, chasing, and even killing them. Keeping your cat indoors and your dog from straying saves millions of birds each year.

**3. Clean Your Bird Feeders** Dirty feeders can spread disease. Disinfect and clean out old seed from feeders frequently and put fresh water in your bird bath every day.

**4. Don't Buy Illegally-Caged Birds** *Selling wild-caught birds as pets is illegal. Buy only captive-bred birds. Make certain that the breeder or pet store is reputable.*

**5. Use Cloth Grocery Bags and Reusable Bottles** *Birds that mistakenly eat plastic trash can become ill or even die. Avoiding plastic bags and bottles reduces plastic pollution and conserves resources.*

**6. Recycle** *Anything you recycle reduces litter and saves resources. Get creative! You can make a bag from used juice containers and bird feeders from old dishes and plastic bottles.*

**7. Restore Natural Habitat in Your Community** *Birds need a place to live and many bird habitats are disappearing. City parks and open spaces are natural places for birds. Work with your community to recreate the habitat that once existed in your area.*

**8. Keep Your Distance** *Birds need space for feeding, nesting, and other daily activities. Approaching too closely may cause them to become nervous and deplete much-needed energy reserves. During the nesting season, it may even result in loss of eggs or young to predators.*

**9. Leave Fledglings Where You Find Them** *Fledglings may spend several days on the ground after they leave the nest before they are able to fly. You can help by keeping people and pets away, so their parents can continue to care for them. If you think a bird is truly an orphan, call a rehabilitator for instructions.*

**10. Slow Down When Driving** *Cars kill millions of birds each year. Driving slowly gives you more time to respond if there is an animal in the road and gives the animal plenty of time to get out of the way.*

**11. Buy Bird Friendly Products** *You can help preserve bird habitat in Mexico, Central and South America and the Caribbean by buying shade-grown coffee and chocolate. Shade coffee farms, which imitate native forests, have many more bird species than sun coffee farms.*

**12. Plant Native** *Native plants provide food, nest sites, and cover for birds.*

**13. Teach Others About Birds** *Talk to your friends about birds and start a club in your community to teach people about the challenges birds face. The more people know, the more they can do to help.*

**14. Get Outdoors and Enjoy Nature** *You can appreciate the bird habitat near your home. Find a local park and go for a walk or just stroll around your neighborhood.*

**15. Take a Friend Bird Watching** *Invite a buddy and see if you can spot more birds together.*

**16. Support Conservation.** *Join a bird club or other conservation organization to learn more and contribute to protecting birds. Volunteer with organizations that preserve habitat and help birds.*

**17. Be a Citizen Scientist** *Many projects need helpers to gather data on birds and their habitat. Contact your local Nature Center, library or conservation organization to volunteer.*

**18. Reduce Energy Use** *Riding your bike or walking reduces your carbon footprint and prevents pollution of bird habitats. Switching off the lights in your house not only shrinks your energy bill, but can also help prevent birds from colliding with your windows.*

**19. Avoid Chemicals** *Birds may accidentally eat pesticide and herbicide pellets or prey that have been poisoned. This can kill a bird or have toxic effects on their own health and that of their growing embryos, including deformation or suppressed immune systems.*

**20. Learn the Hunting Laws** *Federal and local laws protect sensitive areas and manage the harvest of birds to ensure healthy populations. Purchase a Federal Migratory Bird Hunting and Conservation Stamp. It contributes to habitat which benefits all birds.*

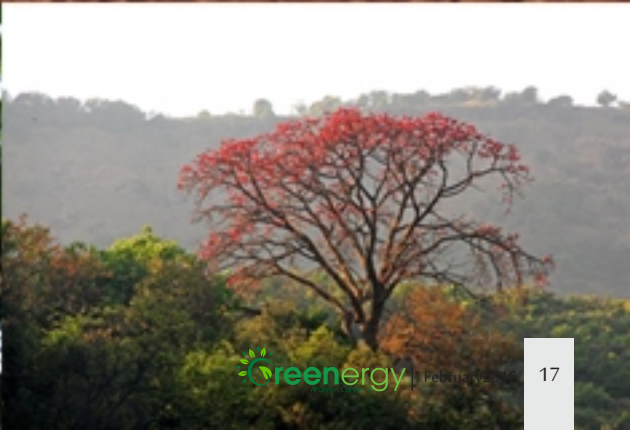


.....Compiled by Er.Nikita











.....Compiled by Kaushal Patil



## *Fallingwater - A R(J)chitecture at its best*

Every student studies this modern architecture icon designed by Frank Lloyd Wright. Each one relates to it on a different level! I myself studied this building twice. Once as a student of architecture and a couple of years back, as a quilter!

As a student, I loved the building! It was dramatic, modern, sleek and minimalist. It used local material. It had the most impressive cantilevers. FLW had broken the practice of following European Architecture styles, and had developed a simple, barrier-free style of his own. It used the material with the most honesty. A steel beam was used like a STEEL beam and not to look like a wooden truss! Concrete was used in a size that concrete should be used, not to match a brick wall size.

When I decided to make my thread sketch of the building for my “Architecture in Stitches” series, I studied it aging. This time I realized some new things about it.

It is a building that is one with the nature! Wild animals live near it. Trees surround it. Water swirls underneath. Huge boulders rest at its feet. FLW designed Fallingwater to be in harmony with nature.

There is a wonderful story that goes with this building. The Kaufmanns owned property outside Pittsburgh with a waterfall and cabins they used as a rural retreat. When these cabins deteriorated, Mr. Edgar Kaufmann contacted FLW.

When FLW first visited the Bear Run property he was shown areas suitable for a new house, the falls with its several cascades and large, smooth rock surface for basking. FLW designed a house like nothing ever seen before. He wrote a letter to Edgar Kaufmann saying he was so stirred by the setting that he wanted to create a building that would be an accompaniment to the music of the stream.

Nine months after the visit, when Mr Kaufmann called FLW one Sunday morning and told him that he was visiting around there and would love to come and see his sketches for the house, FLW had not, yet, drawn a single line. During the two hours that it took Mr Kaufman to reach, he calmly drew the plans!

When the Kaufmanns first looked at FLW's drawings, they were very surprised! They thought their new house would have a wonderful view of the falls. But instead, with the house right on top of the falls, it was very difficult to even see them. But not to hear them! FLW told them that he wanted them to live with the waterfalls, to make them part of their everyday life, and not just to look at them now and then.

The building as a whole was designed to mimic nature. And to do this, FLW incorporated the 'flow' of the surroundings into the design on the building! He used ONLY 4 basic materials used in the building – Reinforced Concrete, Stone, Steel and Glass.

All the stone at Fallingwater was quarried about 500 feet west of the waterfalls. Workers put up the stone in a rough, shifting manner so it would look like rock coming right from the ground. You can see steel throughout the house in railings, shelves, and windows and doors. FLW decided to have the steel painted red to remind people of the red color of iron ore (which steel is made of) and also of the fiery method used to create steel. FLW used a lot of clear glass to allow the outside to flow freely into the inside. At certain times of day, the glass becomes very reflective and reminds some people of the mirror-like surfaces of a calm pool of water. At night, the glass seems to disappear. FLW chose the pale ochre color of the concrete to match the back of a fallen rhododendron leaf.

I have yet to see another building that is as close to nature as this one, and yet have a character of its own. It embodies FLW's concept of architecture as an art capable of changing how we live. He believed people derive “sustenance from the atmosphere of the things they live with. As a great work of art, Fallingwater transcends its function as a house to meet a client's needs and symbolizes an American democratic ideal: to be able to live a free life in nature.



.....Compiled by Shruti Dandekar

The infographic is set against a grey, textured background. It features four main sections, each with a title and an icon. At the top, the text 'Today's Reality' is written in a bold, sans-serif font, with '-by Ultimate Designs' underneath. The four sections are:
 

- Costly Watches:** An icon of a hand wearing a gold watch.
- Advanced medicine:** An icon of two red and white capsules.
- No time:** An icon of a man in a suit surrounded by various office-related icons like a calendar, envelope, and clock.
- Poor health:** An icon of a person sitting on the ground, looking unwell, with a red figure above them.

 At the bottom of each section is the 'Ultimate Designs' logo, which consists of the letters 'UD' inside a circle. Below the logo, there is a small line of text: 'Follow us for more design tips'. At the very bottom of the infographic, there is a disclaimer: 'This image may not be used, altered or reposted for any purpose without the written permission of the copyright owner, except as noted.'



Ar. Pramod Chaugule  
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# THE ROLE OF VEGETATION IN LANDSCAPE DESIGN



## The role of vegetation in landscape design

With rapid urbanization and technological development human is becoming isolated from nature day by day. Actually has forgotten that he is also an integral part of that nature. Built environment is dominating the natural environment resulting in various issues like ecological imbalance, pollutions and health hazards. The vegetation ( all types of plantations and softscapes) play a vital role in overall quality of life, quality of the environment and physical and psychological health of the society.

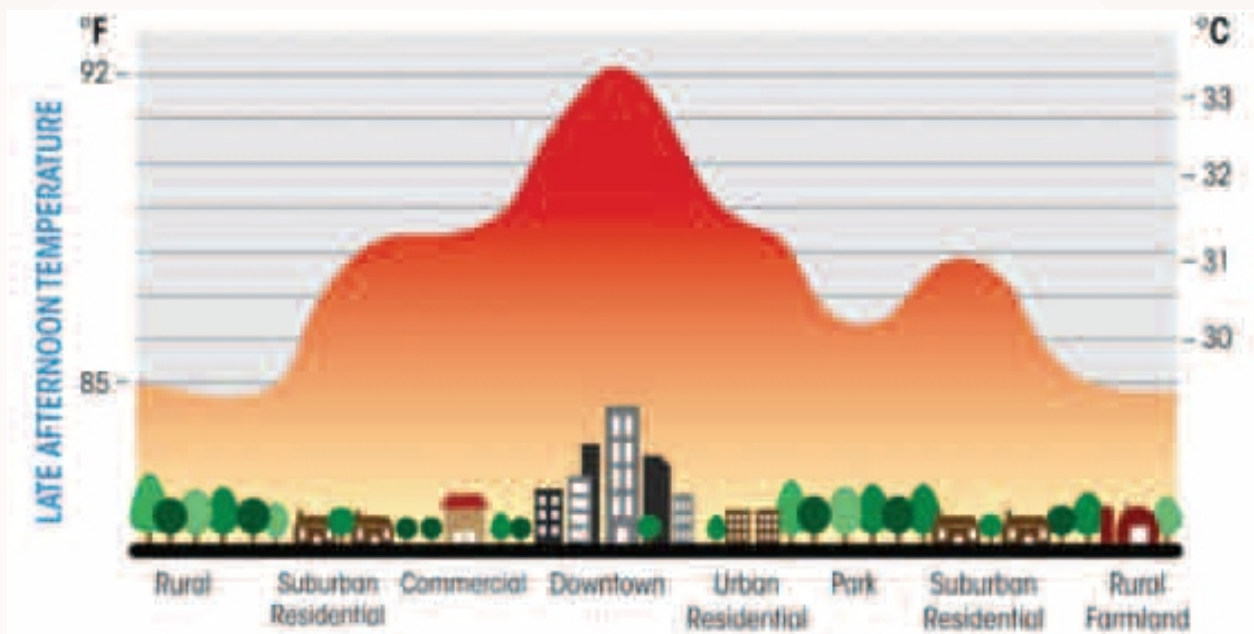
But today vegetation is disappearing faster than we think. Unfortunately we are forced by law to preserve and improve environment and vegetation around us.

In today's modern world the landscape designers must create a balance between built and natural environment , revive ecosystems and ultimately improve our quality of life. There are many aspects which have to be considered while designing a landscape such as to reduce energy consumption of the structure, recycle the water and the waste, support the local ecology, reduce various pollutions and of course last but not the least the aesthetic value. **Vegetation** is the first and the foremost important element of landscape design. But while designing a landscape the use of vegetation is misinterpreted. It is considered only in terms of its ornamental characteristics like its colour, texture. The approach to the design is limited to the visual attraction only and other major important aspects are generally overlooked. What are these aspects of vegetation while designing a landscape?

Environmental aspect: the vegetation provide a wide range of environmental values such as reducing the air & noise pollution, screening the unpleasant outdoors, reduction in temperature etc. according to the need of the project one can recommend vegetation for above mentioned purposes as per the requirement.

Air and water quality- trees are efficient and cost effective way to improve air quality and reduce pollution. A mature tree can absorb 120-140 pounds of CO<sub>2</sub> per year released by automobiles and industries. Trees can also reduce soil erosion and storm water run off saving the cost of storm water sewers and other built solutions to storm water management.

Lower heating and cooling :trees have ability to reduce heating and cooling resulting in proper microclimate. Urban areas with little vegetation can experience temperature rise up to 7 degree than areas with adequate vegetation.



Trees can be used as windbreaks to protect both buildings and outer areas such as lawns and patios from both hot and cold winds. The velocity reduction behind the windbreak depends on their height, density, cross-sectional shape, width, and length, the first two being the most important factors. In cold climates, windbreaks can reduce the heat loss in buildings by reducing wind flow over the buildings, thereby reducing convection and infiltration losses



Properly selected plants can reduce heating or cooling cost by 10-15% of overall demand.

## Ecology Value

Today our environment is damaged because of haphazardous cutting of trees . And now we are trying to regain it by more and more tree plantation . But is it sufficient ? No. basically trees are the key factors to balance and sustain the ecology . So while planting the trees one must consider the local ecology . The plants which support the local ecology and its elements like, birds, insects, local climate , water condition and air have to be planted .

Thus while designing vegetation if all the factors are considered , then the Ecological value of the environment is improved.

## Economical Value -

Trees and vegetation are a major economical asset to the community which build a positive community image . Proper and well designed vegetation can attract residents, bussinesses , visitors and tourists adding the economical value of the environments ( buyers willing to pay 3 to 7% more for the property with ample trees)



## Psychological effect of vegetation -

Plants are human's physical need. But does that end there? Moreover plants, vegetation has a intense psychological effects on human minds .if proper vegetation is provided to the working areas the efficiency of workers increases because it reduces mental fatigue , can provide effective screening to other stimuli and distractions.

Proper environment with vegetation in hospital and mental asylum can build positive attitude in the patients reducing frustrations.

## Aesthetics value-

Vegetation provides a variety of aesthetics values to the architectural design and buildings . Plants have qualities like colours, textures, proportions, shapes and sizes which complement and add to the beauty of the built environment. Instead of using the vegetation as just a cosmetic treatment , we should integrate the built environment with the vegetation reducing their visual intrusions. Proper vegetation can give a different perspective to the structure and the structure will give a effect as if it has emerged from the surroundings.

*Compiled by Ar.Reena Mahesh Chavan*



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Follows rules of discipline & Fasting. Truth follower Bold and who reads holy Vedas  
SADVARTAN- CHARAK-813-14-15.

1) To keep physical body perfectly to mind and indriyas calm always perform their activities which make mind happy with drawing sense from sense object perform all activities at specific time according to place time Environment

2) God, Cow Guru, Elderly people, Holy Saints and Teacher, respect them and do their pooja Take bath twice a day after bath do not go near dirty places wash your hands and legs nails after five days always wear clean cloths, apply oil to head and legs daily. Help people if possible

3 Control self and always talk pinpoint

4) Earn money by sell work Instead of stealing money

5) Be confident and Bold and firm. Do not feel frightened.

6) Be smart intelligent t active, polite, use talent.

7) Wear helmet, chappals,

8) Love animals Give help to helpless and lame calm angry persons.

9) Do not depend upon any one, overcome anger and fear



## TRI-UPSTAMB-

Ahar, Nidra, and Bramcharya, are three legs of healthy mind and healthy body

Ahar - fresh and vegetarian satvilk die in limited quantity nourishes body.

Food that we eat is divided in three parts

1)Sthola part does nourishing of mala

2)Medium part does nourishing of dhatus Sukshma part does nourishing of mind, therefore

we say

## NIDRA–

Nidra mens sleep, at right time and proportion Makes body and mnd healthy and refeshes budhi Atma and calms and relaxes mind and body

## BRAMACHARYA -

means restriction of Semen. Desires Leads to passion and passion to Irregularity in breathing pattern. Bramhachari who has preserved Virya, always keep mind blanced

## PATYAPATINAKALPANA

Means good and bad dietary combination affect Health of Mind and Body.Wrong combinations create disturbance of agni and finally Illness.

## VIHAR -

Helps for toing body and help in building strength Ayurved has explained in details about exercises and yogasanas, and about their good effects on human mind

## KEY NOTE SUGGESTION AND ITS IMPORTANCE

Ayurvedas main aim, is Swastashya Swasty RakSanam Following of above swasthavrita routines, removing Pradna Apradh behaving according to Achar ayana, accepting satsang, keeping in mind Sadvartan by understanding Tri-upstombs, the, Treatment of psychotherapy can be managed without using medicines.

## SECOND TYPE OF TREATMENT- Is of 3 types

1) Daiva Vyapashraya Chikitsa- consists of following Mantras, fastings,Havan, Sacrifice of animals, wearing of different medicines and sacred threads around necks etc,

2) Satvavjaya Chikitsa - consists of Deshdyn, Baldyan, kaladyan, Atmadyan, Shaktidyan and kuldyan. Knowing self above treatment is carried.

3) Yuktivyapashraya Chikitsa- comprises of above both treatments And also use of drugs for increasing OJAS & RASAYAN

BUT

In Vikrut state in psychotherapy, just counseling is not sufficient - The fact is that, there is definite relation of Doshas with body- functions and therefore origin of all psychosomatic disorders can be corrected, by correction or Doshas, using MEDICINAL HERBS and by different Scientific Ayurvedic specialized treatment techniques.

Maher shi CHARAK has stated that, before starting treatment always study of Doshas Dushas balam kalam Agni Vayam etc and then only plan treatment and use Herbs Ayurvedic herbs are highly potent And are deviod of side effects and are easily avialable

Ayurvedic drugs used for treatment in psycho therapy are Divided into 9 different groups They are as below

- 1) Medya dnues-e g Brambi, Shankpusphi vacha etc
- 2) Madakari drugs-(narcotic) Bhang,Ganja, etc.
- 3) Saudya sthapan drugs-sensitizers)Hinga Jatamarsi etc. etc
- 4)Vedna stapan drugs-analgesics Guggul opium, vatsa nav etc.
- 5)Akshepjanan drugs convulsan) Kuchla
- 6)Akshepshaman- anticonvulsant) Karpoor, Belladona etc
- 7)Nidra nashan- Galic oil smell etc
- 8)Nidra janan – Opium etc
- 9)Rasayan drugs Shatavari, Ashwaganda etc,
- 10)vajikanan drugs-Shilajit. Kawach etc.

SECOND TYPE OF TREATMENT is of 2 types

- 1) Shaman chikitsa and
- 2) Shodlan chikitsa

SPECIALIZED PROCEDURES- are of 2 types

- 1)URDHVA SHODHAN- consists of VAMAN and NASYA.
- 2)ADHOO SHODHAN consists of VIRECVHAN and BASTI
  - 1.A) VAMAN Treatment is used to remove and balance Kapha
  - B)NASYA is used to remove doshas from above Neck
  - 2.A) VIRECHAN-is used to remove and balance PITTA
  - B) BASTI is used to balance VATTA





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