

The making of MRUGE MADHURIM

Green products

10

uByld Home



The making of MRUGE MADHURIM

05

Print

2018
ISSUE 4



Or

SI: Team

Poorva Keskar
Anagha Paranjape-Purohit
Hrishikesh Kulkarni
Apoorva Kulkarni
Namrata Dhamankar-Jadhav
Pranali Shroff-Munot
Vijay Sane
Amol Umbarje

Credits

Editor: Apoorva Kulkarni
Co-ordination: Amol Umbarje
Designing: Nutan Ursekar
Printed at: Ripple Arts, Pune



© Sustainability Initiatives 2018. All rights reserved.

For subscription, contact: Sustainability Initiatives
73/2 Bhakti Marg, Off Law College Road, Pune 411 004
mail@sustainability-initiatives.org

Editorial Speak

In this issue of SI Imprint we bring your attention towards a radical change that is taking place in our urban context, the use of 'Green materials' in our everyday life. Be it the green houses that are getting built, the use of interesting green materials in construction of infrastructure, the green cutlery that is gaining popularity, or the recycle-revolution in the fashion & textile industry. Its all very exciting.

Take for example the construction industry. There are so many Green Materials that are available now, Straw bale, rammed earth, Hempcrete, Mycelium, Ferrock, Ashcrete, to name a few. Ingenious Pune-kars, the Joshi couple have been producing green construction material for last few decades, their experience about the changing construction technology usage is valuable.

Further in this issue we showcase a story of an architect's sincere efforts to build a green home. Through his story, Architect Gurjar bring up topics such as truth behind the 'so-called Green Materials', awareness and understanding about the actual sustainable methods of construction, and efforts to reduce the carbon footprint throughout the building process for debate.

In the quest to change our everyday living into sustainable and green living, its imperative to drastically change the way we look at what we eat, what we eat from, what we wear, what is it made of? Our food, utensils, cutlery, outfits,

the furniture we use, all these need a radical change of perspective. The changes in civil law too are going to influence our daily choices. We are introducing few such organisations here who work with green materials - clay, plant leaves, cork, recycled wood, recycled fabric, they are sure to trigger your imagination.

While researching for the issue, we came across a lot of small to medium scale initiatives that are working relentlessly towards bringing in innovation to change our day-today living. It was comforting to find a good number of such organisations in Pune too.

Here were able to take only a few stories, but its assuring to see that once we decide to change, our collective initiatives can bring in a revolution which can transform the fate of our next generations.

Hope these stories inspire each one of you to embrace the metamorphosis of our urban lifestyles.

Do let us know your thoughts on the issue and inspire us to come up with more interesting topics for future editions.

Apoorva Kulkarni

gr

Index

1 Green Build Products (I) Pvt. Ltd.



2 The making of MRUGE MADHURIM

3 A Leafy Business

4 uByld Home Decor



gr

5 Mitticool



6 My Arture

7 Doodlage



8 SI:News



9 Connect With US

gr

Green Build Products (I) Pvt. Ltd.

Waterless construction - Now you can build without cement sand and water!

Way back in 2005, who could have imagined the possibility of construction of building without using cement sand and water?

It was still the time when Indian construction industry was using red clay bricks to build and cement paints or oil bound Distempers to decorate the walls. The construction industry was in nascent stage with respect to the environmental impact it was creating on the surroundings. The issues of material depletion, water crisis, were in school book syllabus. It was at this time that we at Green Build Products (I) Pvt Ltd, started thinking of what challenges the construction industry would expect in the near future and what could be the desirable solution to combat the challenges while supporting sustainable development.

Prevention is better than cure!

We started as an eco friendly paint and coatings manufacturing company. At that point of time, the Acrylic paints and coatings were hardly known to the market while globally these paints were regularly used as they are environment friendly. We were asked by our clients regarding the elasticity, crack bridging ability of our products, the VOC etc and soon we realised that we were offering solution to one of the major issues of the industry - i.e. cracks.

Cracks occur due to several reasons and result in water ingress. This leads to subsequent growth of fungus and mould thus damaging buildings. One of the prominent reasons for cracks is the cement sand mortar, where sand quality, water cement ratios and water curing play crucial roles.

We thought of addressing the root cause. We all know prevention is better than cure, so why treat walls after causes that produce cracks are formed? why not eliminate the cracks?

Besides cracks there are several other challenges that are faced by Builders, site engineers and supervisors. The high rise buildings are becoming necessary to cater to the growing demands for accommodation. The townships are fast gaining popularity. The land costs are extremely high and fast track projects are necessary to get proper Return On Investment.

On the other hand, labour availability is getting scarce day by day. Skilled labour is yet another issue, while supervision required to maintain quality of work is getting difficult day by day.



Factory of Green Build Product Pvt. Ltd.

We realised that the industry would very soon face resource crisis. It would also become necessary to combat environmental impacts of the construction sector.

We were early birds in the industry to come up with our innovative technology of WATERLESS CONSTRUCTION, which could help building without cement sand and water.

Today the industry is facing severe sand crisis due to ban on use of river bed sand and it has become necessary to find suitable and sustainable alternatives.

Environmental impacts and GHG

While we all know that cement manufacturing is an energy intense process and consumes extensive quantities of fossil fuels, and also generates wastes and grey water foot print, the river bed sand used in making mortars and plasters also has its own ecological impacts. The construction industry is known to be emitting almost 35% of global GHG. The construction industry uses extravagant quantities of materials in the process and also generates wastes.

WATERLESS CONSTRUCTION - An Innovation

We realised the need for sustainable solutions and came up with our innovative technology of waterless construction. Here we have a technology of processing industrial wastes and polymerising



Hotel Orchid, Pune



Factory of Green Build Product Pvt. Ltd.

them to create slurry or paste that is ready to apply. Using these pastes we can completely substitute the cement sand mortars and plasters. There is no need of on site mixing, or preheating or post curing.

This saves 100% water while doubles the labour output. The application is done by a specially designed trowel to ensure that only 2mm to 3mm material is applied thus saving resources. Almost 80% to 85% of composition of the paste is made of recycled material and processed industrial waste. The shelf life and the pot life of the pastes is also very high and upon application it renders strong and crackless joints and surfaces.

Our breakthrough projects include **Hotel Sayaji and Hotel Orchid standing since 10 years on the Mumbai Bengaluru highway near the Balewadi Stadium at Pune.**

The products are completely free from cement and river sand thus reducing the carbon footprint. The labour output is doubled and there is almost 50% saving of time.



Projects with Waterless construction

Our technology enjoys International and Indian Patents and is used all across India. Many of our prominent projects include Hotel Sayaji, Hotel Orchid, Delhi Airport, Nanded City, Magarpatta, Blue Ridge, Sea Wood Central Mall and Railway Station and is being used by recognised construction houses like L & T, Godrej Housing, Vascon Engineers, Sobha Developers, Paranjape Builders to name a few.

The construction market is getting organised and we see increasing awareness of green practices and demand for green products and technologies. Indeed the market for 'green' is really the need for the day.



Hotel Sayaji, Pune



Project Shobha, Bangalore

Mrs Shilpa Joshi (*BSc-Home Science and Human development, PGDM and co-founder of Sujan Envitech solutions Pvt Ltd*) and Mr. Pradeep Joshi (*co-founder of Sujan Envitech solutions Pvt Ltd.*) are the founders of Green Build products (I) Pvt Ltd. After a successful career of 18 years of interior designing together, they explored their burning desire for manufacturing by creating the now recognized Green Build Products (I) Pvt Ltd in 2005. With conscious efforts for sustainable development they developed the technology of waterless construction which enjoys international patents as well as several innovation awards.

Green Build Products (I) Pvt. Ltd.

Plot No. 49, Prashant Co-op Housing Society,
Near Krishna Hospital, Paud Road, Kothrud,
Pune- 411038.

Mrs. Shilpa Joshi
Phone: 9822509408

Mail: marketing@greenbuildproduct.com

The making of MRUGE MADHURIM

- Mr. Subhash Gurjar

Plot purchased in Akshi in Feb 2013 to build my house, gave me a chance to build a green building. But what is a green building? Conventional green buildings using variety of green products never appealed to me. I wanted to make a green building as an eco friendly building that will compliment nature, one that will use maximum natural light and natural ventilation, one that will use local building material and is built on the principle of solar passive architecture.

For last 45 years I had designed many houses but had no experience of designing a green building or an eco friendly building. So I started with a self dialogue on this subject. Every building has two components, one is building materials and other is method of construction. To me eco friendly means that the building materials and the building techniques should not impact nature.

An article by the director, of Earth Institute, Auroville, Pondicherry, became a beacon light for me. It vouched for earthen buildings with **CSEB** {Compressed Stabilized Earthen Blocks} technique, where earth is stabilized with 5 to 10% of cement and earth blocks are made by compressing the stabilized humid earth and cement mix in a hand pressed machine. These blocks are cured and dried before using them for construction. Vault and dome replace RCC slabs in this technique. The CSEB technique



is combined with Ferro cement and Rammed Earth technique to create a modern earthen building.

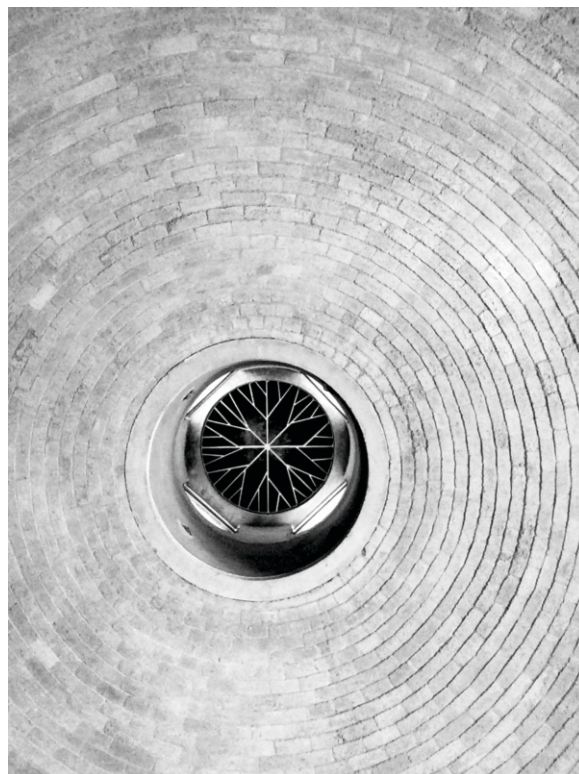


Generally, a building made with these techniques contains 90 % earth and 10% cement and steel. The blocks are made in a manual machine, the building is made manually using only small hand tools like electric drill, grinder and cutting machine. Most importantly the building of dome and vault does not require any centering since the technique is self supporting. This results into a unique building with a low carbon footprint.

The Earth Institute says that if such a building is abandoned for twenty years it will go back to earth. This fitted perfectly into the cycle of nature of **Creation - Sustenance - Dissolution**. I was sold on this concept, went to Auroville, studied this technique at Earth Institute, bought the machine to make blocks, researched the local earth fit for block making, got labour to make these blocks, trained them to build walls, vault, dome and various Ferro cement components of the building. Everything in this building is different. We all learned on the site. The Site became a laboratory for experimenting with new techniques and evolving suitable methodology of putting things together.

Other than windows there are skylights in each public area like drawing room Dining - Kitchen and the Staircase for natural light and exit of hot air. All bedrooms are provided with network of pipes at apex of vault for hot air exit. All aluminum windows are stretched down with low cill level. The lower part made of glass louvers to admit fresh cool air. Upper part of the window is generally fixed glass as a viewing window. Thus hot air is forced to follow route of sky light vents for exit.

There are no ceiling fans in the house instead tower fans are provided near louvered windows to pull the cool air in. There is no provision of air conditioners in this house. Instead, an opening is provided at 2 m. level to install a suction fan which can suck outside cool air in the evening. Within two hours, the room can be comfortable and cool. Bedroom and toilet doors are aluminum paneled. Staircase doors are steel doors. Only the entrance door is made in special wood from a local coconut tree. Staircase is made with 2 inch thick precast cantilevered treads and risers. Flooring of the entire house is rough Kota stone. Door and window jambs and soffits are in polished Kota. The CSEB wall



surfaces, interior as well as exterior, are finished with pointing. Plastering is done selectively for surfaces facing the rainy sides. There is no paint used in the entire house either for exterior or interior (with an exception of steel gate, railings

and safety grills). By now it was clear to me that eco friendly building is one that require less energy during its birth, and requires less energy every day during its life time, because every drop of energy spent is responsible for emitting carbon.

The same principle guided the services. Instead of taking piped water coming from a 20 km. distance, I decided to use open well water available just 100 m. from the house. For cooking and drinking we follow traditional system of boiling the water and filtering it through four layers aline cotton cloth. Grey water is collected in waste water recycling tank for reuse like flushing and gardening.

For Rainwater harvesting a collection tank at second level terrace is fed by rainwater from top terrace. From the second level, it goes by gravity to the kitchen. This gives us fresh water in the house entirely during monsoon. Rainwater from other terraces is collected in the underground tank.

Black water is treated in a two pit system where initially first pit is used. It would last for 2 to 3 years. When full, it will be closed and second pit will be activated. After about six to twelve months the first pit will be re-opened for use, its contents as rich as manure.

For electrical services, LED lighting fixtures are used A 200 litre. Solar Water heater system supplies hot water to 3 toilets and the kitchen. Effective planning, ample day light, natural ventilation, LED lights, along with solar water heating system has resulted in saving a lot of energy. This is reflected in my monthly energy bill which averages about Rs. 300/-, using only about 50 units.

The front yard and entrance court yard will have decorative and flowering plants and the back yard and first floor terrace garden will have kitchen garden (yet to be completed). The wet kitchen waste is composted in the back yard and will nourish all our gardens.

From the day 1 of this project I have experienced an invisible force like Earth's Magnet pulling people around it. Spontaneously friends and well-wishers came forward to be a part of this unique quest, some offered to buy machine, some offered place for block making, many became part of project team. All the way it was a wonderful

journey. The making of **Mruge Madhurim** has given me a joy of my life. **Mruge Madhurim** the name of the house, means it's a Earthen House, a sweet and beautiful home. It's a dream come true for me.



Mruge Madhurim
Eco-friendly Home at Mumbai

Mr. Subhash Gurjar
Phone: 9822296464
Mail: sga177@gmail.com

A Leafy Business

A casual conversation propelled R D Raj into an unusual venture of making plates and cups from leaves! The venture is so successful that R D Raj is talking to global companies into scaling up this business. Today he shares his green journey here. Mr. R D Raj did his masters in marketing management and started Annapoorna industries as a small unit with an investment of one lakh rupees and basic machinery. Now the leaf plates business has grown in to a 5 crore business with 8300 units across Andhra Pradesh and employs more then 50000 women. Annapoorna has three units in and around Hyderabad and Raj is all set to start an exclusive training center in this technology and to train unskilled workers in stitching leaves.

Annapoorna Industries is mainly into three activities. Along with stitching and manufacturing of leafplates and cups they provide technology services to manufacturers. In other words, they



Butea monosperma

supply machinery and equipment to people who want to start a similar set up. The third activity is up gradation of technology. They offer upgraded machinery to their clients. It was first a manual machine which was replaced by a semi automatic and now fully automatic machine.



Automatic leaf plate machine

A LUNCHTIME IDEA

Raj says, "I never thought that a random discussion would lead to my entrepreneurial journey. After finishing my masters, I went to Delhi to attend a conference. While having lunch we found that the curry was served in a leaf cup. The cup was in a bad condition so the curry leaked from it. This provoked a discussion between those sitting around the table.

We wondered how this cup could be improved. We spoke about some of the existing techniques



Automatic leaf plate machine

pertaining to leaf plate and cup manufacturing. For the others this was lunch time conversation but for me it was a lifetime venture. I decided to get into the leaf plate business. I traveled to Orissa, Karnataka and studied the leaves and their utilization. I designed leaf stitching machinery, which not only made the plates and cups strong but also gave them a refined look. We sold the first lot of plates and cups directly in the market and that's how Annapoorna started."

THE EXPECTED CRITICISM

Initially there was the expected criticism from family and friends. But I was firm and did not get discouraged or disheartened. My research said that yearly Andhra Pradesh imported approximately 80 crore leaves and if we added local available leaves we had 100 crore leaves for utilization. This meant a potential of making a 100 crore business. But my business then was just 6 crores! I submitted my report to my academy head J V Subramanyam, who guided and motivated me to take up this challenge despite criticism. "His words became the building blocks on this unusual journey."

Raj, in addition has also successfully persuaded many to get into this manufacturing business. We showcase our technology and products to representatives of other countries. Through these demonstrations we have been successful in getting many export orders. Eventually I suggest to the importers that they buy this technology for themselves and persuade them to start their own

units in their own country and spread the message of this mode of 'Green and eco-friendly' eating.

Raj talks about how he was keen on getting a contact to supply his product to Indian railways. "One day I approached V S Sastri, then FMCO and made my presentation. He told me to supply 800 plates for his relatives wedding." Then he helped me to meet Railway Minister Madhav Rao.

5000 plates were distributed to all the stall keepers on the Railway Station. Madhav Rao came and during the inspection he saw the plates and with this I received an order to supply leaf plates in the AP Express. We made plates all through the and night, delivered them to the AP Express in the morning."

Raj can recount many memorable moments in his entrepreneurial journey and narrates two that he says he will remember all his life. "Once I was in Euthopia, where they have a signature food item called Injara which is like a 20 inch dosa. I observed that it was difficult to serve it and they have to clean the table later. We designed a 20 inch plate for the Injara which made it easy to serve. Since the plate is biodegradable it is easy to dispose. They liked my idea so much that they gave us the order of exporting leaf plates and later also bought the machinery and started their own unit."



Automatic leaf plate machine

"The other incident was when I made plates for Ramoji Rao's son's wedding. Ramoji Sir told me to be present at the wedding and said that I would be responsible for any negative comments about the plates. Each and every guest liked the idea of serving food in leaf plates."

SHOWCASING INDIAN TRADITION

Raj's next target is to serve food in leaf plates at Telugu Mahasabhalu in the US. "I have always wanted to showcase Indian tradition and also propagate the fact that it's an eco friendly product." Raj adds here that natural, biodegradable and eco friendly are the concepts behind Annapoorna industries. Raj is a role model to aspiring entrepreneurs and he has a message for them: "Dedication and respect for your dream, is my advice. No business idea is small or big. For success, you need right the attitude, It's my business, my vision and I will do it."

Leaf Plate
10-4-125/ 2, Altaf Nagar
Bairamalguda, L. B. Nagar, Hyderabad TS

Mr. R.D. Raj
Phone: 09440059361
Mail: info@leafplate.com, leafplate@yahoo.com

IM Print Trivia

MAKE WAY FOR PALM LEAF PRODUCTS

*Attractive items made of Palm Leaf are very popular in South India. These are made mostly in Southern Andhra Pradesh and Tamil Nadu. Palm leaf products are bio-degradable, eco-friendly, hygienic and above all economical. Aesthetic in appearance, these products are strong and are light weight. **Lepakshi Handicrafts**, an Andhra Pradesh Government Undertaking is a treasure-trove of a fascinating range of various products made from palm leaves.*



Palm leaf products

uByld Home Decor

Interview



1. Tell us about yourself & How did this idea come to you ?

I am Pradeep Nair, creator and founder of Ubyld, India's First DIY online furniture store. From a young age I was raised as an entrepreneur, venturing into new ideas to cater to different needs and requirements of people in the most diligent way. From rearing high breed pigeons to foraging into a clothing line, was all a quiet an aberration from the usual. And now I am honoured to have set foot in something that is good for both humans and our environment. And yes! this is an expedition into eco friendly wood furniture making.



Coffee table

2. When did you start this initiative?

I started this, in 2015, as an experiment, in my terrace. I let the wood season in rain and sun, just to see how good this wood can be.

3. Introduce to our readers, your initiative we are India's first eco-friendly furniture range made from up-cycled solid pine wood to create unique, rustic and truly sustainable Furniture.

After much experimentation, I am glad to say, that this wood can be a solution to deforestation. We decided to make furniture retaining the ethnic look, retain the elegant and classy look without using big machinery and giving importance to skilled carpenters. Be it sofas or wardrobes, our products are handmade using eco friendly upcycled pine wood. This upcycled wood that has all the good qualities. It is sunlight and water resistant, totally free from termites, and it can be passed on from generations and still feel totally new.

4. What was the response to your initiative?

Initially, it was quite a challenge. Determined to spread the usage of this wood throughout India, we took lot of efforts, like keeping the price low, educating people about the importance of eco friendly wood, setting up experience centre to make them see, feel and know about the products.



Products of uByld

5. What changes have you seen in citizens behavior and approach in past few years as people have become more aware ?

Initially there was resistance towards upcycled wood. But slowly, people started accepting it and demand increased. Now people love this wood and our furniture. Moreover, all our furniture is made to adapt to the surroundings, be it office, hotel or house, to increase the aesthetic appeal and give ergonomic perfection. So people have given a positive response our company.

6. Apart from upcycled solid pine wood, What are the other initiatives you have ?

Upcycled pine wood furniture is a small step taken towards saving our planet. Handmade concept is yet another step taken towards providing employment to our highly skilled carpenters who were replaced by use of machinery. Our furniture is handmade with minimal usage of machines. Thus, we avoid energy use & thus reduce our carbon foot print.

7. Share with us your future plans and upcoming initiatives.

Upcycled pine wood furniture is a huge success. Apart from this, we are coming up with upcycled ply boards, and other materials to incorporate into

our expedition. We are trying to refurbish antique furniture and bring in a new era of furniture making to the world the concept will remain as - Upcycle the old !



uByld Urbana



Home decor furniture

uByld Home Decor
65, Anam Enclave, 3rd Main,
Thanisandra Main Road, Ashwathnagar,
Bengaluru, Karnataka 560077

Mr. Pradeep Nair
Phone: 098457 36237
Mail: pradeep.nair@ubyld.com

Mitticool



India is well known for its tradition and so is its tradition of cooking with earthenware. It's an age-old concept that has been left behind with time. The use of other materials like steel, china, melamine and plastics increased and thus earthenware lost its prominence.



**Mansukhbhai with Former President
Dr. A.P.J. Abdul Kalam at Gujarat**

One can still find an earthen pot in few homes these days. The reason is that earthen pots, its offer natural benefits. Earthenware has tremendous health benefits. Cooking food with it imparts nutritional value of the clay to the food. The porous material of clay helps water seep through it, letting you enjoy the mildly cool water. The mineral composition and porous nature of clay pots and other clay products accentuate the flavor of the food we eat.

Mitti Cool is all about reinventing these rich but forgotten roots of Indian culture into our modern lives. Mitti Cool is proud to do its bit in preserving our culture.

Mr. Mansukhbhai Prajapati, is a small-town man who has established Mitti Cool. Through this company, he aims to connecting us with clay and soil. Though clay products can still be seen in rural India. Mr. Prajapati aims to refresh its use in urban homes as well.

Originally, Mr. Prajapati, hails from Wankaner, Gujarat. Today, he is a successful entrepreneur who relished the idea of modernizing the knowledge that the craftsmen of this country carry.

Vision

At Mitti Cool, the vision is to bring the best of clay products in front of the entire world.

Mitti Cool also abides by and support various government schemes and campaign like Clean India, Make in India, Rural Employment Scheme etc.

Right from its innovative clay water bottle that keeps naturally cooled water by your side, Mitti Cool has a range of clay utensils for cooking food. A clay tawa adds flavour to our rotis. Today Mitti Cool has become a household brand as

homes in cities sport these unique clay utensils in their homes.

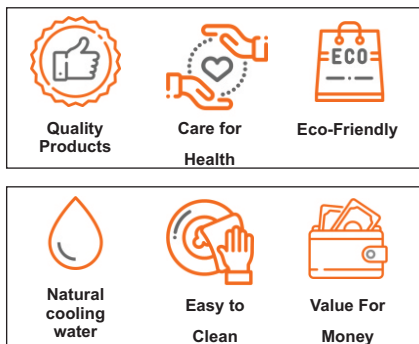
Mitti Cool has won several awards and accolades for their pioneering work in clay products.

Mansukhbhai Raghavjibhai Prajapati's journey has been challenging but today he stands poised to take his journey ahead in the international markets.

The Mitti Cool earthenware has earned Mr. Prajapati a reputation when PM Narendra Modi, Late former President APJ Abdul Kalam and many renowned scientists and celebrities have appreciated and are using his products.



Products of Mitticool



Mitticool Clay Creation
 Panchasar road,
 Wankaner, Gujarat-INDIA

Mr. Mansukhbhai Prajapati
 Phone : 9537077249
 Mail : info@mitticool.com

IM Print Trivia

- **PRAMOD SIDDAGANGAIAH**, an Engineer from Tumkur, Kerala left his job to promote the use of earthenware water bottles through his production **Apah Clay Bottles!!!**
- **ApahClay** bottle is his brainchild for **LIVEGREEN** India, an enterprise that was formed to create livelihoods in semi-urban and rural places and to stop people from migrating to cities for work. These bottles are handmade and cool water through the natural process of evaporative cooling.



Envigreen Bag

- **ASHWATH HEGDE** founded **ENVIGREEN** – a company that produces 100% organic, biodegradable, and eco-friendly bags. This Mangalore-born but now Qatar-based NRI entrepreneur made this bag from materials like natural starch and vegetable oil derivatives. Features of this Envigreen bag include:



Livegreen Bag

- Bag dissolves in a day when put in a normal water
- Bag dissolves in 15 sec. when put in boiling water
- Need < 180 days to biodegrade naturally once discarded.
- Are edible and will cause no harm to animals if ingested.
- The Karnataka State Pollution Control Board (KSPCB), which has approved the use of these bags.
- The bags also don't melt, drip, or release any toxic fumes when burnt, unlike conventional plastic bags.

. So go enjoy eating bags and drinking clay!!!

My Arture

A Blog - Shivani Patel

In early 2015, my interest in sustainability and design led me to kickstart the launch of a lifestyle accessories brand. I wanted to create a brand that would pay tribute to everything I love - animals, nature, minimalism, and beautiful products. I still remember the endless hours spent on deciding a name for this brand, until I landed on Arture - a portmanteau of the words Art and Nature. It was perfect !

I designed a crowdfunding campaign, launched it on Indiegogo, and that subsequently led to the production of Arture's first batch of products. Filled with adrenaline, I knew there was no turning back. Arture was registered as a company on November 17th 2015, and operations are in full swing.



Ela Trifold Wallet



Fabric Wallet

We use 100% natural cork fabrics, from the Mediterranean, to create wallets, handbags, sleeves and travel accessories for both men and women. Our cruelty-free range of products earned us the PETA-approved Vegan certification.

We've often been asked what's special about cork and why we choose this fabric over all other options? Here are some fun and interesting facts that you probably didn't know about the material.

1. No cork tree is ever cut down.
2. The bark of the cork oaks is harvested sustainably, which help the trees suck tonnes of carbon dioxide from the atmosphere.
3. The bark regenerates every 9 years. So, the same tree provides bark for over 200 years.

4. Cork forests provide home to a rich biodiversity of flora and fauna, including the Iberian Lynx, an endangered species in the Red List of Threatened Species.

5. Other than this, cork has natural features of being lightweight, waterproof, anti-fungal and scratch resistant that make it a wonderful material to use.

We also wanted our products to create a good impact on the world. Every purchase that you make on our website goes towards helping an animal in need, be it in the form of feeding puppies, or even sourcing medical care requirements such as injections, dressings for wounds and antibiotic powders. You can see what exactly your purchase is going towards on the "ResQ" tab of every product page.



Arture Products

Arture Designs Pvt. Ltd.
47, 3rd Main Road, Om Sakthi Nagar,
Mangadu, Chennai - 600122, India

Ms. Shivani Patel
Phone: 9884103711
Email: info@myarture.com,
shivani@myarture.com

IM Print Trivia

HOMES MADE FROM RECYCLE PRODUCTS

In buildings, green is fashionable. That is, the idea of green – of building and living in tune with the environment.

- *Building with recycled materials can be a great way to save money and the environment.*
- *It also makes for one-of-a-kind homes.*
- *In some cases, recycled materials can make structures stronger, more efficient and less expensive to build than new materials.*

TIPS: *Think holistically. Try to use recycled materials appropriate to the locality/setting.*



Doodlage

Our brand, Doodlage, was born from a simple idea—to create a unique, environment friendly products, which is high on style. Kriti, our founder and creative director, had her 'big-idea' moment, during a student internship at a large export house. She wondered if the mounds of fabric discarded due to miniscule variations in pattern design or colours, could be put to better use. Step by step, through multiple up-cycling based projects, and industry experience, both in India and abroad, and a talented team working tirelessly with her, she has turned up-cycling into a bold new statement.

Everything at Doodlage is made with love; every piece we make is exclusive and unique.

The Brand : Doodlage is a perfect sync of sustainability and innovation. We work with eco-friendly fabrics, such as organic cotton, corn fabric and banana fabric. Another source of fabric is the left over or quality, discarded textile from large manufacturers, which account for the “wastage” in export terms. We also source fabrics, which are left unused by other retailers



post-cutting. Much like pieces of a puzzle, these bits and pieces come together, each with its own story. We love experimenting with textures, embroideries, panels, washes, shapes and sizes to optimize the use of every little.

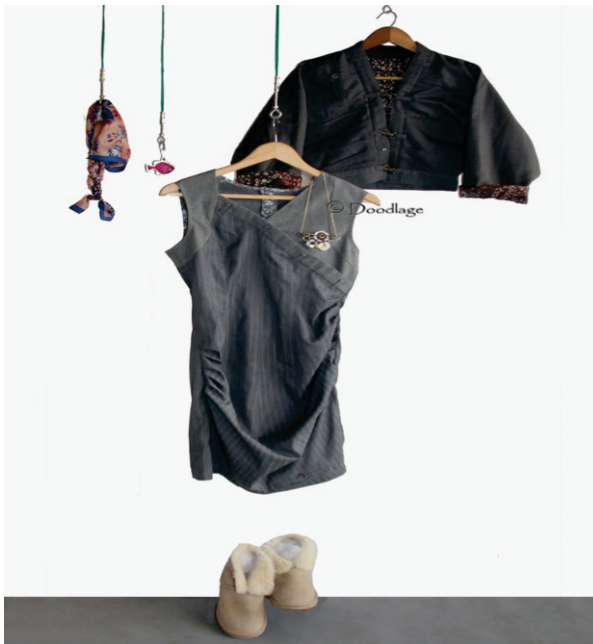


Our three key doodlers Kriti Tula, Paras Arora and Vaibhav Kapoor, come from very different backgrounds of design, management and finance. The trio works endlessly to revise, innovate, and have successfully created India's first ethical fashion and lifestyle brand.



At the core of the business is our design team that includes assistant designers and interns each of them unique in their design capacity, skill set and vision.

Our production team consists of dexterous pattern makers and artisans skilled in stitching, embroidery and handwork, who form the ultimate link in our chain and make it all come alive!



Doodlage
F- 323 (A), 2nd Floor, Kumhaaro Wali Gali
Lado Sarai, New Delhi -110030

Ms. Tula kirti
Phone : 011-41034677
Mail: team@doodlage.in,
buyers@doodlage.in

IM Print Trivia

FABRIC

Most of us have clothes that are no longer fashionable or just don't fit us anymore. They are just taking up space in our closets and drawers. Did you know that nearly 100 percent of those old clothes can be recycled if they are diverted through a recycling program?

Why Recycle Your Clothes?

Recycling our unused and old clothing items will help to reduce waste in landfills and energy consumption by minimizing water and gas usage.

Recycling clothes also provides affordable clothing to people in need.

- *Cut old clothes into little squares or other shapes and make a quilt, pillow, bag, curtain, or even toys (such as doll).*
- *Clothing and fabrics play an important role in environmental sustainability.*
- *Recycling and reusing old clothing may contribute greatly to a better and healthier environment, not only for today, but for future generations as well.*

TIPS

- *Some old clothing is simply beyond repair and is not suitable to wear ever again. For old clothing which cannot be used for any of the ideas above, there are alternatives!*
- *If the fabrics are highly absorbent and comfortable, such as cotton and rayon, you can cut such clothes up and use them as rags, baby diapers, or even handkerchiefs.*

SI:News

Sustainability Initiatives organizes a visit to 'Yamuna Kirloskar Corporate Office' for DYPSOA students

Sustainability Initiatives organised a site visit for the students of Dr. D Y Patil School of Architecture. The students are pursuing the Masters of Environmental Architecture programme at DYPSOA. The visit was organised on 25th November 2017.

The students were given a tour of the building by Mr Babu of Yamuna Kirloskar Corporate Office. The students could experience the amazing architecture that responds to climate. They were also shown the various environmental services in the Yamuna



Kirloskar Corporate Office like Organic Waste converter and Renewable Energy Systems. The students also saw how the Building Management system manages the campus in a most efficient manner. The Office is a IGBC LEED Platinum Rated project in Pune.



Training on Use of Energy Simulation Software for Symbiosis MBA Energy & Environment (SIIB) students

Sustainability Initiatives conducted Training on Use of Energy Simulation Software for the students of Symbiosis Institute of International Business (SIIB), who are pursuing their MBA in Energy & Environment at Pune. The training organised on 2nd September 2017.

Participants were benefited by experts including, Ar. Anagha Paranjape – Purohit, Ar. Kanchan Sidhaye, Ar. Ketaki Rairikar-Karmarkar and Er. Kunal Gujarathi, talked about Introduction to climatic zones of India and its characteristics which can be understood with the help of various simulation software such as Eco tect, radiance, IES etc.

Training has been conducted to explain the use of these software during the design stage of building as well as to estimate overall energy performance of the building. Software can be used as a tool to analyse various passive design strategies such as orientation, solar radiation, solar shading availability, shading device, daylight availability etc. Some glimpses of Energy simulation software has been given to

student to make them familiar with various types of output the tool can offer and can be useful while taking design decision for the building. Also presented a case study to showcase how software has been utilised in order to design energy efficient and climate responsive building design.

Award Distribution Ceremony of Green Society Contest.

11th March 2018, Rotary Club of Gandhi Bhavan in association with Sustainability Initiatives had organised a Green Housing Societies competition. SI's trustee Ar. Anagha Paranjape - Purohit was a part of judging team.



Where Cooperative Housing Societies are known for infighting, these Housing Societies are not just fulfilling their basic duties, but choosing to go much much beyond by establishing and successfully operating numerous.

Award ceremony today at BalShikshan Auditorium. Heartiest Congratulations to all Winners! May you inspire others to GoGreen and may your tribe grow!

Chief Guest for the Award ceremony Mr. Madhavrao Gadgil, Environmentalist and Mr. Vinay Kulkarni, Rotary Club were present at the ceremony.

Celebrated World Forestry Day and World Water Day



22nd Mach 2018, On the occasion of World Forestry Day and World Water Day, Sustainability Initiatives and Environment department, Pune

Municipal Corporation, Pune had organized site visits to sewage treatment plants (STPs) of Pune Municipal Corporation (PMC). About 85 students and faculties from various colleges and employees of VK:e environmental attended these site visits.

Under this event, the participants got an opportunity to visit Water filtration plant of capacity 50 KLD located in the premises of 'Indradhanushya Environment and Citizenship Centre' and based on combination of phytoremediation and bioremediation technologies. This Water filtration plant is set up on pilot basis to treat the sewage contaminated water from Ambil Odha and the treated water is used for irrigation to landscaped area in the premises.

Further, the participants visited and observed various components and processes of municipal STP Near Rajaram Bridge. This STP of 32 MLD capacity is set up to treat the sewage before its release in the Mutha River and the treatment is based on activated sludge process.

Mr. Mangesh Dighe, Environment Officer and Ms. Pooja Dhole of Pune Municipal Corporation explained the details of both these STPs to the participants and answered their queries. The site visits were successfully co-ordinated by Mr. Amol Umbarje of Sustainability Initiatives.

Green Society Competition

Rotary Club Pune Gandhi Bhavan with Sustainability Initiatives, Pune Municipal



Corporation and other organizations launched a competition for Green Societies in Pune. With this aim, the Green societies Competition is launched to encourage more and more people to Go Green.Launched Date- 5th Nov 2017 at Gandhi Bhavan.

Sustainability Initiatives celebrated National Pollution Control Day



The National Pollution Control Day is celebrated every year on 2nd of December in India in order to give the honor and memorialize the thousands of human beings who had lost their existence because of the Bhopal gas calamity. As a contribution to such awareness, SI has organized two days activities in the VK: architecture office, Resilient, Genesupport, GeneOmbio. On 1st December Employees were asked to get the PUC Certificates for their respective vehicles. On 2nd December in order to consume less fuel to create less pollution, employees were requested to come to office by public transport or walking or by sharing a car/bike. Active participants from the various teams were rewarded. Another activity of E-waste collection had been organized with the help of NGO named SWaCH in order to proper disposal of electronic waste. This activity had been conducted for a week. On 2nd December SI has organised a presentation on the awareness of E-waste management. Dr. Vishnu Shrimangle from SWaCH had enlightened us on the problems arising due to improper handling and management of E-waste all over the world. The presentation and documentary films were eye opening. Price distribution program for the active participants had also been organized after the presentation. Ar. Vishwas Kulkarni Distributed prizes to the winner.

Presentation on Urban Planning and Development



11th December 2017, Sustainability Initiatives organized presentation on Urban Planning and Development by VK:u urban team members for students of Bricks College of Architecture, Undri, Pune. Presented by- Ar. Dwaipayan Chakravarty Ar. Anuja Gokhale Ar. Prachi Khairnar

2 Days State Level Workshop on NGO Capacity Building

Sustainability Initiatives, in partnership with the Art of Living Foundation, MIT School of Government and Social Responsibility, organized a two-day State Level Workshop on



NGO Capacity Building on 2nd and 3rd December 2017 at Swami Vivekanand Auditorium, MIT, Kothrud, Pune.

The workshop was inaugurated by Chief Guest Mr. Vinay Sahasrabudde Rajya Sabha MP and President of Rambhau Mhalagi Prabodhani.

Other dignitaries and luminaries present at the inaugural session included Mr. Vishwanath Karad, Founder, MIT Group, Pune; Mr. Ravindra Dhariya, Trustee Vanrai; Mr. Shekhar Mundada, Art of Living; Dr. Shailaja Haridas, Associate Director, MIT School of Gov, Pune; Mr. Vijay Warudkar, Social Responsibility, Pune. SI's Trustee Ar. Anagha Paranjape – Purohit attended the Inaugural function of this workshop. About 500 NGO's Representatives across Maharashtra attended the two day proceedings of the Workshop. The purpose of this Workshop was to bring together, on a single platform, all the NGOs and to empower them through networking and interaction amongst themselves and the experts. Speakers for the Workshop included: Mr. Amay Joshi – Deepstambha Foundation, Pune Ms. K.S. Jadhav – Asst. Charity Commissioner, Pune Mr. Kulkarni – Income Tax Officer, Pune Mr. Pranjal Joshi – CA, Pune Dr. Avinash Sahuji – Prayas Foundation, Amaravati Mr. Sarang Jagtap –

Mantralaya, Art of Living, Mumbai
 Mr. Hanumantrao Gaikwad – BVG India, Pune
 Mr. Abhay Karadeguddi – Karwak
 The closing ceremony of the workshop was on 3rd December evening and Dr. Vishwambhar Chaudhari, Environmental expert and Social activist and Dr. Ravi Kasabekar graced the occasion.

Walk for Good Governance

Sustainability Initiatives, in partnership with Deepstambh Foundation, organized Walk for



Good Governance on the occasion of Good Governance Day from Shaniwar Wada to Vidhan Bhavan, Pune on 25th December 2017.

'Tekadi Clean up Drive'

DGPS in association with Sustainability Initiatives organized Vetal Tekadi Clean Up drive on



Saturday, 20th January 2018.

Training on Use of Energy Simulation Software for Brick School of Architecture and PVP college of Architecture students

Sustainability Initiatives conducted Training on Use of Energy Simulation Software for the students of Bricks college of Architecture and PVP college of Architecture students, The training organised on 24nd February 2018. Participant were benefited by experts including, Ar. Anagha Paranjape – Purohit, Ar. Kanchan Sidhaye and



Ar. Pratiksha Chipade, talked about Introduction to climatic zones of India and its characteristics which can be understood with the help of various simulation software such as Eco tect, radiance, IES etc. Training has been conducted to explain the use of these software during the design stage of building as well as to estimate overall energy performance of the building. Software can be used as a tool to analyse various passive design strategies such as orientation, solar radiation, solar shading availability, shading device, daylight availability etc. Some glimpses of Energy simulation software has been given to student to make them familiar with various types of output the tool can offer and can be useful while taking design decision for the building. Also presented a case study to showcase how software has been utilised in order to design energy efficient and climate responsive building design.

Talk on Goan Inquisition by Shefali Vaidya

21st April 2018, Sustainability Initiatives and



INDIC Academy organised talk on Goan Inquisition by Ms. Shefali Vaidya at Sustainability Initiatives. The talk was full of insightful facts and information and references. Ms. Shefali's emotional connect with Goa was evident when she spoke about how Goans, for 250 years, endured the Inquisition....an untold story unfolded evening for an audience of 150 PuneKars. The talk was signed off by voicing some very important questions - Why is it important to learn history and not gloss it over? What should we learn from history? How can we speak, acknowledge and understand history so

that it helps to heal wounds? How can we move forward having acknowledged the past? SI team members, Ar. Anagha Paranjape – Purohit and Mr. Amol Umbarje were present, along with SI Interns Ms. Ritika Vakil and Mr. Abhay Bachhuka.

Celebrating World Environment Day 2018
Sustainability Initiatives in associations with VK:a



architecture, VK:e environmental, VK:i interiors, VK:u urban, FSAI celebrated World Environment Day of June 2018. Activity were planned for the day, on the lines of Create, Contribute and Participate. Sustainability initiatives had organized the Poster Design Competition activity where, all employees of VK:a architecture, VK:e environmental, VK:i interiors, VK:u urban, FSAI was divided into 14 teams. The theme of the competition was- Ideas for a better environment through:

- 1) Beat Plastic Pollution
- 2) Our Responsibility.....Our Country
- 3) Fire Safety- Our responsibility.

The posters were required to carry some text or a slogan as well as a small write explaining the concept or idea. There were three winning entries which got printed, distributed and displayed at various schools and government organizations.

Sustainability Initiatives organizes a visit to 'Green Buildings for Symbiosis MBA Energy & Environment (SIIB) students

Under the outreach function, SI facilitates visits and experience in Green Buildings. One such site visit was organised for the students of Symbiosis Institute of International Business (SIIB), who are pursuing their MBA in Energy & Environment.

The visit was organised on 8th September 2017 to

Oval Nest Residential Housing Society at Warje, Royal Orange County Residential Complex at Rahatane and Siyona Residential Housing Society (On going Project) at Punavale.

The students were given a tour of the building by consulting experts and Building Managers of the above projects. They were explained the sustainable architecture principles on which the building is built by the Architect. They were shown the environmental services installed for the project, like Organic Waste converter, Renewable Energy Systems, Rainwater Harvesting techniques and Energy and water monitoring systems that are integrated in a Green Building project.

The students also saw how the Building



Management System manages a Green Building campus in a most efficient manner. The Royal Orange County project is a LEED Platinum and GRIHA 5 Star Rated (Pre certified) project, The Siyona project is a pre certified GRIHA under 4 star rating and Oval Nest project in a IGBC green Home Platinum Rated in Pune. VK:e environmental are the Green Building consultants who have guided all Green measures in these building projects.



Events from Jan to Dec 2018

January 2018	Celebration of National Cleanliness Day
February 2018	Green Building Workshop
March 2018	Celebration of World Water Day and World Forestry Day
April 2018	Earth Day awareness and interaction
May 2018	Workshop on Green Building or EIA
June 2018	World Environment Day awareness and interaction and GRIHA Regional Conf.
July 2018	Tree Plantation Drive - Van-Mahotsav of Forest Department
August 2018	Seminar on Environment
September 2018	Site visits of Green Building for Students
October 2018	Create 'Green building FootPrints' – A map of Pune City Green Buildings-GRIHA
November 2018	SI Foundation Day and release of SI Annual Report
December 2018	Celebration of National Pollution Control Day and Energy Conservation Day

Connect with Us

Membership with Sustainability Initiatives offers an opportunity to connect with other professionals to develop ideas and concepts on sustainable built environment, urban planning, environmental awareness and sustainability in general. It offers a platform for professionals as well as students to network and develop ideas on sustainability concepts.

Who can become a member ?

- Professionals, Academicians, Retirees, Business Owners and Students from any sector interested in contributing to pursuing careers in the fields of sustainability, environment, energy etc.

Benefits to members

- Opportunities to initiate and lead projects in association with SI
- Guidance for academic / research projects.
- Learning sessions.
- Networking events.
- Meetings with professionals, etc. for career development.

Subscription for SI:Imprint

- Discounts at SI events / workshops and for SI publications.
- Discount in membership fees for SI:KRIS the online resources library.
- Paid / unpaid opportunities to volunteer / intern with SI.

Name:

Correspondence Address:

Email: Contact no.:

Company name and designation:

Current field of work:

Office address:

Membership type:

Professional –

- Rs 1500 for new annual subscription**
- Rs 1000 for annual renewal**
- Rs 3000 for 3 yr patron membership**

Student -

- Rs 500 for annual membership**

Cheque/ DD/ MO no. _____ drawn on _____ for Rs _____ in favour of
'Sustainability Initiatives'

Details of payment: cheque/ transfer no. _____ Bank _____ Dated _____

Signature: _____

Date: _____

To become a member fill the form above & post it to us at

Sustainability Initiatives,

73/2, Bhakti Marg, off. Law college Road, Pune - 411 004

Or email us at mail@sustainability-initiatives.org

Website www.sustainability-initiatives.org/



Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage

Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage

Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage

Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage

Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage

Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage

Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage

Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage

Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage

Green Build Products (I) Pvt. Ltd. The making of MRUGE MADHURIM
A Leafy Business My Arture uByld Home Decor
Mitticool My Arture Sl:News Connect With US
My Arture Doodlage



sustainability
initiatives

Sustainability Initiatives
73/2 Bhakti Marg, Off Law College Road, Pune - 411 004
020 66268888
www.sustainability-initiatives.org

BR