DESIGN CULTURE

PINK CITY DESIGN CONFLUENCE 2022

LEARNING SERIES

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FOREWORD

Theme: Form, Reform, Transform
Design for the New World

The contents of this book are a compilation of sixteen online presentations delivered over several months during the peak of the COVID pandemic in 2021, marking the dependence of education and pedagogy in an online mode. This series of learning sessions and several others have been part of the process that culminated in the Pink City Design Confluence 2022, an event scheduled between 9th and 16th March 2022.

With its theme Form, Reform, Transform and sub-themes Creativity 5.0, Society 5.0. Harmonious Livability and Design Leadership, the Design Culture drive of the ARCH College of Design & Business has been conceived to spread out far and wide in the creative domain for not only students but mentors, researchers, professionals and the industry. The intent is to create an interface between education and industry sectors to debate on how Design-Technology led education can be leveraged to support the emerging economies of the new world.

This compendium of presentations transcribed from the live online sessions share, the experiences of prominent design practitioners, addressing the theme and sub-themes which are central to the transformation of the meaning of the design from its form and function-based understanding to a much larger and more meaningful context, which is the need of the times during this complex and unpredictable world of today.

It will be prudent to add that for those seeking deeper content than that expressed in this book, one may follow the actual presentations by searching for the titles on youtube.

Happy reading!

Bhargav Mistry
Dean – Design Culture
ARCH College of Design & Business
Jaipur

THEME 1

SOCIETY 5.0

CREATIVITY IN MEDICAL SCIENCE
DR. VISHAL RAO

DESIGN FOR A PURPOSE: AN OVERVIEW OF DESIGN IN THE DEVELOPMENT SECTOR AND HOW DESIGN IMPROVES LIFE AND WELLBEING
LAKSHMI MURTHY

COMMUNITY AND HABITAT
VIKRAM JOSHI

CREATION OF KNOWLEDGE
PROF. JINAN KB

THEME 2

HARMONIOUS LIVABILTY

`DESIGNABILITY' - A CULTURE FOR HARMONIOUS LEARNING.
PROF. BHARGAV MISTRY

EMPOWERING INDIVIDUALS WITH "I CAN" MINDSET
KIRAN BIR SETHI

CONTENT OF CONTENT
DINESH KORJAN

DESIGNING FOR SOCIETAL WELFARE
VANMALA JAIN

THEME 3

CREATIVITY 5.0

DESIGN INSPIRATIONS FROM ART MOVEMENTS
YUNUS KHIMANI

THE PROCESS IF CREATIVITY
ANURAG S

CREATIVITY: HIDDEN COMPLEXITIES BEHIND A SUCCESSFUL PRODUCT
SATISH GOKHALE

THE DESIGN PROCESS ROLE ON ONLINE COURSES: ALUMIA CASE STUDY
BENOY THOOMPUNKAL

THEME 4

DESIGN LEADERSHIP

DESIGN CULTURE-POWER TO TRANSFORM
ARCHANA SURANA

SUSTAINABLE ENTRENEURSHIP & CONSCIOUS CAPITALISM
MAHAVIR SHARMA

CREATIVE LEADERSHIP: A DESIGNPRENEURSHIP JOURNEY
ASHISH DESHPANDE

INDIA DESIGN
PRADYUMNA VYAS

SOCIETY 5.0

DR. VISHAL RAO
Dean | Professor | Director Head Neck
Oncology- Robotic Surgery @ HCG Cancer Centre

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Designer | Researcher & Educator Founder-Vikalp
Design | Co-founder Jatan Sansthan (NGO)

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MD Jaipur Bloc
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Dean | Professor | Director Head Neck Oncology- Robotic Surgery @ HCG Cancer Centre | Innovator | TEDx Speaker Public Health | Health Futurist | Aum Voice Prosthesis | Horizon scanner

"The end goal of education is knowledge, and the goal of knowledge should be service."

CREATIVITY IN MEDICAL SCIENCE

When I thought about the topic of creativity in medical science, I decided I wanted to talk about the subtext "Possibility to Actuality," which I believe is the crux of what creativity is about. What I mean is how we can shape our frugal and disruptive innovations into something that benefits medical science.

Medical science is a field where I believe the most important aspect should be how it can serve people. In fact, it applies to education as a whole. I always say that the end goal of education is knowledge, and the goal of knowledge should be service.

Fig. 1

Before going further, I would like to give my respects to the higher authority that we are all familiar with these days, Covid-19. It is perhaps a perfect example to expand upon this topic. Covid taught us the importance of collaborative productivity and finding inspiration from corners we do not expect, like reverse mentorship, where an expert can find solutions from non-experts in the field. I found myself getting inspired by a sweeper, Vasantamma, who diligently did her job of cleaning the floors and even the library at my hospital, which was not being used during the pandemic. She wasn't doing it for any recognition but because it was her duty. It motivated me to keep doing my duty as a doctor.

Fig. 2

Another vital lesson Covid gave us was conscious capitalism. In simple words, it means thinking of profits in an ethical way where we try to make these profits by solving a problem, not persisting it. Imagine doctors and scientists saying we won't be finding ways to fight covid because Covid is good for revenue. If we find a solution quickly, then our profits will decrease. Let it remain for two more years and then solve it.

All these lessons and values are something that we need to remember and apply in a post covid world. Especially when we think of creativity in medical science. When we go into that space, there are two questions that we need to ask, "How do I find a problem?" and "How do I get rid of the problem?"

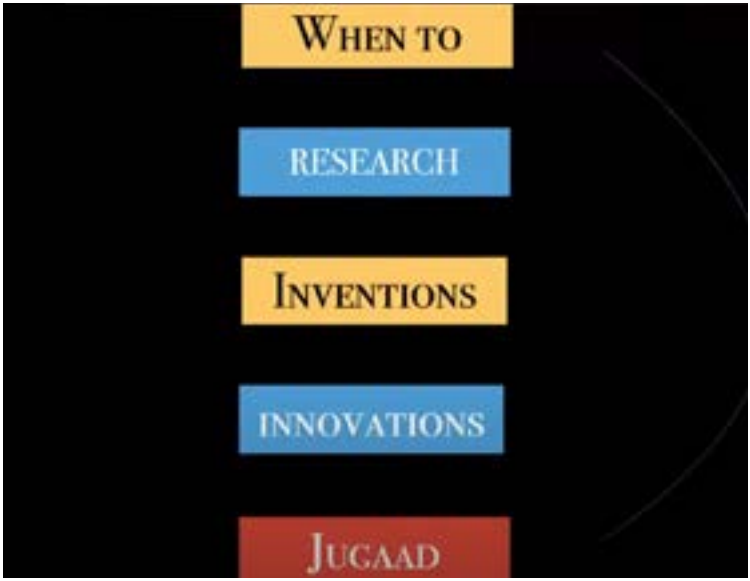

Fig. 3

The first question is the more complicated one. It's not easy to find a problem. Noble laureates end up spending most of their life just finding one problem. Solving it is much easier in comparison. Firstly, understand there is a difference between finding a real problem and solving a problem that didn't exist in the first place. Or even creating a problem yourself first and then creating its solution. Most people make that mistake. So, believe me, if you ever find even one genuine problem in your life, you have hit the jackpot.

Then comes the second question, actually solving the problem. To achieve that, you need to know when to research, invent, innovate, and do Jugaad. All four of these are essential for reaching a creative solution. Another thing to keep in mind is to suround yourself with people who are not knowledgeable in the particular field

you are solving the problem in. You need them to ask ridiculous and even stupid questions sometimes. Because no one else will ask those questions, and your solution cannot be complete without you addressing them. That's what leads to innovations.

Fig. 4

Now, the next thing we need to understand is the need for creativity in medical science. And to get that across, let me tell you about a study done at John Hopkins Medical Institution. They surveyed to find out the leading causes of death in the U.S.

They found that the third most leading cause was actually because of medicine and doctors. And that was because of the capitalism involved in the industry. And it raised further worry about public health and the processes and systems in place in the industry. Medicine, in particular, is a very slow-moving area. And this is where creativity can come in.

For example, I found inspiration for innovation from my throat cancer patients. They have a hole in their throat, and they breathe from it. But they can't speak since they no longer have a voice box. Right now, two machines in the world allow these people to talk again. And they cost patients from around 45,000

Fig. 5

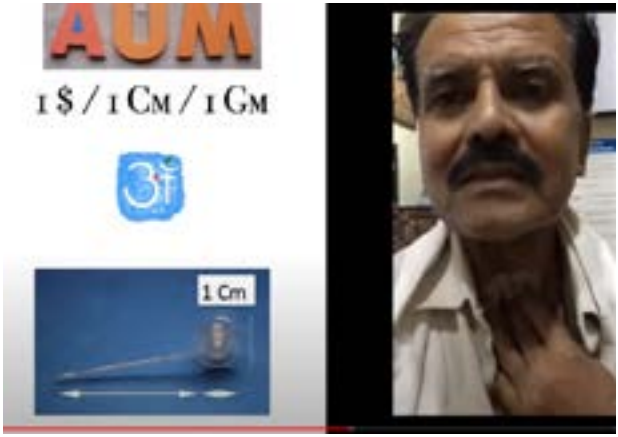

Fig. 6

to 1.5 lakhs, which wasn't affordable to many throat cancer patients. And my fundamental problem with this was that this turned the ability to speak into a luxury.

So, in 2015, I developed the prototype of my device, AUM, which gives these people the ability to speak again. AUM costs patients $1, which made it so every one of my patients could afford it. I dealt with labourers, coolies, small rickshaw drivers, and other poor people. Seeing their experiences of being able to speak again without needing to spend so much money is what drove me.
Today, I have more than 700 patients in India and other parts of the world. And it has been a struggle to survive at this price point. But I always say that charity without pain has its place in social media. I am more interested in charity that

Fig. 7

comes with pain. Because that is a true sacrifice for the betterment of others. So, that struggle is good. That's the beauty of charity. And this is where we need to bring creativity into medical science, which would be for the service of people and not profit. Use your imagination and innovation to touch lives.

We are not constrained by the discipline of our rigour but by the limits of our purpose which is, to make a difference. That's what defines our imagination. So, I urge every one to rethink and expand their limits. To go from ambition to purpose. That's where the heart of creativity and innovation in medical science lies.

Lakshmi Murthy

Designer | Researcher & Educator Founder-Vikalp
Design | Co-founder Jatan Sansthan (NGO)

"A Copyleft approach provides building blocks and a starting point, with the right to copy and modify solutions, and in the process excluding no one."

DESIGN FOR A PURPOSE: AN OVERVIEW OF DESIGN IN THE DEVELOPMENT SECTOR AND HOW DESIGN IMPROVES LIFE AND WELLBEING

COMMUNICATION JOURNEY IN THE SOCIAL SECTOR:

Design has a purpose and Social Communication is an example of design with a purpose. Social Communication is about information transfer and dissemination. It is a whole process of changing a communities behaviour from negative behaviour to the desired behaviour.

One of the earliest forms of social communication has been storytelling. An example of this is the traditional Kaanwad from South Rajasthan, a wooden box with many doors that open out, revealing layers of information.

Fig. 1

Fig. 2

Another example was the humble postage stamp commemorating different events or milestones. Stamps also reminded us of a service such as family planning carrying the red triangle logo, a symbol developed in the early seventies.

Public health messaging is social communication, giving populations critical information,reaching large audiences. Typically the messages need to be crisp and accurate, motivating a community to move from a certain behaviour to the desired behaviour, this process is behaviour change communication. In more recent times Covid 19 related messaging best describes this, where communities were motivated to wear masks and maintain social distancing.

There are 2 lessons I want to share that I learned early in my design journey:
Firstly, there is no need to re-invent the wheel. Look at what people have already done anddraw learnings from those examples.

Secondly, as a designer, one must field-test their work. If you are making a product for a community, they must be involved in the designing process.

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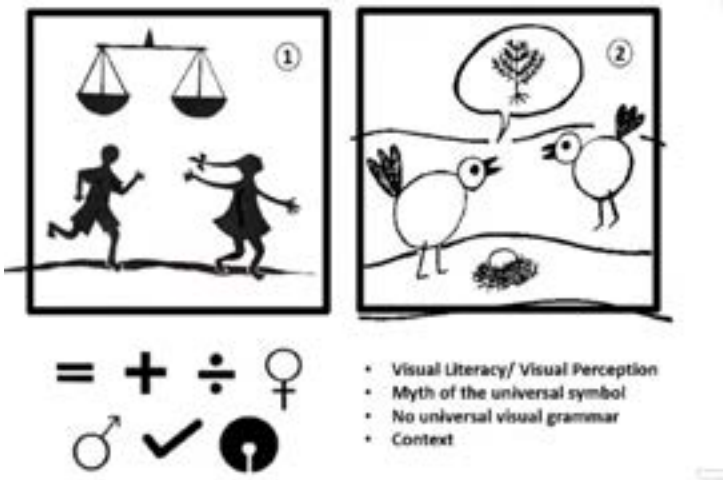


Fig. 3

VISUAL LITERACY & VISUAL PERCEPTION

Visuals play an important role while developing messages. However, visuals are perceiveddifferently by different people and are contextual as there is no one universal visual language. This can be seen in Figure 3. It shows a pot that is uncovered, with a cross indicating this is incorrect practice, while alongside is a pot with a lid, with a tick indicating this is correct. However many people who have not had opportunities for formal education, interpret the cross as a pot behind two bamboo sticks and the tick as a water scoop (fig 4).Field testing pictures is hence very critical while developing imagery. Visual literacy and visual perception are very important when one develops communication material within the framework of social design and social development.

Fig. 4

Fig. 5

The rules of sketching drawing, perspective, eye-level views are western concepts taught in the field of engineering and arts but these concepts do not exist in traditional art forms. ex. Wall paintings at Palaces of Rajasthan. Studying the way people draw pictures is a very goodstarting point when developing visuals. This reduces misinterpretation as the visuals are developed using people's perceptions. Below is an example of a reproductive healthcommunication product that has been extensively field-tested, (fig. 6) showing a menstrual wheel describing the menstrual cycle. The design is simple using twosuperimposed cardboard circles pivoting over each other. The product is used at training programmes on menstrual health management.

Fig. 6

Social Communication need not be restricted to just imagery, it can encompass products. Figure 7 shows Uger reusable cloth sanitary napkins.

The design was in response to the massive challenge of menstrual waste in India, where it is estimated that 1.021 billion disposable pads are discarded monthly. 70% of waste-pickers handle discarded sanitary pads mixed with household waste; getting exposed to a high risk of infection. Menstrual waste clogs and contaminates sanitary and water systems in villages and cities presenting a major hazard to public health. Uger cloth pads offer solutions from the point of view of women's health and

Fig. 7

waste management. Cloth pads are biodegradable, producing almost none of the synthetic waste caused by disposable pads. Field trials of cotton cloth pads have shown that they are a healthier alternative to disposable pads.

COPY-LEFTING

Design in the development sector needs to be available to all in order to benefit the greater common good. "A Copyleft approach provides building blocks and a starting point, with the right to copy and modify solutions, and in the process excluding no one." Copy left, thus, is an approach that is integral to all social design. The joy of Copyleft is that it reaches spaces and scales you would have never imagined. Copyleft is of course open-source, so you can modify it and do whatever you want, but you have to keep it open source for others to copyleft.

Fig. 7

CONCLUSION:

Once we have put together a whole lot of visual dictionaries, how do we translate it back to the client or community, how we look at different perspectives and respond to the needs of the community to communicate the message is the work of a designer. If one is from the design fraternity, the first thing that must come to mind is sustainability. If I am designing something, am I being sustainable?

The designs must be sustainable and thus require a careful design strategy. You can not have obsolescence in design or unsustainable designs. As designers, we need to be sensitive to the issues we are dealing with.

When we are looking at awareness, breaking the silence breaking superstition we have to make plans and strategies and work with the communities, with each design as a distinguished design responding to the new practices of the target communities and their required needs.

Vikram Joshi

MD Jaipur Bloc | Founder- Rangotri

"What started as a job later became my profession and now it has turned into a passion: Traditional prints of Rajasthan."

COMMUNITY AND HABITAT

From 1985 to the present, my journey has been focused on working with craft societies and community organisations, as well as a wider spectrum and how it impacts the environment, the environment around us, as well as the habitat.

My first job was with the Government of India to document the traditional prints of Rajasthan and what started as a job later became my profession and now it has turned into a passion.

I found out that most of the printing centres were using natural colours. And interestingly that survived because natural colours are biodegradable dyes and don't harm the environment. But they had closed down and the reason was the unavailability of water. Earlier, water was available in streams and ponds where they could process the fabric, but now they hardly have enough water to drink. So "how do you expect us to print?" they asked.

In time, I realised that even though I had learned so much about the technology side of textile, I was not confident I knew about natural colours. Natural colouring itself is a huge area of knowledge that was mostly passed down from father to son. As there was no documentation available, I started learning natural colouring from various sources and my teacher Mr K. V. Chandramouli.

In time I realised that my government work was not beneficial to society as the data I was collecting or whatever documentation I was producing was just getting filed up into some record, and not helping anyone. This led to me quitting my govt job in favour of a private job.

I joined and worked with a private company for 10 years and was promoted as one of its junior directors in 1995. I decided to start my own company and become selfemployed as the next step. In my last sentence, I said 'self-employed' because if you start your own company you must be an employee to set an example.

In 1995 I started this company called Rangorti. I wanted to see if my knowledge of vegetable dyes, natural dyes, and different chemical printing technologies could be compiled into one place because most printers were only familiar with a specific kind of printing and were not interested in trying out new techniques. Thus Rangotri was set up to experiment with different types of technologies, various kinds of blocks and fabric processing. Initially, we worked with fashion designers because they came up with very unusual and strange ideas, so I was eager to work with them since I was equally excited to figure out how to achieve that

effect or form on the fabric. We gradually started participating in the trade shows and started exporting.

The Rajasthan High Court ordered the printing industry to close down in 2003 in Sanganer, where my workshop was located because water and effluent that were released from the factory gradually contaminated the groundwater. Hence they ordered the relocation of all the factories and workshops to start fresh with a treatment plant for groundwater. The order affected close to 10,000 people who were printers, block makers, labourers and small business owners who directly or indirectly were getting their income from this community. To bring some solace I went to govt offices, industries departments, MLAs, MPs, Commissioner of industries and many more people but their hands were tied.

So, this was the second phase in which I started directly interacting with the community. In my efforts to recreate the whole history of block printing, I approached printers and other stakeholders with the idea of setting up a treatment plant and seeking financial assistance from the government. But most of the printers were financially unstable. At this point, Jaipur Bloc came to my mind, so I approached about 100 promoters and custodians of this craft community and exporters of these products. The idea was to form a group and set up workshops to train water in one specific way and to treat it commonly in order to set up a Central Effluent Treatment Plant (CETP). In order to build a reasonably large treatment plant that could serve 20-25 units, it would cost about 10 crore rupees. As a result, the majority of people backed out, leaving only 20 to continue.

In 2006 we created a company by the name Jaipur Integrated Textile Craft Park Pvt. Ltd. All these 20 exporters became shareholders in this company and we pooled in the money with which we bought land from the government of Rajasthan in RIICO which is an instrumental agency to promote industries in Rajasthan. It was 22 acres of land, with dunes and trees such as dates and babool which came with the condition that water could not be drawn from the underground.

So the first thing we started working on was water mapping and a 'water plan' to ensure that we are not drawing the water from the ground. A huge artificial tank with a capacity of 13600000 litres was set up at the park and, during average rainfall, we could collect 50-60 lakhs of litres of water. As part of the whole water management system, any rainwater that falls on the terrace first collects in the underground tank, then any overflow from there goes to the street and eventually to the water storage tank. Setting up such a park in a dark zone was a monumental task, which got the Swedish government excited. The Swedish govt was amazed to know that a textile park is being set in a dark zone where they are not even drawing water from the underground.

From 2003- to 2013, we managed to start this whole textile park and within 2 years we were awarded as the most eco-friendly textile park in India and India's Most responsible Indian membership organisation by the ministry of textiles and the ministry of MSME.

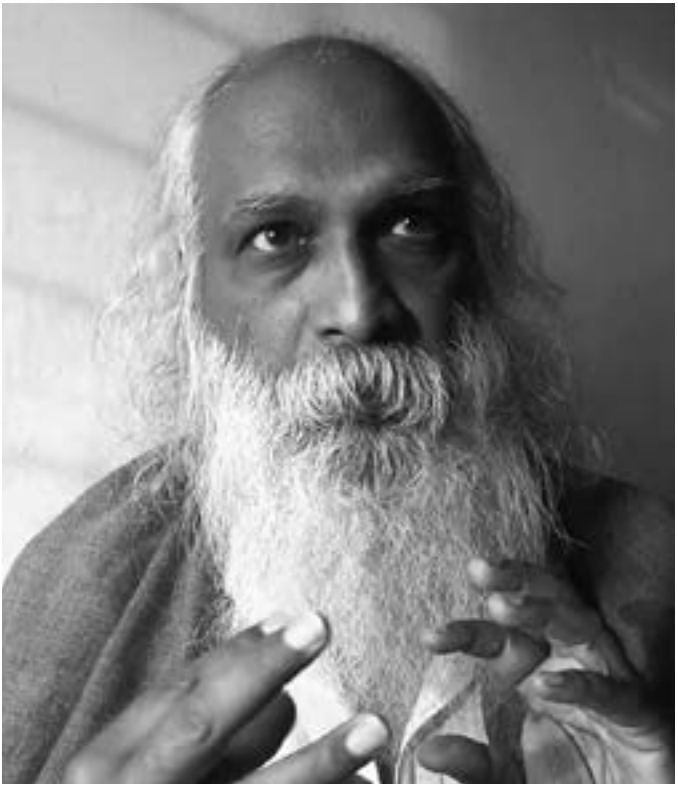
This whole journey from textile surveying in 1985 to becoming the managing director of Jaipur Bloc is a journey of working with the craft community and also the habitat in the sense that we can make sure our efforts and working with any craft are not harming anything. While working on the water recycling systems I also found out ways of treating water at cheaper costs – like with certain processes that naturally clean the water. I also approached some researchers to set up such smaller plants in the community.

Well, this is my journey from a textile graduate to forming Jaipur Bloc.

In the process of my hobbies to travel and meet artisans -I found some old blocks most of which would be bought by some tourists and would eventually lead to the loss of inventory of beautiful blocks from India. So I started collecting all the blocks possible from across India and it has now turned into the largest block collection in India. I built this collection to also study the different types of printing that takes place all over India.

CONCLUSION:

My exploration of new techniques is not replacing human skills. If I had a 3D printer, my block maker would be spending time more experimenting and monitoring those blocks or discussing the details of the block with me and other aspects of carving. So, to sum up, I would conclude by saying that technology is important as it enables the use of human skill in a better way with much better output.



Dr. Jinan KB

Design Educator | Researcher on Cognition
Aesthetic & Values

"Design education can offer a wonderful possibility for the transformation of being if the context, the content, and the conditions can be relocated: From transferring information to creating knowledge. From learning the word to learning the world. Teaching paradigm to learning paradigm."

CREATION OF KNOWLEDGE

AUDIT OF MODERN EDUCATION

The question about how to educate children is one we keep asking. We still keep feeding children with ready-made knowledge in the form of linguistic data, continuous inputs, and outputs that are measured by various tricks, and then we evaluate them and send them for higher studies.The story now has an interesting twist, with AI artificial intelligence replacing the teachers, with ready-made knowledge and digital data again behaving in a top-down manner with more alienation from real-life processes.

Fig. 1

In another twist, learning has taken on the challenge of creating machines that can learn on their own. The paradox is that ai has been developed by studying how children learn, and now it is being utilised to use it o n children.A lot of research has been conducted by esteemed universities over the last few years on how children learn. The research on how children learn is not being used to fix schools or to create interesting classrooms, but only to develop AI. Learning is a completely misunderstood idea which is again a two-way process and not a top-down process.

Modern education has caused the destruction of traditional knowledge systems and the process of creating knowledge has gone out. Only 10 % of the educated are producing knowledge today, that too for commercial purpose. Rest are involved in distribution knowledge as a product. There is the total absence of existential, sustainable knowledge for the well being of life, total alienation and destruction of sensibility and subtlety. The 21st century skills is a gaga term in the face of the fact that we are autonomously biologically equipped. There is too much focus on theories and the absence of existential and sustainable knowledge for the well-being of life which in turn leads to total alienation and destruction of sensitivity and subtlety.

This is the total result of modern education. The most important thing is that human beings are biologically equipped to learn the real world and create knowledge autonomously but education makes us depend on external authority and turn us into analyzers of information. Due to cognitive rewiring caused through modern education, knowledge precedes knowing, there is analysis instead of creativity, autonomy replaces dependence and the mind numbs and distorts the senses.

Fig. 2

Fig. 3

DESIGN: HOW KNOWLEDGE IS CREATED

Because I studied design, I understand both the true learning process of children and the true potential for self-transformation that design education has. Design education can offer a wonderful possibility for the transformation of being if the context, the content, and the conditions can be relocated:from transferring information to creating knowledge. From learning the word to learning the world. Teaching paradigm to learning paradigm.

Learning the world instead of learning the word, from the known to the unknown, to awaken the potential, is the role of design education. What design education should do is to immediately learn from children what is the process by which the creation of knowledge takes place. A critically important aspect of design education is that it allows for the creation of knowledge, like no other subject.
The speciality of design education is that it is experience-based, involving exploration and creativity. Design education is one of the best liberal arts education because there is a seamless integration of various disciplines i.e beauty(not art) science, technology, software etc. There is a whole possibility of design education being a key role in reimagining both the higher education and the regular schooling system.

WHY WORLD OVER WORD?

When we engage in a written word it instals and develops 2 d habits in us such as reading-thinking-reasoning-agreeing/disagreeing-imagining-reading and repeat. We create a virtual 2 d space so our mindset is linear, fragmented, sequential and compartmentalised. Whereas when we engage in the real world, it demands a different cognitive system to understand 3d skills, sensing experience, alertness and observation which is a completely new possibility that the world provides for learning.

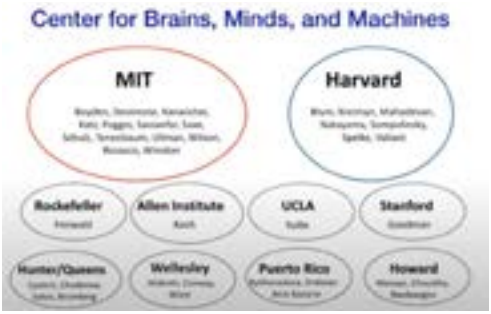


Fig. 4

TWO PARADIGMS OF THE EDUCATION SYSTEM: HOW DO CHILDREN LEARN AND HOW TO TEACH CHILDREN?

Fig. 5

Fig. 6

Fig. 7

Fig. 8

Modern education turns biologically equipped autonomously creative human beings to be dependent on external authority and analysers of information. How children learn is that they explore the whole and explore the parts and then natural reintegration takes place.

CHILDREN LEARN FROM EXPERIENCES

Children make sense through experience, exploration, creativity. Learning in children is not linear; they learn through natural pedagogy, experiencing the whole and exploring the parts in form, material, function, processes, and drawing connections with context via: process- the way things happen. function- the apt way of using what is available. property- the way things and material is felt s tructure- the way things are constructed.

THE REAL POTENTIAL OF DRAWING

Drawing is the process invented by students to make sense of the 3 D worlds in terms of 2D. This is a biological adaptation to reconfigure the world. Drawing is a cognitive activity, and when you see how drawing resembles the stages of other development in children, you realise it is a biological activity.

What is required in the learning process is process orientation, creation of knowledge, presence and quality which unfortunately modern education has turned into product orientation, belief in knowledge, absence and quantity. Rethinking foundation is based on how children create their cognitive foundation naturally and enable the tools that create knowledge and develop the processes meant for creating knowledge.

Fig. 9

NEW PARADIGM

Every child is born with the potential to be genuine, original, and authentic. That is their nature. But education has alienated us from our natural origins.
The paradigm of the unknown is the opportunity offered by design education and indigenous knowledge systems. The unknown shapes children's value system based on humility and wonder, as well as their cognitive system based on senses, bodies, and experiences. The no teaching method develops a value system of openness, collaboration, and cooperation, and it develops the cognitive system of playful exploration, discery, intelligence, as well as being autonomous. Curiosity is ingrained in us, and learning is the means of creating knowledge and shaping ourselves, where context refers to the content-the world around us and not the word, and where language serves as an articulation tool and not as a cognitive tool.

CONCLUSION

A fundamental shift is required in design education - from creating designers with an attitude for design and not designers with the skill of design. There needs to be a reorientation. The rethinking of the foundations would require a real orientation of the content from word to world, an orientation of the process from conditioning to awakening, recreating the pedagogy from teaching to learning, and a new atmosphere of respect for autonomy and quality.

HARMONIOUS LIVABILITY

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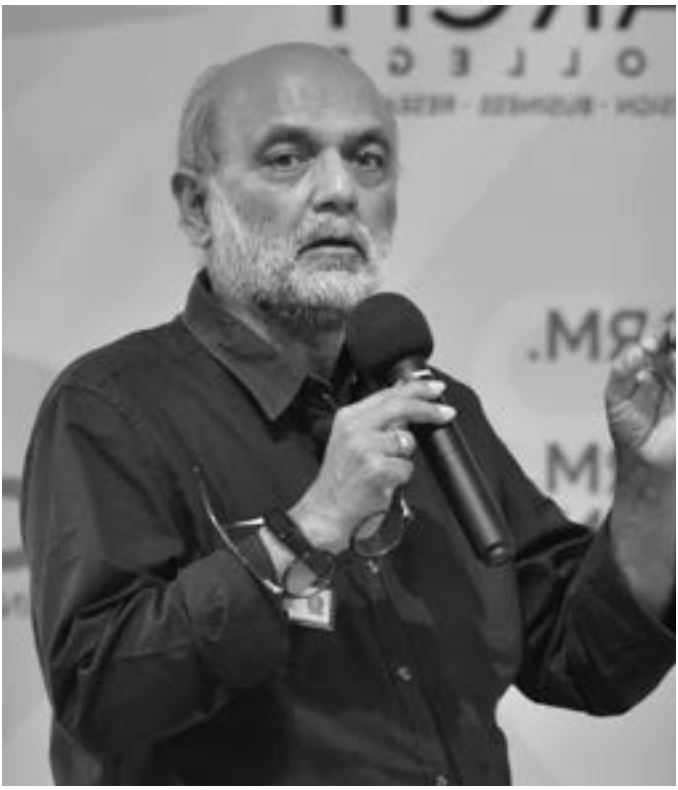


Prof. Bhargav Mistry

Dean Design Cuture, ARCH College

`Designability' -A culture for harmonious learning

`Designability' - A culture for harmonious learning.

Designability is like a way of life, a kind of culture within the ethos of design that integrates Design thinking, design methodology & design skills – all these combined together. Not exactly a science, but can be called a `conscience' - what one morally thinks is right. It is something that is a good blend of what is subjective, the objective and the reflective. To understand this, we should appreciate that in design, there is not only one solution that is right, as it could be in say, mathematics. In design, the problem may be one but with multiple correct solutions. The correct solution lies in what the stakeholder, client, user, customer or the person you are designing for wants. This is where the subjective part of the solution comes in. The objective part is the methodology that one employs, namely its functionality and its usability. And the reflective part is the uniqueness of the solution. By uniqueness, one means that it has a certain `wow' factor. You know, there's something to reflect back upon, something to take back home. Some pictorials here will illustrate this better.

Fig. 1

When we learn things in schools or colleges or any academia, or even just naturally, we tend to learn things in parts or compartments. But then the ability to connect all these dots of learning is what leads one to understand the designability aspect of this. As earlier mentioned, there are three core attributes to designability. These are three very important parts of a tripod on which it stands. Sense, sensitivity and sensibility. The capacity to appreciate and understand human needs or problems is design sense. You observe, appreciate, you find out `oh here's a problem'. Because we have the tendency to take things as they come, we don't see any problems anywhere.

Unless it is very stark. On a scale of one to 10, people may have different levels of sensitivity. Some high, some low. So the attempt is to tend towards maximum design sense so as to identify problem areas to which we are otherwise blind. The capacity to understand, and empathize, is design sensitivity. And the capacity to imagine solutions, meaning and be able to connect all the dots after we synthesize and assimilate everything together in order to offer solutions, is

design sensibility. To illustrate this, are a few examples from some of the design projects undertaken. This image here can be used to show the sense, sensitivity and sensibility aspects of a design project we had once undertaken. It is designed as a solar concentrator meant to raise the temperature of a chemical liquid to above 400 degrees centigrade. Though technically intense in its execution, the real challenge was in its making it look like a nature-inspired design, as a request from the client. Although the client's version of nature inspiration differed much from ours, this one was most appreciated – the peacock. Its spread out feathers would best suit the solar energy receiving mirrors in parabolic form. This may be considered as design sense Likewise ideation that calls for imagination, empathy, understanding and synthesis expresses design sensitivity. And the final expression, the design sensibility.

Fig. 2

The difference between design and designability may be expressed in a personal observation shown here.

Fig. 3

Curiosity: Why, what, when, how etc. The childlike inquiry. As we grow older, wearing layers of education and other experiences, the original self gets embedded deep inside, more with answers than a deeper inquest.

Obsorb: A word coined to express the combination of observation and absorption an important adjunct to curiosity. This helps to understand things better for ideation.

Imagination: The ability to look at the whole picture, connect the dots of information gathered and evolve ideas that can address the needs of the challenge at hand.

Insightful understanding: Empathy. Looking at things from the perspective of the actual need or feeling or desire, in contrast to what we assume it to be so.

Discipline: Any talent or skill in design may be of little value if one lacks discipline. To be able to create within a certain time, budget, norms, needs, conditions, etc.

Proactive: To have foresight or vision in understanding the need for effective design.

Fig. 4

So with the tripods of sense, sensitivity and sensibility combined with these elements, one experiences the essentials of designability. This also makes one aware of nurturing a harmonious relationship between the technosphere (human-made world) and the biosphere (the natural world). Though we belong to nature and often use natural resources, stealing, robbing and destroying them, we have built our own world with technology – the technosphere. Nurturing, therefore, means alignment of what we build with technology and science, without damaging the natural ecosystem's balance. Empathy has to be inclusive of nature and not just be human-centric.

Three other aspects that need to be considered are `subjective, objective and reflective'. It's because of the subjective aspect that out of several right solutions, only one may be preferred by the user. It's the sensorial perception that makes a choice in design to be subjective. It is far more difficult and challenging to find, discover or even appreciate a design problem or need than to find a solution for it. There can be several solutions to the problem but discovering the correct problem can be a challenging task.

Fig. 5

The objective aspect of choice deals with reason, function or utility value. This is where science or ergonomics comes in. How usable, affordable or sustainable it is for the function it is designed for.

The reflective aspect is something that gives a certain pleasure in its use. It may have an interesting story behind its design. It can be something that gets imprinted in memory for a long time. It can have a cultural flavor to it. Sometimes the reflective aspect of a design may overpower the strengths of the other two, i.e. function and form or objective and subjective aspects. The reflective aspect gives us joy in using the particular design solution. This leads us to understand pleasurable design. Design that is enjoyable.

Fig. 6

Its four aspects are:

Physio pleasure: The sensorial or visceral aspect.
Socio pleasure: Communications, public spaces, etc
Psycho pleasure: Psychological state during product's use
Ideo pleasure: The reflective aspect of the design.

Summing it, the designability factors that lead to the winning design solution are : Alignment with the real need and the design brief. Easy and fun to use. Gives a sense of confidence and trust in using the design. Pleasurable as discussed above Cost effective. A sustainable and amicable balance between the technosphere and biosphere.

And finally, it must be mentioned that creative excellence will require curiosity, imagination, passion and perseverance. Of this, perseverance is critically important, signifying that one should not be demotivated by failure in designs but be inspired from it towards a far more effective solution.

Kiran Bir Sethi

Design & Educator | Reformer
Founder-Riverdale School

"Having become a designer and inspired by design thinking, I started by asking, with empathy, what does success look like and then I asked, 'What should I do to ensure that I achieve it?'."

EMPOWERING INDIVIDUALS WITH "I CAN" MINDSET

I have this very clear awareness that I am uniquely untalented. I lack talents like singing, painting, dancing etc. that set people apart, but what drives me is this knowledge and awareness that there is so much that I don't know. I am super excited about knowing and I am super excited about knowing everything. Be it art, design, cooking, scuba diving: anything or everything. My insatiable appetite for life thrives on me. This sets awareness and realisation that you are not given a gift but you achieve gifts by working towards them keeps me energetic towards my aim.

I believe that one could be born in any home, sometimes that determine their journey sometimes it doesn't, but when you are given much you have to give much more.

This awareness pushes me to the idea of Greater good and being from the land of Mahatma Gandhi that also keeps giving me daily drive that something has to be kinder and compassionate today.

I have never been ambitious about achieving goals but I have been moved by opportunities and what can I do about them.

I have often had a problem with this idea that children are problems to solve and not as problem-solvers. It is an enduring mindset that continually diminishes a child's potential by identifying them by multiple filters: youth, gender, scarcity, community, etc. and we always defer their potential by saying NOT NOW!

Second, we tell them that they are the future and they will change the world. But they are here right now! In the first two years of their lives, they keep proving that they CAN! It is the greatest injustice and irony that the truth is so clear if we just believe in children. If the role models believe and ensure what belief looks like, we won't find a single human being that would say I can't! We send the students to schools and for the next 15 years, we tell them not now!

And then we wonder where is the pool of Creative children who are open, curious and wondering! This is where the education sector has a huge opportunity!

As a student of design, the user is the most unnegotiable part of the venture. Setting up my school became the most fascinating journey. I started understanding, observing and listening. Parents' concerns were faded by the evidence their child demonstrated- evidence of understanding and application

and not report cards. The problem with the marking system is that we tell our children that they are "markable" but not "remarkable". The current education system is always repairing the students but never preparing them.

So we built Riverdale on a design framework, we took it slow, found the process of learning and uncovering and building the culture of design inspired by the National Institute of Design. All this gives so much capacity for joy to the children, which we don't talk enough about in education. Joy comes from such a deep source of well being, capacity, awareness and empowerment.

Motherhood dawned upon me the realisation of the need for an idea of education that rewards compliance over the conversation. I absorb the ways a child is viciously tangled in a cycle of trying to stay out of trouble in school.

Design provides the beauty of breaking goals into parts and getting the best out of them, 'not wanting to be different but making a difference '. Courage would shape design thinking in individuals, and my passion for design found purpose in education.

When I took my son out of school, it wasn't about changing a big story or changing the world it was just about my child. I was not bothered about the size of what I was setting up and that allowed me to break the status quo and be audacious. The idea of possibility and "you can" was originated in my childhood by my parents and when I became a parent I encountered this idea of education based on rewards and not compliance. We make it so insidious for the child that all they start doing is trying to figure out how to please the teacher and how to stay out of trouble and not focus on what they are learning.

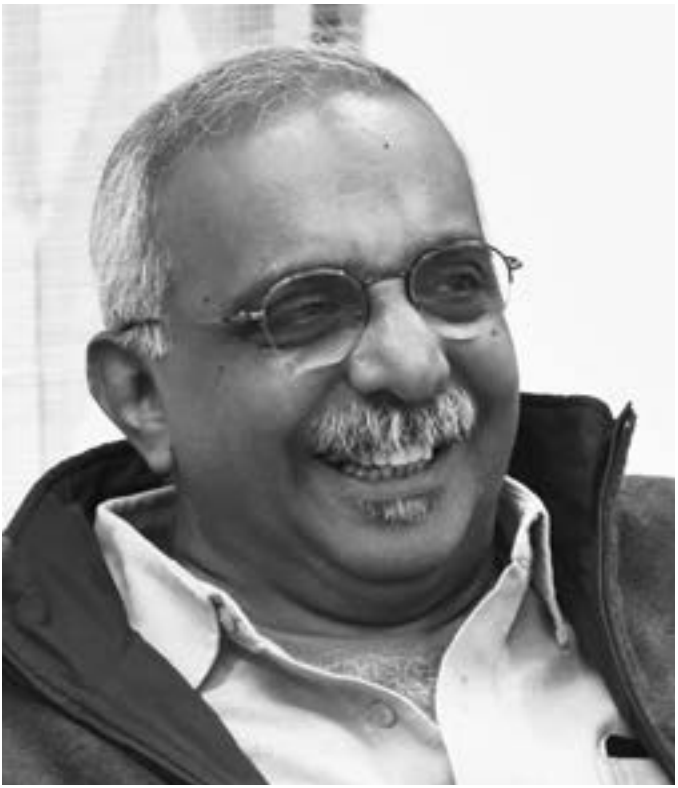
Education has made the parent the primary stakeholder the children became incident to the program but if you place the child at the centre, they shall shape the story themselves.Having become a designer and inspired by design thinking, I started by asking, with empathy, what does success look like and then I asked, 'What should I do to ensure that I achieve it?'.

Design provides us with the tools to start asking the right questions and the skills to be able to serve the area.

Design gives you that confidence, that courage that will shape a lot of the decisions you make not wanting to be different but making a difference. We never believe that we are who we have been waiting for, that it's within us. The first thing I would encourage designers is to re-design, reimagine love and trust. What will bring trust back, what will bring courage back, forget about designing unimportant products but if designers can bring back the love and trust in the world, that is going to play a big role.

CONCLUSION:

I feel covid has given us an opportunity as there is a crisis of compassion in the world where we are becoming more intolerant. As designers, we need to challenge ourselves and build bridges to fill gaps whether through design, art or any way possible. The whole point is to really move forward as one human race and become “humane” and not just exist as mere humans.



Dinesh Korjan

Product Designer | Founder- Studio Korjan

"Harmony can only be achieved by knowing the right path to take about the differences."

CONTENT OF CONTENT

How to reach harmonious livability has been a quest for a very long time and it still remains a question.

Reflecting back on the phase when my family and I had covid, what stood out for me was that everybody was acting out of fear and fear was in the atmosphere. The patients were acting out of fear, the doctors were acting out of fear they were giving you every kind of medicine and trying to save the patients, people were running for oxygen cylinders, the government was acting out of fear, everybody was acting out of fear as if the whole world was in a state of unawareness and uncertainty. What was to be dealt with was how to deal with this fear!

And I had a realisation that we have to find another way of acting which cannot be out of fear because it is worsening everything. I came across this fascinating quote by Osho "Fear is the absence of love." Exactly how the absence of light is darkness and nothing can be done to the darkness except that to manipulate light to fade darkness. This was a revolution!

Instead of trying to overcome fear we have to bring in love to address whatever is confronting the US. Our behaviour or actions have to imitate true love. The world is full of differences. When we are born we are most unique, different from everything else that exists. This is the state of uniqueness that we get admitted into the schools and then we start wearing a uniform. This is the inception of fading of our uniqueness.

It is exactly like we talk about life and death: we usually considered life as a long process and death as an event. But we are living and dying at the same time it is also a process it is not an event.

Now, look at this example. Canada has a huge population of diverse nationalities. What do you do with diversity instead of focusing on our differences? Canada doesn't make the citizens speak the same language or have an official language for all.

As a country Canada celebrates its differences, so I speak Japanese, or I speak Korean but I am a Canadian. We can learn from absorbing what we don't have when we embrace the differences and celebrate them, and by doing this, we create conditions for unification. And this shift needs to take place, like introducing intuitiveness into our environment.

Essentially, it's a shift in our attitudes towards our fellow men, since we speak

down to each other so much, that we feel we are right and others are wrong, and it's as if we're okay but others aren't doing their part.

If Indians went to Singapore, or Japan, or the US, they don't break traffic laws. The same people who break traffic laws here behave very differently when they're in another country.

But we are not Singaporeans, we are not Americans, we are not Japanese. I have been to Japan, they are fantastic. Even in your hotel room, they expect you to remove your shoes when you enter, as they have this cultural practice of removing footwear when they enter any room.

But they are anticipating what is your next move. While walking on the street, if you happen to throw something on the ground, like a piece of paper or a wrapper, the next person coming behind you will pick it up and put it in his pocket. Why? There is no point in him telling you anything because the most important thing is that the street is clean.

Harmony can only be achieved by knowing the right path to take about the differences. We need solutions that are made for Indians. Just as Indians behave differently when they are abroad, foreigners behave differently when they are in India. Despite following the procedure, they cannot cross the road or use a zebra crossing because nobody is going to stop to let you pass, so they also need to learn the survival techniques that all of us have and that we all know. So, how do we go about making these changes? It is our responsibility, as designers.

CONCLUSION:

It is a matter of changing our frame of mind not just to achieve harmonious living, but to change our way of viewing the world and how we view ourselves and other people, and also the manner in which we create solutions. Design is an excellent place to bring about this because we create things that affect our lives, so we are in a position to directly change people's lives.

Vanmala Jain

Specialist at Ceramic Design | Design Consultant
Faculty and Mentor | National Institute of Design
Alumna | Work on display at Museum of Small
Ceramics in Zagreb CROATIA (Europe).

"I want the traditional beating technique used to make round-bottomed pots or matkas to survive and be learned by the current generation of potters."

DESIGNING FOR SOCIAL WELFARE

My journey in ceramics started early at the age of 16 while Rajmata Gayatri Devi of Jaipur began to revive the art of blue pottery of Jaipur, and we were taught the craft in school MGD, Jaipur. And today 'clay' is all I know, I literally breathe, live and think CLAY. In 1975 I joined the National Institute of Design, Ahmedabad. Student days of NID changed my perspective towards life. It was literally a game-changing experience.

My Diploma project was on 'Blue Pottery of Jaipur'. Kripal Singhji Shekhawat who is responsible for the revival of this craft was my consultant. His production unit gave me insight into the 'Limited Edition production.

About 'Large Production' I learnt during Industrial Training at Palam potteries, New Delhi. About 'Entrepreneurship ' I learnt at my first job with a social work and research center, Tilonia, Rajasthan. Working and living with Bunker and Aruna Roy changed my way of looking at society and how art and craft could be socially and economically uplifting. To make a livelihood out of clay, no longer seemed far-fetched.

In 1983 post marriage I moved to Mumbai and applied for a job in the ceramic industry but due to precarious industrial conflict, there was no response. Teaching was the next best option. At least the clay connection continued. For good 15-17 years I taught in prestigious institutions of Mumbai, namely at Sir J J School of Art, SNDT Women's University and finally at the IDC, IIT Bombay, I was able to keep my learning alive and also gave me time to be with my daughters.
In around 1999 I took the plunge and signed up for a 10-month Women Entrepreneurship program at NMIMS, a leading management school in Mumbai. The course helped me to fine-tune my business skills and gave me that final push to start my own venture.

Fig. 1

Finally, in 2000 I began work from my home balcony with a potter's wheel, 10 kg clay, and an electric furnace with 8" X 8" inside the chamber. I was on top of the world. With experience, I became more confident of doing things on a larger scale and decided to rent a commercial place in the year 2000 itself. I did not know where this would lead but I kept going.

Fig. 2

While still in NID I had decided on the name KUPRKABI, a synergy of two words CUP (KUP) and RAKABI (SAUCER). So Kuprkabi Ceramic Design Studio was rolling.

At the onset, I was quite clear on how Kuprkabi or KCDS would function. It is built on three core principles: to create handmade, sustainable and ethically produced ceramics. Since every product in KCDS is handmade, I have deliberately chosen not to get any machines for mass production. The only machine we use is the electric wheel and electric furnace. These are the limitations of working in

Fig. 3

Mumbai. The idea is to make clay products by hand so it gives employment to more artisans. We try no wastage, for example clay at all stages -green, bisque or glaze is recycled. Old clothes newspapers, paper cartons, used paper and plastic pouches are all re-used. Also, by its innate properties, clay is a very ethical material as it gives livelihood to artisans, without creating an imbalance in the environment. This trifecta of goodness makes working with clay all the more a

moral choice. Lastly, I wanted KCDS to work with people, to use the craft to uplift them and not just trade.

While we started KCDS in 2000, social entrepreneurship came with its own set of challenges. First, finding buyers for handmade products was not easy and second, we had a shortage of skilled workers who could produce high-quality clay products. To address both issues, in 2005 we began to conduct awareness programs about the craft. We also carried out training workshops in Mumbai slums on a regular basis where we taught participants about clay and how to work with other materials such as wire, cloth, cane, bamboo, wood and glass.

Many of the participants in our training workshop are women. Kuprkabi believes that if a woman can knead the dough, she can create clay products. If she knows how to sew, she can create artwork made of cloth and so on. As such a woman can generate an income for herself, working at her own time and place in her own home, while performing her household duties. As a result of these programs, at KCDS we have no traditional potters.

Since our training programs had increased in frequency, we decided to formally set up a foundation to manage them. In 2010, we registered Kuprkabi Foundation (KF) with the Charity Commissioner of Mumbai. So far, we have trained over 300 men and women, young and retired. Once they complete their training over 1-1.5 years, and if they wish to work with Kuprkabi we hire them. But there is no compulsion to join KCDS. Many of those who have learned this craft from us have started their own business. KCDS gives them work orders as and when the demand arises. We have a very free model, and people can work with us at their convenience. My goal is that people should learn this art form.

Fig. 4

Through our training programs, we have been able to hire 15 potters or karigars as full-time employees. Many of them have been with KCDS for over a decade and have become trainers themselves. We employ school dropouts (boys) to do clay work and to run the furnace. Retired people are engaged in specialized and odd jobs. Since all the artisans have been trained in house, they know each process of producing

clay products intimately. From taking a verbal product brief over a phone, to actually creating a tangible product sample, they do it all. This has helped me in building scalable production systems at KCDS. We have an artist who can craft 40-50 pieces of miniature clay by hand in a day. There may be barely a 4-5 mm difference between pieces.

Kuprkabi Ceramic Design Studios and Kuprkabi Foundation are literally community-run organizations and with that comes the responsibility of raising families. As such finding buyers for our products isn't just to maintain bottom lines but to keep home hearth burning too. Earlier things were a little tough, people did not get why they should pay a premium for handmade products. But things have gradually changed in the past few years. People travel more, are exposed to newer cultures and ideas and thus appreciate the handmade, the creativity and effort that goes into creating it.

Fig. 4

Our commitment to handmade things seems to be paying off. KCDS products are recognized globally. We design products that are a bit quirky, with Indian and global aesthetics. While I continue to work in the same medium of clay, the methods, programs and outlooks have changed over the years. I play multiple roles, of a designer, an artist, an entrepreneur and a teacher. Each role fueled the other and helped me learn more about the material and perhaps about myself too.

Our work in preserving this craft of traditional handmade pottery continues through the Kuprkabi Foundation. I want the traditional beating technique used to make round-bottomed pots or matkas to survive and be learned by the current

generation of potters. To carry out preservation work, we invite school children to our studio. I hope that if they see artisans work with their hands, their young minds may absorb the art of pottery or Kumbha Kala and then they learn to appreciate the spirit of handmade. It may seem a bit stretched but I was introduced to clay as a teenager too!

I started Kuprkabi from a one-room workshop in 2000 and now we have eight rooms in the same building. After 47 years the glaze still continues to dazzle me. My romance with clay will perhaps continue to my very last breath. And I cannot imagine my life any other way.

Fig. 6

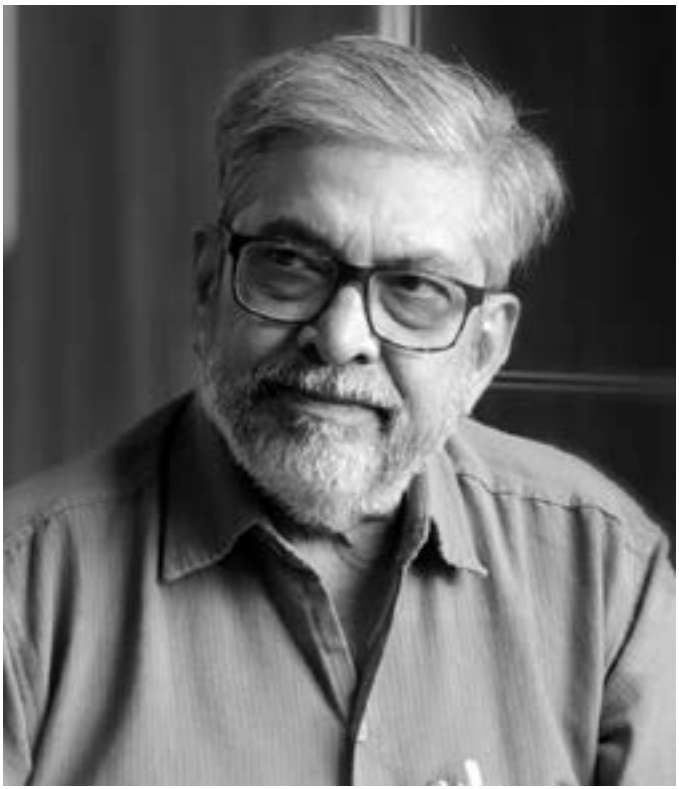
CREATIVITY 5.0

YUNUS KHIMANI
Art & Educator

ANURAG S
Visual Merchandiser
Founder, Pencil Box

SATISH GOKHALE
Founder- Design Directions
National Institute of Design Alumnus

BENOY THOOMPUNKAL
Director International
Partnership Mentor-Interior Design & Photography



Yunus Khimani

Art & Educator

"There are a plethora of design inspired by art.The Artist and Designers meet at crossroads, interact and influence each other in their different ways"

DESIGN INSPIRATION FROM ART MOVEMENTS

Art and Design had close encounters with each other over ages. Many times the artist himself also doubled as a designer and vice versa. I have divided the essay into 3 parts: Hand in Hand – Abstraction Bauhaus – Constructivism

The early 20th Century was the formative period of Modernism and Design. Abstraction started in Europe around 2013-14. Two artists credited to have done the first abstract works (at around the same time) are the Belgian painter Piet Mondrian and a Russian immigrant to Germany, Wassily Kandinsky.

Fig.1
Piet Mondrian

Fig.2
Wassily Kandinsky

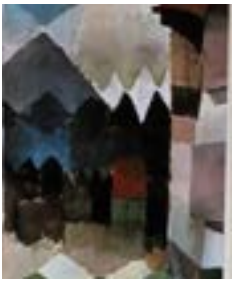


Fig.3
Paul Klee

Mondrian was part of a group of artists and architects who named themselves De Stijl (The Style). They named their unique vision of abstraction as Neo-Plasticism (also referred as Geometric Abstraction).

It was in Bauhaus that art and design went hand-in-hand with the serious involvement of two great artists of the time who were faculty members: Wassily Kandinsky and Paul Klee. Kandinsky's abstraction and Paul Klee's insight in form and colour, not only influenced Bauhaus but also laid the path for the future of Modern Art and Design. And we have a long line of personalities who dwelt in both. They are Marcel Bruer, Joseph Albers, L. Moholy Nagy, etc.

The kind of influence these 3 artists (Wassily Kandinsky, Paul Klee and Piet Mondrian) had on modern art and design is unprecedented.

In 1925, the Bauhaus moved from Weimar to Dessau, where Gropius designed a new building to house the school. This building contained many features that later became hallmarks of modernist architecture, including steel-frame construction, a glass curtain wall and an asymmetrical, pinwheel plan, throughout which Gropius distributed studio, classroom and administrative space for maximum efficiency and spatial logic.

At the age of 62, Albers began what would become his signature series, the Homage to the Square. Over the next 26 years, until he died in 1976, he produced hundreds of variations on the basic compositional scheme of three or four squares set inside each other, with the squares slightly gravitating towards the bottom edge.

Gustav Klimt, perhaps the most famous Art Nouveau creative mind ever – it's impossible to ignore how the signature gilt and jewel-tone mosaics that define his artistic aesthetic have influenced designer's collection over the years, Klimt's work was referenced by John Galliano at Alexander McQueen in a sequence of golden discs and he remains the most replicated artists of all time.

Fig.4
Gustav Klimt

Fig.5
Hermès in particular

Gustav Klimt, perhaps the most famous Art Nouveau creative mind ever – it's impossible to ignore how the signature gilt and jewel-tone mosaics that define his artistic aesthetic have influenced designer's collection over the years, Klimt's work was referenced by John Galliano at Alexander McQueen in a sequence of golden discs and he remains the most replicated artists of all time.

Hermès in particular – during the life of the Mondrian – presented a collection of bags and suitcases with a characteristic pattern. Then there was Yves Saint Laurent who in 1960 showed the Mondrian dress (a trapeze knit dress with a recognizable combination of colours). It has since been referenced by brands including Chanel, Vivienne Westwood, Moschino and Nike. No other artist has inspired architecture and interior design as much as Mondrian has. His characteristic primary colour grid of squares and rectangles was widely used in interiors.

Salvador Dali is memorable as a pioneer and most colourful artist of Surrealism. He was involved in all aspects of artistic creation from painting, sculpture, design, drawing, movies, fashion, etc. Dali moved on to designing

evening dresses, worn by the likes of Duchess of Windsor. In addition to magazine illustrations that the artist created in 1930, Dali also brought about a real revolution in haute couture, working with Elsa Schiaparelli. Around 1935, Dalí saw something special in the face of movie star Mae West: an apartment. In a watercolour, he turned her blonde curls into portières, her eyes into paintings, her nose into a fireplace, and her lips into a divan. The last was a furnishing so provocative that British arts patron Edward James requested a 3D version. Thirty years later the technology was developed to produce the sofa in polyethene and Dalilips – complete with its original skin-like wrinkles and "Dali" signature on the bottom lip – went into mass production. Today the sofa can be bought from Barcelona Design for €1,741.

Fig.6
Salvador Dali

A true icon of pop art, Warhol transformed everyday pieces into creative objects In principle, any consumer product he turned his attention to could be printed on clothes. A dress made from his famous Campbell's soup print marked the beginning of a long connection between the artist and fashion. Yves Saint Laurent too turned to the creativity of Warhol's portraits, and in 2013, Dior released a collection of dresses and accessories of sketches of shoes made by Warhol.

Fig.7
Pop Art

Fig.8
Antoni Gaudi, Casa Millà (la Pedrera)

Gianni Versace's SS91 Pop Art collection featured a jewel-encrusted dress emblazoned with Warhol's Marilyn Monroe prints, worn by supermodel Linda Evangelista. Both glamorous and sexy, the dress defined 90s fashion and as one of Versace's most celebrated creations is now owned by the Metropolitan Museum of Art in New York.

When It comes to Jeremy Scott it is evident that his collection is for both his eponymous label and Moschino that he believes wholeheartedly that "you should

have fun with fashion. Playing with the idea of logos and brand worship as well as his obsession with celebrity and pop culture, Scott is a modern-day Andy Warhol.
American Pop artist, Roy Lichtenstein, produced precise compositions that were documented while they parodied, often in a tongue-in-cheek manner. His work was influenced by popular advertising and the comic book style.Roy Lichtenstein's work is a never-ending source of inspiration for designers and brands alike. Garments featuring Lichtenstein's work were included in Iceberg and Lisa Perry's collections. There have also been various sneaker collaborations with Nike, Vans and Converse, as well as Charlotte Olympia.

Artist Designer – and there were also those instances where the artist and designer werewas the same person.

I have come across designers who work like artists, designers who are artists who have adapted design in their work.The first to come to my mind is the Spanish architect, Antoni Gaudi. Gaudi's work was influenced by his passions in life: architecture, nature, and religion. He considered every detail of his creations and integrated into his architecture such crafts as ceramics, stained glass, wrought iron work forging and carpentry. Gaudi became part of the Modernista movement which was reaching its peak in the late 19th and early 20th centuries. His work transcended mainstream Modernisme, culminating in an organic style inspired by natural forms.

Anni Albers was one of the most esteemed students of the weaving workshop at the Bauhaus. She often began her weaving projects with design sketches. In this rug, she explored the theme of horizontal-vertical construction using colour, proportion and rhythm.

Fig.9
Anni Albers, Design for Smyrna Rug, 1925

Fig.10
A single A-POC "Le Feu" outfit debuting as the final of Issey Miyake's Spring/Summer 1999 show in Paris

The most striking personality today is Japanese Issey Miyake. Widely considered a fashion designer, he considers himself a 'maker of clothes' and I would consider him a sculptor of cloth. A single A-POC "Le Feu" outfit debuting as the final of Issey Miyake's Spring/Summer 1999 show in Paris Issey Miyake Exhibition installation view at the National Art Center, Tokyo. His work experiments with methods of pleating that allow flexibility and movement for the wearer. Ease of care and production is also considered as the garments are cut and sewn first, then sandwiched btween layers of paper and fed into a heat press, where they are pleated. The fabrics 'memory' holds the pleats when the garments are liberated from their paper cocoon and are then ready to wear.

Fig.11
Helmut Lang Sculptures

Helmut Lang, a successful fashion designer, left his label and retired from fashion in 2005. He has since been a practicing artist. He sold his brand Prada Group which In 2006, sold the Helmut Lang brand to Link Theory Holdings. His recent works explore abstract sculptural forms and physical arrangements beyond the limitations of the human body.

Now returning home to India, I think of Mrinalini Mukherjee, a well-known sculptor with a career spanning over four decades from the 1970s to the 2000s known for her distinctly contemporary style and use of dyed and woven hemp fibre, an unconventional material for sculpting many times got termed as textile sculptures.

Fig.14
Mrinalini Mukherjee Sculpture

Anurag S

Visual Merchandiser| Founder, Pencil Box

"Bisociation creates inventions and innovation improves the existing inventions"

THE PROCESS OF CREATIVITY

In my college times, there was no google or the internet and there didn't exist many means to learn crativity. So I explored and met a lot of people and came up with a module and started approaching colleges and giving free lectures so that the entire student community could come on the same platform, think from some similar ground and take off.

THE PROCESS OF CREATIVITY:
There is a process on how to think out of the box and come up with solutions and I have used this process to come up with great ideas throughout my career.

The following 3 definitions define creativity well:
1. The result of using the imagination rather than routine skills.
2. The capacity with each of us has to imagine new and useful solutions to problems.
3. A drive to see things other than what they seem.

Fig. 1

People can have different perspectives and mixed opinions and someone may find a thing creative and some may not. The creative process is a different concept from the process of creativity.
Creativity comes to those who seek it!

We notice creative work in our daily life on social media, scrolling and liking it and sharing it often missing the process of creativity and how the person would have thought about the idea itself. Creativity is all around us in small simple things which we take for granted but there is always scope to improve it, to make it more

functional, to add value and make it more sensible. Creativity comes to those who seek it. It is like a muscle: the more you exercise the more it grows. There are no pills or gems or special food to increase creativity. As designers and design thinkers, we will have to work on our creativity. One can tell us the process to be creative but to practise the process and think and come up with the design solutions by thinking-rethinking and coming up with installation.

Creativity has got two channels:
First, by bisociation.
Second, by innovation.

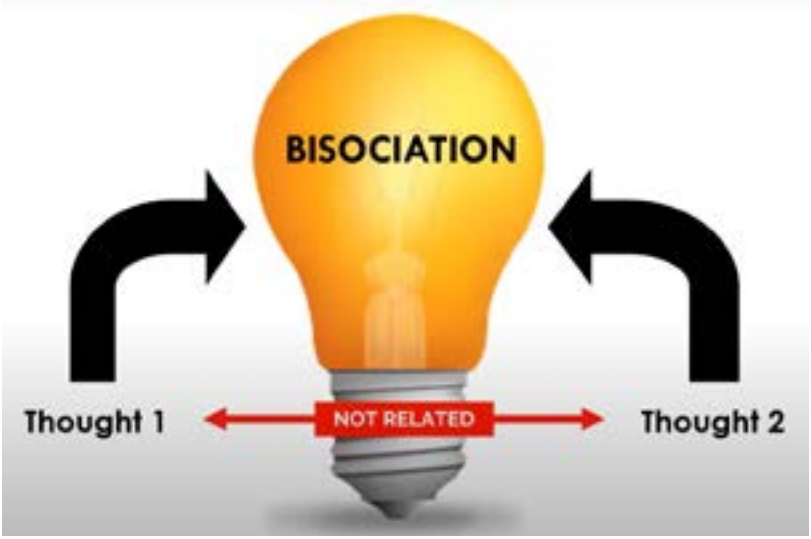


Fig. 2

BISOCIATION: The bringing together of 2 previously unrelated planes of thoughts. This process is also known as **"The big jump creativity"**

Thought 1 and Thought 2 are unrelated and brought together to come up with new inventions. For example, there existed wood and there existed lead separate from each other, unrelated. But a genius one day brought these two substances together and invented PENCIL. Similarly, if we go back to the basics: the first wheel, first needle, first glass, first weapon-all these are examples of bisociated products.

Bisociation is prominent in the west where new inventions were made using two unrelated concepts and combining them. For instance, when I had to come up with new design ideas, I used bisociation extensively. If I am making a chair I used to take inspiration from jewellery, not from a Furniture book. And that is how I come up with unique designs and unique concepts.

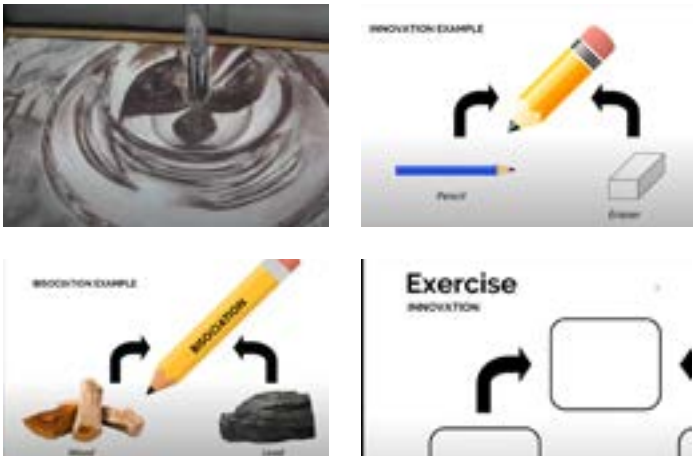


Fig. 3

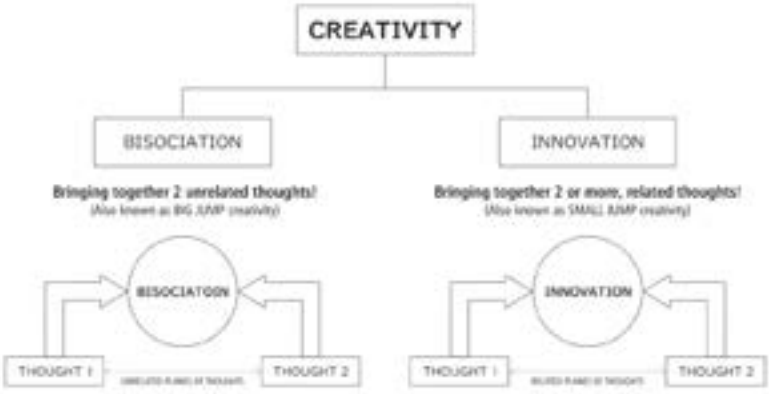


Fig. 4

INNOVATION: Two or more previously related planes of thoughts. Also known as the small jump creativity , when two already related thoughts are combined to create improved products or solutions we call it innovation.

Most of the things like Wright Brothers made the plain was bisociation and eastern countries used these invention to create the smallest mobile phone and drones which are innovation.Let again take the example of pencil. We have a pencil that is a bisociated product and an eraser that is also a bisociated product. Some genius realised that these two go together and came up with the idea of a pencil with an eraser stuck at the othere end.

Similarly, there are so many innovations around us that are made out of

using these two methods of creativity. Everything is an innovation made out of bisociated products.We had a radio and cassette player and somebody made a 2-in-1 music player. This I innovating a product to improve it and do value addition.

The difference between bisociation and innovation is that innovation can only be done to an already existing product but for bisociation, a totally new product is to be created.Bisociation creates inventions and innovation improves the existing inventions.know when to research, invent, innovate, and do Jugaad. All four of these are essential for reaching a creative solution. Another thing to keep

Fig. 4

in mind is to surround yourself with people who are not knowledgeable in the particular field you are solving the problem in. You need them to ask ridiculous and even stupid questions sometimes. Because no one else will ask those questions, and your solution cannot be complete without you addressing them. That's what leads to innovations.

Now, the next thing we need to understand is the need for creativity in medical science. And to get that across, let me tell you about a study done at John Hopkins Medical Institution. They surveyed to find out the leading causes of death in the U.S.

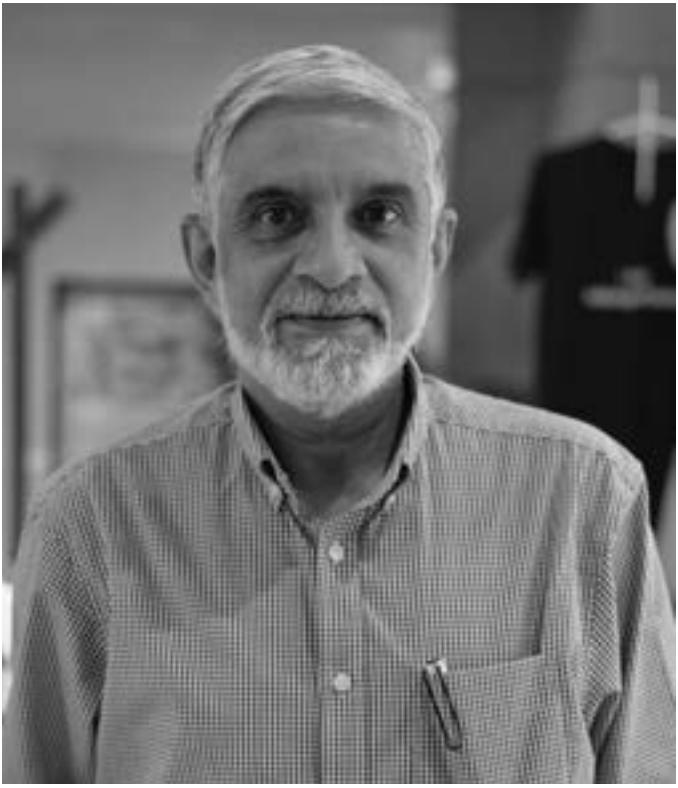
They found that the third most leading cause was actually because of medicine and doctors. And that was because of the capitalism involved in the industry. And it raised further worry about public health and the processes and systems in place in the industry. Medicine, in particular, is a very slow-moving area. And this is where

creativity can come in. For example, I found inspiration for innovation from my throat cancer patients. They have a hole in their throat, and they breathe from it. But they can't speak since they no longer have a voice box. Right now, two machines in the world allow these people to talk again. And they cost patients from around 45,000 to 1.5 lakhs, which wasn't affordable to many throat cancer patients. And my fundamental problem with this was that this turned the ability to speak into a luxury.

So, in 2015, I developed the prototype of my device, AUM, which gives these people the ability to speak again. AUM costs patients $1, which made it so every one of my patients could afford it. I dealt with labourers, coolies, small rickshaw drivers, and other poor people. Seeing their experiences of being able to speak again without needing to spend so much money is what drove me.

Today, I have more than 700 patients in India and other parts of the world. And it has been a struggle to survive at this price point. But I always say that charity without pain has its place in social media. I am more interested in charity that comes with pain. Because that is a true sacrifice for the betterment of others. So, that struggle is good. That's the beauty of charity. And this is where we need to bring creativity into medical science, which would be for the service of people and not profit. Use your imagination and innovation to touch lives.

We are not constrained by the discipline of our rigour but by the limits of our purpose - to make a difference. That's what defines our imagination. So, I urge everyone to rethink and expand their limits. To go from ambition to purpose. That's where the heart of creativity and innovation in medical science lies.



Satish Gokhale

National Institute of Design Alumnus | Founder- Design Directions Winner-Design of the decade award by the Tata group of industries (low-cost water filter) | Three times winner of Lexus Design Award India | Founding Member-Association of Designers of India Member- IDC (India design council) and CII (Confederation of the Indian Industries)

"A good product should always be easy to use and intuitive for the end-user, no matter how complex it may be to develop initially. When users use it, it should bring a smile to their faces."

CREATIVITY: HIDDEN COMPLEXITI BEHIND A SUCCESSFUL PRODUCT

The design process is not just a win-win situation. It is a win-win-win scenario, in which not only two of the stakeholders are benefitting, namely the clients and enusers, but also the third stakeholder, the society at large, is also benefitting. A good product should always be easy to use and intuitive for the end-user, no matter how complex it may be to develop initially. When users use it, it should bring a smile to their faces.

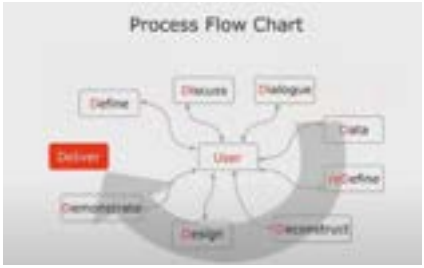


Fig. 1

The design process must include these 9 steps: Define, Discuss, Dialogue, Data, Redefine, Deconstruct, Design, Demonstrate and Deliver. Once the design brief has been defined, discussed, an agreement has been reached about it and the necessary data has been collected for it, the most important step is redesigning the brief. Design is not just about the external aesthetics, form, and materials but also about diving deep into the internals of it. The heart and core of a design need to be perfect. There can't be a beautiful design that doesn't work well or the other way around. Engineering, technology, and processes need to go hand in hand with industrial design. We deconstruct the collected data, which is then used to design, then demonstrate the prototype and finally, deliver the final product.

Let's look at some successful products:

Tata Swach – Nano drinking water filter

The world's first non-electric water filter that switches off after the cartridge filters 3k litres, so no drop of water is wasted. The problem addressed here was water security for the nation. Studies have found out that at any given time, 50% of the world's hospital beds are occupied by people suffering from water-borne diseases. So, the non-availability of safe drinking water has been a major social menace in developing nations. To target the bottom of the pyramid, the Tata Research development and design centre, the R&D arm of the Tata group, partnered with

Design Directions to develop a low-cost drinking water system that doesn't use electricity. The product made this available at just 15 paise per litre, making safe drinking water affordable to many.

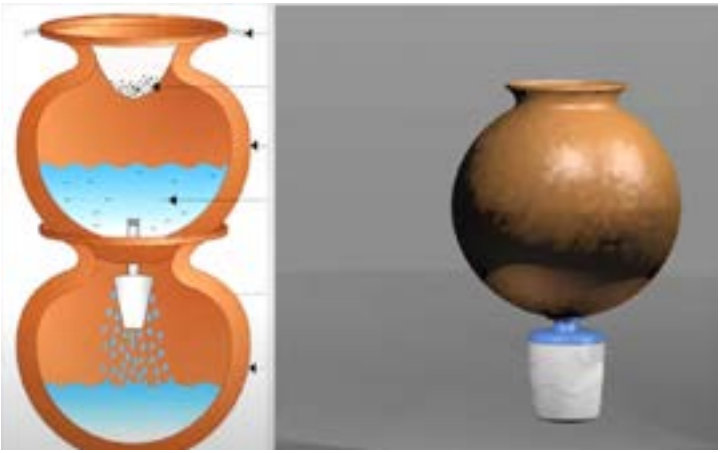


Fig. 2

The brief for the project was to target the audience that doesn't know the difference between water and drinking water. During the entire journey of designing the product till its final stage, many challenges had to be addressed from understanding and developing the design to making alterations, from costing to shipping. The first concept developed was a filter that can be fitted in an existing water container. But to make a hole in the earthen pot of a particular dimension without breaking it was a big challenge.

Fig. 3

A filter cartridge was built that included the tool to make a hole of 21mm which decreased the filtration time from 21days to 8ml per hour. The next concept had the whole water filter with a body, strainer, pre-filter, filter, pre-filter locking, and tap. This concept had a translucent upper body and a transparent lower body to illustrate that 'what you see is what you get.' For this design, just the cartridge is shipped which is the heart of the filter, the rest are injection moulded in various parts of the country and then delivered with packaging that allows for parts to fit together to reduce the transportation cost per filter and increase the number of filters delivered. The cost of the product is not just about materials used but about every cost incurred till the delivery of the product to the final customer. Hence even the aspects of shipping and packaging are equally important.

Today 1 of every 3 purifiers sold in the market is by Tata Swach. This is how the success of this product speaks for itself. It has earned the IDSA-USA Design of the Decade Award in 2010 in the Category of 'Solution to developing world social problems', Product of the Year in 2012, and numerous other awards and recognition with Tata group of business innovation. We continue to add new and innovative features to increase the adaptability and application area by increasing functionalities.

Fig. 4

Micro Irrigation Dam Gates (K. T. Weir)

This design has won Lexus Design Award – Jury's choice award 2021. Micro-irrigation dam gates were first constructed by Shahuji Maharaj in Kolhapur. These dams are 5 meters maximum in height, have at least 28 gates and 4-6 piers that can irrigate around 100 hectares of farmland. Between the piers, there are two metal gates that slide in through the metal channels. The smallest one in India had a cost of around 42 lakhs, so it takes a huge budget to confirm that water is available for irrigation. The gates are made of metal which

is often stolen due to good resale value. If not stolen, it gets rusted in 2-3 years. They also have a huge weight of about 84kg each and thus are difficult to install and open.

To solve this problem many points were to be addressed, gates were to be designed in a material that would last longer, is easy to install and idiot-proof and with a much lesser resale value. The concept thus derived to overcome these hurdles was the world's first rationally moulded polyethene 100% recyclable material. Since now each gate weighed only 25kgs, they could be easily slid and self-aligned and thus cannot be resold.

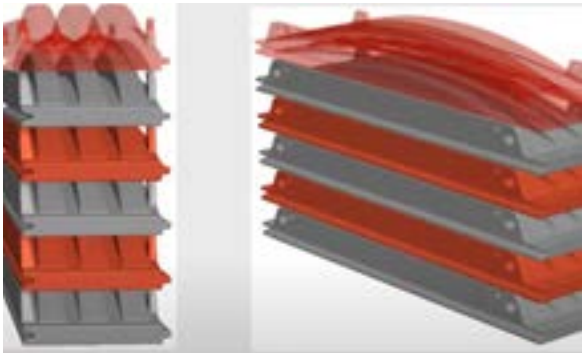


Fig. 5

Design direction has taken on many social and public problems, for instance, convertible heels footwear where one simply plugs out and plugs in the heels that one wants according to the event or mood; and the world's purest water purifier used in solar industries and electronics but is extremely dangerous to drink. It is also working on arsenic issues, fluoride issues, and making a portable filtration system that runs without electricity to ensure that military personnel are not affected by water-borne diseases in a war zone and can drink water from water bodies like rivers and wells.

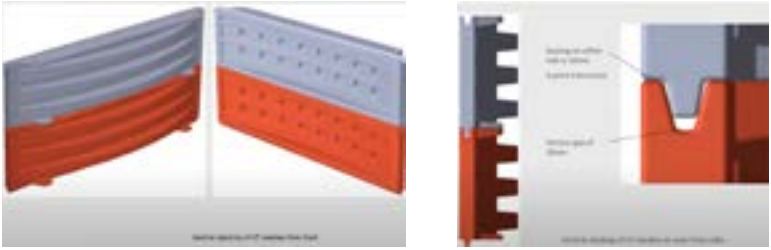


Fig. 6

CONCLUSION:

To be able to reach the final goal, a product needs to be able to overcome a lot of complexities and challenges. A well-functioning product results from prototyping, altering and testing a new idea as and when it comes to one's mind. This leads to the realisation of mistakes and early resolution, which leads to a well-conceived product.

In order for a project to succeed in any aspect, collaboration and cross-pollination are important. They provide a holistic view, which is much needed, as opposed to a narrow and one-pointed view. Every step of the process requires innovation and one should therefore keep the enthusiasm alive, not settling for anything less. Otherwise, creativity will be stifled, and this is what design culture is all about.

Benoy Thoompunkal

Director International | Partnership
Mentor-Interior Design & Photography

"To be aware of the barriers to the creation and what they are, we need to ask questions, search and wait for answers; and continue to analyse and attempt to check the answers critically and honestly."

WHAT IS CREATION

This is at best a soliloquy. Having talked to many walls in my lifetime, both animate and inanimate, I can say I prefer the inanimate ones! And further, I am not quite 'qualified' to give you the complete big picture on Creation. That would be difficult, sploshing around, as I am, in kid goloshes, with buckets of colour, all

Fig. 1

Fig. 2

the while searching for finer brushes and the right place to set down! The larger picture would be better explained by the original Creator. And probably those who have worked hard at getting close to that Divinity, that state of being; and succeeded more than others, to be able to understand and appreciate the fine detail of the process; and been able to communicate it to all of us with some degree of accuracy. Some of them unfortunately have only created bigger and more complex words…!

This world and its animate and inanimate objects are wondrous and grand in the scope built into them. It doesn't matter whether the Creator was One or were a Trinity or a Pantheon. Alone or together they have given us the gift of free choice and left us in the middle of it all.

Essentially, we've been given a chance - actually, chance after chance, to experience and understand the significance and the value of all that surrounds

us. We've been given infinite lifetimes to figure out creation and to re-discover our part in the process. And if one were to see and absorb the meaning of even one small hint out of the vast numbers shared with us every day, one may live like we were meant to, caring for and nurturing all 'creation'. So, lifetimes to come back to!

What one leaves behind in each lifetime is probably what one comes back to. If one were wise, one would take each chance offered to create, anew; for all, rather than for just the self; and in all humility, come out of the cycle by accepting that we are the creators of everything that surrounds us… the love…the beliefs...the hate; the "tolerance; the understanding; the futile products, and most of the world as we know it today.

I have attempted to understand creation and I continue to stumble through the thicket. I have tried to find the continuity, the periodic closure; connecting dots, and perhaps introducing my dots, as they are given to me in flashes of understanding. I continue to broaden this understanding…

Fig. 3

I have realized that most of us want to be unique; one of a kind…in looks, capacity, expression, achievement. And where creation is concerned we always want to be the first, at anything and acknowledged. Very important…for our sanity, our vanity, our very existence. And quaintly, we are more than a trifle stingy and careful about acknowledging the important bottom rungs of the ladder.

How many aeons did the Divine Creators spend in creating the galaxies and ensure that they stayed visibly 'created' for a finite length of time; in planning and designing life; creating the permutations and combinations of forms that have evolved over billions of years past; planting the sustainable essence of growth,

the mechanism of balance and adjustment, of procreation and the generation of transitional landscapes? Or were they random acts of creation, with no purpose; the products of accidental evolution? As always, one looks for explanations that satisfy. We want to know more about that singleincredible mad persona, that superb thinker and fine artist, that incomprehensible brilliant creator, with an exquisite eye for detail; the incredible consciousness, aware of each cog and particle of existence; with the infinite capacity to create layers; and a multitude of parallel existences for us to slip through.

Then we examine our paltry attempts to create and hold on to it. And don't want to let go enough to float. We prefer to keep TRUDGING up that mountain, rolling that heavy ball uphill and getting swept downtime and again within touching distance of the pinnacle.

That's us then; strange, quaint, head-in-the sand, sentient life forms with powers still not fully explored, understood, or harnessed. Who have let their senses and true capacities wither away; completely dependent on gadgets invented to bridge and fill the gaps in even basic perception and communication! 'Rulers' of this planet and aspiring to rule many more. 'Evolved' life forms that probably would not have a reasonable chance of survival, if placed in a jungle for one night!

What is it then that comes in the way of wholistic creation..?
Is it our sense of self? Our ego..?

Fig. 4

Fig. 5

Or is it mostly our missing sense of self … our true natures?
To be aware of the barriers to creation, and what they are, we need to ask questions, search and wait for answers; and continue to analyse and attempt to check the answers critically and honestly.

We should understand that we are sensitive beyond all our artificially imposed perceptions and limits; that we don't need formulas, nor techniques or tools to create or survive; that we are already wired to embrace our complete being, our capacities, as a race of supposedly superior beings, to think and invent, with complete awareness of our potential and our powers of creation, unfortunately, left latent, and dormant, for far too long; that all we really need to do is to re-attune ourselves to the vibrations of the universe, of which we are a part; albeit minuscule as a grain of sand, but with unbelievable power, capable of gathering, collaborating and multiplying the energy required for meaningful creation. Call it what you will – inspiration, advice, opinions, knowledge, experience, encouragement, prayer; we call for help always. Yet most times we are closed to the nudgings of the universe; deaf to the inner voice; we are closed to 'Divine Help', even while wanting it. Our conditioning probably plays a part; trained as we are, consciously and unconsciously, to build barriers against most of the sane directions governing existence. We let the unreal perceptions, beliefs & dogmas covering race, creed, religion, colour, sex, et al, not only be planted in us but come in the way of seeing and being in touch with our real selves.

It's when we are thus blocked that we want formulas and methods to try to get past the barriers to 'creative' solutions as fast as possible. We do our very best to gather ingredients – tools, materials, research etc to try and increase the chances of success in the process; to be reasonably sure of a satisfactory result at the end. And we fail time after time. So far, we have deliberately adopted the bigger picture; the grandiose Godly scale of creation, including life, galaxies etc; to shake oneself out of the usual 'creation and creativity is' kind of box. But, be-

Fig. 6

fore we press the 'button' that supposedly turns on our creativity like a bulb, we should perhaps pause and re-examine our motives and the extent of our awareness of the repercussions of our sometimes irreversible actions.
Acknowledging the present reality surrounding us, the human race cannot talk about sustainability and 'lifetimes' till they also fully realize the 'price' of creation. We get so caught up in the theory and the act that we use the activity only to satisfy our urges, and our greed for more; with no deep understanding or ability to respond to what is under our very noses most of the time, screaming to be noticed and acknowledged. With the immediate condition of Mother Earth taking precedence, it seems fairly clear that 'creation' should be undertaken with full awareness of all that will be affected as a result of its manifestation. The world is full of examples of devastation and destruction resulting from irresponsible experimentation with nature, the pillaging of natural resources, the poisoning of the environment; and the annihilation of all kinds of life forms with myriad weapons of mass destruction.

So while it seems I have taken all the 'joy' out of 'creation', it was not the intent. This was more an attempt to draw attention to the power packaged into each of us - the power to nurture, to heal, to manifest; and the power to evolve; to create responsibly. All valuable creation requires serious and responsible attention at the very time it is brought into manifestation.

Without this, all creation is dangerous and eventually harmful. And for us sentient life forms, it will be the quality of our acts of LIVING that will decide whether we are actually in touch with the creator in us, or whether we have to work harder through some more lifetimes to get there.

There may come a time otherwise, where nothing may need to be created anymore. There may be no 'Earth' to return to.

DESIGN LEADERSHIP

ARCHANA SURANA
Founder & Director,
ARCH College

MAHAVIR SHRAMA
Former Chairman,
TiE Global Board of Trustees

ASHISH DESHPANDE
Co- Founder Elephant
Former President ADI

PROF. PRADYUMNA VYAS
Cheif Advisor-Academic Affairs & Partnership
ARCH College, Board Member WDO

Archana Surana

Founder & Director, ARCH College | Dean & Academic
Council Member Rajasthan ILD Skills University (RISU)
Founder & Chairperson Women Mentors Forum (WMF) Jaipur

"One is at a delightful place where one is fearless and design has the potential to teach you that!"

DESIGN CULTURE: POWER TO TRANSFORM

It's always been very interesting when I think about the word 'Transformation', also because it's deeply connected to my personal stories from back in 1995, when I had moved to Jaipur and about when Arch came to life, five years hence. Times were different and Design wasn't perceived the way it is now. Back then there was no awareness of what design meant and how important it was in terms of creative thinking and problem-solving in our modern everyday lives. People told me not to approach the idea of starting a design college, but rather go for an MBA course, engineering course etc. which were trendy. But here is where I stood my ground and followed my dream and believed in myself. I was constantly looking at what the city needed and even more, to what India needed and there I saw an opportunity to create value, being more Open Minded, seeing all the shortcomings and accepting failures and kept focusing on bringing about a change in the way people saw Design. Also, alongside I kept pondering upon how India as a country could take the design-forward, in its style with originality, not imitating the west but by digging into our Philosophies and Ethics, using its indigenous knowledge and wisdom to come up with outputs that are flawlessly functional and delightful. I think being connected with oneself and believing in oneself is the strongest form of Independence out there which helps empower yourself and facilitate opportunities for your peers to grow and co-create! And automatically Co-creation leads to expansion of horizons where we as a group can manipulate our boundaries to increase our bandwidths of possibilities!

I had started to see my dream grow along with people contributing and fulfilling their dreams. That was when I realized, we as an organization are evolving, as evolution is inevitable when one is on a lifelong learning journey. Through teamwork and collaboration, design can be a holistic pathway of education where the practice includes the knowledge of Science, Commerce and Art all at once. It is also spiritual as it's connected with the self, giving the learners a chance to explore, discover and grow constantly. And in today's time where covid is disrupting our lives back and forth, design and problem solving through collaboration and staying connected with people is the prime need of the hour!

But sometimes designers find themselves stuck when they hit a dead end with the problem they are trying to solve and they tend to give up too quickly. The secret to mastering this game is patience and perseverance, and to finally find that silver lining no matter how difficult the situation is. Believe me, it's only a struggle of the moment but immensely satisfying and transitional once one cracks the code. This eventually builds up a relentless mindset and then success is the only reward. Another way of getting past difficult times (through my personal experience, I would like to share) is to always have mentors regardless of your age, who listen to you and suggest ways that will always keep you inspired.

That brings us to an interesting question, We all have Dreams, Don't we? So how can


ARCH INITIATIVES
Women
Mentors Forum
HUB
Campus to COMPANY


EMPOWER
CO-CREATE
EVOLVE


ARCH
Design • Business • Research
ARCH PYRAMID
RESEARCH:
BUSINESS:
DESIGN: Design Ability

we live them to their full potential?

The only way to live your dream to the fullest is when you have a clear vision. In Which you believe deeply and it, in turn, becomes your values. It drives you to achieve your mission and treasure your goals through ambitious thoughts with a constant recheck of your attention to intention.

And in the end, you should be practising your dream instead of shying away from the steps and coincidently these steps are directly proportional to the art of the design process too! And in the journey of following this process, there will be failures, whether you like it or not. It's going to come alongside no matter what. And if you are afraid of failures then this is not the field for you. So the beauty is in if you create a plan where you have calculated failures. I think one is at a delightful place where one is fearless and design has the potential to teach you that! It's nothing but designability which gives you the power as a designer to manipulate your thoughts to your benefit and influence others through your piece of design which delivers and works in reality as it delightfully affects one's 5 senses, touching intricate sensibilities with sensitivity. These were some of the tips on design and life which I was very happy to share from my experience of 22 years at Arch and my journey of almost 28 years as a practitioner and a professional.

CONCLUSION:

Therefore, we as design professionals should look forward to developing our society in creative and energetic ways, borrowing from India's ancient wisdom and beauty. This is where I want to bring into notice a concept coined in Japan known as Society 5.0, that the Pink City Design Confluence (PCDC) is going to address questions on how society is going to look like. Is it going to be about power games? Is it going to be about territories and countries? Is it going to be about boundaries? Or is it going to be an amusing boundaryless interconnected society?
Hence, changing with time is the key, to look at the new ways the world is evolving by grabbing interesting opportunities with a 360-degree mindset shift on how we look at education.

I think it's time we start thinking in terms of design and collectively build a culture of design, making a difference, creating delight, worth, value and wealth.

Mahavir Sharma

Serial Entrepreneur | Former Chairman
TiE Global Board of Trustees

`Sustainable Entrepreneurship & Conscious Capitalism'

DESIGN LEADERSHIP

When we discuss sustainable entrepreneurship and conscious capitalism there are a few core values that one should not deviate from.

WORK BACKWARDS- Designers and entrepreneurs must WORK BACKWARDS. You can only sell a product once you understand the needs of the consumer, design the product based on those needs, and put it on the market.

THIRD-PARTY INTERVENTION- When one is involved in a project or creating a product, one should conduct due diligence and scrutiny before taking action. A company that reaches a certain milestone or level of growth needs to take a step back and distance itself from the product or solicit third-party input. To become a successful entrepreneur, it's essential to scale up the project.

MULTI-DIMENSION: No product, service or design is value-added unless you can scale up your project to the point where you can create a much larger impact and for that, you need to take a step back and look at your project more closely. The stories you need to tell should be multi-dimensional. You can't have just one definition for a product; you need to provide emotional connections, psychological connections, and virtual connections. You must understand that branding, marketing, and the position of your enterprise are very important. Therefore, you need multidimensional strengths.

PIVOTING: Design Thinking and projects are always challenging and you will always encounter stumbling blocks. The most important thing is to always be ready to pivot and start all over when needed. When you find that your design thinking approach or entrepreneurship plan is failing to reach the goal you are seeking, it might be necessary to reboot and restart.

STRONG TEAM: Gone are the days when businesses could be driven by just one or two people. In order to scale up, you need multi-dimensional skills, such as technology, biotechnology, and engineers. You need a team that can debate and discuss, and you must have an outstanding leader with a team of excellent people. As the business cannot be run alone, one must learn to trust others to build a good team.

The above 5 qualities are necessary if you want to be a sustainable and successful entrepreneur to make an impact beyond your business.

Sustainable entrepreneurship can be divided into 3 elements - Financial Success, Conscious Capitalism and Society. The key to sustainable financial success is business sense. Conscious capitalism demands that the environment in which the product is created and the environment in which the product shall impact must be as minimal as possible in terms of its environmental impact and consciousness. To

be a socially sustainable entrepreneur, you need to be conscientious of society in general. The skills, impact, working environment you have created, and your responsible behaviour play a key role. An as entrepreneur one must learn from already existing successful sustainable entrepreneurship models such as TATA enterprise and Anokhi, Jaipur.

For a product to be successful, it needs to be multi-dimensional from a larger perspective. Designers should not manufacture a product and then attempt to sell it. They should find the consumer's needs first and then offer the product by following the `work backwards' principle.

After COVID the world has changed. The environment, our health, sustainability, and long term planning have become essential and we must now embrace sustainable and conscious capitalism in order to avoid disasters.To create a long term larger impact you need to do your research and you must use these great innovations such as Artificial Intelligence.

For any business to be successful, we need to partner and collaborate using skills sets and technology in combination to develop and implement a long term business plan. The system will not work if you don't have a complete cycle that starts from the ground up and ends up as a sustainable, environmentally friendly, bio-degraable system. One must never forget our core competence as entrepreneurs but the focus must also be towards creating an ecosystem that is more impact-driven in terms of outsourcing or partnering.

Although technology will evolve at a pace that no one can imagine, design, culture and art are tools to environment, biodegradability and sustainability. Technologists are not the future of the world, they will only enable it. The creators and creativity are where the future lies. Everyone can make a product, but the role of creative people is to make it usable, reusable, conducive, and to change it based on trends and needs.

Sustainability requires impacting the most number of people possible. Since society functions collectively if no one is impacted than a maximum number of people are likely to fall back into old habits, so for something to work it must impact everyone at once.

If we don't bring conscious change to our own lives when it comes to sustainability, impact, or capitalism, we will never be able to inculcate those values in our businesses, families, countries, and worlds. These traits need to be inculcated in the individual before it is showcased in the business environment.

Ashish Deshpande

Industrial Desihner | Co- Founder Elephant
Former President ADI

"I draw inspiration from the ethos of the rural stepping into the urban, the streets stepping into the defined corporate world, all the opposites interest me. I love this character of Indian cities deeply steeped in culture, education, technology and history and so on."

CREATIVE LEADERSHIP: A DESIGNPRENEURSHIP JOURNEY

Design is the journey of discovery. I am a designpreneur, which is when designers go into business.
I have consolidated 3 pillars of learning:
Spot.
Grab.
Work Opportunities.
Simple. Adaptive. Delightful Attitude.

Fig. 1

Fig. 2

I draw inspiration from the ethos of the rural stepping into the urban, the streets stepping into the defined corporate world, all the opposites interest me. I love this character of Indian cities deeply steeped in culture, education, technology and history and so on.

My journey in design began in Ahmedabad, which has a strong impact on design in India and also on me. In 1983 I began my student journey at the National Institute of Design where I trained to become a product and industrial designer. My education is rooted in the cultural fabric of the city as well as of India and on the other hand, it has pushed many of us to branch out and explore the sky that is open through the portal in the architecture on the campus. This tree at NID was the ethos by which we were taught design and to stay anchored.

I am also influenced by this great designer and teacher Victor Papenic and his book Designed for the real world. It was him who shaped my thinking to constantly look at real needs and relevance and the design work which I do.

Under this context, my initial projects were exploration for the underserved. The little intervention in design which led to a smile on people's faces made me realise the power of design. Subsequently, I went to the industry to understand how the industry works and what happens on the shop floor. In this spirit of exploration, I became a design entrepreneur and that is how my journey started.

THE STORY OF ELEPHANT

The old tale of multiple blind people touching an elephant and thinking of them as different objects but when they put them together they realise it is an elephant. The story underlines the importance of the co-creation of teamwork. We alone can probably achieve so much but together we achieve much more. Beyond this, it also illustrates the fact that even when our eyes are shut we can still see. All we need and what we need is the vision to see beyond! And thus our design consulting firm is named Elephant!

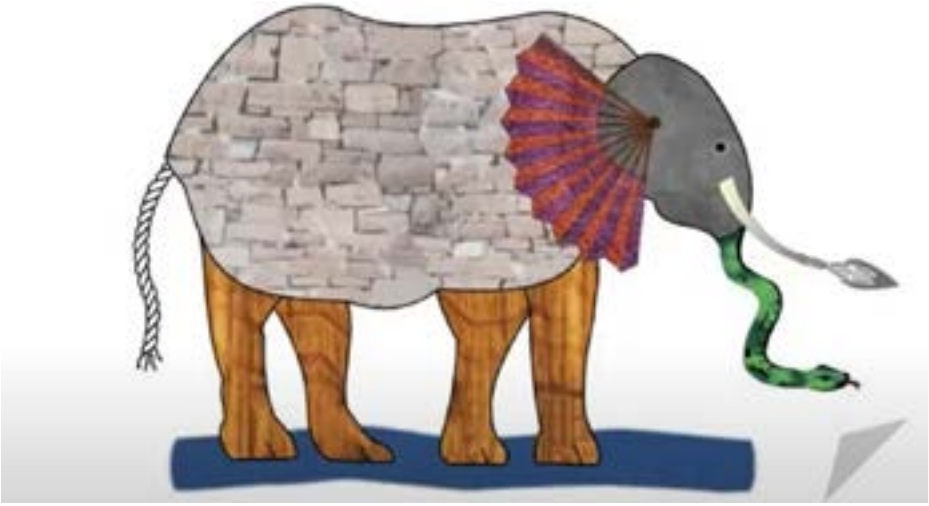


Fig. 3

Design training as we undergo as students prepare us for one solid and essential life surviving skill that is to spot opportunities to solve problems. Opportunities are like sunrays staring at us, and we must learn how to catch them. It is not only about spotting, Once you have spotted an opportunity, you must also grab it and work on it.

What is the attitude that we as people need to have as we go through the whole journey of a designer? How do we approach challenges while running a business and working on different projects? Business, as well as design, are always in flux as the design is always complimenting the business process.
Although technology will evolve at a pace that no one can imagine, design, culture and art are tools to environment, biodegradability and sustainability. Technologists are not the future of the world, they will only enable it. The creators and creativity are

where the future lies. Everyone can make a product, but the role of creative people is to make it usable, reusable, conducive, and to change it based on trends and needs.

If we don't bring conscious change to our own lives when it comes to sustainability, impact, or capitalism, we will never be able to inculcate those values in our businesses, families, countries, and worlds. These traits need to be inculcated in the individual before it is showcased in the business environment.

Fig. 4

Prof. Pradyumna Vyas

Cheif Advisor-Academic Affairs & Partnership ARCH College
Board Member WDO

`The contemporary era is witnessing the booming of design because it is directly connected and linked to the cultural aspect of how it has travelled the last thousand years to today's scenario.

INDIA DESIGN

India is one of the oldest civilisations and its diversity has influenced its cultural practices over the decades. The design thinking and the strong understanding of material, environment, practicality and cultural practices are evident in the ancient architecture and temples of India.

The Mughal period has also brought in a lot of interesting cultural practices in design, textiles, rugs, architecture etc. For instance: the Taj Mahal, and Fatehpur Sikari with very intricate geometry. During the post-Mughal era, architecture and textiles achieved incredible precision, and a lot of artisans flourished.

The design education and design aspects started developing during the British rule in India. For example, the first design school in Calcutta was set up by Rabindranath Tagore in the 1920s, and alongside an arch started developing in the industrial form of developing newer products. After India got independent, the path to development involved big public sectors where craft and art were nurtured and design started coming up as an idea. And now, as we step into the global era, we are witnessing the booming of design because it is directly connected and linked to the cultural aspect of how it has travelled the last thousand years to today's scenario.

INDIAN CREATIVE INDUSTRY

India as a country is rich in cultural, traditions and artistic wealth. Traditions remain constant, passed on from generation to generation as practice. But culture is dynamic and has an influence on technology, cults and different countries and other aspects. India's strong culturally rooted past influenced its creative industry so much that it is the second-highest employer in our county, right behind the crafts industry. It is the " Khazaana"- Treasure of ideas. On one hand, we talk about spacecraft and aircraft and on the other we talk about handcrafts. This variation in the creative industry is the result of DESIGN!

As an Indian, I feel fortunate because India has such a rich cultural heritage, which has helped the design fraternity to create and explore new ideas and concepts based on the traditional knowledge of the country. The importance of culture in a multicultural environment is reflected in the social, economic, and geographical differences we have, which helps tremendously in the teaching process by bringing all these aspects to the classroom for the creative industry, as well as the future designers.

PANDEMIC: AN OPPORTUNITY

Pandemics have always changed the direction of development as they put stress

on humanity to adopt new designs as per the new requirements and needs which has always given a newer lease to act in a different and innovative way. The new normals are going to be different and design is going to make a tremendous influence on what is going to be the new normal, business models, and future of the creative industry and design industry.

The handicrafts or the creative culture industry when hit by this pandemic influenced the migration of labour, that had moved to urban areas for livelihood. Reverse migration started happening when people started migrating back to their home states. This was the opportunity for the policymakers and the designers to revive the crafts in handloom and handicrafts, especially on e-commerce platforms.

There is a shift where designers are now co-creating and bringing a much better quality of life to artisans through design intervention. The designers have the privilege of working with craftspeople and operating their business from wherever they are, and the next generation must take advantage of that. The internet of things shall help not only expand the Indian market but also expand it internationally. The ecosystem is being created to generate awareness and co-creating spaces are being created to enable designers to think independently and create better products and services in the future, which shall have a positive effect on the economy.

CONCLUSION:
Earth has existed for billions of years co-existing harmoniously between development and nature. But menace has started in the last 300 years. The outcome of the 2nd industrial revolution was Mass production and linear economy resulting in mass consumption and a "use and throw" culture. Due to the damage this has caused to the planet, the concept of a circular economy has boomed as a solution. Culture and tradition are connected to design, and the circular economy is strongly embedded in our culture, which is why we must revisit our cultural and traditional practices.

AI, the internet of things and 3D printing will lead to fewer jobs for humans in the future. What should be kept is that emotions cannot be produced by machines! Emotions come in art and craft, weaving the design of a product and the product with direct human interventions connected with the culture.

I see that the designer will have a significant role in defining the future because the fourth industrial revolution will take over technological aspects, while emotion -- the main component of design -- will dominate all professions. Design education encompasses more than art, craft, and textiles; it allows you to experiment, invent, and explore unknown fields. The design process is the

process of examining what you believe to be the best possible analytical solution to a problem and coming up with solutions not before available. Design helps us to learn how to deal with ambiguity. We are moving, experimenting, exploring and reaching a newer solution to the ambiguity!