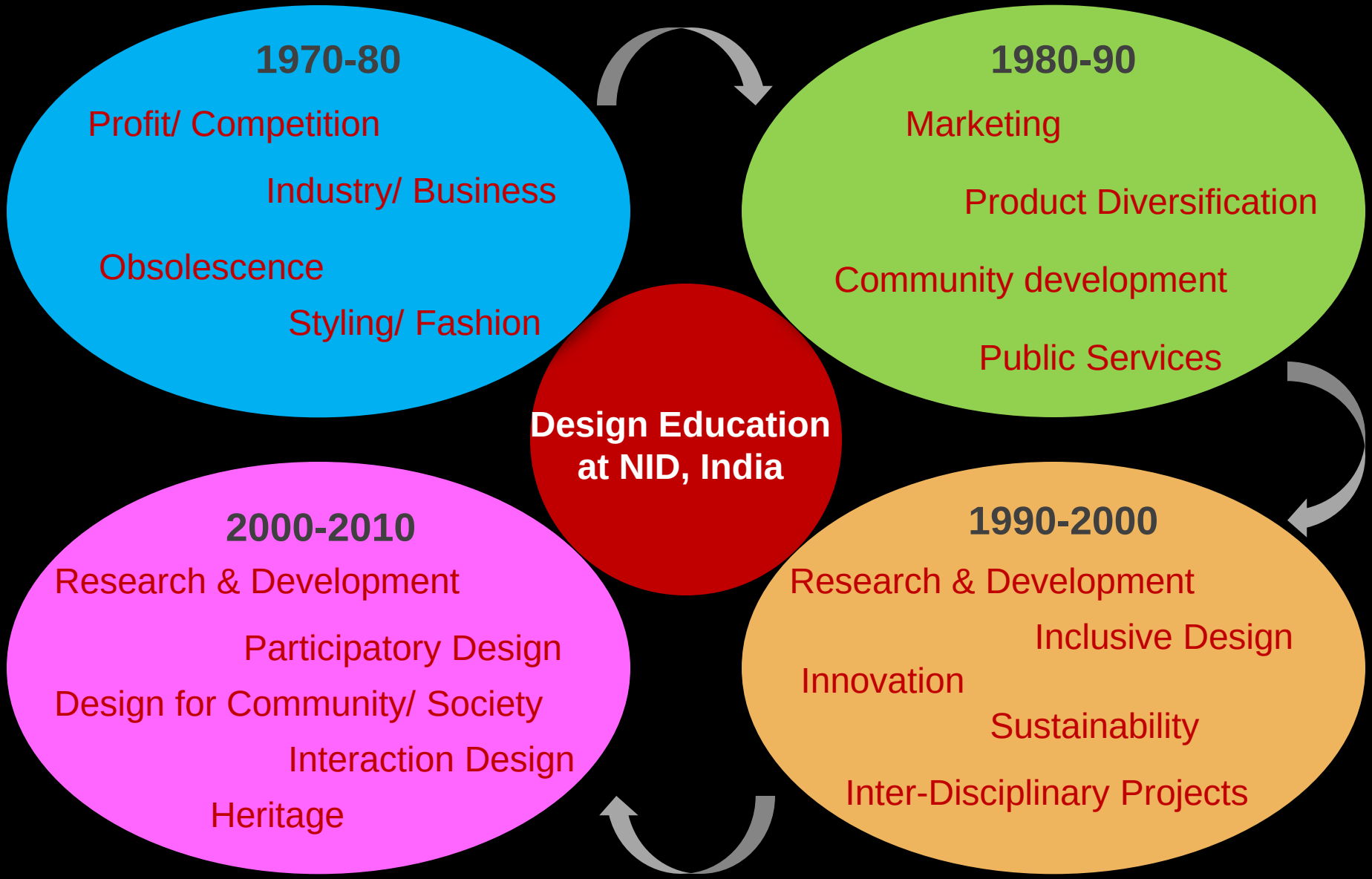

1970-80
Profit/ Competition
Industry/ Business
Obsolescence
Styling/ Fashion
1980-90
Marketing
Product Diversification
Community development
Public Services
Design Education at NID, India
2000-2010
Research & Development
Participatory Design
Design for Community/ Society
Interaction Design
Heritage
1990-2000
Research & Development
Inclusive Design
Innovation
Sustainability
Inter-Disciplinary Projects

Some projects for design for social sector (1980 - 90)







DESIGN HERITAGE

Introducing **Craft study & documentation** in Design Education

a 4 week Program of which 2 week of Field study of a specific craft community anywhere in India

Study & Documentation of :

- **Products**
- **Tools & Techniques**
- **Community background**
- **Training & skill development**
- **Product development**
- **Design process**
- **Sales & Marketing**
- **Problems & issues**
- **Future direction**

Craft Study & Documentation Course – WOOD craft

Various other Toys made at Bassi

kawad:

This is the main craft of Bassi,which is some four hundred years old,it is a type of storytelling.It has stories of Ramayan on the one of the panels and on the other one it has the story of Lord Krishna.

king:

This is a carved toy which depict the culture of ancient times of Rajasthan,when the king ,the superior authority was taken on the back of an elephant.

chandilair:

This is a turned wood toy,and is of very small size.It is mainly the toy for the kids who are still in the pram,this is hanged on the top tie of the pram which very easily fly with a little air only.

turned wood toys:

This toy has many circular bangles kind of rings painted in various colours and on the top in a face painted.The face can be removed and the rings can be taken out with which the kids play.The other thing is a simple toy depicting the jeep which kids generally see and are very passionate about,with playing.

bigwheel :

It is a turned wood toy and just a scaled version of the big-wheel which is generally the main attraction of the fairs,mostly in the rural areas.

turned wood toy:

This toy is a very exiting thing which is made out of

Craft Study & Documentation Course – WOOD craft

Process

1. The sized and seasoned wood is taken out and according to the thing which has to be made,a 2-d drawing is drawn on that wooden piece,means the marking is done.

2. After the marking has been done then that wood is being cut by the band-saw,and no further marking is done for the third dimension,as these hands are too expert for this type of cutting.

3. The basic form of the desired object which has to be carved out of that piece of wood is cut in the desired form with the help of a band-saw.

4. Further that piece which is being sized to the need by the band-saw is being axed by the other person to give the details of the desired object.

5. Various parts of the object are processed through the same process .

6. After the basic form of the object is achieved,the piece is being chiseled to give the smooth curvatures.

7. After the chiselling is done certain parts of the object are still left to be treated,filled by the putty.This putty is made by taking saw-dust and adding in the *lai*,water and little flour which gives the sticky effect. Saw-dust is seived from the piece of cloth to get a clean dust.

The putty is being filled in the gaps or the left out humps of the objects and left for drying.

9. The various parts of the object are fitted to the main object either with the help of nails or are glued.The certain parts which are still to be treated are filled with either putty or other fillers.

10. Then the object is ready for the painting.Before the painting is done a white liquid is applied on the surface of the object,called the *kadi*(zinc oxide) which acts as the base of the painting.Further the painting is not a big deal as the colour they choose and the application is also very easy.Water colour is mixed with fevicol and applied on the surface.Lastly colourless varnish is applied on the top surface .

Craft Study & Documentation Course – BOAT craft

kettuvallam the wooden boat of kerala

a craft document by nityan unnikrishnan and thomas louis

The wooden boats of Kerala, called *Kettuvallam* were once the axis of life of the people of Kuttanad area of Kerala (Kuttanad is the name given to the land areas with backwaters of Alleppy, Kottayam and Pathanamthitta of south Kerala.) *Vallams* (Malayalam for the wooden boats) of various designs served as the only and vital mode of transport in the backwaters of the areas till about twenty years ago, when the roadlines evolved, which made transport easier. Therefore, these boats are woven into the lives of the people of Kuttanad in a [illegible] manner. This documentation of the craft of boat making is an attempt to understand the craft in it's social, cultural and economic background.

Alleppy , of which Kuttanad is a major part of, was carved out of the erstwhile Kottayam and Quilon districts of Kerala in 1957. Consisting of seven thalukas of which Kuttanad, the chief rice producing area of Kerala is an important area. The name Alappuzha was derived from the geographical position and physical features of the place and it means the land between the sea and the network of rivers flowing through it. It is bound on the north by Ernakulam, east by kottayam, the south by Kollam and the west by the Lakshwadweep sea. The total area of the district is 1414 square kilometers.

guide: sudarshan k khanna
national institute of design 2000

the making of the boat

the head thalamaram

The head of the *vallam* is called the *thalamaram*, fixed at the end of the *vallam*. The purpose of the *thalamaram* is to serve as an identity and also to enhance it's appearence.The *thalamaram* used to be made out of a single piece of wood but not anymore due to the scarcity of wood. Now they are made in 2 or 3 pieces which are joined together. The topmost part of the *thalamaram* is called the *kavilonu*. The *thala* or head comes on the top of this. *thala* is never fixed onto the body permanantly to the rest of the body mainly due to safety reasons. It is fixed by 3 notches and tied down to the rest of the body. The work of the *thalamaram* is completed in one step .

Once the work of the *thalamaram* is complete, the craftsmen start the work of the hull. The heads are fixed on to the hull only when the work is at complete.

the hull

The base plank of the *vallam* is called the *eravupalaka*. This is the first and the most important part of the hull and the craftsmen attach great importance to it. Before they lay the *eravupalaka*, the spine of the *vallam*, they fix the only one measuring instrument, which is used to check the perpendicularity of the *vallam*- called the *noolu* or the thread, using which they check the central axis and level.

The *eravu* can either be a plank which is 2 ft. long and half ft. wide, many lengths of which are joined together to make 75 ft. or it could be a single plank of 75 ft. running through the entire length of the vallam. Once the *eravupalaka* is completed, it is raised above the ground by about 1.5 ft. and mounted on a base called the *nilathadi*, made of a wooden block or stone. The *thalamaram* is fixed onto the *eravupalaka* with iron rivets, on both ends. (The use of iron rivets is a recent development. Earlier they used to use wooden nails made out of arecanut tree bark.)

tying the boat together-Kettu

Kettu is the unique method of tying the planks together with coir ropes cushioned with coconut husks, which holds the entire *vallam* together. This is the process that gives the *vallam* it's name. Before the *kettu* begins, the *vallam* is solely held together by the *mathroor* and *kavar*. The *kettu* is a strenuous process which also demands a lot of skill. So it is done by the people who specialize in it. Before the *kettu* begins, the *vallam* is solely held together by the *mathroor* and *kavar*. The *kettu* is a strenuous process which also demands a lot of skill. So it is done by the people who specialize in it.

A step-by step illustration of the kettu process

Craft Study & Documentation Course – BOAT craft

the ribs of the boat mani and kaalu

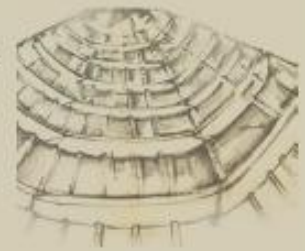
The *mani* and the *kaal* together form the ribs of the *vallam*. The *manikaal* holds the planks of the *vallam* in shape. It prevents the upward bending of the planks due to weathering. The number of *manikaals* in the *vallam* depends on the size of the *vallam*, but the spacing between the two is always 3 ft.(1 *kol* in malayalam). After placing them, they are tied on to the hull of the boat. The *mani* and the *kaal* are made out of *anjali* or *maruthi* wood which is locally available. The *mani* and *kaal* are cut out of long wooden blocks, sized from the timber mills. The average size of the blocks is 3-4 in. thick, with an average width of 6-8 in.

The curve of the *manikaal* are formed on the site by the craftsmen according to the inside curve of the hull, in each specific place where the *mani* and the *kaal* are fixed.

drilling holes to tie the *manikaal* to the hull

The *mani* is the base horizontal block, relatively straight and the *kaal* is the vertical part of the set, one on either ends of the *mani*. They are fixed together by a simple joinery and are tied down to the *vallam* by *kettu*.

The joints between the *mani* the *kaal* are done using iron nails. The other end of the *kaal* which reaches up to the topmost row of planks is joined to the planks using iron rivets called *thara*, about 10 mm. in



finishing touches

Patchwork - Although the vallam is almost ready except for the sealing of the holes and the final oilcoating that has to be done: there are invariably some patchwork that gets left out- like a plank being too short or parts of it being rotten, in which case the part is removed and another piece is fixed in its place and shape the newly fixed piece along the outside of the vallam using a chisel. This is called *kootichethu*.

Once the finishing of the wood is completed, the workers get off to seal the holes of the *kettu*. They take coconut husk and beat it to a workable feel and hammer small bundles of it into the holes so as to make it tightly packed.A paste of charcoal powder, putty and oil (labam) are put over this. This prevents the water from seeping in. It also prevents termites.

a short note on the dockyards

Kuttanad has a number of dockyards now, catering to the building and servicing of the fifty to sixty boats plying on the waters today. Some of the bigger boat owners own their own dockyards, where they service or build their boats, but the smaller boat owners rely either on the former or on people who own land by the lake, which they rent out as dockyard space.

The shoreline is securely built with boulders and cement, all along the lakeside. This is broken only at the dockyard entrances, which slope gently into the waters. To draw the boats on to the shore, they have heavy winches, operated manually. The boats are pulled on to rest on wooden or concrete blocks, to be worked on.

a panoramic view of the whole dockyard

the craftsmen

It is not necessary that the craftsmen always have to be skilled carpenters. 'Anyone who could handle the wood could come and work', says the chief craftsman of the place we worked at.

Since this particular craft is seasonal, the craftsmen invariably do other work also like carpentry, masonry, furniture work, etc. This craft exists totally in the unorganized sector and no formal organization holds them together. They are hired by the vallam owners as and when required and for repair work or for making a new vallam.

fixing the *vilu*- the last plank that is riveted onto the rest of the hull

a craftsman with a model

kettuvallam today

The concept of 'houseboats' evolved using the ancient, traditional techniques of boat making with locally available materials - cane, coir, palm leaf and bamboo, put together with deft hands, to convert the *Kettuvallams* into cruise vessels, mainly catering to tourists.

There are boats with one, two or three bed rooms, bathrooms, a living-cum dining room and a large deck. It is complete with a kitchen and running water.

The entire construction is done using the by-products of the coconut tree.

Craft Study & Documentation Course – BAMBOO craft

BAMBOO CRAFTS OF KARJAT

A documentation of the bamboo-craft of Karjat region, Maharashtra

by
Milind Risaldar
Abhijeet Bhattacharya

GUIDES
Prof. Sudershan Khanna (NID)
Prof. A.G Rao (IIT Powai)

NATIONAL INSTITUTE OF DESIGN, AHMEDABAD

Academy of Development Sciences, Karjat

INTRODUCTION

This documentation is the result of an academic programme to study craft traditions in the country. The bamboo craft of the tribal communities in the Karjat region of the western ghats of Maharashtra, provided an excellent opportunity in understanding the evolution and role of craft in the Indian context.

◆ REGION

Location

The region chosen for study is the foothills of the Sahyadri mountains, which form the northern limit of the western ghats. This region is approximately 70 kms due to east of Mumbai and is 115 meters above sea level. It comes under the Karjat tribal block, Raigarh district, Maharashtra. The soil is classified as fractured–conglomerate basalt. It is highly porous and due to its low clay content does not retain moisture. Despite such a heavy monsoon, rivers completely dry up in the summers and there is a severe water crisis, people sometimes have to walk 3–5 kms to fetch drinking water.

Tribes in the region

The Karjat tribal block is administratively classified as the most backward taluka of Raigarh district. The three most common tribes found in this region are Thakurs, Mahadeo Kolis, Kathkaris, out of which the Kathkaris are the poorest having meager or no land holdings.

◆ PRODUCTS

Products used for household activities

These are the products used in day to day activities and are an integral part of the tribal daily routine. These are comparatively easier to make, than their hunting counterparts.

Products used for hunting

Products made specifically for hunting

These are exclusive and indigenously made products. These products are the live demonstration of the deep reservoir of intelligence and knowledge gathered by these tribals through years of observation. All of these products are quite intricate and require exceptional skill and craftsmanship to execute them.

Craft Study & Documentation Course – BAMBOO craft

| Products used for household activities |

Topli

Fruit Basket

Winnowing Fan

Kirkinda

Storage bin with cowdung layer

Storage bin

Large Storage Bin

Large topla (containers)

Waste Bin

Articles	Village sales	Town markets	Annual fairs	Transit markets
Small Baskets	8	10	15	10
Large Baskets	15	18	30	25
Paddy storage bin	100	120	250	250
Rice bin	40	-	-	-
Vegetable basket	10	12	25	20
Winnowing fan	-	20	50	
Lose weave basket	35	-	-	
Fish traps	20	-	-	-

The group photograph

The craftsman	His village	His Product
• Mauji Babu Lobhi	Naldehchiwadi	Wastebin
• Baburam Padir	Naldehchiwadi	Topli
• Shivram Padu Bagare	Nagechiwadi	Soop/ Machhi/ Nare
• Malu Changa Bangare	Borwadi	Kirkinda/Tondya
• Narayan Parthi	Lobhewadi	Crab Trap
• Gorna Dhau Agiola	Nagechiwadi	Shilbothadi/ Dhanush Baan
• Laxman Kadaloe	Dhabewadi	Fishtrap/ Mahi
• Parshuram Mhase	Nagechiwadi	Artist
• Kaluram Bhagat (manager)	-	-

Craft Study & Documentation Course – BAMBOO craft

A typical process of making household bamboo products

Welding strips before use

Posing one inch thick strips

Weaving 3-4 mm thick strips

Weaving in circular way

Bending 1 inch thick strips to make round shape

Stages of the process

Technical expertise

◆ THE KNOWLEDGE RESOURCE OF TRIBALS

During the documentation process one observation that was made is that not only these tribes are exeptionally skilled in making these products but they have a deep understanding of their habitat. They know the behaviour of up and downstream fishes, crabs even birds. This knowledge base has resulted in some amazing ways of fishing and hunting these people have developed. They are discussed in detail in the document. For a demostration these illustrations done by a tribal boy explains how they carry out the hunting work.

Illustration by Parshuram Mhase

This is yet another very common way of fishing . Two tribal ladies strain the water using a cloth or saree. This process is usually carried out in shallow water.

Illustration by Parshuram Mhase

In this process a big woven bamboo mat is used to channelise the stream water to fall exactly into a trap, through a large funnel like mouth Aapa. This trap is usually made of sari and is known as Kanab–cha–paat. This entire process is carried out in places where there is more water. Teak leaves saga–chi–paan are also used to channelise more effectively.

The young craftsmen... will they survive ?

Glimpses of the documentation work

One morning in village Kashele

The courtyard of a typical village house

Craftsmen busy at work

The team of craftsmen posing with their products

Final products

◆ CRAFT TRADITION AND ITS FUTURE

Bamboo is practised in and around the house, in the court–yards and verandahs. Products serve the daily needs of the people. The artisan and the user both live close by, not far than a few villages apart.

During lean periods in agriculture and whenever time permits, men take bamboo articles for their households or their neighbors. Surplus products are bartered or sold in the market. Tribal women always have their hands full. Fetching water and firewood, cook–ing, washing, collecting and selling produces which leaves little time to indulge in craft. Only the aged group of 40 to 70 years gets time to make bamboo items on a regular basis. All the aged craftsmen have had no suitable vocation in the younger days. Due to which they took to bamboo work and are very skilled today. Youngsters today are not taking to the craft, so the fear is that the present generation of craftsmen may be the last of their kind.

ADS (Academy of Development Science) has seen this problem and has taken initiative to divert the young generation from mod–ern means of earning to traditional bamboo craft.

◆ THE LAST GENERATION OF SKILLS

Laxman pitu Kadalee, the master craftsman

Kadalee is an illiterate man. He stays at a remote place in a hilly region of western ghats. He was born and brought up in Dhabewadi, a small village of Karjat district. And since his child–hood he is working on bamboo craft, which his father taught him. Laxman is one of the few craftsmen in the region who can make complicated products like the double funnel fish traps.

◆ TO CONCLUDE

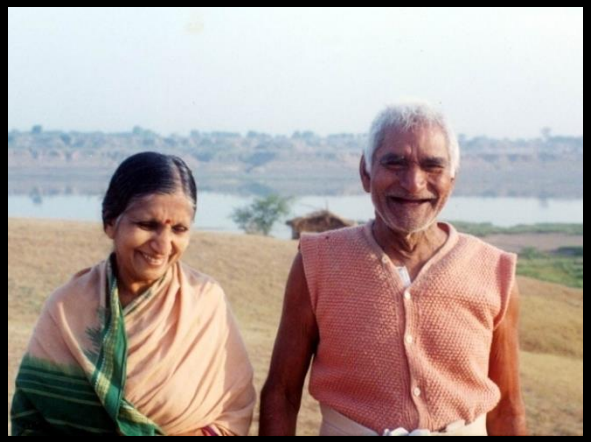
A great deal of efforts are required to bring out the potential of bamboo craft at Karjat. Though the government spends money on various programs for bamboo crafts, these efforts remain ill conceived and poorly coordinated. A fresh initiative to rejuvenate bamboo craft, is much needed today. Professionals like engineers and designers, becoming entrepreneurs could be one solution.There is a good scope for designer or a design group to link a craft production unit with the available resource base of ADS. But all this has to be done in a short time or the fear is that this skilled generation of Laxman could be the last of its kind in Karjat.

Impact of Craft Study & Documentation Course

- Reservoir of over 300 documents
- Project option for students in this area
- Published by NID, ‘Handmade in India’
- Similar course started in several design & architectural schools
- Career opportunities in design heritage sector

Craft Study Projects to System design Projects

ANANDWAN Projects : Design with **Social Heritage**



Sudarshan Khanna conducted system design, at Anandwan. Students presenting work to Shri Vikas Amte

ANANDWAN Projects : **Design with Social Heritage**

ANANDWAN Projects : **SYSTEM DESIGN** with **Indigenous materials & skills**

Bamboo home products

Primary School Education

The thrust area of systems 1996 was design for the development of a community. The idea was to visit a number of community, learn their life and to work with them. It was to design and develop a range of appropriate products which could be made and marketed by them. The project was centered in two districts of Maharastra, Chandrapur and Vavatmal.

The Communities:

Anandavan:
Established by Baba Amte for Leprosy rehabilitation, today this self reliant community has over 3000 members, patients, cured, blinds, disabled, putting their hearts, brains & muscles for the realization of their needs. Lead by Dr. Vikas Amte they have a long history of environmental protection.

Somnath:
An extension of Anandvan mainly for the rehabilitation purpose, this community of 500 cured lepros generates most of the food grains needed by Anandvan, Hemalkasa & them.

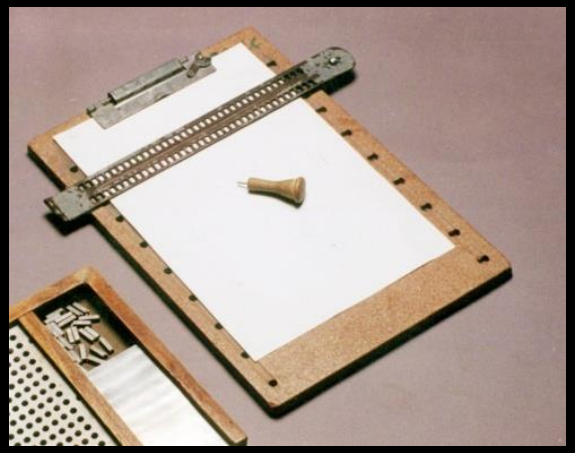
Van Venu Prakalp:
Starting two years back. This craft center at Pandherkwada, a taluk town in vavatmal district, is working on the revival of the bamboo crafts in the area. The main occupants of this region are Kolam & Burud tribes. Owing to different

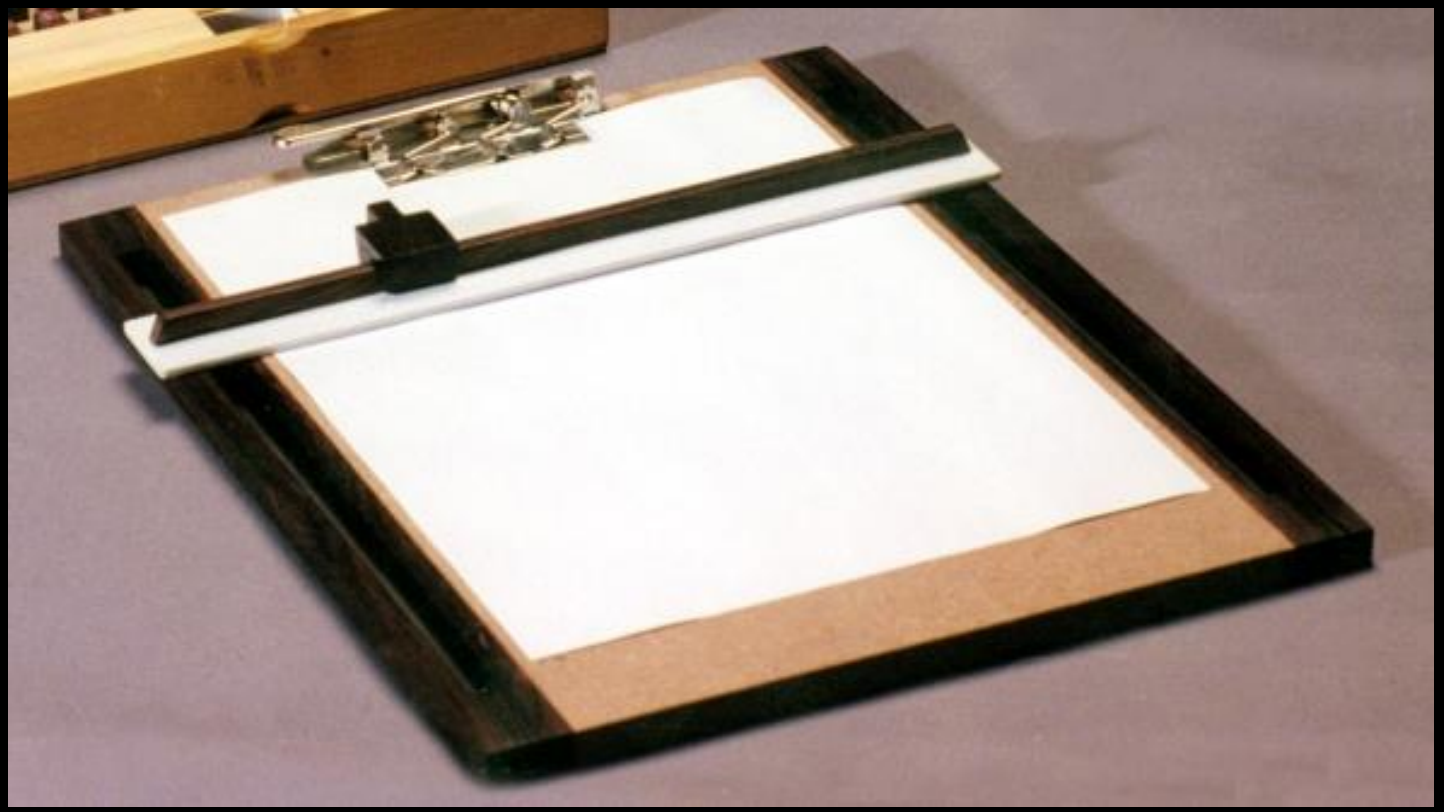
The main reason behind the choice was the scope of the material bamboo which is locally available. And the range of products that can be designed and developed at Van-Venu. To be more specific, we choose bamboo furniture which has yet to be developed at Van Venu. These products

Selection of Project Area:
After visiting all the three places and having seen the community life and considering all the scopes for work, the following areas were selected for the project:
1. A range of bamboo home products including furniture, tray, room dividers etc.

2. Linking up all the three organizations, namely Van Venu Prakalp which would be the centre, where prototypes would be made. Anandvan & Somnath,

ANANDWAN Projects : **Braille Redesign - Innovation**



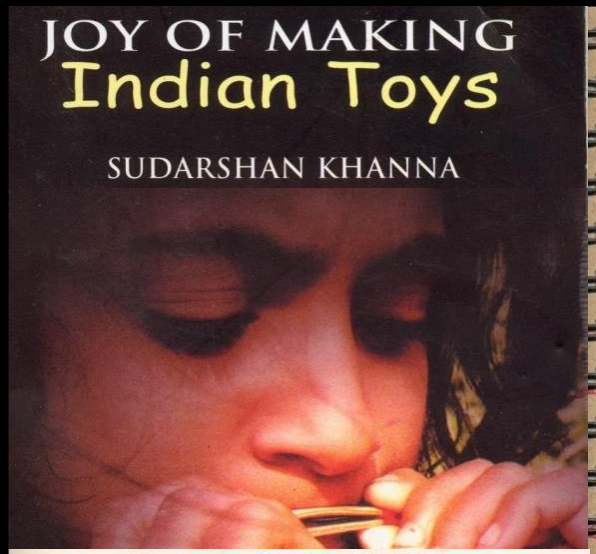


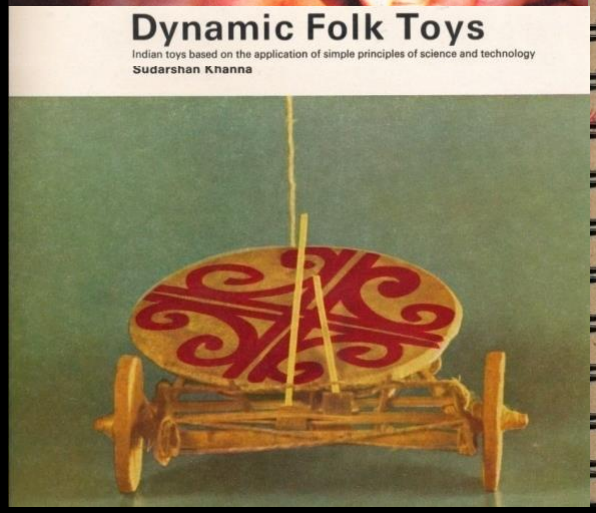
Sudarshan Khanna conducted system design, at Anandwan. Students presenting work to community.

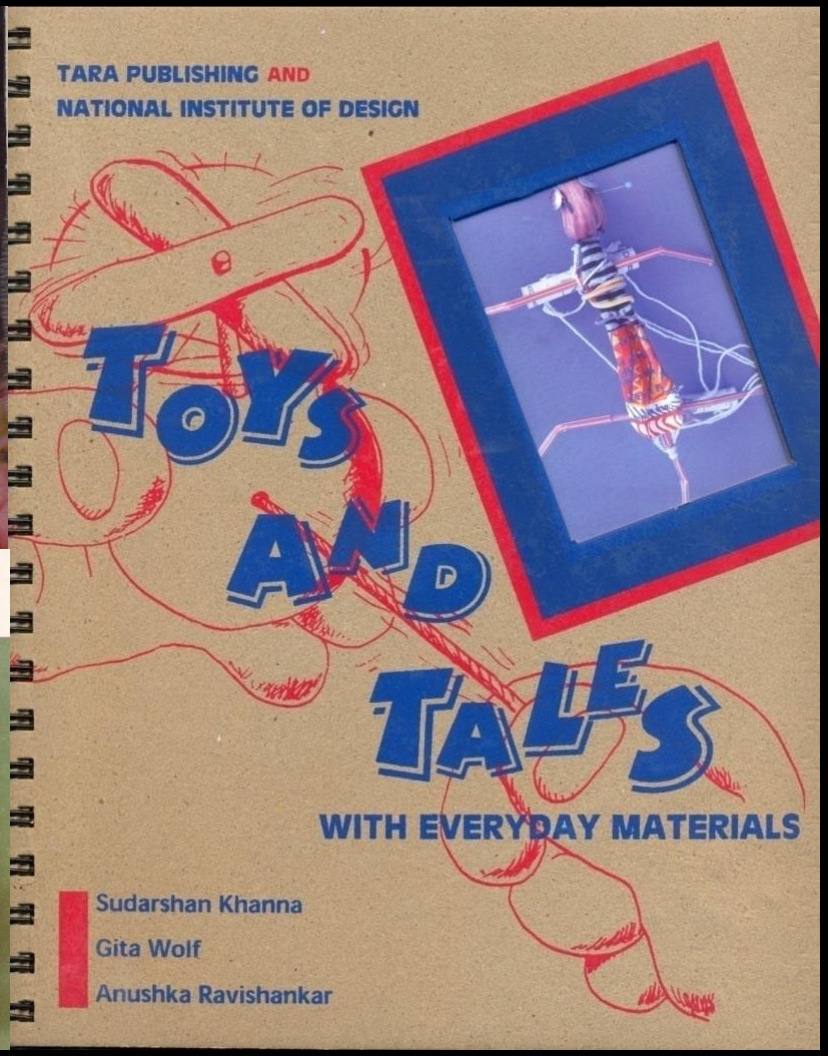
Impact of projects : Design with Social Heritage

- Career options for students & designers in this sector
- New developments with craft and creative industry
- Funding possible for projects with social heritage
- Similar programs now offered in other institutions

"The best thing a child can do with a toy is to break it; the next best is to make it"

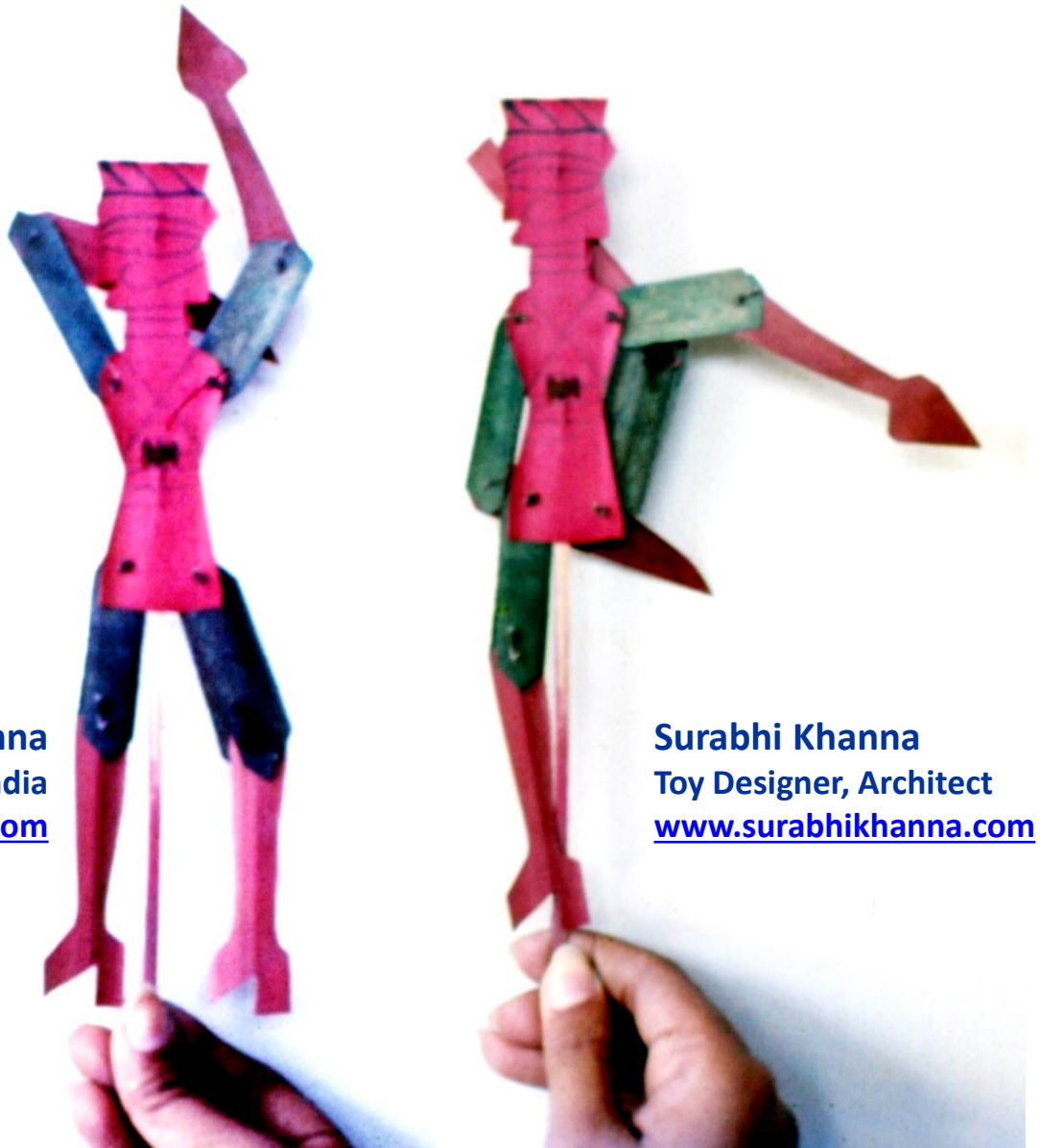






Toys & Tales with everyday materials

relevance of ingenious, playful ideas for design, learning and innovation

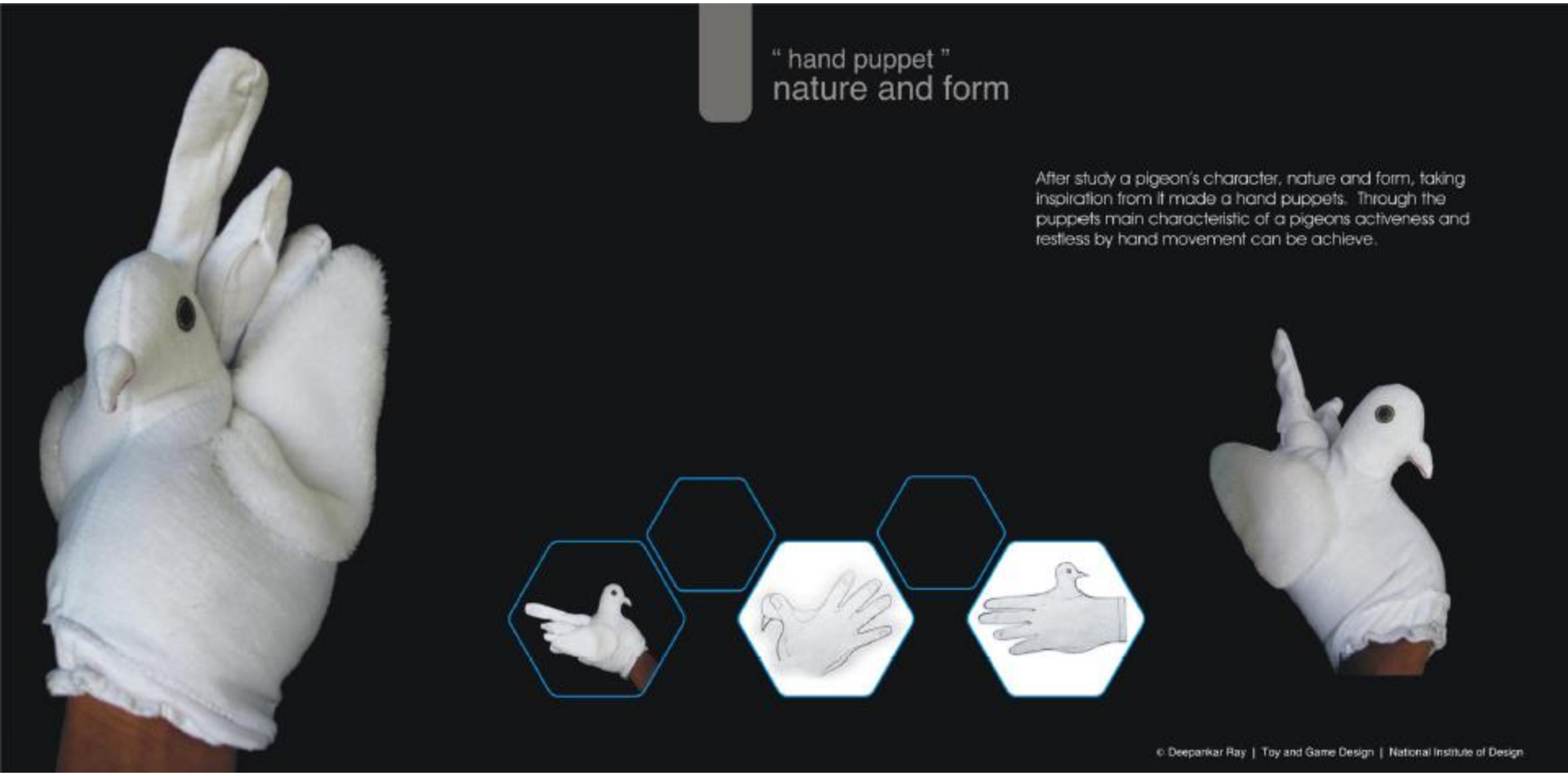


Sudarshan Khanna
Design Educator, Author, India
www.sudarshankhanna.com

Surabhi Khanna
Toy Designer, Architect
www.surabhikhanna.com

TOYS INSPIRED BY NATURE

Nature & Form



Student Designer: Deepankar Ray

TOYS INSPIRED BY NATURE

Nature & Form

Outdoor Toy

"Wear and fly Butter fly"

The beauty and elegance of the colorful wings of the butterfly was recreated in this full size 'wear on' toy. The telescopic eyes enable the child to literally see the world through the eyes of a butterfly!

Student Designer: Rahul Tirpude

Guides : Sudarshan Khanna
Sonia Dhruv
Gayatri Menon

Learning from Ingenious Toys Made by Children

Nature, Design & Learning

Learning from observations

Play therapy

Co-relation between mind and material

Apt use of recycled materials

Value of Nature and Heritage

Learning from Ingenious Toys Made by Children

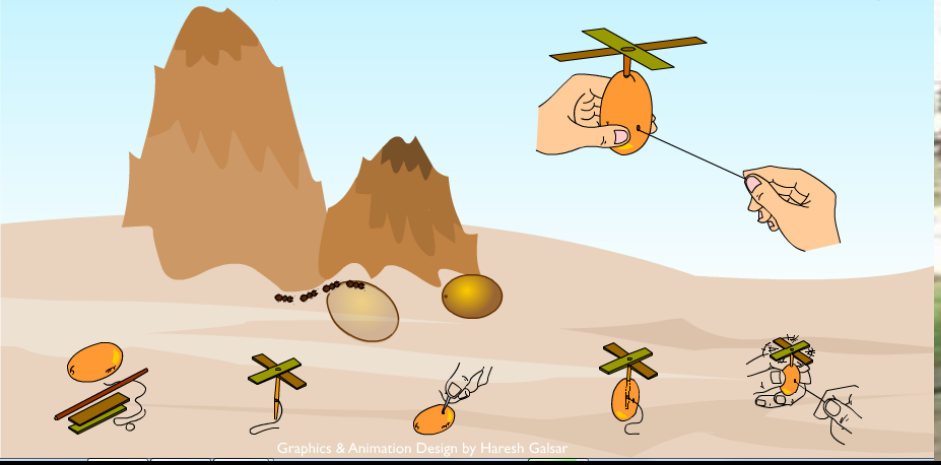
Some special examples

Design § Education Series:

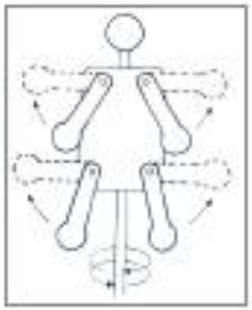
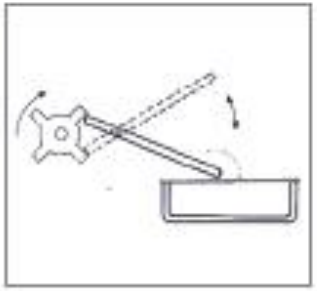
Ant § the Spinning Fun

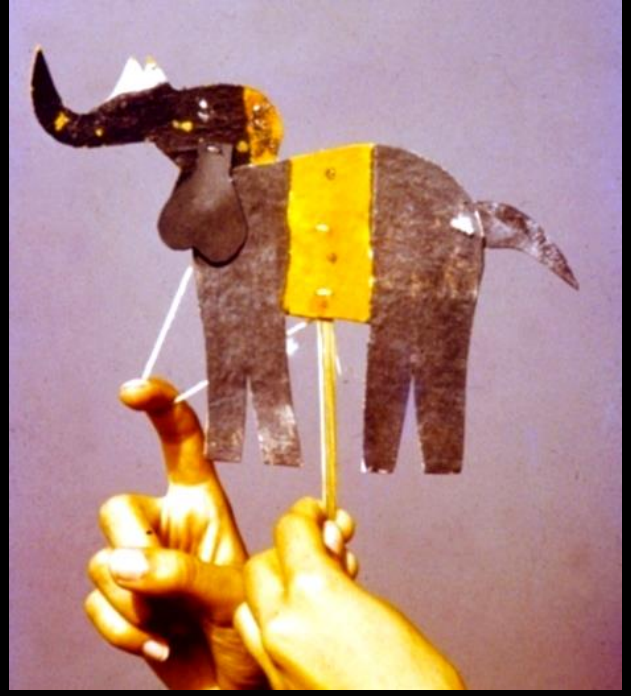
This spinning toy concept was introduced to me many years ago by my student Manoj, hailing from the state of Kerela. One thing about this toy seemed puzzling. The rubber plant seed was made into a shell for the purpose of toy motion but there was no cut to take out the inside protein-pulp. I curiously asked Manoj about it. "Oh, it is very simple: Children leave the rubber plant seed at the Anthill. They go there again to collect the Seed eaten and hollowed out by the Ants, and make this toy to play with."

I came to know about this fascinating Tale § Toy at my biological age of 42. Felt profoundly delighted to learn about such a system. There are several interesting tales of such concepts relating design, culture § education. Sudarshan Khanna 2009 (1)



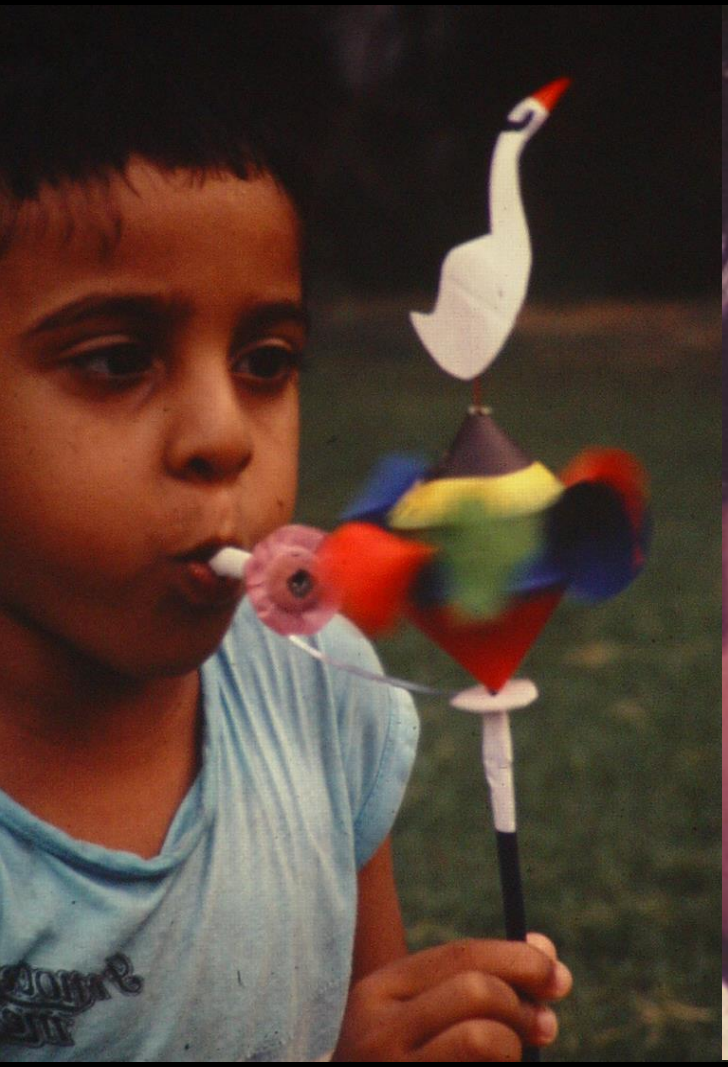
"Toys & Education"

Name of Toy	Materials	Design Element	Principle of Science and technology
    Jigging Puppet Toy.	Paper, thread, bamboo stick, clay,	More from less, socio-cultural themes.	Centripetal/ Centrifugal force.
    String manipulated Toys.	Shola pith/ paper, string	Different socio-cultural themes. Happening.	Principle of lever. Gravity
   Drum Toy.	Paper/ terracotta, bamboo, string	Innovative use of materials, socio-cultural themes.	Vibration of membrane. Cam principle.



Dynamic Folk Toys – Research & Documentation, 1976 - 1980

Dynamic Folk Toys – Research & Documentation, 1976 - 1980



Dynamic Folk Toys – Research & Documentation, 1976 - 1980

DESIGN HERITAGE : Yesterday & Today

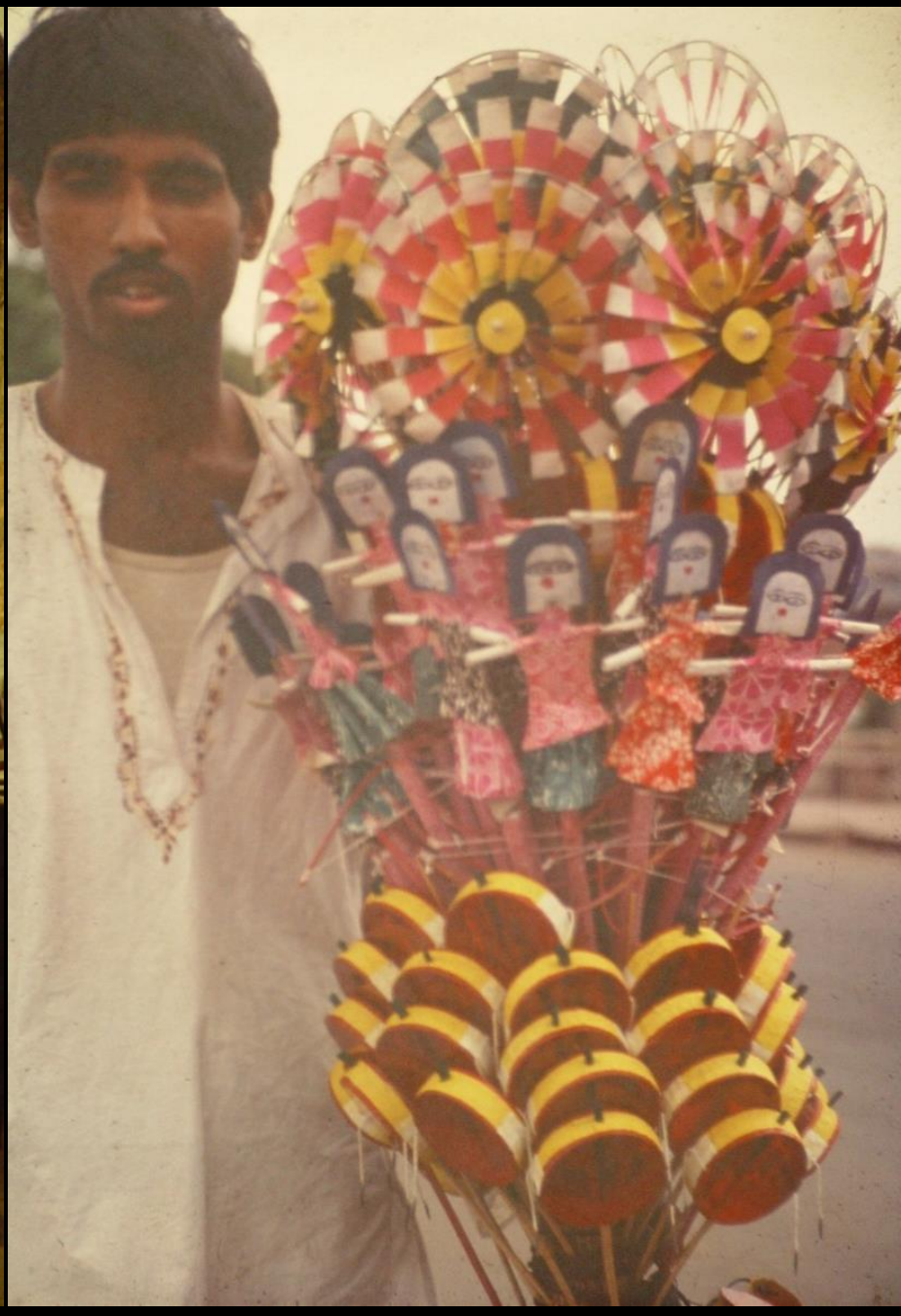
CRAFT & CREATIVE INDUSTRY

Creative Industry : LOCAL INNOVATIONS

Potter turned into science model-maker - Dynamic Folk Toys – Research & Documentation, 1976 - 1980

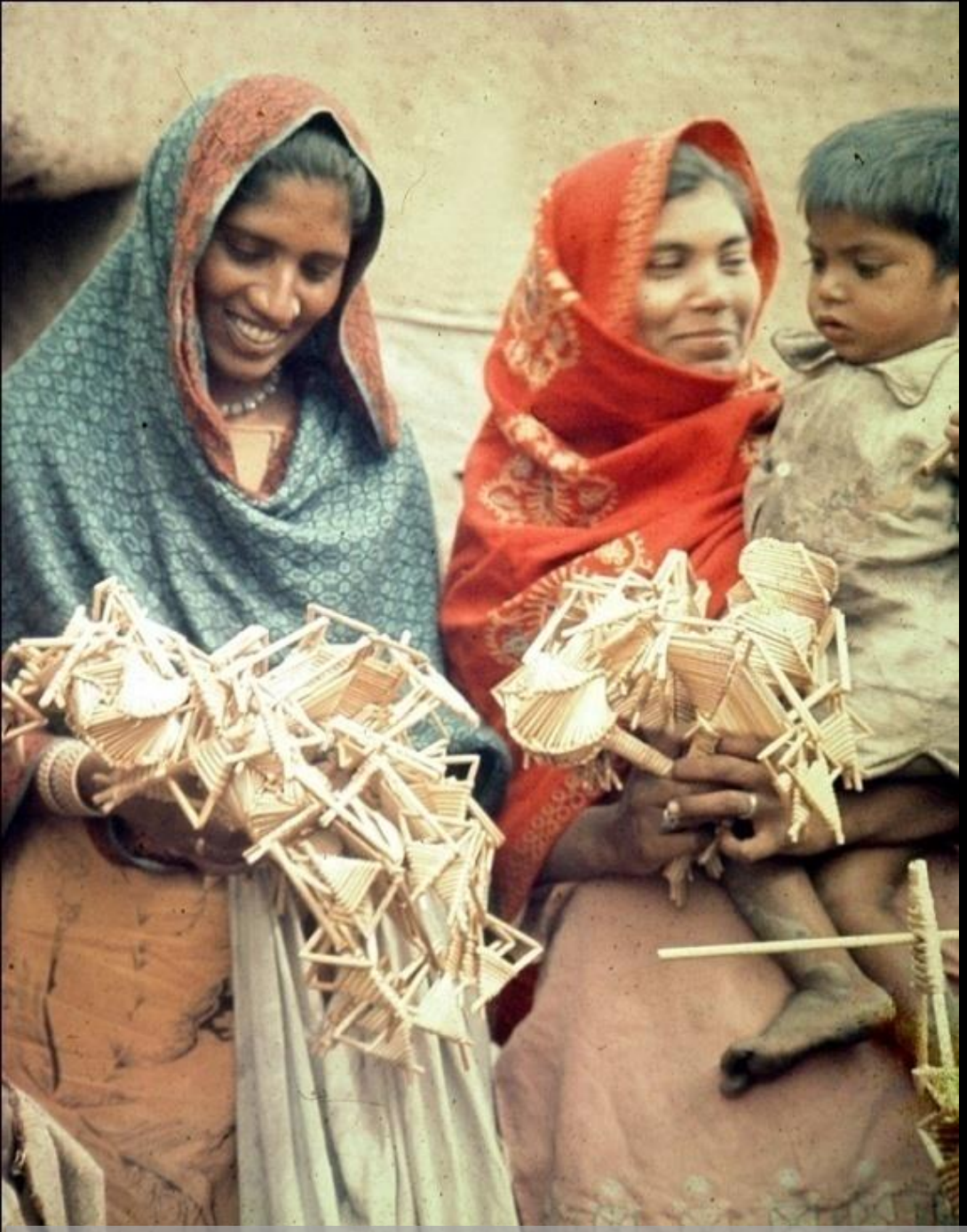
“Dancing Doll of India” - Dynamic Folk Toys – Research & Documentation, 1980’s

Wooden toys of Orissa, Dynamic Folk Toys – Research & Documentation, 1980’s

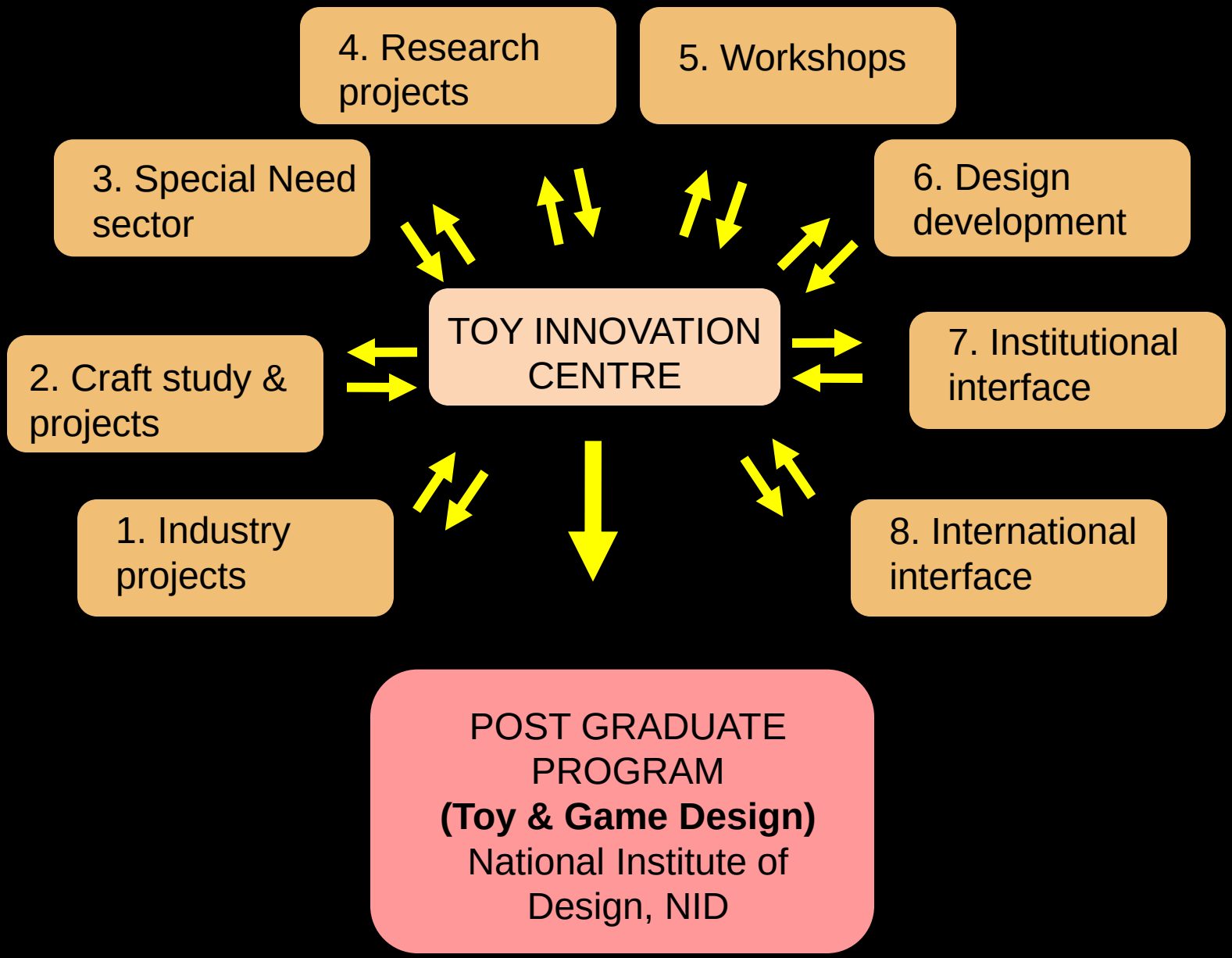


Dynamic Folk Toys – Research & Documentation, 1976 - 1980

Paper Snake makers, Ahmedabad,Dynamic Folk Toys – Research & Documentation, 1976 - 1980



Sarkanda Rattle, Amritsar - Dynamic Folk Toys – Research & Documentation, 1980’s


4. Research projects
5. Workshops
3. Special Need sector
6. Design development
TOY INNOVATION CENTRE
2. Craft study & projects
7. Institutional interface
1. Industry projects
8. International interface
POST GRADUATE PROGRAM
(Toy & Game Design)
National Institute of Design, NID

TOY DESIGN & DEVELOPMENT

Two & half Year Post Graduate Programme

2007 Admissions

Last date of receiving of Application Form
30 November 2006
For details visit www.nid.edu

Design Projects by Students & Faculty of Toy Design & Development Programme NID.

Who can apply ?

Candidates having a Bachelor's degree or equivalent (including those who will be appearing for the qualifying examinations during the academic year 2006-07) in the areas mentioned below are eligible to apply.

B.E / B.Tech / B.Des / B. Arch / B. Int.Des / BFA / or Equivalent. BCA / BIT / B.Sc Psy / B.Ed / BSW is also eligible for toy Design {OR} Any other Graduate with one year relevant experience.

Career Opportunities

Our students and graduates are working as creative Professionals/consultants with companies like Tata Interactive Systems; Creative Educational Aids Pvt Ltd; Funskool Pvt Ltd.; Dhruva Infotech; HABA industry, Germany etc as well as in social sectors for projects on craft design development, health, education and play therapy.

You can also build your own enterprise providing toys/games related products & services as a design entrepreneur or freelance consultant designer

Toy Design & Development

The Toy Design & Development post graduate programme is developed to train new age innovative designers for toys and games for the contemporary educational, developmental & entertainment needs. The growing need of the toy and game market demands a focus to the needs & aspirations of children and adolescents, in a professional way. The developmental sector also requires a system level design approach for toys and games for education, health and special needs sectors.

The program has professional collaborations with toy and game industry and institutions at the national & international level.

For details visit **www.nid.edu**

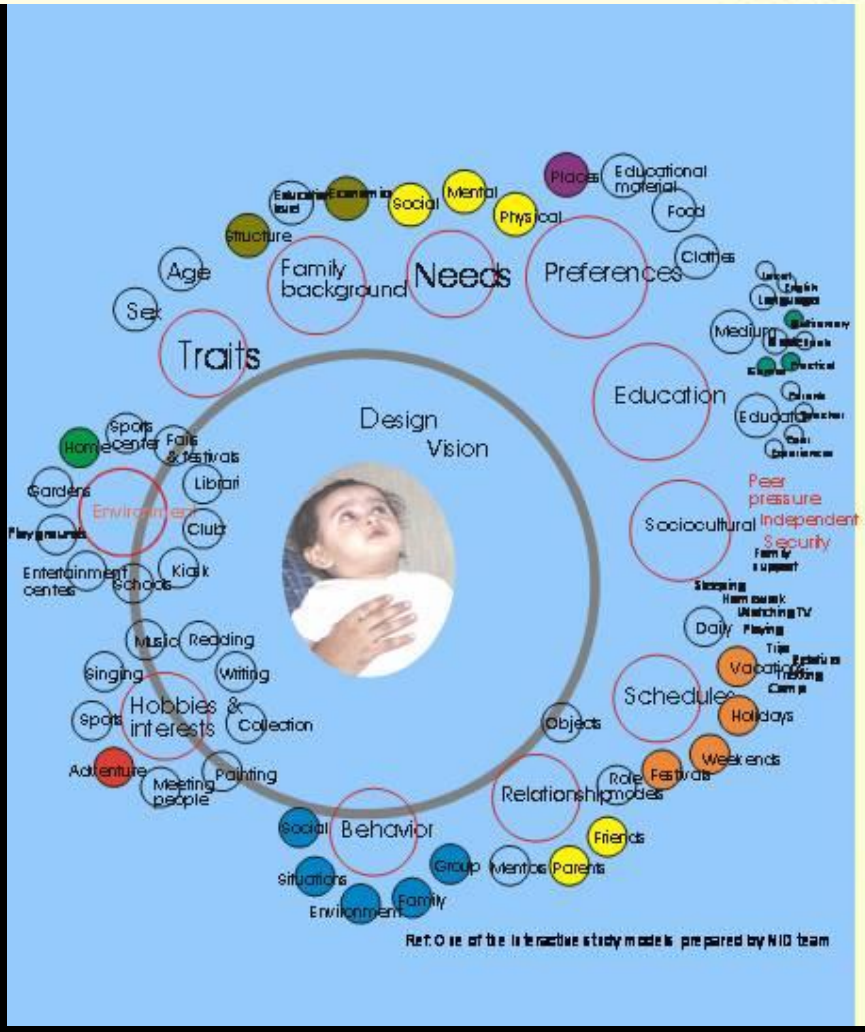
राष्ट्रीय डिज़ाइन संस्थान
NATIONAL INSTITUTE OF DESIGN
Paldi, Ahmedabad 380007, India
Tel : 079 2662 3692 / 2662 3462 Fax : 079 2662 1167
e-mail : admissions@nid.edu Website: www.nid.edu

"Toy & Game Design" – Post Graduate Program at NID, started in 2002

TOY CENTRE

UNIDO PROJECT 2004

DESIGN INTERVENTION FOR THE CAPABILITY OF INDIAN TOY INDUSTRY



Ref: One of the interactive study models prepared by NID team

CONFIDENTIAL REPORT

Design Intervention for the Capability Development

of Mumbai Toy Industry

Projects sponsored by

NATIONAL PROGRAMME FOR DEVELOPMENT OF THE TOY INDUSTRY IN INDIA

UNIDO

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANISATION

International Centre for Advancement of Manufacturing Technology (ICAMT)

NATIONAL INSTITUTE OF DESIGN, INDIA, 2

Projects : Design with **Traditional Wood craft community**

Toys:

Turned wood forms lined an appealing animated quality which makes them inviting to children. The direction chosen was to add interest to design the toys by introducing a simple mechanical movement that would enhance forms, colour (interaction) and functions to hold the interest of the child. The ease in production, the number of assembled parts and an

Solutions: Snail that moves juggling its shell on its back results in an interesting elliptical movement that is exaggerated by the brightly colored bands on it.

A turned wood dashund with a curiously long body that flexes, curves and extends when rolled on the ground.

Tops which spin like dancers, toy bird

Projects : Design with **Traditional Puppet community**

Project Statement:

The upliftment of the craft as an utility home furnishing or life style product using the same material with add ons keeping in mind the craft community, product and material constraints.

Design Solution:

The new avatar of puppets as table- top stationery product, would bring out the contemporisation of the craft, thus catering to the masses thereby creating a need, creating opportunities for the craftsmen where by using their own hand skill income generation is achieved, keeping the emotional value of the craft intact, even the dignity for labor is achieved, thereby improving the status of the craftsmen.

The products that were developed were pen stands, visiting card holders etc which are commonly used in Office spaces by children.

Visiting Card Holder

Major Project

major project-1
height adjustable furniture

The has hold so many play value itself .
There can be arrangement for **"sliding"** and only rotation of one piece gets **"low height" which is** suitable for interactive play and also can be a **"storage"** for toys or book. The furniture is simple and adjust able so it can be keep anywhere in room

TOY FOR SPECIAL NEEDS

Design Concept : Jagan Murugan

"Go David Go"- A Wooden Walker

TOY DESIGN & DEVELOPMENT

Elective

A Report on International Workshop-Meeting
22nd to 25th February 2006

National Institute of Design, India
<toyforum@nid.edu>

International Design & Creativity Workshop 2001

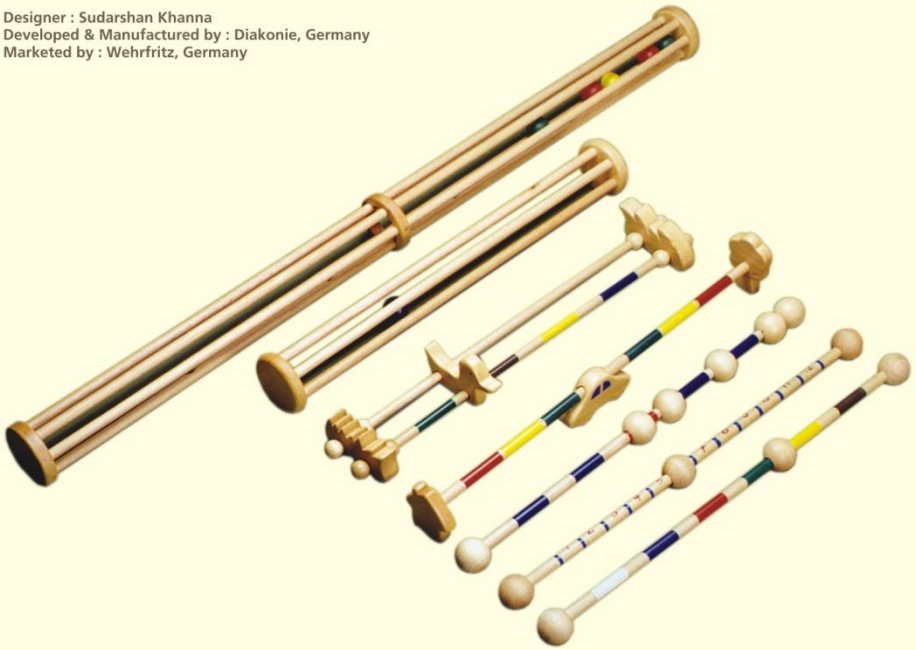
TOY CENTRE

TOY FOR SPECIAL NEEDS

Stabilitaten
(Stop & Go)

A System of toys based on the Principle of Inclined plane motion

Designer : Sudarshan Khanna
Developed & Manufactured by : Diakonie, Germany
Marketed by : Wehrfritz, Germany



The system of Innovative Toys is based on the Design concept "Stop & Go" by Sudarshan Khanna of NID during 1993 Workshop in Potsdam, Germany.
The basic concepts has been developed into a system by the "Diakonische Werkestatten far Behindente" Potsdam, Germany.
The toys are being marketed and distributed by a leading Toy company, Wehrfritz, Germany.

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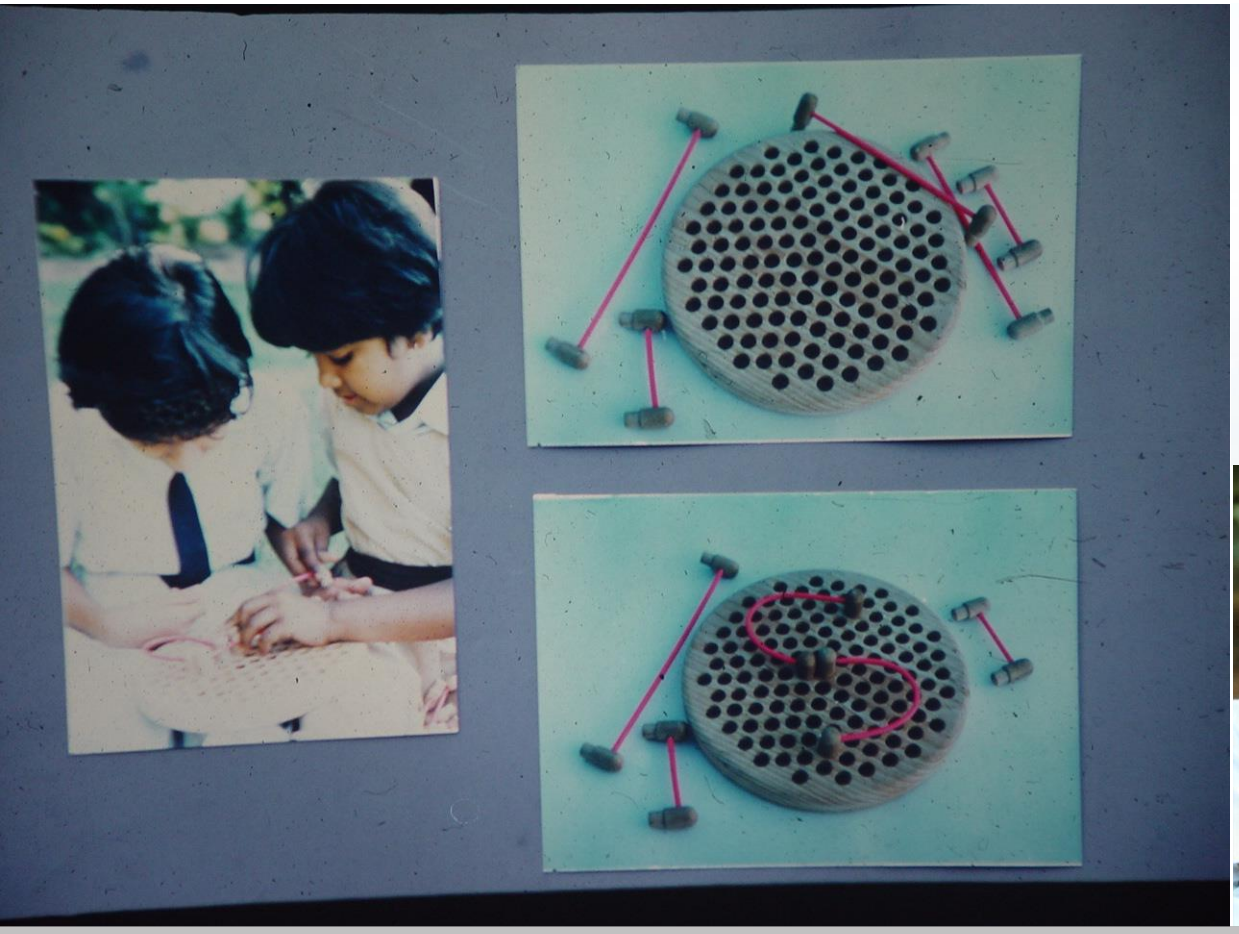
Toy Design & Innovation

"Stop & Go" – system developed for special need children. Produced & marketed in Germany, since 2002



System design for toys for education

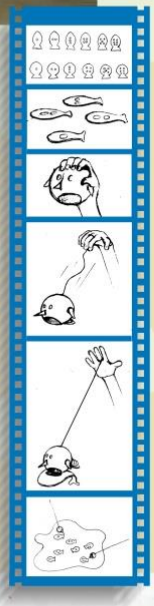
International design workshop – toys for special needs, 2001, at NID

International design workshop – toys for special needs, 2001, at NID

Silke Matussek
Germany

Kingfisher Game

This is a wonderful interactive game played by 2 children to catch 6 fishes as fast as they can in a wide variety of ways.



We will put the circular string on the ground with all the fishes inside.
2 small circular strings on either side will tell where you and your friend should stand...
Now both of you should fix the elastic Kingfisher on to your hand and Plop -Plop-Plop the kingfisher moves up and down to catch all the fishes in the pond!

There are 4 different ways to play this game:

1. *I will catch the thin fishes and you catch the fat fishes and let's see who catches them first.*
2. *Let me catch 3 fishes and now if the head of the fish is yellow , you have to catch the yellow body fish and so on and on we'll play..*
3. *I will catch fish no: 1 to 6 and you too do the same and now, let's see who finishes first and wins the game.*
4. *Number 5 you have to catch and so you can catch either number 5 or number 2+3 or no 2+2+1 and so on..*
   You have to be as fast with your maths as you are with your hands!

Developmental Aspects:
- Develops intellectual skills such as shape sorting, counting, recognizing colours and adding numbers.
- It also trains the motor skills

NATIONAL INSTITUTE OF DESIGN
Paldi Ahmedabad

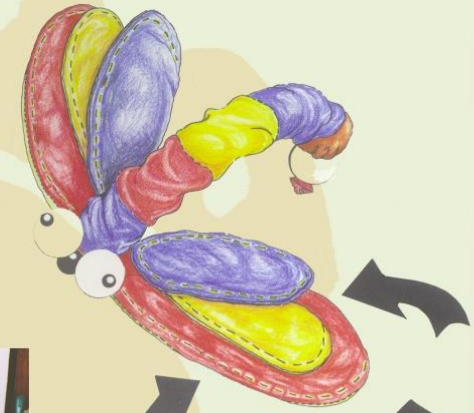
Design Registration in process

Warita Pholcharoen
Thailand

Dragon fly

Have fun playing with this funny dragonfly, so full of textures and sounds...

When you hold my wings and press..
You can hear my sound
and when you shake me to and fro,
you can hear me ..
Rattle rattle a- Tattle..



Development Aspects
- Different grips are possible
  The children can grab by more than 2 finger
  The grasp could be from easy to difficult
- One hand/both hands can be used
  Helps the child to cross midline
- Motivates imagination role-playing
  e.g. imitate the way of flying of the dragon-fly..

NATIONAL INSTITUTE OF DESIGN
Paldi Ahmedabad

Design Registration in process

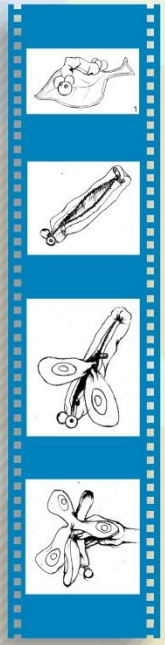
International design workshop – toys for special needs, 2001, at NID

WARITA PHOLCHAROEN
THAILAND

Toys for Children's Rehabilitation

Caterpillar's growing up

A great toy for children- Open the caterpillar and out comes the butterfly!



All you have to do is open the zip of the caterpillar..
and surprise of surprise..
A colorful butterfly comes out!
Play with the butterfly as you like
Help the wings to flutter about with your hands and watch them go Flip-flap Flip-flap

Developmental Aspects:

- Develops fine motor-coordination
- Learns to imitate the movement of a butterfly
- Learns about insect metamorphosis

NATIONAL INSTITUTE OF DESIGN
Paldi Ahmedabad

Design Registration in process

International design workshop – toys for special needs, 2001, at NID

Toys & Tales with Everyday Materials : Workshop with Teachers

Learning from 3H (head, heart, hand)

Design in education

Toy as Teacher

Developing toys with tales

Creating educational resource

Tools for holistic development

Workshop for teachers at Jamia Millia Islamia, Design & Education Series

Workshop for teachers from various schools in Delhi, 2011, Design & Education Series

Workshop for teachers from various schools in Delhi, 2011, Design & Education Series

Workshop with architecture students, Chennai

Toys as Tools for holistic learning

Curiosity & Playfulness

Development of skills & creativity

Learning by Doing & Playful explorations

Wonderful resource for physical, cognitive, emotional, social and spiritual development

Playful, Inclusive and integrated learning

Magic Flower - New Developments by Sudarshan & Surabhi Khanna

The New Play Products Designed with Inspiration from Heritage

New themes and stories

Tradition to modernity

Integration of culture, creativity & design

Process of design & innovations

Integrated & Inclusive learning

Toy Making & Innovative Education Workshop sessions with teachers and pedagogists, by Sudarshan & Surabhi Khanna in Barranquilla, Colombia, 2014

"Khel Manthan (Churning-Learning)"!!!

handcrafted Storyteller & Storymaker

designed by Surabhi Khanna

Workshop with special educators, Romania, 2011

“Toys for Tomorrow” conference, 2006. Sudarshan Khanna, President, Siegfried Zoels, vice-president

Workshop with design students in Chile, 2007

César Jara C.

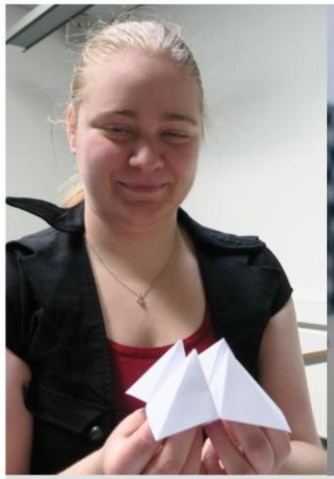
Diseñador indio reivindica los juguetes más simples

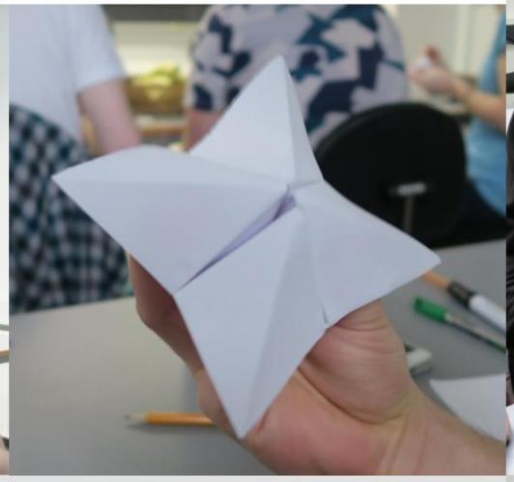
Página 6

A) Games and toys from Childhood – explorations by participants

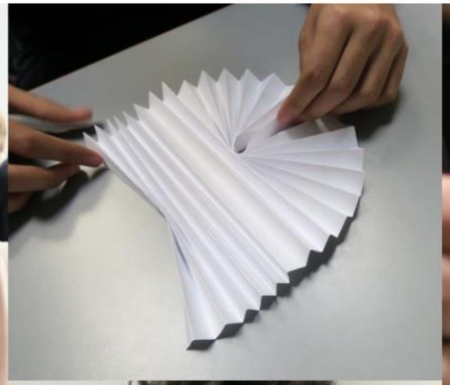
A) Games and toys from Childhood – explorations by participants

Origami flower created by a participant



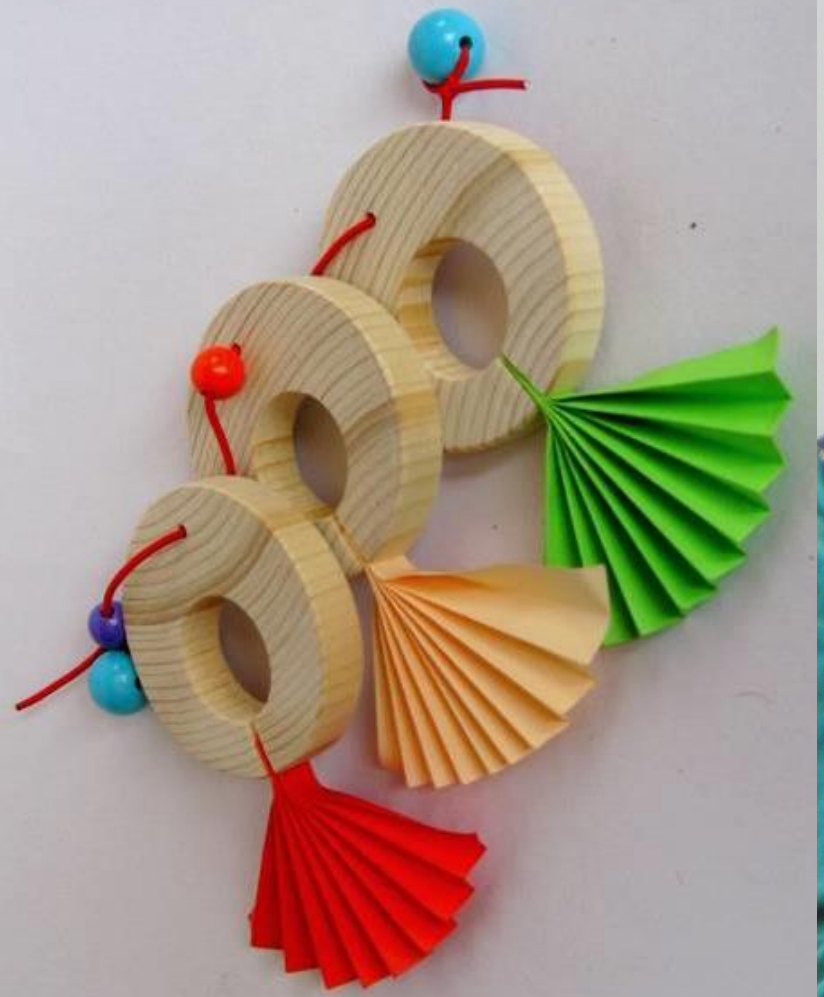


A popular game played by young girls in Denmark and India



Fan folded circle

Paper cuts done on folded paper to create various patterns



“Fish Flutter” – toy developed for children on wheelchair. This playful movement helps in muscular exercise and hand-eye co-ordination.

Sudarshan Khanna with Charles Eames, explaining the Indian Toy Research & Documentation, 1977

Reflections

- Consultancy approach inadequate for design education
- Learning from Heritage & indigenous strengths
- an asset for education : Design research diversity
- Relating with local & global perspectives
- Design education with social heritage

Toys & Tales with everyday materials

relevance of ingenious, playful ideas for design, learning and innovation

Sudarshan Khanna
Design Educator, Author, India
www.sudarshankhanna.com

Surabhi Khanna
Toy Designer, Architect
www.surabhikhanna.com