



Indian Toys for International Market

Industrial design Project II

Project Guide
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Approval sheet

The project titled "Indian toys for International market" by Divya Saxena is approved for the partial fulfillment of the requirement for degree of "masters in design " in Industrial Design.

Guide

Chairperson

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Date :



Acknowledgements

This project has been an interesting journey for me. Despite of many ups and downs, it has proved fruitful and further equipped me with many assets.

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I extend my thanks to all our faculty, for their inspiring feedbacks which helped me to move further on a right track.

Last but not the least, I thank all my friends for their patience, understanding, help and logistics support during the entire course of the project.

Abstract

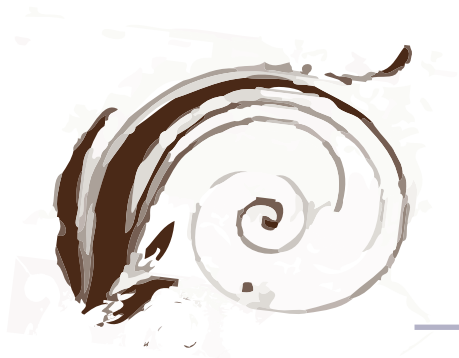
The project deals with developing a new concept of Indian toys. It aims at developing an identity and creating a niche in International market so as to give an introduction to our rich cultural values through the element of fun.

It focuses on learning and taking inputs from our culture, understanding the international market, its issues and requirements, studying the particular user group and thus developing a product which can give an upliftment to the economy in the above sector and showcase our rich cultural values to the world.



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“Culture is to know the best that has been said and thought in the world”

1. PREFACE

Culture of India has been shaped by its long history. Indian culture is known for its richness and diversity and thus as a result, its unique in its own way. India, is one of the oldest civilizations in the world. Its rich traditions embedded in the very core of common Indian man, and its large cultural diversity are well known worldwide. Our manners, way of communicating with one another are one of the important components of our culture. It has always been a tradition to transfer these morals and great values to the new generation far before in their childhood so as to create a base for making them a good human being.

The Indian toy industry is as old as this nation itself, Thus to create a stand or to say to create a niche for projecting this phenomenal culture of ours, toys can be one of the major concerns in the international market.

As per the survey, India's contribution of traditional toys is restricted to only 0.3% of the total toy produced in the industry. Thus to open up a new realm for India in this particular field is one of the major concerns.

Increment in Indian economy in the field of toy design through the inputs from our own culture and producing it to international standards can result in creating an identity in the overall market.

2. INTRODUCTION

2.1. Overarching goal

Designing for creating a niche in the crowd

2.2. Need

Industrial products are moving towards globalization and in the midst, cultural products are getting lost. Thus to create a stand in the international market, there is a need to design Indian products of international standards which can create its own identity through its rich culture.



2.3. Design objective

- To design toys that can depict the richness and values of Indian culture.
- India has got a big history of toys that can be revitalized. and inputs can be taken to further explore new concepts.
- To understand the International market standards and requirements.
- Creating a niche in the international market by a different identity of Indian toys that can suit upto the international standards.

2.4 Design contribution

- Exploring different materials and techniques to suit the existing product principles.
- Giving value addition to the product by looking into the factors of ergonomics, aesthetics and user friendly.
- Making the designs more safer or interactive to use.
- To modernize the look and feel of the products generated .
- To produce a contemporary design through taking inputs from traditional products.

"The idea revolves around giving Indian products an opportunity to perform in an international scenario."

3. RESEARCH AND DATA COLLECTION

Motive:

Designing new Indian Products(toys) which can create a niche in the international market.

To start with the research ,proper understanding of Indian history and existing scenario has to be studied in detail. Along with this, understanding of International market and its requirements is necessary so that the inputs can further be taken into account while designing.



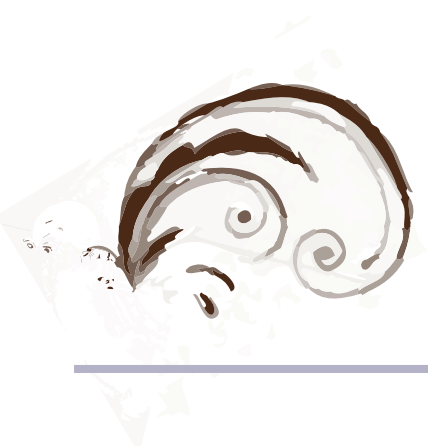
The topics which will be covered under the research are as follows:

Indian Scenario

- Existing traditional toys/games.
 1. Basic Indian toys principles.
 2. Indian street games/toys
- Contemporary toys.
- Case studies of Indian toys marking their identity in International market.
 1. Earthentree - Wooden handcrafted toys.
 2. Ganjifa - Indian playing cards depicting an old mythological story.

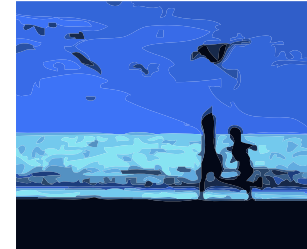
International Scenario

- Market requirement and strategy.
- Contemporary toys.
- Case studies of products making their stand in international market.
 1. All time favorite Barbie, scrabble, Rubic's cube. And their recent advancement.
 2. Eco - friendly products.



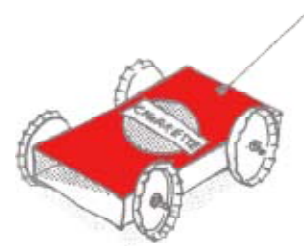
3.1 Indian Scenario

Existing Indian toy principles and Indian street games :



There was a time when a clay dancing doll from Panruti (Tamil Nadu) or figurines of birds, animals and musicians from Lucknow (Uttar Pradesh) or a leather horse from Gwalior (Madhya Pradesh) could amuse a child for hours. Many adults may have fond childhood memories of playing with home-fashioned toys.

They certainly help develop a child's motor and cognitive skills. Made from natural materials - such as wood, cane, palm leaf, clay, soft soap stone and cloth - these playmates are safe and enable an understanding and appreciation of nature very early in life.



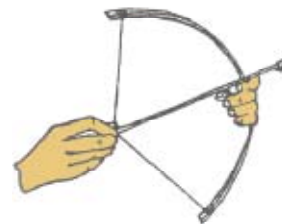
Cigarette box cart



Cycle tire wheel



Windmill



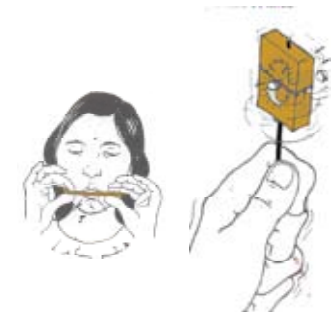
Bow and arrow



Catapult



Puppeteer's whistle



Matchbox Drum

Source : Joy of making Indian by Sudarshan khanna

The essence of such toys were in their making. Nowadays, Pedagogic learning is now associated with gloss and gleam. Children play with such toys for a while and then they throw them away.

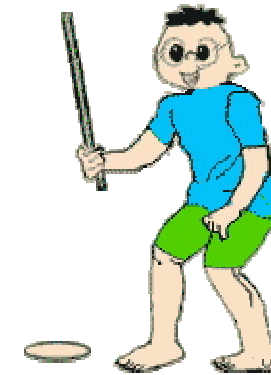
The above toys, made of materials which cost practically nothing and found in every household, can provide children with hours of fun.



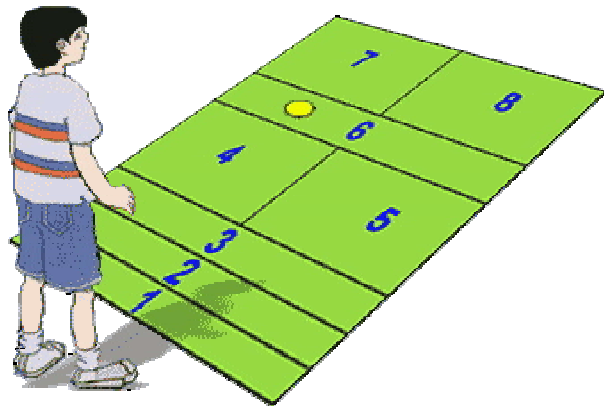
Kite Flying



Playing marbles



Gilli Danda



Hopscot



The top



games without any props

Contemporary toys available

There is a great demand for cheap and easy availability of toys in a developing country like India. Following are the key words describing contemporary toys demanded in the country.

- Cheap and readily available
- Mainly plastic- easily manufactured
- Some are copy of international toys .
- Bad finish.

India has over 800 Indian toys and games manufacturers, exporters and suppliers. Most of the Toy manufacturers in India are from the unorganized sector.

There is a more and more demand increase from all the stratas of the society because India is still in its developing phase and there is a tremendous increase in demand scale. Thus there lies a variety of standardization addressing from a lower strata to higher strata of the society.

Also because of the same reason, quantity has taken importance as compared to the quality of the product. Thus the locally made, repetitive products are readily available in contemporary India. Thus the old traditional toys are also getting lost.

Indian children usually demand fun toys & games while Indian parents usually prefer buying educational toys & games for children. The Indian toy industry today faces stiff competition from toy manufacturers in China or Chinese toys.



Source : www.indianchild.com/indian_toys_manufactures.htm

Case studies of products marking their identity in International market.



earthentree
creative·natural·handcrafted

Best Sellers



Music Makers



Educational



Cool Games



Earthentree was a company started in 1996 in Kirkland. It employs 30 toy makers in Channapatna, India, a rural town near Bangalore.

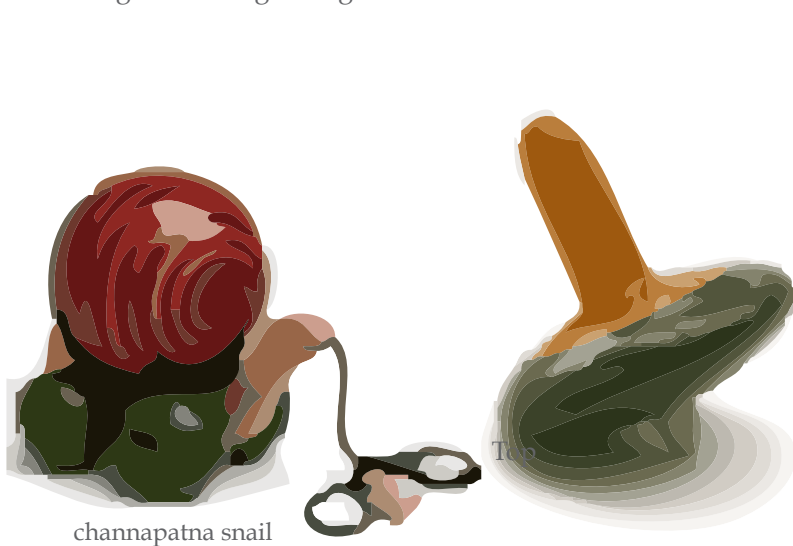
The main aim of this organisation is to revitalize the old traditional toys to the international market standards. Earthentree's toys are handmade in India out of sustainable wood and colored with vegetable dyes, meaning no lead paint

Strategies followed:

- Using the existing handicraft techniques .
- Providing the traditional craft workers with better facilities and tools .
- Promotion through web sites.
- Promotion through organizing workshops.
- Opening market through specialty retailers.

Toys at Earthentree

These natural wooden toys are not just that. They are works of art, made from eco friendly materials to create safe toys that have a great story to tell. Each toy is handmade by an artisan community in India. Sustainable and fast growing Hale wood (*Wrightia Tinctoria*) and Rubber wood (*Hevea brasiliensis*), is used for its fine grain and lightweight.



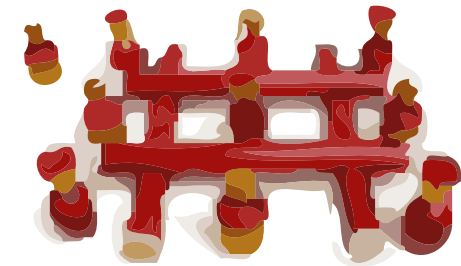
channapatna snail



Jumping rope



Keychains



Tic Tac Toe

toy ideas from other regions are gelled with Indian craft material to give it a more Indian look.

Ganjifa - Handmade Playing Cards

Ganjifa, or Gânjaphâ, is a card game that originated in Persia and became popular in India under the Mughal emperors in the 16th century.

The tradition of Ganjifa in India was bought by mughals from Persia

With its change in the subject of cards over the due course of time, the subjects were more Indianized by adding mythological values.

Example: Depiction of Vishnu Avatars... a way to promote culture through play.

(This game has been launched to International market and is pretty liked by the people)

Ganjifa cards are circular and traditionally hand-made by local artisans. The suits are composed of twelve subjects on colored backgrounds, with pip cards that running from 1 to 10, and two court cards, of a minister or counselor, and a king. The precise style and arrangement of the decoration on any set is dependent on its artist. The designs of the cards of Dashavatara Ganjifa use motifs from the ten avatars of Vishnu.

Source: <http://en.wikipedia.org/wiki/Ganjifa>



Ganjifa is an old but pretty useful way of knowing culture through fun. It is handmade and thus quite customised in the sense. Its availability in varieties of stories have increased the popularity and also provide a stage for various traditional stories to get flourished which otherwise are getting lost in this contemporary world.

Inferences :

The strong points of Indian toy industry lies in its skilled workforce, diverse range, focus on innovation and creativity, and emphasis on learning and education.

- Existence of Demand in international market for such hand made products is present in the international market.

There is a sense of customisation and also people are getting more aware of buying more Eco-sensitive products.

- Traditional designs can be presented with a modern twist.
- The above case studies shows that presenting the rich culture and tradition of India through toys is widely acceptable by the customers.
- Industry is looking more towards eco friendly toys which are widely in demand .
- Also the above examples of Ganjifa and all other similar toys shows a nice way of depicting stories through toys which in turn is helping in keeping our culture alive.
- Good finish though require highly skilled labors.
- Existing toys though are visually appealing and highly eco friendly but till now have not incorporated the part of interaction and involvement of user as was present in traditional toys.

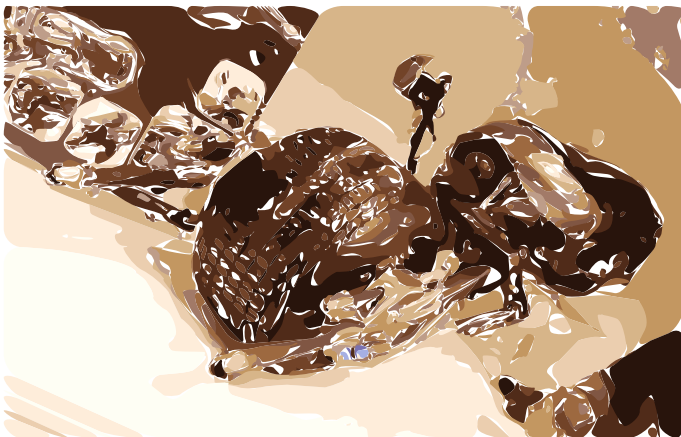


3.2 International scenario

It is seen that in an international scenario...there is a mixture of customers and characteristics of a product may vary from one place to another.

Market's requirements are:

- Control of development procedures:there is always a standard which has to be maintained through out the process of development.
- Satisfying the increase level of demand with increase in education at general and thus producing good quality products.
- Defining more of effective means for perceiving change and responding creatively in design terms:this results in more of innovative solutions.
- Well designed marketing strategy including promotion of the product in a way the idea behind the product should be well transferred and understood by the user.
- Can be understood that by identifying basic common needs, potential size of market can be greatly expanded.
- Importance of visual quality for particular product should be understood before designing.
- Calculation of future prediction is necessary.The upcoming events rule the market with a great percentage.
- Well transmission of quality product which is designed as per the quality.
- The story or the concept behind the design should be well transferred through the message given by the product.
- How so ever rich is the market, pricing policy is important for any product to come in the market.



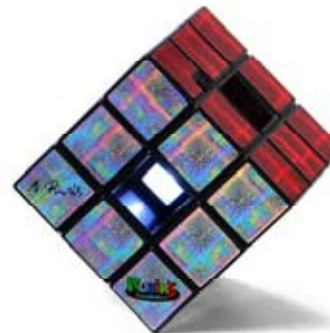
Contemporary toys in International market:

There is a huge toy market with variety of products available. Commonly following are the important trades of contemporary toys available in the market: New materials, Technical finish, Highly detailed, mechanical, very defined, high finish end products, High finish packaging.

The new trend which is been widely followed in the market is the propagation of famous movie or TV characters through toys. Sometimes even vice versa is seen. Toys are propagated through these mediums, which is quite a good marketing strategy.



Source: www.museumofchildhood.com



International market is opening more towards eco friendly materials

Recent realization : bamboo is a great resource to design with ,not only it is eco sensitive but also very light weight which is extremely positive in sense of transportation.Apart from this bamboo has its own finish so manufacturing cost reduces to great extend.

International market is ready for experimentation :opening more towards eco friendly materials, newer designs and concepts with high finished and well packaged products.

Source : www.designboom.com/contemporary



Inferences :

- International market is open to experimentation and to adopt newer products
- Standardization of products is up to high quality end products. Especially in the toy market, safety is the major issue.
- The total production management is a part of design which is to be well understood before the actual design process starts .As the product is quite user specific within which even there are several categories of different age group and gender.
- Promotion of product is one of the major concern because television and movies has become a major part among the user group which is highly influential. Thus visual appeal of the product also plays a vital role.
- Transmission of story from the designer's view point to the customers is very necessary.
- At all the level of presentation including the packaging is important to grab the attention.
- Planning is important at every step.



Source: www.yorkblog.com

3.3 Market trend and theories

- Within the definition it will be seen that the mixture of characteristics in a product will vary considerably from one type of product to another , according to the needs and expectations of the consumers. That too with the toys, there is a wide range of age group which is available as a consumer.
- It is important, however, to recognize that rising standards of living, the increase in education at general and advance levels , and growing awareness of wider social aims of society, among industrial purchasers and consumers alike, are combining to raise the level of demand throughout the market .Due to this fact, introduction of more of eco-friendly products are coming into scene.
- The basic common needs may exist in many different countries and that by identifying these needs in advance, and by optimising the design of a product to embrace minor variations within those basic needs, the potential size of market can be greatly expanded.
- It is necessary to have a clear idea of how important good visual quality is to the success of its products so that an appropriate amount of effort can be given to this aspect of design.
- The message is the content of the design plus the story, because a story can help to get the message across. Also, design can make people move. Because design is a message, if we can get it across we can succeed in moving the consumer.
- Among the many ways of approaching the market there are two basic methods: One is to produce a “way ahead product”, that through innovation or invention , opens up a hitherto undiscovered field; the other is to study that which exists, deliberately producing a similar product at a lower price, thus eliminating the need for expensive market research, application engineering and market development.



Source : Designing for European markets : A management guide
Edited by John E Blake

3.4 Survey Report of Traditional toys

Where we stand?



| | 2001 | 2003 | 2005 | Leading suppliers in 2005 | Share 2005 |
|----------------------------------|-------|-------|-------|--|------------|
| Total traditional toys and games | 502.9 | 795.0 | 696.2 | Intra-EU: Denmark (12%); Netherlands (11%); Malta (2.6%); Italy (2.4%); Austria (2.3%) | 43% |
| | 123.0 | 103.1 | 163.5 | Extra-EU, ex DC: Switzerland (5.3%); Hong Kong (1.7%); USA (1%); Taiwan (0.9%); Japan (0.6%) | 10% |
| | 769.0 | 771.6 | 750.1 | DC: China (42%); Pakistan (1.3%); Thailand (0.8%); Indonesia (0.6%); Tunisia (0.5%); Vietnam (0.5%); India (0.3%); Malaysia (0.3%); Sri Lanka (0.3%); Philippines (0.2%) | 47% |

Source : NPD Eurotoys/BVS 2006

India's contribution to the supply of traditional toys in International market is restricted to 0.3% only, and that too majorly in outdoor toys and a little in mechanical and learning kits.

Table 1.1 Consumption of toys and games at retail prices, 2001-2005, C million

| | 2001 | 2003 | 2005 | Average annual change | Germany share 2005 | EU share 2005 |
|--------------------------------|--------------|--------------|--------------|-----------------------|--------------------|---------------|
| Games and puzzles | 391 | 393 | 407 | 1.0% | 18.0% | 14.5% |
| Infant and pre-school | 342 | 343 | 384 | 3.0% | 17.0% | 19.6% |
| Vehicles | 415 | 417 | 337 | -5.1% | 14.9% | 9.4% |
| Construction sets | 269 | 245 | 276 | 0.6% | 12.2% | 7.2% |
| Dolls | 318 | 294 | 244 | -6.4% | 10.8% | 12.5% |
| Outdoor toys and sports | 244 | 221 | 183 | -7.0% | 8.1% | 10.6% |
| Plush | 171 | 147 | 122 | -8.1% | 5.4% | 5.7% |
| Arts and crafts | 98 | 98 | 93 | -1.3% | 4.1% | 5.8% |
| Action figures and accessories | 24 | 25 | 32 | 6.7% | 1.4% | 4.7% |
| Learning and exploration | 49 | 49 | 32 | -10.3% | 1.4% | 1.7% |
| All other toys | 122 | 172 | 154 | 5.9% | 6.8% | 8.3% |
| Total traditional toys | 2,443 | 2,404 | 2,262 | -1.9% | | |

Source: NPD Eurotoys / BVS (2006)

Video Games as exception

Though not present in the above table, sales of video games have grown strongly during the past five years, with sales stabilizing at around 850 million pounds. Sales are expected to have risen again in 2006 after the introduction of the new games consoles by leading manufacturers.

Table 1.3 Production of toys and games (manufacturers' prices) 2001-2005, € million

| | 2001 | 2003 | 2005 | Average annual change | Share 2005 |
|-------------------------------|------------|--------------|------------|-----------------------|------------|
| Models and trains | 319 | 307 | 170 | -14.6% | 19.7% |
| Outdoor | 121 | 101 | 78 | -10.3% | 9.1% |
| Construction sets | 57 | 51 | 69 | 4.6% | 8.0% |
| Plush | 80 | 63 | 53 | -9.8% | 6.2% |
| Learning | - | 45 | 48 | 0.0% | 5.6% |
| Animal and fantasy | 41 | 38 | 44 | 1.7% | 5.1% |
| Dolls | 19 | 26 | 11 | -12.8% | 1.2% |
| Games and puzzles | - | - | - | 0.0% | 0.0% |
| Motorised toys | 5 | - | - | -100.0% | 0.0% |
| Mechanical toys | - | - | - | 0.0% | 0.0% |
| Other toys | 283 | 376 | 388 | 8.2% | 45.1% |
| Total traditional toys | 924 | 1,008 | 860 | -1.8% | |

Source: Eurostat Prodcop (2007)

Inference :

The above study tell us about :

What market to focus?

Through the statistics its visible that the market trends keep on changing,so the recent requirement lies more in toys for infants and figure accessories.

What type of toys ?

Up till now India is venturing into more of outdoor games for exporting...including some of the mechanical and learning kits...thus more of explorations can be done for the indoor games.there is lot more opportunity if we enter into these other realms of toys available.eg: toys for infant and pre school, video games, puzzles,animal and fantasy etc.

Condition of overall traditional toys is degrading as there are quite less manufacturers in this particular field.

There is a lot of opportunities in the new emerging areas where we have not thought of entering into like - Also the range of age group can be more explored ...

4. UNDERSTANDING THE USER

4.1 Theories of child's development

The stages of Child's development were studied in order to understand the complexity of the problem or the concept that can be put forth to the child. Also of importance were the stages of concept formation and the development of play.

The categories of child development according to Jean Piaget are :

- 1) Sensorimotor Period (0 - 2yrs)
- 2) Pre Operational Period (2 - 7yrs)
- 3) Concrete operational Period (7 - 12yrs)
- 4) Formal operational Period (12yrs onwards)

The stages represent qualitative differences in modes of thinking, not merely quantitative differences.

Stages of Cognitive development

| Stage | Age | Characteristics of Stage |
|----------------------------|------|---|
| Sensorimotor | 0-2 | The child learns by doing: looking, touching, sucking. The child also has a primitive understanding of cause-and-effect relationships. Object permanence appears around 9 months. |
| Preoperational | 2-7 | The child uses language and symbols, including letters and numbers. Egocentrism is also evident. Conservation marks the end of the preoperational stage and the beginning of concrete operations. |
| Concrete Operations | 7-11 | The child demonstrates conservation, reversibility, serial ordering, and a mature understanding of cause-and-effect relationships. Thinking at this stage is still concrete. |
| Formal Operations | 12+ | The individual demonstrates abstract thinking, including logic, deductive reasoning, comparison, and classification. |

Source : http://en.wikipedia.org/wiki/Jean_Piaget

4.2 User Study:

User study was done among almost 40 kids ranging from few months to 12 years and onward to understand their basic psyche. An important thing which was noticed that there is a wide range of difference between the two genders.

| AGE | GENDER | TYPE OF FUN |
|-------------------------|--------|--|
| 0 - 1 TODDLER | M F | COMMON BIG OBJECTS - WHICH THEY CAN TEAR OFF ATTRACTION TOWARDS SPINNS → (BALLS) GET BORED EASILY AND SWITCH TO DIFF. THG MAKING OBJECTS - HOLOGRAPHIC CARDS, COLOURED MARKS Dolls - MAKE STORIES IN THEIR OWN (IMAGINE) WORLD |
| 1 - 3 PRE-SCHOOL | M F | |
| 3 - 5 KINDERGARTEN | M F | TRAINING GAMES: BUILDING BLOCKS, CATCHING THINGS (GAME) BARBIE DOLLS, MINIMATED MODEL OF HOME, KITCHEN SETS SHOW MORE CREATIVITY, COOPERATIVE WORK, BUT STILL DON'T WANT TO APPLY LOGIC - LIKE MAKING STORIES, REASON ARE ESSENTIAL WHICH IS MISSING BEGINS MYOB PRESENT, THEY PLAYING STORY MAKING GAME, DRAWING, IN THEIR OWN WORLD - DOLL, TOY, SCENE SETS |
| 5 - 7 | M F | |
| 7 - 9 | F M | EDUCATIONAL GAME - BUT LETS ENJOY ONLY W/ THEIR GAMES SARABIE, SCOTLAND YARD, CARDS - WHIP EDUCATIONAL + VISUAL GAMES - PICTORIAL, LOGIC, PUZZLE GAMES - HIT, STAGE BODY GAMES OUTDOOR GAMES, MAGICAL DOLLS, THE PUZZLES, STARTING OF VIDEO GAMES OUTDOOR GAMES - BUT AS IN INDIA |
| 9 - 12 | F M | |
| 12 onwards SECONDARY | M F | FOOTBALL, VIDEO GAMES TO WORKING - SPEED GET TOYS - BUT THEY KEEP IT, WATCHING TV - CENTRAL |



Understanding the age wise, gender specific psyche of children.

4.3 Market need of specific age group

Table 1.2 Age groups 0 - 14 years, 2001 - 2005, thousands of kids

| Age group: | 2001 | 2003 | 2005 | Average annual change | 2005 share | Average EU share |
|---------------------------|---------------|---------------|---------------|-----------------------|------------|------------------|
| 0 - 4 years | 3,918 | 3,764 | 3,614 | -2.0% | 30.7% | 32.1% |
| 5 - 9 years | 4,045 | 3,995 | 3,972 | -0.5% | 33.7% | 32.6% |
| 10 - 14 years | 4,734 | 4,529 | 4,202 | -2.9% | 35.6% | 35.4% |
| Total 0 - 14 years | 12,698 | 12,289 | 11,787 | -1.8% | | |

Source: Eurostat (2007)

Age and gender are the most defining elements for toys and games. On average, 27% of toys and games is given to 0-3 year old, 61% to kids in the ages 4 to 11, and 12% to kids of 12 years and older.

4.4. Inference

- The major opportunity, as can be understood by the above study lies in the age group of 7 years and above as 61% of consumption of toys lies in this particular group.
- India has rarely ventured into this specific group. i.e. may give opportunity to venture into a different age groups.
- The child in this group demonstrates conservation, reversibility, serial ordering, and a mature understanding of cause-and-effect relationships. But thinking at this stage is still concrete. Thus a product which can enhance the capabilities of a child at this stage can create a huge impact on an individual.

5.PRODUCT BRIEF

Objective

The basic objective of this project is to design toys that can depict the richness and values of Indian culture so as to create a niche in the International market through a unique identity.(The age group chosen is 7 years and above).

This is -

- So as to open up new doors for Indian economy.
- Provide the child with a new experience with cultural products.
- To introduce into the child interests,learnings and skills that can later be improved upon and turned into a profession.

The USP of the product will be “Experienceing the rich Indian culture, its valuable teachings and thoughts through fun.”

Since the primary users are from the International market,the visual look,standardization,packaging and high quality finish are major areas to look upon. Though the cost-effectiveness is not a major concern.

Framing Requiremnts:

- Age group.... 7 and above ... psychology, major user audience, 7-11 The child demonstrates, reversibility, serial ordering, and a mature understanding of cause-and-effect relationships. Thinking at this stage is still concrete. Also 61% of games and toys are given to this age group.
- Market Issues ... High end quality product, Following new upcoming trends - eco-friendly,uniqueness, Standardization, Identity hold in international market, visual appeal matters a lot.
- Indoor toy/game ... India is contributing near to 0% in this particular area...thus it can open up new realms...

Material specification...Eco - friendly ...so basic material chosen is bamboo...



6. DESIGN APPROACH

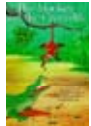
6.1 Approach

“It would be wrong to transmit an Indian Product made by keeping the reference of a Foreign customer In Mind,
But we must make an Indian product which can be understood by the foreign customers”

further three major ways can be followed while conceptualisation:



Taking basic Indian Toys/Game principles
And designing it further to create a full product.



Taking an Indian story and depicting it through a series of products.

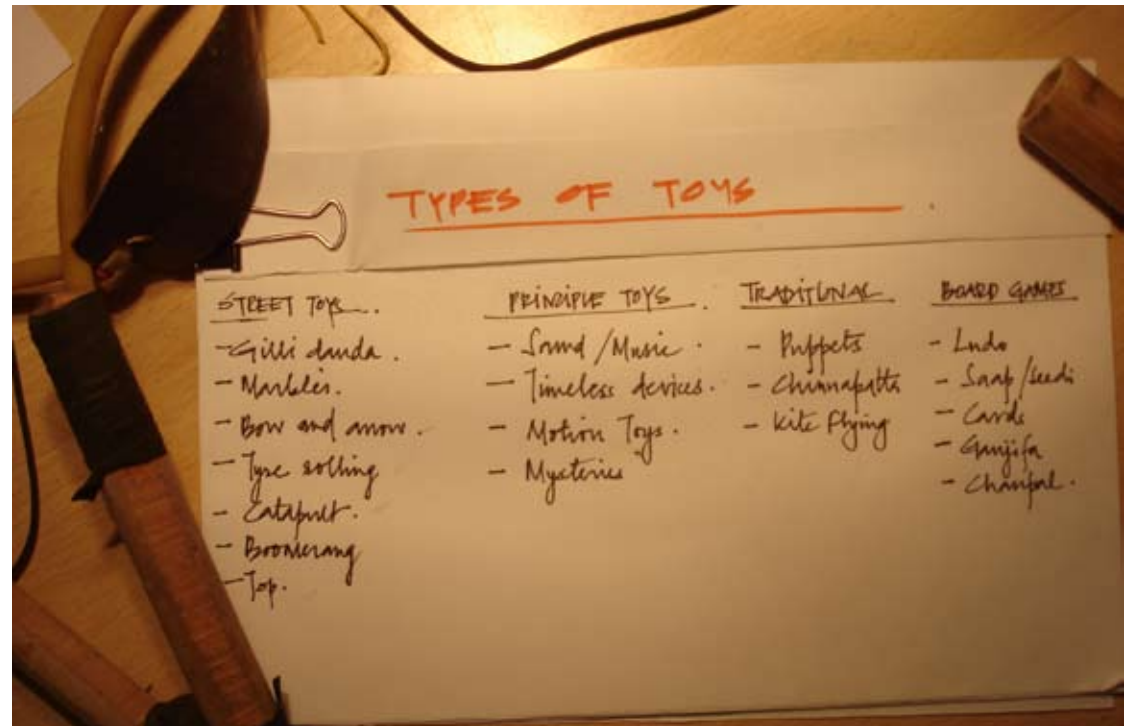


Taking an Indian Animal/bird which represents/ symbol for India and creating an interesting toy out of it.

Or involving all the three to form a complete kit of toys depicting an existing story and involving toys with basic principles.

Thus the design begins...

6.2 Direction 1: Indian Street toys



“upgrading street toy principals to produce a compact design for international market...”

Taking basic Indian Toys/
Game principles
And designing it further to
create a full product.

Taking an Indian Animal/
bird which represents/ sym-
bol for India and creating an
interesting toy out of it.

Brainstorming begins...

Idea 1 :

Modifying the very famous Indian street game - Gilli Danda

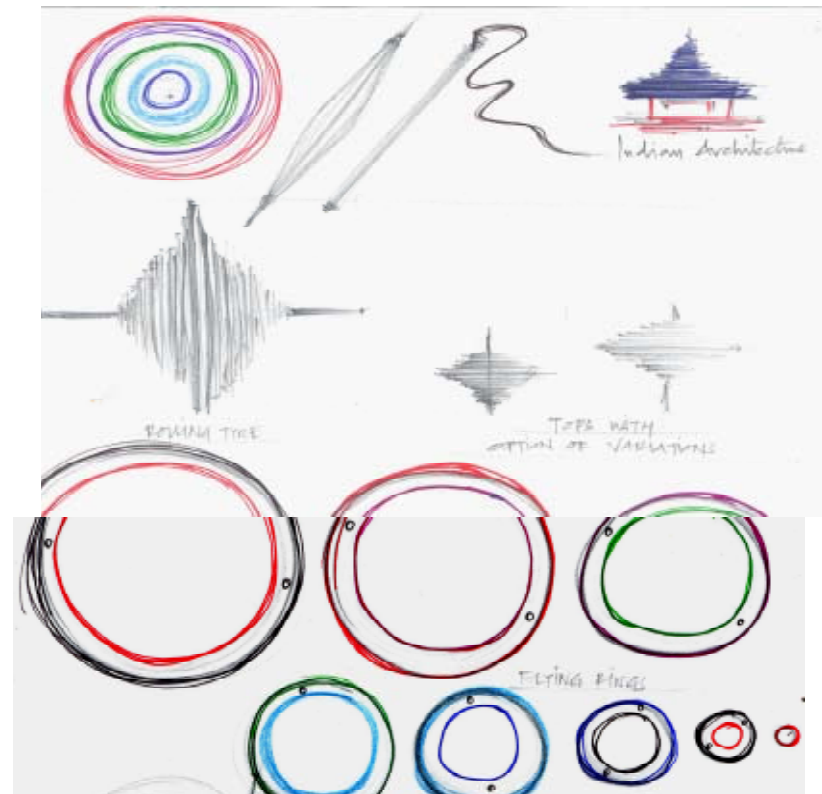


The Idea behind the modification of the famous toy “Gilli Danda” is to rejuvenate the old traditional game through making up to international standards. These ideas were conceptualized keeping in mind

- The compactness needed for the product.
- Also various forms were explored which can give better ergonomically details.
- Modification of game was tried so as to provide more chances to the player.

Idea 2 :

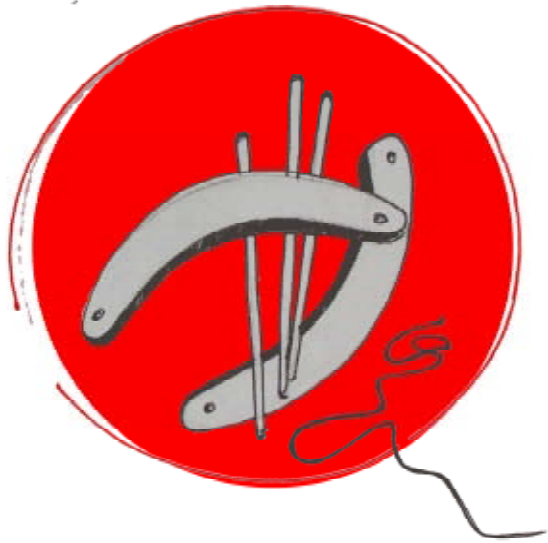
A modular unit for street toys - Do it yourself kit



The Idea of designing modular units for Indian street toys came to mind because these are the games which contains a high fun value but with time, its getting lost due to urbanization. Thus various options were tried to provide a compact cluster of famous Indian street toys like a catapult, bow and arrow, top and the rolling tire....

Also the form was kept quite simple i.e. one unit comprises of a circular ring which opens far more possibilities of creating new games and can give a child an option of a “do it yourself” kit.

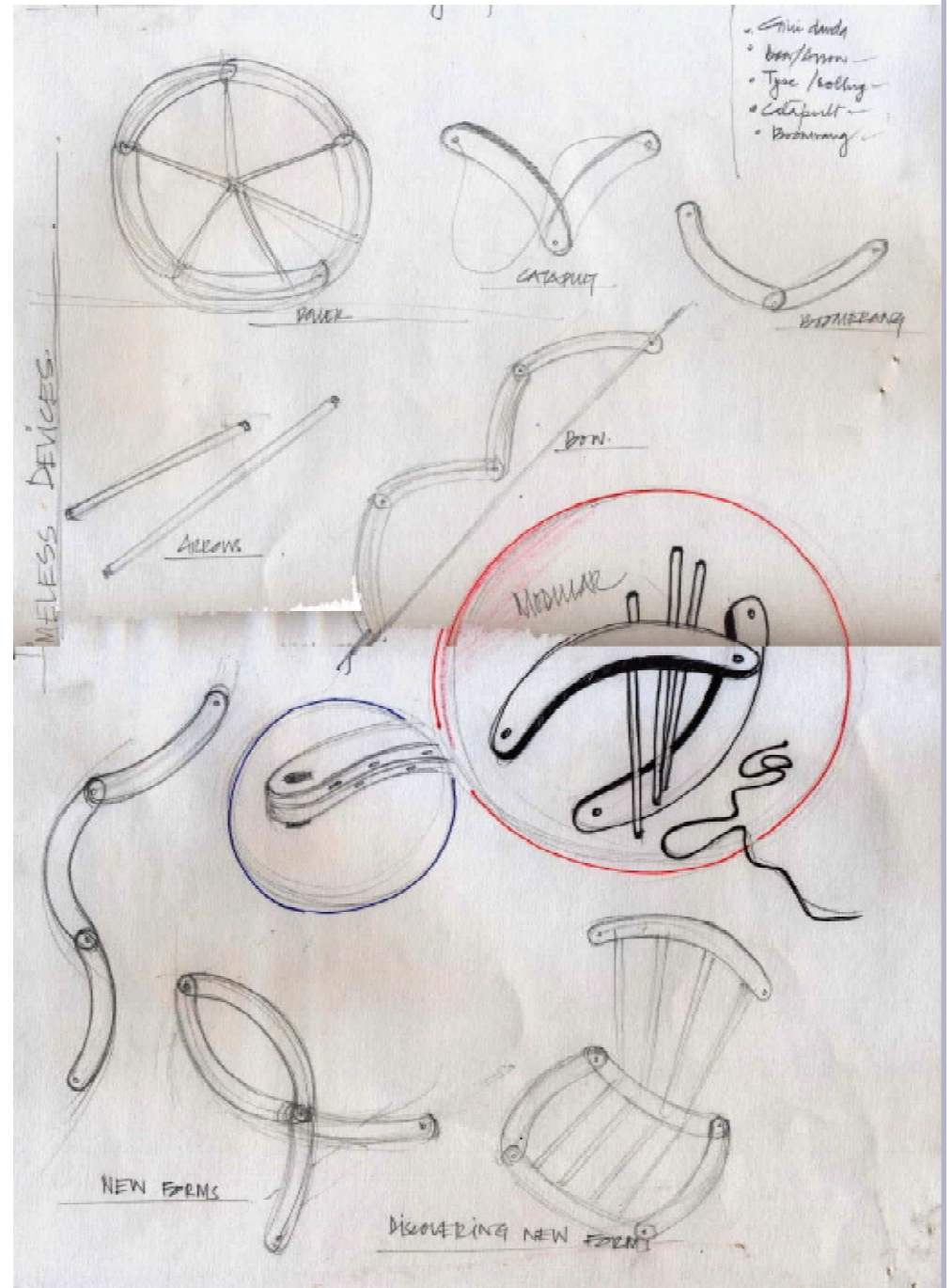
Idea 3 :



Modular solution for the Indian Street toys

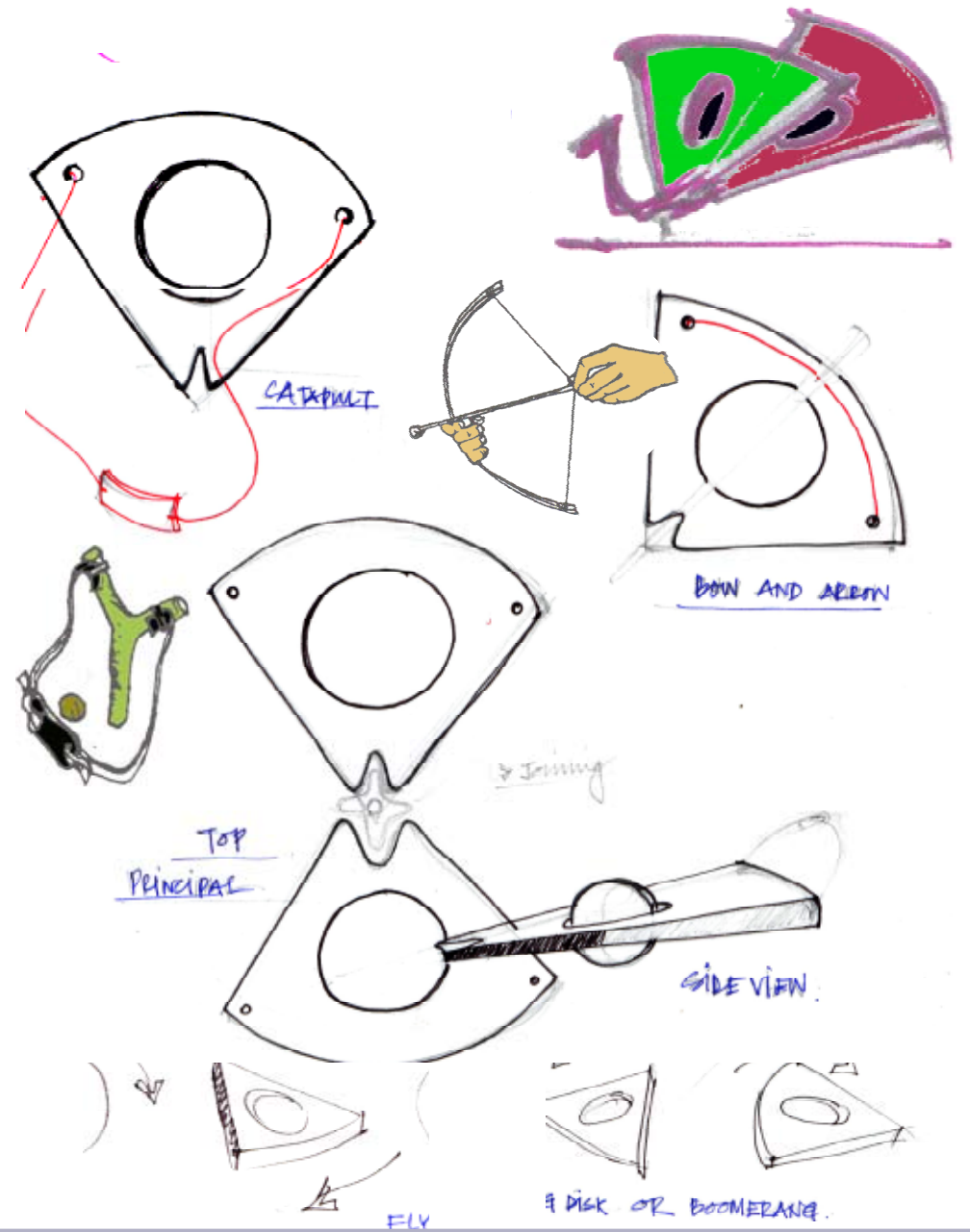
- *Rolling Wheel
- *Catapult
- *bow and arrow
- *Boomerang
- *new innovative forms

A modular arrangement that can form endless possibilities...enhance the creativity of child.

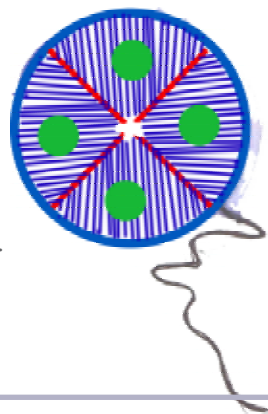


Idea 4 :

Modular solution for the Indian Street toys



An Outdoor toy.
7yrs and above.
Variety in one.
Revitalization of Indian street games.
Overall aesthetics looks Indian,



Direction 2: Depiction of Indian stories

Taking an Indian story and depicting it through a series of products.

Why virtual games?

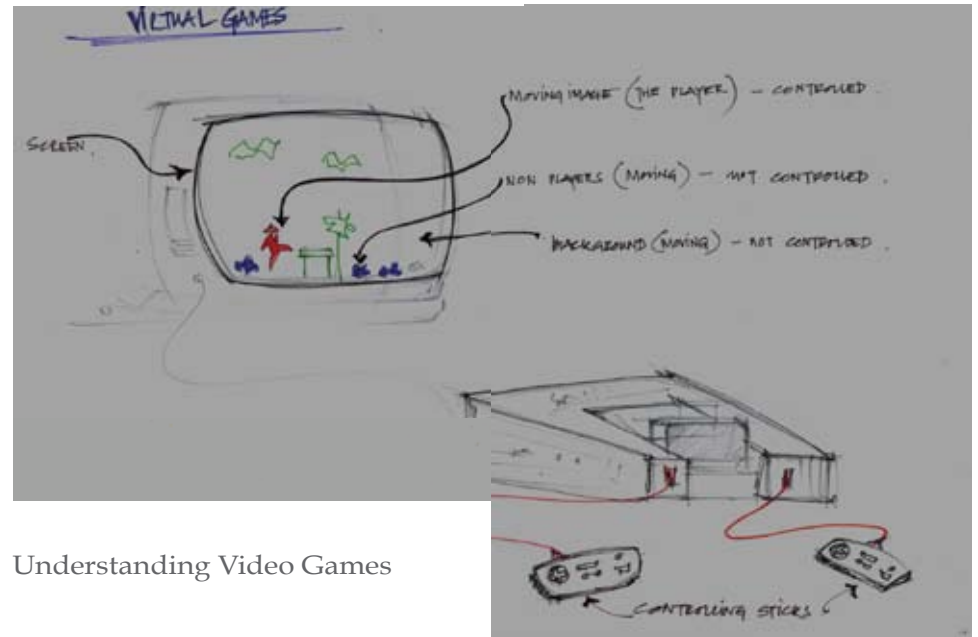
*Virtual games are the most successful games designed in the present world.

What principle?

*By Taking the inspiration of playfulness involved in the video games and applying it to real existing toys, we can achieve a similar fun.



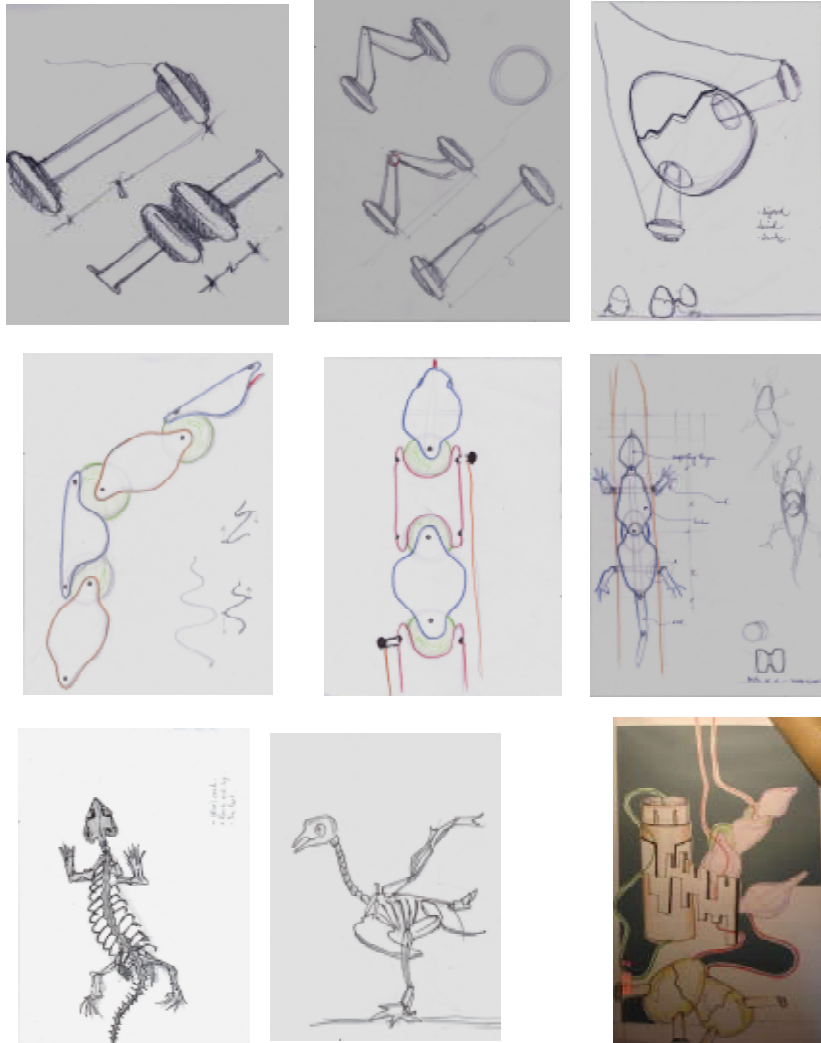
“depicting a story while taking inspiration from virtual games”



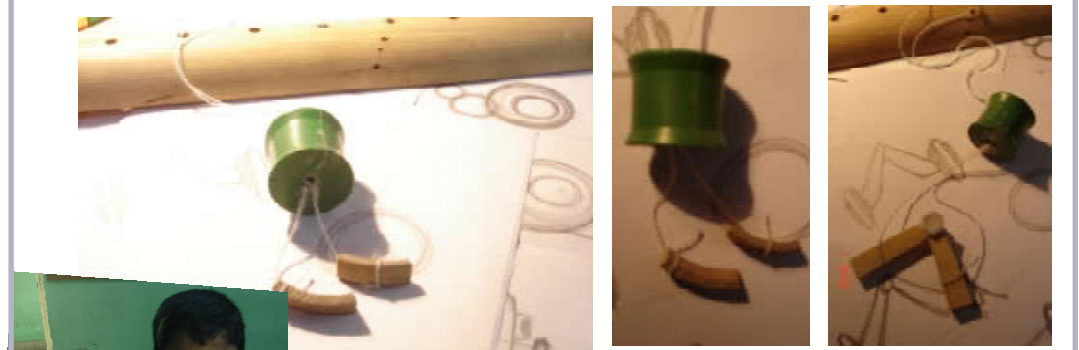
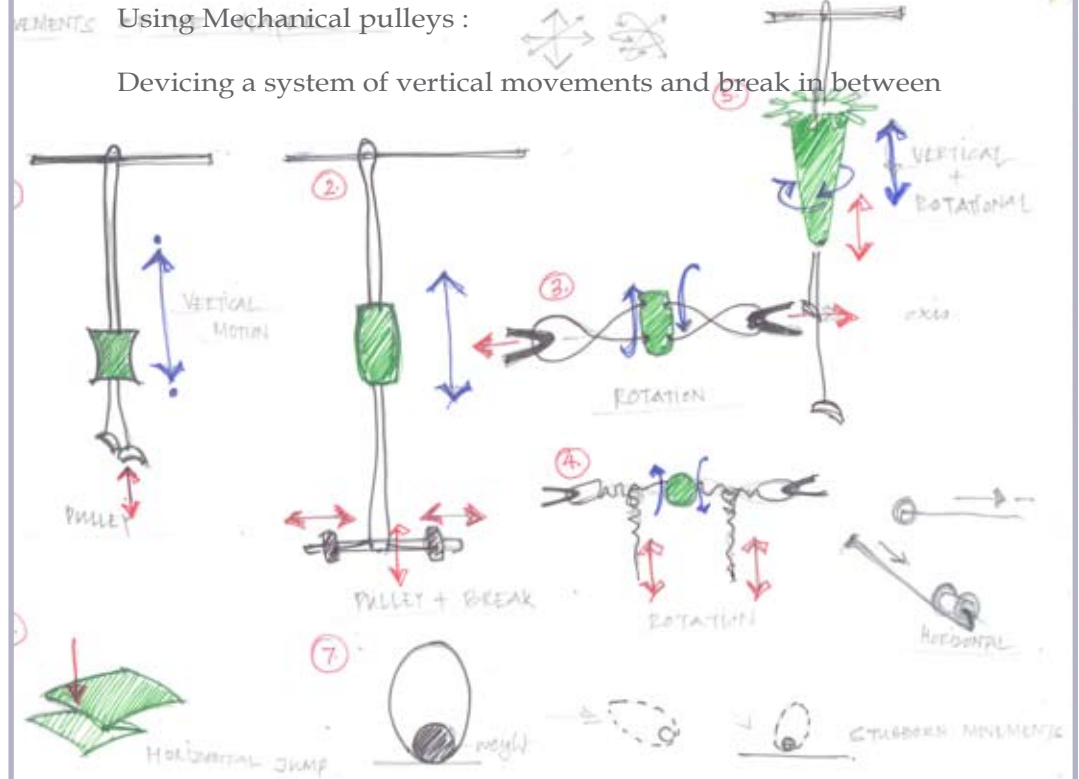
Understanding Video Games

Designing controls, players and the track using Semantics:

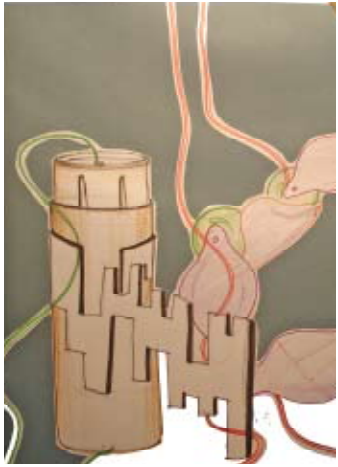
Task: To make the snake go along the track and reach upto the end of the track using mechanical pulley.



Understanding characters and their movements.

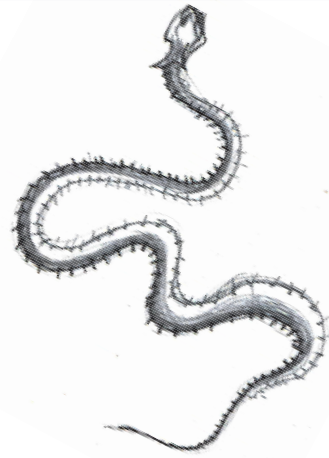


Mock Up models and user testing done to test the workability and user's reaction

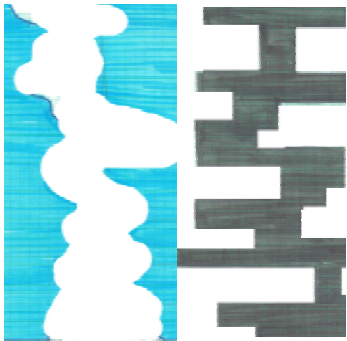


So finally, a game inspired by video games but having an Indian way of relating things was conceptualised.

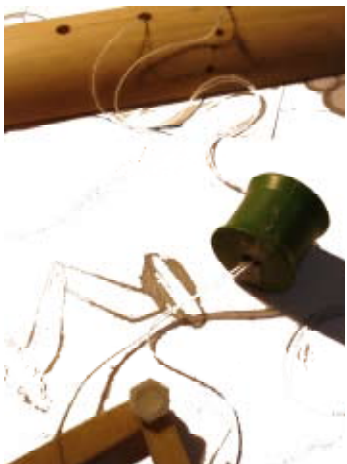
Further modifying the game included, creating of tracks on which the snake moves.



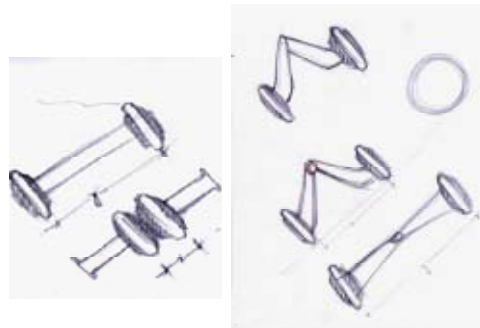
Understanding the movement of a snake and its variations in different materials.



Various tracks were devised so as to provide the minimum wastage of material. Also the material kept in mind was flexible so as to roll it back once played. (Keeping in mind the transportation).



The controls as required needed for both vertical movement and de acceleration. Thus various options were devised to reach the solution.



User's reaction to the toy:

- First reaction was of great enthusiasm,
- They liked the way pulley works,
- Later it becomes tedious to control and after some time they loses interest in the game.
- It was not something new to them.
- Failed in seeking attention for a longer duration.
- Sensitivity required in the play was not to their level.

Direction 3: Introduction of different material to increase the fun value.

Through the above user study it was found that Mechanical systems of pulley was not that much interesting for kids of age 7 yrs and above. According to them...

- It is tedious to play.
- It becomes boring after some time.
- Mechanical pulley is not new for them.
- Interest level is low in the concept.

Thus to make it Interesting,

Introduction of “Magnets” was done which seems to be quite an interesting concept for kids of this particular age.



Magnet as a material:

Concept of magnet and the way it behaves is highly an influential way of capturing kid's attention .

Experimentation with magnets

Further experimentation with magnets was done to understand its properties.

Following the same Task of the above concept:

Environment

Players

Controls



Creating characters that moves under the force of magnet



Trying to capture the movement of snake using magnets

The above experiment was tried to understand the way magnet works and how it behaves under magnetic forces. Further various relationships were realized through the movements created. Like:

- A snake moving forward,
- Automatic growth of plant,
- Movement of a fly under magnet.

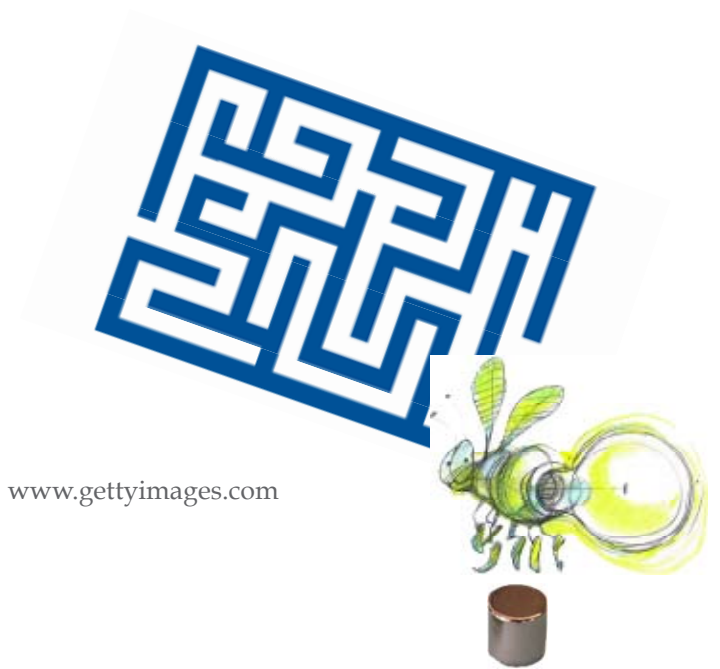


Growth of a plant



moving magnets along a transparent acrylic sheet



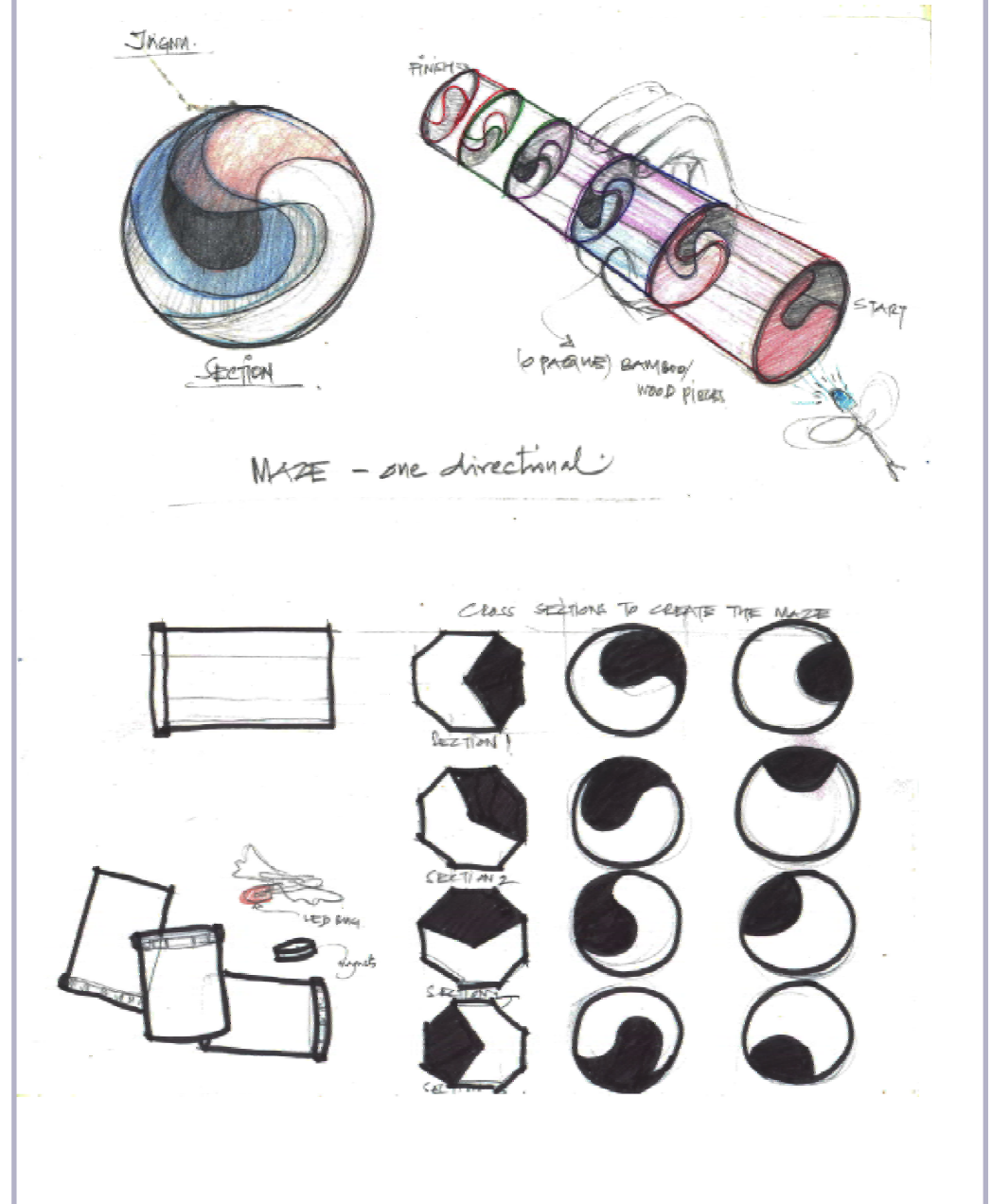


www.gettyimages.com

The Above idea is to put an led inside a dark space, which can get triggered under the magnetic force and gets "on". Thus as taking the semantics, a firefly was created which can go under a pipe having various section. i.e. creating a dark maze and the task lies in moving the lighted fly in the dark maze and using the magnetic force.



Idea 1 : creating a maze and solving it through a magnetic bug

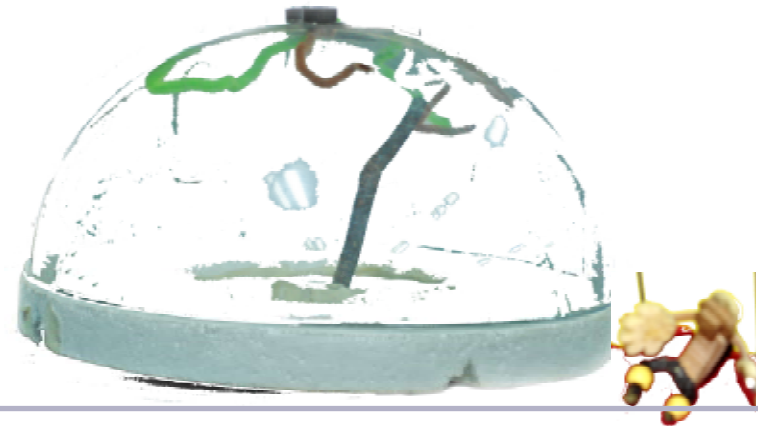
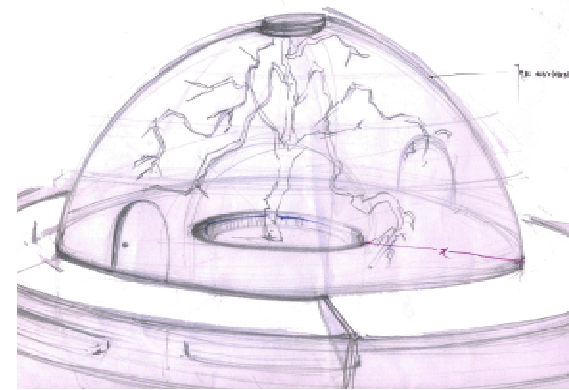


Idea 2 : Using the very famous Panchatantra stories and acting the same using magnets



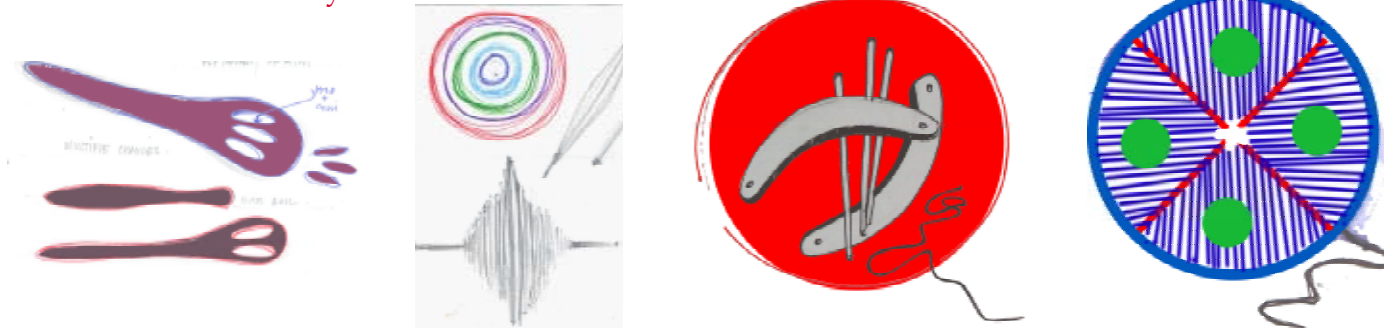
Applying the fun value of magnets to depict a very famous Panchtantra Story...
The Monkey and the crocodile...

As per the story goes, the main characters of the story is a monkey and a crocodile. The environment is of a jungle and the controls are of magnets. Thus to create the environment of a jungle, a half transparent sphere was taken. The character of monkey with a magnetic hand is inserted into the jungle. So the child's task becomes to control the monkey through the other set of magnet in his own hand. Now the monkey has to grab all the magnetic fruits of the tree without falling down in the pond, which has a crocodile.



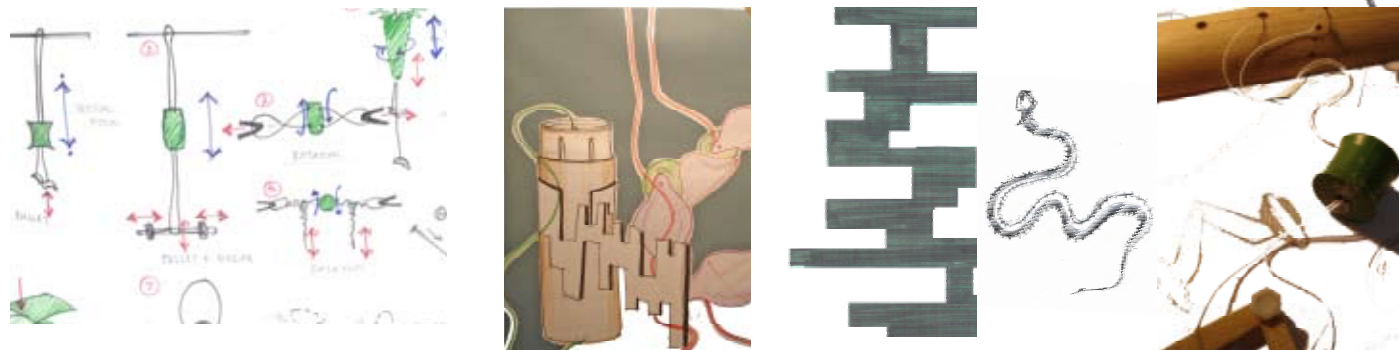
7. Choosing the Final concept

Direction 1: Indian Street toys



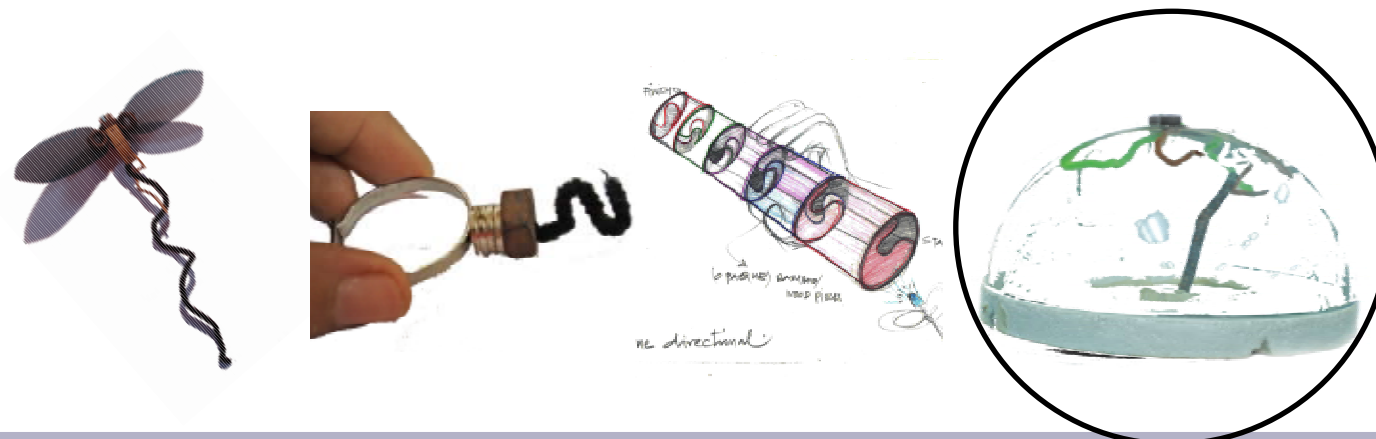
- Revitalization of Indian Street toys
- Gives standardization to the toys, which are almost getting extinct.
- Incorporating the Kid by making a “Do it yourself kit”.
- Although a new concept, but the way of transformation to an end product is not Indian.
- The end result loses the Indian ness.
- It may look similar to a many of toys already present in the market.

Direction 2: Depiction of Indian stories through mechanical pulleys.



- Kids liked the way pulley works,
- Later it becomes tedious to control and after some time they loses interest in the game.
- It was not something new to kids of that age.
- Failed in seeking attention for a longer duration.
- Sensitivity required in the play was not to their level.
- Analogy taken from video games doesn't work well.
- The products show Low fun value.
- The play area is restricted to a 2D surface only.
- Increases his capability to coordinate brain-hand movement.

Direction 3: Introduction of different material to increase the fun value.

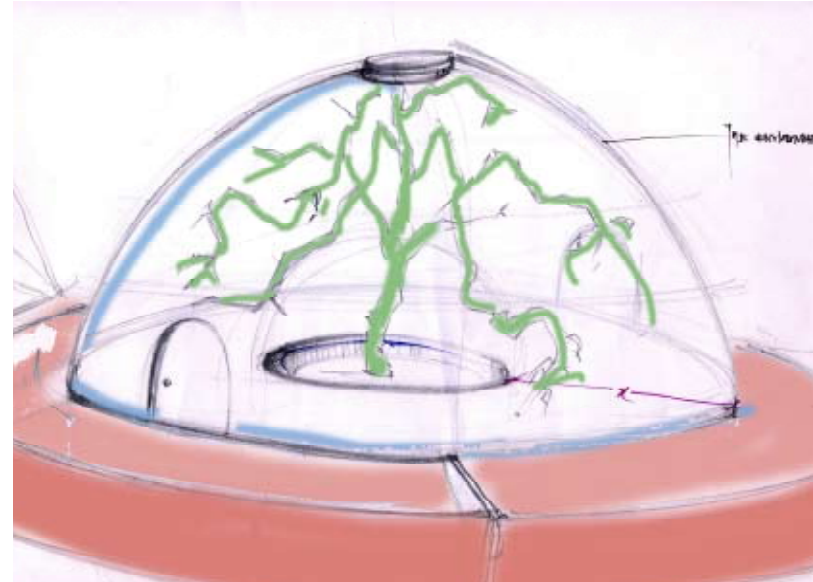


- The toy has a great fun value.
- It incorporates the theme of Indian stories.
- Visually it lacks Indian ness.
- Innovative concept.
- It's good in deploying strategies in 3D space.
- Help the kid in understanding the cause and effect relationship.
- Increases his capability to coordinate brain-hand movement.

Now reviewing all the requirements of the project, this particular concept had the maximum potential to fulfill all

(The basic requirements of the project:)

- ✓ Age group.... 7 and above ... psychology, major user audience, 7-11 The child demonstrates, reversibility, serial ordering, and a mature understanding of cause-and-effect relationships. Thinking at this stage is still concrete. Also 61% of games and toys are given to this age group.
- ✓ Market Issues ... High end quality product, Following new upcoming trends - eco-friendly, uniqueness, Standardization, Identity hold in international market, visual appeal matters a lot.
- ✓ Indoor toy/ game ... India is contributing near to 0% in this particular area...thus it can open up new realms...

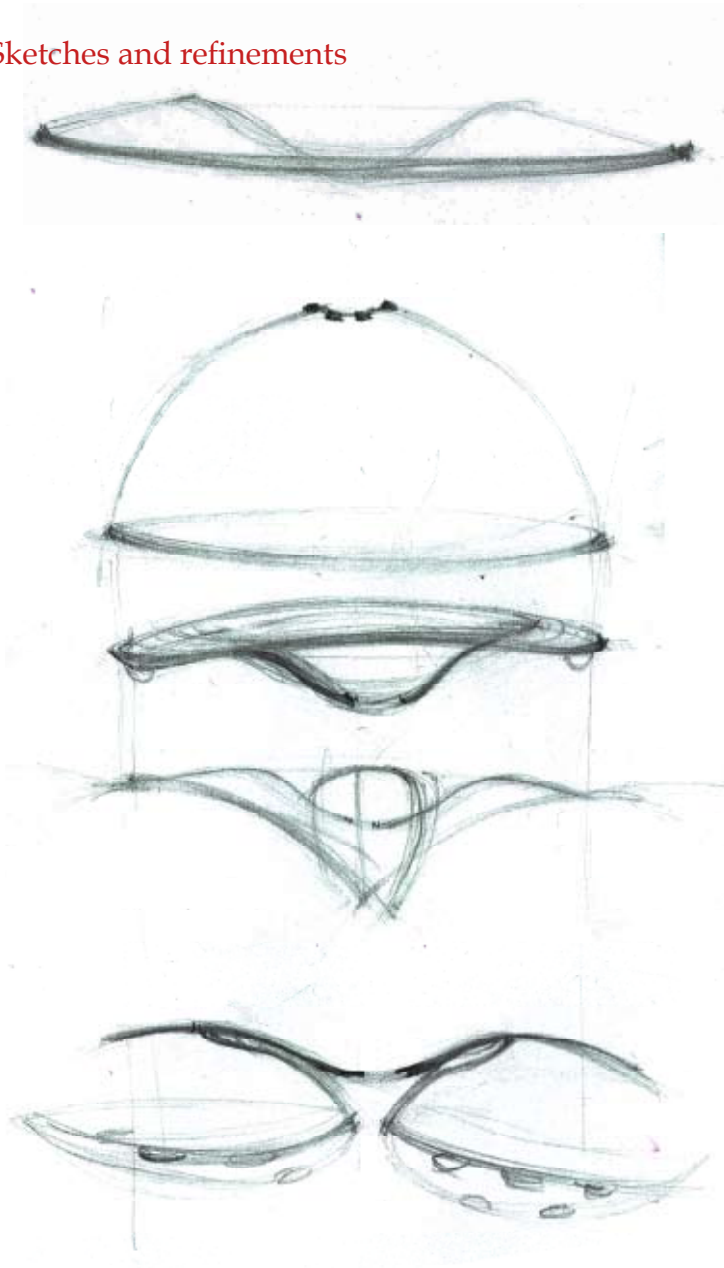


- The above game is developed through a way of Indian story telling using a toy.
- It enhances the capability of hand-brain coordination.
- It is not like just reading a book or just playing with a toy but both the things are happening simultaneously.
- The game has a great fun value along with a lot of patience and concentration.
- Though it is totally a new concept but has taken values and the way of depicting from our culture, which is totally getting lost in the midst of globalize products.
- It can not only help to rejuvenate the learning of our culture but also create interest in kids to know more about these vanishing stories and their values.
- It's good in deploying strategies in 3D space.
- Help the kid in understanding the cause and effect relationship.
- The toy has a great-added fun value because of the use of magnets.

Thus refining the concept and Taking inputs from other concepts is the next task.....

8. Final concept Development

8.1 Sketches and refinements



Further refinements were done, keeping in mind the Indian way of association:

Now the next task was to complete the story, like two situations will arise at the end of every play:

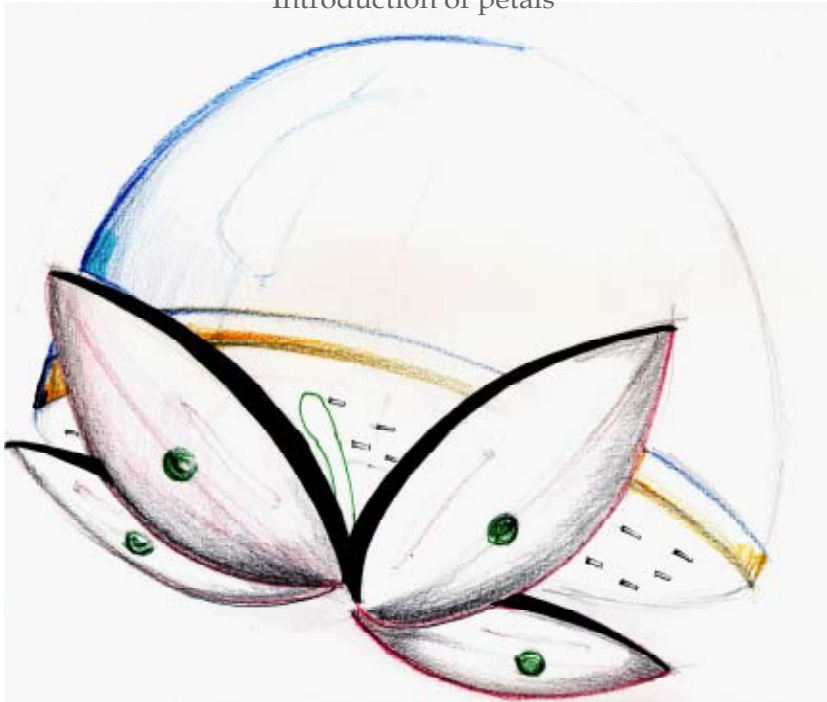
- The monkey falls down and is not able to collect all the fruits, and then there has to be a way to get it out, secondly
- How to put back the magnets for the next play?

Now to address these two problems, a concept has to be applied which can give the closing and opening of the globe. Other than this other functions which needs to be incorporated are as follows:

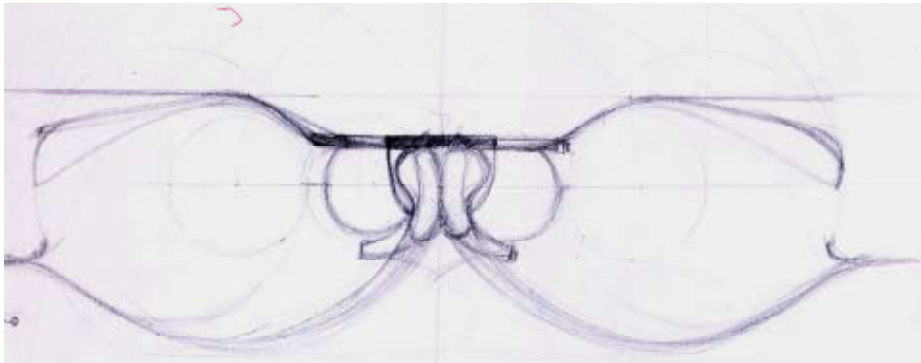
1. Need a little height to play so that it comes to the eye level of the child.
2. The toy should easily be handled i.e. lightweight and should provide easy rotation.
3. It should have a mechanism, which can provide access to the magnetic fruits back once first chance of play is over.
4. While the fruits are getting inserted, to keep the element of surprise to increase the play value, the part of tree should be hidden so that the child remains unaware of where the fruits will stick.



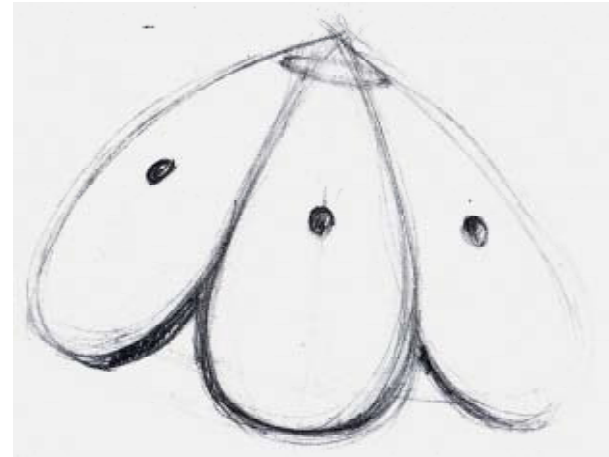
Concept refinements:
introduction of petals



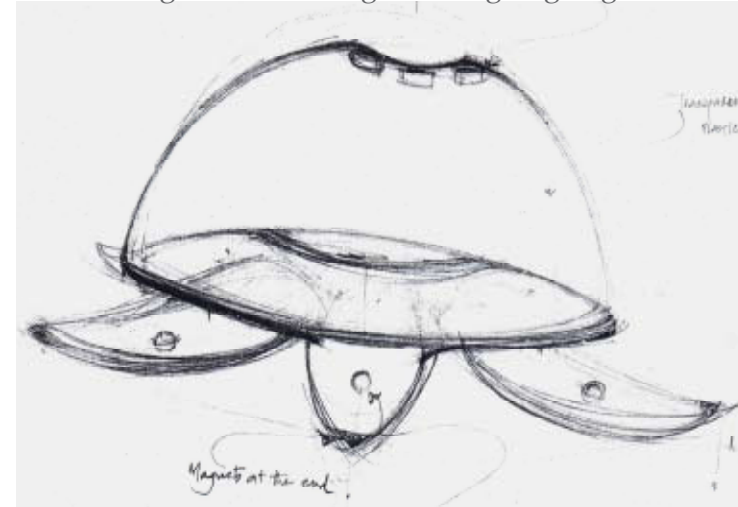
The toy in the form of a flower, adding the surprise and fun value.



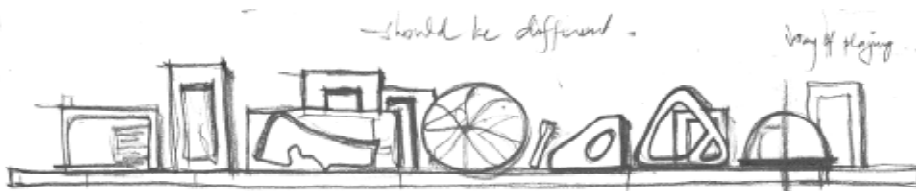
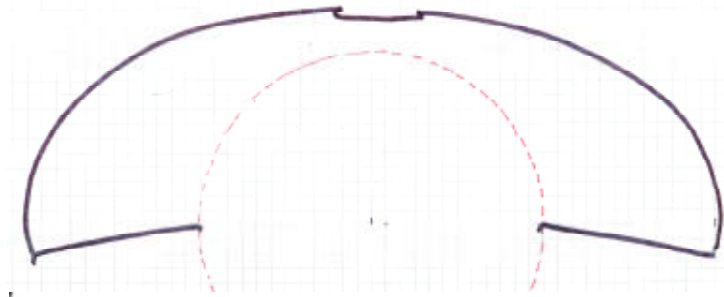
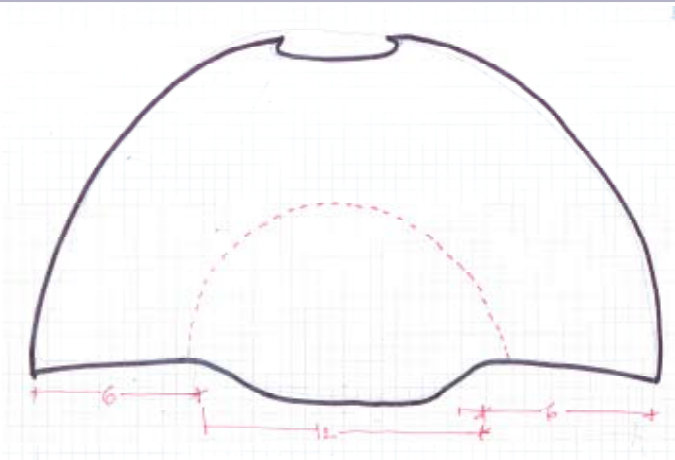
Section of Petals as a stand which gives height to the toy



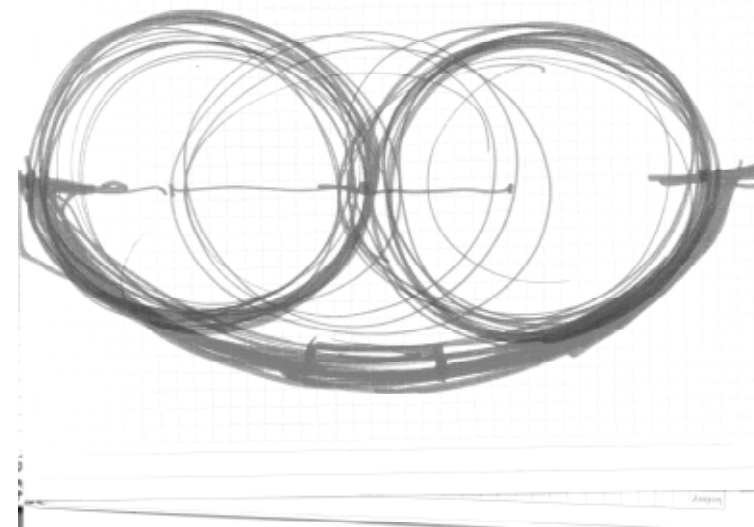
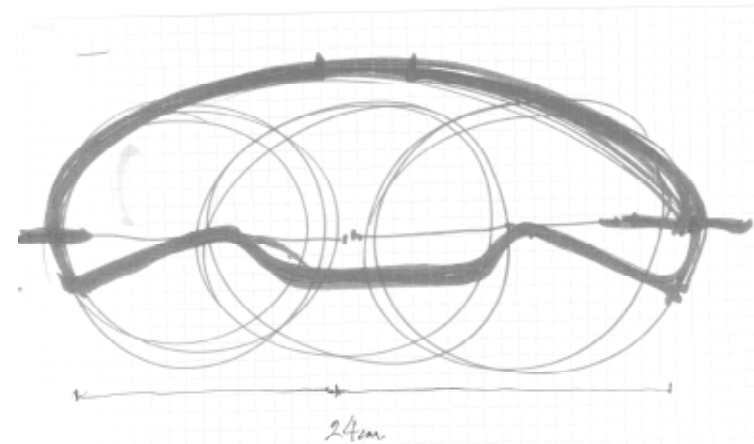
When the petals are closed, the globe is hidden and becomes interesting to insert the magnetic fruits from the back without knowing where the magnets are going to get attach.



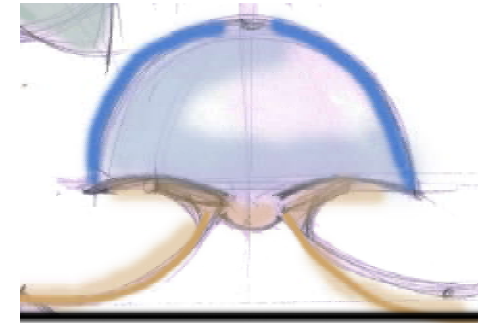
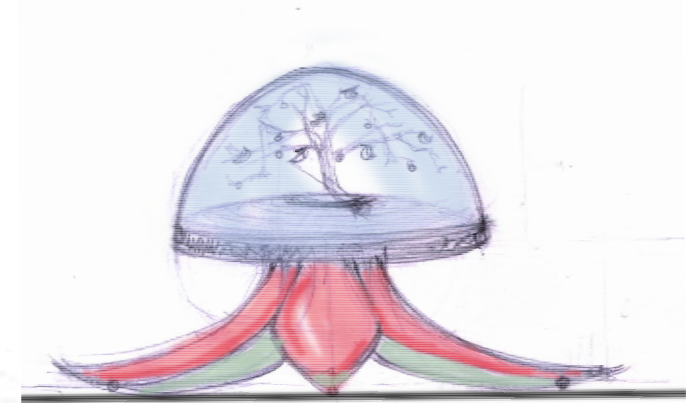
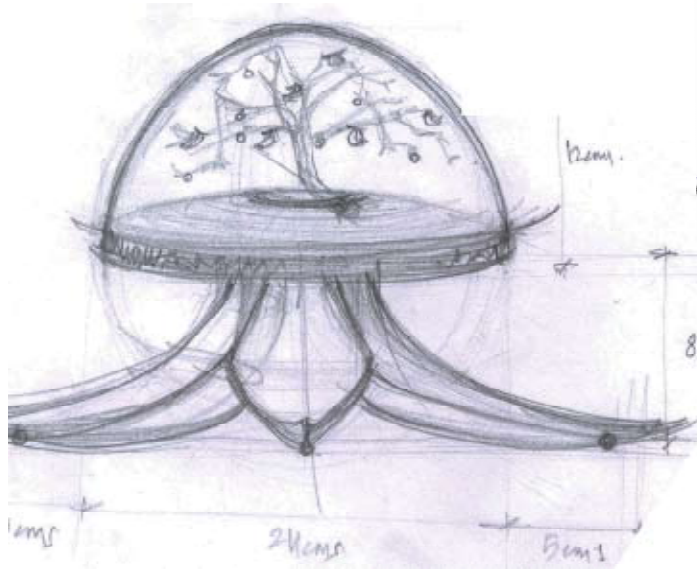
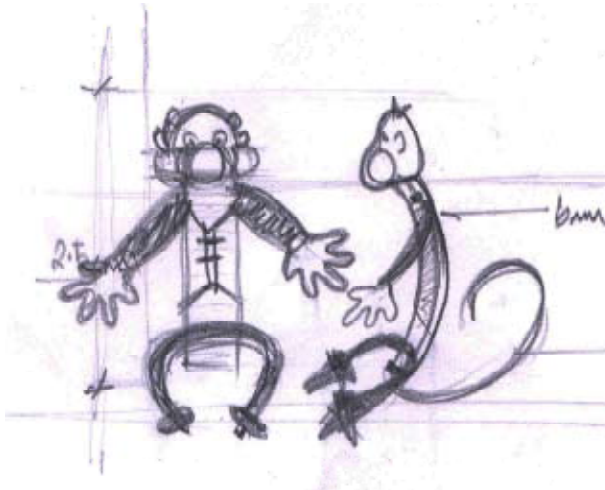
So taking the Indian way of creating meanings a new arrangement of Flower petals were introduced:
It hides the globe while the petals are closed and provide an access to insert magnetic fruits.
When in an open position, it provides height to the toy.
Also it can provide a way to rotate around, making it easier for the kid to play the game.



Further, Understanding the way magnets work, the various magnets of different powers were studied, and finally the overall shape of the Globe was finalized which can address to the distance of attraction for the above toy.

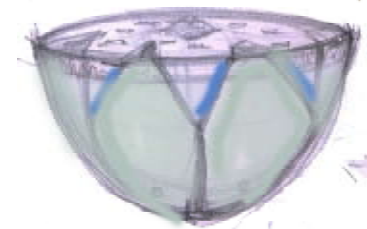
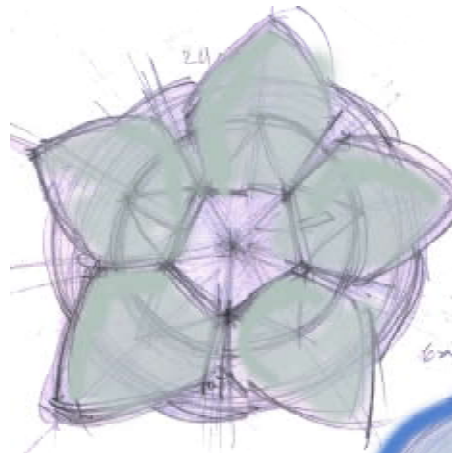


Further refining it more,
The exact dimensions of the toy and the mechanical details were worked out:



Details of characters:

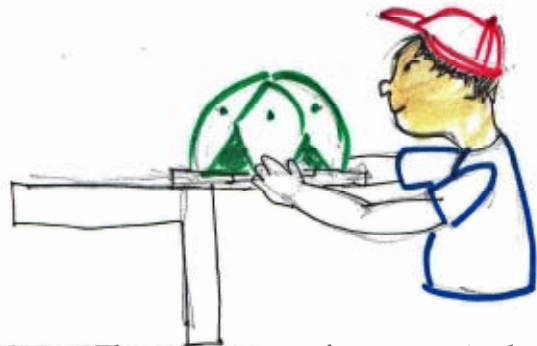
To keep the beauty of Indian craft, it was decided to create these characters hand crafted with the use of Bamboo and thread. And then painting it with eco-friendly colours.



8.2 Product scenario



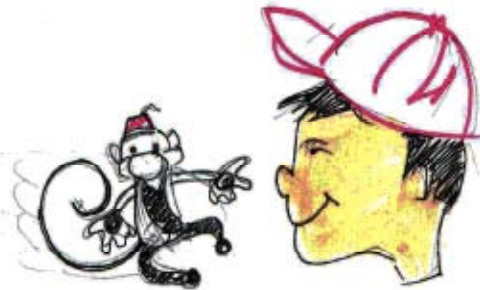
1. Parents and kids both are happy to buy not only a learning story book but also in a form of a toy



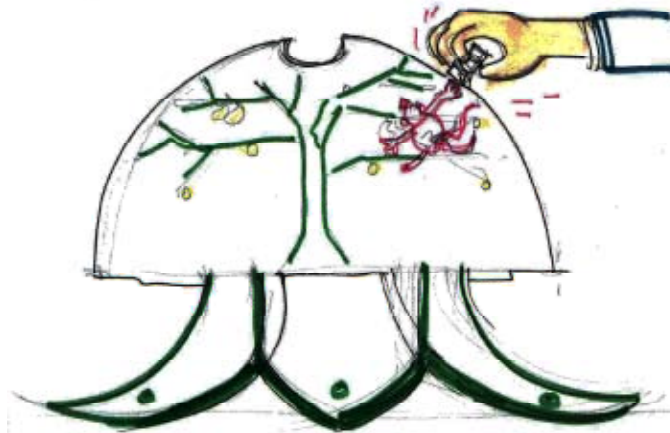
2. There is a sense of suspense in the first look, when the petals are closed.



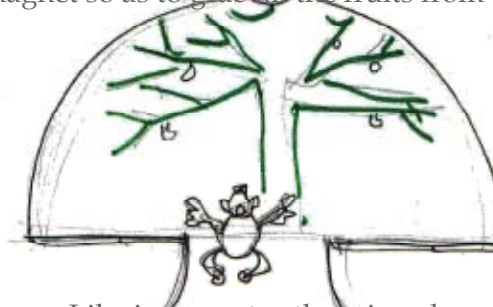
3. Once the petals open up, the environment is revealed.



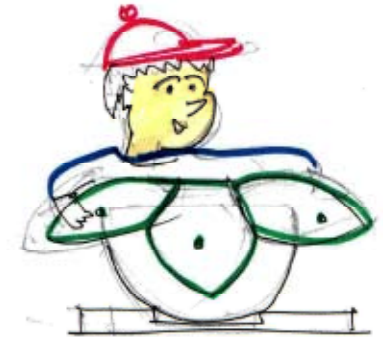
4. Now, the hand made characters are look upon



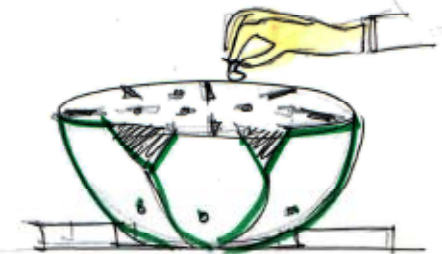
5. Monkey is inserted and controlled through a magnet so as to grab all the fruits from the tree



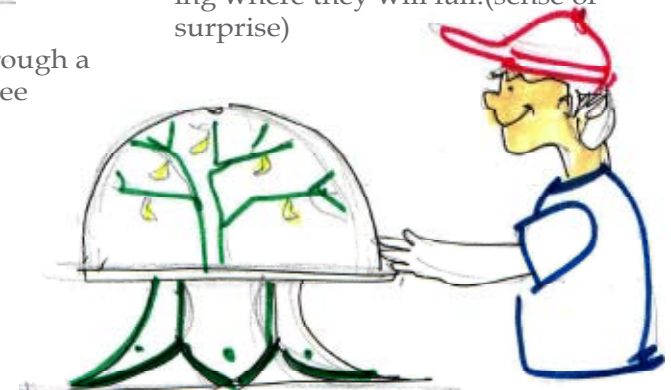
6. Like in every toy, there is a chance of failure during the play, The monkey can also fall into the pond (as to follow the story).



7. To take the monkey and the attached fruits out, the toy will be turned around,



8. Now the magnetic fruits will be reinserted, without knowing where they will fall. (sense of surprise)



9. Again turning it round the petals open up and a new fresh environment is ready to play with.

The overall concept portray the idea of presenting out our valuable moral stories of India in a very playful manner. Thus giving these small kids an opportunity to play and know about these stories simultaneously, rather than just reading story books, which may seem a little boring and tedious to some of the kids.

Also the smaller kids can view their elders playing the game and love to see the beautiful magnetic properties that can further give them a sense of surprises.



8.2 Renderings and details



when the petals are closed:
It is now ready to open up and start a new fresh
chance of play



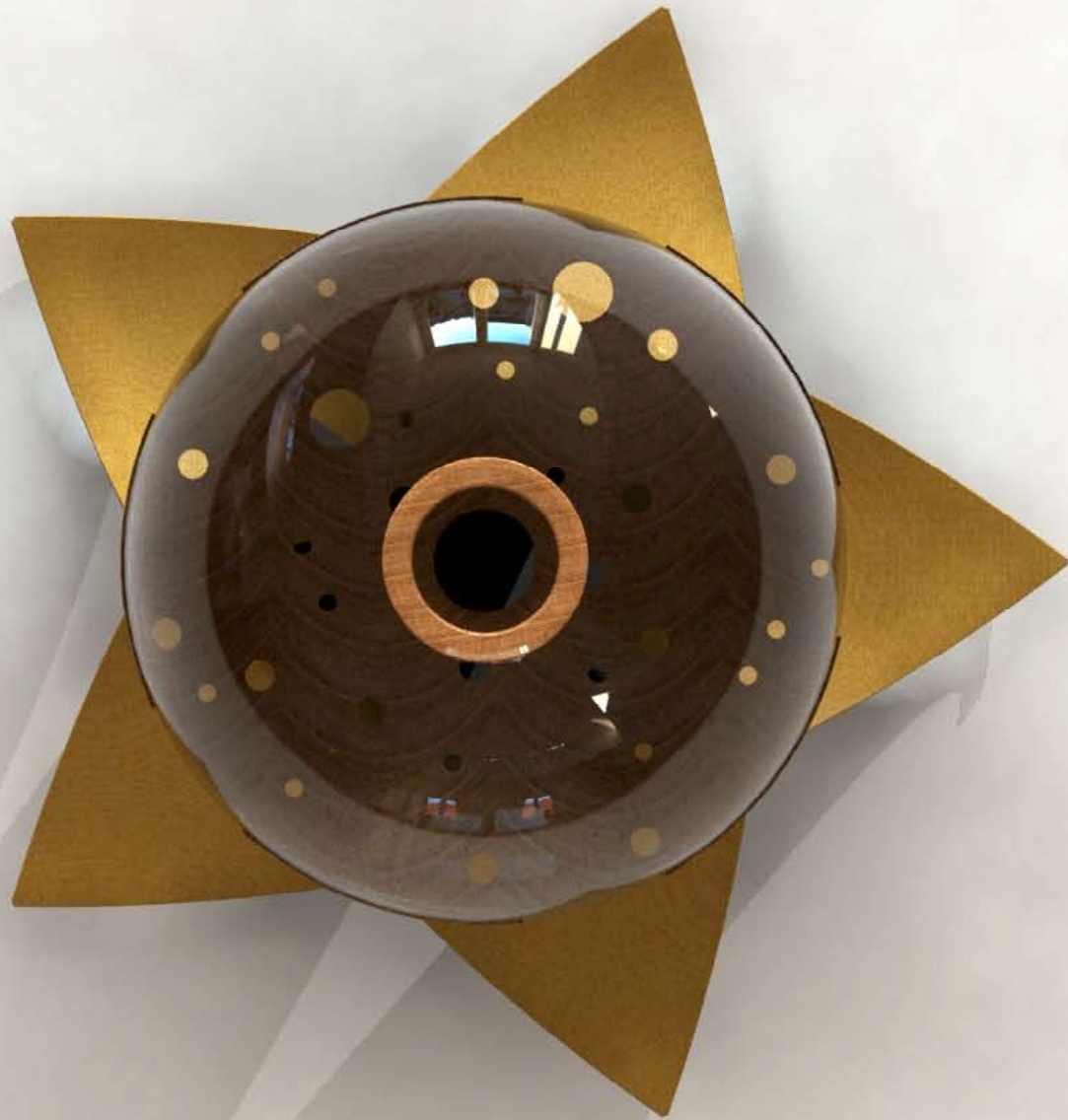
when the petals are open:
the environment is visible, and the height of the toy pro-
vides the child to play it in a better manner.



Front



Perspective



top view

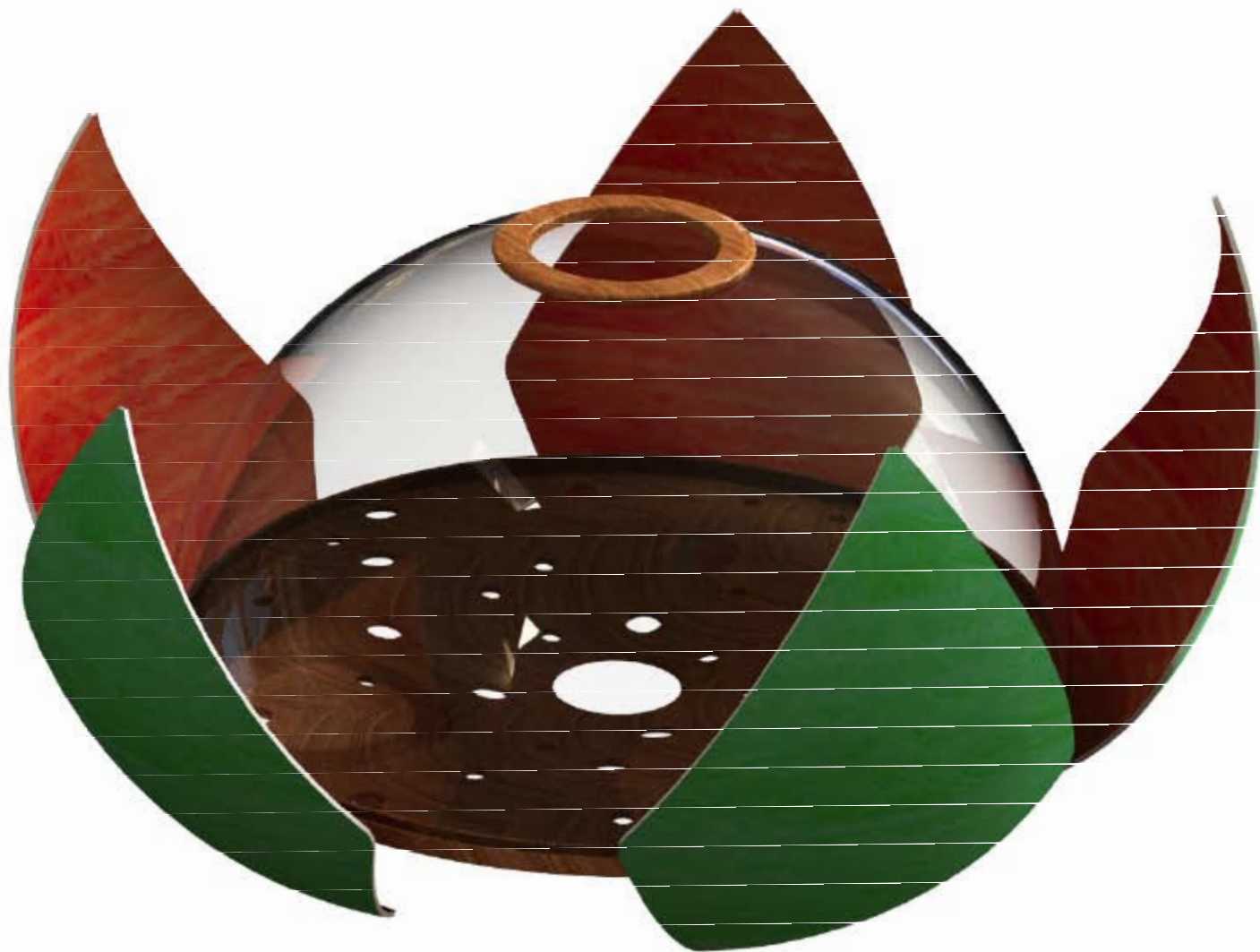
Process of opening the toy



Trying out with various colour range: the colours used are moreover primary colours



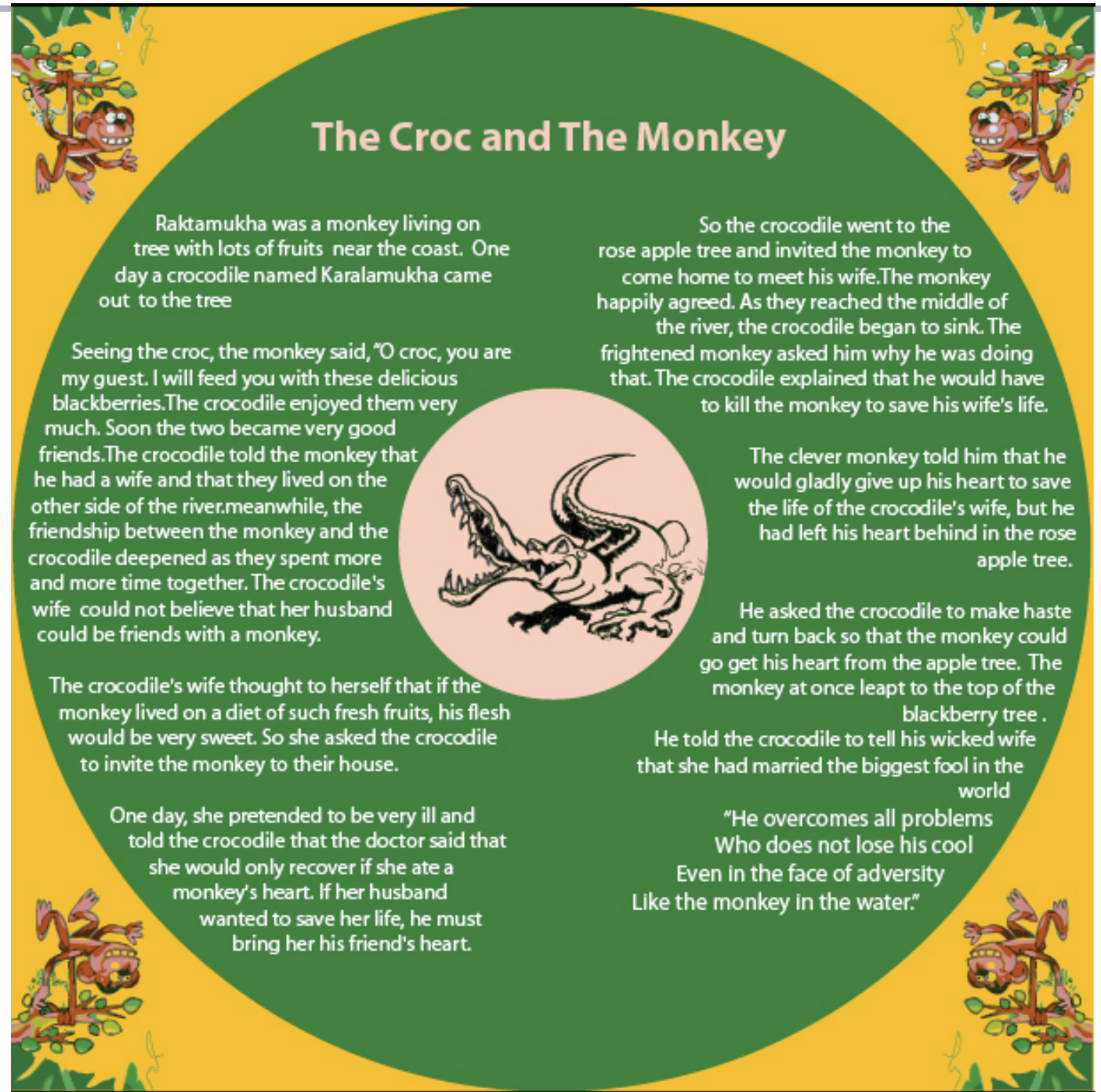




8.4 Graphics and packaging

The Base


- Design of the base where the toy will be kept and played
- The center has an image of magnetic crocodile, where the monkey will fall.
- The corners are there to place the monkeys and the fruits at one place when the toy is kept back.
- The Idea behind these graphics is to provide the base of this famous story, where the child can read and understand the morals along with an interesting game to play with.



The Croc and The Monkey

Raktamukha was a monkey living on tree with lots of fruits near the coast. One day a crocodile named Karalamukha came out to the tree

Seeing the croc, the monkey said, "O croc, you are my guest. I will feed you with these delicious blackberries. The crocodile enjoyed them very much. Soon the two became very good friends. The crocodile told the monkey that he had a wife and that they lived on the other side of the river. Meanwhile, the friendship between the monkey and the crocodile deepened as they spent more and more time together. The crocodile's wife could not believe that her husband could be friends with a monkey.



The crocodile's wife thought to herself that if the monkey lived on a diet of such fresh fruits, his flesh would be very sweet. So she asked the crocodile to invite the monkey to their house.

One day, she pretended to be very ill and told the crocodile that the doctor said that she would only recover if she ate a monkey's heart. If her husband wanted to save her life, he must bring her his friend's heart.

So the crocodile went to the rose apple tree and invited the monkey to come home to meet his wife. The monkey happily agreed. As they reached the middle of the river, the crocodile began to sink. The frightened monkey asked him why he was doing that. The crocodile explained that he would have to kill the monkey to save his wife's life.

The clever monkey told him that he would gladly give up his heart to save the life of the crocodile's wife, but he had left his heart behind in the rose apple tree.

He asked the crocodile to make haste and turn back so that the monkey could go get his heart from the apple tree. The monkey at once leapt to the top of the blackberry tree.

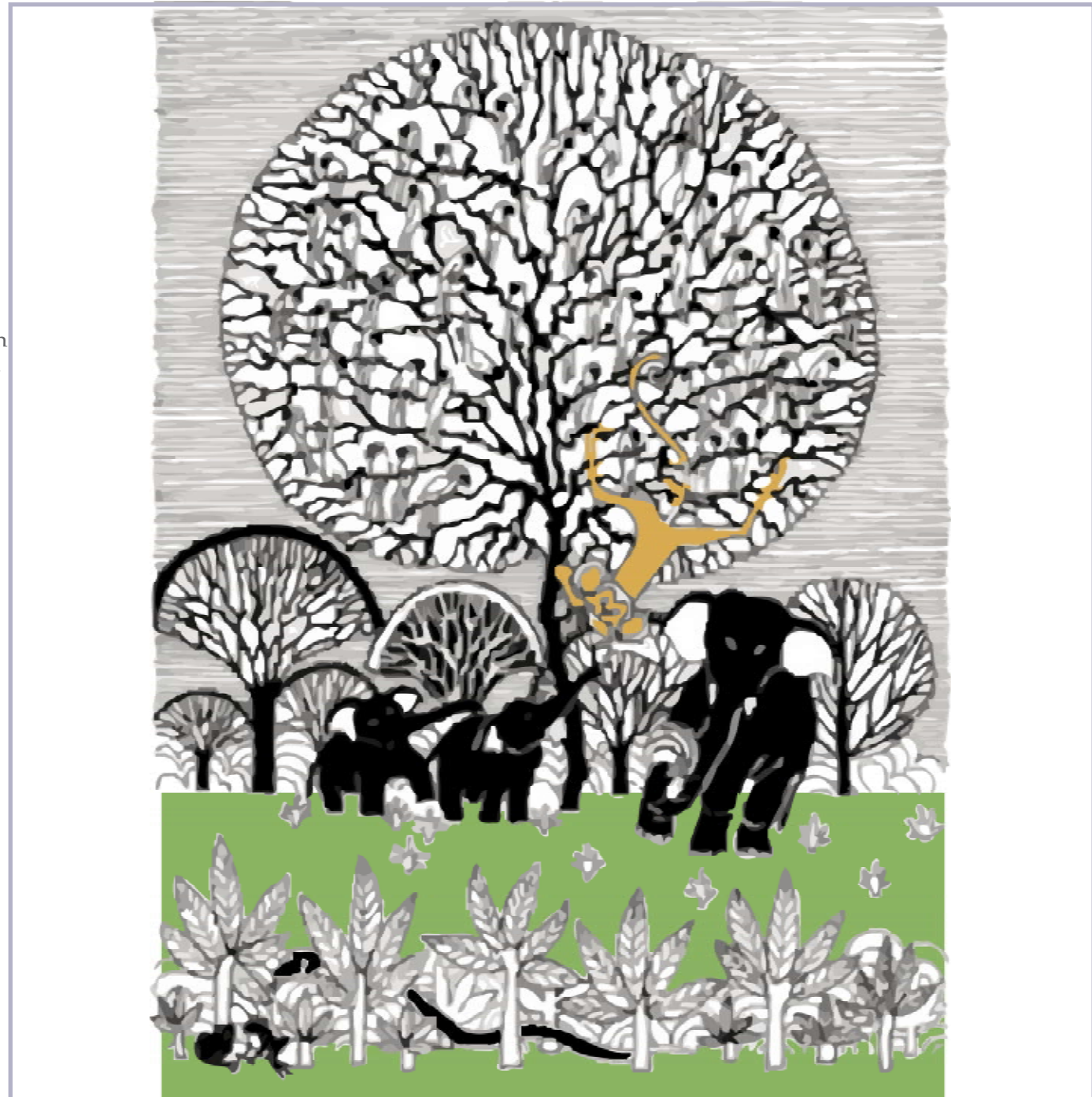
He told the crocodile to tell his wicked wife that she had married the biggest fool in the world

"He overcomes all problems
Who does not lose his cool
Even in the face of adversity
Like the monkey in the water."

packaging:

Graphics on the top leaf of the box:

Keeping the export transportation in mind, the overall shape of the packaging box is kept as a box. But the graphics can be so made that it can grab attention of the buyers in the first go.



Graphics and the details at the side
leaves of the box.



keeping the story in mind, the graphics were designed to showcase the characters and the elements. Further it was decided where to use the transparent packing and where to hide the toy to create the emotion of surprise.

10. CONCLUSION.

During the course of this project every effort was taken to design toys that can depict and give an introduction of the Indian culture to the outer world. Through this product, the aim is to create a niche in the International market by producing a different identity.

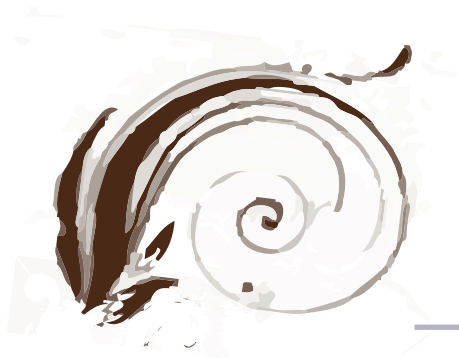
The project was considered as a whole, with due consideration given to the context of international market standards, the play value, depicting the way of our Indian thinking and how we associate things to different meanings, the method of manufacture and the visual aesthetics.

Every effort was taken to ensure that the products designed are moreover eco-friendly.

As far as the future scope of this project, most of the technologies and material used are already available and should not pose a problem in the future development of this project. As a future extension, similar stories can be used to depict using the same principle.

It is thus to keep in mind, that the final product so designed, not only give values like a story book but also involve the child to learn these morals in a play environment.

Thus focusing on specific areas of Indoor toys for children 7 yrs and above with a newer concept thus can create a niche in the market and thus possess potential to create avenues and recognition as a whole.





This toy is developed through a way of Indian story telling.

It enhances the capability of hand-brain co-ordination.

It requires lot of patience and concentration along with a great fun value.

It does not only rejuvenate the learning from our culture but also creates interests among kids to know more about these vanishing Indian moral givingstories and their values. Help the kid in understanding the cause and effect relationship.

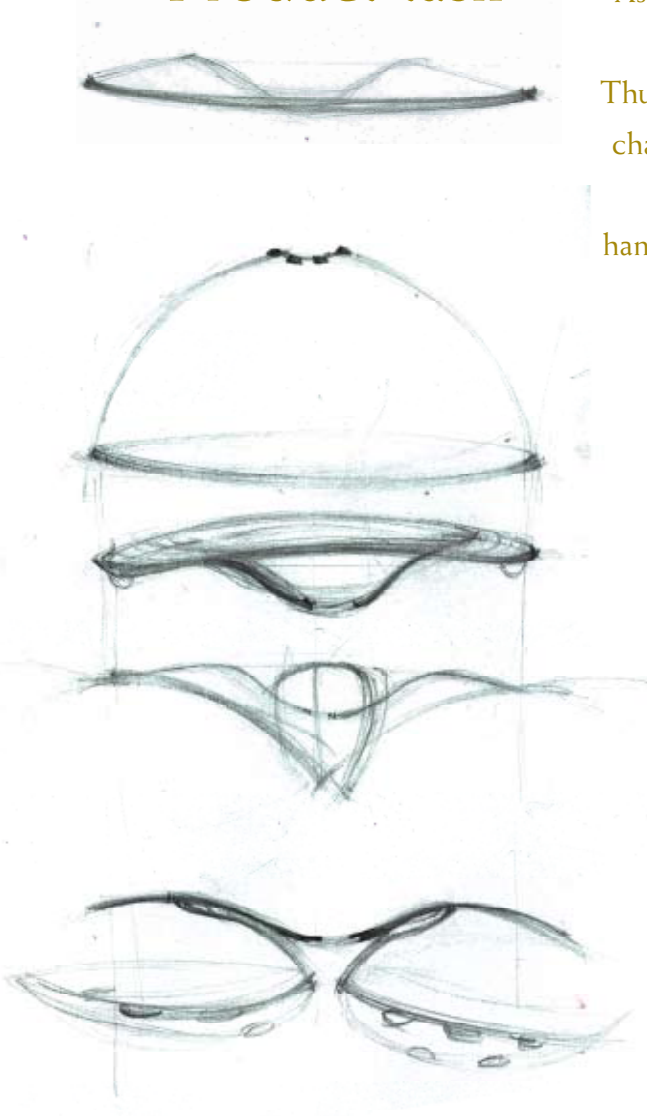


Indian Toys for International Market

Product task



Analogy of opening flower : showing the day and night of the events



As per the story goes, the main characters of the story is a monkey and a crocodile.

The environment is of a jungle and the controls are of magnets. Thus to create the environment of a jungle, a half transparent sphere was taken. The character of monkey with a magnetic hand is inserted into the jungle. So the child's task becomes to control the monkey through the other set of magnet in his own hand. Now the monkey has to grab all the magnetic fruits of the tree without falling down in the pond, which has a crocodile.



Indian Toys for International Market

Indian Toys for International Market

Various elements of the toy



Iron branches with magnetic fruits.



Packaging

Colourful hand painted monkeys made out of bamboo with magnetic hand

Magical bamboo stick with magnets within



Base with the famous printed story of croc and the monkey (taken from Panchatantra).

Holes at the back of the toy to insert magnetic fruits. Supporting petals are made out of laminated bamboo



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