

# Lamps in Bamboo

Project 3

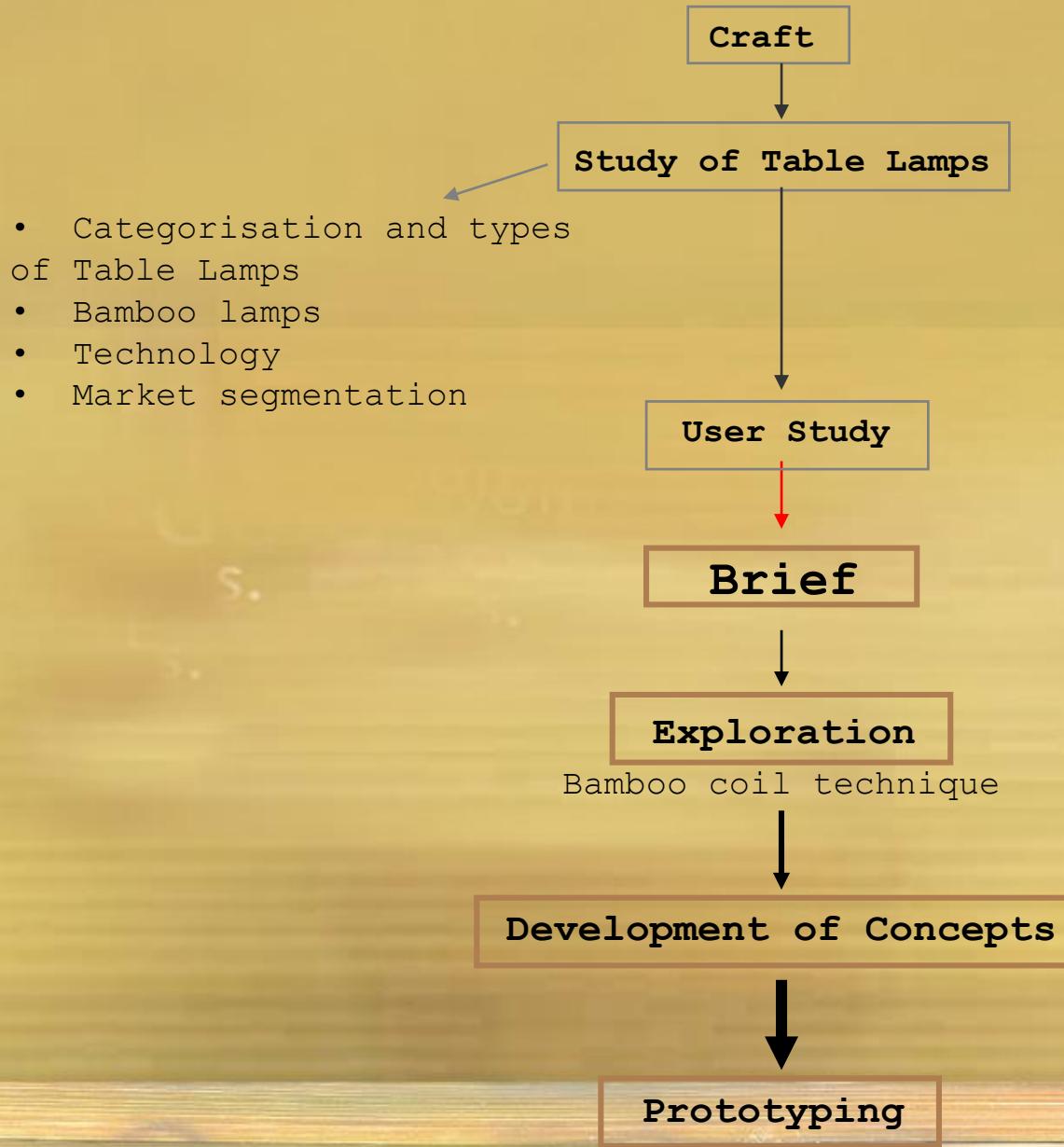
Guide: Prof. A. G. Rao

Kiran Kumaran

Industrial Design Centre  
IIT Bombay, 2005

## **Aim**

Repositioning of bamboo in Lamps in the present market scenario.



# Craft

## **The craft experience**

The value of the natural material.  
The richness.

The personal touch of the  
craftsman.

The social concern of using a  
sustainable natural material.



## The craft production

...Craft

Craftsmen and industrialization.

The ability to produce a variety in the same product.

Labour intensive setups.



## **Traditional Craft Discipline Vs Sustainable market dynamics**

### **The craft challenge and the design challenge**

Industrial production deriving elements from craft.

### **Competing the Industrial products**

- 1) Bamboo cultivation.
- 2) Harvesting/ Procurement.
- 3) Distribution of bamboo to craftsmen.
- 4) Production.
- 5) Marketing and distribution of final products.

# Craft and Order

...Craft

The Visual Order.

The Process Order.



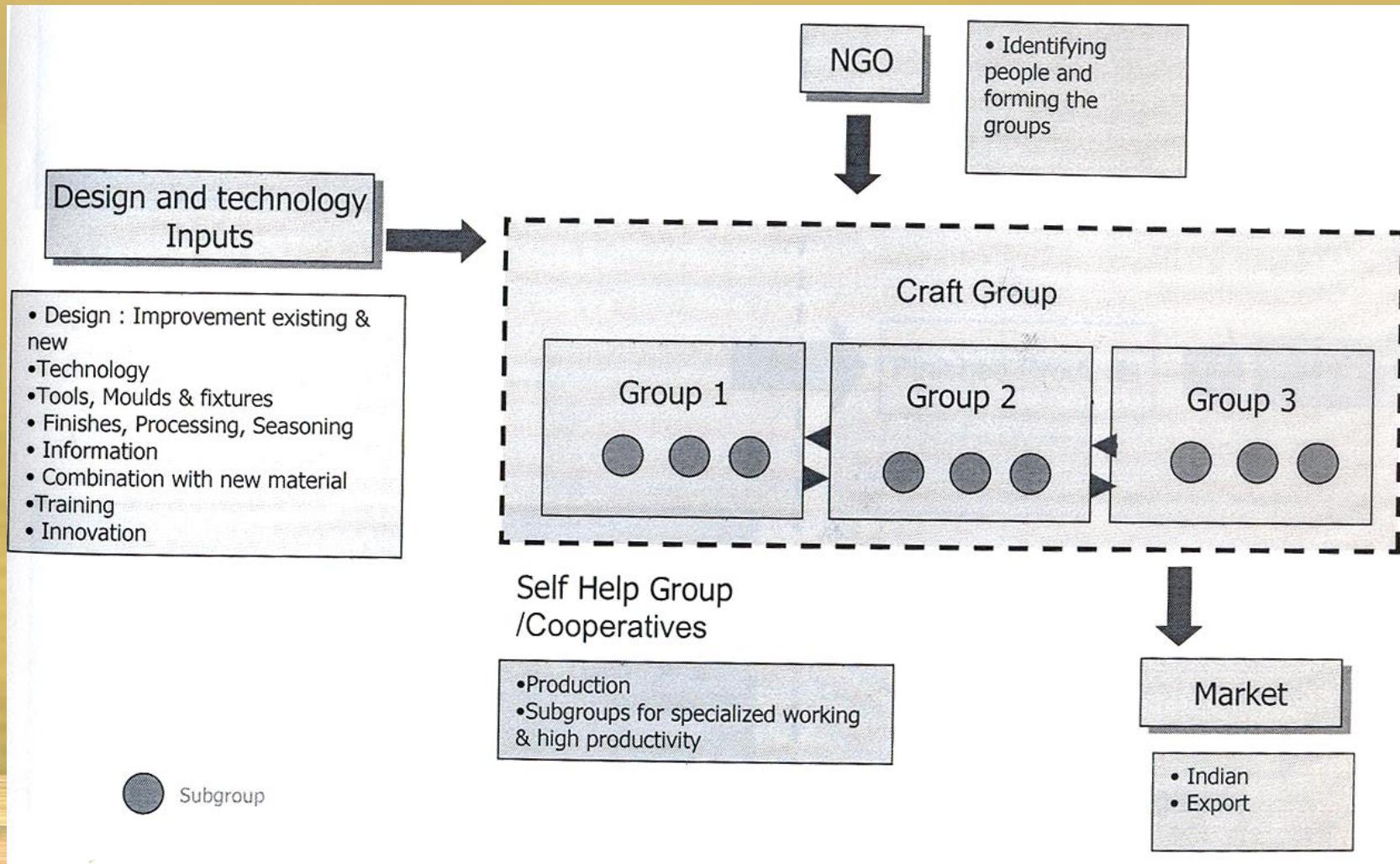
# Art Craft to Industrial Craft

...Craft



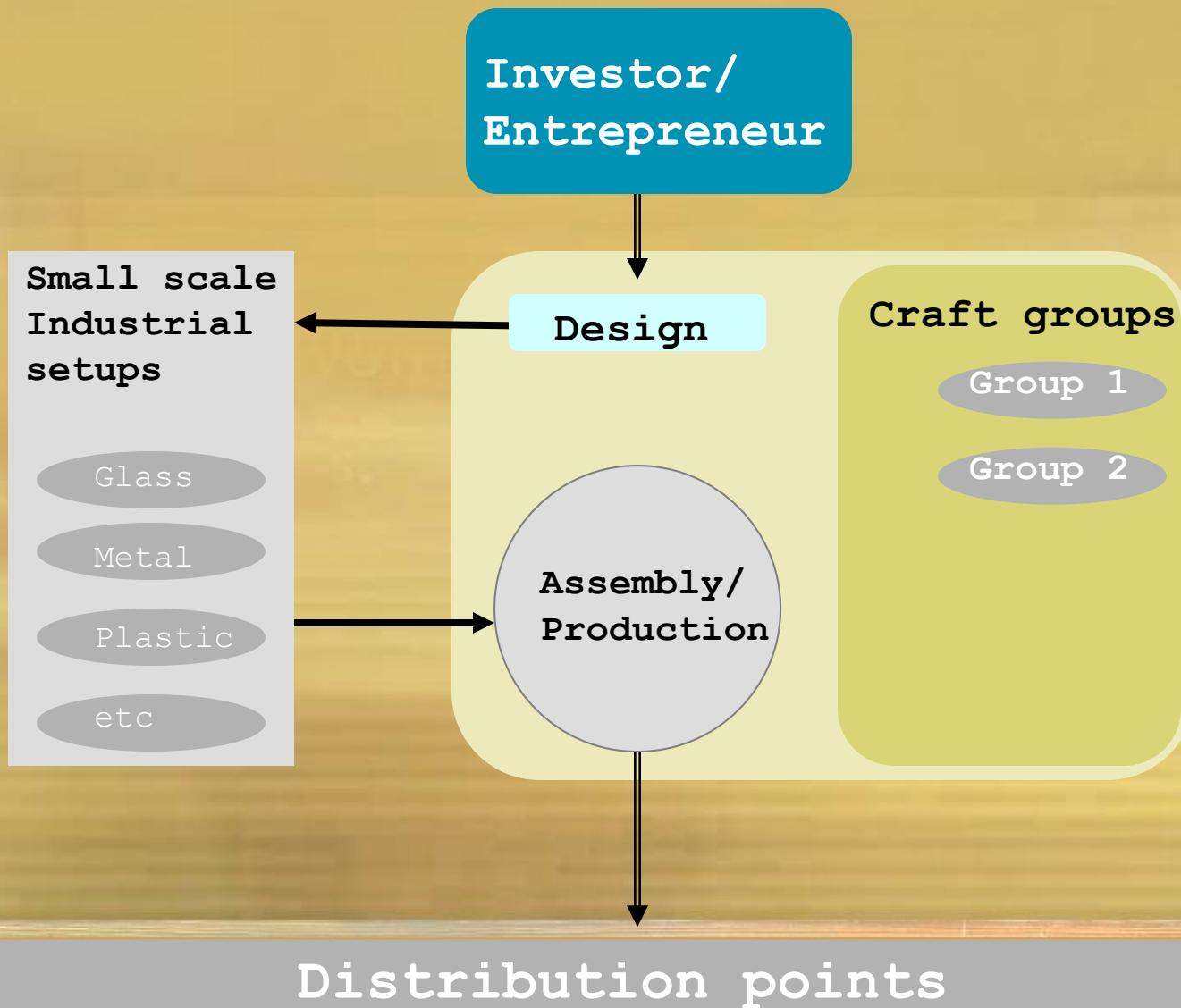
# The Craft Industry Models

...Craft



# The Entrepreneurship Model

...Craft



# Table Lamps

The Oriental lamps



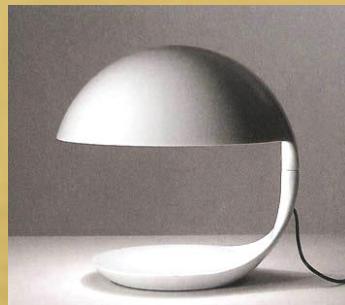
... Table Lamps

The illuminating Object



... Table Lamps

Simple sculptural lamps



... Table Lamps

Rotating shade lamps



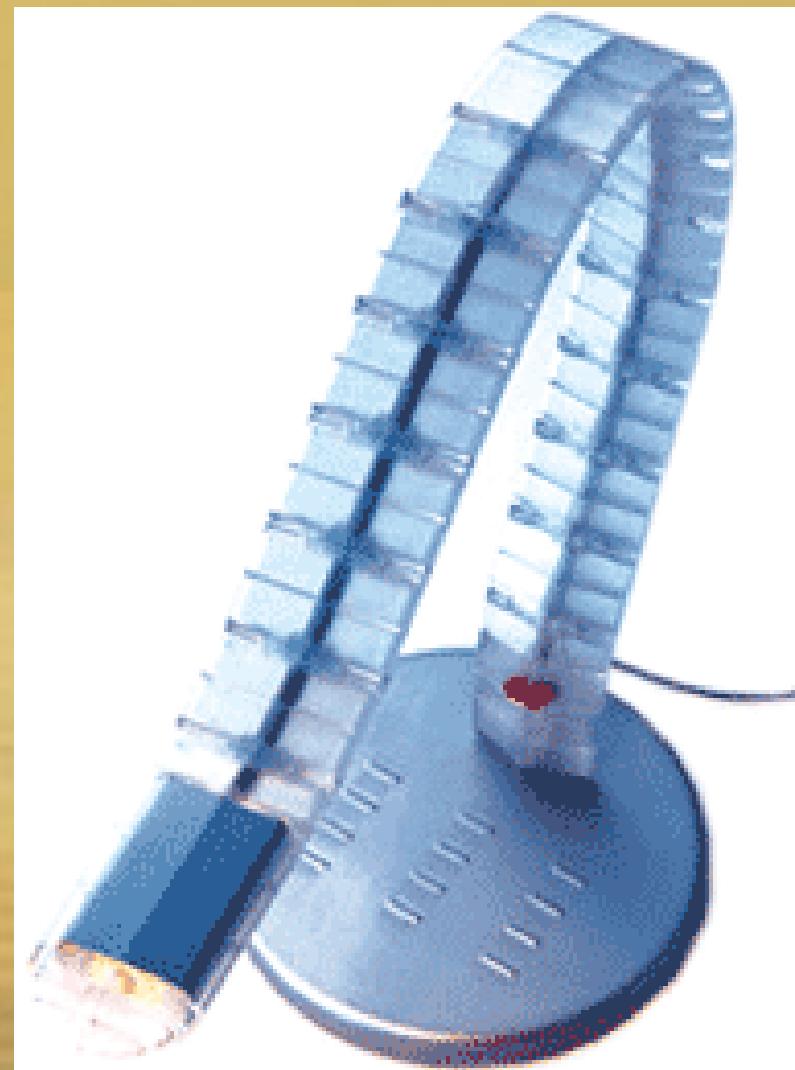
... Table Lamps

Tasks Lamps



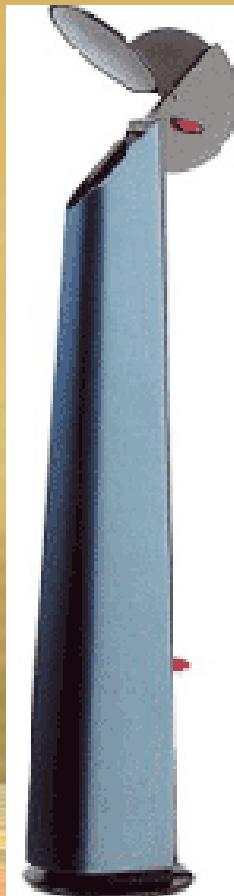
... Table Lamps

Function and beyond



... Table Lamps

Reflection lamps



... Table Lamps

Folding lamps



... Table Lamps

Flourascent tube lamps



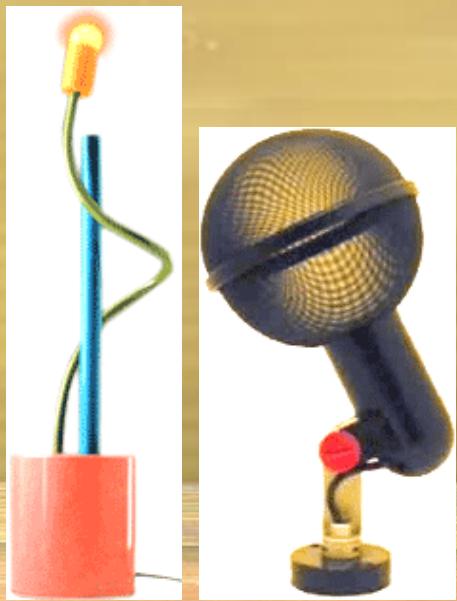
... Table Lamps

LED Lamps



... Table Lamps

Lamps as Expression

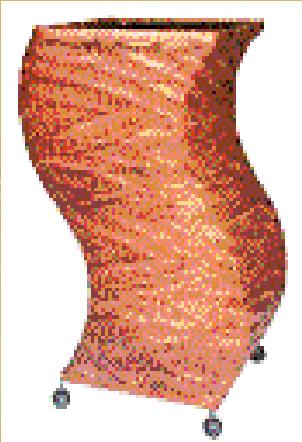
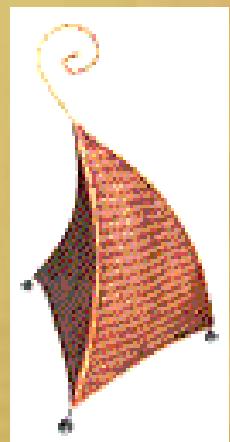


... Table Lamps

Art Lamps



# Bamboo lamps

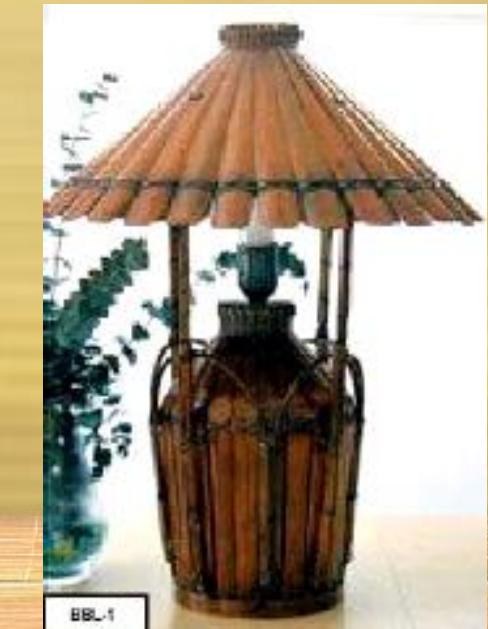


## ... Bamboo Lamps

Bamboo frames onto which bamboo mats or paper are fixed.

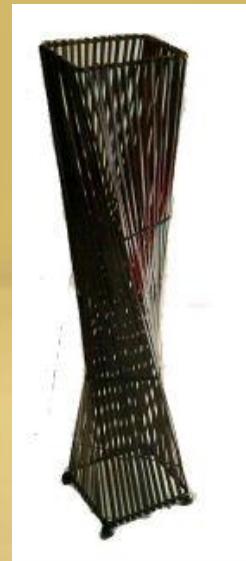


Bamboo splits which are either stuck or wound with cane.

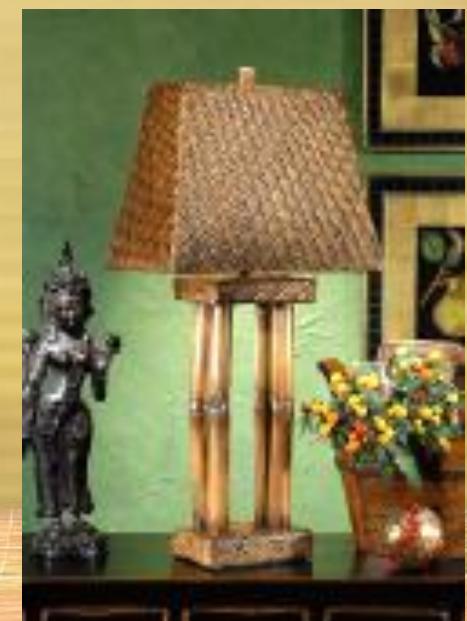
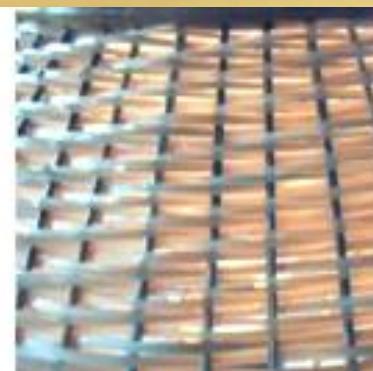


### ... Bamboo Lamps

Long bamboo strips are used.  
Interesting play of light due to  
gap in the strips.



Woven forms are very effective as  
lamp shades.  
Lightness and the way light  
percolates.



## ... Bamboo Lamps

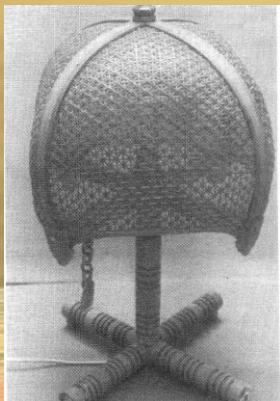
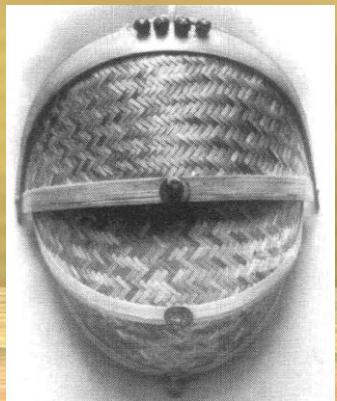
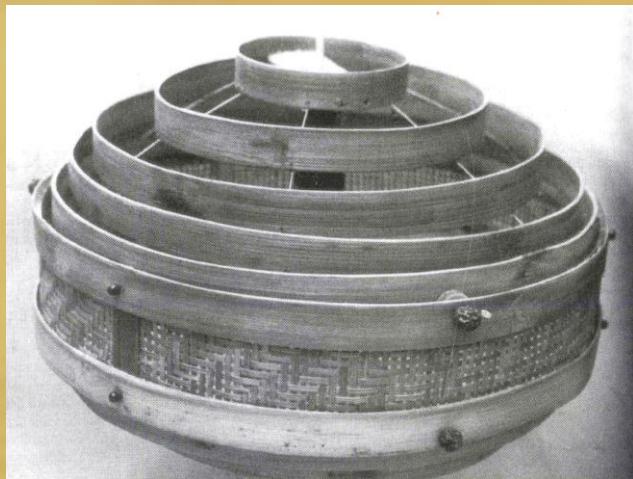
Raw bamboo, in combination with bamboo weaves.

Light percolated through the weaves in contrast to the raw structural bamboo.



## ... Bamboo Lamps

Combination of strips and weaves,  
creating interesting forms.



# Technology

Incandescent lamp

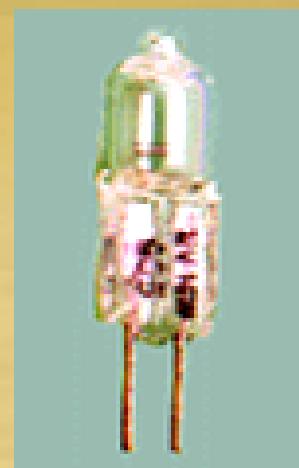
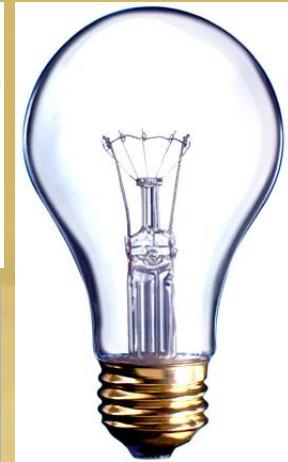
Halogen lamp

Compact Flourescent Lamp (CFL)

LED lamp

Electricals

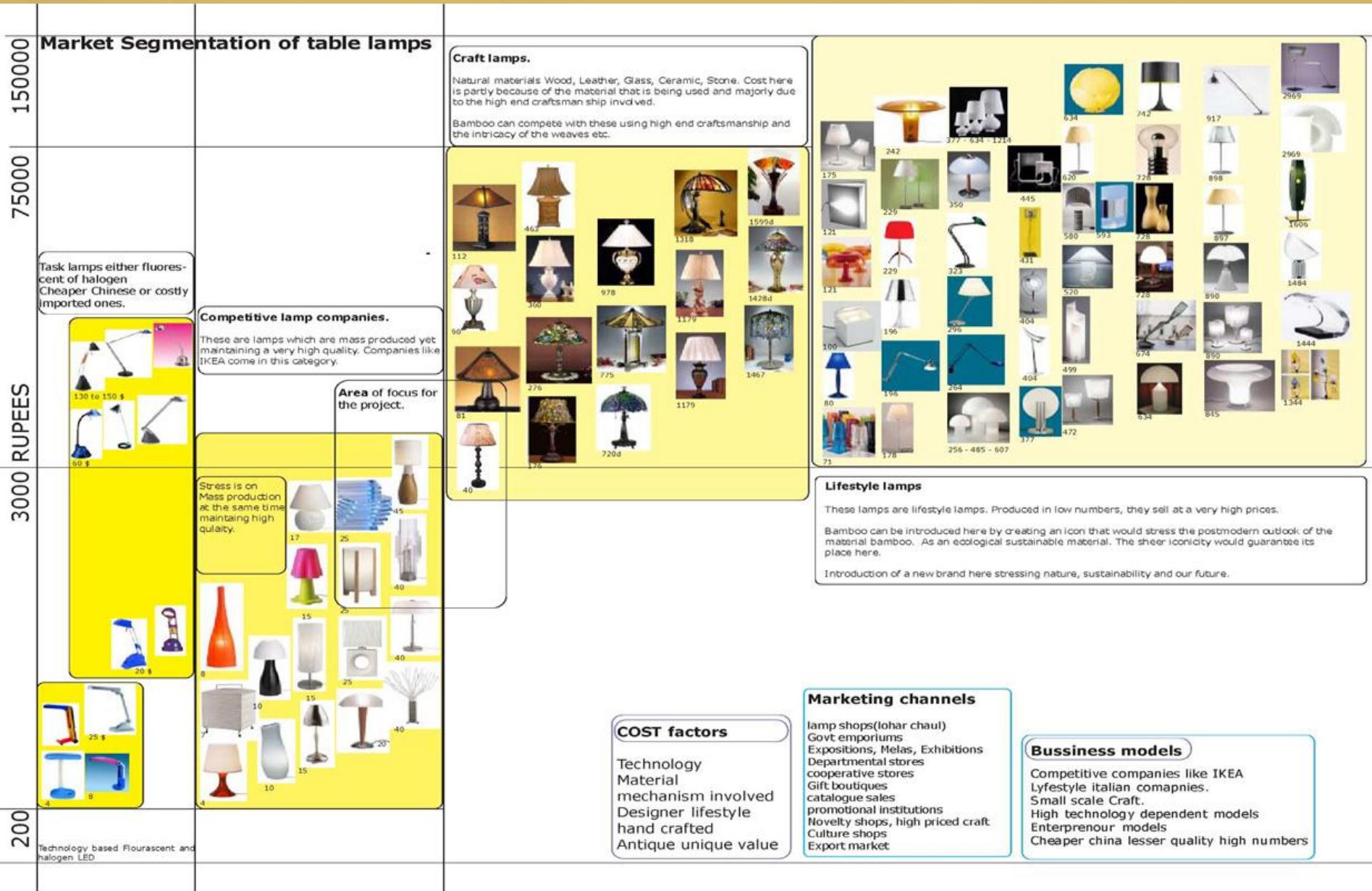
Switches ,Wire, Dimmer



Technology VS cost

Technology	Bulb	Holder	Extra	Total
Filament	12	6		18
Fluorescent	135 - 175	6	150	
12 volt Halogen	12	5	40- 100	
LED	7/piece		200 300	

# The Market Segments



# User Study

## Homes

Lamp enthusiast.

Aesthetics metal and leather.

Personally chosen it from  
Lohar Chaul

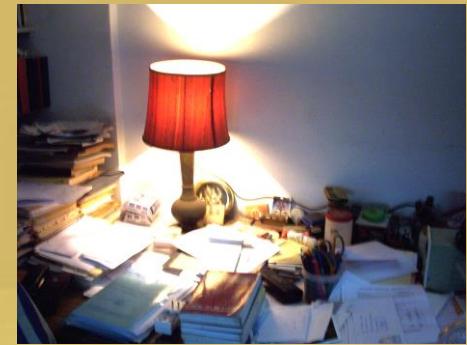


Specially for aesthetic value added to the room. Their own ways of using the lamp.



Study room

Though bulky doesn't occupy much  
space on the table.  
Not for effect, But for reading.



Craft enthusiasts





# Students

Use and Throw. cheap.  
Light. Portable.



## Hospitality

Lamps becomes a part of the décor of the room.  
It has to go with the theme and colour.

They buy lamps in lamps of similar design in large number.



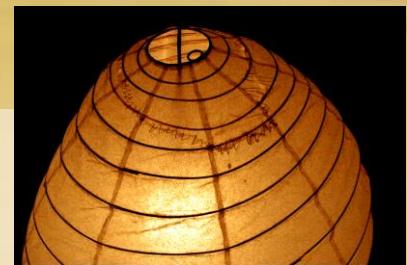
# 1

Task lights



# 2

Diffused Quality light



# 3

Diffused Quality light  
+ sufficient light for  
short hours of reading.



# 4

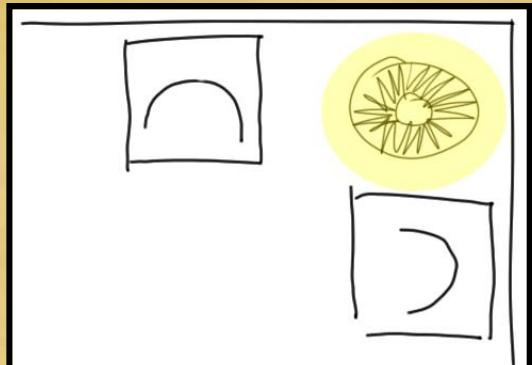
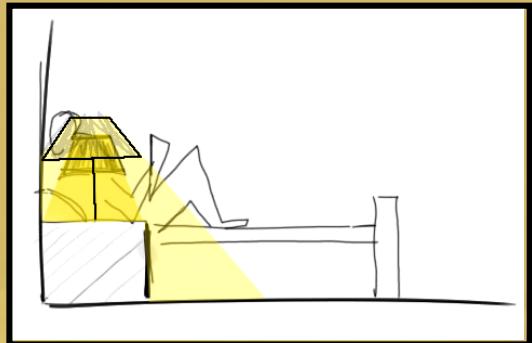
Display lamps



- 1) Bed side Lamps
- 2) Sitting room lamps
- 3) Study table lamps

Simple display lamps that purely stress on its form and aesthetics.

Project looks at display table lamps.



# Design Brief

Develop display table lamps in bamboo and combination material.

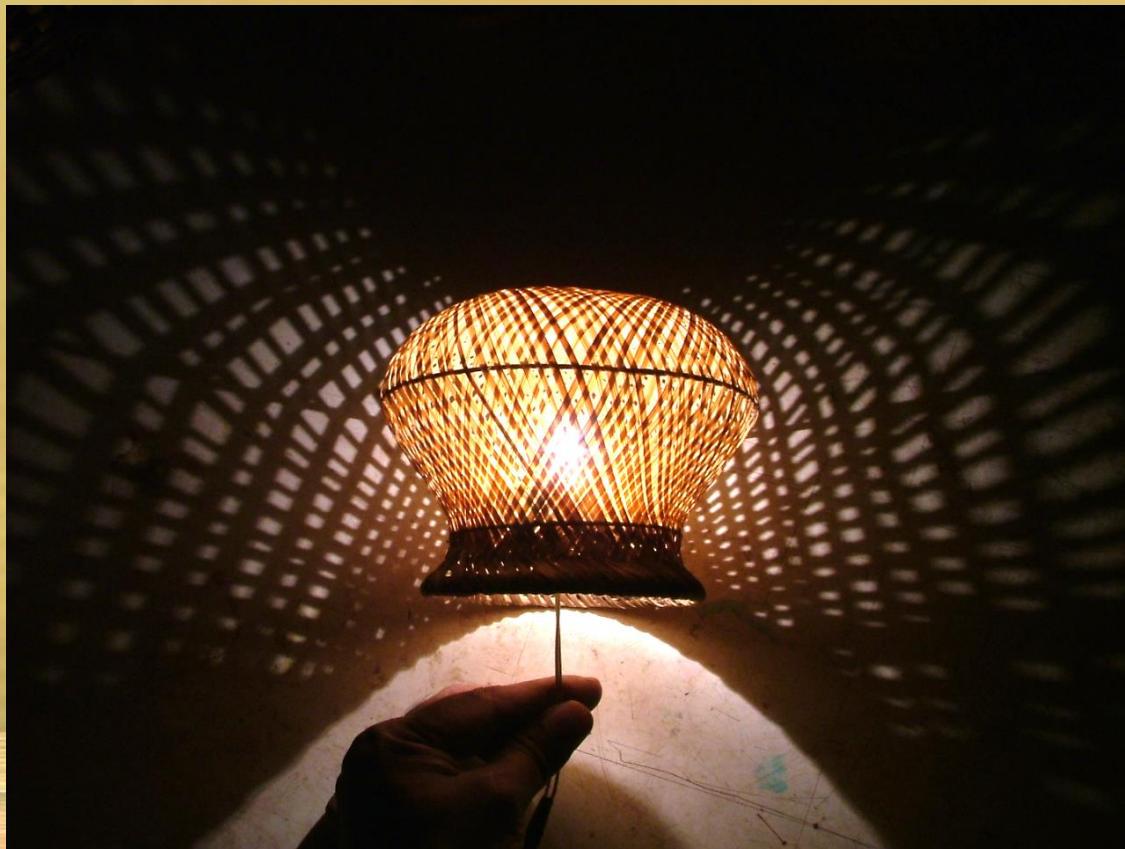
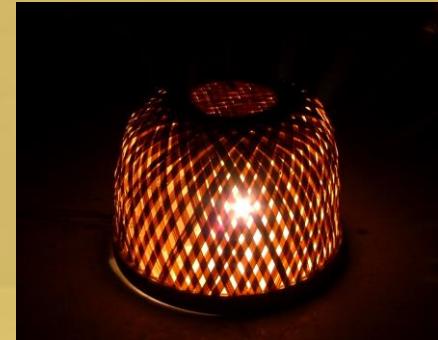
Industrially produced deriving elements from craft.

Competitive to contemporary lamps in aesthetics and in use.

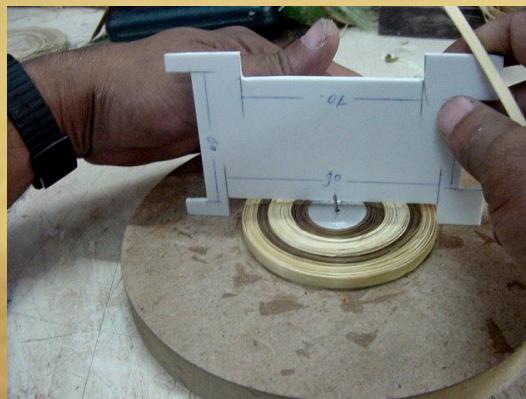
For sensitive upper middle class who are conscious of the bamboo as a sustainable material.



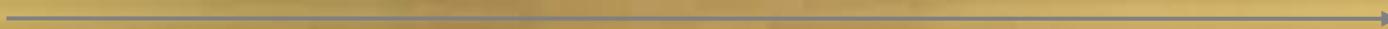
## Bamboo Weaves



## Bamboo Coil technique



5.



# Coil Technique

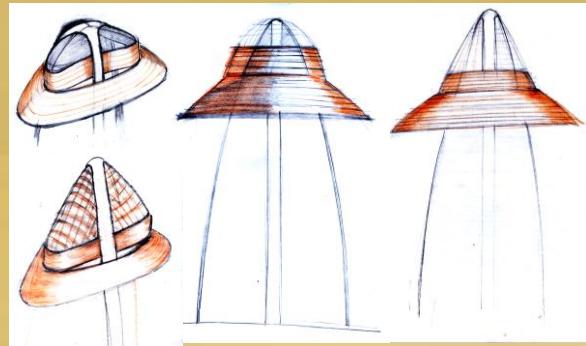
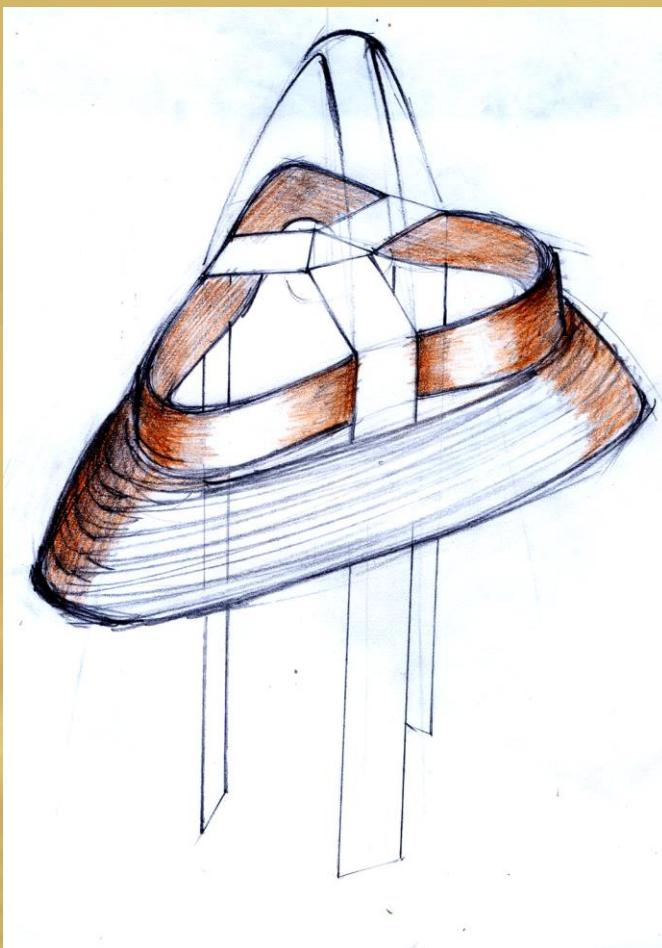


## Light and texture

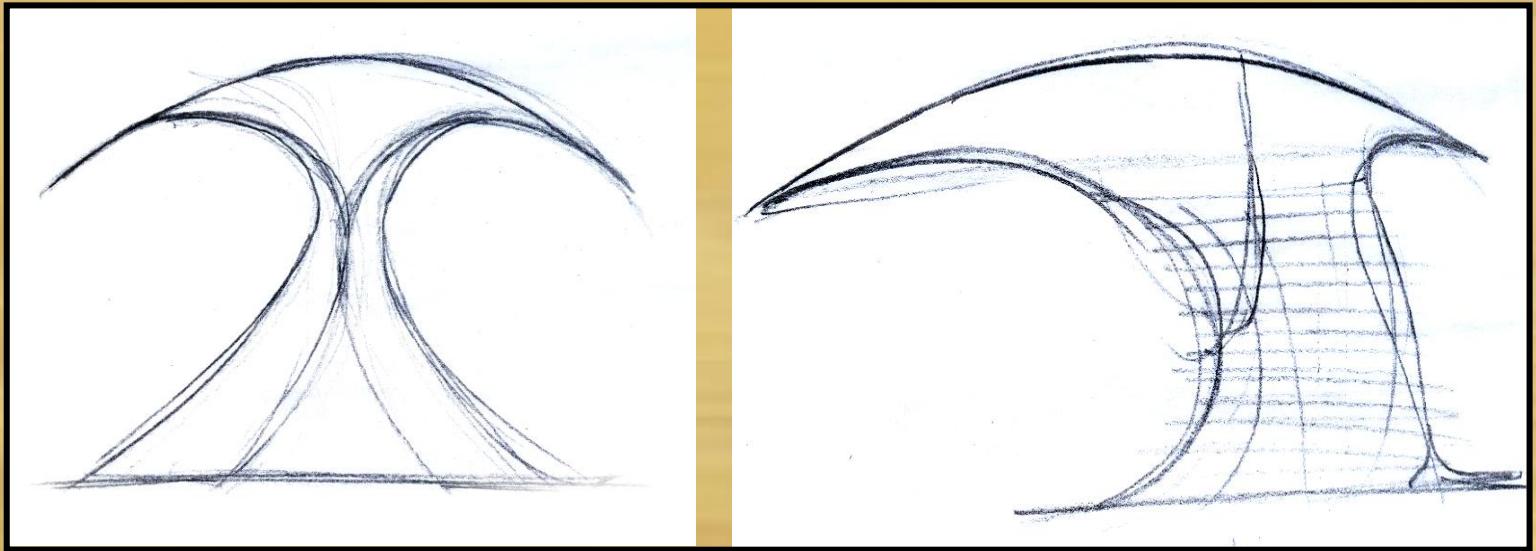


## ...Exploration

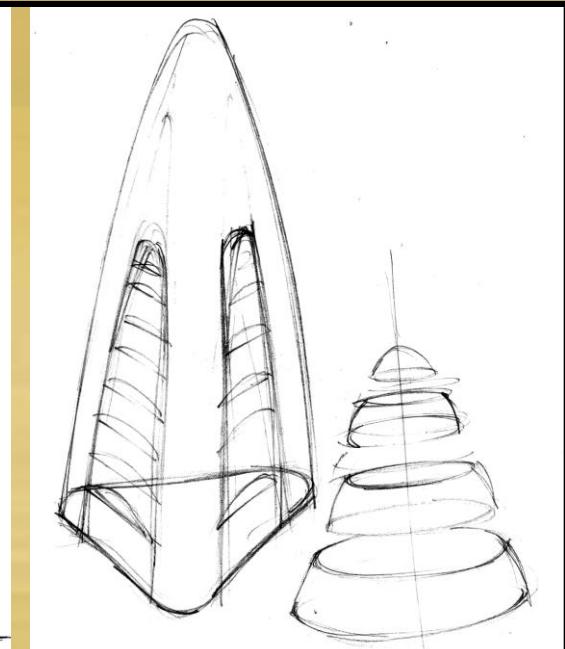
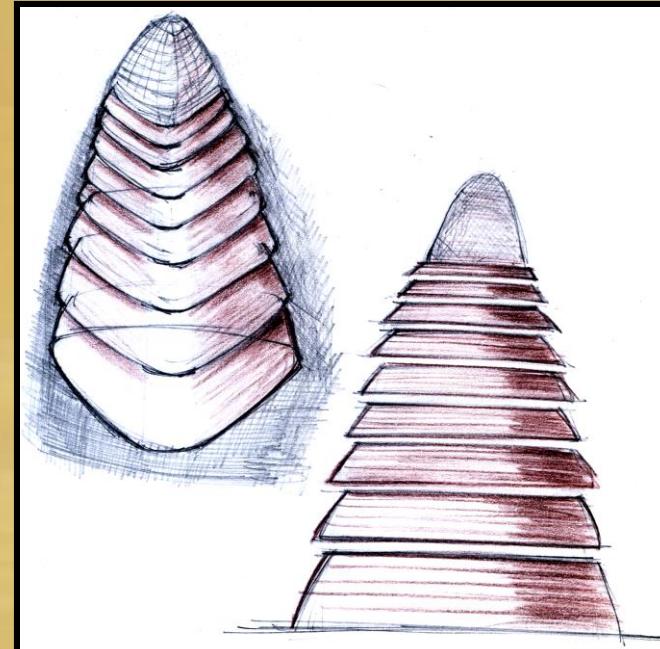




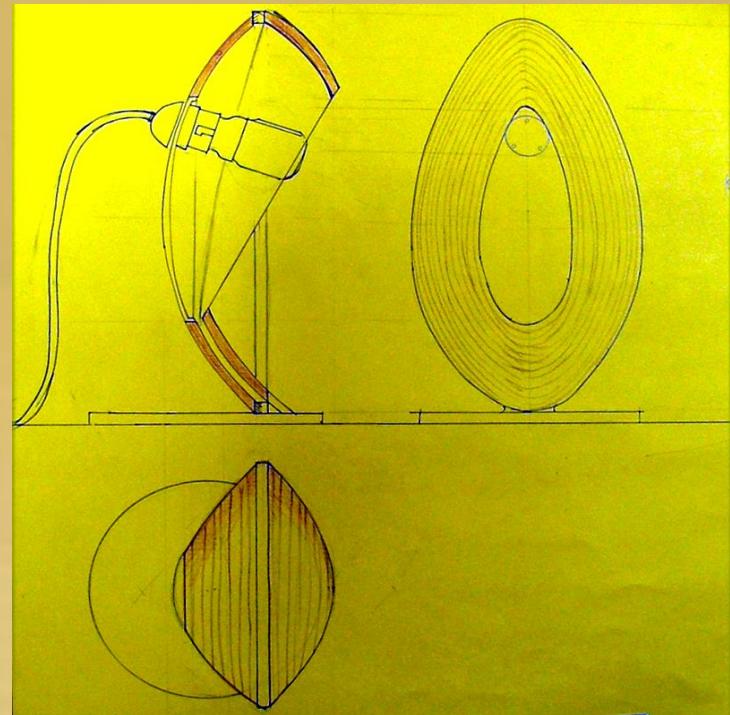
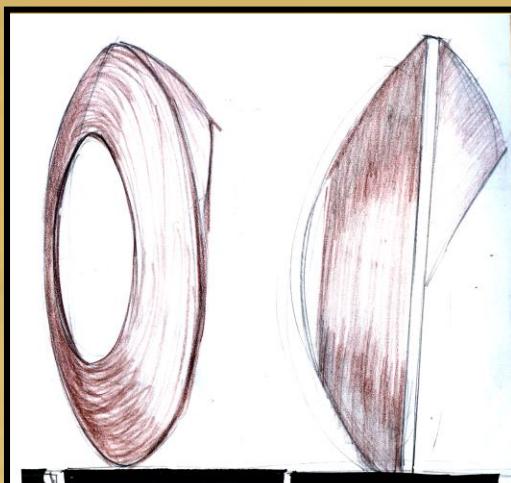
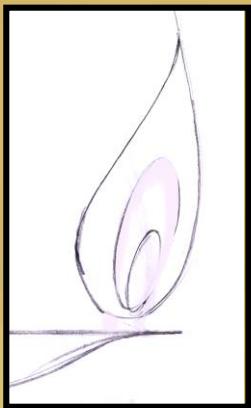
## Initial ideas



... initial ideas



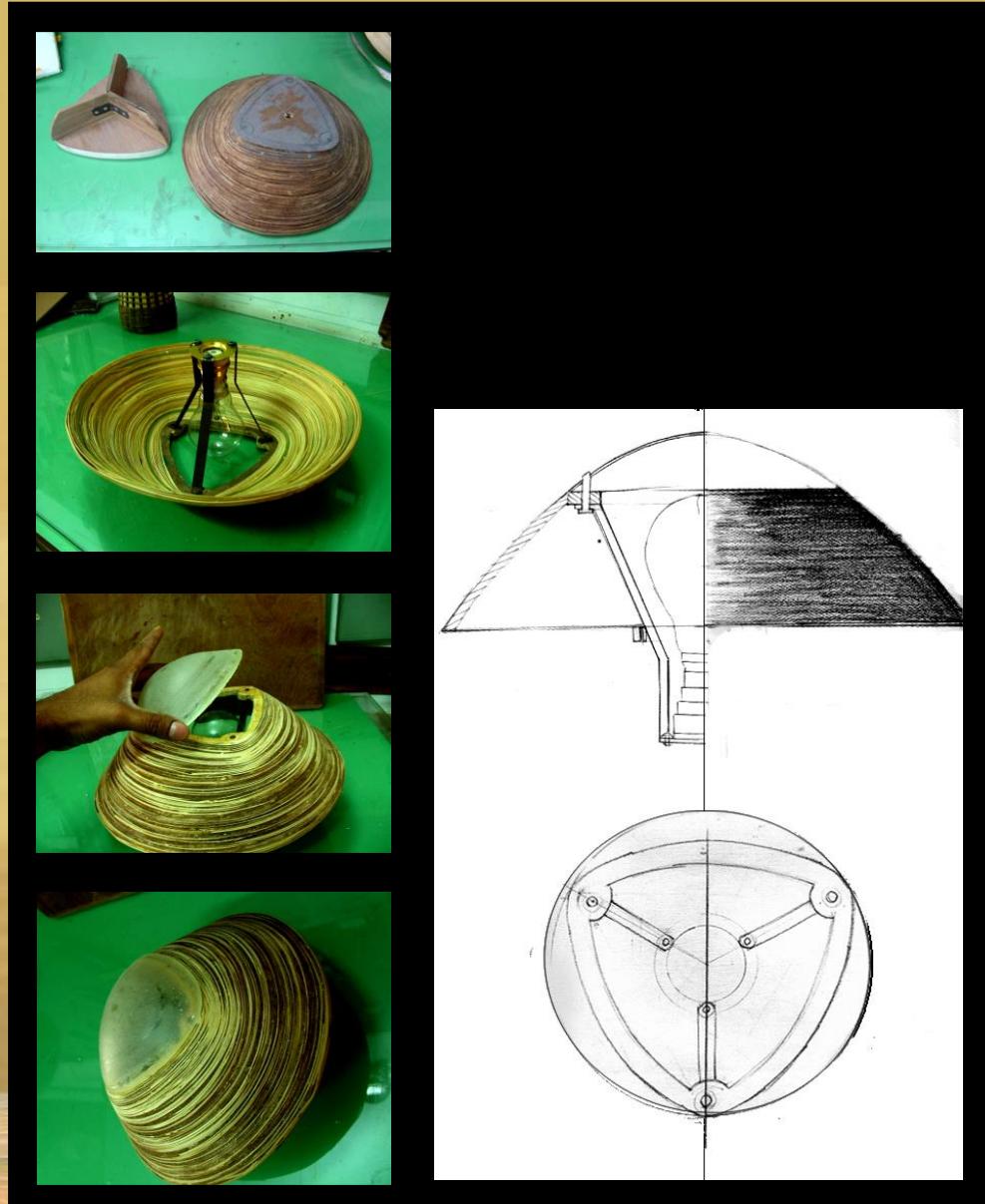
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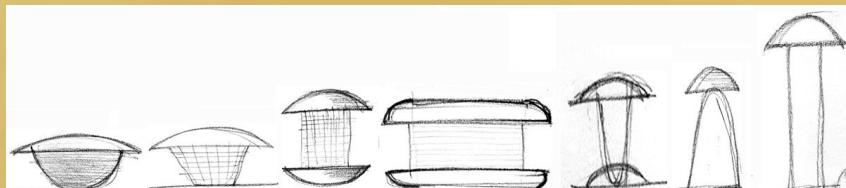
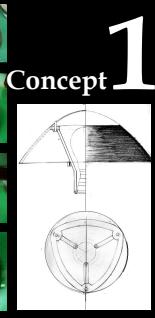


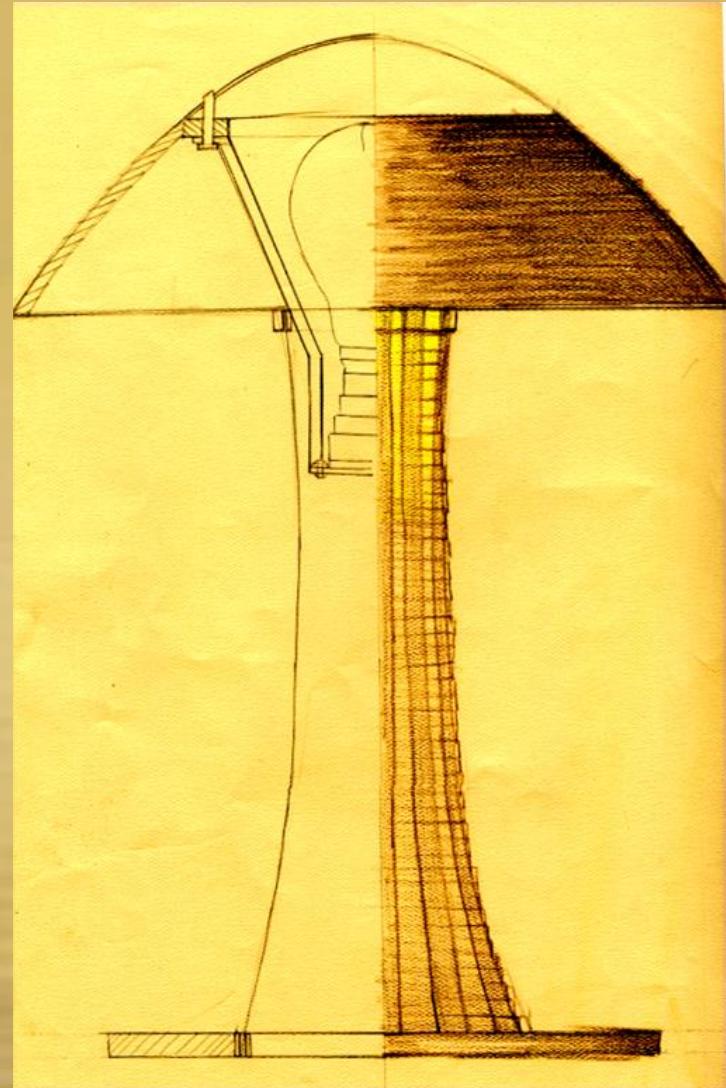
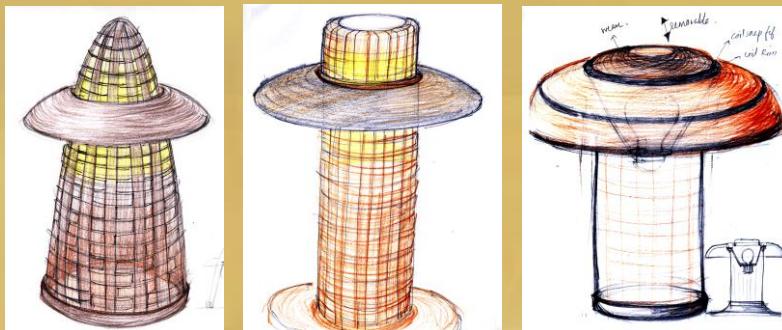
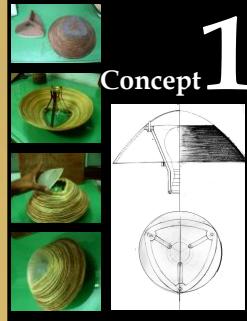
# Concepts

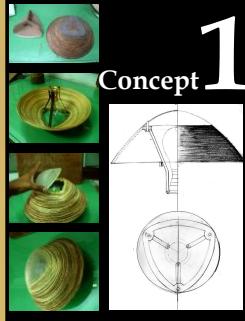


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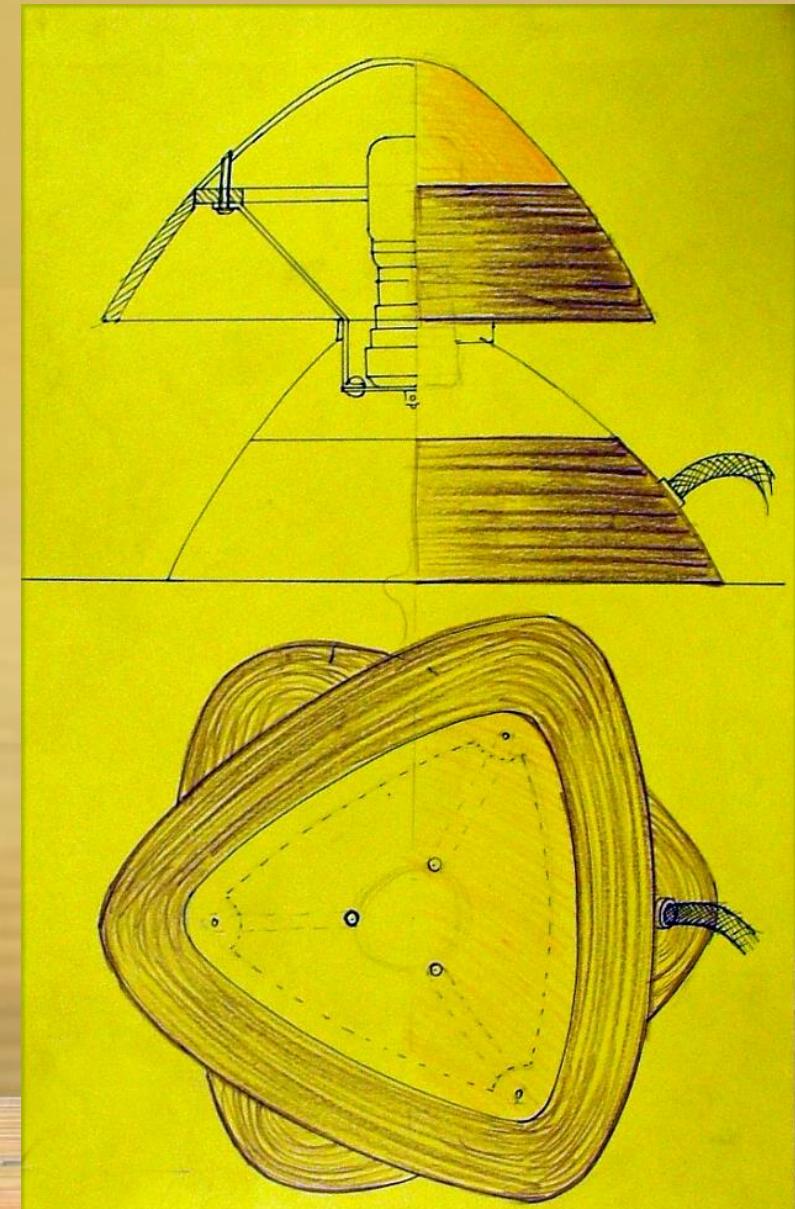
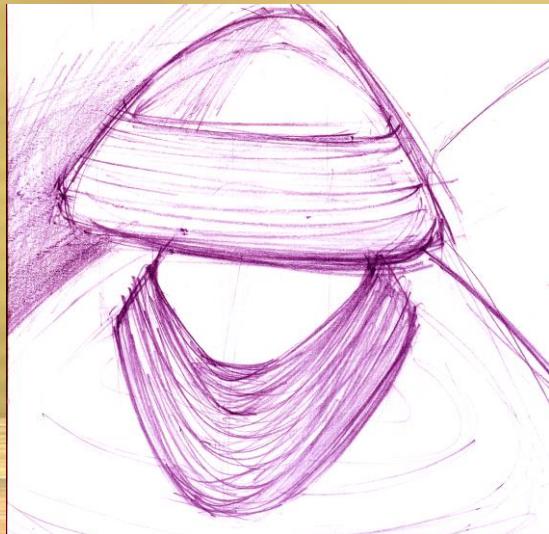
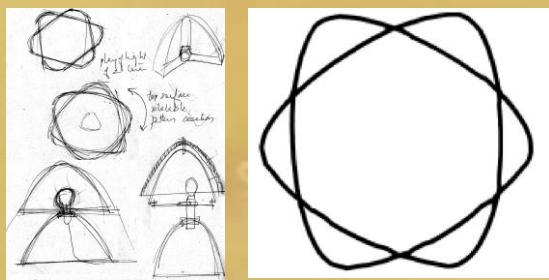








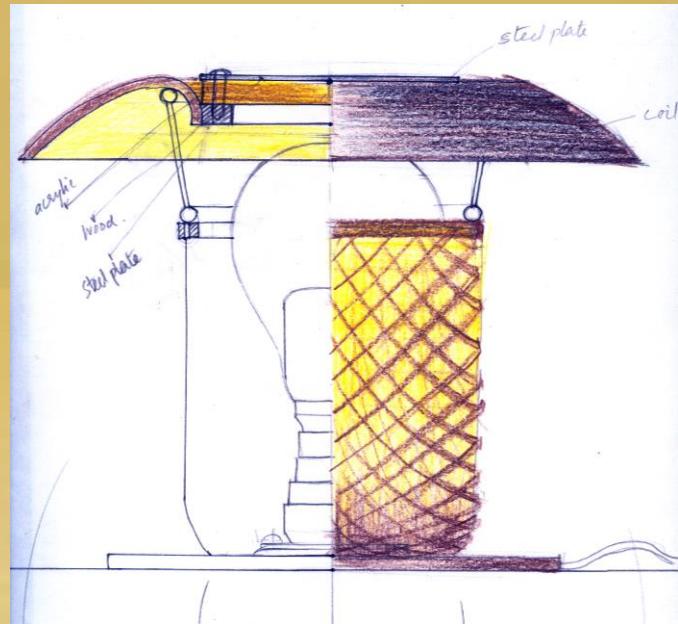
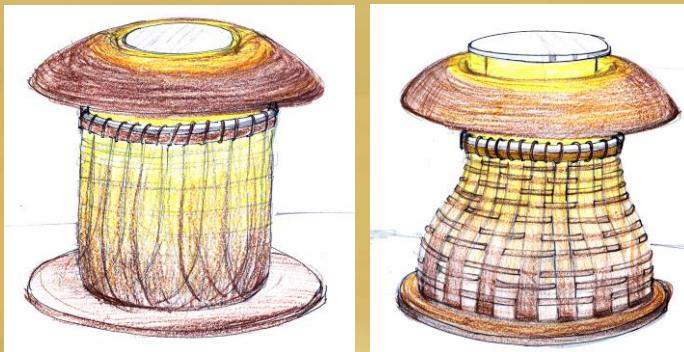
Concept 1



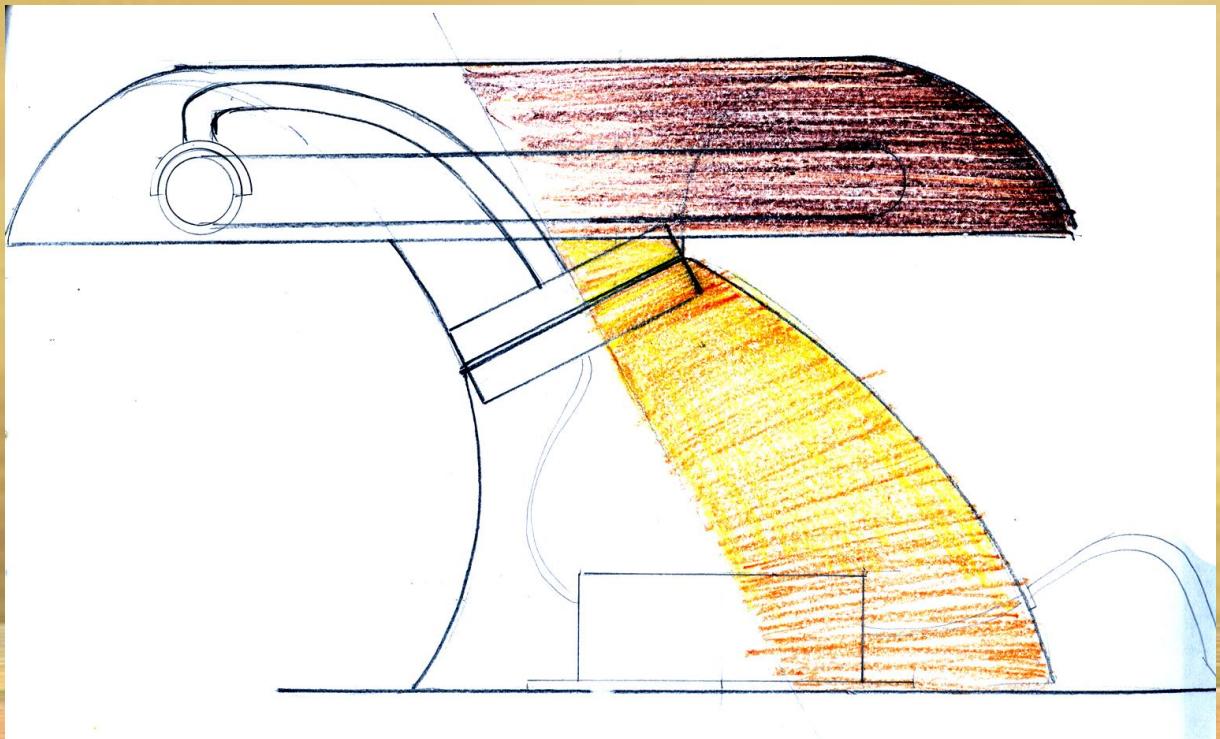
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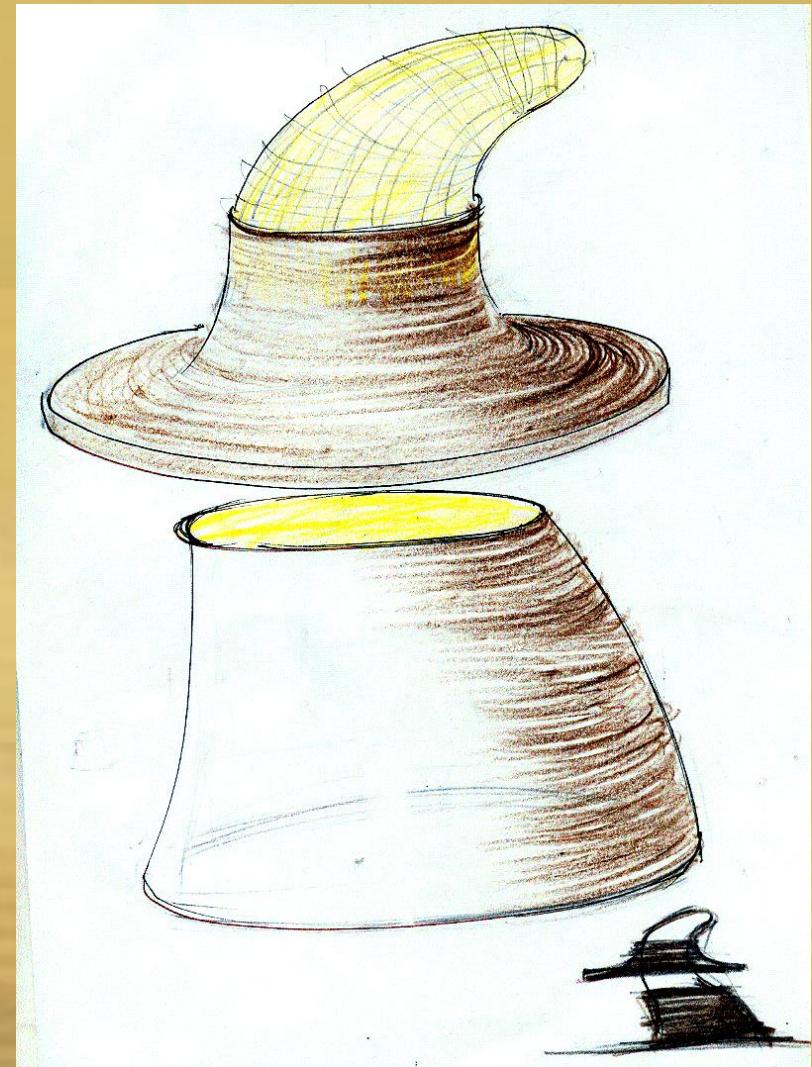
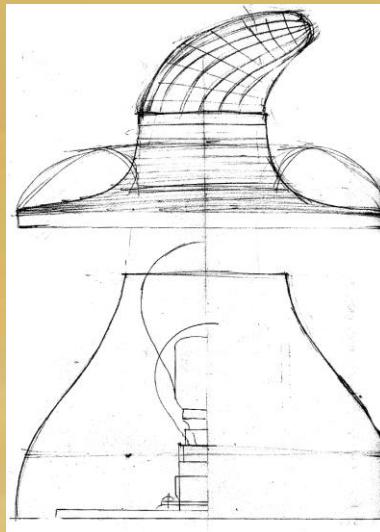
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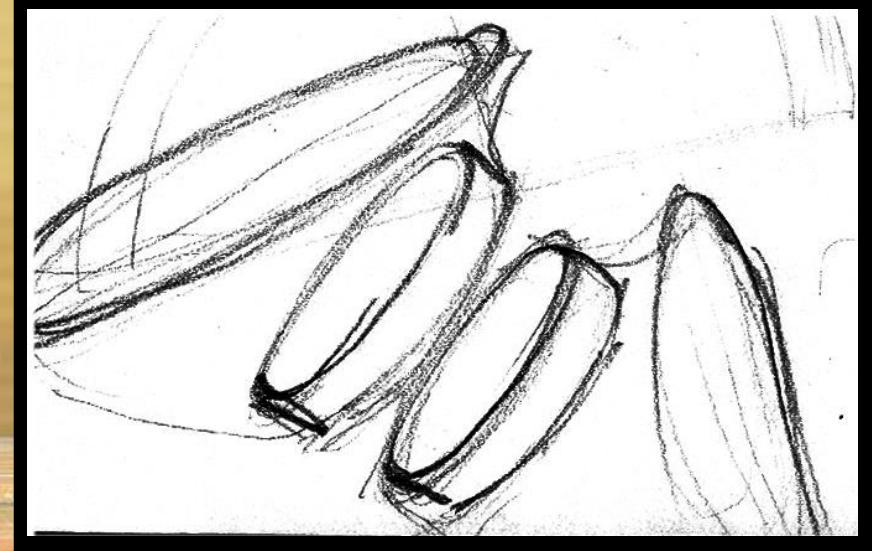
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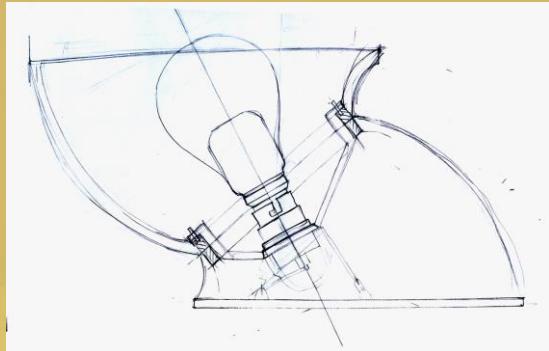
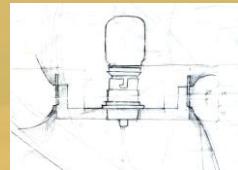
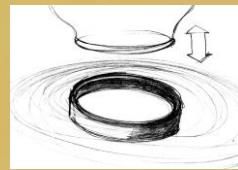
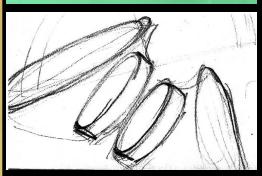
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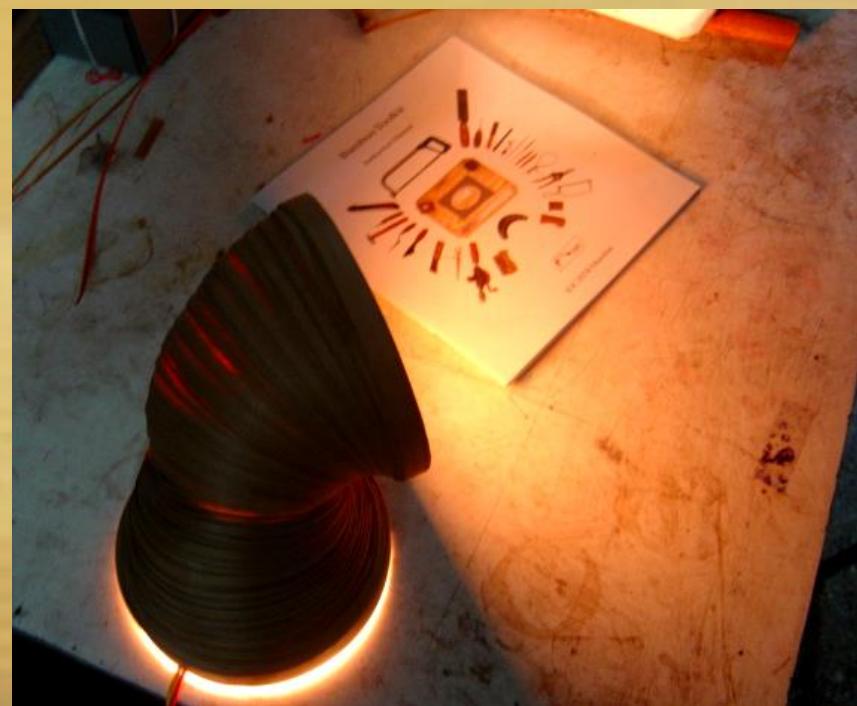
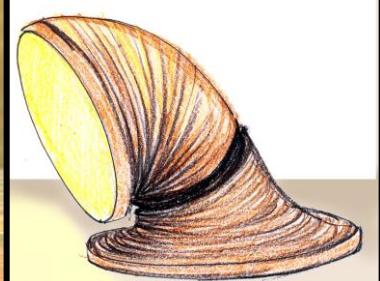
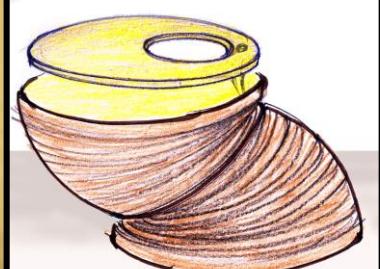
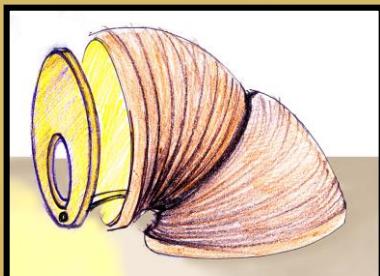
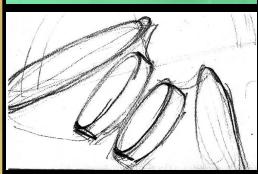
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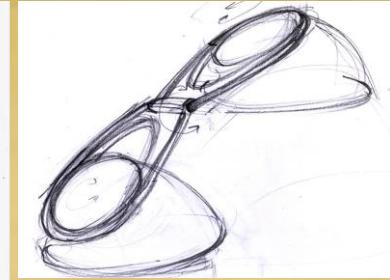
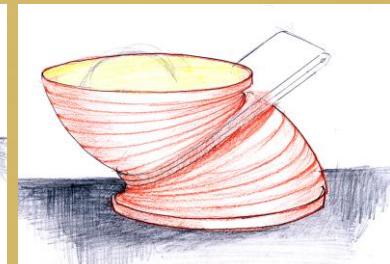
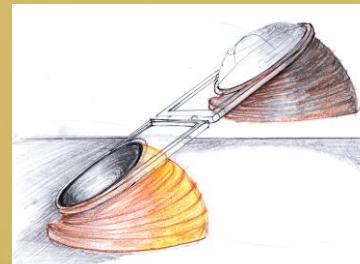
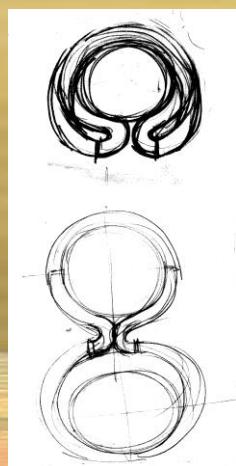
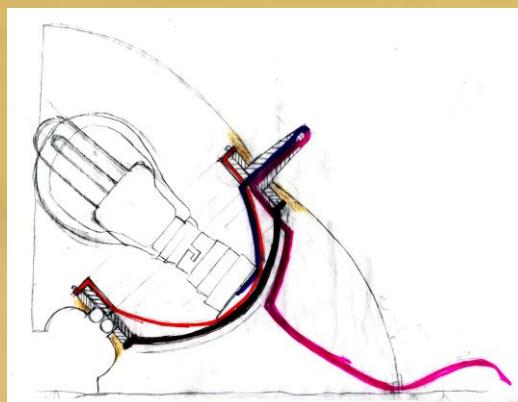
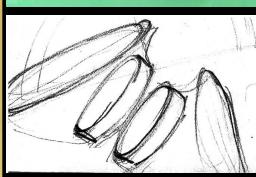
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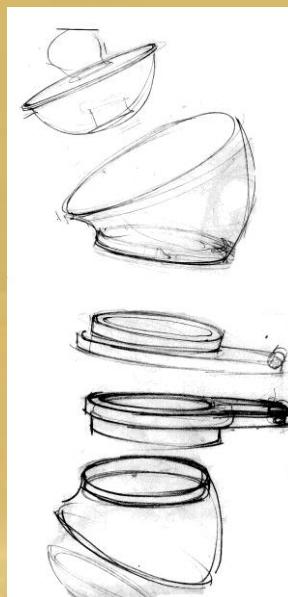
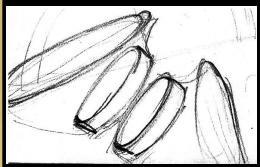
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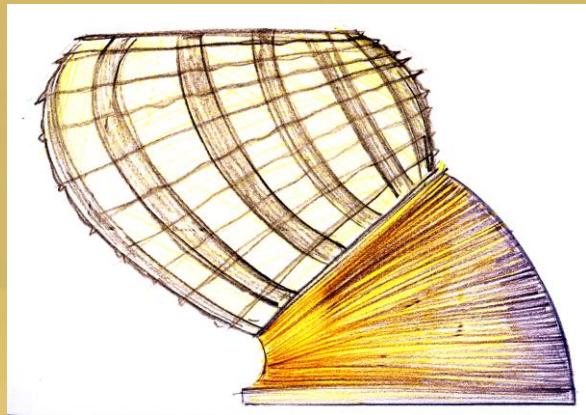
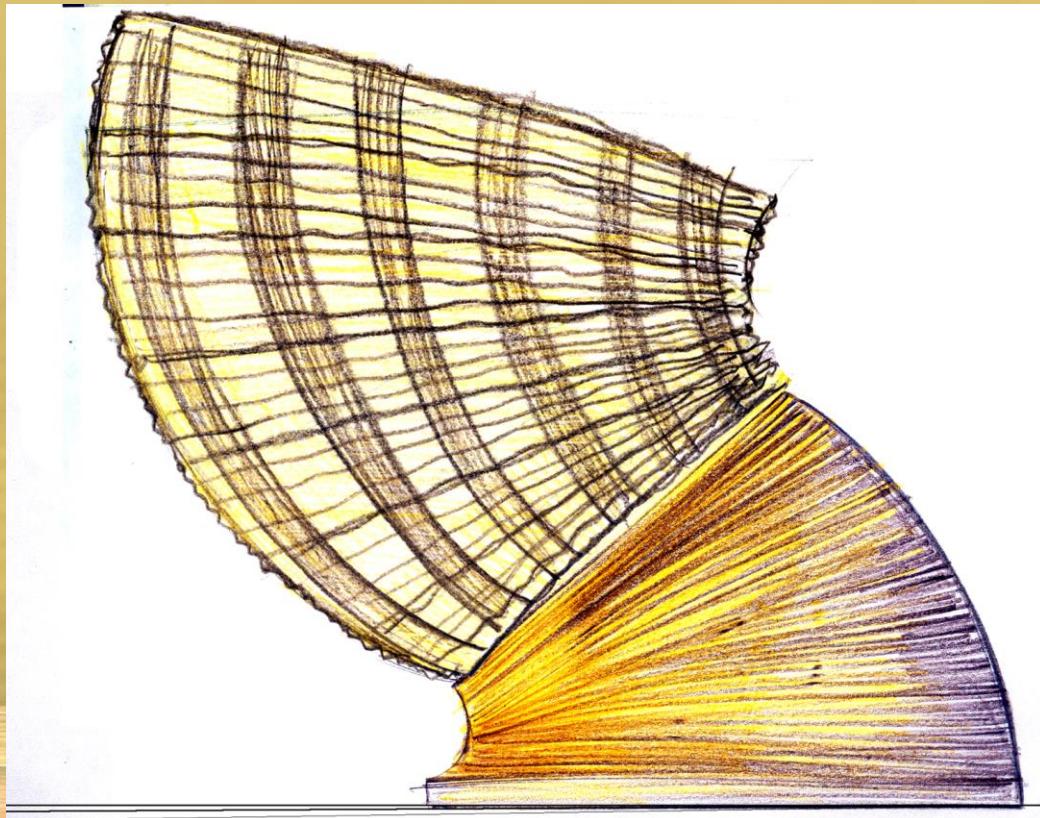
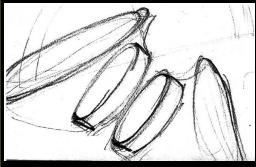
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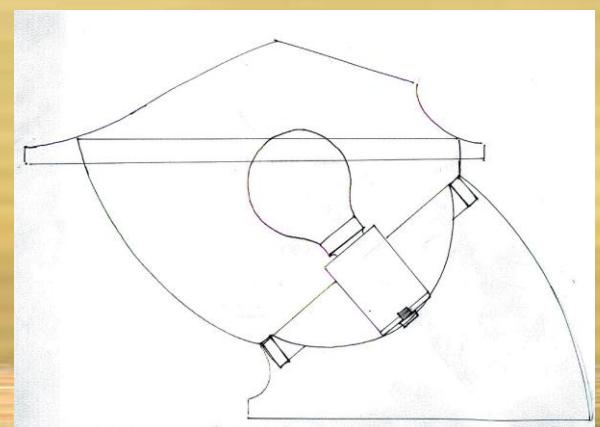
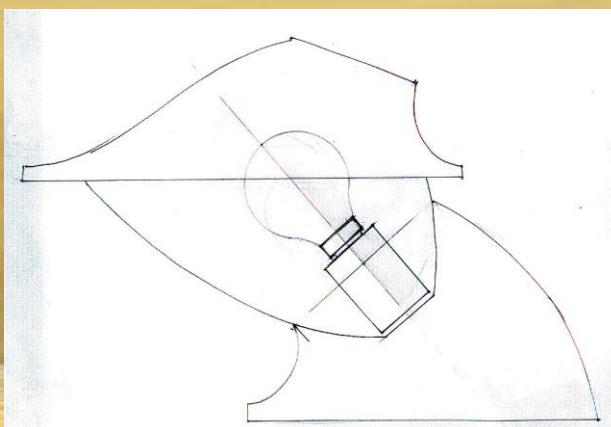
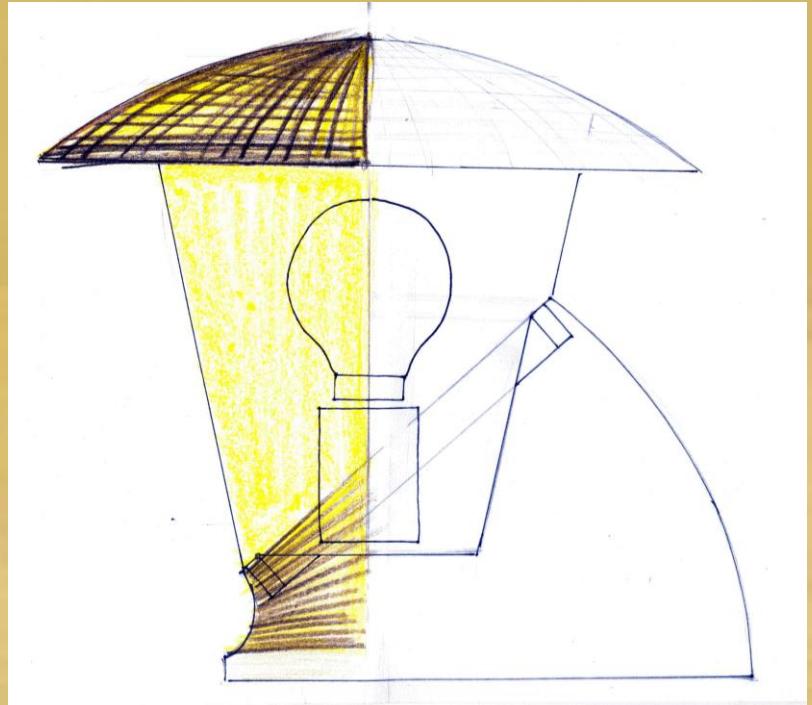
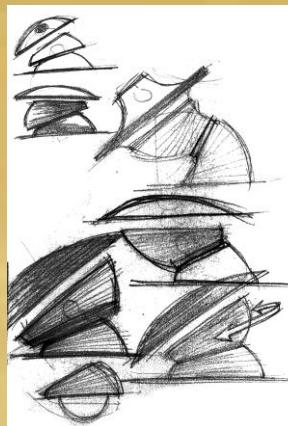
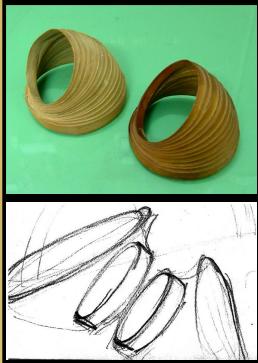
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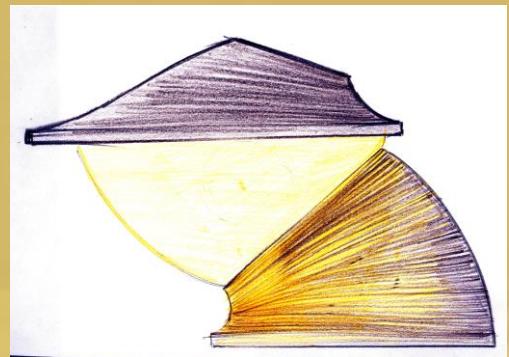
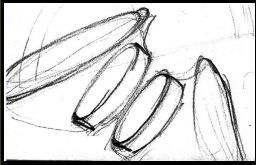
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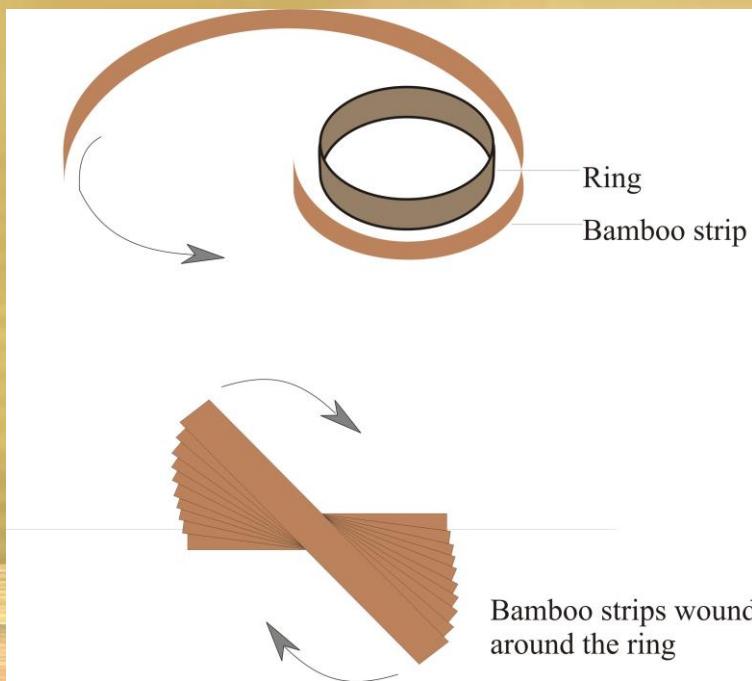
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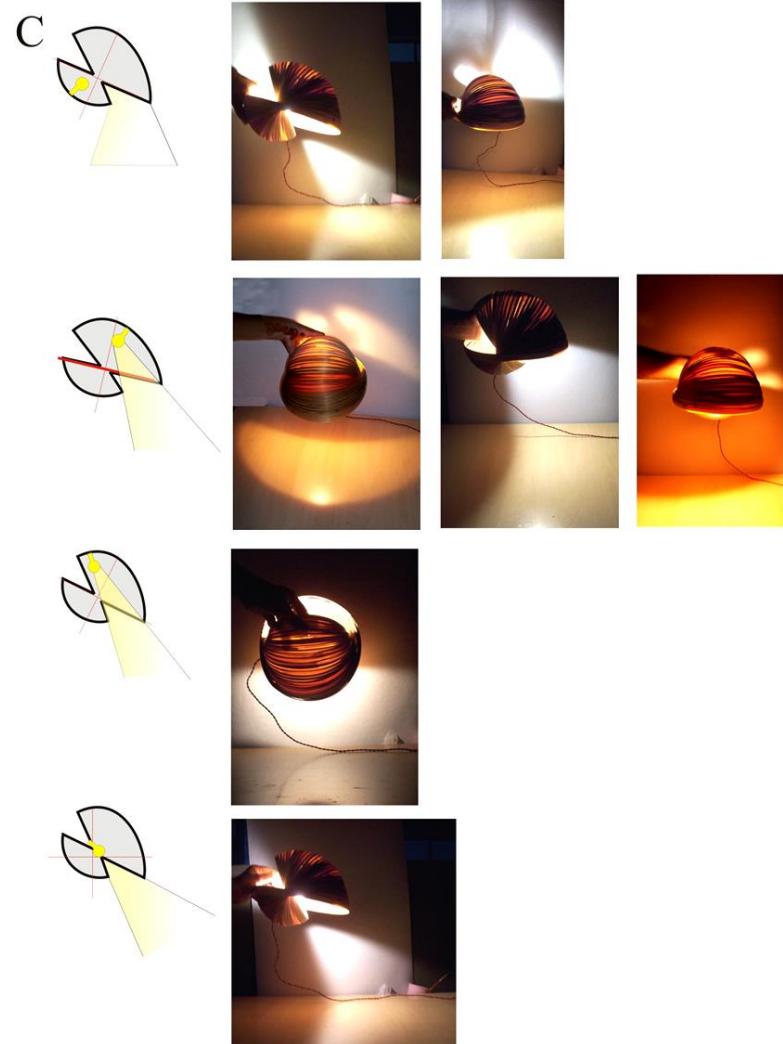
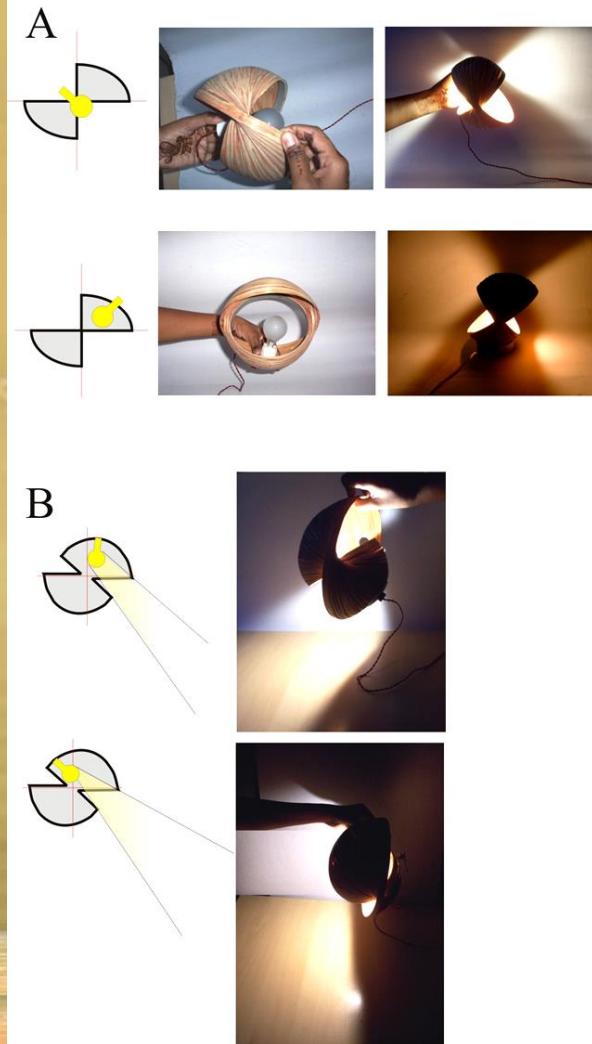
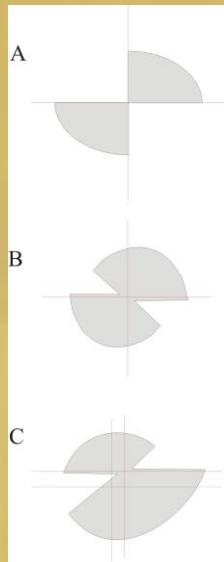
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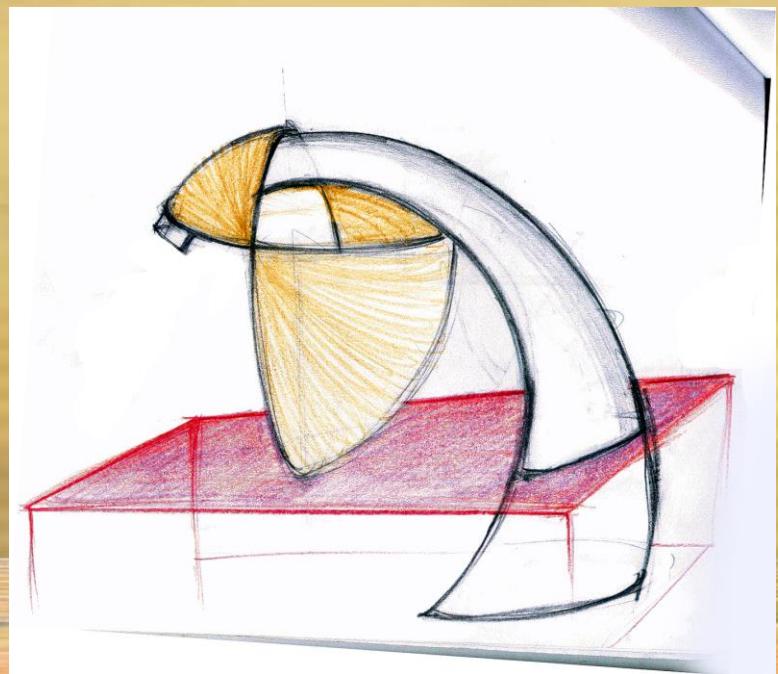
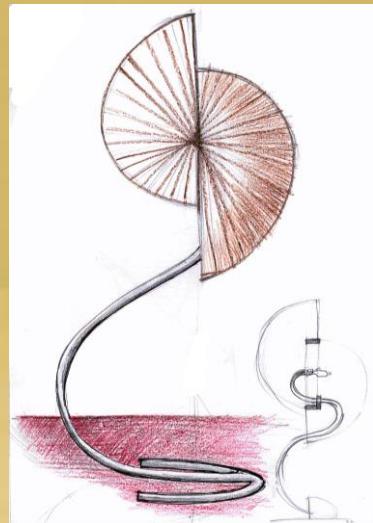
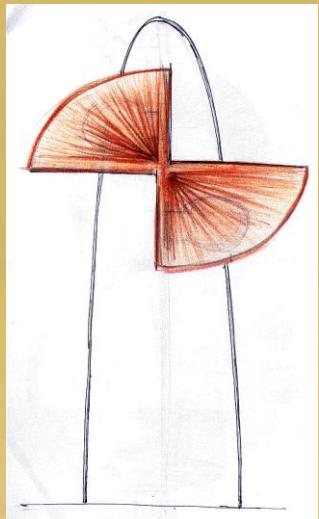
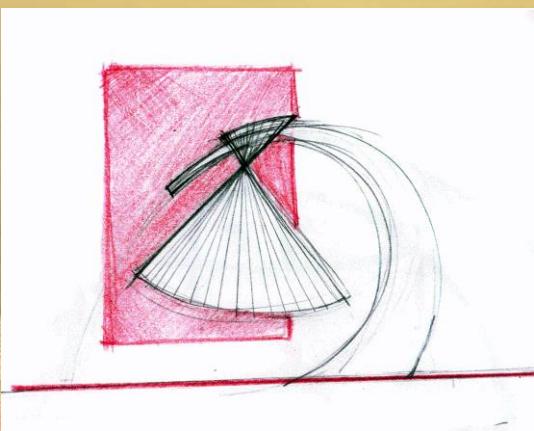
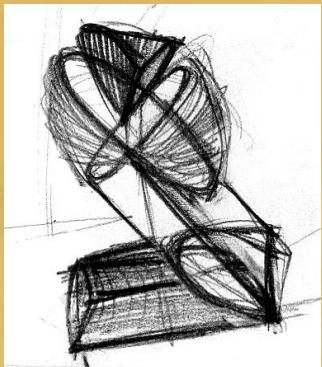
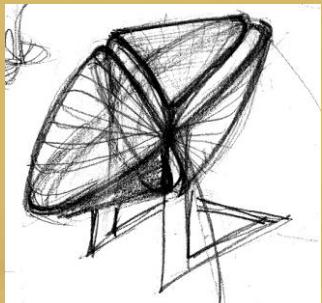
# Concept 4



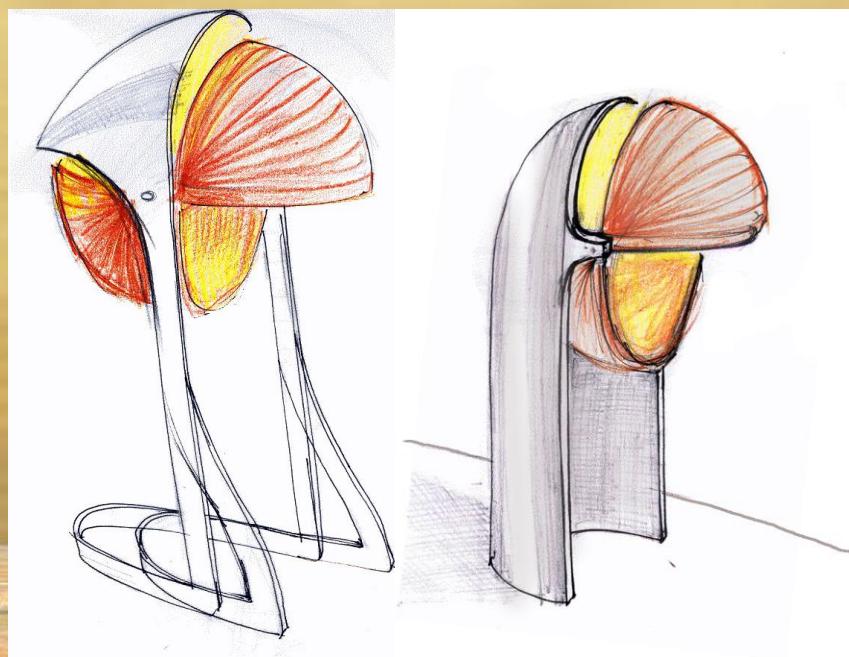
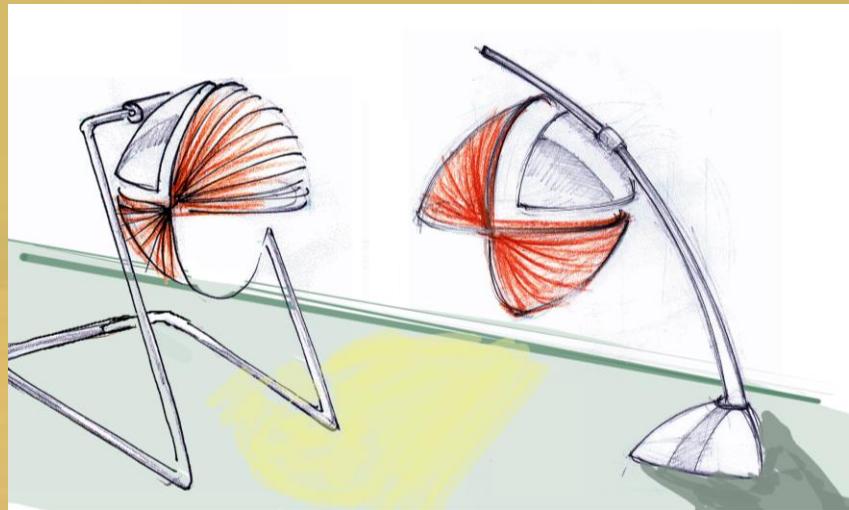
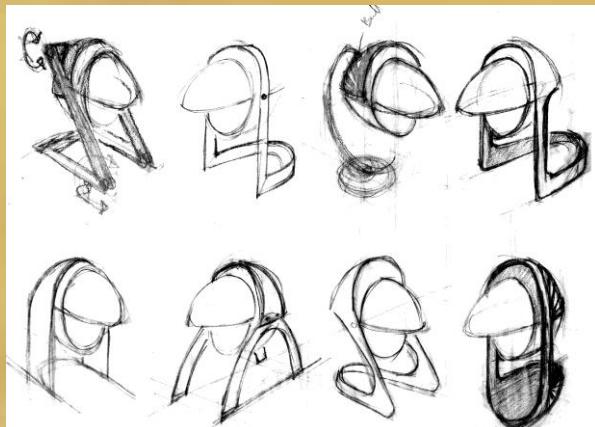




Concept **4**



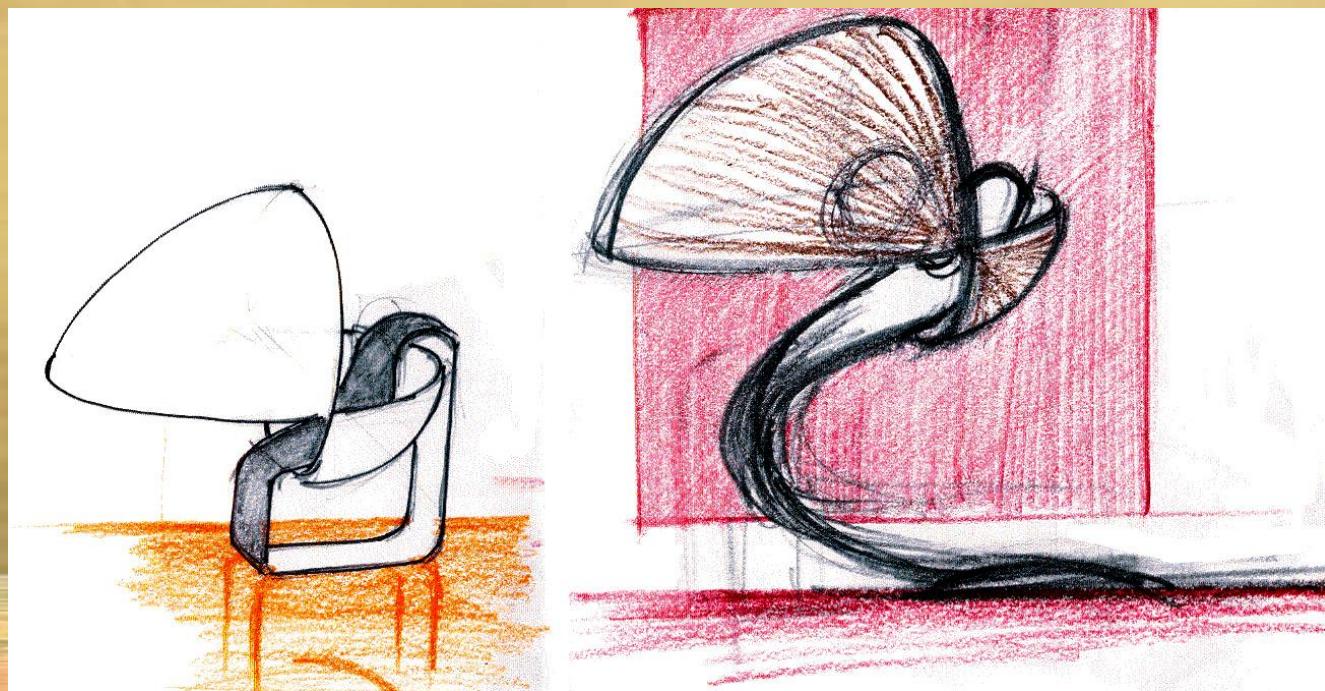
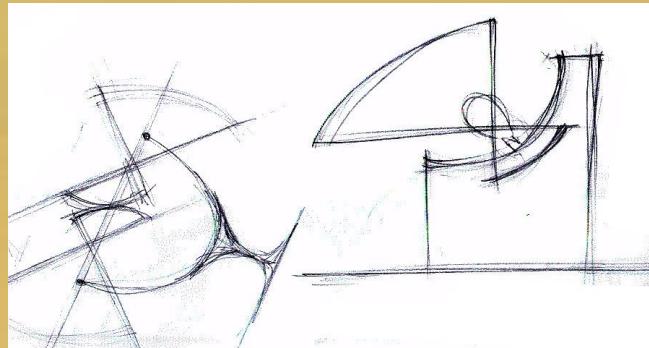
# Concept 4



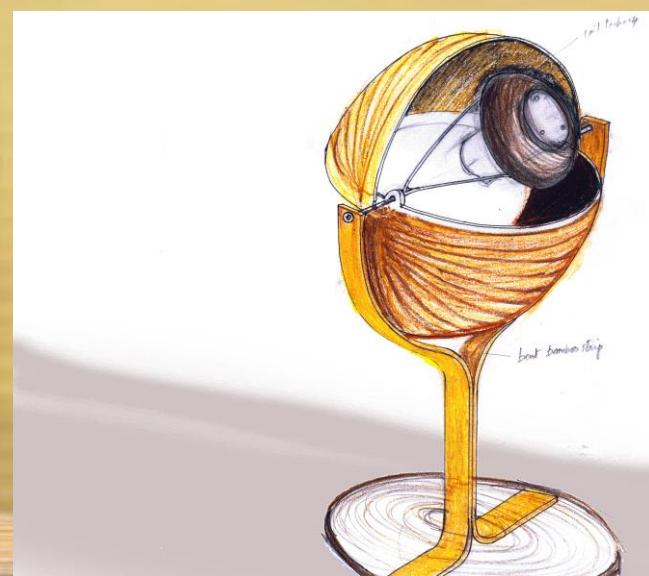
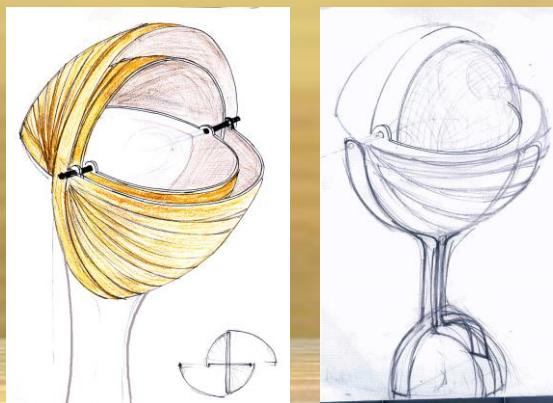
Concept **4**



# Concept 4



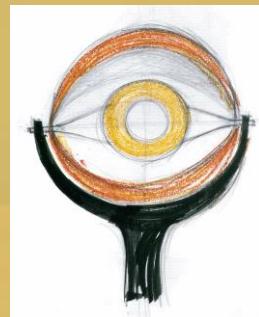
# Concept 4



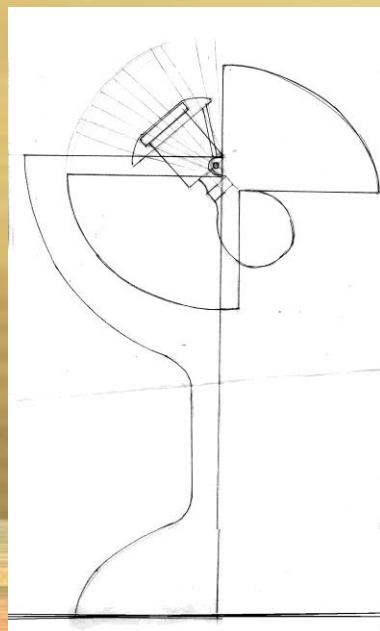
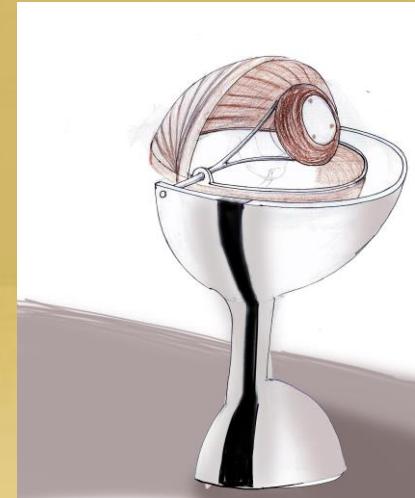
Concept **4**



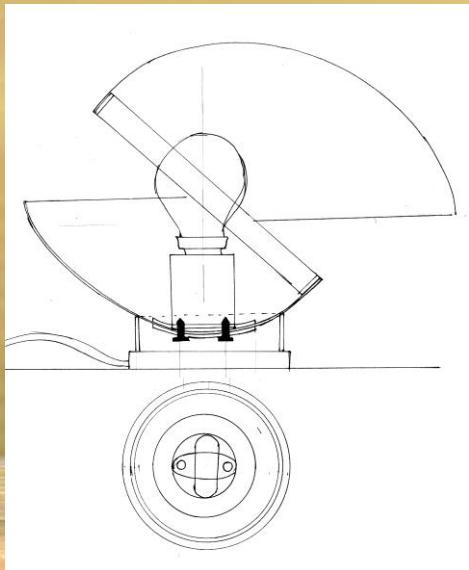
e



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Concept **4**





# Training Workshop

The design transfer process

Teaching tools and techniques.

Teaching methods of production.

Teaching using different media

Computer presentation

Manuals

Demonstration

Practice

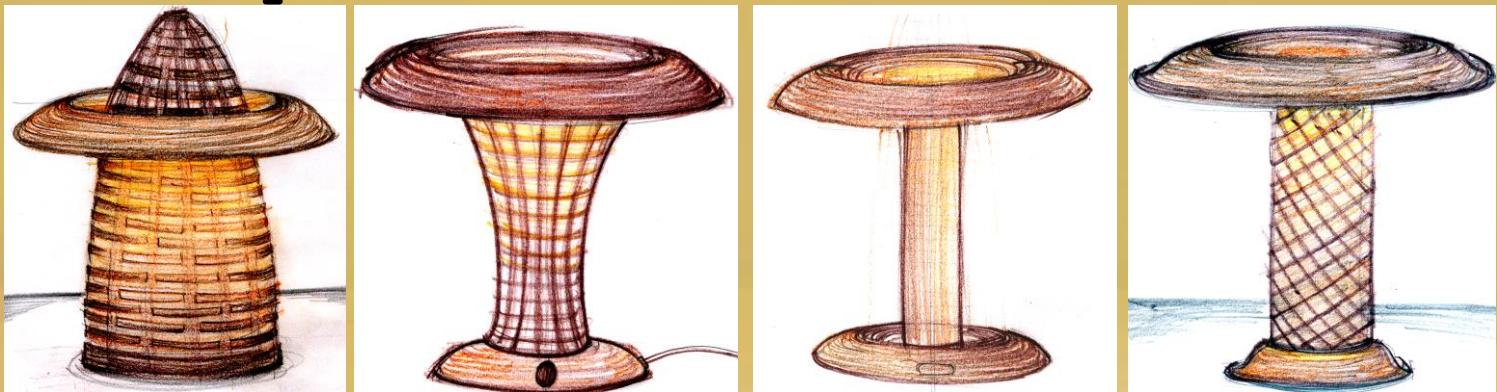
Ensuring quality.

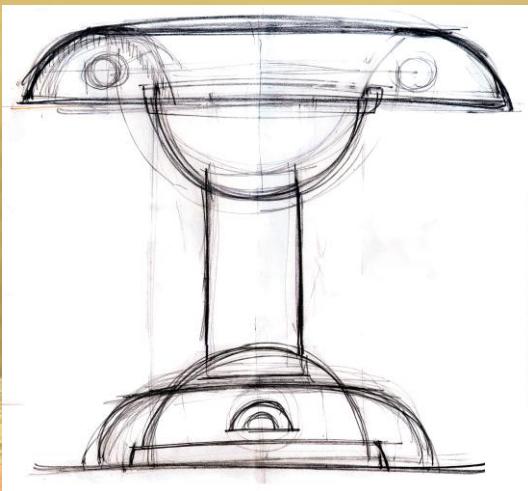
Costing Estimation

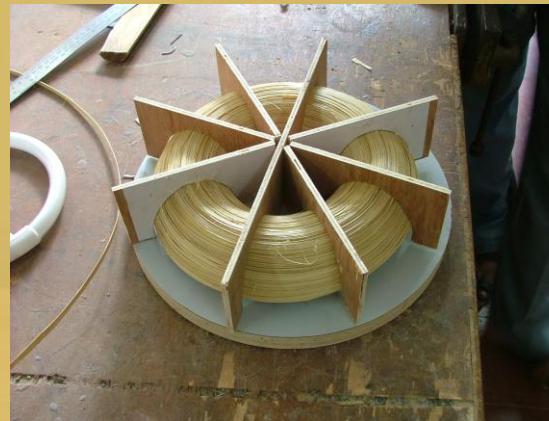
Finishing.



# Final Concept











**Thank you**