

Lamps in Bamboo

Project 3

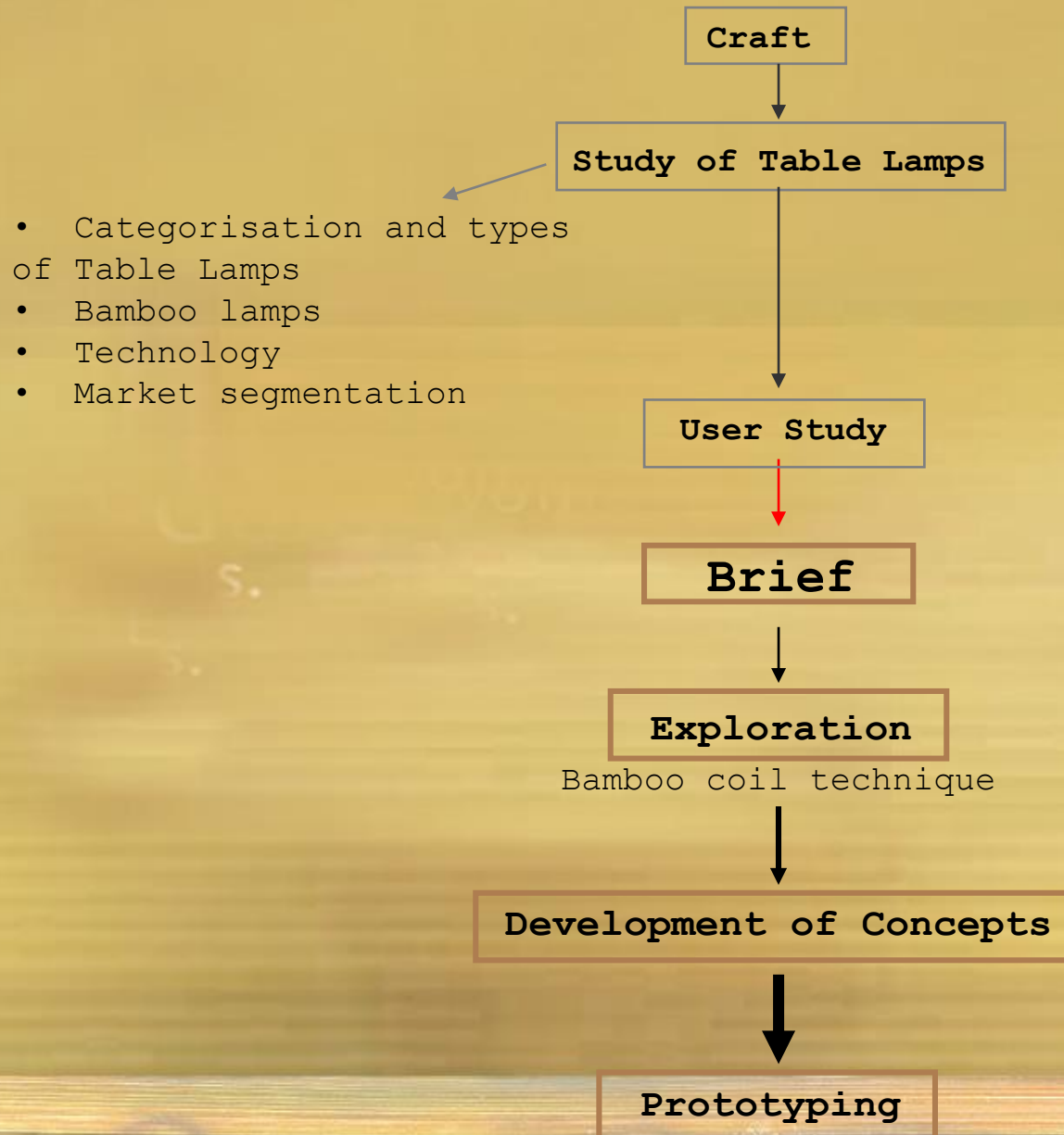
Guide: Prof. A. G. Rao

Kiran Kumaran

Industrial Design Centre
IIT Bombay, 2005

Aim

Repositioning of bamboo in Lamps in the present market scenario.



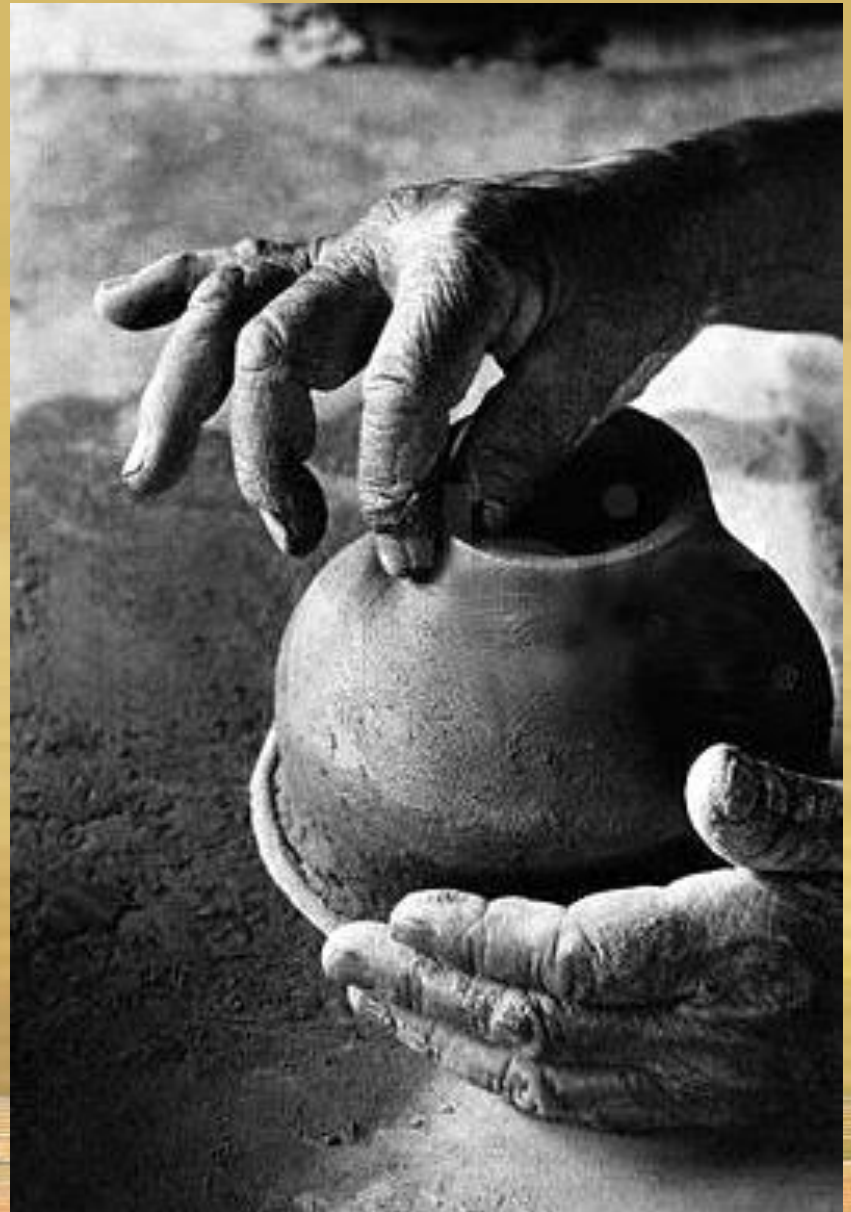
Craft

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.



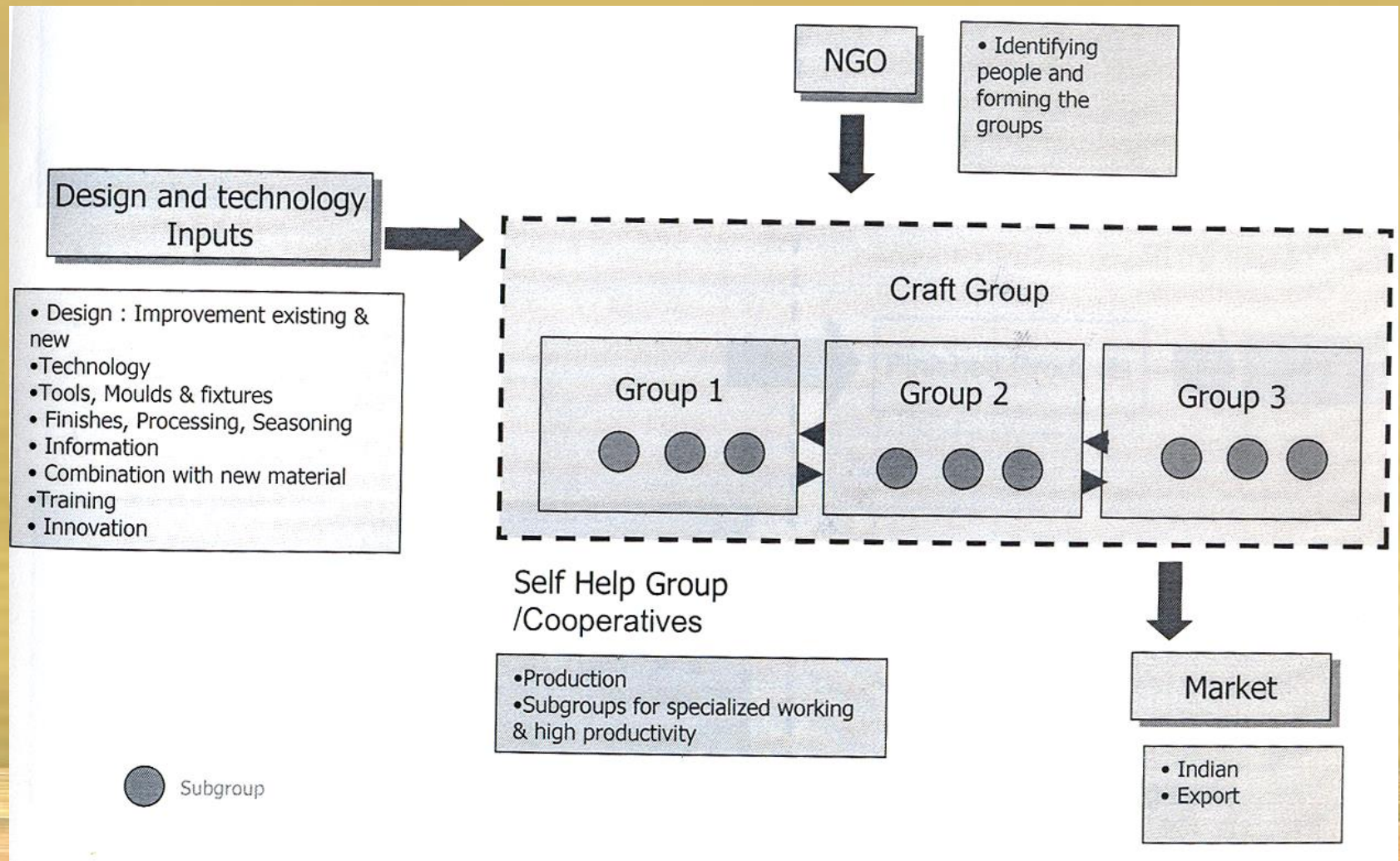
Art Craft to Industrial Craft

...Craft



The Craft Industry Models

...Craft



The Entrepreneurship Model

...Craft

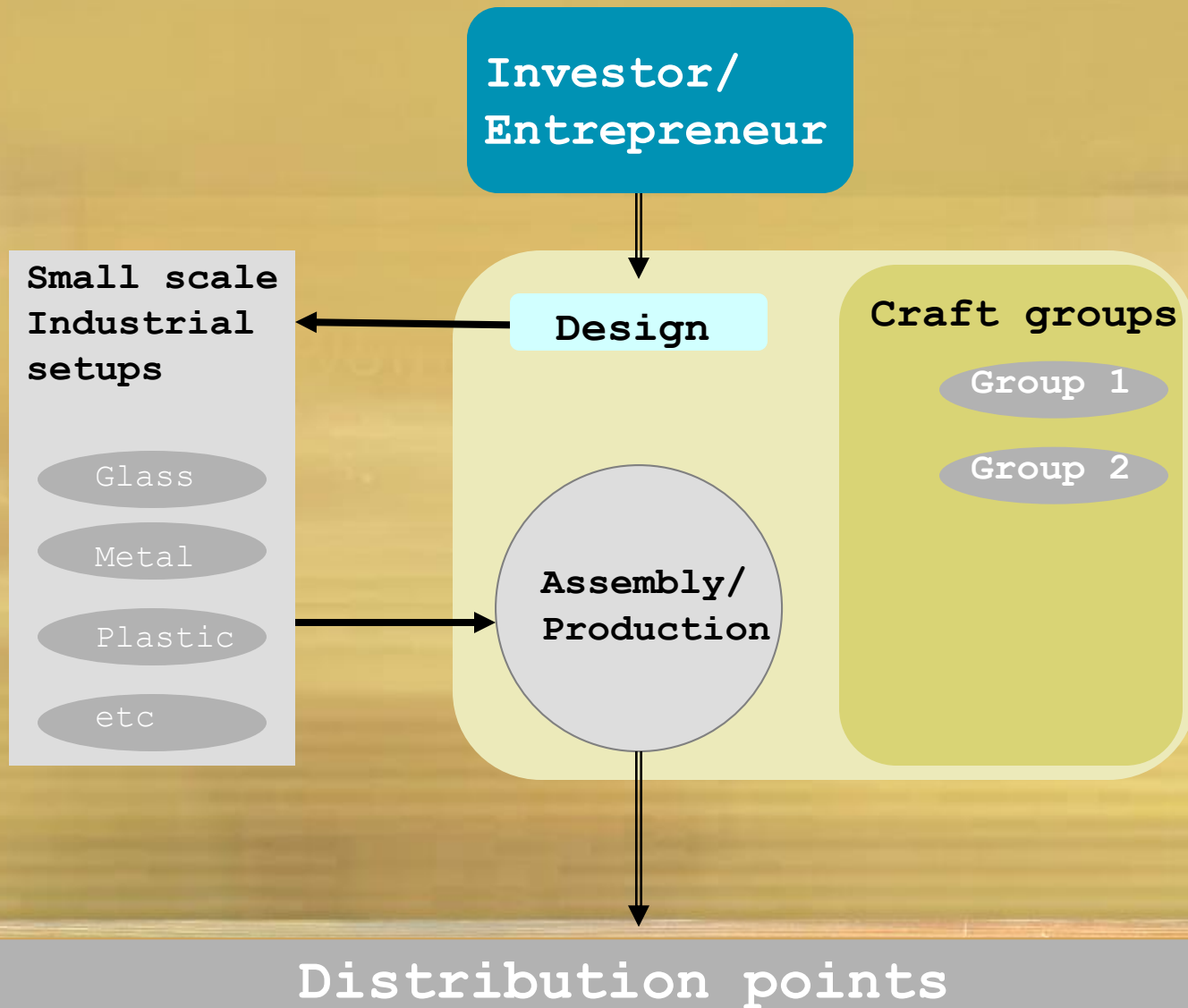


Table Lamps

The Oriental lamps



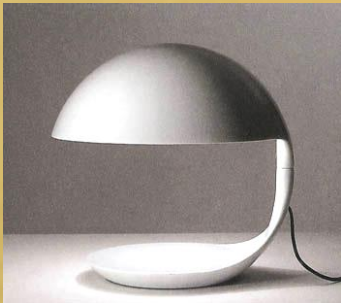
... Table Lamps

The illuminating Object



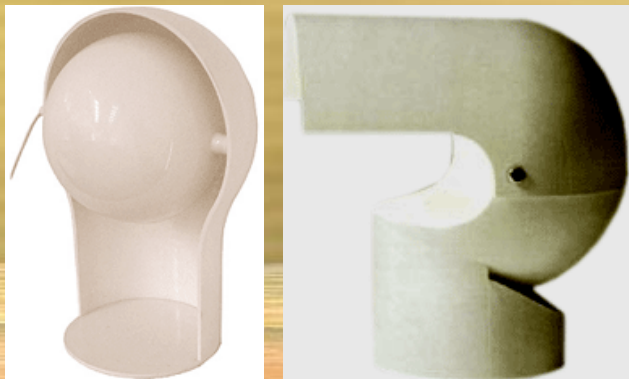
... Table Lamps

Simple sculptural lamps



... Table Lamps

Rotating shade lamps



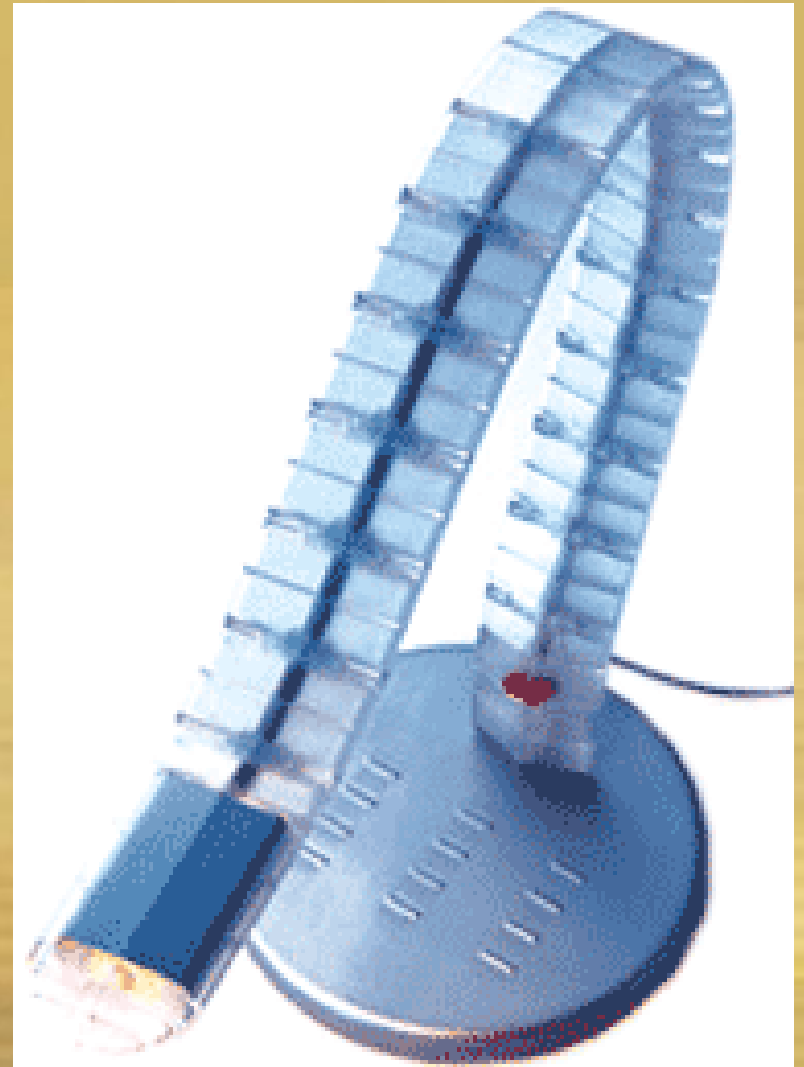
... Table Lamps

Tasks Lamps



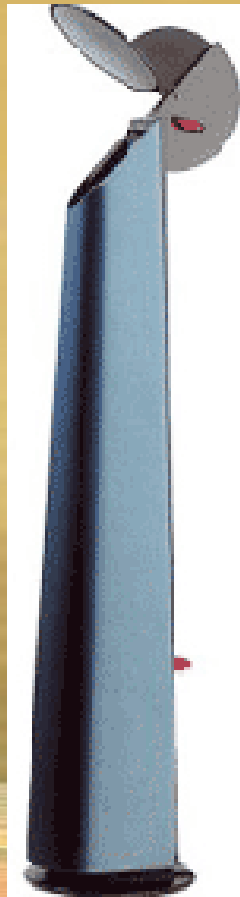
... Table Lamps

Function and beyond



... Table Lamps

Reflection lamps



... Table Lamps

Folding lamps



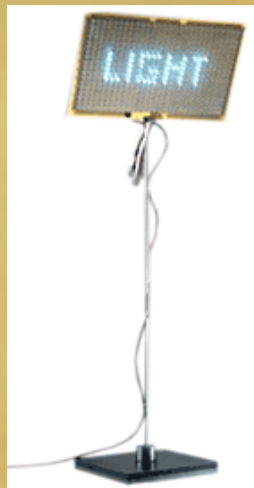
... Table Lamps

Flourascent tube lamps



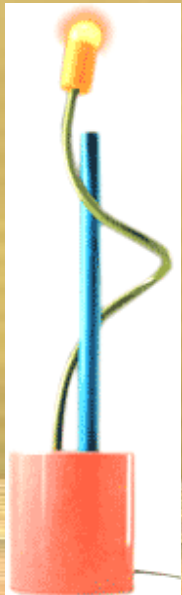
... Table Lamps

LED Lamps



... Table Lamps

Lamps as Expression

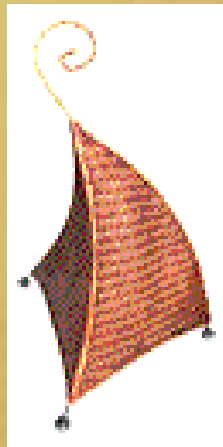


... Table Lamps

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.



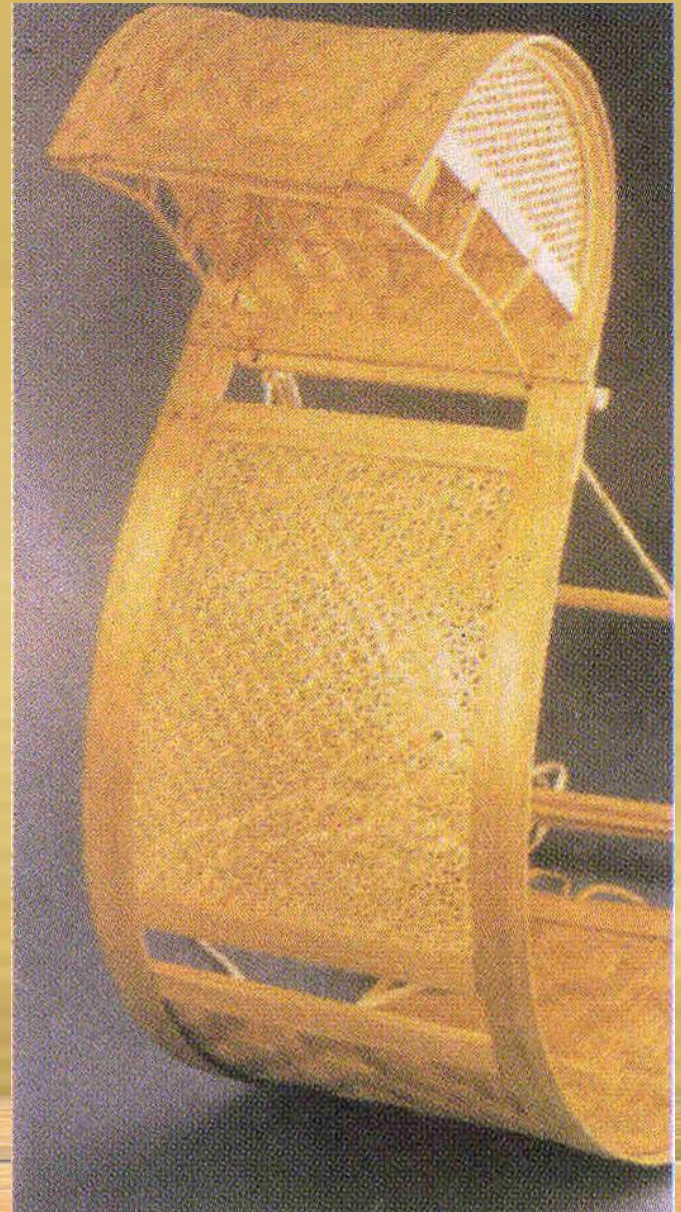
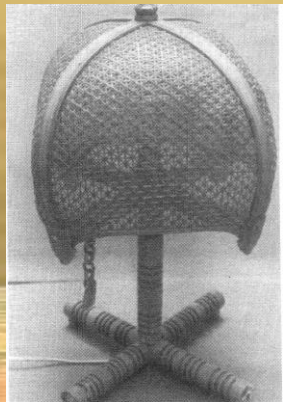
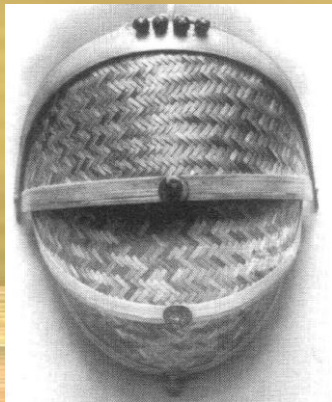
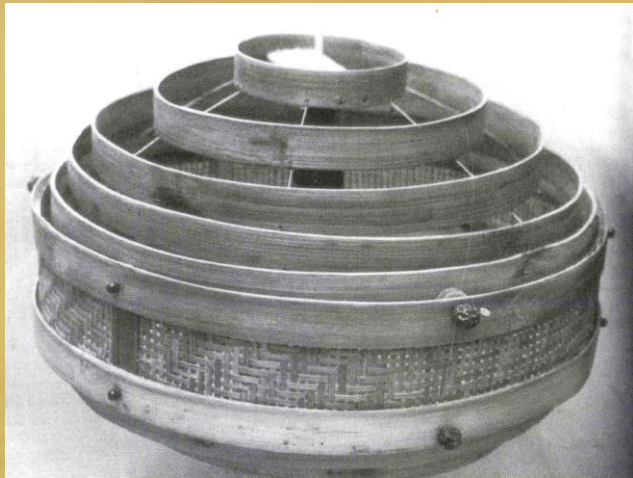
... Bamboo Lamps

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 Fluorescent 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

150000	Market Segmentation of table lamps		<p>Craft lamps.</p> <p>Natural materials Wood, Leather, Glass, Ceramic, Stone. Cost here is partly because of the material that is being used and majority due to the high end craftsman ship involved.</p> <p>Bamboo can compete with these using high end craftsmanship and the intricacy of the weaves etc.</p>	
75000	<p>Task lamps either fluorescent of halogen Cheaper Chinese or costly imported ones.</p> 	<p>Competitive lamp companies.</p> <p>These are lamps which are mass produced yet maintaining a very high quality. Companies like IKEA come in this category.</p>	<p>Area of focus for the project.</p> 	
3000 RUPEES	<p>Stress is on Mass production at the same time maintaining high quality.</p> 		<p>Marketing channels</p> <p>lamp shops(lohar chaul) Govt emporiums Expositions, Melas, Exhibitions Departmental stores cooperative stores Gift boutiques catalogue sales promotional institutions Novelty shops, high priced craft Culture shops Export market</p>	<p>Lifestyle lamps</p> <p>These lamps are lifestyle lamps. Produced in low numbers, they sell at a very high prices.</p> <p>Bamboo can be introduced here by creating an icon that would stress the postmodern outlook: of the material bamboo. As an ecological sustainable material. The sheer iconicity would guarantee its place here.</p> <p>Introduction of a new brand here stressing nature, sustainability and our future.</p>
200	<p>Technology based Flourascent and halogen LED</p> 		<p>COST factors</p> <p>Technology Material mechanism involved Designer lifestyle hand crafted Antique unique value</p>	<p>Bussiness models</p> <p>Competitive companies like IKEA Lifestyle italian companpies. Small scale Craft. High technology dependent models Enterprenour models Cheaper china lesser quality high numbers</p>

User Study

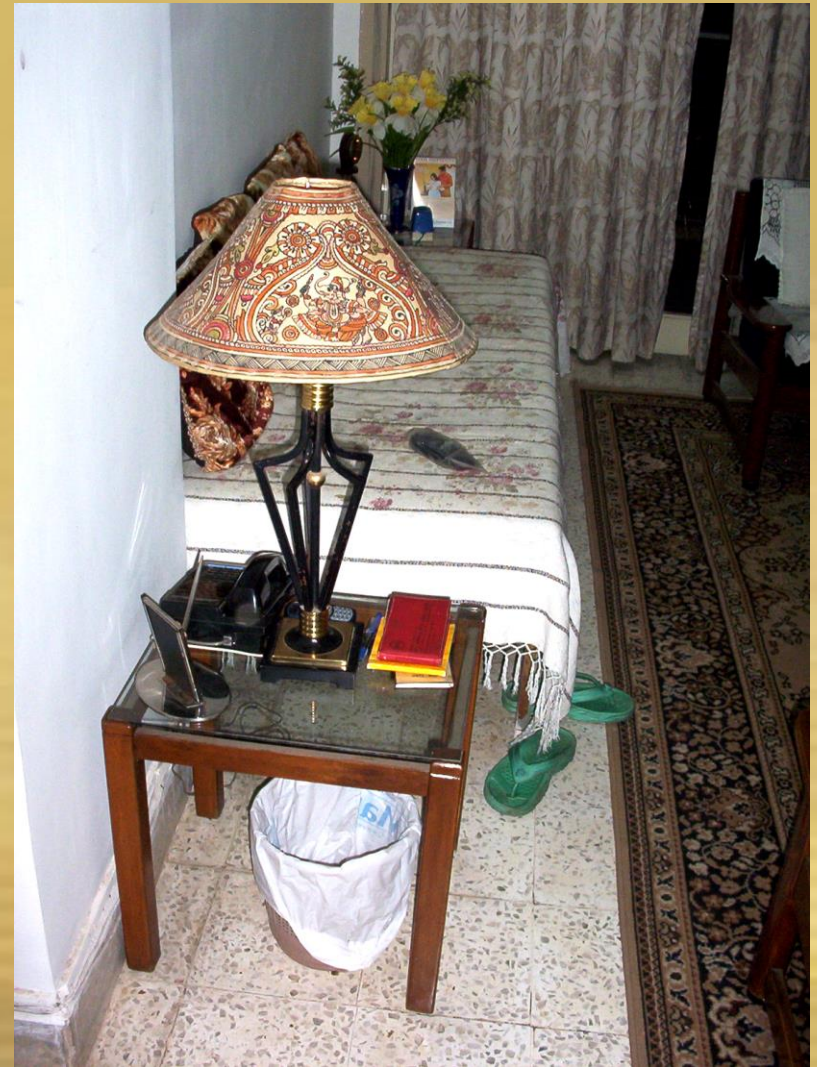
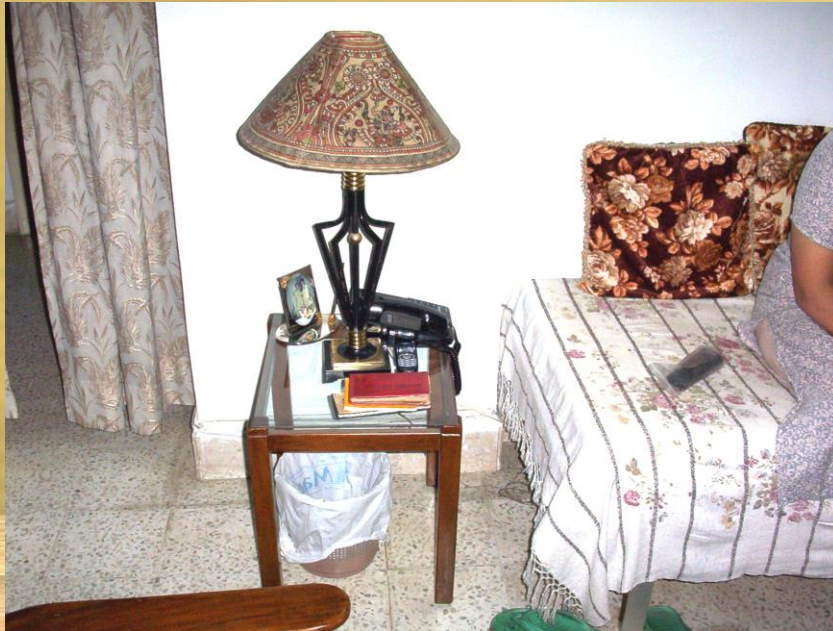
Homes

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

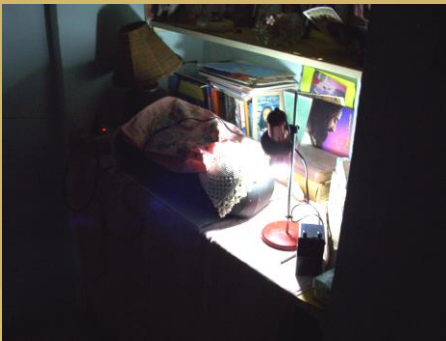
Though bulky doesn't occupy much
space on the table.

Not for effect, But for reading.



Craft enthusiasts





Students

Use and Throw. cheap.
Light. Portable.



Hospitality

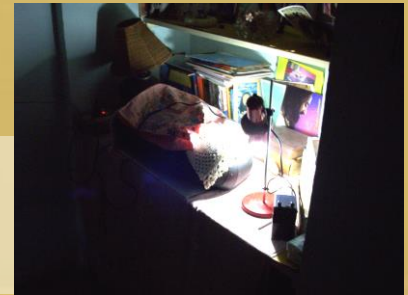
Lamps becomes a part of the décor of the room.
It has to go with the theme and colour.

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

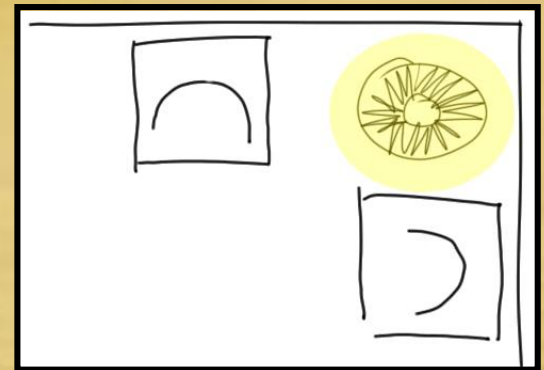
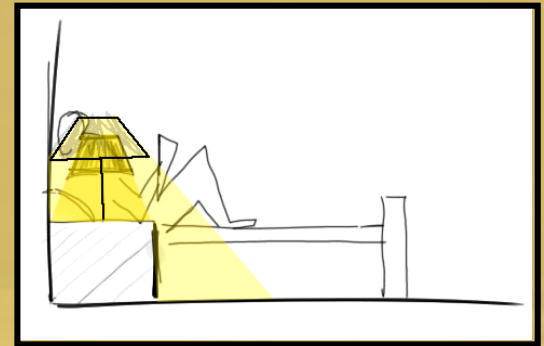
Display lamps



- 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.

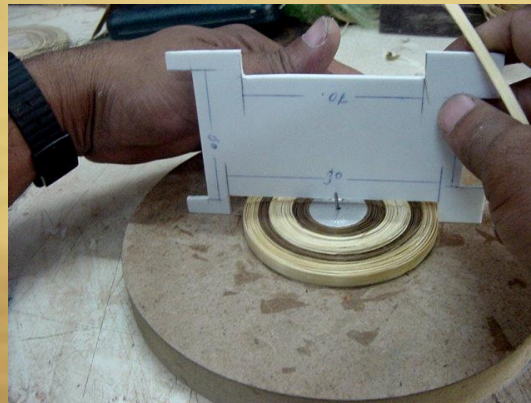
For sensitive upper middle class who are conscious of the bamboo as a sustainable material.



Bamboo Weaves



Bamboo Coil technique



Coil Technique

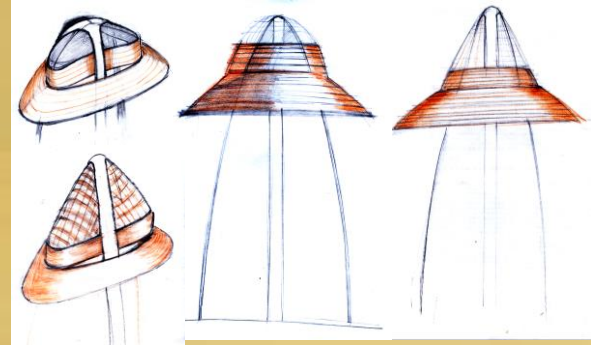
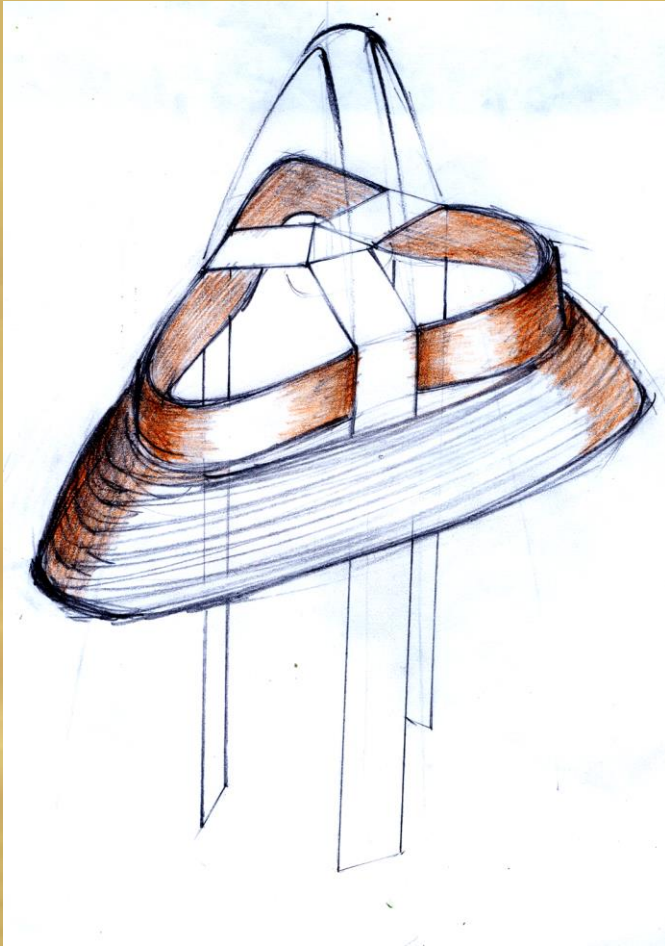


Light and texture

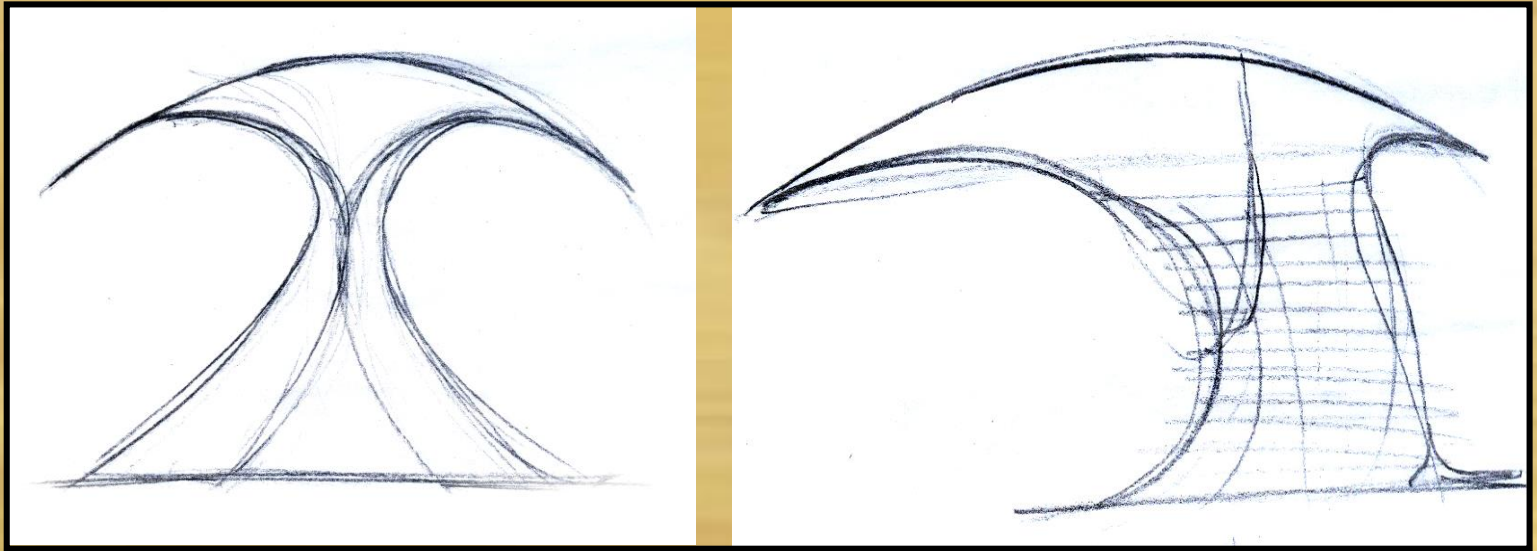


...Exploration

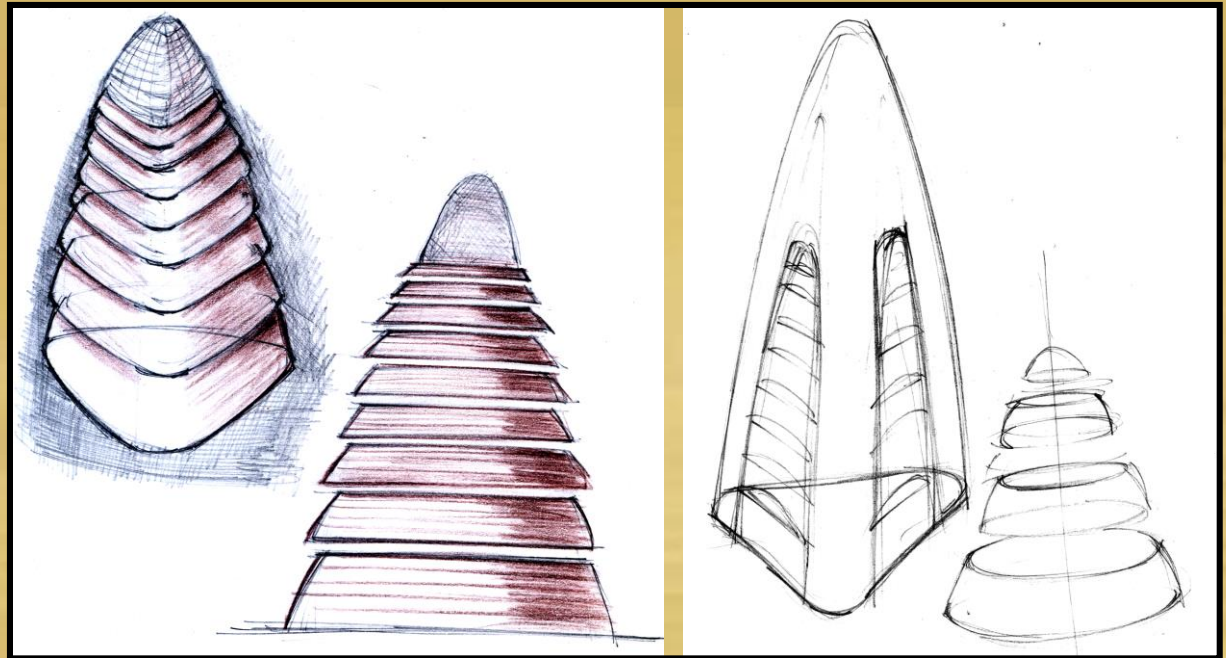




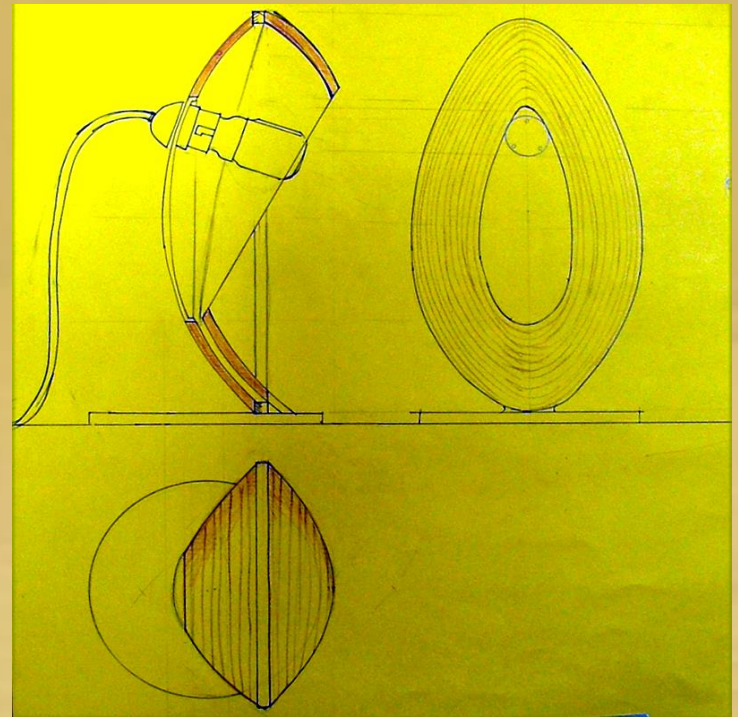
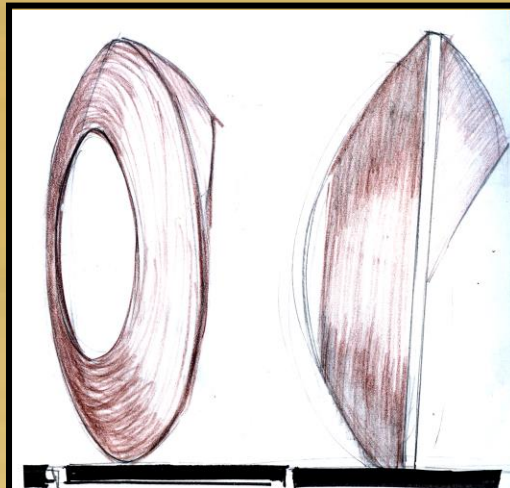
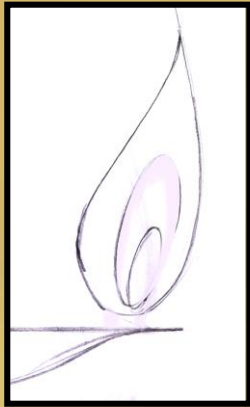
Initial ideas



... initial ideas



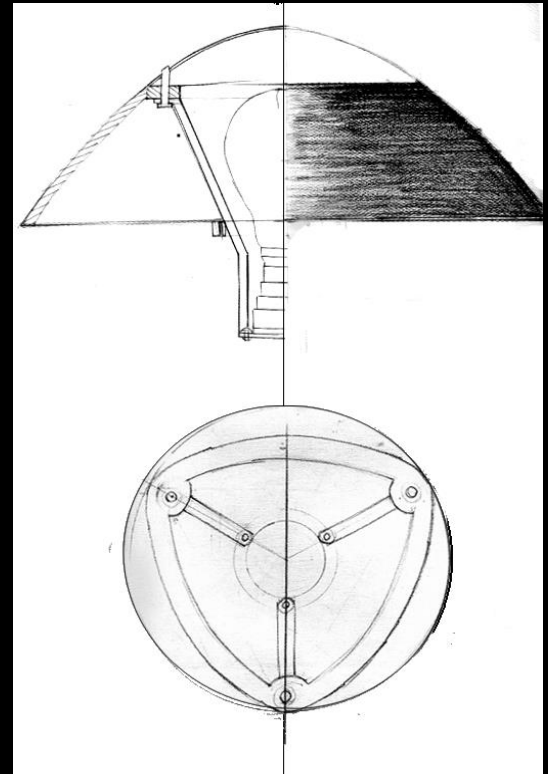
... initial ideas

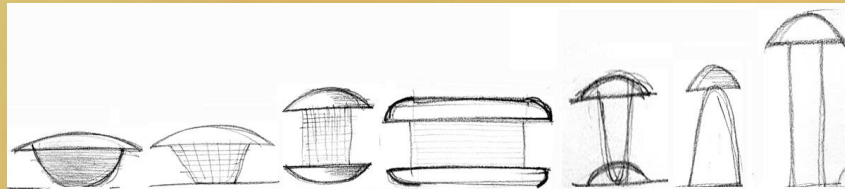
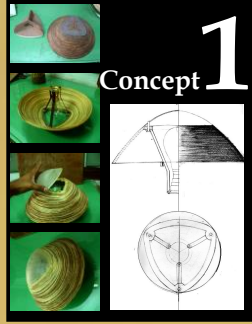


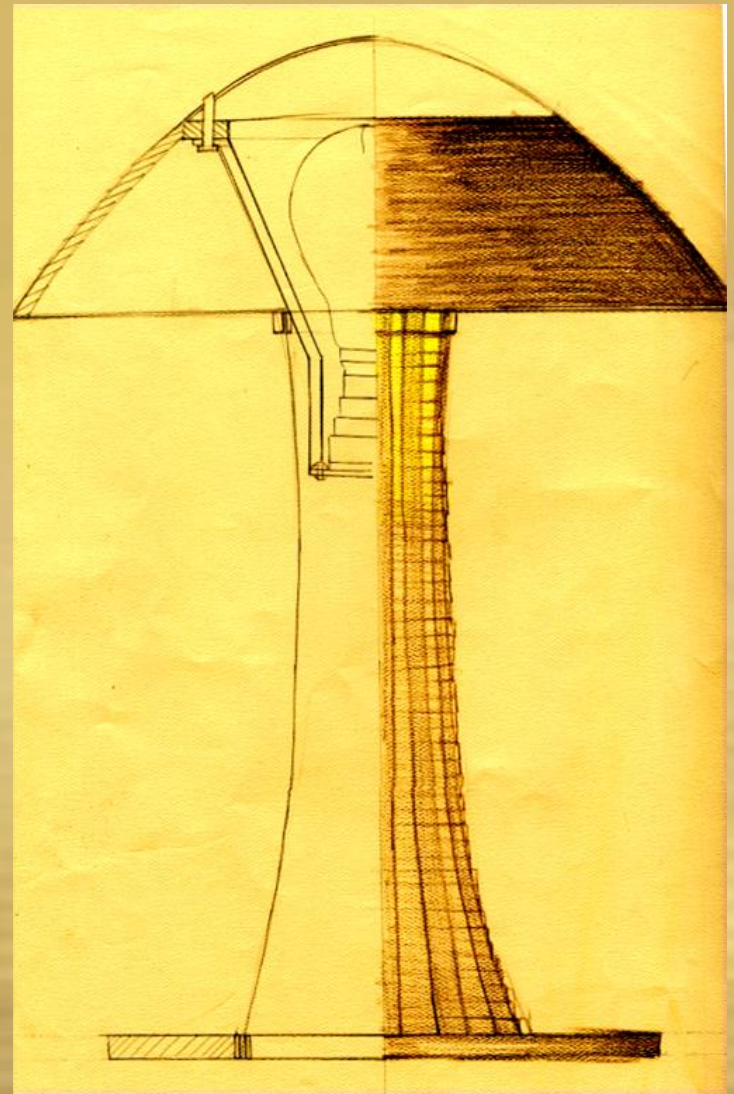
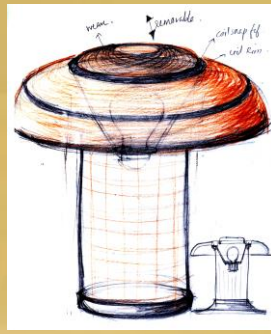
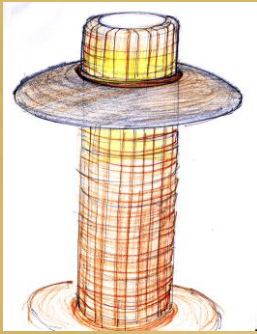
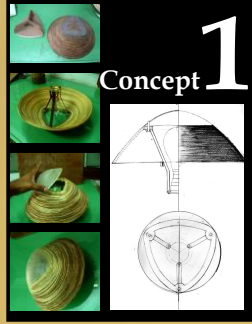
Concepts

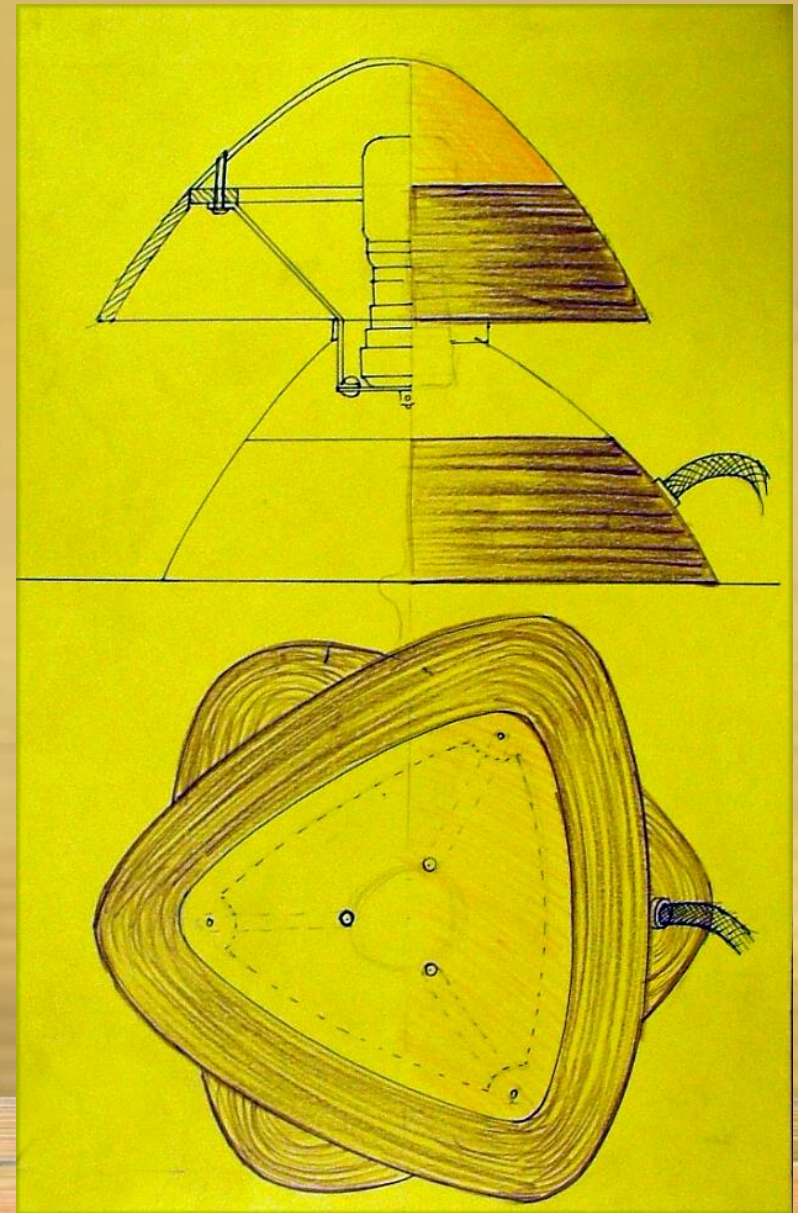
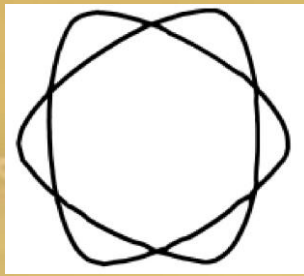
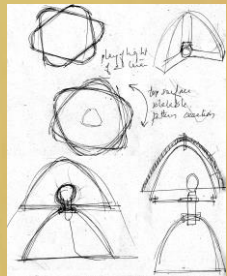
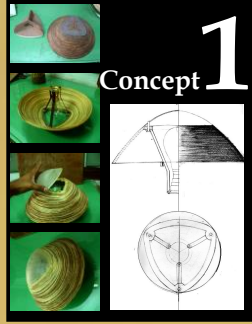


Concept 1

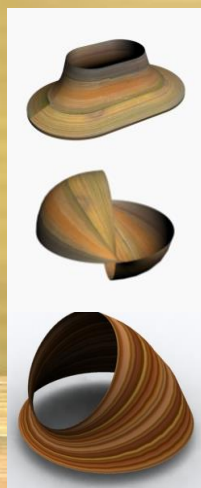




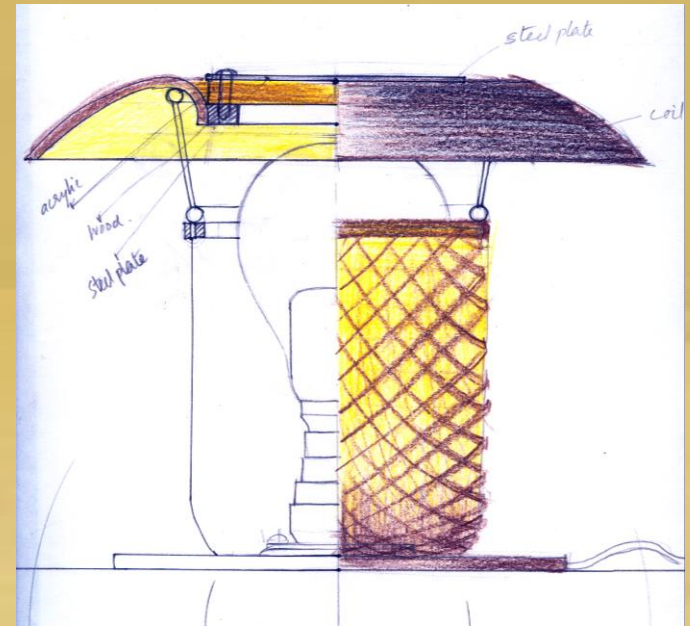
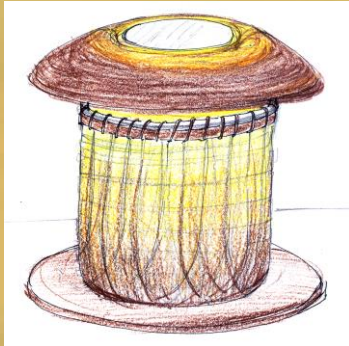




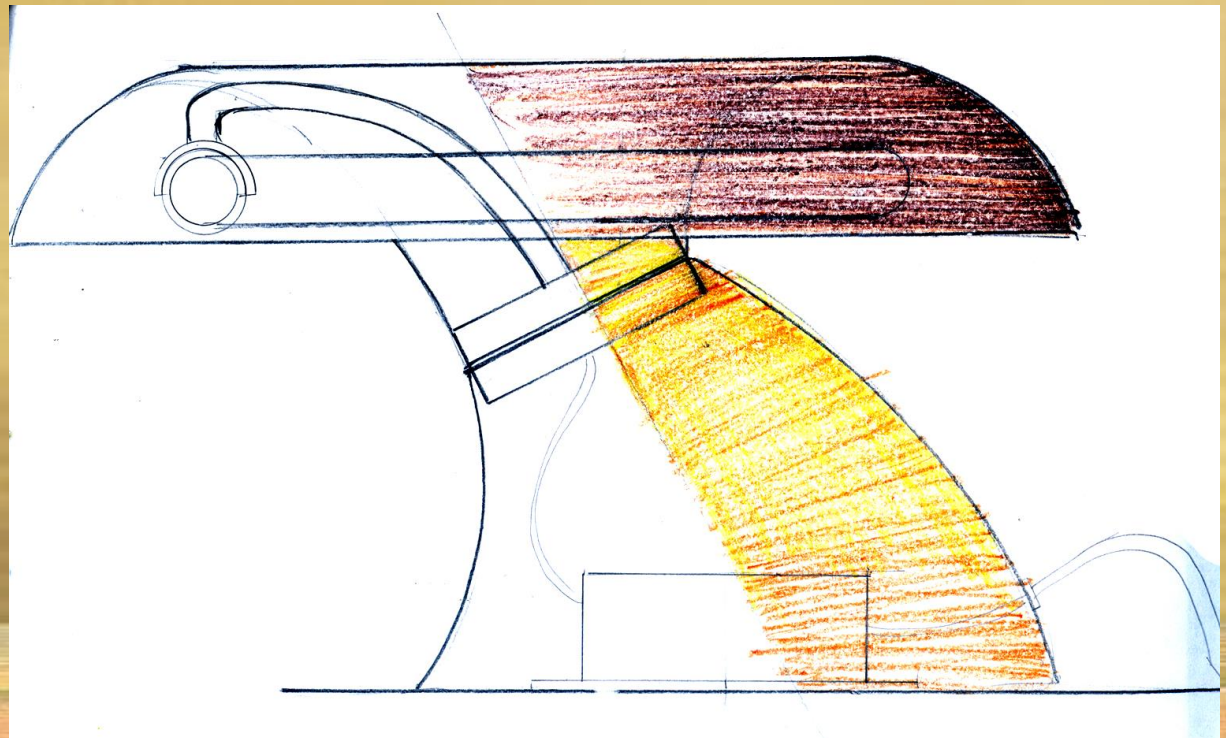
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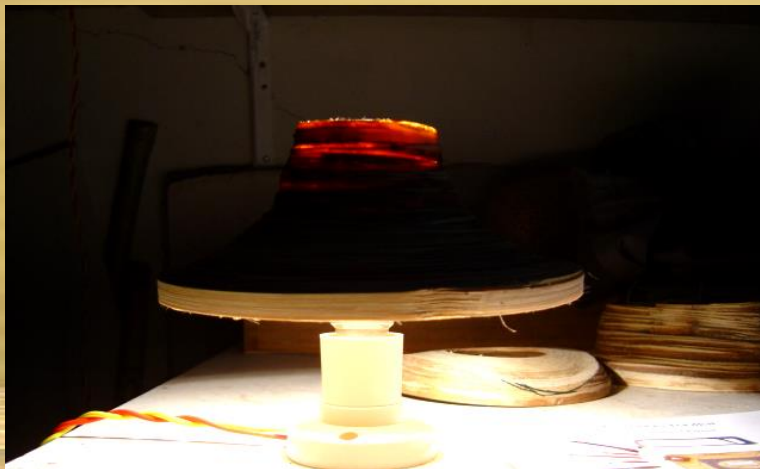
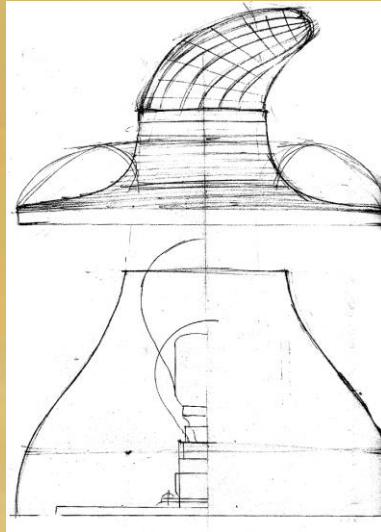
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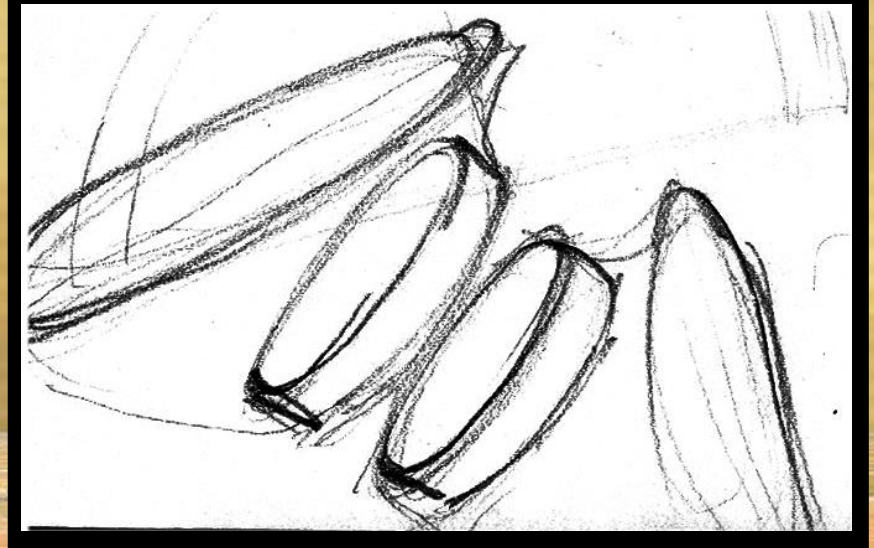
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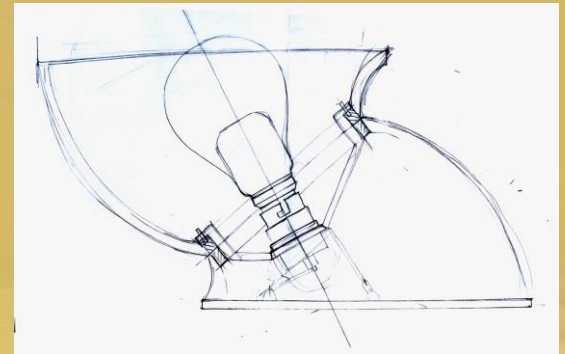
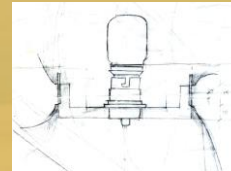
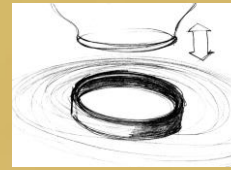
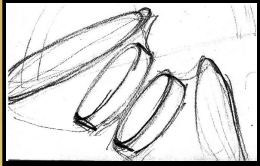
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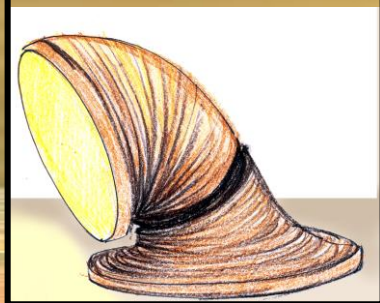
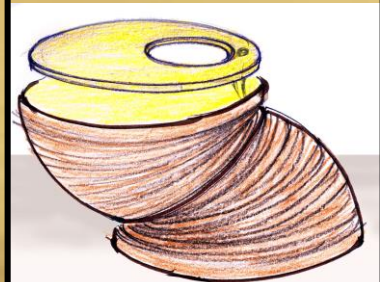
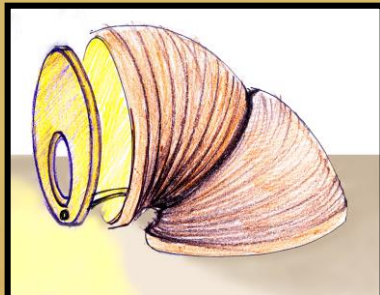
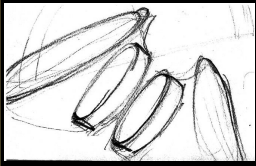
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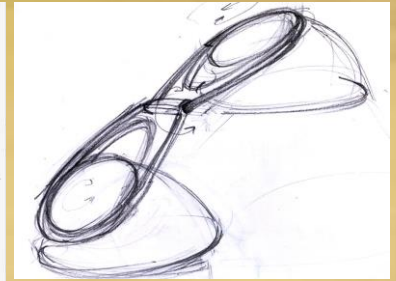
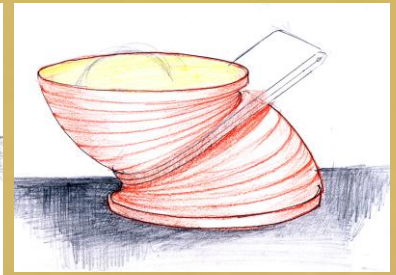
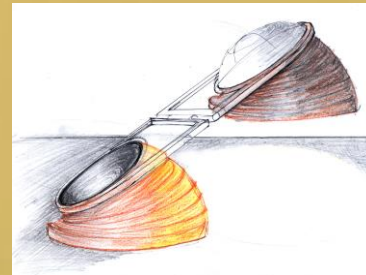
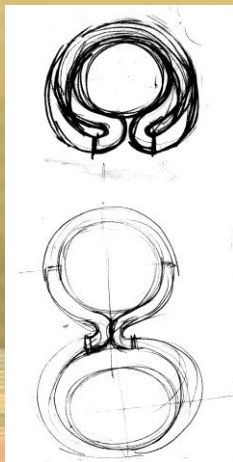
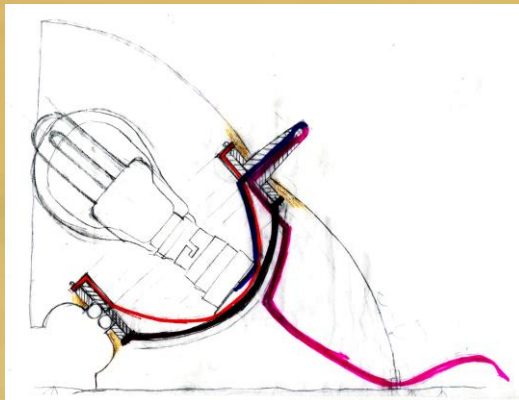
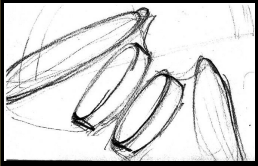
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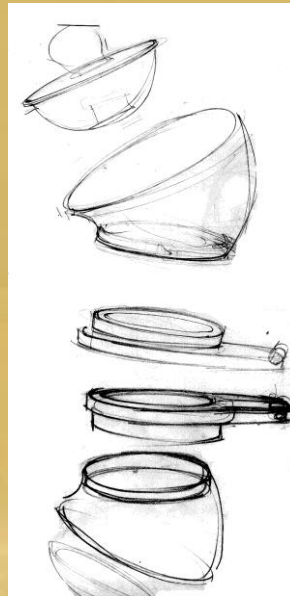
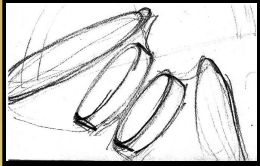
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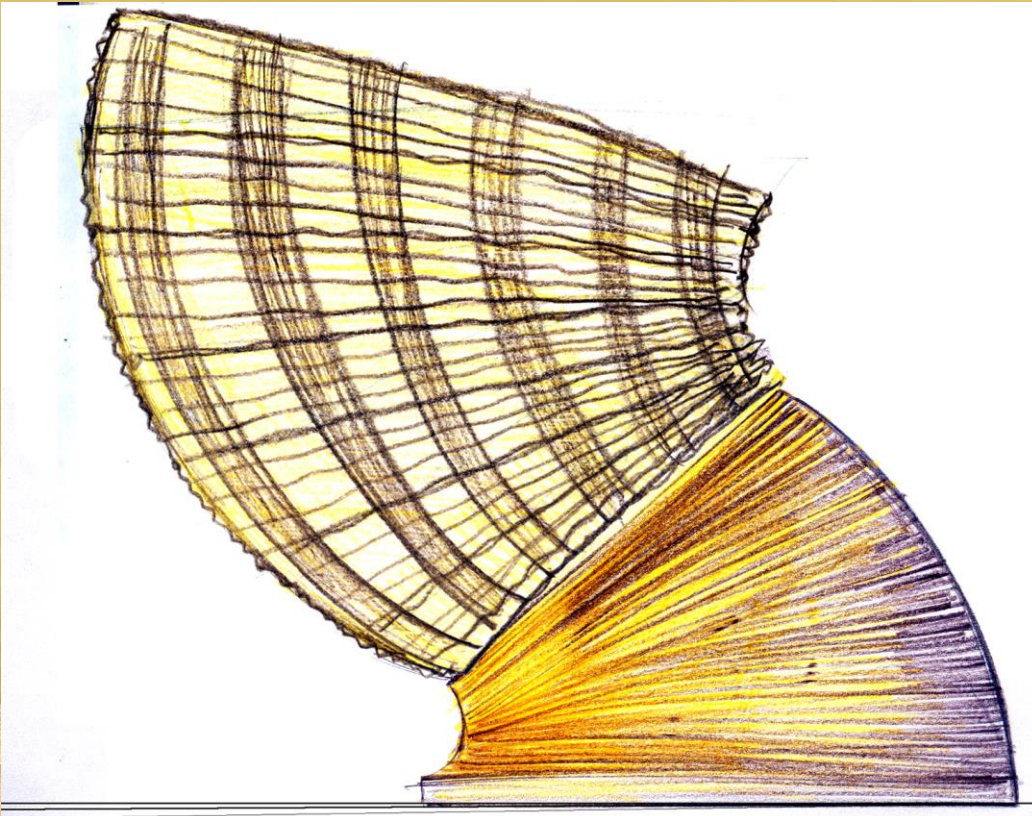
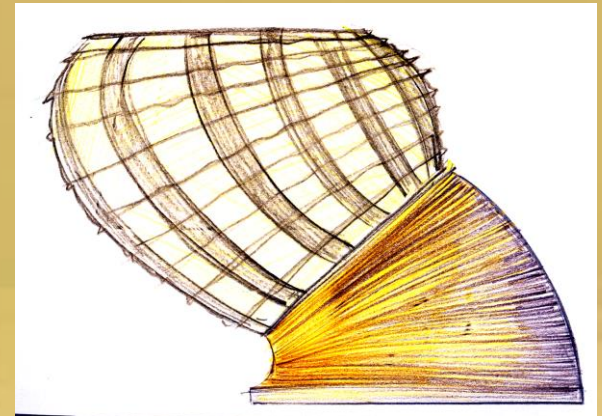
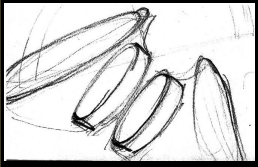
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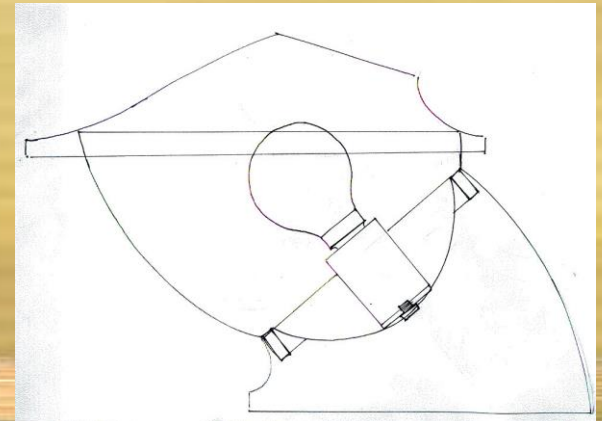
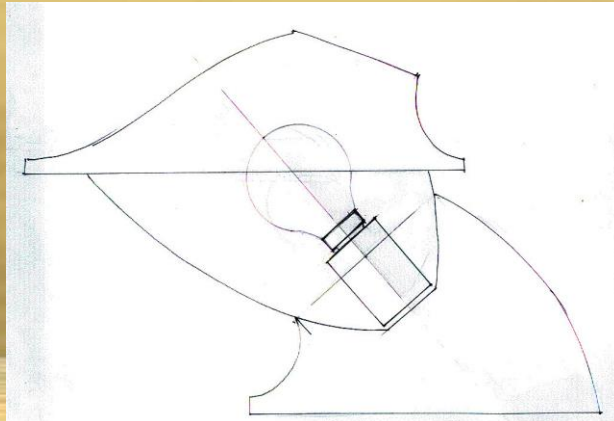
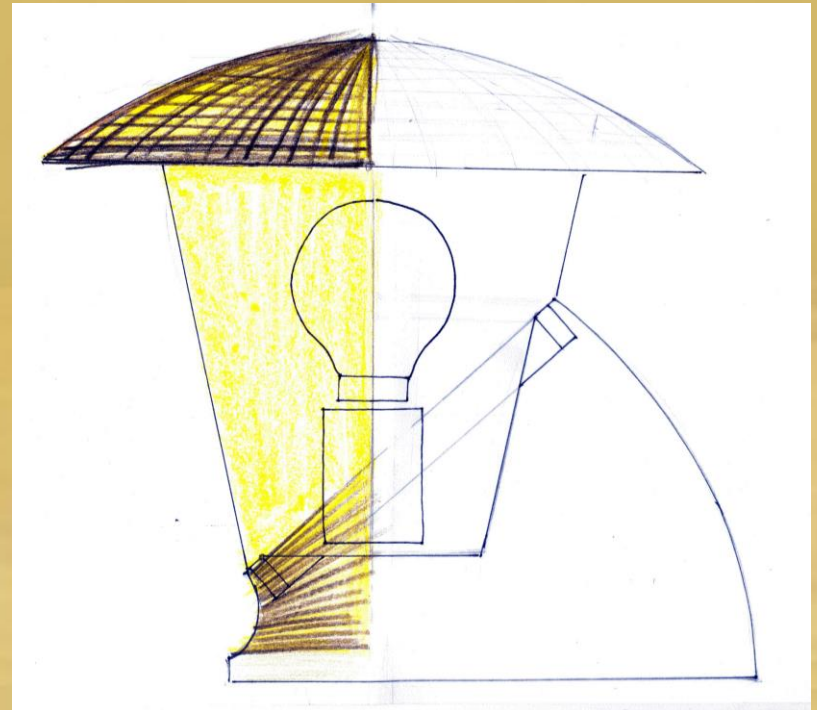
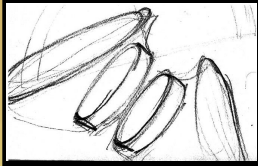
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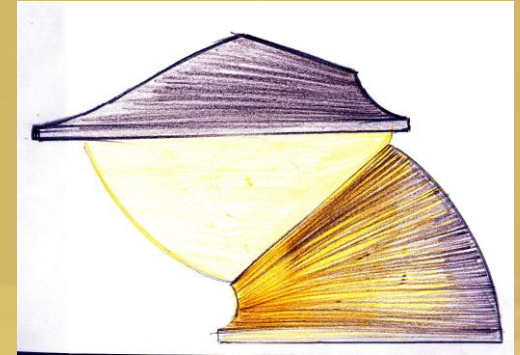
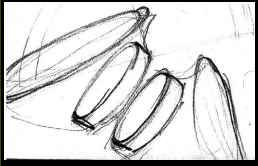
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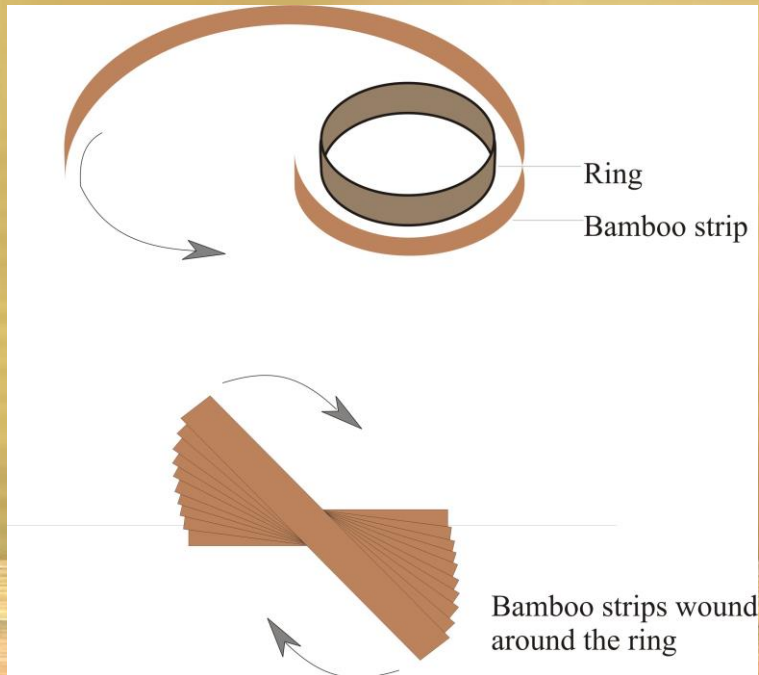
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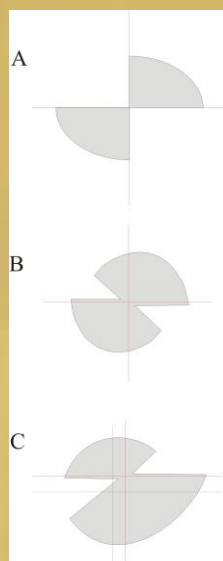
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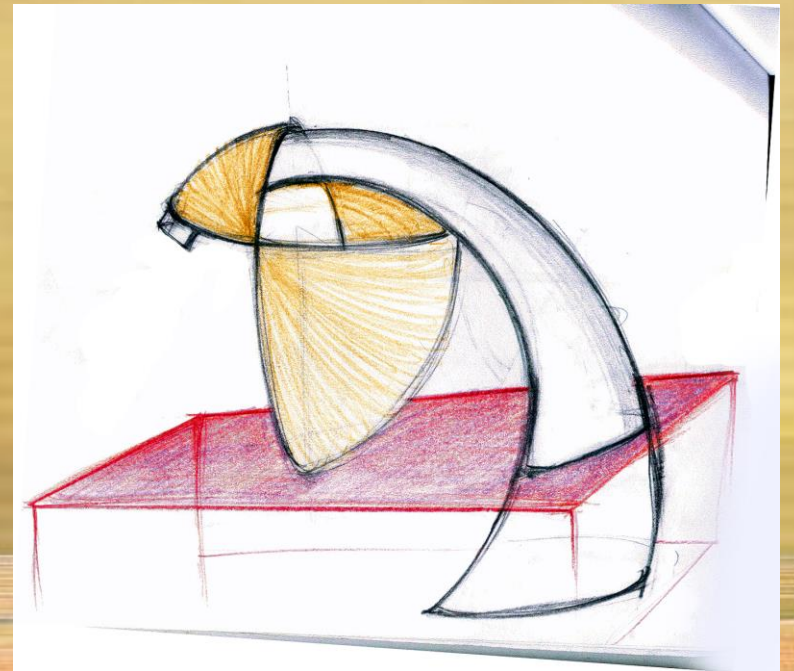
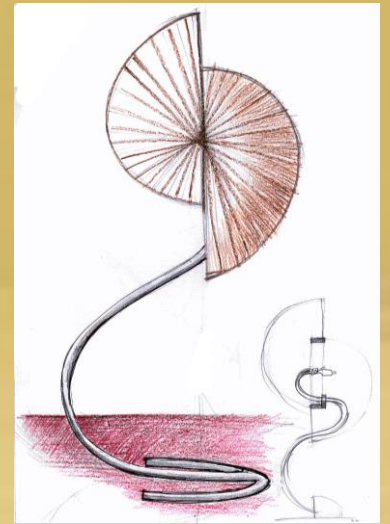
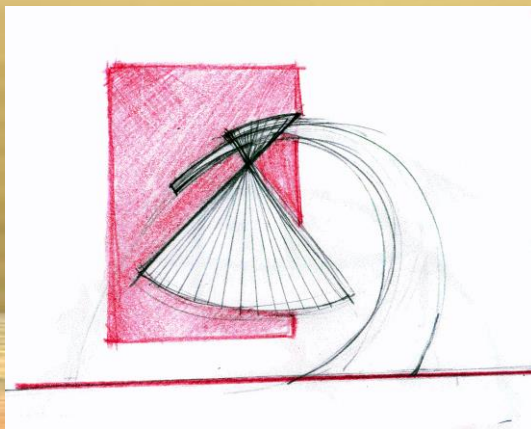
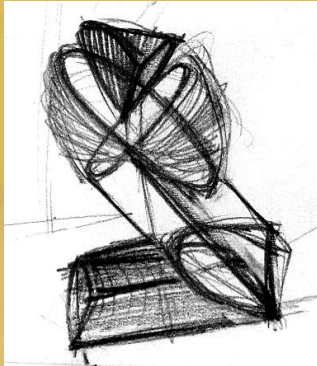
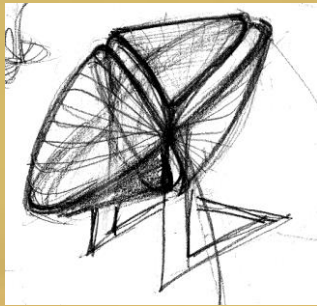
Concept 4



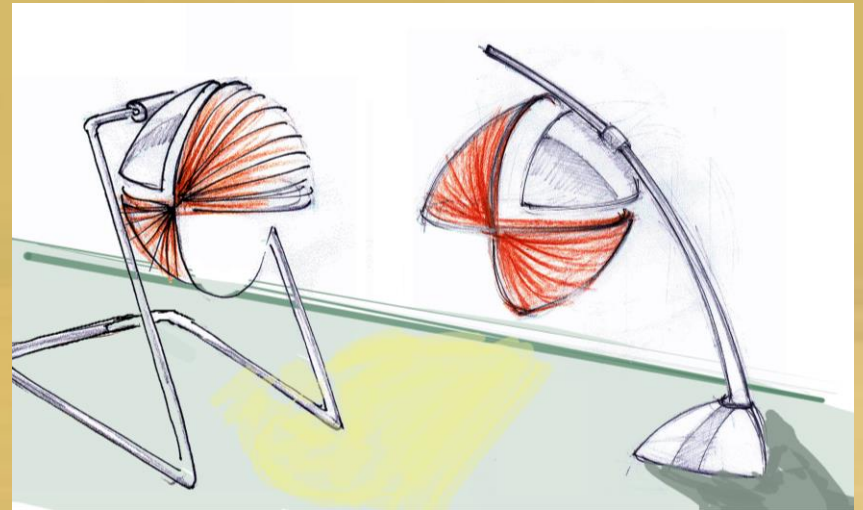
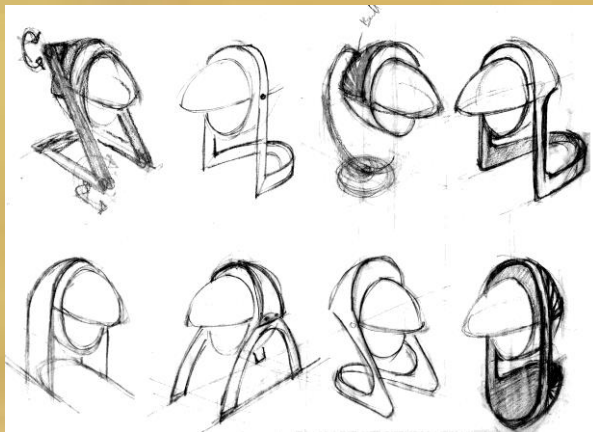




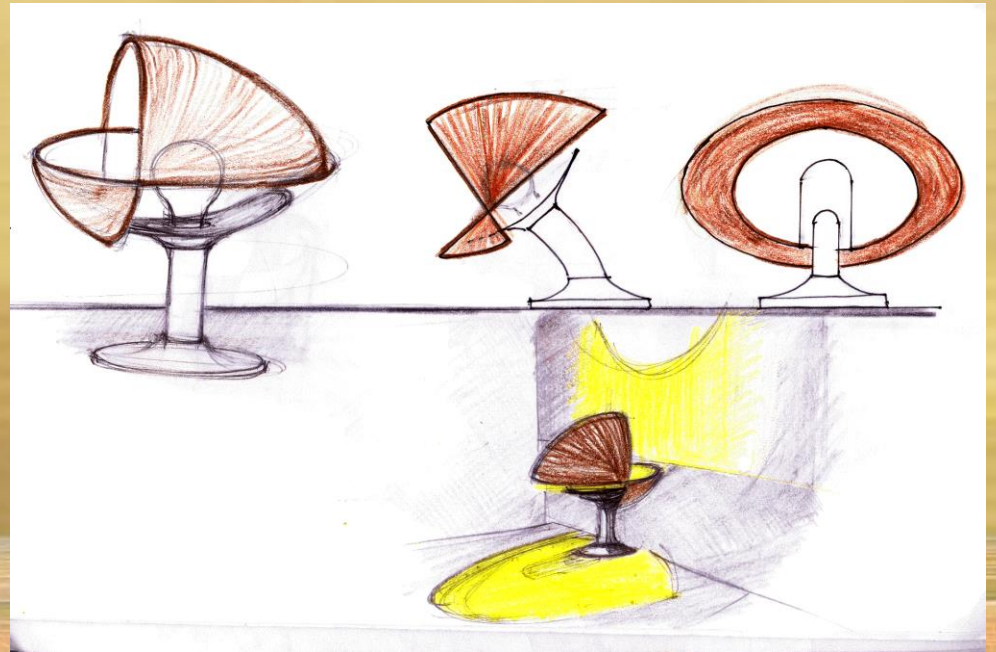
Concept 4



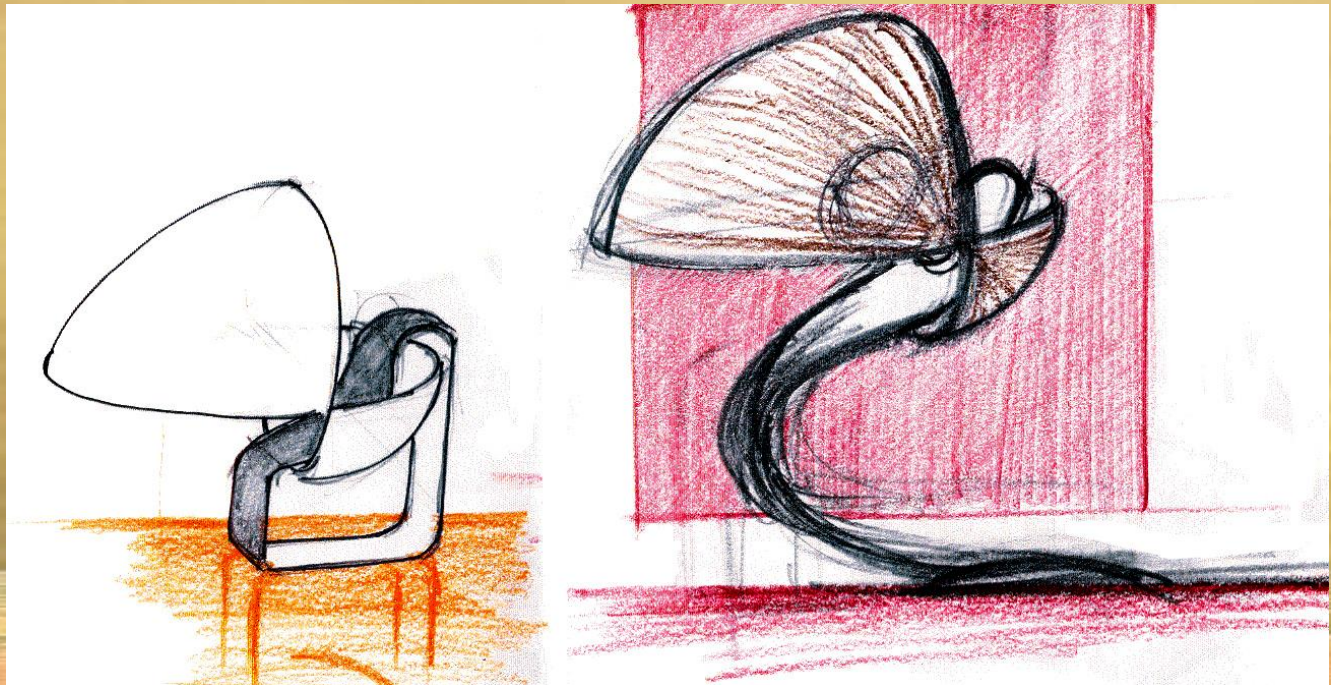
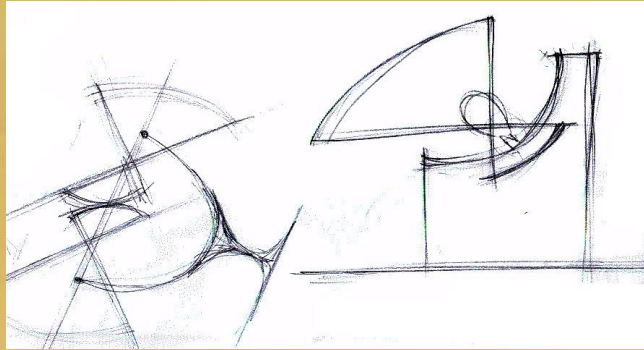
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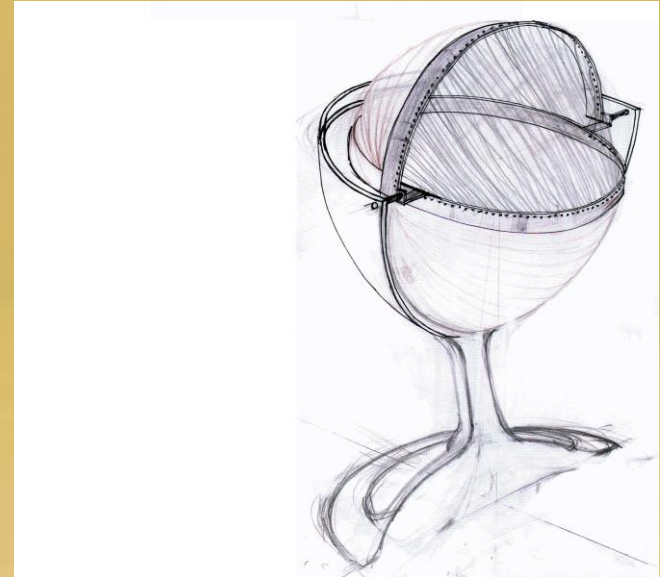
Concept 4



Concept 4



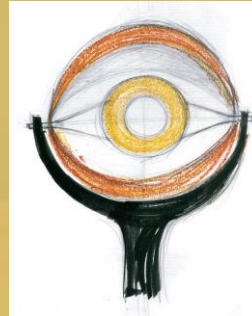
Concept 4



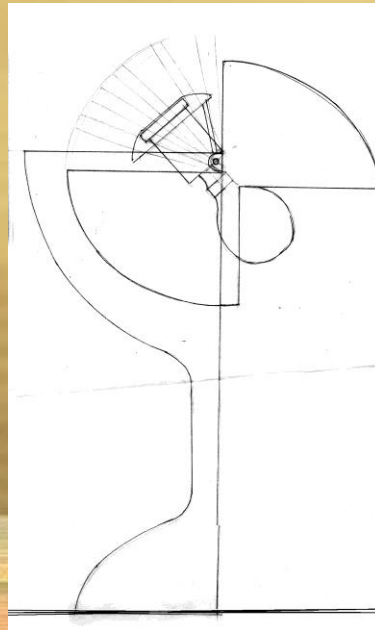
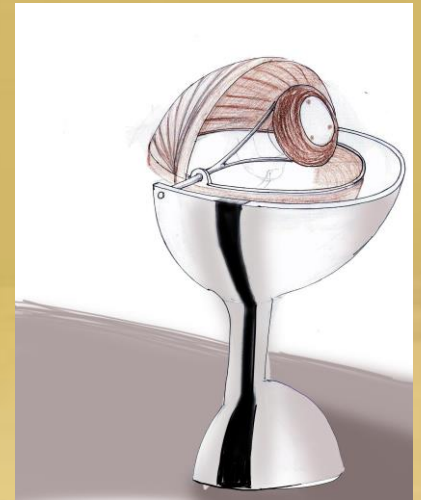
Concept 4



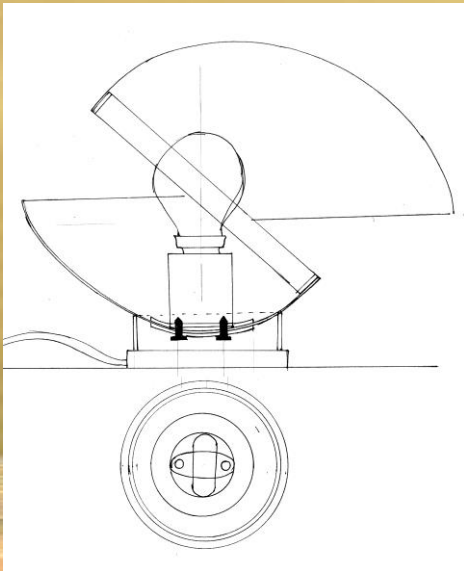
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Concept 4





Training Workshop



The design transfer process

Teaching tools and techniques.

Teaching methods of production.

Teaching using different media

Computer presentation

Manuals

Demonstration

Practice

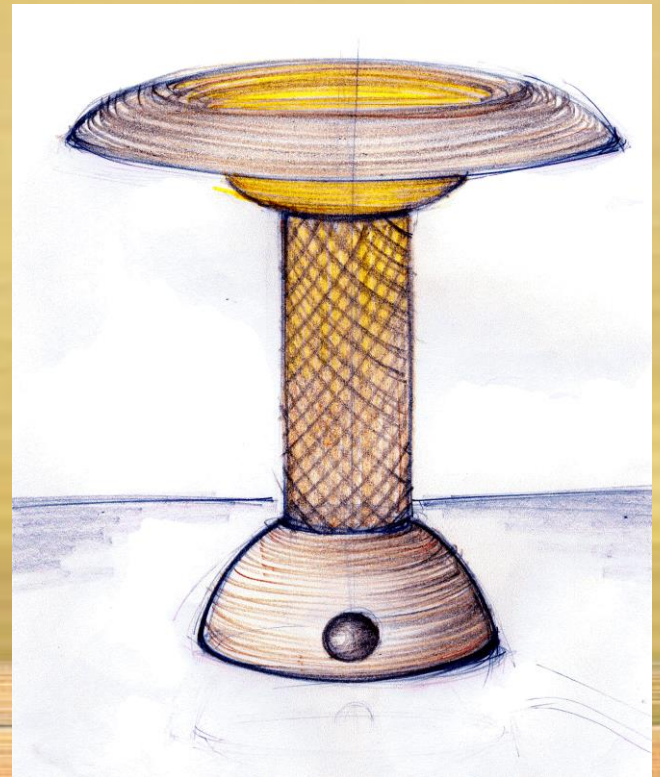
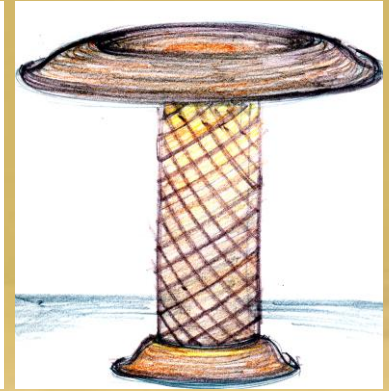
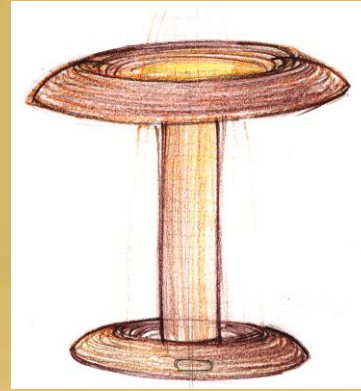
Ensuring quality.

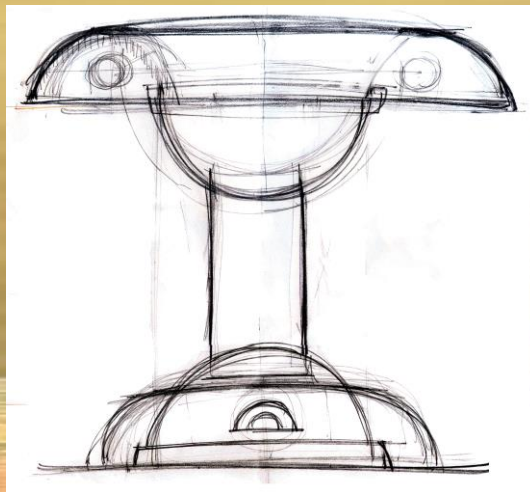
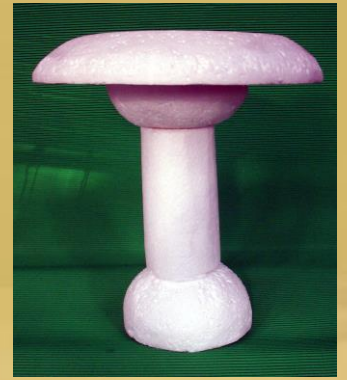
Costing Estimation

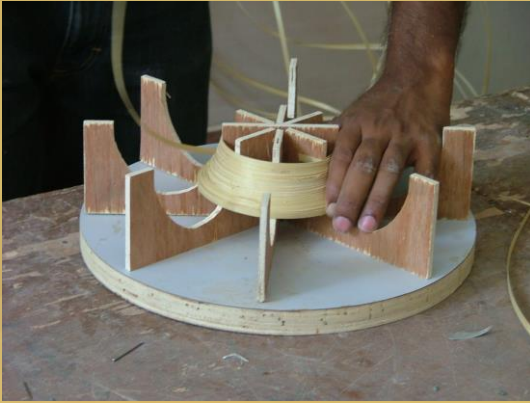
Finishing.



Final Concept











Thank you