

Luminaries in Bamboo

- A Floor Lamp In Bamboo

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Why this project...

- Rarely a bamboo or cane lamp is spotted in the store.
- The people who want to buy a bamboo or cane lamp generally get them made by a craftsman or ask the interior designer to get it for them.
- Ironically the only permanent market one could buy bamboo craft products from are the exhibitions held in the urban areas from time to time.
- The existing bamboo lamps are either not of a very good quality or with not much variation in design.
- Thus this project was initiated.

About bamboo and light...

- Every luminary transforms itself when it is lit, a whole new identity comes through to the viewer.
- The beauty of bamboo lamps lies in this transformation as the weaves glow when light passes through them.
- To add to the drama, the light percolates through the weaves creating interesting shadow patterns on the walls.

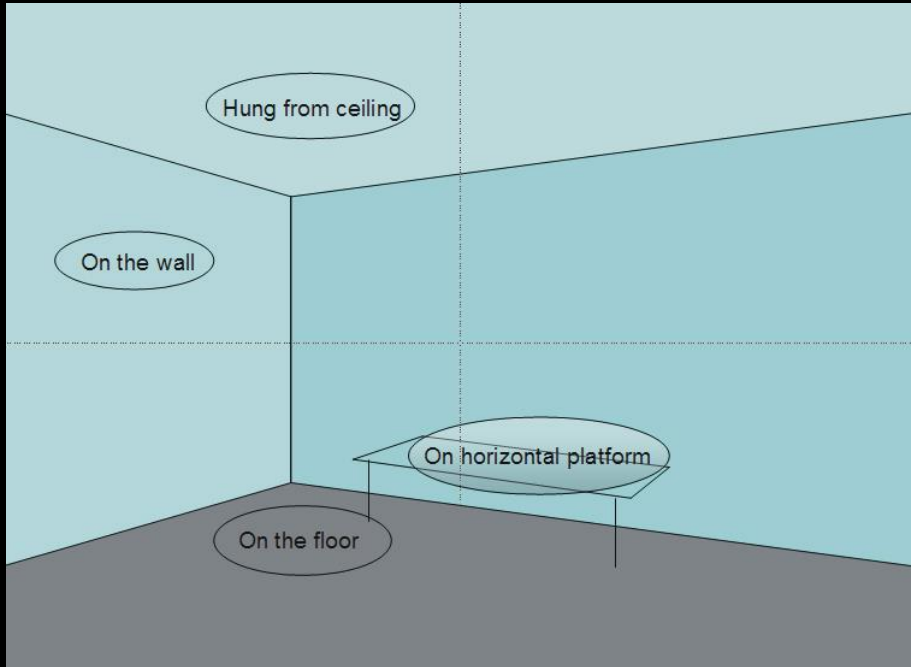
Type of luminaries...

Luminaries in an environment are chosen by the type of lighting they give

1. Ambient lighting (wall washers, chandeliers etc)
2. Accent lighting (focus lights, track lights etc)
3. Task lighting (table lamp, reading lamp, dining lamp, etc)
4. Decorative lighting (festive lights, chandeliers etc.)

The lighting which is usually a deliberately contrived statement, to be seen as a part of the entire decorative scheme of a room.

Type of luminaries...



The luminaries could be broadly classified by the way they are mounted as

1. Wall lamps (wall washers, picture lights etc)
2. Floor lamps (uplighters, reading lamps etc)
3. Ceiling lamps
4. Table lamps

To understand the type of lighting and lamps used in the households, further investigation was essential.

User study



User study



User study



User study



Market Study

Various markets for lamps could be listed as:

*Most of the urban
population frequents here*

- 1. Local shops
- 2. **Shopping malls**

*More of modern
glass/metal lamps are
seen here*

*A small section of the urban
population comes here*

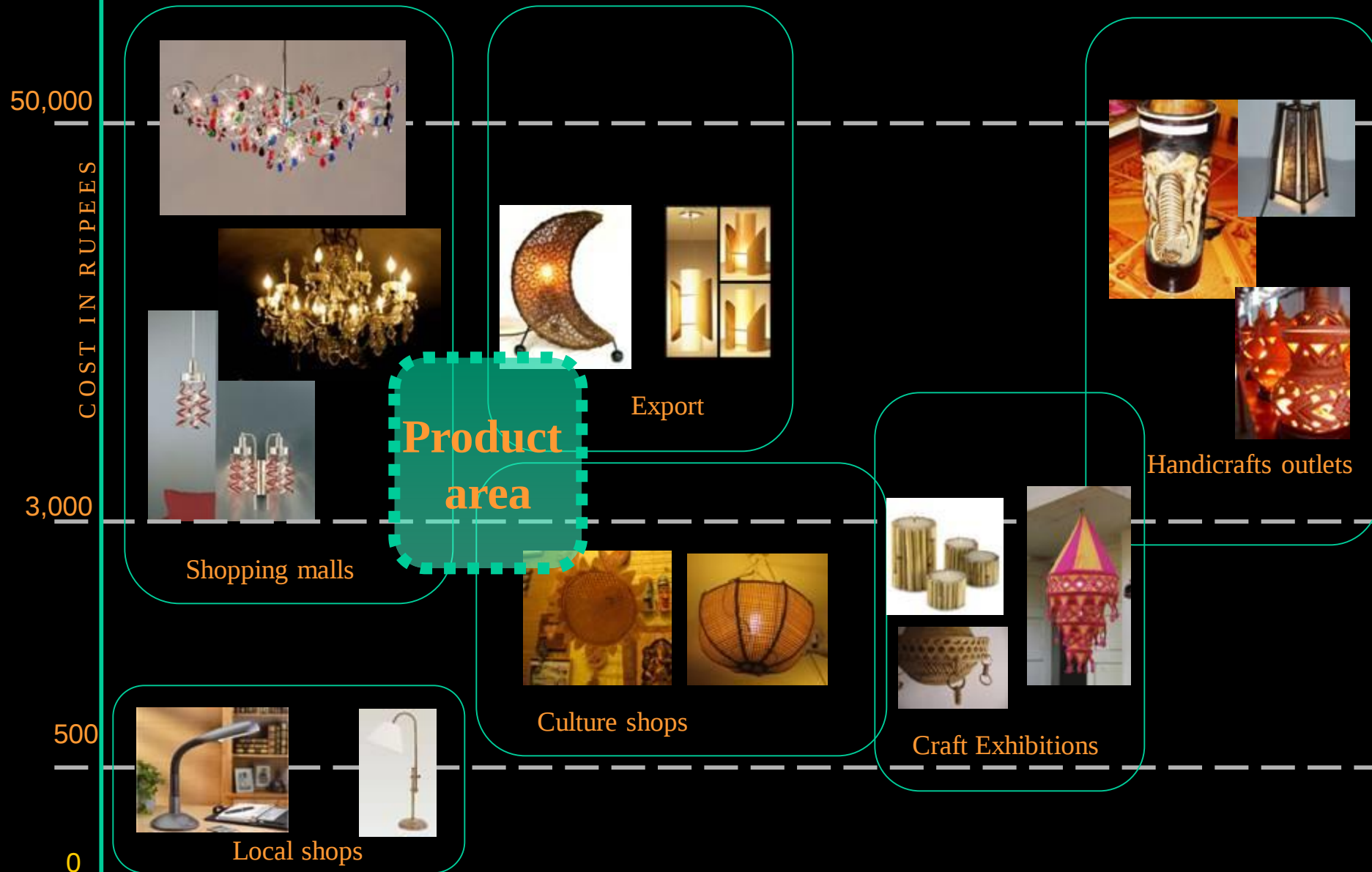
- 3. **Culture shops**
- 4. Exhibitions

*More of bamboo and
other traditional
lamps are seen here*

*Very specific and small
group of consumers*

- 5. Handicrafts outlets
- 6. Export

Market study analysis



Materials : glass, metal
Style: glossy, modern

Materials : wood, bamboo, terracotta
Style: ethnic, traditional

Market study

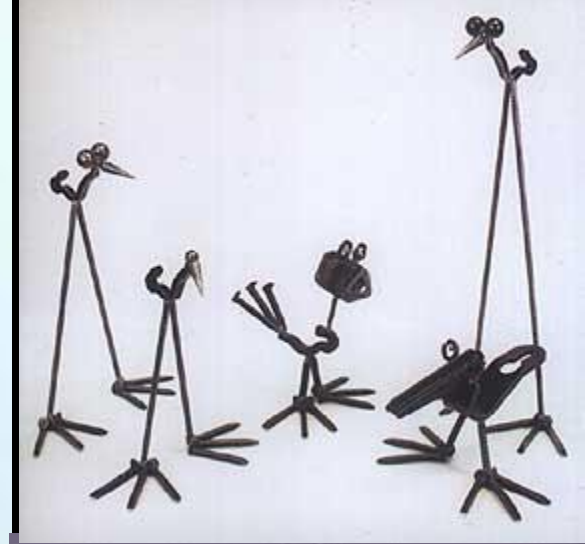


Product brief ...

Product	a pedestal lamp which gives low ambient light plus light for casual reading
Target consumer	higher middle class
Market price	Rs.3000/- to Rs.5000/-
Market positioning	in ethnic stores
Transportability	knock down for convenience in shipping the product from one place to other.
Manufacturing	by medium skilled craftspersons

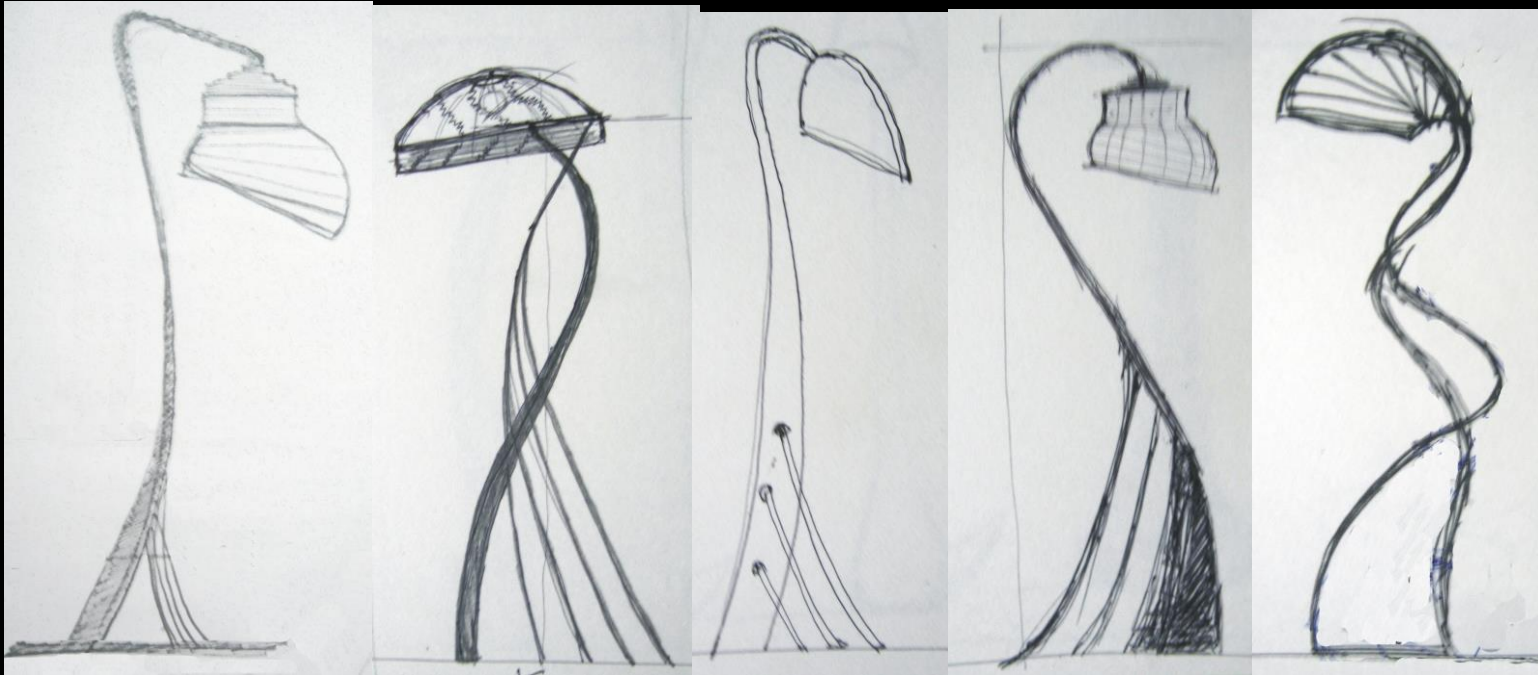
Ideation...

An image board was created to aid in the process.



Ideation...

- Ideation was based on the form of an elegant bird...

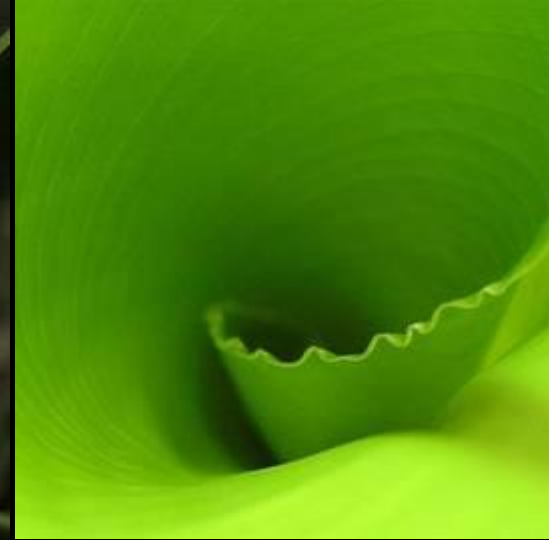
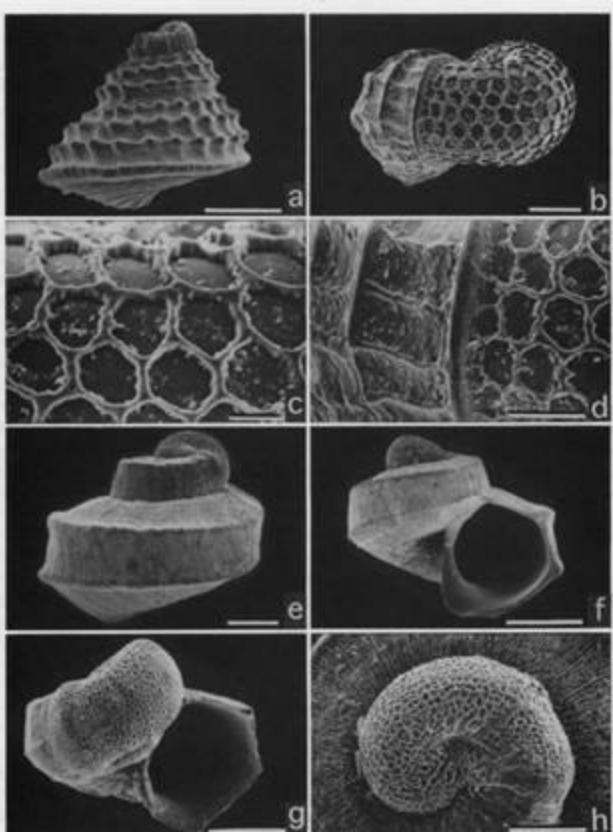


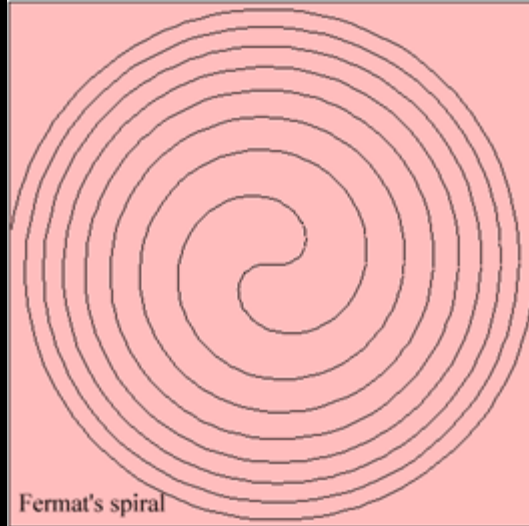
Ideation...



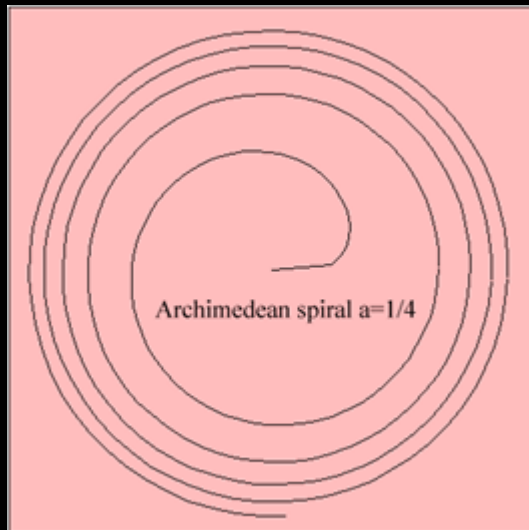
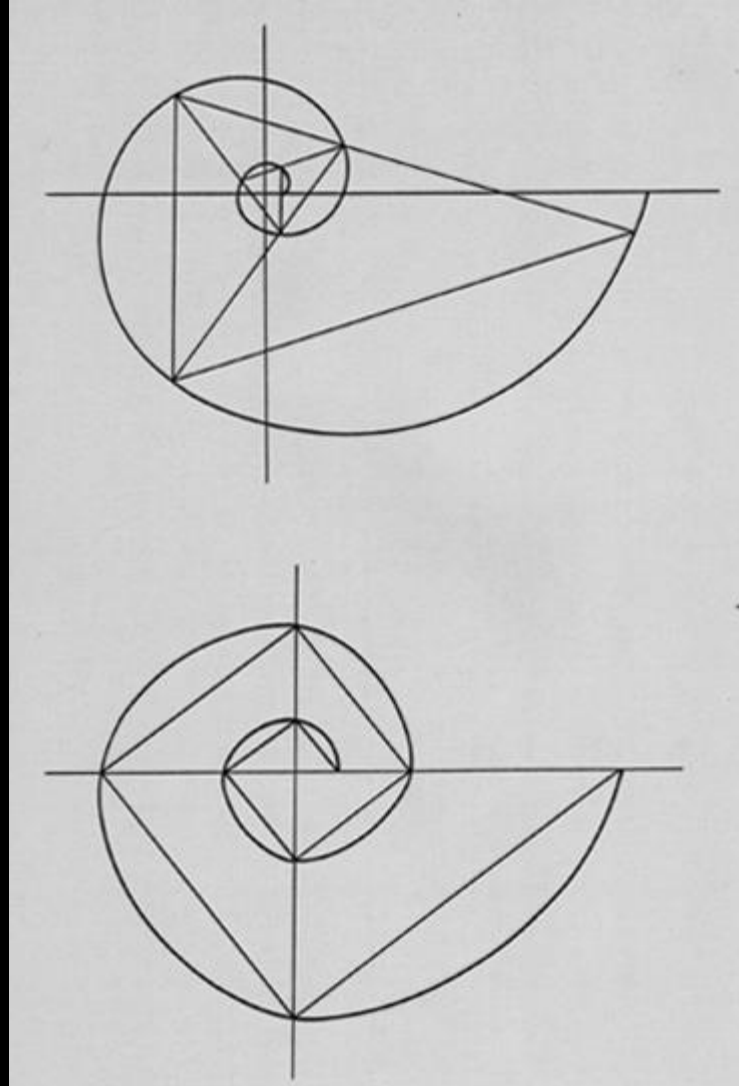
Ideation...

- The ideation was based on spirals. An image board was created for the same.

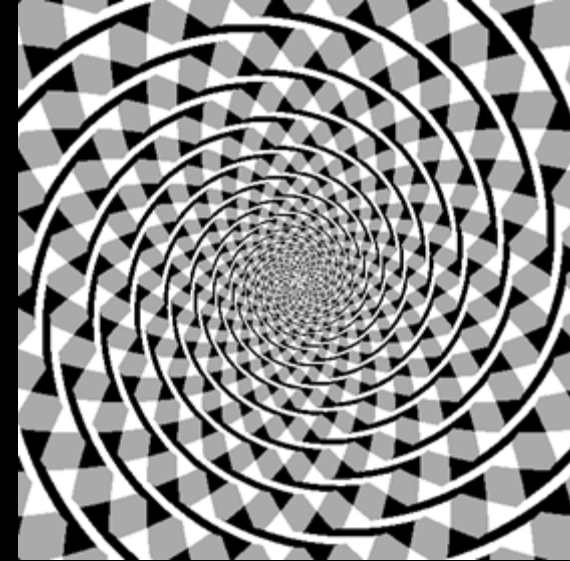




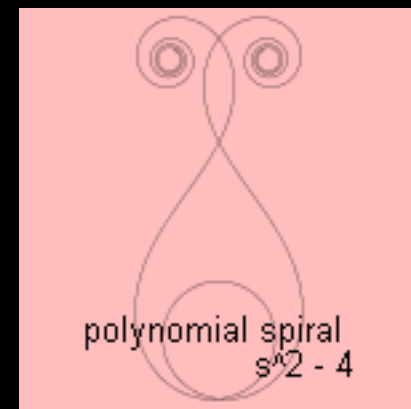
Fermat's spiral



Archimedean spiral $a=1/4$



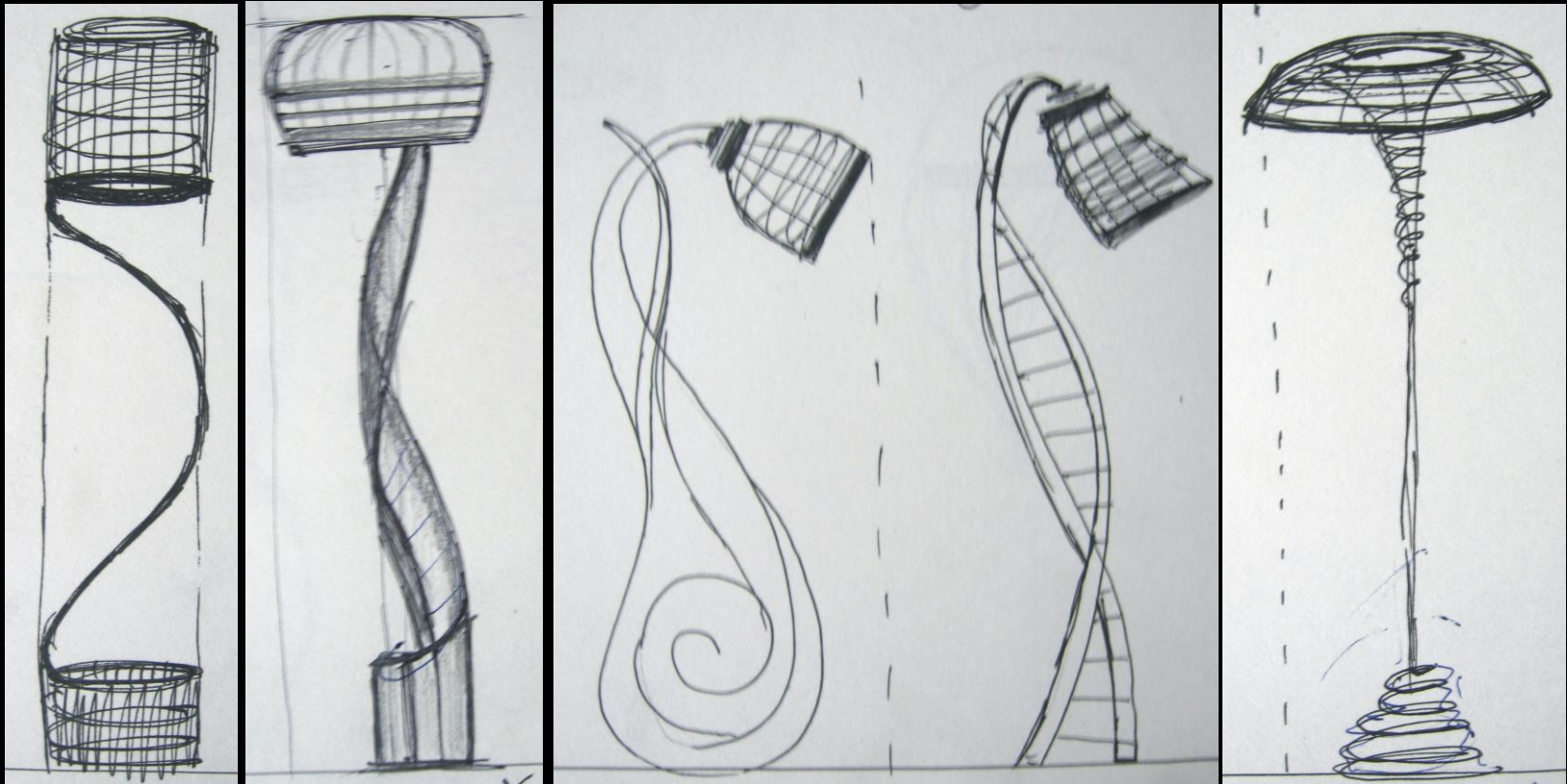
epi spiral $a=1/10$



polynomial spiral
 $s^2 - 4$

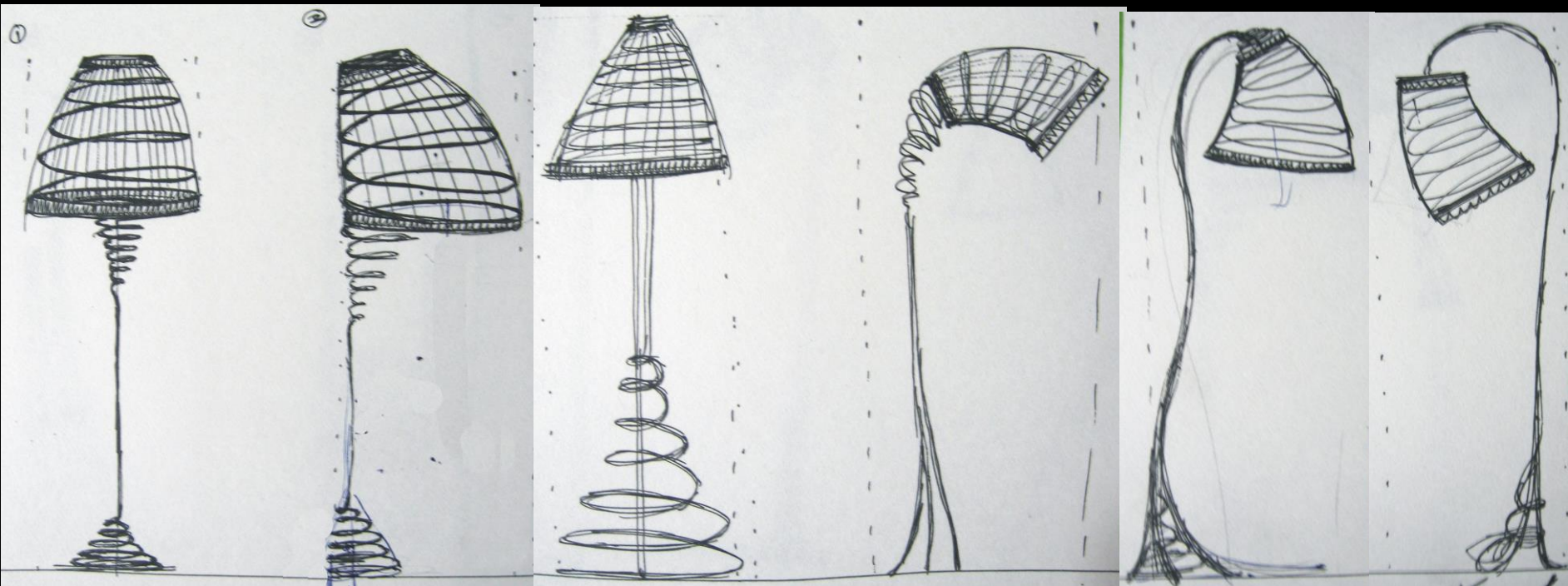
Ideation...

Ideations based on spiral as a theme...



Ideation...

Ideations based on spiral as a theme...



Concept 1...



A traditional trap from north-east India which uses bamboo sticks and cane for winding.

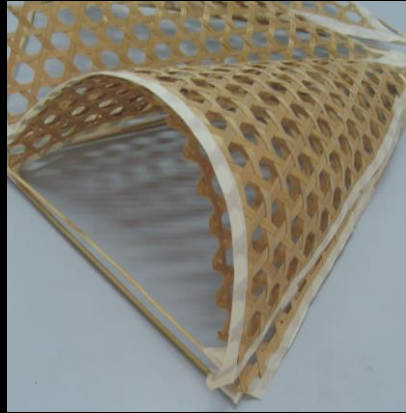
- A self forming shape of shade inspired from the trap woven in a spiral pattern.
- This trap made in the northeast regions of india uses slender sticks of bamboo tied with cane in a continuous spiral pattern. This spiral pattern intrigued me enough to start experimenting with the form!
- The form was made a little eccentric and tried if it stays as in the mold.

Concept 2...



- A ready mold for cane lamp shade available in a cane furniture and accessories shop.
- Shade form using metal frame for the structure
- The slender bamboo sticks were shaped on a metal mold which lead to an idea where possibly the metal frame itself gets incorporated in the shade.

Concept 3...



- Metal frame and mats used to make the shade.
- This concept took birth due to the fact that making mats is the most easy job that can be outsourced.
- In fact some mats are already available by order easily in rectangular sizes.

Final concept

- the first concept of self forming shade woven in an spiral was taken further for development.



Final concept

The wire mold photo should come here.

- A mold was made to construct the shade.





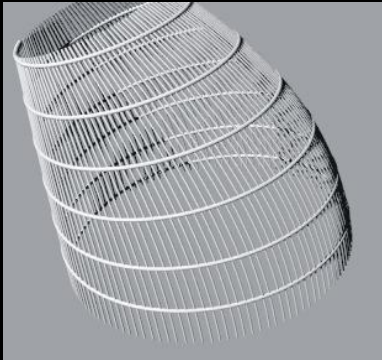


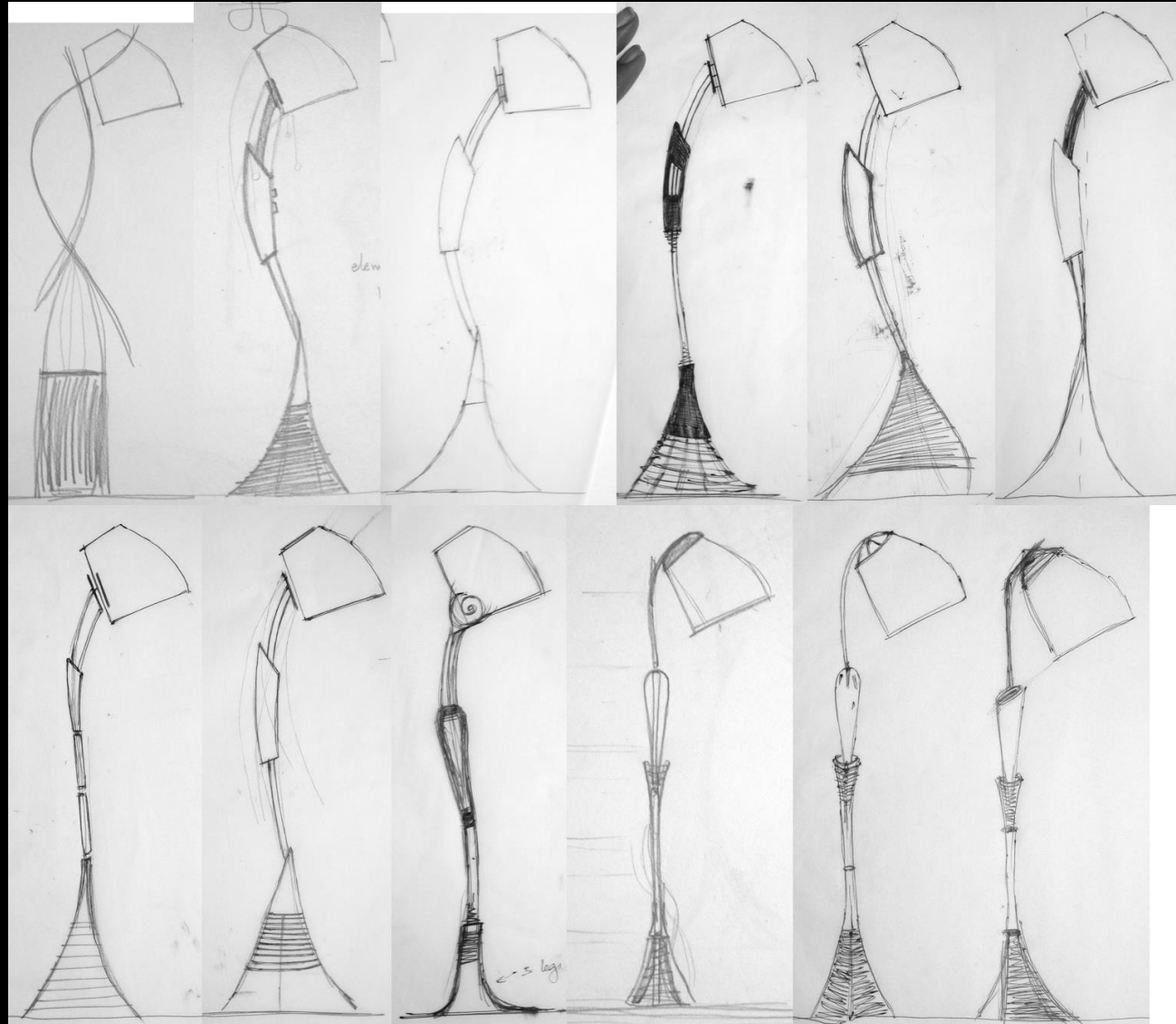
Fig 4.12 Detail of the shade in 3D



Fig 4.13. Pedestal lamp in 3D view

- 3d models of the lamp were made to understand the proportions and texture of the lamp

Concept development



Concept development



- A full scale sketch was made to see the relation between the lamp and the user.

Concept development

- Some photoshop editing helped visualizing the mock up in the given scenario.



Fig 4.18.. Merging the actual mock up models with the scene to understand the feel of the final product

Concept development

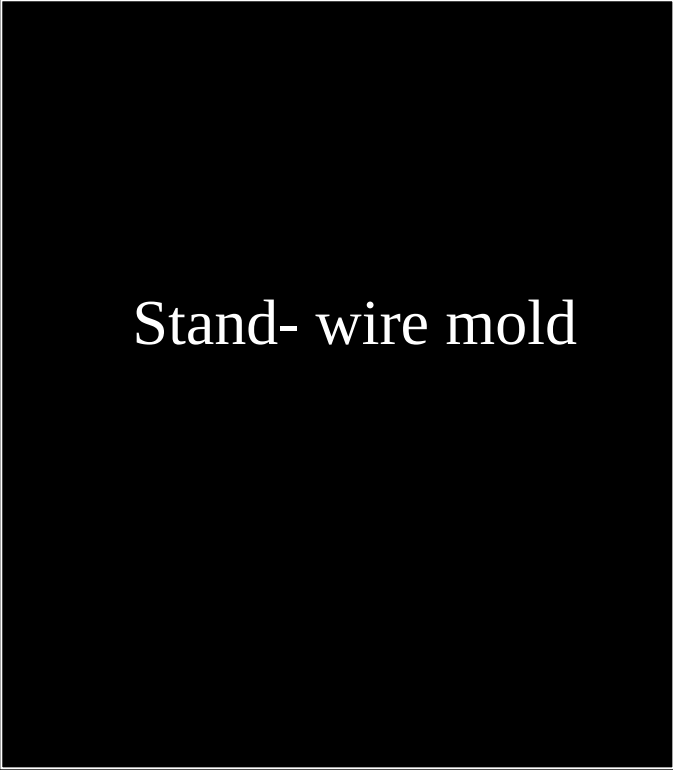
mock up model done in photoshop



- A mock up was done by matching the perspective. This helped me understand the proportions of the lamp

Concept development

- Mold for stand was made.
And the weaving was done.



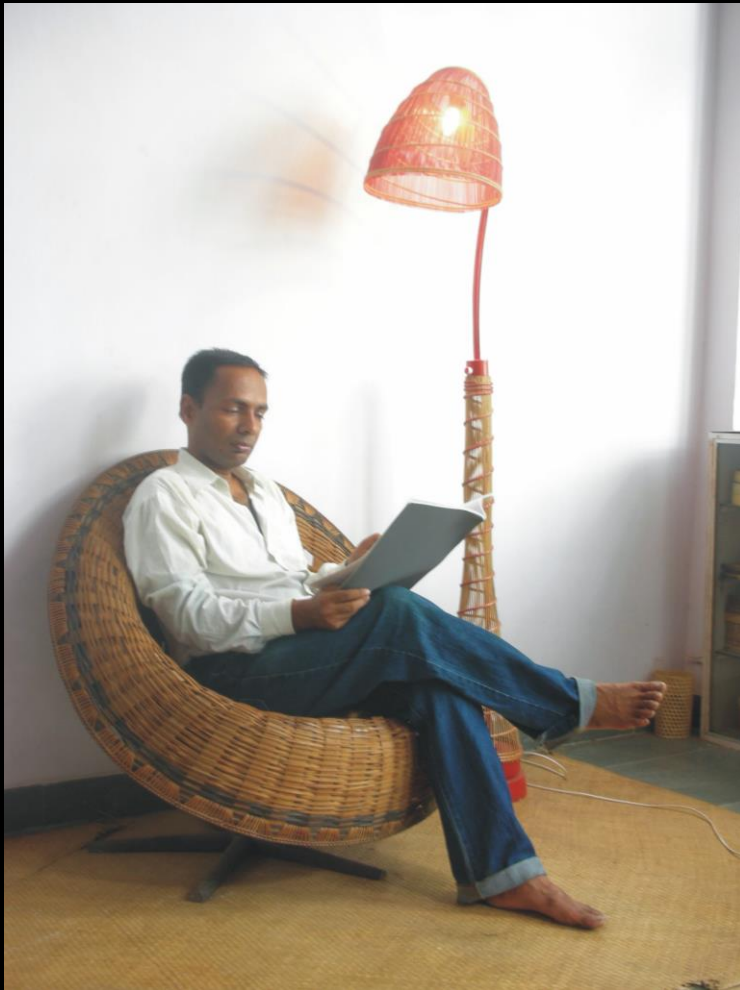
Stand- wire mold

Concept development

- The shade needs to be joint to the pedestal and also needs to hold the bulb. Two plates were sandwiched on both the sides of the woven form.



Final Product



1. Material-- a bamboo pedestal lamp
2. Look-- sculptural and exclusive and indian
3. Function-- light volume control through dimmer
4. Cost-- far cheaper than glass-steel imported pedestal lamps and as elegant
5. Transportable- the lamp can be dismantled in parts for easy transportability.
6. Maintenance– Washable shade! Dustable stand!

All in all an eco friendly lifestyle product!!

Final Product



Pedestal lamp when not lit



Pedestal lamp when lit

Final Product

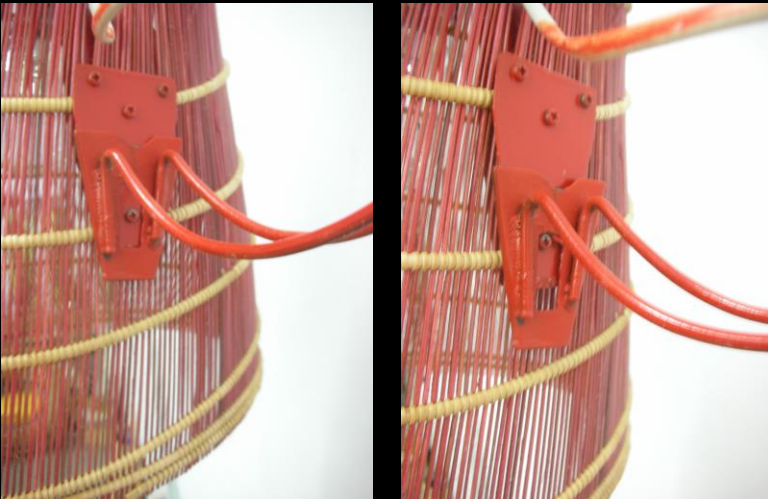


Detail of top edge of shade. Each winding holds two sticks in the last round of the weave.



Detail of bottom edge of shade. Each winding holds only one stick in every round of the weave.

Final Product



The neck of the lamp. Shade can be removed from the stand.



The bulb fixing detail.

Concept development



The dimmer is placed in the upper part of the stand.



The upper part and lower part can be separated for ease of transport.

Concept development



The upper edge of the stand in bamboo.



The lower edge of the stand with base.