



# **Case Study of Stapathis in Palani**

DRS Project Report

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## Introduction

From the town of palani best known for Murugan temple (Karthikeya) also hosts a lot of artists who are very good in sculpting stone, making temples, flower craft and other small pooja goods makers. When the sculptors make the marvellous stone sculptures, there exists another group of marvellous artists without which the endless circuits of temples in and around palani is incomplete. Stapathis are artisans who design, plan and build, carve, paint temples.

## Introduction of the craft in Palani

The name of this craft is மரபு கட்டிட கலை (Marabu Kattida Kalai). The craft was practiced in Chennai initially. As the devasthanam in palani wanted to renovate the Karthikeya temple. They had invited Chellakannu Stapathi from chennai to lead the renovation. After his lead His nephew Ganapati sthapati came to lead the works in Palani. Ram was initially a potter from vedikarampatti in Tiruchirapalli and settled in Palani. He learnt of this craft from Ganapati sthapati and he also wanted to become a master sthapati. Following that he joined for practice and got a degree from government college of architecture and sculpture in Mahabalipuram. actor Ganapathi Stapathi Ram has been leading the temple work in and around Palani. After his initial times he has worked in numerous places across Tamilnadu and even in Kolar Gold Field. he himself trained multiple stapathis. Now Ram sthapati is around ninety eight years old and his son shiva has followed his lead and has become a Stapathi himself and leads in making temples.



*Figure 1.*

Rama Sthapati





*Figure 2.*

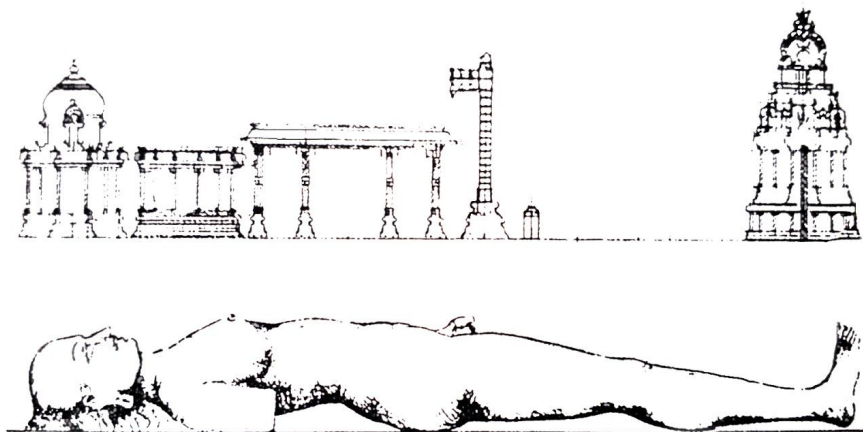
Rama Stapathis arch work in edappadi

## What is a temple? (Stapathis Definition)

Temple is an entity which comprises garbha griha, ardha mandapa, maha mandapa, parivar vimana, Prahar Mandapa Thirumadiil(Sacred Wall), gopura.

## Anatomy of a temple

The anatomy of a temple is derived from the anatomy of a man lying down on the floor.



Anatomy of a Temple

*Figure 3.*



### **Garbha Griha (Middle part of Eyebrows)**

The place where deity resides is Garbha Griha. It is also called moolasthan.

### **Vimaanam**

All the parts from upanam in the bottom to stupa in the top including Garbha Griha. The part of vimana above garbha griha can be of 1,2,3,5,7,9,11 levels or stages.

### **Ardha Mandapa (Neck)**

This part starts right after garbha griha. The size of this mandapa disproportionately matched to that of garbha griha. As this mandapa starts right after garbha griha it is also called mukha mandapa.

### **Maha Mandapa (Chest - Heart)**

This mandapa comes right next to ardha mandapa and it is bigger in size so the name maha mandapa.

### **Vaahan, kodimara, Bali Peeda (male sign)**

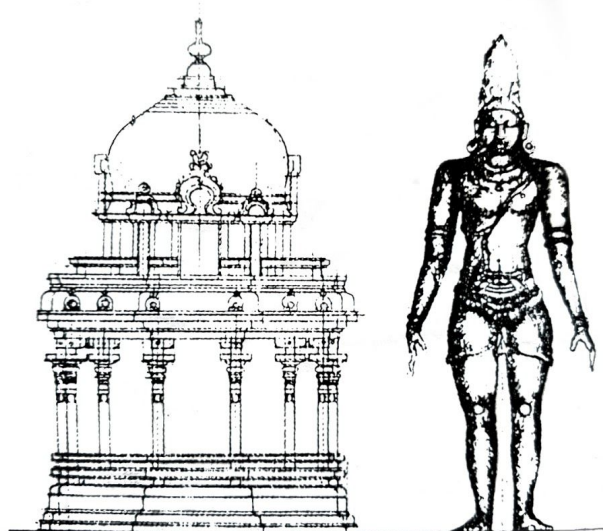
This place has the vaahan of the deity followed by bali peeda and the kodi mara (flagpole).

### **Gopura ( Feet)**

The tower in the entrance of the temple which denotes the feet. If a person of normal proportions lies down on a surface, feet are the ones which will be the tallest, the same analogy with gopuras. In Tamilnadu architecture Gopurams are always taller than garbhagriha. Gopuras can range anywhere from one stage to sixteen stages.

## **Anatomy of Vimana**

Anatomy of Vimana is derived from a man standing with a slight gap between his foot and slight distance between his hands and hip and also wearing a crown. The garbha griha is divided into 6 parts each part corresponds to an important part in the body.



Anatomy of Vimaana

Figure 4.

## Process of Building Temple

Initially devotees approach sthpathis to build temples. The sthpathis go to the field and test the best place in the village or town for the temple to be built. Then the land is tested with traditional methods. Firstly the land is watered and common grass is allowed to be grown. Then they let cows graze the land for a few days. The place where cows graze frequently and also grass continuously is chosen to be the best place for the temples garbhagriha or moola Mandapa.

An outline of the temple plan is made taking into account the budget. After the approval from devotees. A person from the devotees with the right nakshatra suitable for the particular bhagwan is chosen and work is started with their lead. The raw materials are also brought in a particular order described by shastras. First sand is brought to the site, and followed by bricks and other items are brought on demand.

After bringing the raw materials and process of marking the land called சதுரிக்கணம் (sathurikkanam) is done and proper boundaries for the temple, the mandapa and all the spaces are marked. Then followed by installing support structures for the sthpathis to work called பாலக்கால் (palakkal) is made. This is essential for the sthpathis to work during the day when the sun is at its peak. The work is always began from the north-east corner of the temple. First earth work is done by making space for the basement. The basement is preferably made using black stones. After the basement is made the work on the inner shrine is begun. Then procedurally all the mandapas are constructed. Sthpathis are experts in designing the sculptures which adorn the gopurams in southern India. After the frame of mandapas are ready they begin their work on making the beautiful sculptures.

## Deity Designs



கஜலக்ஷ்மி  
நேவஸ்தி திருமுடி சூடன். வஸ்து நெற்கையில் தாமரை மலர். இடது  
நெற்கையில் சுருங்குவளை மலரும். தம் வகையில் வழங்கும் வகை. காக்கும்  
வகைகளைக் கொண்டு தாமரை மலரில் வீற்றிருப்பவளும். பக்கங்களில்  
வெள்ளை சாலவை, நங்குக் குடங்களில் அமிர்தத்தை மேலிருந்து  
கஜலக்ஷ்மி தலைமீது கொட்டுவது போன்றும், புஷ்பம், விருத்தி  
எழும் பெண்கள் கவரி வீசுவதாக அமைக்க வேண்டும்.

Gaja Lakshmi

Figure 5.

There are predefined reference diagrams for deities which are used by staphathis to make the murtis. Apart from the diagrams textual description of the deities face, number of hands and other details are given to give flexibility for the staphathi to have slight modifications. Here are a few. Some of the images are shown here others are in the end.



Veena and Gyana Dakshinamoorthy

Figure 6.





Viswakarma

*Figure 7.*

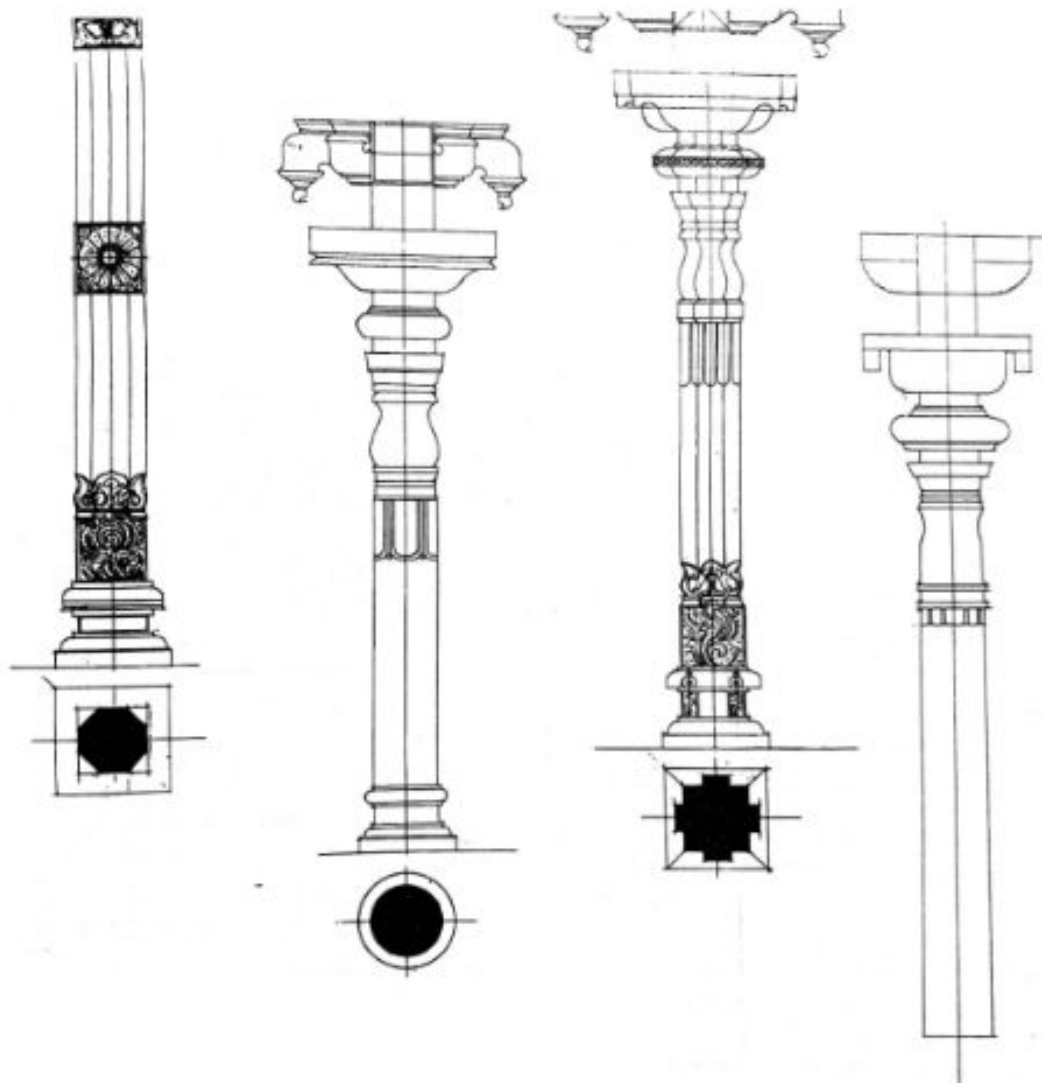


Nayanmars

*Figure 8.*

## Wall and pillar designs

There are specific measurements for walls and pillars which follow certain patterns also. The walls are designed with lots of curves and steps. Each of these steps and measurements are really important according to Shiva and they follow them religiously. Even in this the choices are based on the budget of the temple being built.

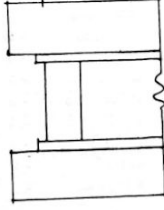


Pillar designs

Figure 9.

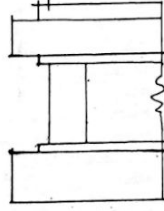
2. பஞ்சாங்க உபபீடம் (12 கூறுகள்)

உபானம்	- 3
கம்பு	- 1/2
கண்டம்	- 5
கம்பு	- 1/2
வாஜனம்	- 3



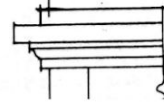
3. ஷடாங்க உபபீடம் (12 கூறுகள்)

உபானம்	- 3
கம்பு	- 1/2
கண்டம்	- 5
கம்பு	- 1/2
வாஜனம்	- 2
கம்பு	- 1



4. அஷ்டாங்க உபபீடம் (12 கூறுகள்)

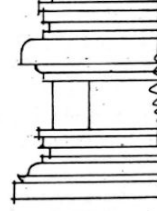
உபானம்	- 2
பத்மம்	- 1
கம்பு	- 1/2
கண்டம்	- 5



வாஜனம் - 1

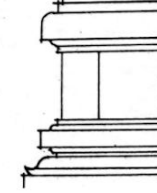
6. பிரதிசுந்தர உபபீடம் (27 கூறுகள்)

உபானம்	- 2
பத்மம்	- 2
ஆலிங்கம்	- 1
அந்தரி	- 1
பிரதி	- 2
வாஜனம்	- 1
கண்டம்	- 8
கம்பு	- 1
பத்மம்	- 1
கட்பாதகம்	- 3
ஆலிங்கம்	- 1
அந்தரி	- 1
பிரதி	- 2
வாஜனம்	- 1



7. ஸௌபதர உபபீடம் (21 கூறுகள்)

உபானம்	- 2
பத்மம்	- 2
கம்பு	- 1/2
பத்மம்	- 1/2
பட்டிகை	- 2
பத்மம்	- 1/2
கம்பு	- 1/2
கண்டம்	- 8
கம்பு	- 1/2

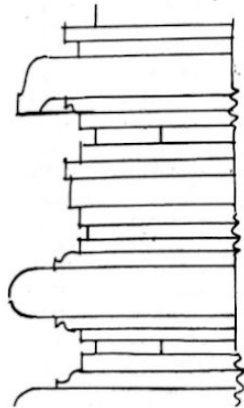


## Peet measurements

Figure 10.

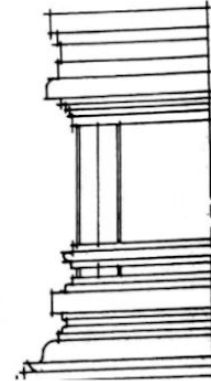
54. கம்பப் பெத்தம் - இரண்டாம் வகை (36 கூறுகள்)

உபானம்	- 4
உபோபானம்	- 1
மகாபத்மம்	- 5
பத்மம்	- 1
கம்பு	- 1
கண்டம்	- 1
கம்பு	- 1
பத்மம்	- 1
குழுதம்	- 5
பத்மம்	- 1
கம்பு	- 1
ஆலிங்கம்	- 1
அந்தரி	- 1
பிரதி	- 2
வாஜனம்	- 1
ஷோபனம்	- 1
கண்டம்	- 1
கம்பு	- 1



56. கம்பப் பெத்தம் - நான்காம் வகை (32 கூறுகள்)

உபானம்	- 2
போபானம்	- 1/2
பத்மம்	- 2 1/2
பத்மம்	- 1/2
கம்பு	- 1/2
கண்டம்	- 2
கம்பு	- 1/2
பத்மம்	- 1/2
பட்டிகை	- 2
பத்மம்	- 1/2
கம்பு	- 1/2
கண்டம்	- 10
கம்பு	- 1/2
பத்மம்	- 1/2
கம்பு	- 1/2
கண்டம்	- 1 1/2
உத்திரம்	- 1
கம்பு	- 1/2



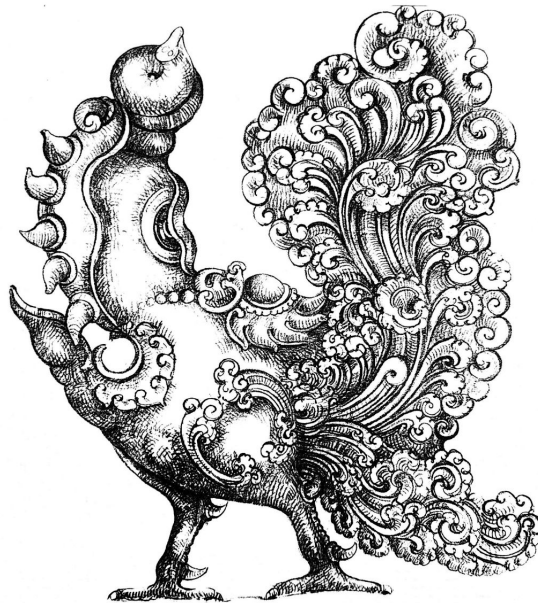
## Temple walls measurements

Figure 11.

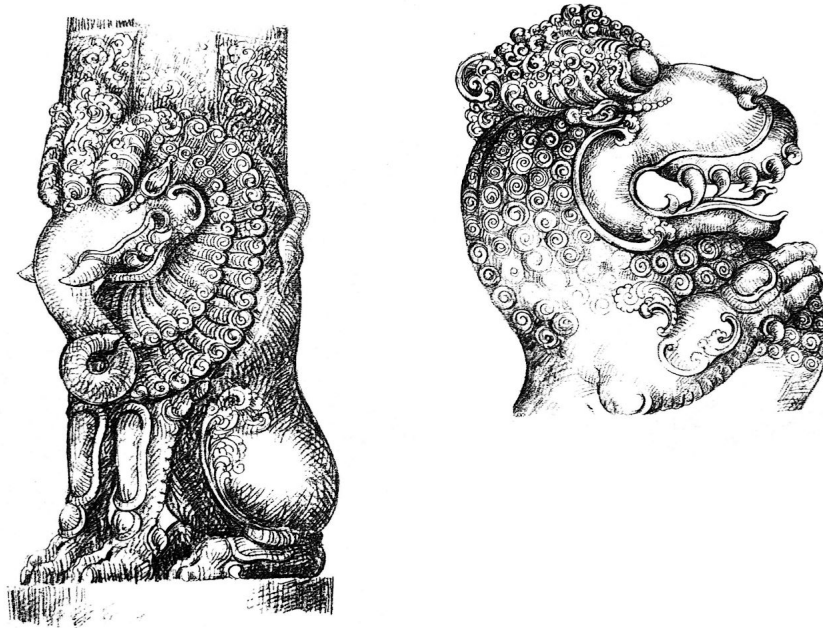


## Decorative patterns

Temples have lots of ornamentation. Many of the ornamentation designs are derived from animal and flower forms. The best example is lord Ganesha himself an very beautiful fusion of elephant and human. Some of forms are a fusion of multiple forms of animals. Some of the images are shown here others are in the end.



*Figure 12.*



Yazhi has elephant tusk, snake face, lion teeth and body and tiger claws.

*Figure 13.*



Figure 14.  
Peacock

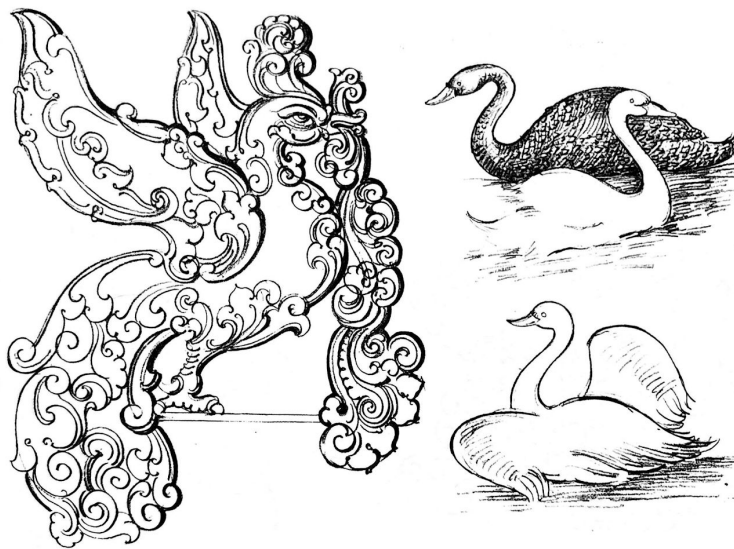


Figure 15.  
Swan

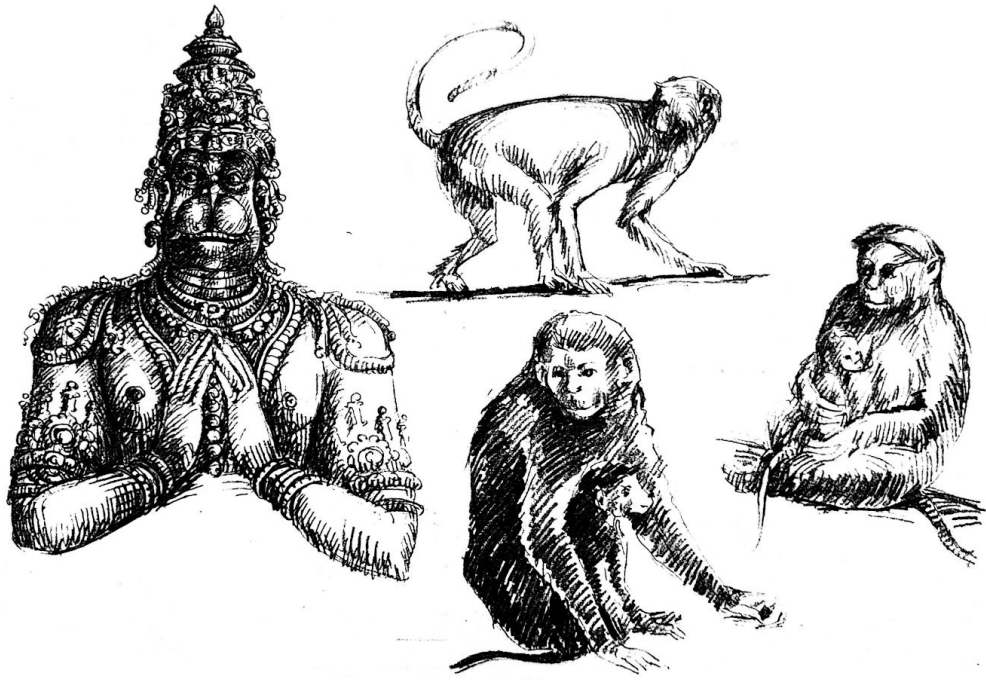


Figure 16.  
Hanuman

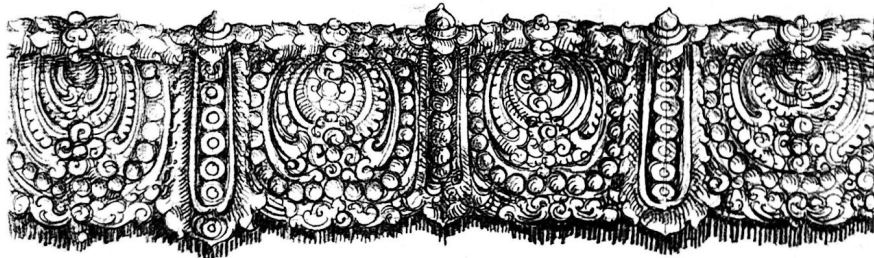
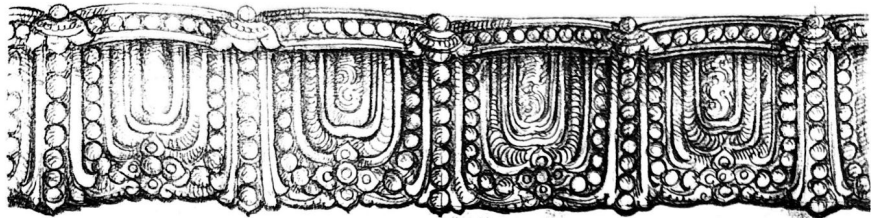


Figure 17.



# Raw Materials Used for Building Temple

Traditional raw materials for Temple

Brick Used

- Sithu Kal (1x5x3inch bricks) made with proper firing

Paste used

- Tri Bandhanam
  - Limestone
  - Sand
  - Kadukkai Essence(Terminalia chebula)
- Ashta Bhandanam
  - Limestone
  - Sand
  - Kadukkai Essence
  - Banana
  - Jaggery

Reinforcement

- Copper wires
- Zinc wires

Modern Raw Materials

Bricks, cement, iron bars, granite and marbles, synthetic paints, sand. Although industrially made the sthpathis feel that the positive vibration which they get from the temple is very less in the modern structures. The experience and spiritual needs of a temple deeply depends on the materials used in the structure.

## **Special Self Reinforcing Bricks**

In earlier days there used to be a special reinforcing brick which was just one inch in thickness and 3x5 to 3x6 inches in width and length. The bricks were hand made and proper baking gave them right porosity and tensile strength. In the older times they were used to build support structure. Even arches which needed no metal reinforcements. Nowadays the bricks anywhere in the market as these are not made due to the time costs. But if needed special orders have to be made.

## **Method for making the paste**

Depending on the quality needed the Stpathis choose to make either Ashtamantran or Trimantram. First kadukkai is immersed in water for extracting the essence. All the ingredients are put in a grinder and ground in hands then. The additional materials other than sand and limestone gives stickiness to the mixture. After ground finely the mixture is allowed to ferment. Once the mixture is ready it can be used for upto three days.



*Figure 18.*  
*Old temple made with traditional materials*





*Figure 19.*  
Small size bricks are visible in the cracks in vimana.

## **Tools used**

Iron spoons of varying sizes are used for the craft.



**Tools Used**

*Figure 20.*



## **Process of making the sculptures**

The sculptures are made using three materials mainly cement, brick and thick copper wires. Alternatives to copper are also used but will not give the durability of this. Initially the frame of the deity or sculpture is made using the wire. Then bricks are broken into small pieces and stuck in between the copper wires using cement. After the brick settles cement is applied on top of the deity to begin working on the form. Iron spoons are used to give shape to the sculptures. Tools which Stapathis use are made with iron and everybody visits a blacksmith themselves to make a tool which fits them perfectly. The size of the tools ranges from a needle like size to work on eyes to big spoons for flat surfaces. Typically a sculpture takes three days to finish. After the sculptures are complete and proper curing is done to give strength to sculptures. Once the whole gopura is complete bright colours are painted over them. Before the origin of synthetic paints around fifty years back they used organic dyes in the colours of saffron, yellow and blue.

## **Journey of a young Stapathi**

A young man who aspires to become a Stapathi takes training under a master in Government college of Architecture and Sculpture in Mahabalipuram, Chennai. Admissions are given as per selections by Stapathis who were once students. Aspiring sthaphathis join the college at the age of seventeen to eighteen. The curriculum is very practical and they take the young Stapathis to temples directly and teach them there. The system is much more like a gurukul where the young students actively take part in the day to day chores.

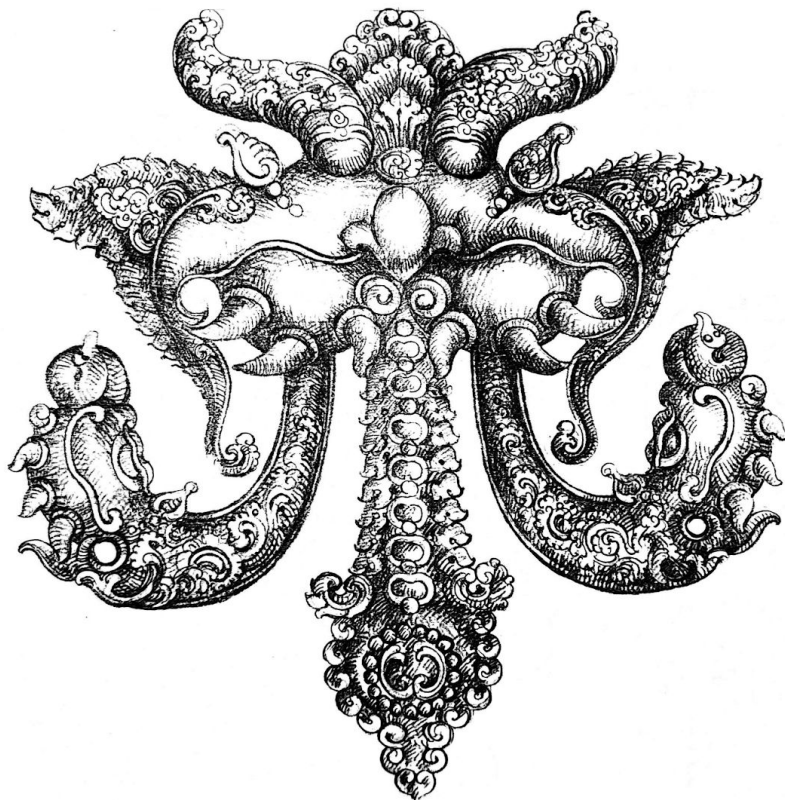
## **Experience of Shiva Sthapati**

As for Stapathi shiva following his dad to become a sthaphathi was a very achievement for him. His journey also started from Mahabalipuram. He left after his schooling and joined there directly. Currently he is very experienced and has worked on over 500 temples. Each and every measurement mentioned in the aayadi ganith is important, he says. When somebody misses an inch in a wall he can observe it and find it. As per the shastras the inch perfection is very important for temples to have good energy, missing that accuracy could result in less benefits for devotees. Even the material matters a lot, nowadays people use modern materials such as marbles, granite, cement, synthetic paints, uncooked bricks. They will also affect the energy he says and he prefers to use traditional materials wherever possible.

After TNHRCE taking over temples the finance is not in the hands of the dharmakartas instead with appointed employees and engineers. And as usual these employees see the temples from a money perspective. Engineers who don't understand anything regarding temples come and estimate the requirements and even sometimes do deliberately wrong reports and get commission from the allotted budgets from building and renovation. Even though from such contracts a sthaphathi can earn more Shiva is not interested in that as it damages the spiritual interest behind the art. Instead he opts for private temples in villages and towns. He is very satisfied and very humble with what he does currently with small temples. Although he does not take much interest in trying to venture into to aayadi ganith too much, he believes if he follows the shashtra the built temples will give very good spiritual experience to devotees. Images of some of the work done by shiva stapathi are below.



*Figure 21.*  
Vimana front view



*Figure 22.*  
Imaginary creature depicting creation of universe





Imaginary creature signifying creation of universe (sith slightly different design)  
Figure 23.



Figure 24.  
Small vimana





Figure 25.  
Painting on the roof



Roof sculpture with painting  
Figure 26.





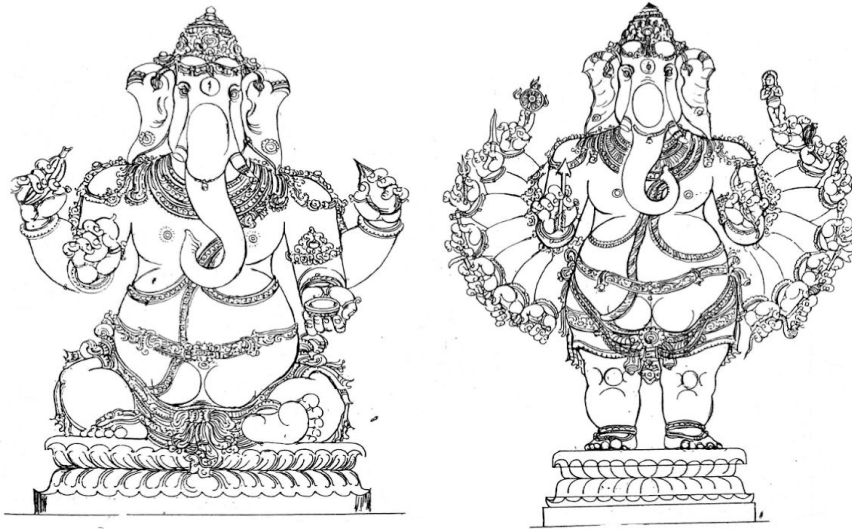
Figure 27.  
Gopuram



Roof Painting  
Figure 28.



# Images



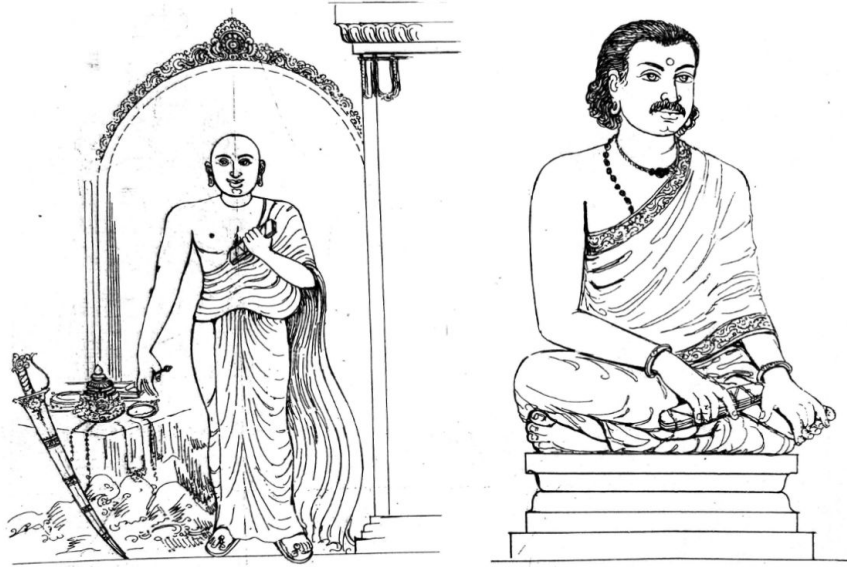
## Bhakti and Veer Ganesha

*Figure 29. s*



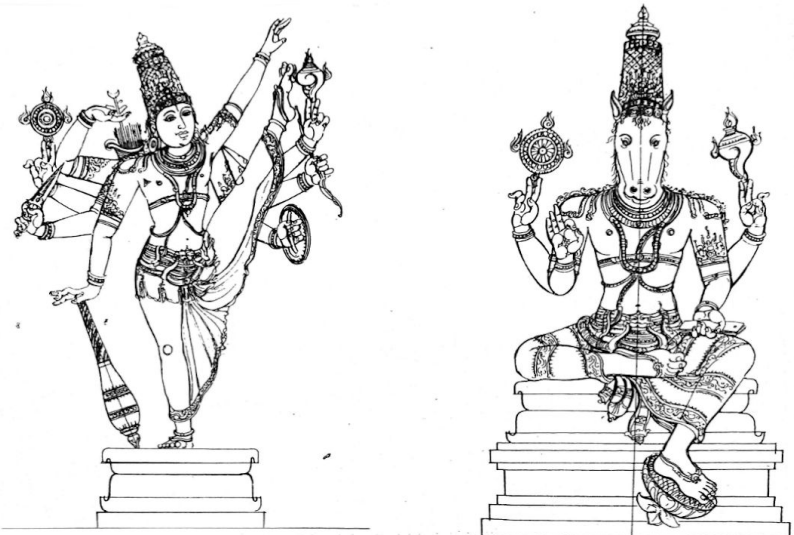
## Lord karthikeya

*Figure 30.*



### Poets Elangovadigal and Kambar

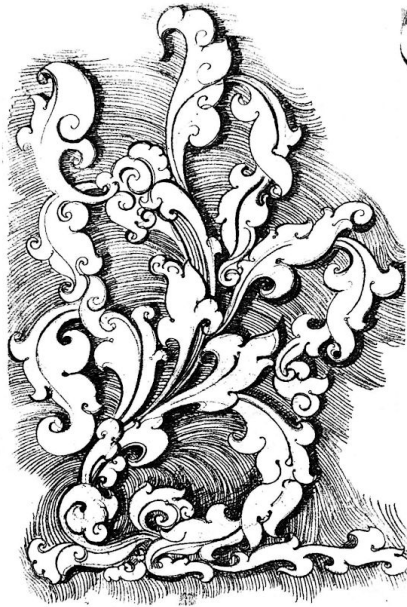
Figure 31.



### Trivikram and Hayagrivar

Figure 32. s





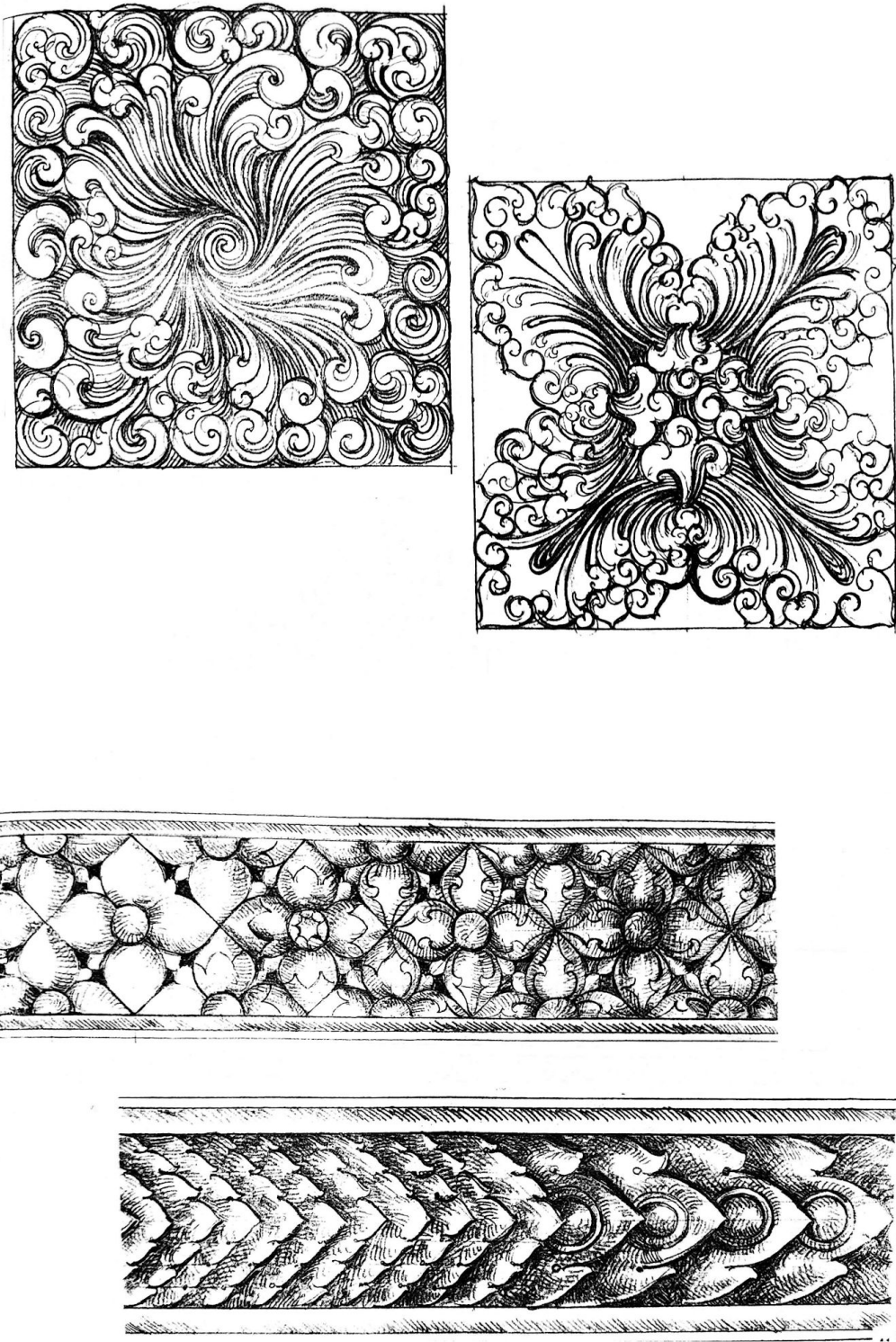
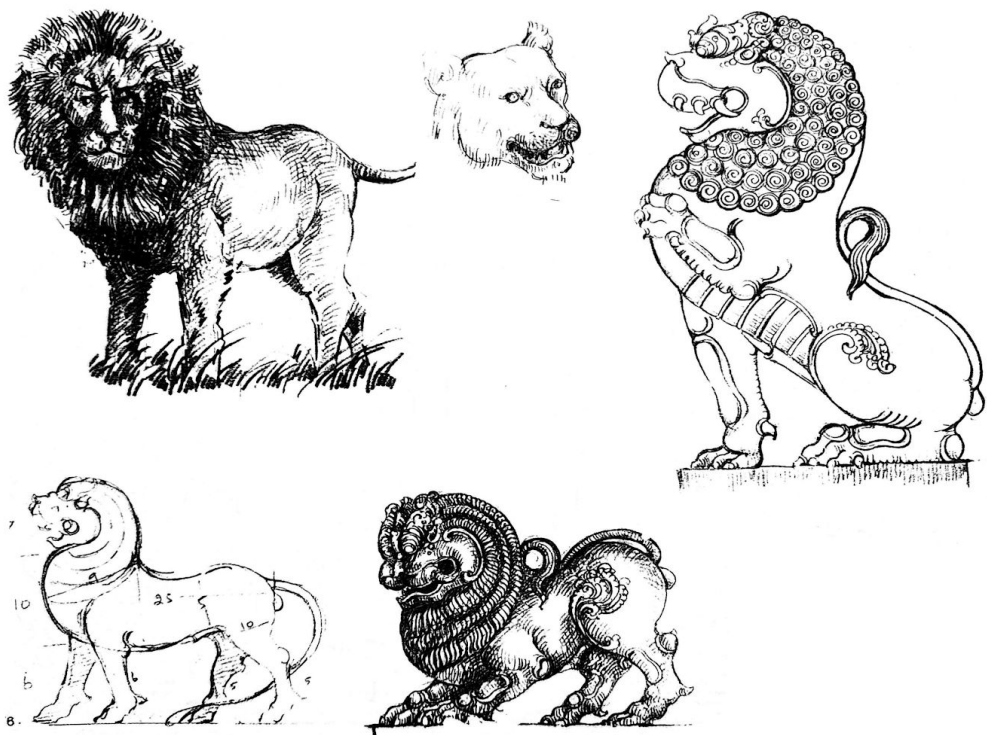


Figure 36.



Lion  
Figure 37.

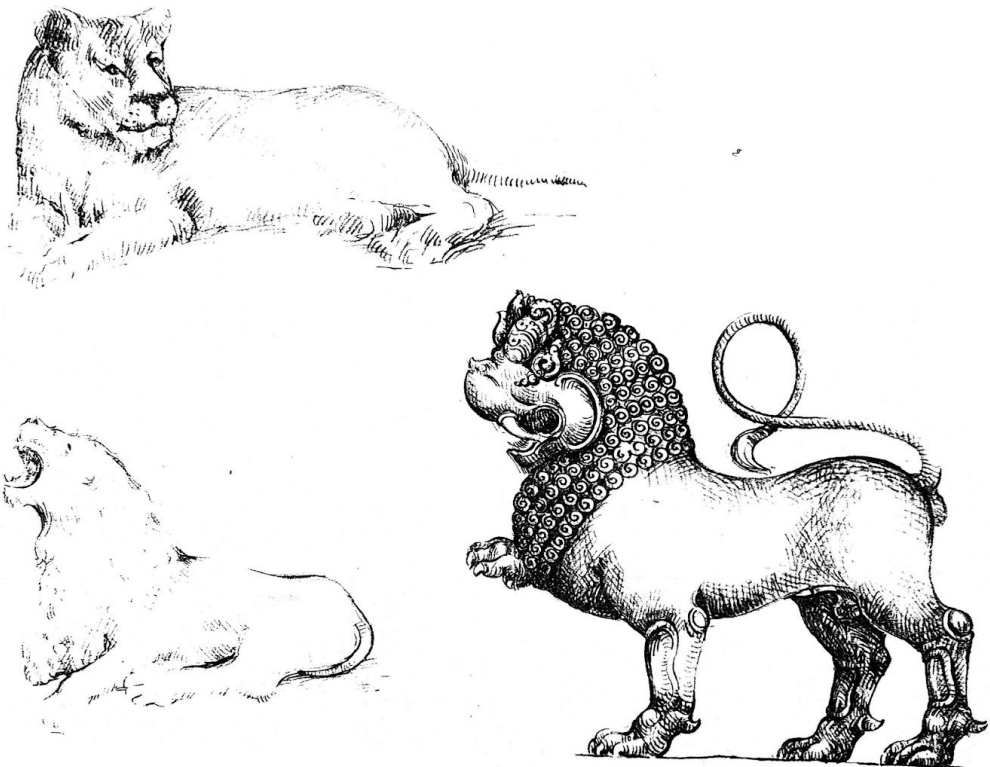


Figure 38.



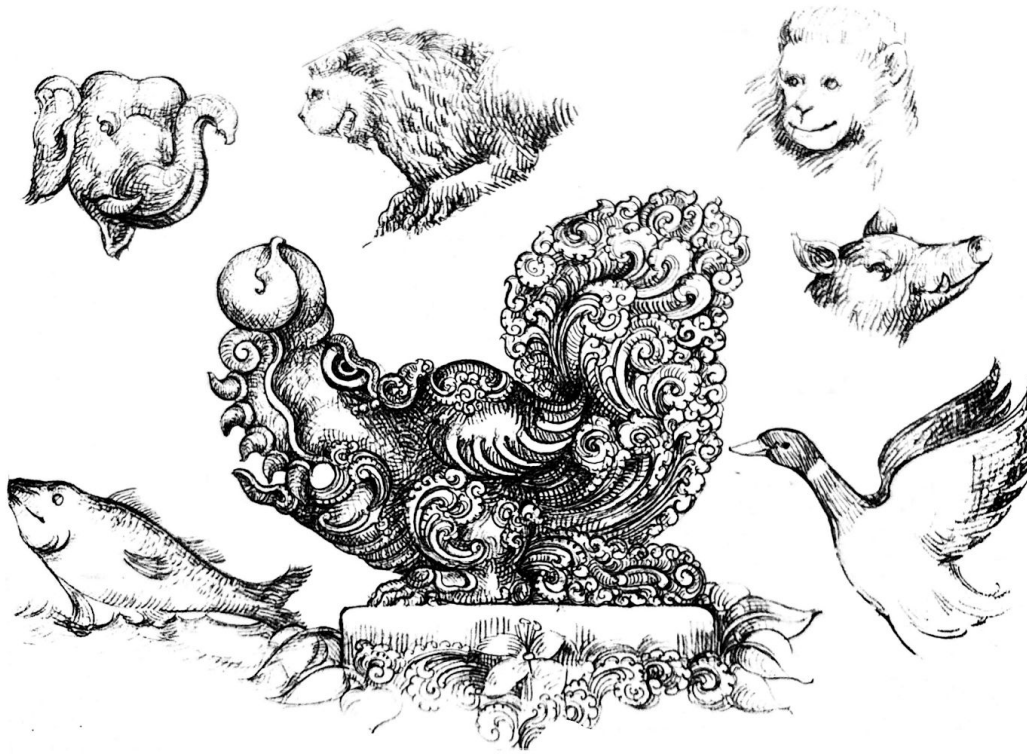


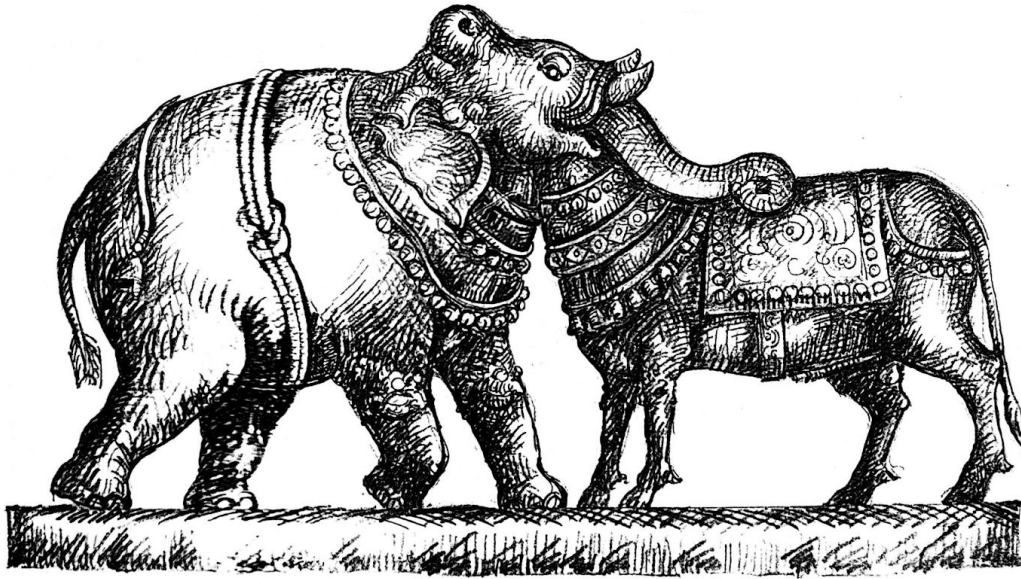
Figure 39.  
Fusion creature of fish, elephant, lion, monkey, wild boar and duck



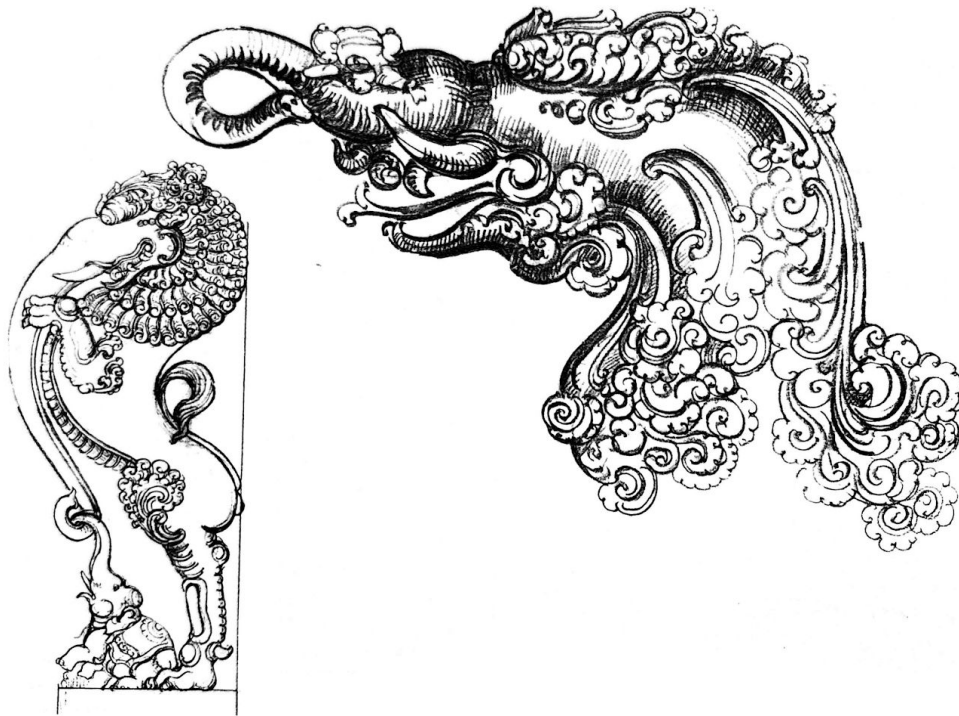
and bird  
Figure 40.

snake lion

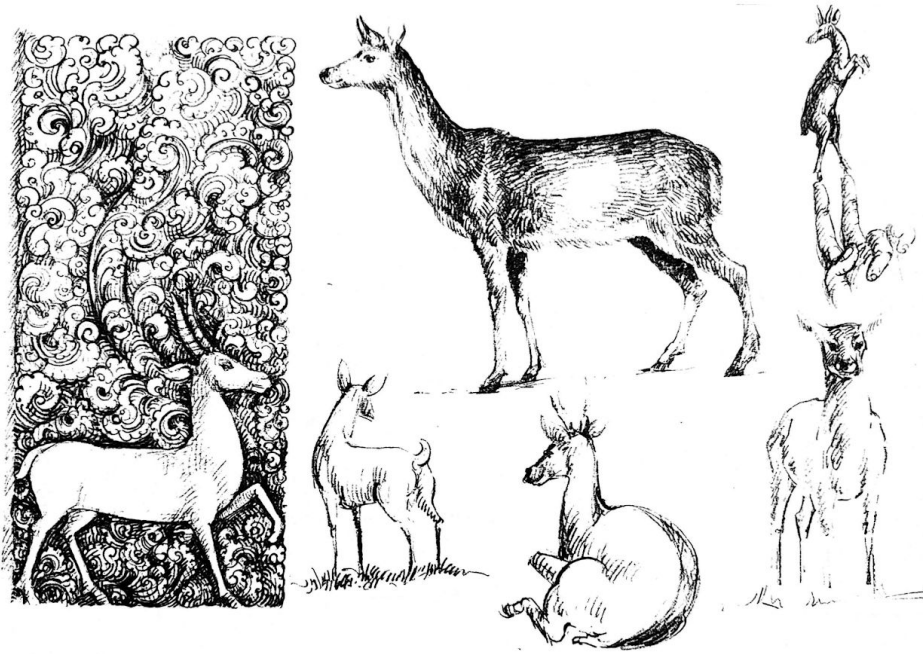




*Figure 41.*  
Elephant and bull



*Figure 42.*  
Imaginary creature depicting creation of universe



Deer  
Figure 43.



Peacock  
Figure 44.



Figure 45.  
Parrot



## References

### List Of Images

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