Pitchandikulam
Art Collective
The experiments at Pitchandikulam in Auroville International Township carry on the tradition of ‘true wildlife art’ where naturalism and exactitude are the catchwords. Pitchandikulam has to a large extent concentrated on outdoor wildlife art, but nowadays some of the artists are turning towards a more studio-based and scientific culture (but these are only in the preliminary phase). Among the outdoor media experimented with are painting on Kadapa stone slabs, painting on granite stone slabs, painting on boulders, carving and painting on granite pillars, scaled up and life sized ferro-cement sculptures, cast iron and mosaic. Pitchandikulam was established in 1973 and since then it has been experimenting with imagery to sensitize people to the need to conserve native biodiversity, especially the coastal forests, popularly referred to as the Tropical Dry Evergreen Forest (TDEF for short) and its denizens. It continually tries to represent and share its experiences of wildlife through imagery, and with the availability of a variety of different media to choose from, everyone can express their interpretation in a personal way. Wildlife art seeks not only to generate an appreciation of the enthusiasm for the natural world, but also advance the interest, education and concern of the public in the conservation of wildlife.
MEDIA
KADAPPA SLAB PAINTING

Kadapa stone, also known as Cuddapah stone (from the original Telugu, Gadapa) and Kadapa Black or Madras Black (the latter two trade names), is basically a black limestone intruding into other rocks (quadrites, dolmites and shale). While the pure black rock slabs are polished and used in interiors, the impure slabs which contain other rock types show a variety of colours and textures in the unpolished form. It is these unpolished stone slabs that are used in painting. The challenge of painting on stone is to use the natural colours and textures to advantage. This demands clear cut composition of the theme to be portrayed and minimal painting of backgrounds. In fact, the crux lies in the background painting (or degree of lack of it) as backgrounds should enhance the natural colours and textures, not suppress them
LIFE CYCLE OF TERMITES

TERMITES MOULD

THE IMPORTANCE OF EATING WOOD

Termites are important "recyclers". Some have protozoa and bacteria in their digestive systems to help break down dead wood and leaves. Others enlist the help of fungi to do the job. The process returns nutrients to the soil for plant growth.
GRANITE SLAB PAINTING

Kadapa stone rarely exceeds a size of 7ft x 2ft, which means that approximately only 5ft is seen above ground (it is necessary to bury at least 2ft below ground for the stone to be stable). If dramatic compositions are necessary, it is advisable to paint on granite slabs which can be procured in any size. We have found that groupings of four to six stone slabs make effective confluent displays, especially if they have to be viewed from a distance. The only drawback of granite slabs is that they do not show the mixture of colours or texture of Kadapa stone, have a relatively rougher surface which cannot incorporate detail and, if they are large, may be difficult to move around and install without the use of heavy machinery.
POLLINATORS

- *Velia elegans* pollinates *Garcinia*
- *Garcinia脸颊e* pollinates *Mikania*
- *Mikania脸颊e* pollinates *Garcinia*
- *Frangula pollinates* *Garcinia*
- *Garcinia pollinates* *Frangula*
- *Frangula pollinates* *Garcinia*
WOOD PAINTING

Painting on wood has the advantage of depicting fine details of the creatures portrayed since there is a relatively smooth surface on which to paint. But it takes more time to execute than stone slabs since the entire board has to be painted over and detail incorporated.
INVERTEBRATES AND PEOPLE

Many species are highly poisonous or dangerous. Some species are beneficial, while others are harmful. Some are used as food or medicine. Invertebrates are found in all parts of the world and are an integral part of human culture.

INSECTS

The most common invertebrates in the world are insects. They are divided into two main groups: beetles and flies. Beetles have 6 legs, while flies have 2. Insects play a crucial role in the ecosystem, as they help pollinate flowers, spread seeds, and control pests.

What is a Bird?

A bird is a warm-blooded, feathered animal. They have a backbone, two legs, and a beak. Birds have two wings, which they use to fly. They also have feathers, which provide insulation and protection. Birds lay eggs, which hatch into baby birds.

MOLLUSKS AND ANNELIDS

Mollusks are invertebrates that live in water. They have a shell, which protects their soft bodies. Mollusks come in many shapes and sizes, including oysters, clams, and snails. Annelids are segmented worms that live in soil or water. They have a long, tube-like body and no eyes. They are important in the food chain and help break down organic matter.

CARTILAGINOUS FISHES

These fish have a cartilage skeleton, which is more flexible than a bony one. They are found in all parts of the world and are an important food source for many people. Some species, such as sharks, are apex predators, while others are smaller and prey on other fish.
Directional Signage
If both large dramatic images and heavy textual information is to be portrayed, it is effective to use wide vertical or wall surfaces for painting. Since too much detail cannot be incorporated these paintings should be viewed from a distance.
Sacred groves represent an ancient spiritual, social, and economic bond. They are the water sources for not only the people but also the wildlife that lives in and around them. These groves are often considered as sacred places where people offer prayers and perform rituals. The trees in these groves are usually old and have a spiritual significance.

These sacred groves are usually managed by local communities who have a strong connection with them. The management of these groves is usually done by the local community, and there is a strong tradition of respecting and conserving these groves.

Hence, the conservation of sacred groves is not only important for maintaining biodiversity but also for maintaining cultural and spiritual practices. The government has taken several steps to protect these groves, and there are several policies that recognize the importance of sacred groves.
CARVING ON GRANITE BOULDERS

The onus here is to use the shape of the stone to form the natural contours of the animal.
Unlike the puristic stone carvings, the art forms produced so far have combined carving with painting to bring out form, texture and natural colours of the creatures depicted. Carvings on boulders and granite pillars have been produced as art forms in their own right or combined with other media to suit a purpose (for example, granite pillars combined with painted wooden planks were found most suitable for directional signage).
Scaled up versions of animals were found to be eye catching and popular. The onus here is strength and durability since most, if not all, sculptures were designed to occupy spaces where they are accessible to the public. Life sized models too have been produced by us and these occupy protected or supervised spaces as vandalism is an all too familiar phenomenon in any place where visitor recreation is also a feature.
Buildup of Ferro cement sculpture
Steps to loading sculpture up ferro cements models
Wildlife art is a forum of imagery that will hold one’s interest and validate the passion for wildlife but occasionally it has a tendency to push us out of our comfort zone. One such medium that borders on the abstract is mosaic. But unlike the majority of mosaics depicting animals the experiments here have a strong element of realism particularly where form, proportion and colour are concerned. The advantage of mosaic over painting is that it is permanent, though detail cannot be incorporated. Nevertheless, such semi-abstract visual solutions can be useful in conveying graphic information.
Mosaic on cement blocks
Mosaic on concrete waste
CAST IRON BENCH

Lethaby mentions that in art “there is a certain mysterious appeal in iron. Iron stands for strength, simplicity, even severity, and, on its sinister side, for cruelty and terror”. The experiments in Pitchandikulam have been limited to date, but it was found that the above comments were quite true concerning strong forms and severity, especially where the so called ‘mysterious and sinister’ creatures like snakes were concerned.
Illustration for books and posters is one of the specialties of some artists in Pitchandikulam who essentially rely on pointillism, with a trace of hatching and cross hatching (if the design requires it), to manifest outputs.
POSTER ART

It is said that a picture speaks a thousand words, and though photography can capture a moment, art can share an entire experience and is a unique way of seeing and sharing the world (<www.Bbcwildlifemagazine.com/artist2009.esp>). Poster art, perforce being visually striking and designed to attract attention, was found to be one of the best tools for conservation education. The genre of poster art produced was a combination of research poster and classroom poster as the need was to produce a simple ‘one image’ format that could sensitise people to the biotic wealth of the region as well as be scientifically accurate. Poster art from the time of Toulouse-Lautrec and Cheret had depended on colour but black and white images were also used – for example, the poster publicizing the Exposition Universelle of 1905 at Liege. Both colour and black and white (ink) have been experimented with and the outputs found quite satisfactory.
OIL ON CANVAS

Over the years Pitchandikulam has principally concentrated on outdoor art, but of late some artists in Pitchandikulam have begun putting together a collection of paintings for indoor spaces and exhibitions. We wish to state that the efforts shown here are preliminary – basically studies, but in detail, to test our own capabilities and willingness to confirm to studio / exhibition norms. These will be upgraded and combined, with other elements and with inputs from the design team and subject specialists, until a holistically comprehensive set of panels are finally manifested.
This, being the most popular metal used for ‘cast metal’ sculpture, could not be ignored and Pitchandikulam has also started experiments in this media. The method used is the ancient ‘lost wax’ method which was used in ancient India for making sculptures of various human and animal figurines, especially with a religious connotation. In this method, a model is made of wax, covered with a special type of clay and heated so that the clay melts and runs out of a hole specially left for that purpose, leaving an empty core. Molten metal is then poured into the empty space, left to cool and the clay shell broken to reveal the basic form. Fine detail is added using more molten metal and a series of tools to give the final finished product.
Clay is the most favoured media of sculptors concentrating on ‘add on’ techniques because this can give a refined and true to life look than any other three dimensional media. Pitchandikulam has begun experimenting in the modern derivative of this media and the preliminary results found very satisfactory.
PROJECTS
ADYAR ECO- PARK, CHENNAI, TAMIL NADU

This was a prestigious Government of Tamil Nadu undertaking which principally focused on wetland restoration. As education was envisaged to play a crucial role in the process, educative signage, models, etc were commissioned and developed. The total bill of quantity budget for these artworks alone exceeded Rs 1.9 crore and this has remained our largest undertaking to date.
அத்தனை கல்விக்குறிப்பு புனை

Adyar Eco-Park
Inaugurated by
Kalaigaran M.Karunanidhi
Hon'ble Chief Minister of Tamil Nadu

Presided by
Thiru. M. K. Stalin
Hon'ble Deputy Chief Minister

In the Presence of
Thiru. M. Subramanlyan
Worshipful Mayor of Chennai

On 22.01.2011.
MARINE INTERPRETATION CENTRE, KUNDAKAL (NEAR RAMESWARAM)

This was a joint UNDP and Gulf of Mannar Biosphere Reserve Trust (GoMBRT) undertaking. The concept was essentially that when one entered the building the atmosphere should be almost as if one was underwater. The highlight of the whole exercise was a three dimensional 18 ft x 9 ft model of a coral reef with hundreds of associated life forms.
It was heartening to collaborate with ATREE on this project which was essentially to enhance landscape features of a butterfly garden with art as well as to sensitize people about butterfly life. This involved confluent paintings on large granite slabs and stone sculpture.
This project involved the creation of life sized models of various snakes and lizards.
TOLL PLAZAS ALONG THE ECR FROM CHENNAI TO PONDICHERRY

Eye catching paintings of local wildlife on Kadappa stone were erected at both tool gates between Chennai and Puducherry. Some of the paintings have been reduced to a sorry state since they have not been repainted since they were erected 9 years ago. There is a point we would like to make: if artworks are left out in direct sunlight the colours will fade and repainting will have to be undertaken every three years or so.
NILGIRI BIOSPHERE RESERVE PARK, ANAIKATTI (NEAR COIMBATORE)

This is an eco-park that is visited by many tourists and school groups. Sensitizing them to wildlife is an essential part and in this context some paintings and models were developed which enhanced both conservation education and recreation.
This is one of the oldest museums in the country. The job was to refurbish the museum and give it a more aesthetic look without compromising the collections already existing in the museum. The work needed quite a bit of ingenuity and involved creation of life size sculptures of large animals, interpretative signage, indoor landscaping, refurbishing of antique furniture and models, and the cleaning and remounting of the hundreds of animal trophies and skins contained in the collection. The highlight of the exhibition space is a three dimensional diorama approximately 25m x 3m depicting a rocky forest landscape replete with sculptures of a Tiger, a family of Lion-tailed Macaques, an Indian Python swallowing a Spotted Deer, a King Cobra, Ficus Tree and innumerable other minor items. Even the stuffed Gaur presented by the Maharaja of Mysore and a few other fully stuffed specimens were used to give a realistic feel to the exhibit.
SNAKE INTERPRETATION CENTRE, DEPARTMENT OF FORESTS AND WILDLIFE, PUDUCHERRY

This involved showcasing the four common venomous snakes of peninsular India (Spectacled Cobra, Indian Krait, Russell’s Viper and Saw-scaled Viper) and their mimics for the education of the general public.

It involved life sized sculptures of nine snakes for an outdoor public space in addition to interpretative signage.
This was a project initiated by the Fisheries Department and PFC was contracted to create both the Master Plan as well as sculptures.
An undertaking under the Tamil Nadu Forest Department. It involved a small building with interpretative signage, models and a replication of a mangrove ecosystem. A brochure was also designed and printed.
DJ ACADEMY
COIMBATORE
GOOD EARTH
BANGALORE
The Top Speeds of Animals

THE IRUMBHAI LEGEND

The people who live in the villages around Auroville have shown warmth and hospitality in welcoming people of different races, cultures and countries to their area. The ancient legend of Kaduvelli Siddha, a famous yogi, can perhaps explain partly why the villagers have shown such grace.

The story of Kaduvelli begins some 500 years ago in Irumbhai, an ancient village on the edge of Auroville. According to the legend, Kaduvelli siddha was performing harsh penance sitting under a peepal tree. The heat of his body was so intense that the rain gods suffered and the villagers were exposed to hardship and drought, yet nobody dared disturb him. Thus, undisturbed, an anthill began to form around him. Valli, the temple dancer and devotee of Lord Shiva, decided to do her best to rescue the local King and his people from the adverse effects of the yogi’s penance. Observing that the Siddha would put out his hands to catch and consume the falling peepal leaves, she prepared some delicious food which she started placing in his hands.

Soon he began eating and slowly grew fatter, until finally the anthill broke and he was once more exposed to the rays of the sun. The God of Rain was relieved from the torture he felt from the heat of the yogi’s penance and the rain fell in plenty. The people were happy once again.

In order to celebrate this event the King ordered a large Puja to be held at Irumbhai’s temple. The Puja was followed by a classical performance in which Valli would act out the cosmic dance of Lord Shiva. During the performance, however, one of her anklets fell off causing her to lose her balance and rhythm. Kaduvelli, who saw the Lord Shiva in Valli, picked up the anklet and put it back on her feet. This act exposed him to the ridicule of the King and court for having touched the feet of a dancing girl and he was haled furious, he invoked the Lord Shiva to come out of his temple and prove his righteouseness by causing a rain of stones. Immediately the image in the temple exploded, and wherever its fragments fell became desert. The King, frightened, begged the pardon of the yogi, and pleaded with him to end the curse. This appeased Kaduvelli, who said that what was done could not be undone, but that in the future, people from far-off lands would come and make the desert land green and fertile again.

Today, there are villagers who feel that the Aurovillians are the people from far-off lands mentioned by the yogi and that the curse is now being lifted.
**AUROVILLE'S ECOSYSTEM**

- Auroville is much more than an experiment in human unity, a place for research into sustainable living and a universal township in the making: it's a highly complex web of life, involving not just the humans from many nations, cultures and backgrounds who live here and participate in its growth and development, but all the species of the plant and animal kingdoms from the giant banyan trees down to the micro-organisms of the soil, air and water that make up the cyclical and dynamic biosphere. None are unrelated, all ultimately dependent on each other, sustaining each other as they move forward and evolve towards the next stage in terrestrial evolution, together.

- Some of the elements of this complex mix of life—farms have been here for millions of years, others like the local villagers and their livestock for perhaps millennia. Yet others are more recent arrivals, especially the humans comprising today’s mix of Aurovilians. All are the various species of animals, birds, insects, trees and plants which have taken up residence since Auroville began: the latter in some cases returning after a long interval, others apparently coming for the first time, never seen before in this area in living memory.

- This is Auroville today, but we should not forget the many species also yet to come, from the vast resources of nature, representatives of a future planet Earth where all life forms will live in symbiosis, consciously or unconsciously dependent on and supportive of each other, species for which Auroville wants to create a sanctuary.

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**THE GREENING OF A WASTELAND**

Two hundred years ago Auroville and its environs was covered in forests and there is evidence that there were tigers and elephants. In 1825 British and later French policies promoted deforestation: plots of land were awarded to people to clear and farm as wood was needed to build cities and for exportation. Much of the cleared land was later left to erode and in less than two hundred years, a rich forest was turned into an expanse of baked earth scarred with gullies and ravines.

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*Rusty-spotted Cat: species of wild cat discovered in 1831 from the region and documented here again in 2016 after a gap of 185 years.*

In the late 60's and early 70's the pioneers of Auroville gained a foothold on this damaged land. They had no choice: they planted and they dug, an uncomplicated approach which was refined over the years and which has made Auroville what it is today, a land of pleasant and verdant green.

At the beginning young seedlings had to be protected from grazing livestock and raised bunds and check dams were created to help retain the topsoil and prevent monsoon rains from washing it away into the sea.

Upon entering Auroville today one can only get a vague idea of what the land used to look like. The trees, cool air and rich biodiversity are testament to the fact that over two million trees have been planted since 1988 setting in motion natural self regeneration.
MS SWAMINATHAN RESEARCH FOUNDATION
VEDRANYAM

CONSERVE BIODIVERSITY

GATHER MANY BENEFITS
TROPICAL DRAKE FOREST
MINOR PROJECTS

These principally involved painting on Kadapa stone slabs / marine plywood
Anna Nagar Park, Chennai
Marina Beach, Chennai (these have been removed)
Otteri Park, Chennai
Crocodile Bank, Vadanemmeli (near Mammalapuram)
Visitors’ Centre, Auroville
Botanical Garden, Auroville
Children’s Park, Puducherry
Wild Orchid Resorts, Yercaud
Snake Interpretation, Puducherry Forest Dept.
And many private commissions
Working at Art Department
ONGOING PROJECT

Toyota Kirloskar Motors, Biddadi, Mysore – Bangalore Highway

This is a major project for a 25 acre eco zone on the Toyota Kirloskar Motors campus. PFC has undertaken the artworks for the park.
Follow the emergence of key animals and plants, major extinctions, climatic changes and shifting of the Earth’s crust. Beginning with the Earth’s most dramatic explosion of multicellular diversity and ending with your final half step - the emergence of early Hominids leaving their life in the trees to walk on two feet.

Bangalore is an ancient land. The granite stones used for these slabs and pillars are around 205 billion years old. They were formed around the time when the first oxygen giving bacteria (Cyanobacteria) appears on earth.

Explore the extraordinary story of complex life on Earth along this 60 metre brick path - The last 600 million years of evolution.

This timeline is made to a scale where 1 metre = 10 million years. In our timeline scale, that’s four times the length of our brick path!
FIGUS SPECIES AND THEIR BIODIVERSITY

- Indian Elephant Tree
  - Ficus benghalensis

- Indian Flying Fox
  - Pteropus giganteus

- Indian Grey Hornbill
  - Oreocephalus bengalensis

- Banyan Tree
  - Ficus benghalensis

- Copper-naped Horbill
  - Nipponia nippon

- Common Carkoo
  - Cercopithecus aethiops

- Black-tailed Shadow Butterfly
  - Dismorphia melanogaster

- Indian Map Butterfly
  - Cynips hyochamus

- Large Indian Crest
  - Fvesca zelinka

- Common Carkoo
  - Cercopithecus aethiops

- Red-tailed Hawk
  - Buteo jamaicensis

- Jungle Babbler
  - Turdoides striatus

- Thoughtful
  - Boselaphus tragocamelus

- Wild dog
  - Canis lupus

- Palm civet
  - Paradoxurus hermaphroditus

- Picardi
  - Tarsius syrichta

- Fig Wasp
  - Chilotes schaefferi

- Fig Wasp Life Cycle

- Orange Squirrel
  - Brevycteris ardens

- Dusky-backed Fruit Bat
  - Cheiropus griseus

- Garden Lizard
  - Calotes versicolor

- Indian Giant Squirrel
  - Rattus indica

- Nilgiri
  - Rongaius trachaea

- Atlas
  - Axis axis
425 Million Years ago
Life moves on land
Billions of years of barren earth are over.
Oxygen in the atmosphere allows plants to colonise the land.
Plants evolve from blue green algae on the edges of fresh water lakes.
With no rain yet on land, the Earth is quiet and still. Vascular plants evolve literal plumbing and thick cell walls to adapt to dry land.
Predation rises with jaws, sharks and sea scorpions evolve.

4 Million Years ago
Hominoidea
The early hominoids are adapted and ground dwelling. Groups of males develop, forming small hunting and gathering groups.

2.5 Million Years ago
Ice Age for plants
Large mammals have been displaced with woody and shrubby species along with long distance flowering plants.

1 Million Years ago
Discovery of the modern human development
THANK YOU