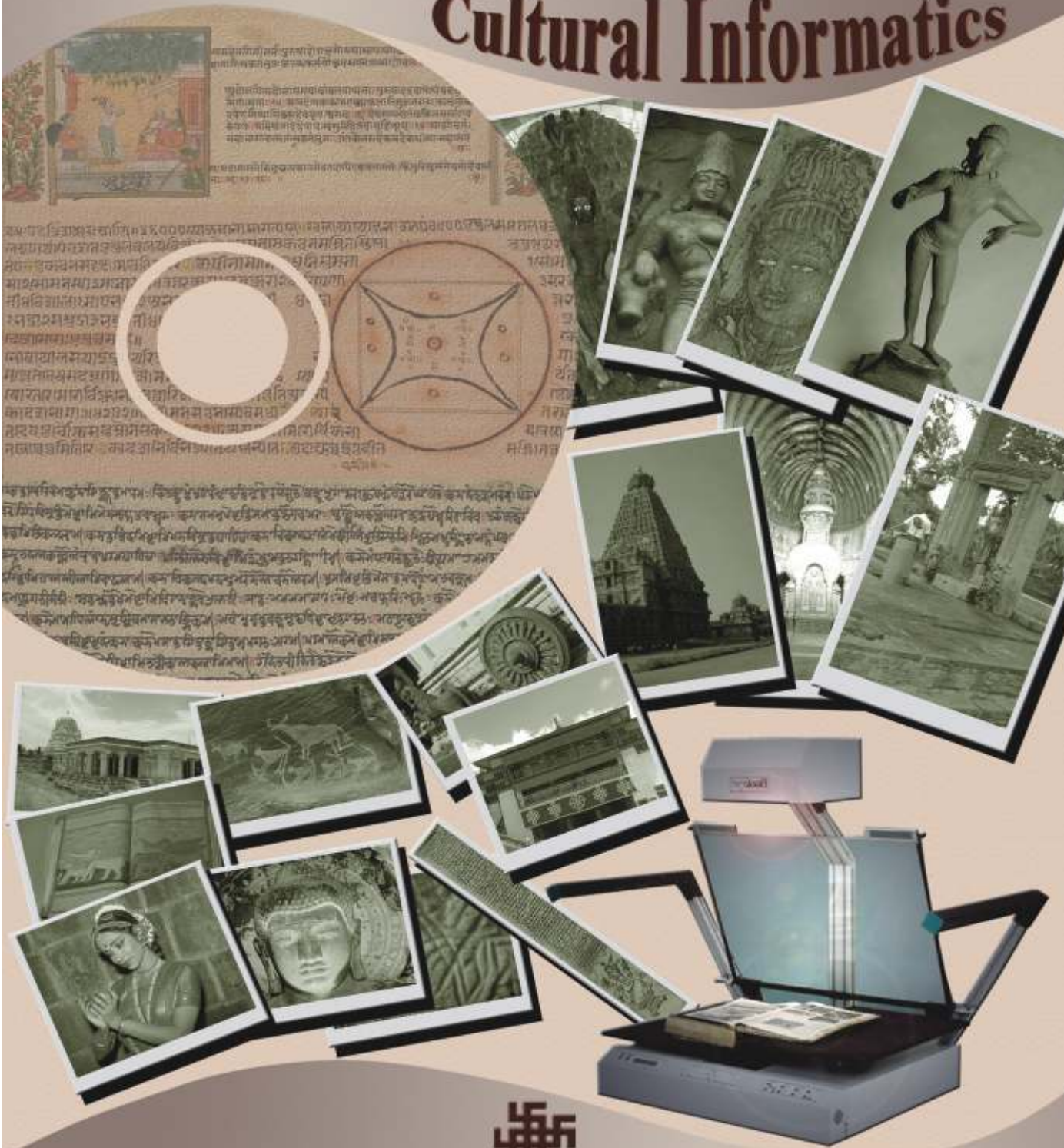


सांस्कृतिक सांयन्त्रिक संचार

# Cultural Informatics



Indira Gandhi National Centre for the Arts

[www.ignca.gov.in](http://www.ignca.gov.in)

# INFRASTRUCTURE OF CULTURAL INFORMATICS LAB



## CULTURAL INFORMATICS

The Cultural Informatics is a pioneering unit of the IGNCA, established in 1994 with UNDP assisted multimedia documentation project titled Strengthening National Facility for Interactive Multimedia Documentation of Cultural Resources, has emerged as world-class documentation unit that demonstrates the manner in which the heritage can be recreated virtually, in the holistic and integrated perception of culture. It also acts as a focal point of digitisation of manuscripts, slides, books, audio and video to preserve the entire repository of its present and future holdings in digital mode and to disseminate the contents in various digital formats to the scholars, researchers and the people in general. The contents developed by Cultural Informatics, which serves as the end-point in the assembly line of the IGNCA's activities are presented to the world through the thematic multimedia CD-ROM(s), in-house developed Kalāśmpadā (Digital Library- Resources of Indian Cultural Heritage) and website ([www.ignca.gov.in](http://www.ignca.gov.in)).





## KALASAMPADA

(Digital Library- Resource for Indian Cultural Heritage Project)

Project aims to use multimedia computer technology to develop a software package that integrates variety of cultural information and helps the users (students, scholars, artists and Research & scientific Community etc.) to interact and explore the subject available in image, audio, text, graphics, animation and video on a computer in a non-linear mode, by a click of mouse. The system aims at being a digital repository of content and information with a user-friendly interface. The knowledge base such created will help the scholars to explore and visualize the information stored in multiple layers. This will provide a new dimension in the study of the Indian art and Culture, in an integrated way, while giving due importance to each medium. The IGNCA's archival collection includes manuscripts, slides, rare books, photographs, audio and video along with highly researched publications of books, journals and newsletters.

The Project has received the prestigious GOLDEN ICON Award for Exemplary Implementation for e-Governance Initiative under category Best Documented Knowledge and Case Study for the year 2004 from the Ministry of Administration Reforms and Public Grievances, Government of India.

These rare manuscripts, collected from different institutions of India and abroad are mainly in the form of microfilms and microfiche. Approximately 14000 rolls of microfilms (out of about 20000) have been digitised. The digitisation of microfiche started recently. Similarly, slides are collected from the institutions like ACSAA, British Library, Victoria and Albert Museum etc. Slides over 100000 have been digitised. Rare Photographs digitised includes Rajah Deen Dayal collection, Sambhu Nath Saha collection etc. About thousand hours of Audio / Video Film & Video Documentation (online audio / video) is available in digital form out of total collection of over 10000 hours. A part of the IGNCA's publications with the various volumes of News Letters (Vihangama) and Kalakalpa: Bi-annual Journal have been digitised.

The facility is currently available only on intranet, for the very fact that these materials are priced possession, Intellectual Property Rights, and copyright issues, etc.. Although, partial information can be accessed from the IGNCA's. Available Metadata of the contents will be finally converted in Extended Dublin Core, as practiced for majority of the digital library projects worldwide.

(Project sponsored by the Department of Information Technology, Ministry of Communication and Information Technology (MCIT), Government of India).

## NATIONAL DATABANK ON INDIAN ART AND CULTURE

The main objective of the project is to enhance the accessibility of Indian cultural resources using digital technology. The project includes the digitisation of information related to various aspects of Indian art and culture accessible from a single window. Contents including over 1 lakh visuals, 1000 hours of audio and video, 25000 rare books on art and culture and Walk-through of some of the archaeological monuments will be covered. This will be one of the major sources of information on Indian art and culture, which can be accessed by the researchers, students, art historians, archaeologists etc.

The IGNCA's visual archive includes over one lakh slides and negatives collected from the various institutions and individuals. The IGNCA does not have the copyright of majority of these visuals. The project includes the photography (digital) of around one-lakh digital images (on various aspects of Indian Art and Culture) and 1000 hours of audio video and upload on the website for the academic reference to the researchers with their catalogue. This includes the data from the archaeological and heritage site / monuments (covered under the ASI and state archaeology departments and large no. of monuments not covered under these departments) and from the life style of the communities from all over India depicting various facets of arts.

Project includes above visual and audiovisual contents with 25000 digitised rare books on Indian Art and Culture from the ASI collection, which will be uploaded on ASI's website for public access. Project includes the walk-through of selected archaeological monuments and sites. For example Brihadeshwara Temple (Tanjavur, Tamilnadu), Humayun Tomb (New Delhi), Khajuraho (Madhya Pradesh), Rani ki Bagh (Patan, Gujarat), Martand Sun Temple (Anantnag, Jammu and Kashmir) etc. will be considered. This will be in collaboration with the Archaeological Survey of India, New Delhi. Traveling multimedia exhibition from the outputs of above components can be built, which will help in demonstration of the use of computer technology for the preservation of Indian art and culture. Exhibition can be mounted at the different part of India and abroad.

Till date, over 300 rare books from ASI Library have been digitised, 10000 digital images and about 20 hours of audio – video materials collected under this project.

(Project sponsored by the Department of Information Technology, Ministry of Communication and Information Technology (MCIT), Government of India)



## ROCK ART

Man's first awareness of the world around came through his primeval sense of sight and ability to hear. these two senses have stimulated artistic expressions - visual and aural, in the pre-historic past as also contemporary cultures. The twin programmes of Adi Drsyā (primeval sight) and Adi Sravyā (primeval sound) have been initiated by the Centre to trace the long continuities in the Indian arts. Rock art forms the crucial programme of the Adi Drsyā programme. It might in all probability be the oldest legacy of mankind.

Based on documentation, research and, to an extent, recreation of this ancient creative urge of man, this project will be a user friendly Computer Aided Learning (CAL) application for children to access digital collection of slides, photographs and paintings with the help of quiz, slide show and modules on theme, dating, colour etc.





## DEVADASI MURAI

The term "Devadasi" refers to a female ritual specialist; good luck and well being are in her hands. Flickering lamps, cooling water, music and dance are her instruments. A formal ceremony solemnised her dedication to the God of the temple. In Tamil Nadu this millennia old tradition has seen great hey days. This CD-ROM has been published in December 1997. This CD-ROM is part of IGNCA's endeavour to digitise the multidimensional performative rituals within the architectural space of Brhadisvara temple. The CD-ROM facilitates virtual experience of the spatial and temporal context of south Indian music and dance.



## MUKTEŚVARA TEMPLE

Caṣḍadanapura is a tiny village of Karṇāṭaka in south India, where all facets of Indian civilisations, encompassing religion, art and poetry are exemplified in an exquisite temple with the highest degree of refinement. This temple is a jewel of architecture of 11th-12th century, in the style now commonly called after the name of the legendary sculptor, Jakkanaċārya. It was built during the heyday of the kingdom ruled by the Cāluṅkyas of Kalyāṇa and the Sevuṅas, as of Devagiri. It is dedicated to an Udbhava-Liṅga "spontaneously born" Linga named Mukteśvara. A user-friendly interactive system will allow the user to browse the multi-dimensional architectural, sculptural and inscriptional programme of the temple.





# AJANTĀ

AJANTĀ is situated on the Western Ghats of the Deccan Plateau, 60 kilometre from Jalgaon and 108 kilometre from Aurangabad in Maharashtra State of India. It was created in two periods; the first being Hinayāna, coincided with the rule of the Satavahānas during first century B.C. and first century A.D. when the Buddha was revered in the form of the stupa. The second phase, called as late Hinayāna, or more popularly, Mahāyāna, coincided with the rule of the Vakaakas during late fifth century A.D. At this time the Buddha was also being revered in the human form. Ajantā is famous for its murals that focus on life of Buddha, the Jatakas (the life of the Buddha as Bodhisattva in his previous existences), and devotional and ornamental themes. They served as didactic tools for the laity. Painting was no different than sculpture and architecture. They interrelate and mutually compliment one another. The silpin (artist, craftsman, artisan or architect) was well versed in more than one art. The approach was holistic.

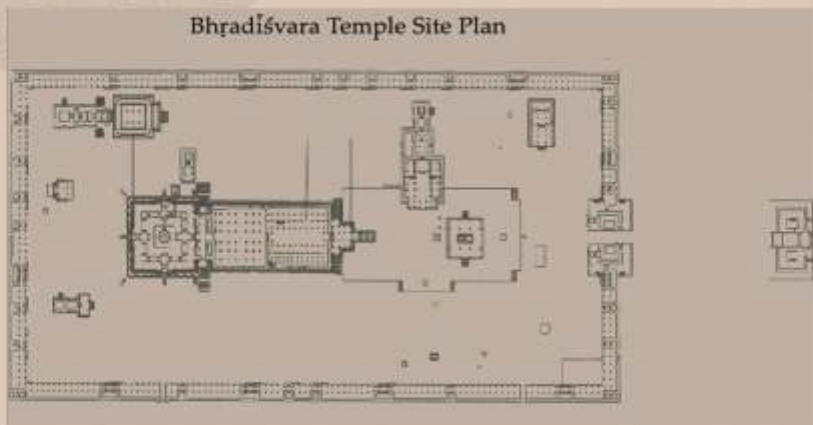
Many books, essays, travelogues, films, photographic collections exist on Ajantā but an all encompassing and integral view as can be possible through the multimedia and virtual walkthrough technology was due. The present CD-ROM attempts to provide such a comprehensive view for the students, teachers, tourists and scholars to help them know and explore further this



## BṚHADĪŚVARA TEMPLE

In the course of history, certain regions have developed into cultural centres attracting people from all parts of India. The study of dynamics of such centre has been the concern of IGNCA. The area of Tanjāvur with the Bṛhadīśvara temple as a focus in the south and the region of Vraja in the north, have been identified for study. A group of scholars from different disciplines has been investigating all aspect of these centres from city planning, architecture and sculpture, painting and literature to socio-economic structures. Alongside, a group of scholars have examined their living traditions from ritual practices within the temple to a variety of art and craft traditions which are still prevalent.

The Bṛhadīśvara temple is acclaimed as the finest achievement of Chola art, built by Raja Raja I in 1010 A.D. Its artistic excellence lies in the perfect balance of the parts and the whole, its architecture, sculpture, paintings, bronze images, the idols and reliefs. This project aims at a hypermedia presentation of an integrated view of this temple in its multidimensional aspects of the architectural and iconographic scheme as also the living traditions of ritual and performances.



## GĪTA GOVINDA

A multimedia experience on Gīta Govinda, a 12th Century epic by Jayadeva was developed with the objective to familiarise audiences on the fundamental concepts of Indian music, dance, art and their inter-relationships and interpretation. The content was conceived by Dr. Kapila Vatsyayan, a scholar of Gīta Govinda for over thirty years and an internationally acknowledged authority and pioneer of inter- and multi-disciplinary studies in the humanities, and the arts. She is the author of many definitive monographs on the Gīta Govinda including those on the diverse painting schools, specially Mewar, Jaipur, Bundi and Assam.

The experience consisted of a network of 13 physical and virtual multimedia spaces that interpreted six songs of the poem spatially, laid out across two circular rings. Arranged on the circular axis were the songs of the poem, showing various emotional situations of Radha and Krishna in love. The two rings represented the poem's meanings through diverse media. This has involved a major documentation effort in video, audio, photography etc. - in total, forty giga bytes of authored Gīta Govinda content was presented. The multimedia experience makes explicit the dynamics of the variable and the invariable in Indian arts and bears testimony to the phenomenon of the underlying unity within the diversity of Indian culture. This was presented to the public in December, 1997-January, 1998. Based on this material CD-ROMs have been prepared.



## ORAL EPIC OF DEVNARAYANA

Devnarayana is the name of a folk deity worshipped by the pastoral communities of Gujjars in Rajasthan and Madhya Pradesh. The main feature of the cult is the performance of individual episodes from a two-part, 45 to 50 hour long oral narrative which contains both sung and spoken section (gav and arthav). Devnarayan's epic is performed during all night vigils (Jagran), by pairs of male singers called Bhopas. The CD-ROM will focus on this oral narrative which is painted on large scrolls. The professional unfolds the story through singing and performance. The relationship between the pictorial image, the sung narrative performances and audience responses will be recreated.





## TWO PILGRIMS

### (Paintings of Mrs. Sass and Elizabeth Brunner)

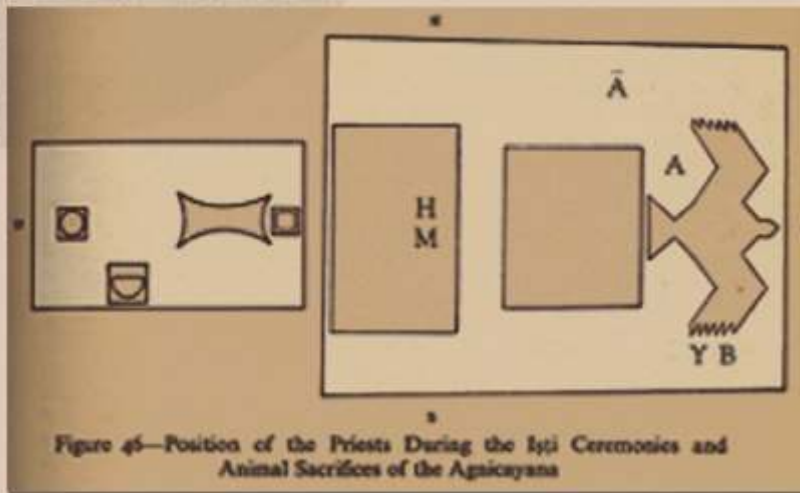
This is a multimedia database on a 20th century Hungarian painter living in India for over seventy years. Elizabeth Sass Brunner and Elizabeth Brunner, mother and daughter, two Hungarian artists travelled to India, Japan and Sri Lanka in search of spirituality in the 1920's. Elizabeth Sass Brunner's paintings include landscapes and symbolic constructions, Himalayan scenes, flowering threes, village life and classic architecture. Elizabeth Brunner's paintings include portraits of leaders, intellectuals, artists, saints as also village scenes, landscape, nature and ancient Indian sculpture.



# AGNICAYANA

Agnicayana is probably to be the oldest surviving ritual of humanity. It offers extraordinary insight into Vedic times and highlights the origin of many features of South Asian culture. It provides a unique opportunity for the study of oral tradition and transmission. Cross-culturally, the Agnicayana raises important issues such as the origin and production of fire, its transfer from one place to another and its worship; as also the art of burning of istaka (bricks) which is an expression linguistically related to Avestan "Istyā".

This interactive content exploration system offers a highly complex structure of space-time co-ordinates, rituals, text and spoken word. Aspects of sequentiality and concurrency are highlighted. Apart from insights into the ritual, it focuses on science and technology that arose in connection with it, including geometry and linguistics.



# VIŚVARŪPA

Viśvarūpa is the cosmic vision of Krishna revealed to Arjuna in the Bhagavad-Gītā before the Mahabharata war. Elements of this vision are traceable to very ancient Indian concepts of integration and disintegration such as Prajāpati and Puruṣa. The word Viśvarūpa consists of two components, viśva-and-vupa. Viśva means "the universe" and rupa means "form, the shape of anything". Viśvarūpa as a concept means "all form", "universal form". "He Who Has The Form of the Universe". These meanings of Viśvarūpa exist in the Ṛgveda and other literature of later periods. This project is aimed at offering an interactive content exploration system to support the study of Indian art by offering a database of selected images of Viśvarūpa Krishna.



## MAN & MASKS

Masks and their manifold forms are a very significant mode of cultural expression. This is one of the many ways through which cultures have given voice to their powerful cognition and most subtle emotions, to define their inner and outer realities. Mask refers to the total personality of a person rather than as aspect of the self. It also refers to disguise that hides the real identity of a person.

This is an Interactive Multimedia presentation to support the study of Masks by offering a database largely comprising of selected Mask images from IGNCA's collection from 22 countries of the world. The Kiosk based on this database was installed in the public exhibition on "Man & Mask" in February 1998.

The Interactive database will help a user to browse this collection:

- (i) either by nine geographical regions, countries or specific locations, or,
- (ii) by individual or groups of masks, classified in over fifty categories.







## DIGITIZATION PROJECTS

### ORIENTAL RESEARCH LIBRARY, SRINAGAR

Under the manuscripts acquisition programme, the IGNCA digitized of all the manuscripts available in the Oriental Research Library (Srinagar), Shri Pratap Singh Library (Srinagar) and Allama Iqbal Library (Srinagar). The collection includes rare manuscripts on Yogavashistha, Mahabharat, Saivism, Ayurveda etc. in Sanskrit (Sharada and Devnagari script) and Persian. Total collection includes 10,581 manuscripts containing over 21 lakh pages.

### NATIONAL MUSEUM, NEW DELHI

Over two thousand seven hundred manuscripts of the National Museum collection, covering about nine lakh pages were digitized by the IGNCA till 2007. Remaining will be digitised in next few months.

### VISVA-BHARATI, SANTINIKETAN

Digitization of antiquities, which contains about 870 rare manuscripts of Gurudev Rabindranath Tagore, his paintings and photographs etc. already started at the Visva-Bharati, Santiniketan.

### ALLAHABAD MUSEUM, ALLAHABAD

Digitization of antiquities, which contains about 6000 rare manuscripts, over 1500 sculptures and terracotta, 1000 paintings, coins, photographs etc. already started at the Allahabad Museum, Allahabad.

### NATIONAL LIBRARY OF MONGOLIA, ULANBAATAR

Digitization of Kanjuur and Danjuur manuscripts available in the National Library of Mongolia, Ulanbaatar, started in collaboration with the National Library of Mongolia, Indian Council for the Cultural Relations (ICCR) and Indira Gandhi National Centre for the Arts.

Digitisation of antiquities at the Asiatic Society (Kolkata), Department of Historical and Antiquarian Studies (Guwahati, Assam), Cultural Academy (Srinagar) and Sri Chandra Shekharendra Saraswathi Viswa Maha Vidyalaya (Kanchipuram, Tamilnadu) will be initiated shortly.



# WEBSITES

## INDIRA GANDHI NATIONAL CENTRE FOR THE ARTS

The IGNCA website ([www.ignca.gov.in](http://www.ignca.gov.in)) is one of the major source of information on Indian art and culture and has an average 14 lakh hits per month during 2007.

## ARCHAEOLOGICAL SURVEY OF INDIA

The IGNCA also designed and developed website for the Archaeological survey of India ([www.asi.nic.in](http://www.asi.nic.in)), which has been widely appreciated by the users and scholars at large.

## RAJENDRA SMRITI SANGRAHALAYA

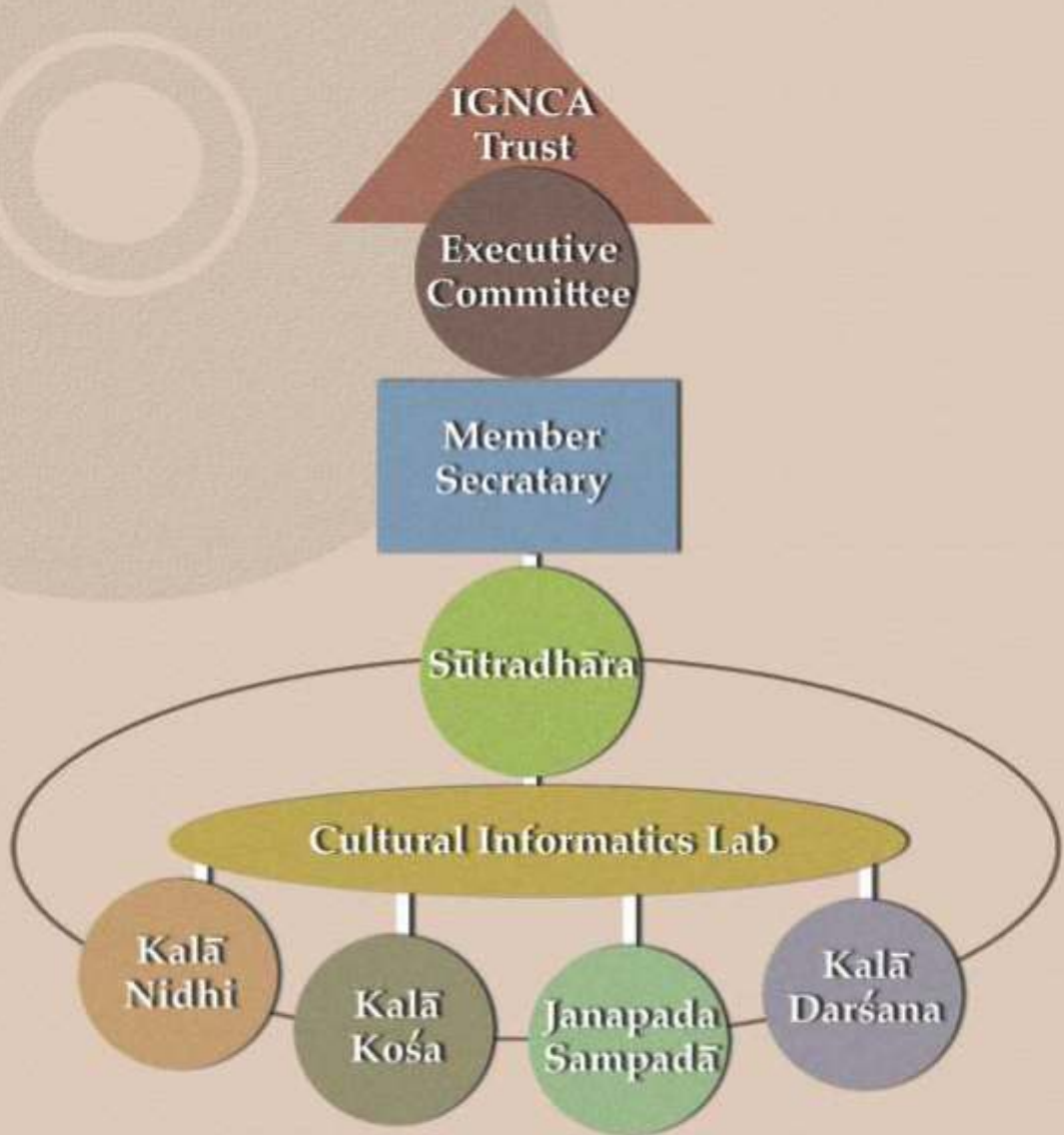
Website was designed and developed for the Rajendra Smriti Sangrahalaya, Sadakat Ashram, Patna.

## NATIONAL MUSEUM INSTITUTE ([www.nmi.nic.in](http://www.nmi.nic.in))

Website was designed and developed for the National Museum Institute, New Delhi.



# ORGANISATIONAL STRUCTURE





## About IGNCA

The Indira Gandhi National Centre for the Arts (IGNCA), established in the memory of Smt. Indira Gandhi, in 1987, is visualised as a centre encompassing the study and experience of all the arts -- each form with its own integrity, yet within a dimension of mutual inter-dependence, inter-relatedness with Nature, the social structure and cosmology.

The arts are here understood to comprise the fields of creative and critical literature, written and oral; the visual arts, ranging from architecture, sculpture, painting and graphics to general material culture, photography and film; the performing arts of music, dance and theatre in their broadest connotation; and all else in fairs, festivals and lifestyle that has an artistic dimension. In its initial stages, the Centre will focus attention on India; it will later expand its horizons to other civilizations and cultures. Through diverse programmes of research, publication, training, creative activities and performance, the IGNCA seeks to place the arts within the context of the natural and human environment. The fundamental approach of the Centre is all its work will be interdisciplinary.

Recognizing the need to encompass and preserve the distributed fragments of Indian art and culture, a pioneering attempt has been made by Indira Gandhi National Centre for the Arts (IGNCA) to serve as a major resource centre for the arts, especially written, oral and visual materials. One of the programmes of this centre is to utilize multimedia computer technology to create a wide variety of software packages that communicate cultural information. Multimedia technology allows the user to interact and explore the subject in a non-linear mode by combining audio, text, graphics, animation and video on a computer.



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