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Scientific Journal Impact Factor   Academic Resource Index

J-Gate

Published on
June 30, 2022

Contents

Editorial

O ur Society for Heritage, Archaeology and Management now presents its second volume – first issue to the scholars who have keen interest to know about India's heritage and culture. This volume includes eight research articles highlighting some unique cultural aspects of India. These have been reflected through sculptures, architecture epigraphy and heritage. In its multi-thematic sections, the volume offers articles in the field of Archaeology, ancient temples and monuments, legend and folk lore, and also conservation.

The volume opens with a very important article on "Museums in Assam-A Survey" written by Prof. Alok Tripathi and Priyanka Koiri. Assam became an epicenter of culture and age-old tradition. People from diverse cultures and ethnicity settled in this land and have enriched Assamese life more and more. These cultural and archaeological edifices are kept in various museums and this article gives us a vivid description of them.

The second article entitled "Looking beyond books: Heritage Corner Module in Haryana" is presented by Dr. Suruchika Chawla and Dr. Banani Bhattacharya. It discusses an interactive tactile module, termed as Heritage Corner module. It has been introduced in Haryana very recently. This article will surely encourage students for safe guarding heritages.

Mr. Prasanna Dikshit has focused on "Evolution of Chaityas and Shrines. Excavated at Udayagiri, District-Jajpur, Odisha, India - A Stratigraphical Analysis". He discusses the development of Buddhist shrines at Udaygiri through the ages, highlighting different architectural forms of Chaitya grihas along with the doctrinal changes that took place in different phases of time.

Another interesting article "Murshidabad District Region: Locally the Buddha worshiped as Siva" - written by Dr. Mousumi Banerjee shows how some Buddha images have been worshipped by the local people as Rudra deva, Shiva or Bhairava. It also highlights some rituals related to the Shiva worship.

The article "A legacy of used stone tools from Palaeolithic to Neolithic at Chuagara in the Suvarnarekha- Burahabanga complex" by Shri Arabinda Singha Ray focuses on an archaeological site, located near the Suvarnarekha river valley. The survey shows that the site was under occupation from Paleolithic period to the proto historic culture. The scholar has vividly discussed all the stone tools recovered from the site of Chuagara.

Another article by Smt. Sarita Dash refers to "Lord Ganesha in Temples of Bhubaneswar". She has discussed various manifestations of the origin of lord Ganesha and mythological stories mentioned by the Puranas.

The article "Studying Continuity of Habitation in Archeological Sites in West Bengal from 6th Century AD till Date" is written by Shri Balaknath Bhattacharyya. Sri Bhattacharya has thrown significant light on ancient habitational areas of West Bengal through an intensive survey of the locations of settlements as mentioned in the copper plate inscriptions.

The article focusing on "A Study of Iconographic Representations on Ratneswar Temple, Bhattabati and Digital Restoration through Image Inpainting Process" by Anustup Chatterjee & Hrishita Barman, deals with a very interesting subject which is new to the field of art and iconographical study. Here authors have discussed how technology can be used to restore a missing piece of any image with the help of image inpainting repairs.

The volume also includes reviews of two newly published book namely **'Expressions of the Soul: Folk Dances of Rajasthan-Costumes, Culture and Traditions' by Dr. Kiran Kapoor.** This book have been reviewed by Dr. Anamika Pathak, Former Curator, National Museum, New Delhi.

All these articles are multi-disciplinary research oriented which will help our young scholars to pursue their research in these subjects further. This volume displays a wide range of subjects in the field of Art, Iconography, epigraphical records and museum. The editors acknowledge the contributions of all our scholars and reviewers for their cooperation and enthusiasm and also acknowledge **Mr. Prasanna Kumar Dixit, Deputy Superintending Archaeologist, Archaeological Survey of India, Patna Circle, for contributing the photo published on the cover page of Volume 2 Issue I of Journal of Heritage, Archaeology & Management (JHAM).**

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Museums in Assam: A Survey

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Abstract

Museums are changing with changing time and also their role in the society. Assam, the most prominent state in the northeast region, is known for its rich traditions, culture, flora and fauna. This diversity among people, cultures and natural resources, heritage of human kind, needs to be preserved for study and knowledge sharing. A number of museums established since 1940 have rich collection of objects of anthropological, archaeological, art and craft, ethnographic, film, forest, geological, industry, magic, personalities, railway, religious, scientific, zoological, nature. This article gives brief description of rich and diverse collections in these museums, located at different parts of the state.

Key Words: Museum, Assam, Northeast region, cultural heritage

Introduction

ICOM, in its 26th General Conference held at Prague, has redefined museums as "a museum is a non-profit, permanent institution in the service of society, that researches, collects, conserves, interprets and exhibits tangible and intangible heritage. Open to the public, accessible and inclusive, museums foster diversity and sustainability. They operate and communicate ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection and knowledge sharing."

Assam, the most prominent state in the northeast region, which in a way was synonymous to this region, now covers an area of 78,438 sq. km. The state, popularly known as the land of Red River and Blue Hills, is bounded to the east by the states of Arunachal Pradesh, Nagaland and Manipur;to the North by the state of Arunachal Pradesh and the neighbouring country Bhutan;to the west by the states of Meghalaya and West Bengal and the neighbouring country Bangladesh; and to the south by the states of Meghalaya, Tripura and Mizoram. The state has three physical regions, the Barak River Valley (Upper Surma River) in the south, the Brahmaputra River Valley in the north, and the hilly region between the Meghalaya to the west and Manipur and Nagaland to the east. It is famous for its tea cultivation, petroleum resources, traditional silk products and one-horned rhinoceros. Guwahati is considered as gateway to the Northeast Region and Silchar is the second most populous city and an important centre of business in Assam.

As far as early history of the region is concerned, not much written records are available. The Allahabad pillar inscription of Samudragupta mentions Davaka, Kamarupa as frontier kingdoms of Gupta Empire. The kingdom was ruled by different dynasties from their capital in Pragjyotishpura. Pushya Varman of the Varman dynasty is said to be the first ruler of Assam. Kumar Bhaskar Varman (CE 600 - 650) was the last great ruler of the Varman dynasty (Tripathi 2002: 12). After the death of Bhaskar Varman, Salasthamba founded the Mlechchha dynasty. According to another view, it is believed that Salasthamba took the power from the descendents of Naraka. The Ahoms ruled the Assam for about 600 years from 1228 to 1826 (Acharya 1957: 56).

The Chutiya (1187 to 1673 CE),the Koch (1510-1581 CE), the Dimasa (13th century-1854 CE) and other regional powers also ruled in some parts of the region in different periods. The Mughals made seventeen attempts but all were forcefully resisted and failed. With treaty of Yandabo, with British in 1826, Ahom kingdom lost its control and the region was ruled by East

India Company.In the 20th century, British India was consisted of eight provinces,administered by a lieutenant-Governor or Governor, and Assam was one among them.

At the time of Independence, Assam had 13 districts which were Cachar, Darrang, Kamrup, Goalpara, Sivasagar, Lakhimpur, Nagaon, Lushai Hills, Garo Hills, Naga Hills, Jayantia Parganas, NEFA and Sylhet. Four princely states,Manipur, Tripura, Khasi State, Koch Bihar, were also included under the territory of Assam. Larger part of Sylhet district was given to East Pakistan. Naga Hills became Nagaland in 1963, and the Jayantia, Khasi and Garo hills were combined to form Meghalya in 1972. NEFA became Arunachal Pradesh in 1986. Lushai Hills became Mizoram in 1986 and Koch Bihar became part of West Bengal. Tripura and Manipur are now two separate Indian states.

About one-third of Assam is covered with grasslands, woodlands, swamp forests, Pine forest, tropical evergreen and deciduous forests. Assam is rich in orchid species and home of variety of rare plants (Baruah. 2007: 7).

Stateis also rich in wildlife and has the largest population of Wild Water Buffalo in the World. It has the diversity of mammal (190 species) and has the highest diversity of Birds in India (820 species with 946 sub-species), including numerous endangered species (Baruah. 2007: 8).

Assamese culture displays assimilation of different ethno-cultural groups.In the 15th century, the Vaishnava movement led by the Srimanta Shankardeva contributed towards cultural changes. Some of the unique cultural traits of Assam are visible in traditions, rituals and symbolic and traditional dresses.

Assam is rich in crafts using bamboo and cane, bell metal, brass craft, wood craft, iron craft, toy and mask making, cotton and silk weaving, terracotta work, pottery, musical instruments, jewellery making. Bamboo and cane crafts provide the daily life utilities ranging from domestic use to weaving accessories, furniture, fishing apparatus, musical instruments.

Museums in Assam

This great diversity of flora, fauna, culture and history is effectively collected, conserved and exhibited in a number of museums spread around the state. A number of museums are established and are being maintained in the state since 20th century. Types of museums include -

anthropological, archaeological, industry, forest, science, art and craft, personalia, religious, magic, railway, film, zoological, geological, ethnographic, etc. A brief description of these museums located at different places, and their collections is given here.

Arun Kumar Das Sangrahalaya, Amraghat

This multipurpose museum, located at Ganganagar, Cachar, was started in 1960's by a retired teacher. The museum has rich collection and objects on display include old books, coins, musical instruments, different types of tools and instruments, fossils, stones, weapons, old map, handicraft products, etc.

Barak Museum and Library, Bantarapur

The ethnological museum, located at Bantarapur was established in 2014. This museum, run by a Non-Government Organisation, has a rich collection of objects related to the tribes in Cachar specially Manipuries, such as variety of musical instruments, weapons, basketry, brass utensils, etc.

District Museum, Barpeta

This art museum at Barpeta was established in 1987. Collections in the museum include objects related to *Satras* such as wooden images, wooden masks, wooden images, musical instruments, manuscripts, metal images, brass utensils, ivory bangles, brass throne, textiles, coins, terracotta, basketry, palanquins, scarves *muga* silk, iron lamp stand, etc. (Choudhury and Roy 1993).

Bordowa Satra Mini Museum, Bordowa

This religious museum, situated near Akashiganga Lake, was established in 1985. Two *satras*-Narowa and Salaguri, were founded by the great saint Sankardeva about 1494 CE. He founded *Naamghar*, *kirtanghar* at Bordowa. The museum houses various types of religious and cultural objects, articles used by great saints Srimanta Sankardeva and Sri Mahavadeva, wooden statues, wall panels, weapons, objects of Ahom kingdom, etc.

Purnanada Memorial Rural Museum, Darrang

This personalia museum, located at Jhakuwapara, displays objects which describe the life-style of Sri Purnananda. The museum established at his residence houses objects used by him including valuable things, photographs, manuscripts, cassettes, clothes, etc.

District Museum, Dhubri

This multipurpose museum, located at the Boro Bazar, was established in 1988. It has collection of around 1,000 artifacs from nearby areas, depicting the history, socio-cultural, religious life of the people. The objects on display are image, painted *pata*, silver Koch coin of Lakshmi Narayan (1555 CE), etc.

Nilima Barua Folk Art Museum, Dhubri

This art museum, located at Gauripur, was established in 1997. Nilima Baruah, the youngest daughter of Raja Prabhat Chandra Baruah of Garuripur Zamindary Estate, was fond of folk art and devoted her life for preserving folk art and culture. The artifacts on display are traditional textile, cane and bamboo objects, wooden and metallic objects, jewellery, ivory, clay and terracotta objects, archaeological and anthropological objects, stone sculpture, etc.

Anthropological Museum of Indigenous Studies, Dibrugarh

This anthropological museum, located at Dibrugarh University, was established in 1966. The display in museum includes diorama, masks, models of temple, Naga hut, traditional furniture, cannon of Ahom period (17th century), traditional textiles, wooden articles of domestic purpose, agricultural implement, hunting and fishing apparatus, basketry, ancient coins, manuscripts, musical instruments of different tribes of Northeast, etc.

District Museum, Dibrugarh

This multipurpose museum, located at District Library building, was established in 1987. The museum displays the objects of Apatani tribe of Arunachal Pradesh, Buddhist idols, coins of different countries, brick of Ahom period, terracotta of 15th-16th century CE, agricultural tools, terracotta toys, sword of late Ahom period, Tai manuscripts, palm leaf manuscript, elephant tusk, weapons, ornaments, etc.

Malbhog Baruah Sangrahalaya, Dibrugarh

This personalia museum, located at the campus of Dibrugarh University, was inaugurated in 2018. He was the proprietor of Rajabheta Tea Estate. The artifacts on display are paintings, photographs of his family members, books, small sculpture, typewriter, gramophone, radio telephone, etc.

Oil Centenary Museum, Digboi

This industrial museum, located at Digboi Oil Refinery was established in 2002. The museum, established by Assam Oil Company, a division of Indian Oil, is located close to the first commercial well founded in 1889 in India. Museum shows the development of modern oil industry, displaying the hardware, pumps, equipments, models of plants, vintage oil machinery, scale models, archived materials, etc.

District Museum, Diphu

This multipurpose museum, located at Lumding Road, was established in 1986. The museum set up by Directorate of Museum has 487 artifacts of socio-cultural, archaeological and religious importance. These objects include hunting tools, fishing equipments, traditional attires of tribes, engraved door jambs, handlooms, jewellery, musical instruments, architectural members, etc. Another attraction for the visitors is '*Jambili Athon*' of Karbi (Choudhury and Anam 1992).

Sri Surya Pahar Museum, Goalpara

This archaeological museum is located near protected monument at a sacred hill. The archaeological excavations were carried out between 1992 and 2001 by Archaeological Survey of India, and a museum was built to display artefacts discovered in excavations, such as sculptures, terracotta, tiles, pottery, utensils, etc.

Uncle Robins Children Museum, Golaghat

The children's museum, located at Golaghat, was established in 2004. Founder of the museum was fond of children and always motivated them. He died in 2003 and his residence was then converted into museum, having photograph, paintings, toys, mementos, awards, dolls, etc. Some artifacts worth mentioning are horse made of turquoise, Naga head hunting basket, and documentaries from 1953 to 1998.

Ambari Archaeological Site Museum, Guwahati

This archaeological museum, located on ancient site Ambari, was established in 2004. The site was discovered in 1969, and was excavated between 1970 and 2003. Museum has a variety of objects excavated from this site, such as stone sculptures, terracotta, bust of a dancing female figure, inscription of 1232 CE, earthen lamps, beads, coins, potteries, such as roulleted ware (1st-2nd century CE), Celadon ware (10th-12th century CE) and green-glazed ware (16th-17th century CE), kaolin ware, red ware, buff ware, few grey ware, etc. The site would have been a production centre of sculpture (Dutta 2006; Phukan 2020: 1-8).

Assam State Forest Museum, Guwahati

This forest museum, located at south Kamrup Division, was established in 1979. The museum managed by Central Government, has forest products such as ivory objects, different kinds of bamboo, lacquer works, medicinal herbs, models of bridges and buildings, bamboo and cane crafts, animal specimen, fossilized wood, exotic ferns, plants, timber, etc. The museum also has aherbarium section.

Assam State Museum, Guwahati

This multipurpose museum, located in Dighali Pukhuri, was established in 1940 by the Kamarupa Anusandhan Samiti (Assam Research Society). Later it became Assam provincial museum, and now the State museum. It is the largest museum having a collection of objects displayed in several galleries - painting, ethnography, freedom fighters, manuscript, village life of Assam, arms and ammunition, pre and proto historic and terracotta, epigraphy, wood craft, textile, Northeast, natural history, numismatics, and sculpture gallery. In 1985 a library was established having a rich collection (Kalita 2017: 347-353).

Auniati Satra Museum, Guwahati

This religious museum located at North-Gauhati, has a collection of objects related to *satra*culture such as ornaments, articles of daily use by Asammese people, weapons, ivory works, royal attires, metal pots, *dola* (palanquin), manuscripts, brass plates, Rudraksha jewellery, musical instruments, old furniture, water pots used by Ahom king Gadhadhar Singha.

Bhupen Hazarika Museum, Guwahati

This personalia museum, located at the Samadhi Kshetra, Jalukbari, was inaugurated on his 7th death anniversary. The museum houses all the valuable memories of Dr. Bhupen Hazarika, his personal belongings, photographs, etc.

Commercial Museum, Guwahati

The commercial museum, located at the Arts building of Gauhati University, was established in 1956. Exhibits include objects of art and crafts, coins, rocks and minerals, pictures, chemical products, industrial products, handicraft items, etc.

Department of Historical and Antiquarian Studies Museum,Guwahati

The historical museum, located at Department of Historical and Antiquarian Research, was established in 1928. The museum has a rich collection of great historical value, such as old manuscripts, copper-plates, rare books,etc.

Ecological Museum, Guwahati

This ecological museum is located at the premises of Assam State Zoo and Botanical Garden. The museum exhibits various specimens of plants and animals, skeleton, etc. The museum gives information about the rich fauna of the state of Assam.

Ethnographic Museum, Guwahati

The ethnological museum, located within the premises of Assam Institute of Research for Tribes and Scheduled Castes, was established in 1971. The museum exhibits a variety of objects such as agricultural implements, fishing equipments, hunting tools, household articles of daily use, ornaments, musical instruments, dioramas of different tribes of Northeast region giving a glimpse of living style and traditions of these tribes, particularly Assamese.

Film Museum, Guwahati

This film museum, located near Panjabari Shilpagram, was established in 2013. Set up by Assam State Film Finance and Development Corporation, it is the first museum in Northeast region to preserve the film heritage of Assam. The museum reflects history of regional cinema and exhibits objects such as projectors, old editing machines, rare photographs, props used by actors, gramophones, costumes from various films, some still pictures of founder of Assamese Cinema. Visitors can also watch various Assamese films and get information on personalities of film industry.

Geological Museum, Guwahati

The geological museum, located at the department of Geological Science, Gauhati University, was established in 1950. The collection in museum includes gems such as pearls, topazes, moonstones, sapphires, rubies, polished blocks of rocks, the collection of petroleum products, fossils of plants and animals, a rich collection of minerals, etc.

Kamakhya Museum, Guwahati

This temple museum, located at the premises of Kamakya temple, displaysobjects used in religious ceremonies, and gifts from devotees, such as stone sculptures, *trishuls*, lamp stands, old

doors, weapons, small temple made of wood, utensils, shells, copper and brass articles used for worshipping,*chhatra* of goddess Kamakya, Sri-yantra, etc.

Madhab Chandra Goswami Anthropological Museum, Guwahati

This anthropological museum, located at Gauhati University, was established in 1948. It has largest collection of Neolithic tools found in north-eastern region. Other collections include ethnographic collection, pre-historic and archaeological remains, weapons, metal objects, masks, *thankas*, textile, musical instruments, ornaments, basketry, hunting implements, agricultural equipments, etc.

Museum of Animal Husbandary and Veterinary Science, Guwahati

This science museum, located at the campus of Assam Agricultural University, was established in 1967. The museum displays different kinds of specimens related to veterinary science and animal husbandry. There is also a library and the museum organizes seminars,films shows, lectures, etc.

Planetarium, Guwahati

This planetarium, located at Uzan Bazar, was established in 1994. It is the center for the astronomical studies in the Northeast region. It shows planetary movements, viewing of solar eclipse, and sky watching. Planetarium has sky theatre sound system, star field projector, andalso organizes seminars conferences, workshops, quiz and exhibitions.

Purbajyoti Sangrahalaya, Guwahati

This multipurpose museum, located at Batahguli, was established in 1990. The *kalashetra* includes a museum, children's park and library named *Sahitya Bhawan* which houses books and rare manuscripts, an exhibition centre named as Lalit Kala Bhawan where workshops, seminar, exhibition of art are done. There is an open air theatre for traditional dance, drama are performances. A Sahitya and Sangeet Natak Bhavan and an artist village. The village shows the life of village people of Assam with the statues and models of houses. There is a replica of Rang ghar. The main attraction of the kalashetra is the cultural museum which exhibits various traditional artifacts of the Assamese people and various tribes of Northeast region.

The Kalashetra is also having a Dr. Bhupen Hazarika museum which has a great collection of his pictures, clothes, awards, furniture, books, and musical instruments. A sound and light show is also organised in the complex.

Regional Science Center and Museum, Guwahati

This science museum, located at Khanapara, was established in 1994. Functioning under the Ministry of Culture, Government of India, the center has fun science, butterfly corner, children corner, magic tap, head on a platter, etc. The large aquarium has a variety of fishes. In outdoor it has science park and pre-historic park. The Center regularly organizes seminars, workshops, educational programmes, shows 3D movies related to science and other activities giving the knowledge of science in a non-formal manner.

Treasured Wheels, Guwahati

This multipurpose museum, located at Tepesia Road Sonapur, was established in 2013. The gate of the museum is built with the war helmets. It has a collection of 50 cars and 25 bikes. Other collections include old clocks, telephones, cameras, old bicycles, parachutes, electrical appliance, weapons used in Second World War, etc.

District Museum, Haflong

This multipurpose museum, located at Haflong, was established in 1986. Objects in the museum are from Maibang, Zion, Kejurban, Songpijang, Chemkhor, N.C. Hills, Harangajao. It exhibits the stone sculpture, musical instruments, stone jars, ornaments, etc. (Hasnu 2012).

Vijnan Mandir, Hailakandi

This science museum, located at Lakshmiswar, was established in 1953. It was set up by Science and Cultural Affairs of Government of India. In 1963, it came under Government of Assam. The objects on display include rocks, sands, animals, fossils, clay sculpture, fishing equipments, etc.

District Museum, Jorhat

This multipurpose museum, located at Shiksha Bhavan campus, was established in 1989. The museum is under the Directorate of Museums, Assam. The collection includes musical instruments, cannon, mask, *kharau*, sculptures of Ahom period, utensils, paintings, silver coins, weapons of Ahom dynasty, ivory, statues, manuscripts, textiles, etc. The museum also promotes awareness programs, and study of museums among school students.

Gatani Museum, Jorhat

This multipurpose and numismatics museum is located at the last house of Golf green Jorhat. This private museum houses old telephone, domestic tools and instruments, Indian and foreign coins, antique cars, etc.

Heritage Museum, Jorhat

This multipurpose museum, located at Malow Ali, was established in 2009. It is a private museum displaying the first Assamese newspaper of 1924, copper and bronze utensils, objects of domestic use, different kinds of ancient mirrors, wall clocks, handwritten newspaper published during Assam *Andolan*, antique lamps, utensils used for religious purpose, medical equipments, etc.

Science Centre and Planetarium, Jorhat

This science museum, located near Rajmau Pukhuri, was established in 2013. Run by the Department of Science and Technology, Government of Assam, it has telescope, two meteorites, and also displays method of oil exploration, drilling and its type, refining process, product and process, natural disasters, off-shore survey, and various things related to science and scientific inventions. The children activity corner has various things, where children can play and learn the science.

Tocklai Tea Research Centre Museum, Jorhat

This industrial museum, located at Tocklai Tea Research Institute, was established in 1911. The collection of the museum includes specimens of common tea pest, insects and reptiles, etc.

District Museum, Kokrajhar

This ethnological museum, located at Bhavanipur, was established in 1986. The museum houses various ornaments, traditional attires of Bodos, Garos, Rabhas, agricultural and domestic implements, tribal headgears, statues, metal utensils, royal robe, boat, rhino shield, coins of Koch dynasty, etc. (Puthenpurakal and Sumer 2015: 16).

Science Centre and Planetarium, Kokrajhar

This science museum, located at Dimalgaon, was established in 2020. It exhibits objects and instruments related to science and technology and the facts about solar system. It also shows films in English, Hindi and Assamese.

Coal Heritage Park and Museum, Margherita

The industrial museum, located at North-eastern coalfields, was established in 2012. It is maintained by Coal India limited. The museum preserves materials related to the coal mine history of Assam, materials used in the coal mines, locomotives, empty bomb shells, the models of transformers, cap lamps, underground telephones, shovels, coal mining boots, models, and photographs of road constructions of Pangsau Pass, Stilwell road, Ledo airstrip.

District Museum, Mangaldoi

This multipurpose museum, located at Bhabarghat, was established in 1987. The museum under the Directorate of Museums, Guwahati, has around 600 objects collected through purchase and donation. The collection includes copper and silver coins, wooden sculptures, copper inscriptions of Ahom rulers, palm leaf and paper manuscripts of old Assamese and Sanskrit scripts, textiles, musical instruments, ornaments, household articles, stone sculpture of 18th century, etc.

Central Museum and Emporium, Mayong

This magic museum, located at Mayong, was inaugurated in 2002. The museum has various ancient texts and manuscripts, skulls, tools that were used for sacrifices in ancient times, old relics and ornaments used by magicians for performing black magic, stone statues, stone inscription, terracotta idols, arms and weapons.

Bamboo Museum, Nagaon

The art and craft museum, located at Fauzdari Patty, was established under the national Bamboo Mission. It displays artefacts of bamboo such as baskets, craft items, wall hangings, domestic articles, jewelleries, etc. These artefacts show the richness of natural resources and their utilization.

District Museum, Nagaon

This multipurpose museum, at Nagaon has a rich collection. Exhibits include traditional attires of the tribes of Assam, articles of daily use, fishing apparatus, agricultural implements, tools, weapons, musical instruments, handicrafts, etc.

Purvabharti Museum, Nalbari

This multipurpose museum, located at Nalbari, was established in 1972.Museum run by Nalbari Sahitya Samaj has around 2000 objects, which include masks, pottery, domestic implements, copper-plate, tribal attires, musical instruments, manuscripts, anthropological objects, coins, weapons, jewelleries, etc.

Nehru College Museum, Pailapool

This multipurpose museum, located at Nehru College, was established in 2003. It exhibits fish catching instrument, deer horn, basketry, watches, gramophone record, musical instrument, coins, etc.

Lokpriya Gopinath Bordoloi Memorial Museum, Raha

This personalia museum, located at Raha, was established in 1998. The museum housed in his residence has a rare collection of artefacts, his dress made of khadi, wrist watch, various awards, cap, letters written by Mahatma Gandhi to him, pictures and some articles used by his wife Surabala Bordoloi.

Anthropology Museum, Silchar

The anthropological museum located at Guru Charan College, was established in 2007. The exhibits in museum include basketry, household articles, musical instruments, skulls, human bones, traditional attires, weapons, handicrafts objects, traditional costumes, etc.

Assam University Museum, Silchar

This archaeological museum, located in the Department of History, Assam University, Silchar was established in 2012. Collection includes archaeological remains such as stone tools, pottery from Harappan period, PGW, porcelain, terracotta, besides ethnographic collection, textiles, clay objects, basketry, fishing equipments, musical instruments, handicrafts, etc.

Ahom Tai Museum, Sivasagar

The ethnological museum, located near Sivasagar tank, was established in 1992. The objects of Ahom period (13th-18th century) in the museum are goblets, *pandati*, brass and terracotta dragon, palanquin, cannon, bell metal pot, old Assamese ornaments, animal skins, manuscripts, utensils, musical instruments, weapons, fishing gears, basketry, pottery, traditional Assamese

attire, diorama of darbar, ivory and wooden sculptures, etc. The museum managed by the Directorate of Cultural Affairs, promotes various activities, seminars, lectures, research work on Tai literature and language.

College Museum, Sivasagar

This college museum, located at the campus of Sivasagar College, was established in 1958. It has collection on art and archaeology. The objects in collection are pottery of pre-Ahom period, ornamental brick, traditional Assamese utensil, swords, copper-plate, stone sculptures, manuscripts, sacrificial sword, currencies, utensils, ornaments, etc.

Uttaran Museum, Sivasagar

This multipurpose museum, located at Sivasagar, was established in 2003. It is a private museum displaying musical instruments, handicraft items, pottery, domestic tools and various kinds of *da*. A variety of animals, insects and mammals are also preserved in the museum.

District Museum,Tezpur

This archaeological museum, located near D.C. Office, was established in 1986. The museum under the Directorate of Museum, Guwahati houses a good collection of manuscripts, copper-plate inscription, cannons and crafts of Ahom period, wooden and stone sculptures, paintings, craft work of *satra*institution, coins, old bricks, wooden objects, traditional attires, artefacts of tea and ex-tea community, ornaments, etc. Stone sculptures of Ahom and pre-Ahom period are displayed at the entrance of the museum (Choudhury and Ahmed 1992).

Jyoti Bharati Museum, Tezpur

This personalia museum is located at the ancestral house of Jyoti Prasad Agarwala, built in 1874. A culture centre 'Jyoti Bharti' was set up in the premises of his house (Poki) in 1978. Museum displays bed, manuscript, wooden carving, cloth worn by him, old wooden piano, musical instruments, wooden almirah, palanquin, shoes, brass utensils, table lamps, suitcases and buckets, photographs of his family members and freedom fighters.

Railway Heritage Park cum Museum, Tinsukia

This railway museum, located at Tinsukia Railway Junction, was established in 2010. The museum focuses on the Northeast Frontier Railways. There are models, narrow gauge steam engine, variety of tools and instruments used by railways, skew gate lamp, watches, train letters,

fire extinguisher, dress of station master, photographs, trolley hut, vertical boiler. Museum also has Darjeeling Himalayan railway gallery, video hall on wheels, toy train, coffee corner, children's park, etc.

Conclusion

Development of museums in Assam, during last eight decades, since the establishment of first museum in 1940, has been impressive, keeping the location of the region in view. Initiative was taken by learned societies and educational institutions in this field. Pace of museum movement in first half has now increased many folds. Many individuals and private organisations are also playing an important role in collecting, conserving, and exhibiting cultural and natural heritage of the region, which otherwise would have been lost due to rapid development and nature of materials used in the region. They are not only preserving the heritage but also contributing substantially towards the development of society. Majority of collections are ethnographic but variety of types and spread of museums in state speak volumes about people's concern about their tradition and culture at one hand and progressive attitude and awareness on the other. Proposed museums would definitely attract more tourists making these institutions more accessible, inclusive, sustainable and relevant for knowledge sharing.

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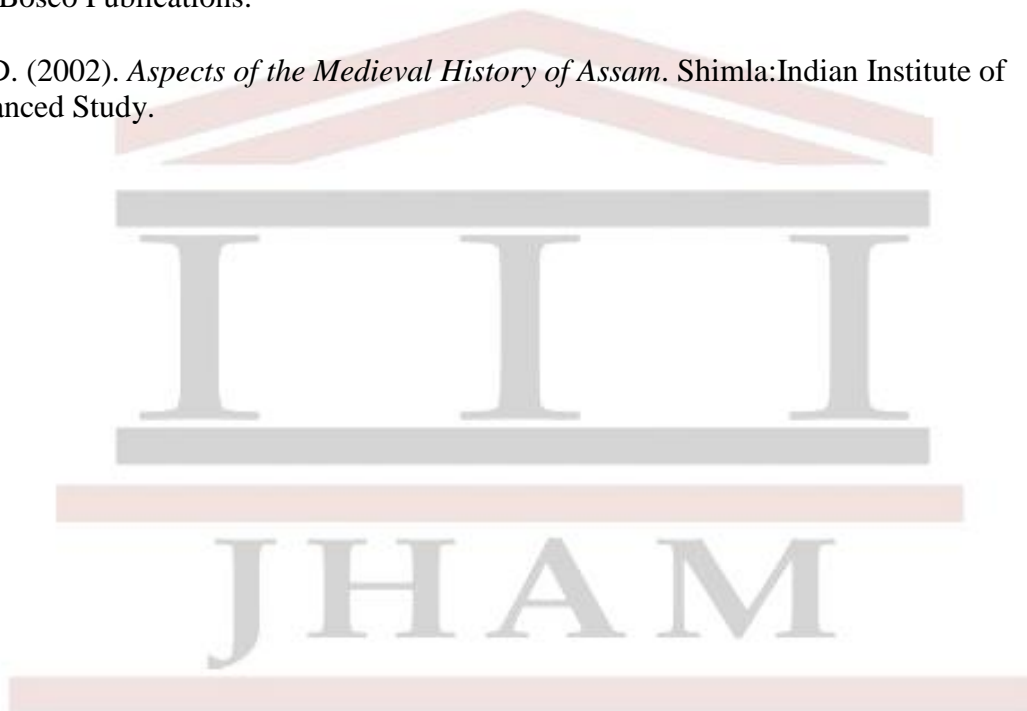
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Looking beyond books: Heritage Corner Module in Haryana

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Abstract

Department of Archaeology & Museums, Haryana came into existence in the year 1972. Owing to the responsibility of safeguarding heritage present in the State, many initiatives such as excavations, publications, collection safekeeping, awareness programs, exhibitions, museum setups etc. were part and parcel of activities undertaken by Department. Future custodians of this invaluable heritage are children, and looking into the current situation, an interactive tactile module- named as Heritage Corner- was launched in the year 2020-21. Designed on social studies curriculum matching the collections of Department, this portable kit was first of its kind in State of Haryana. The contents and elements are sure shot foundational information sources, that create awareness as well as sensitivity among all those who got benefit out of this initiative. Spreading into more educational institutions, the authors have provided the essence of this initiative, from inception to practical application, in this research article. The data that was compiled was well scrutinized by both the authors, who has personal experience on exploring the sites, museums, monuments and collection and authenticated the information through her expertise. Present authors, conceived this kit in their supervision and got guidance that made this module an acceptable and presentable entity. This module, one of its kind of promotional kits, is free of cost for State Government schools but the response received from school educators and students is highly valuable for this concept's ongoing success.

Key Words- Replica, Interactive, Resource

Introduction

Fig. 1: Heritage Corner Module - Conceptual Display

Heritage is the legacy from the past, identity of people and place. Appreciation of own roots, heritage and culture, strengthen the future generations giving them a vision of self-recognition as responsible citizens of country. Heritage is a shared responsibility which provides valuable links to the past that was indispensable part of society. It can be cultural or natural heritage. The archaeological site, historic place, ancient structures etc. are part of Cultural Heritage. Social sciences aim at developing a generalized and critical understanding of human beings and human groups in society. In this process, objects are first hand source of information that can act as connecting links between textbook information, images and the actual source of understanding those concepts.

United Nations Educational, Scientific and Cultural Organization (UNESCO) opines that Cultural heritage is a very important part of education today, and young people must also be aware of archaeological heritage and particularly appreciate the work of archaeologists who help historians to find out how people lived in the past.

In India, apart from global initiatives, National Education Policy 2020 also describes periodic exposure to activities outside school through the visits to places/monuments of historical, cultural and tourist importance. It also promotes significance of archaeology and museum heritage under the "Knowledge of India" module.

Inception of Concept…

Fig. 2: Kit created by first author

Children play a fundamental role as the bearers and transmitters of cultural values from generation to generation (Darian- Smith & Pascoe, 2013). Artefacts grant an immediate access to the ideas of people who created them, once you dig deeper for its multifaceted hidden meanings. Both archaeology and history share a common goal of unveiling the past for future research and lessons to learn.

Figure. 2. shows the sample kit that was designed by first author during her doctorate thesis and was part of the research concept. This was the idea to encourage low-cost portable modules for school students, and how to sensitize them about subjects like archaeology. The multisensory character of this portable kit – learning module enriches the narrative in learning endeavors. Handling objects (replicas) provokes lot of questions and generate curious dense experiences.

Using such resource kits, educators (teachers) can bring the educational power of museums in their classrooms.

The *Heritage Corner Module* discussed here involves participatory approach for both students and teachers, and is designed to integrate this new educational concept, promoting archaeology, history, museums etc. into the formal curriculum. The institutional, such as schools or formal methods, that are used for creating awareness about society and associated aspects, give away a one-way perspective to its readers/followers. Heritage protection is part of children's needs because it underpins individual and group identity (Darian- Smith & Pascoe, 2013). Places like museums provide multiple opportunities to associate, enhance, imbibe, experiment, innovate and propagate what has been seen or learnt through texts. Archaeology has not been a regular subject at school level in many countries, but these sort of compilation shows how archaeology can enrich history teaching (in history lessons, curricula, and textbooks).

Heritage of Haryana as a rich cultural source for Curriculum

The present state of Haryana came into existence in 1966. Haryana as a distinct social and cultural region goes back to ancient times. It is the cradle of Indian civilization, tradition and culture. Systematic excavations carried out at various places in state have thrown welcome light on Pre-Harappan and Harappan civilization. The history of Haryana has more than regional value, as it portrays evidences of ancient, medieval, and modern periods.

Haryana had been the seat of pre-historic and historic cultures. The first tool-making men appeared in the Shivaliks and Aravalis over million years ago. The region is watered by river Ghaggar, its tributaries and summer monsoon. Many Harappan sites have been discovered all along the river Ghaggar and tributaries. The main urban settlement in the State has been excavated at Bhirrana, Banawali, Kunal, Mitathal, Farmana, Girawad, Rakhigarhi, Madina and Bhagwanpura, which provide rich archaeological remains to understand and reconstruct content of the existence of Harappan civilization in Haryana. Around 2000 BCE, the urban centres in the region fell into decline and became scattered. The early historic period in region saw the emergence of sixteen great states. During the early historic period, Haryana formed part of the Kuru Mahajanapada. The region fell under influence of Buddhism during the 6th century BCE. The Kuru kings, do find mention in Buddhist literature as well. During the fifth century BCE, Panini, the renowned grammarian, mentions in his *Astadhyayi* a number of towns of Haryana.

The area was populated in subsequent period is further proved by the number of settlements of pre Mauryan and Mauryan times found during explorations in region.
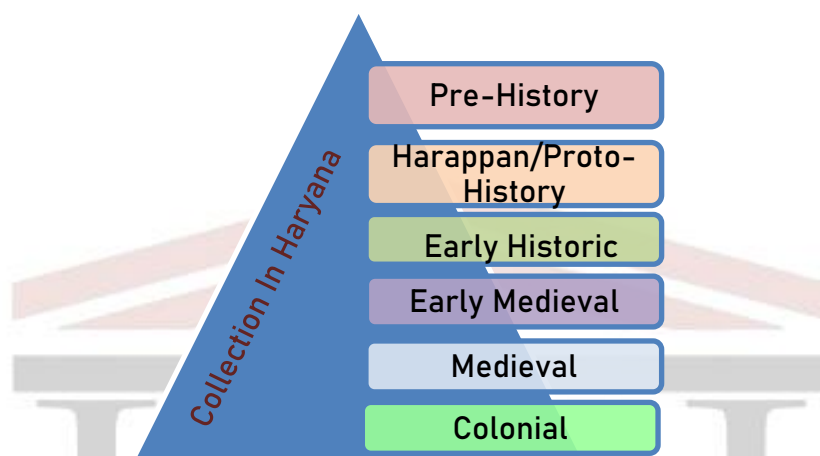

Fig. 3: Categories of Collection in State of Haryana

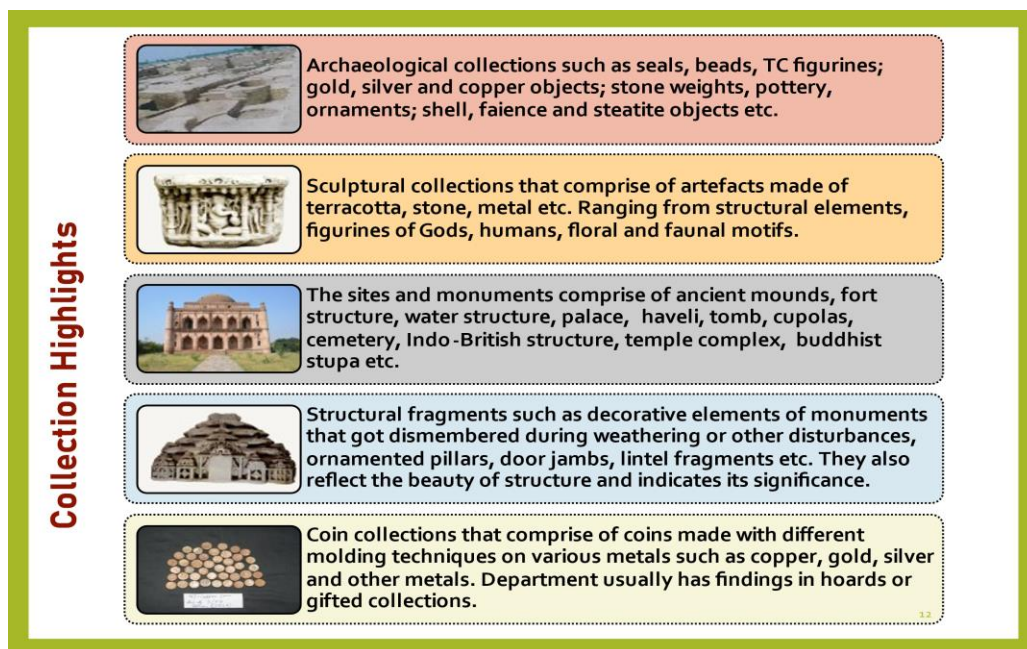**Project Description: Heritage Corner Module**

Fig. 4: Collections at Department of Archaeology & Museums, Haryana

The Department of Archaeology & Museums, Haryana has heritage collection across the State in the form of monuments- archaeological & historical sites, museums, and artefacts which are stored or either displayed in various districts of Haryana. Keeping an aim of mutual benefit for school students, teachers and Department, a **Heritage Corner Module** has been created that can be implemented to enhance heritage sensitivity and awareness among all. This initiative created fresh avenues of knowledge. The elements of module are brainstorming aspects that explore the Cultural Heritage of Haryana and can be adapted to local situations. They are made with an aim to sensitize the subject of Haryana's Heritage and its multifaceted aspect through various modes and promotional material (such as replicas and souvenirs). The illustrations that are being added to the content are a valuable source of illuminating past through visual experience. Over this module, learning turns into richer and qualitative in terms of understanding Haryana. This is first of its kind foundational information source, especially designed for younger audiences, for knowing archaeology and museums, along with the historical developments in the region. The primary aim is to make children acquainted with the surrounding testimonies of the past. The source is designed in such a way that it is always open for the educators (teachers) for multiple explorations and further research, to develop understanding in own perspectives.

Fig. 5: The Heritage Corner Module Kit in making

Authors compiled a resource kit (Fig.5) for the same purpose which corresponds to the National Educational Policy 2020. The aspects that match the curriculum have been dealt here using NCERT textbooks as core references. The Gazetteers of various districts of Haryana were used to add to authentic archaeological and historical information pertaining to sites, monuments and collections. These are valid references being Nationally accepted as sources of information that have been well approved by government agencies. The information that is being generated from these sources, gels with the teachings imparted in formal institutions of education (here one may refer schools). Quoting further, the National Curriculum Framework, 2005, recommends that children's life at school must be linked to their life outside the school. Social science which includes subjects like Archaeology and History, aid in understanding how this present evolved. So, the idea is to amalgamate their common aims of knowing about the past in a better perspective.

Fig.6 further shows glimpse of the compilation about how the handmade replicas were mounted, placed, labelled and packed. These aspects add to the portable handling and minimal loss of information. A Replica booklet Fig.7 & Fig.8 is also part of the kit that has

images of original objects and replicas along with relevant information that may be discussed while using these sources in classroom activities.

Fig. 6: Kit contents being compiled for use in school vicinities

Fig. 7: Replica booklet contents

Fig. 8.: Replica booklet contents

The concept of Heritage Corner is helpful to orient school children (when they are planning to visit a museum or heritage site) about the display available, waiting for them to be checked

out in much detailed and innovative manner. A pool of sources such as maps, photos, replicas, etc. related to the theme of the collection and sites were put together for the same.
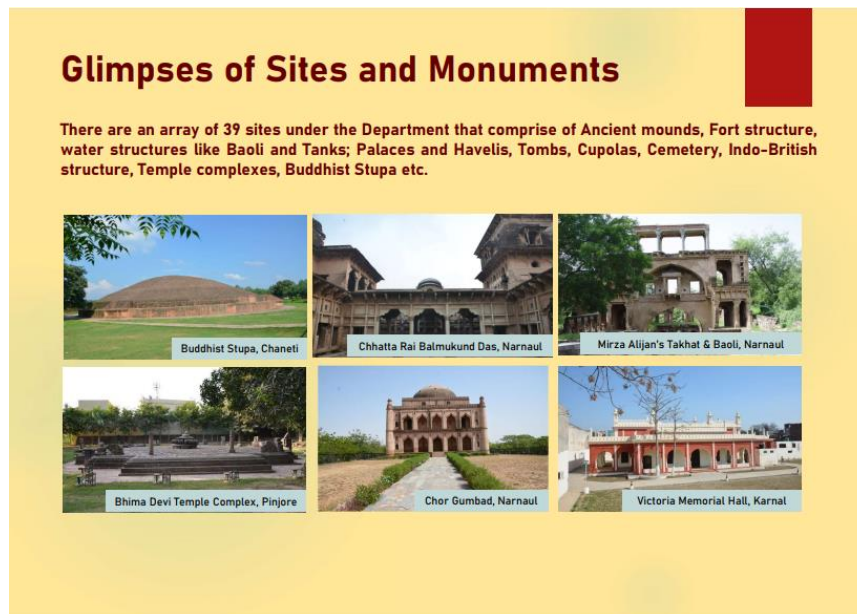

Fig. 9: Introduction page of Site booklet

The value of interactions as aptly mentioned in National Curriculum Framework 2005, is that learning takes place through interactions with environment around, nature, things, and people, both through actions and through language. The kit that was designed inhouse by authors, had following contents, neatly packed and labelled in a portable movable light weight box, so that the whole concept can be used in classrooms, open area or any other place of activity in a very convenient manner. The kit contents are -

1) Flex: Map (bilingual) and Introduction (of concept) content that can be printed on a laminated/sample sheet almost as big as A2 size.

2) Replicas: Total 10 replicas were added and one booklet giving their details having image as well as description was printed in A/4 size. Five samples that were available in Department replica section were chosen: Vishnu head, Lakshmi head, Musician medallion, Brahma, and Surya. Also, five samples that were created by first author under guidance of second author, using moldable clay were: Mother Goddess, Geometric Seal, TC cart frame/wheel from an

archaeological site; Animal/ Bird TC figurine; Sample of TC objects (miscellaneous) such as bead, bangle, game object etc.

3) 5 potsherds with painting were recreated to be included to give sample of pottery findings from sites of Haryana.

4)   Two souvenirs showing Harappan seal (paper weight) and one Monument (magnet) are portable objects for giving glimpses of collection in (3D) tangible form.

5) Two Booklets in which one containing description of all 10 replicas and recreated samples was included. Other flip (Fig.9) booklet was added having images and description of sites and museums of Department, that can be used as Information cards. Any student if visits or reads about a site, may then plan to work it in as an educational project or tour through these sources.

6)   Labels/Box: Separate replica objects were wrapped in butter paper/tissue paper, and the printed things put in appropriate size leaf folders.

This whole compilation (excluding the five Department replicas) was kept in an appropriate plastic box with handle (like mini trunk). The Department replicas were wrapped in butter paper/newspaper and kept in a cardboard box being they owe weight and bigger in size and they were to be displayed as per available space of a particular organization. A big size openable Plastic box (with wheels) was used to keep all these things in one place for easy movement.

Launch of the Module- Demonstrations and Distributions

Authors had clear idea in mind that before actually handing over the kits, a preliminary training session of the educators was essential to get their inputs and feedback on the project. Thus, a teachers' demonstration session at a school in Panchkula district was first look of the module in Haryana. Initially the Hon'ble Chief Minister, Haryana had an overview of the kit during a meeting and further provided permissions to go ahead with the concept in Government State Schools. Worthy Principal Secretary (A & M), also boosted the project time to time and guided that resources should be planned to give a shape to this proposed module. He was of the opinion that any sort of improvisations would be highly beneficial if the demonstration received positive feedback.
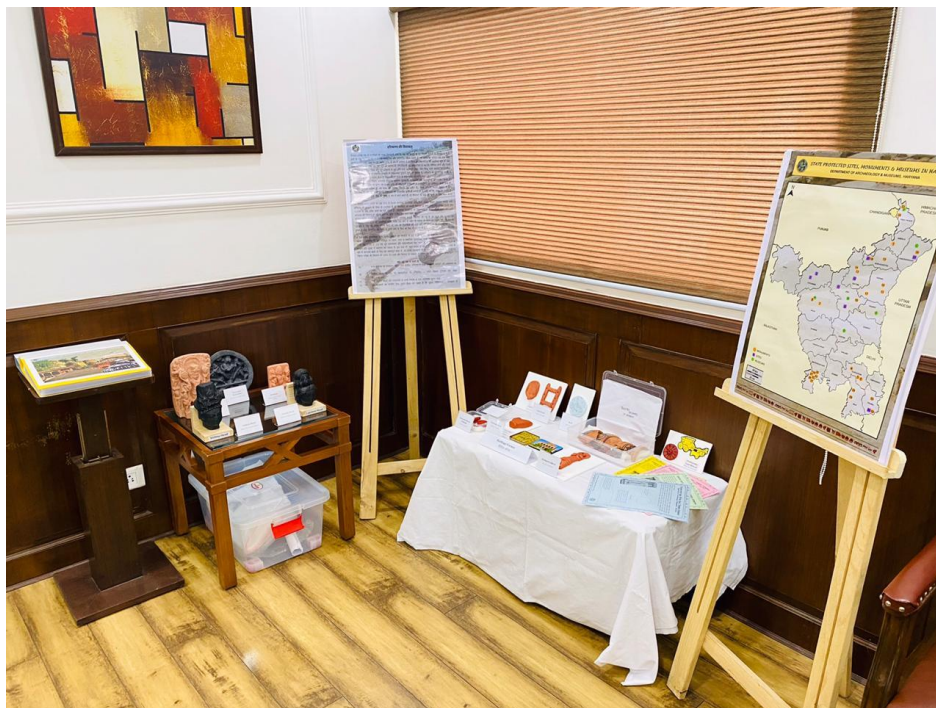
Fig. 10: First complete display setup for Hon'ble CM, Haryana

An Orientation cum Demonstration workshop was conducted at Sarthak Govt. Model Integrated Sr. Secondary School, Sector 12 A, Panchkula, on 22nd July 2021, initially for 10 teachers of history and allied stream from 5 different schools of vicinity of Panchkula.

The Heritage Corner Kit (sample box) was displayed at the venue along with Introduction and Map flex about Haryana. A PowerPoint presentation briefing about the components of the module, its benefits, application in history teaching and further brief about upcoming (proposed) Chapter on Heritage of Haryana, was done. This formal interaction was crucial to get feedback about the concept from the educators who can implement the module successfully in the schools taking this legacy forward.

The teachers were mostly history, arts and subject related gathering who after the presentation and display review, also shared their verbal as well as written feedbacks. The representatives

from both organizations provided insightful feedback on whole presentation and interaction. They added to the concept through their expert opinions.

Fig. 11. & 12. (below): Teachers Demonstration Session, Panchkula

The core input was that such a program is essential for children in Haryana as the State didn't have good resources to connect heritage with curriculum and make social science interactive as

well as experiential. They were impressed by the initiative and demanded for the kits for their schools.

Heritage Corner Module: Distribution in Schools

The highlights of each school that got benefit from this module is discussed further which shows how effectively these kits were being received and utilized by educators. Ultimately, the goal for many museum educators is to help learners gain understandings, both cognitive and affective, that enrich their ability to make informed decisions in life (Hohenstein & Moussouri, 2018). Here teachers have been approached by authors, in order to add heritage sources (objects, places, monuments, data etc.) to their learning endeavors. This in turn will add to awareness as well sensitivity towards field of heritage. Children being the future custodians of this existing heritage of Haryana, they have all potential to safeguard it for coming generations. Such projects develop a habit in beginning years, which concretize once they become responsible citizens, and decision makers.

First Kit- Government Model Sanskriti Senior Secondary School, Morni hills, Panchkula in September 2021.

The first Heritage Corner was setup at Morni Hills School, Panchkula district. Fig.13. shows the gathering at venue.

Fig. 13: Launch Day of Heritage Corner Module, Morni Hills School, Panchkula

Fig. 14: Display of Heritage Corner Module at Morni Hills School, Panchkula

Fig. 15: Media coverage of Launch of Heritage Corner Module in Haryana

Fig. 16: Heritage Corner setup at Morni Hills School, Panchkula

The Heritage Corner Kit was setup in school at Morni hills using a convenient space in a classroom accessible to children. Teachers who participated in the session appreciated the content quoting that it is very good and designed as per level of understanding of school students. The concept is new for school students and as it was delivered, is sufficient for them to gain interest about the field of heritage. This new information can let students understand how archaeology and history work in better way to inculcate understanding of past. Session was very informative. The content and demonstration were satisfactory, and more such interactive programs should be organized in order to stay connected with heritage and its significance. This is first time students and teachers can experience the heritage objects, in their hands like the seals and replicas. NCERT based more related activities and films can be also made to add to the experience within State of Haryana.

Fig. 17: The displayed kit explored by students

Second Kit- Government Model Sanskriti Senior Secondary School, Sector -26, Panchkula in October 2021.

The kit was provided to school along with an interaction session with social studies teachers. Those who participated in interaction provided positive feedback. During interaction the setup was done by first author in a classroom of school and along with display, the contents of box were described and the base about how all the components can be used as teaching-learning tool in the classroom was also discussed.

Teachers who participated in the interaction expressed that the concept is educative and rich in heritage knowledge. Educational tours can be organized in collaboration with Education Department and Archaeology & Museums Department for benefit of school children. Teachers were fascinated by new discoveries in Haryana like Mangarbani rock art paintings and collections. More such endeavors should be done for teachers and students regarding heritage awareness and about museums' significance.

Fig. 18: Teacher Interactive session at School in Sector 26, Panchkula

Third Kit- Government Senior Secondary School, Kot, Panchkula in February 2022.

Fig. 19: Kit displayed in Kot school by the teacher for students' interactive session

Fig. 20: Children doing an activity session after observing the kit contents

The teachers including Principal of GSSS Kot school appreciated the contents of module and graded them as qualitative aspect of enhancing teaching strategies. Teachers said that this module will help in lifelong learning of students about heritage. Teachers requested that On-site activities on various Protected monuments under Department should also be encouraged along with this initiative. They found these sources of information rich and helpful in teaching about monuments and artefacts of Haryana, and considered it as a good teaching aid. This initiative by Department was appreciated by school authorities. The replicas and booklets were easy and clear to understand and use as they quoted in their feedbacks.

Fourth Kit- Government Senior Secondary School, Rakhi Shahpur, Hisar in February 2022.

This kit was provided before the examinations and new session beginning, thus with change of staff the display and feedback was in process. Although teachers have started using the kit in their classroom as it was conveyed by school coordinator to the author.

All these above-mentioned updates were coordinated time to time so as to keep a check on usefulness and effectiveness of the program and how the school teachers are implementing the concept in variety of innovative ways. After seeing successful application of concept in these schools, the Department has received demand from more schools lately. These are in process.

To Summarize …

The contents of this portable educational resource were designed for children of mixed age groups that can be experienced through the objects and textual information at one platform. This information will serve as relevant knowledge, activity ideas and perspective linkages, that can be used to guide children to understand the existing regional heritage of Haryana. Examples shared in this module are focused on object-based learning, multi- perspective learning, experience-based activities that enable tapping of resources available in vicinity of State itself. There are many points when archaeology and history meet. Children of all ages need to know how our societies have evolved and how our pasts have shaped the present. This multidisciplinary science of archaeology (and museums) can be used to teach subjects ranging from arts to the sciences both at primary and secondary levels. Social studies should be fun, interactive, meaningful, and memorable. Students are the first to tell us that learning social studies is fun and exciting when they get to go places, imagine travels, dress up in costumes, taste foods, dig up artifacts, play games, and figure things out with their friends (Pumpian *et.al*., 2008). Many archaeological issues today revolve around how sites and artefacts are to be conserved and used as sources of information for further research. Students need background knowledge to form understanding and value of these material remains. Thus, a high level of participation with objects (here replicas) can build strong base of knowledge which is an essential aspect of experiential learning.

The future of our remaining heritage will depend largely on the decision maker generation of today. Once they are acquainted with the significant aspects, they will strengthen the fragile links of past with future. Bringing history alive combined with other curriculum areas is immersive experience for both students and teachers. This multilayered exchange of information raises awareness making social science learning meaningful and interactive.

An all-time useful teaching aid, Heritage Corner Module, has been developed that can generate a pull towards museum exhibits and appreciation of heritage. This will encourage students to preserve and support in protection and safeguarding of heritage sites of Haryana for posterity. In places such as museum settings, students do not participate in the traditional reading instruction, rather they use a variety of texts, diagrams, graphs, maps, and environmental print to gather information and provoke their intellectual wonderings (Pumpian et.al., 2008). Thus, the momentum to this initiative can create a snowball effect of information among generations to come.

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Buddha Worshiped as Siva in Murshidabad District- A Local Tradition

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Abstract

The present essay focuses on the fact that the images of the Buddha found in Murshidabad district region is now being worshipped as Rudradeva, Shiva or Bhairava. There is no doubt that at one point of time Buddha worship was very popular in Murshidabad district region. This is attested by the fact that many Buddha images are still found in this region. Some of these images were unearthed during excavations whereas others are located in various temples of the district region. The essay will focus on four case studies of Buddha being worshipped as Hindu gods- Rudra Deva of Kandi, Shiva of Lahapara Durgamandir, Bhairava of Kiriteswari temple of Lalbagh subdivision of Murshidabad district and that of Madeneswar Shiva in a temple of Barwa. The essay is mainly written on the basis of field survey by the author.

Key Words: Murshidabad district, Buddha images, Hindu gods, Rudradeva, Shiva, Bhairava, Madaneswar Shiva

Introduction

Murshidabad district lies approximately in the middle of the state of West Bengal. It is the northernmost district of southern West Bengal. At one point of time Buddhism had an important

presence in this area and many stone Buddha images are still found in this region. With the waning of Buddhist influence and Hinduism gaining popularity the images of the Buddha started to be worshipped as Hindu gods like Rudra, Shiva or Bhairava. It is difficult to ascertain with any degree of certainty when this change took place. At present it can be seen that an image of Buddha in *bhumisparsha mudra* is being worshipped as Rudradeva in Kandi subdivision of Murshidabad district. Similarly another image of the Buddha in *bhumisparsha mudra*, housed in a local Durgamandir at Lahapara village of Kandi subdivision is being worshipped as Shiva. The third image discussed in this essay is that of a Dhyani Buddha housed in Murshidabad District Museum, Jiagunj, which is considered to be the Bhairava of goddess Kiriteswari, a Hindu goddess whose temple is located in Lalbagh subdivision of Murshidabad district. The fourth image is of Buddha is of Barwan village in Kandi Subdivision. The main purpose of this essay is to show how Buddha images were transformed into Hindu gods in Murshidabad district region.

Geography of Murshidabad district:

Murshidabad district is called after the name of the metropolis Murshidabad (on the eastern side of the river Bhagirathi), capital city during the days of the rule of the Nawabs of Bengal. The soil of the Murshidabad has witnessed many historical events. Since lithic period to national movement the district played an important role in every stage of history. Presently the district is bounded along its north and east sides by the Ganges or the Padma, which separates it from the districts of Malda and Rajshahi (Bangladesh), the Jalangi river forms the south-east frontier for a considerable distance and divides the district from Nadia. To the south is Purba Bardhaman and to the west Birbhum (Bhattacharya, 1979: 9).
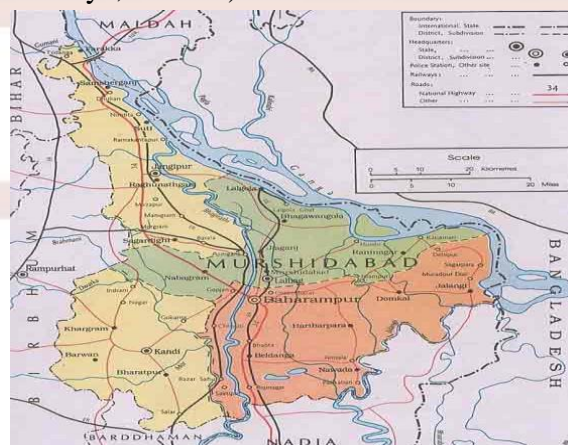

Fig. 1. Map of Murshidabad District
(Source: map of murshidabad district - Google Search)

The Bhagirathi flowing from the north to south intersects Murshidabad district cutting it into two almost equal portions, which in their geology, their physical characteristics, agriculture and if we notice minutely the religion of the inhabitants are different from each other. The tract to the west of the river is locally known as Radha or Rarh (this part of the land is part of Uttar Radha) the earliest land formation of Murshidabad District. This type of land is noticed in the Khargram (Kandi sub-division), Burwan (Kandi sub-division) Nabagram (Lalbagh sub-division) and Sagardighi (Jangipur sub-division). Bagdi is the tract to the east of the Bhagirathi river. This part of the land was formed later from that of Rarh. The eastern part of the Bhagirathi is covered with recent alluvium soil. It consists of sandy clay and sand along the course of the river and fine silt clay on the plains. The western tract of the Bhagirathi is characterized by very high bank of stiff clay, gravel and calcareous nodules (*glutting*). It consists of older alluvium which decreases as one proceeds towards the south. From the archaeological point of view Hijol is most important area of the district. It is situated in the south west of the district near the confluence of the Mor and the Dwaraka rivers. Suti, Samsherganj and Farakka cover this area (Bhattacharya, 1979: 10).

Brief history of the Region:

Various dynasties like Mauryas, Guptas, Palas, Senas ruled over this region at various times The Brahmana-Buddha-Sakta-Saiva-Jaina religions and philosophies influenced this region. Many archaeological remains and relics are scattered over various places in the district. The archaeologically important places of this district are Sagardighi, Mahipala, Bara, Jalbandha, Kusumkhola, Nabagram, Kandi, Bharatpur, Geetagram etc. Many highlands or mounds and archaeological ruins are visible in the district like Rakshassidanga, Rajbaridanga, Thakurbaridanga, Sannyasidanga, Bhimke-talao, Yamuna-talao, Hari Rajar Ghar, the famous Mahipaladhibi, Pachthupi (Pancha Stupa) Barkonadibhi, (which is mentioned in Shaktipur copper plate of Lakshman Sena) and identified as a Buddha stupas by the experts of the Archaeological Survey of India.

Murshidabad is very rich from archaeological point of view. The archaeological relics and the many Brahmanical images like Vishnu, Uma-Maheswara, Kartikeya, Ganesh, Parvati, Mahishasuramardini, Surya, Shiva linga, Mukhalinga etc. have been found here. Vishu images are the largest number of images found in this district. That is the reason why this region is called Vishnukranta. Very remarkable Buddhist images have been found in this region like Dhayani Buddha, Buddha in Bhumisparsa mudra, Buddhist goddess Tara, Hariti (the goddess of

cultivation), Abolokiteswara, the miniature image of Jambla etc. Relatively few Jaina sculptures have been found in this region. These images are housed in local temples or lie under a tree, and sometimes are unearthed during digging activity.

Eminent archaeologist S.R Das in his book *Rajbadidanga: 1962* discusses in detail about ruins of Karnasuvarna, where excavation was conducted under his leadership. He says that the nature and the character of structural remains speak of the Buddhist monastic establishment, more particularly those belonging to platform, stupa-basement staircase, pavement etc. The other two most important evidence are the stucco heads, and the copper chakra which throws direct light on the existence of the Buddhism in this district (Das, 1968). The excavated Buddhist monastic establishment is to be identified with the illustrious Raktamrittika Sangharama described by Hiuen Tsang in the seventh century A.D. as standing in the suburb of the capital city of Karasuvarna, the capital city of Sasanka, the first sovereign overlord of Bengal.

The eminent historian Nihar Ranjan Ray wrote in his famous book *Bangalir Itihas: Adi Parba* that the Buddhist Mahayana and the Vajrayana sects flourished all over Bengal because the largest number of Buddhist sculptures have been found in Bengal (Ray, 1959). In the case of Murshidabad District the Pala rulers ruled over this district region. In circa seventh century A.D. the Chinese Pilgrim Hieun Tsang came to Murshidabad District and he saw that the Buddhism was flourishing in the district region then. With the waning away of the influence of Buddhism and the growth of the influence of Hinduism Buddha images was co-opted into the Hindu pantheon of gods and goddesses. Since when Buddha images began to be worshiped as Bairava, Rudradeva, Shiva cannot be said with any degree of certainty.

Rudradeva of Kandi:

First light may be shed on the image locally known as Rudradeva. Ichnographically it is Dhyani Buddha in *bhumisparsa mudra* sitting in *padmasana* posture on full blown lotus. The image is made of black stone, 18x10 inch. The deity is sitting under the Bodhibrikha. Stylistically the deity belongs to circa 11 -12th century A.D. The exact find spot is not known but its origin is in Kandi subdivision of Murshidabad district. First the deity was identified as Buddha by the famous archaeologist Rakhaldas Bondhyapadhyay, Locally the image is worshiped as Rudradeva or Baha. At present four Shiva temples flanked the Rudradeva temple. The deity is worshiped with *shivamontra*. Not only that, *gajan*, *charok*, and all Shivaite pujas are performed here. A *mela* (fair) is also organized here in the Bengali month of Chitra (March-April). The deity is

worshiped as the god of human fertility especially worshipped for the begetting a child. The original image of Rudradeva war stolen and at present the replica of the main deity is housed there. The main temple houses the deity of the Buddha and adjacent temples houses *shivalingas*. Buddha is completely transformed into the Hindu deity Shiva.[1]
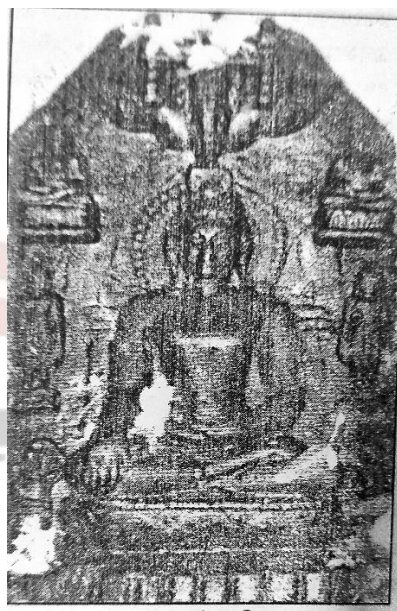
Fig 2. Original image of Rudradeva of Kandi.   Fig 3. Replica of Rudradeva, worshipped now.

(Source of Fig 2.: Bijoy Kumar Bandopadhyay,   (Source of Fig 3: author)
Prachin Murshidabad: Karnasuvarna o Mahipal,
 Radical, 2002, cover page)

Lahapara Buddha image:

Second, Buddha image to be discussed was found at Laharpara village which is situated in Kandi sub-division of Murshidabad district. The image is housed in the local Durgamondir, the image is locally worshiped as Shiva. Ichnographically the image is that of Dhayni Buddha in *bhumisparsa mudra.* The deity is sitting on a full blown lotus. Here the remarkable point is that the Dhyani Buddha is ornamented by the *mukuta* (crown), and the *kanthahara* (necklace). The hair of the deity is quite stylish. The main deity is accompanied by the two standing Bodhisattvas on both

sides. On the upper part of the Boddhisatva is curved one votive stupa and a Sayana Buddhisattva curved on the top of the stela. The sculpture is less ornamented and stylistically the deity belongs to circa 10-11th century A.D. The deity is also worshiped in *sivamontra* and the all kind of rituals which are connected to lord Shiva is performed here. Here also Buddha is transformed into the Hindu god Shiva.[2]

Fig 4. Laharpara Buddha image worshipped as Shiva
(Source : author)

Dhyani Buddha in Murshidabad District Museum:

The third image to be discussed is of Dyani Buddha which is presently in Murshidabad District Museum. Ichnographically the Buddha in *bhumisparsa mudra* sitting on *singhasana* (two lions curved on the lower part of the *singaasana*). Full decorative *singasana*, two sitting lions curved on pedestal and two lions also curved on stela. The deity is without any ornamentation. A tiger skin also hanging from the *singhasana* (throne). The image is made of sand stone. Stylistically the deity is not before circa 10th-11th century A.D. A less ornamented *prabha* is in the back side of the main deity. Actually, this Buddha image was worshiped as Bhairava in the Kiriteswari temple in Lalbagh Sub-division of Murshidabad district. The temple of Kiriteswari is known as the one of the Saktipith, which is mentioned in Puranas, There are many legends or *gathas*

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about Kiriteswari in this district. Once upon a time the image was stolen by a smuggler. Then the image recovered by the police. Then the founder of the Murshidabad District Museum Rai Bahadur SurendraNarayan Singha recovered this image from police station and donated the Buddha image to the District Museum. From then onwards the image is in Murshidabad District Museum.

Fig 5. Bhumisparsa Buddha image persevered in Murshidabad District Museum
(Source of pic: author)

The priest of the Kiriteswari temple told that this image was worshiped as Bairava or Shiva and the rituals of Shivite worship had been followed in the worship of this Bhairava. At present the *vahana* of Bhairava, a dog, is curved in the side wall of the temple and it is now replaced by a Shiva linga without Gauripatta. This image of Buddha is now Murshidabad District Museum.[3]

Buddha of Barwan village in Kandi Subdivision:

Another Buddha image is worshiped as Shiva in a temple in the Kandi sub-division in Barwa village. Ichnographically the image of the Buddha in *bhumisaprsa mudra* sits on a full blown lotus.

 The stela and the pedestal of the sculpture is highly decorated. Gaja and saradulla figures are curved on both side of the stela. Top of the stela curved by the upper part of the temple. The big size sculpture is made of black stone. Here we have seen the script, according to the character of the script and the stylistically the image may be in circa 9th-10th century A.D.

Fig 6. Buddha from Madaneswar Temple at Kandi
(Source of pic: author)

Here the Buddha is worshiped as Madaneswara Shiva in the local temple of Barwa. The priest of the temple informs that the deity is worshiped in Shiva mantra as well as the rituals of Shaivite worship are also maintained here. The one noticeable point here is that the Buddha image is flanked by two Shiva lingas on either side[4] (Mitra, 2017).

Conclusion:

All above four Buddha images locally worshiped now as the forms of Shiva and the rituals of Shiva worship and festivals such as Charak, Gajon, Nil puja, and also Shiva Ratri are performed here. One interesting thing is clear that the all the four Buddha images are in *bhumisparsa mudra* and they belong to tentatively the same period. This is how Buddha images were transformed into Shaivite deities in Murshidabad district region.

Notes :

1. Field survey done on 15th January 2020.

2. Field survey done on 22nd January 2020

3. Field visit to Kiriteswari temple on 29th January 2020

4. Field survey done on 5th February 2020

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A legacy of used stone tools from Palaeolithic to Neolithic at Chuagara in the Suvarnarekha- Burahabanga complex

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Abstract

Chuagara or Chau Gora, a site located in a plain land but in the middle of hilly area beside the river Suvarnarekha in Suvarnarekha-Burahabanga complex. The entire drainage system runs over a peneplain surface that was developed due to the lava flow. The complex is known for the occurrences of tools and materials of pre and proto historic culture, that have been collected by scholars in a greater number beside both the rivers. A continuous cultural element of prehistoric culture from palaeolithic to neolithic have been collected. Detail of the tools and their making technologies have been analysed. Though, any postulation would be vague based on the surface collections, but location of the site among the other prehistoric sites and absence of early historic, even late medieval materials somehow let us postulate that collected materials must be placed with the bracket of prehistoric period.

Key Words: Chuagara, Suvarnarekha, Burahabanga, Stone Tools, Palaeolithic, Neolithic

Introduction

The area adjacent to the river Suvarnarekha is quite rich and prosperous. Several archaeological sites have been discovered in the upper reach of the rivers. Their concentrations are mainly around the districts of Ranchi, Khunti, East and West Singbhum and, in a small number, in Saraikela. Culturally, their lineages have been traced from the prehistoric time period to the early and even the late medieval period (Sen and Ghosh 1960; Sen and Chaturvedi 1957; and Sen 1969). Efforts of researchers prior to our work have brought to light the knowledge of many such places that are associated with the evidence of Palaeolithic tools and based on their properties, they can be designated to the Lower, Middle, and Upper Palaeolithic time periods. Lower Palaeolithic tools have been found from Roro Valley (Sen 1970), Rajdoha, Tilimdah, Ghatsila, Chandil, Sini, Chaibasa, Nimdih, Chakuria, Serenga, Tegra, Musabani, Beniasole, Uldah, Bichhati- Gungri, Kitadi- Dungri, Ful- Dungri, Charakmara, Patbera, Maheshpur, Kalikapur, Kamalpur, Hat Gamaria, Sasaghati, Tatibe, Guntia, Karalajuri, Chakradharpur, Tebo,Hesadih, Lapso- Kyanite, Jojodih, Barudih, Kandra, Purnapani, Bamni, and Dungi (Sinha and Singha Roy 2018, 25) in Singbhum district; and Tati Silwai, Sabai, Namkum, Chainpur, Banari, Mahabodhi, and Ramgarh in Ranchi district (Sinha and Singha Roy 2018, 27). Tools of the middle Palaeolithic period have been found from Chandil, Sini, Chaibasa, Jamda, Ghatshila, Betwa, and Lotapahada in Singbhum district (Roy 1985) and Chainpur, Bishunpur, Banari, and Mahabodhi in the Ranchi district (Sinha and Singha Roy 2018, 31-32). Tools belonging to the upper Palaeolithic period have also been found from Sini, Chandil, Ghatshila, and Jamda in the Singbhum district and Parasdhika, Jilin Buru Pahar, Amjora, Jojadih, Hardag, Bajra, Charma, Roshanpur, Kamre, Murgu, Tape, Ghagra, and Pithartoli in the Ranchi district (Chakrabarti 1993). Alongside, a good number of implements belonging to the Mesolithic age have also been noted along the area of the river Suvarnarekha, i.e., Bongara, Barda Bridge (Sen and Chaturvedi 1957), Lotapahada (S.R. Roy 1985) in Singhbum; Namkum (Ghosh 1970), Potpoto, Jumar, Borea, Patratu, Bharmdih Pahar, Bargain, and Borea in the Ranchi district. By the effort of

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Bodding, Anderson, and Walsh in the pre-independence era and Chakrabarti, Narayanan, and Singh in the post- independence period, this upper part of the river valley became famous for the existence of ground and polished stone tools. Such tools have been noted from Chenegutu, Salgi, Burju, Janumpiri, Binda, Chendagutu, Iti, Panguru, Sembua, Torangkel, Gora, Pandu, Senegutu, Murud, Indpiri, Buruhatu, Bichna, and Buruhatu in the Khunti district; Omto, Chacho, Nawatoli, Sodag, Arra, Kakra, Soparom, Jurdag, Kakra, Soparom in the Ranchi district; and Chandil, Sini, Chakradharpur, Barda Bridge, Barudih, Haribera, and Dugni in the Singbhum district.

This region along the line of the upper Suvarnarekha valley is also studied by many scholars and their contributions are noteworthy. Among the works, mention may be made of the work of Gopal Chandra Mohapatra (Mohapatra 1962). He studied the entire area of eastern Odisha and discovered many prehistoric sites. Four sites, i.e., Kandalia, Mahulia, Pratappur, Ghantasali, among many other ones in the eastern part of Odisha, especially within the Mayurbhanj district, as discovered by him, are situated within the boundary of the present study area. His study in not limited only to discovering lithic tools. He also gave a vivid description of the context of occurrence and defined their stratigraphical position. Before the work of Mohapatra, several excavations and extensive exploration had been done by N. K. Bose and D. Sen (Bose and Sen, 1948) throughout the eastern part of Odisha which falls within the periphery of the present study area based on the work of E. C. Worman and P. Acharya. A number of sites have come to light with the occurrences of the lithic tools (Ball 1876), through the efforts of P. Acharya, later accompanied by E. C. Worman (Worman 1939).

A few decades later, around 1960s, the area east of the district of Mayurbhanj and morphologically south-eastern extension of the Chotanagpur plateau as well as eastern postponement of the Simlipal Massifi drained by the mighty Suvarnarekha and administratively situated under the boundary of Medinipur district of West Bengal was worked upon for an archaeological expedition (Ghosh 1970: Ghosh and Basu 1969). The State Archaeology Department of West Bengal had undertaken an endeavour to survey this western part of Bengal to understand the nature of the prehistoric settlements. The surveys had revealed more than 2000 lithic tools of Palaeolithic, Mesolithic, and Neolithic periods which are now stored at the State Archaeological Museum in Kolkata. These tools were collected from several places on the western bank of the Suvarnarekha, especially from the villages under the administration of Gopiballavpur and Nayagram C. D. Block. Name of the places are obliterating and illegible due
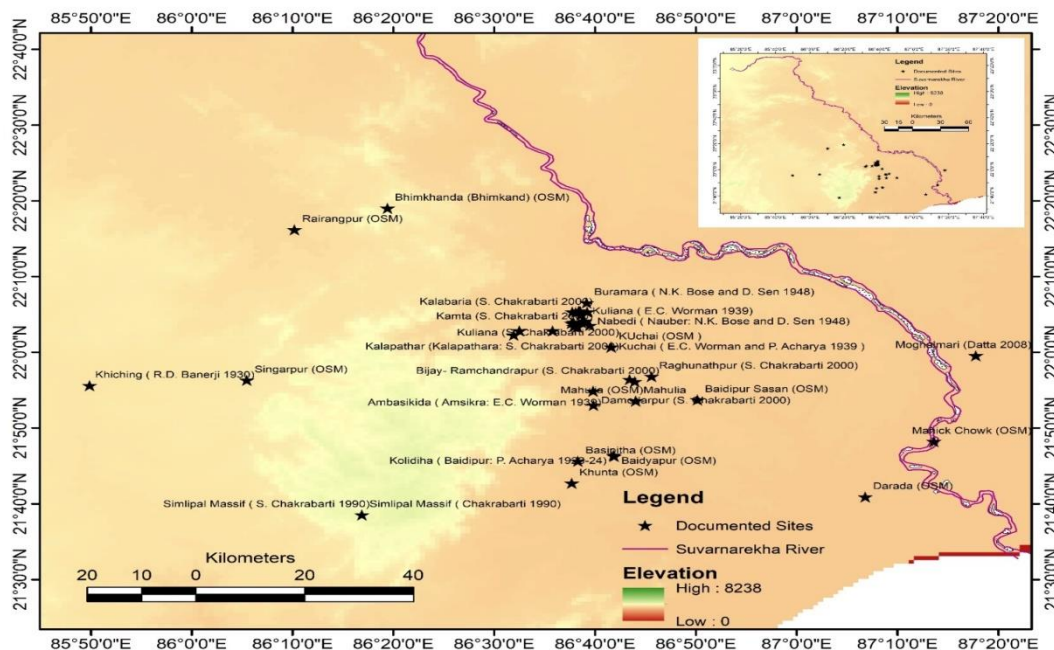
Figure 1: Locations of the sites discovered by N.K. Bose and D.Sen; P. Acharya; Wormen; Chakrabarti; and other places name of which are found in the register of the Odisha State Museum

to lack of care and observation by the museum authorities. Except a few boxes where the names of the places have been found, many of the tools are placed haphazardly and mixed with one another, and therefore, their actual provenances are not clearly understood, except through the records of the expeditor. P. C. Dasgupta, stated his discovery through his two publications. One of these is *Pragaitihasik Bangla* published in 1981, where he cited only the existences of the Palaeolithic to Neolithic implements revealed during 1960s beside the Suvarnarekha (Dasgupta 1981, 54). His other publication, published in 2007, is *Subarnarekhar Prangane Aranyakanya Kangsabati*, and is a branch of the articles collected by his son, Devapriya Dasgupta, where he narrates the assemblages, its nature and places of occurrence. He also classified them according to their properties. Though, not a single article has been written, so far, on a particular site emphasizing rich occurrences.

In the purpose of Ph.D. dissertation present author has surveyed the entire region and collected thousands of tools from different places. Among the place in this article Chuagara or Chau Gora has been taken for occurrences tools from palaeolithic to neolithic period without any break. Though most of the tools were collected from upper surface and without any stratification by the prior researchers (stored in the State Archaeology Museums, Govt. of West Bengal) and present authors.

Geographical and Geological settings:

Geomorphologically, the Suvarnarekha experiences a wide range of variation from the Ranchi plateau to the Balasore coast due to its flow through different geological structures that comprises various compositions of rock and topography. The eastern axis of the Ranchi plateau acts as a watershed between the two river basins, i.e., Suvarnarekha and Damodar, while the Purulia Upland forms a divide between Suvarnarekha and Kasai. Sediments carried by the river have a high amount of heavy metals. Its entire course is divided into three major portions. The

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initial course occupies the Ranchi Plateau, and the second phase begins from the Jundru fall (75m) in the Dalma range of northern Jamshedpur. It covers a wide area of erosional surface that is made of granite-gneisses and phyllitequartzose-mica-schist across the Panch Pargana plain and the Dalma range. The lower course, which marks the beginning of Jamshedpur and ends at the Bay of Bengal, consists of a rocky surface of granite, gneiss as well as thick deposits by the river which it carries during its journey through the long upper course. The lower course is further divided into three sub-phases, i.e., (i) Jamshedpur to Ghatsila, (ii) Ghatsila to Jamsola and (iii) Jamsola upto its base level—the coastal bay. The entire area is affected by the Tertiary upliftment and wrapping. The eastern portion of the river is characterized by different types of drainage pattern, river piracy and scarp recession. Along the river, many terraces have formed recently due to the deposition of thick alluvium, which is primarily a result of the recent uplift. It also represents a homoclinal shifting at Jamsola. Four major types of landforms are visible throughout its course by the different actions of the river, i.e., (i) fluvial landform which comprises laterite tableland, river terraces (alluvial uplands) and valley fills which are seen near the Suvarnarekha delta region, (ii) deltaic landforms which comprises extensive alluvial and tidal flats and depressions, meander scrolls and ox-bow lake, abandoned channels and aggraded river segments, levees, back swamps, floodplains and braids, (iii) coastal landforms that include estuaries, spits and bars, tidal and estuarine marshes and swamps, foreshore beach, beach ridges, onshore bars and troughs, backshore mudflats, sand ridges and ancient beach ridges, chennier complex, and (iv) Aeolian landforms which include transverse and obstacle ancient dunes formed through reworking of marine and fluvial sands by wind action (Figure 2).

The geology of the adjacent area of the Suvarnarekha is associated with the geology of the Ranchi and Singhbhum sections of the Chotanagpur plateau. The entire drainage system runs over a peneplain surface that was developed due to the lava flow. In the course of its development, the erosional surface was subjected to upheaval up to 300 m which may have increased the capacity of degradation. New surfaces have developed as a result of the

rejuvenation. In the late Tertiary period, after the formation of Chotanagpur, the prevalent surface further rose up to 300 m that led to a new phase of rejuvenation. Some of the well-known 'piracy' along the river are the Jhalida, Baghmundi and Ajodhya gaps.

The Archean rocks are the dominant rock type in this region found in the Suvarnarekha River basin. Dharwar is a metamorphic series that is found in the southern portion of Singbhum, which is the middle portion of the Suvarnarekha basin. Lower beds of Iron ore series rest upon the upturned beds of the Old Metamorphic series in south Singbhum. The Iron series in this region is a highly metamorphosed character. Pronounced volcanic deposit is observed in the northern and middle portion of the valley.
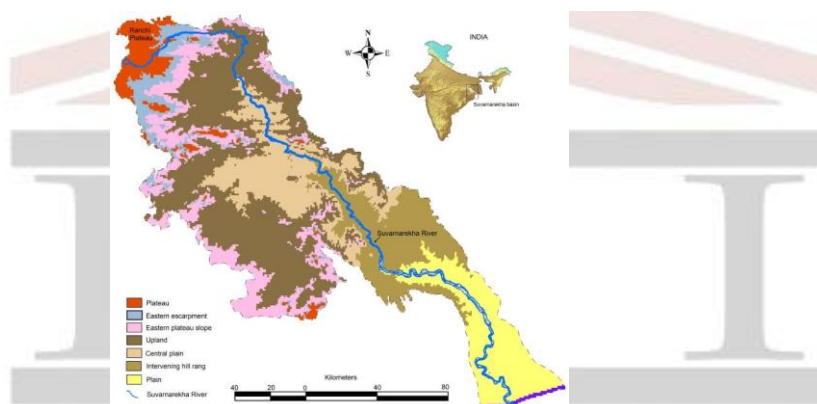
Figure 2: The terrain of the Suvarnarekha Basin has been classified into seven geomorphic divisions.

Concept of Suvarnarekha-Budhabalang Complex:

Suvarnarekha, one of the largest rivers in eastern India, covers a total course of 500 km from its source at Piska near Ranchi to Bay of Bengal in Balasore district in Odisha with a drainage area of 1.93 million hectares. In course of Ph.D dissertation by the present author, Palaeolithic implements have been found from 78 places within the present study area and their concentration is limited within three regions, i.e., (a) on the basin of the Suvarnarekha, (b) along the side of the Burahabanga river, and (c) a few are beside the Jamira river. Microlithic materials

are concentrated only in the basin of Suvarnarekha at 20 find-spots. Only 34 places have been documented, so far, with the polished stone tools and they are concentrated along the river Suvarnarekha, except a few that are located along the river Burahabanga. Palaeolithic people inhabited sites along the river Suvarnarekha and Burahabanga sometime in the Pleistocene period and traces of continuity are marked at many of these sites. The polished stone tool using communities were also acquainted with the technology of making pottery (as found at Kuchai). The beginning of the material cultural milieu of the prehistoric cultural phase in the study area can be tentatively dated to the mid-Pleistocene period. Implements related to the Palaeolithic culture, so far recorded, are substantial in number. It is observed that Palaeolithic, Mesolithic, and Neolithic material are specifically concentrated along the two rivers specified above. In the protohistoric period, within this present study area, people possibly remained scattered and also selected places away from the river, for habitation. Therefore, implements belonging to the protohistoric cultures have been noted in such contexts to the left bank of the river Suvarnarekha where prehistoric material are inconspicuous. Apropos the area of concentration of both pre- and proto-historic cultural materials and their morphological similarities, the entire cultural unit can be named the 'Suvarnarekha–Burahabanga Cultural Complex'. It could be expected that various studies will be conducted, in future, concerning this geo-cultural unit with the contemporary cultures on the highland of Jharkhand, North-Western part of Odisha, and southern and northern extension of the Chotanagpur plateau.
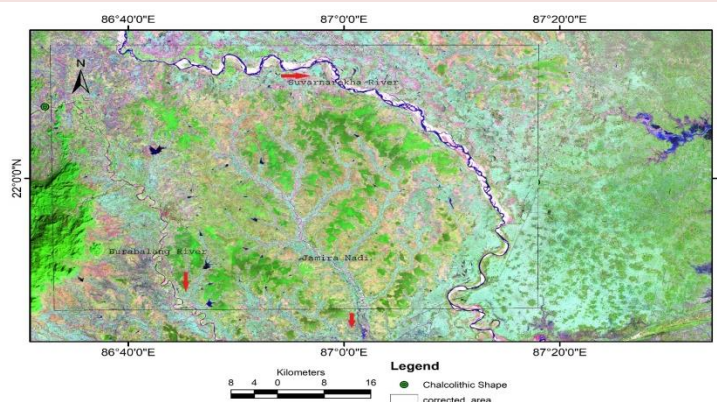
Figure 3: Suvarnarekha-Budhabalang Complex
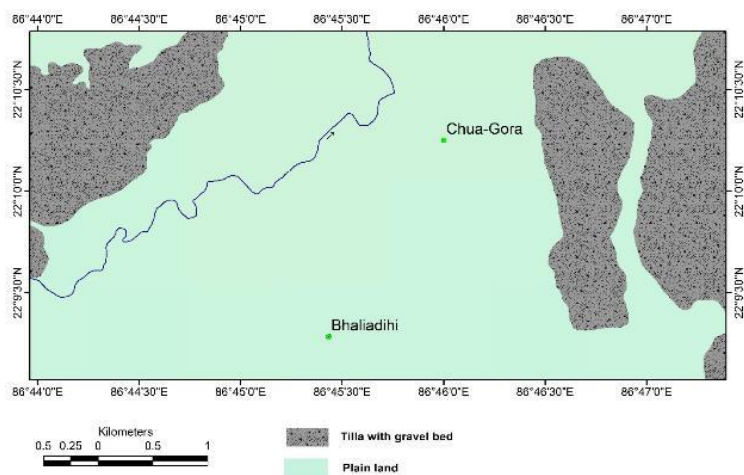
Figure 4.1: Location of the sites Chuagara or Chau Gora.

The Site: Chuagara or Chau Gora (Co-ordinate- 86.76670000000 x 22.17080000000)

A small village with an area of 61.82 hectares situated about 7.63 km south east from Jamsola and 13.63 km south west from Gopiballavpur town on the right bank of the river Suvarnarekha (Figure 4.1). It is situated in the Gopiballavpur C.D. Block under the Jhargram sub-division of Medinipur district in West Bengal. From this site, 46 pieces of lower palaeolithic tools including 6 celts and 2 ringstones, besides numerous microliths have been found. These are:

a. **Biface (Figure 4.1 A):**

A pebble is trimmed to form a triangular shape. Four large flakes are removed from dorsal face retaining cortex on the lower part. Ventral is shaped by removing five large flakes and retaining a ridge in the middle. Anterior is pointed and thin. Posterior is thick and rounded and cortex is left in the dorsal face.
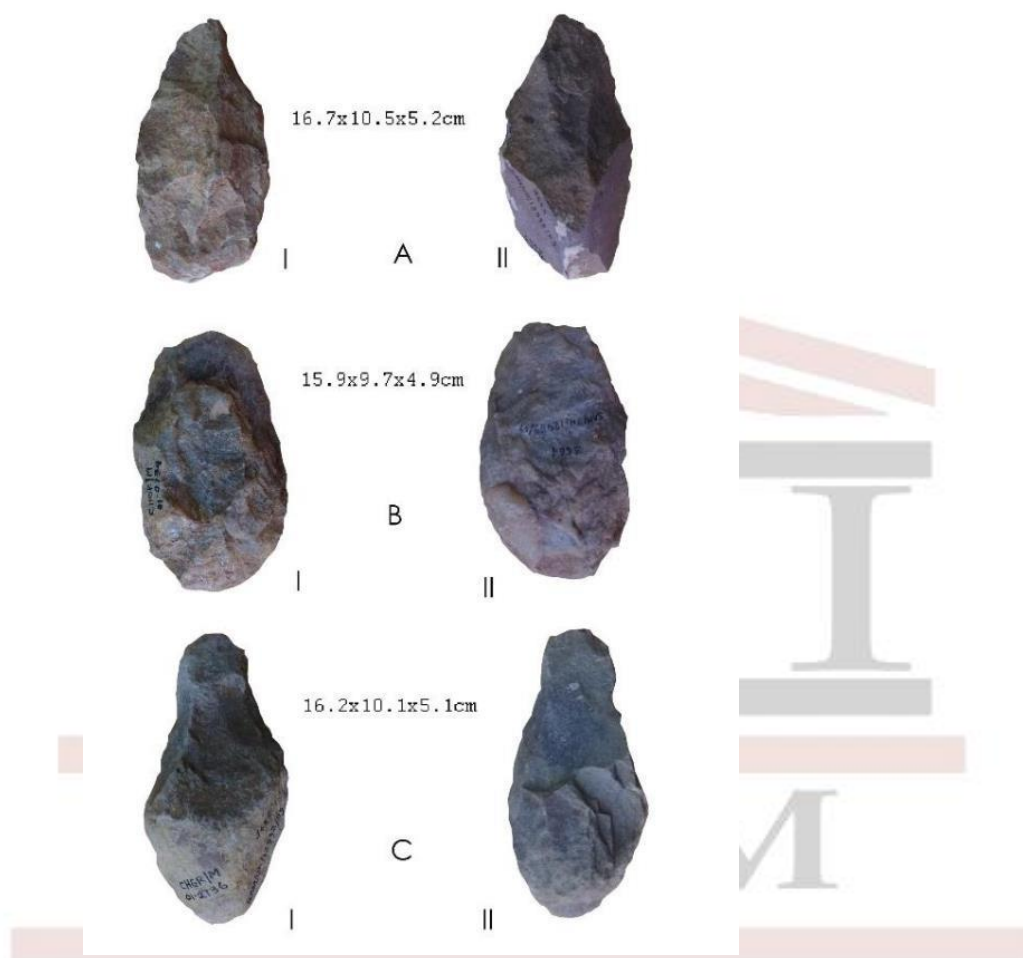
Figure 4.1: Bifaces and Partially bifaces from the village Chuagara or Chau Gora.

b. Biface (Figure 4.1B):

A pebble is trimmed to form a roughly oval shape. Cortex is left on the posterior of the dorsal face. Many small flakes are removed from both the faces. Retouching is done along left and right margins. Anterior is convex and same as the posterior.

c. Biface (Figure 4.1C):

Trimmed the pebble to form Micoquian shape. Seven large flakes are removed from the dorsal face retaining a cortex on the butt. Dorsal is formed due to heavy amount of small flaking from the surface. Both the margins are sharp and formed due to meet flaked surfaces of both the faces. Anterior is thin and pointed. Posterior is concave and cortex is left on the dorsal face.

d. Three broken Bifaces (Accession no. 3666, 3663, 3662):

Three broken pieces of Biface. One of which is made of pebble and other two of the flakes. Small flakes are removed from the dorsal and ventral surface. One of which is pointed anterior, anterior of the other two are broken. Posterior of all of the tools are broken. Retouched seen of both of the margins.

e. Biface (Figure 4.2 A):

Trimmed both the sides to form a roughly triangular shape. Dorsal face is formed due to removed five large flakes retaining cortex along the right margin. Anterior is slightly pointed and thick. Posterior is convex and cortex is left at the end of the dorsal face. Retouches are seen along both the margins.

f. Biface (Figure 4.2 B)

Trimmed both the surface of a pebble to form roughly oval shape. No traces of the cortex can be seen on the surface. Many small flakes are removed from both the surface. Anterior is slightly pointed and posterior is rounded. Secondary flaking can be seen on both the margins.

g. Biface (Figure 4.2 C)

Trimmed both the sides of a pebble to form a cordate shape. It has rolled surface. Posterior is broad and bevelled towards the anterior which is pointed and sharp. Small flakes are removed from both the sides. Both the margins are rolled.

h. Small Ovate (Accession no. 3753):

A well example of ovate. Small tool of flake. Trimmed both of the surface retaining small flake scars. Side lateral margins formed due to removing small secondary flakes. Anterior is pointed and posterior is convex.
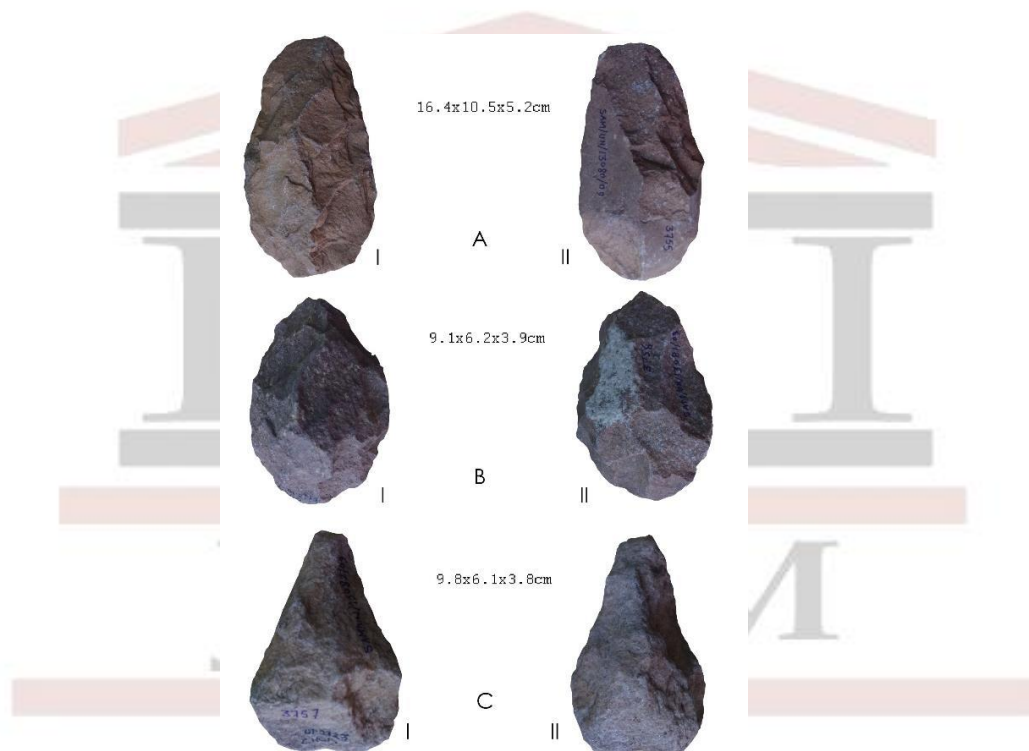
Figure 4.2: Bifaces from the village Chuagara or Chau Gora.

i. Three Flakes tools (Accession no. 3754, 3759, and 3758)

Scraper made of small flakes. Left lateral margins are trimmed to form working end, right margins are left untouched. All the tools have irregular shape. Beside these the present researcher has been collected three tools from this place. All of the three tools are side scraper in nature.

j. Cleaver (Figure 4.3A):

Trimmed entire surface to form a cleaver. Anterior of the tool has a broad and thin working edge which is made by joining two flaked bevelled surfaces. Posterior is dull and rounded. Two large flakes are removed from the right lateral margins of the dorsal faces, other face of the same lateral margin is dressed by trimming secondary flakes. Retouches can be seen along the left lateral margin.

k. Cleaver (Figure 4.3B):

Trimmed the both sides of a pebble to form a rounded butt cleaver. Large flakes are removed from the surfaces. Working end is on the right side of the anterior. It is formed by removing small secondary flakes from the surface after forming a zigzag cutting edge. Posterior is rounded. Both the margins are more or less straight.

l. Two Broken Biface (Figure 4.3C and Accession no 3650):

Broken Biface only the anterior is left, posterior is broken. Small flake scars can be seen all over the surface. Retouches are also seen along both the margins.

m. Two Pointed tools (Accession no. 3695 and 3691):

Two small pointed tools are made by trimming both the surfaces of flakes to form a roughly oval shape. Anterior of these tools are pointed and posteriors are broad. Secondly, flakes and retouches can be seen along the margins. On the ventral surface negative bulb of percussion is also seen.

n. Handaxe on Pebble (Figure 4.4A):

Both the sides of a pebble is trimmed to form a handaxe. Seven large flakes are removed from the dorsal face retaining a cortex along the butt. A very few flakes are also removed from

the ventral face. Anterior is thin with a convex cutting edge. Posterior is rounded and thick, and cortex is left on the dorsal face.
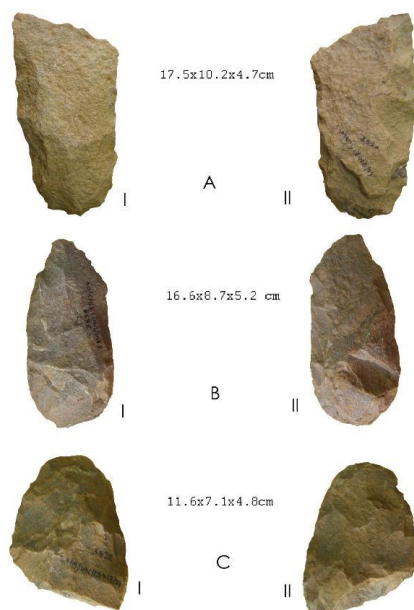
Figure 4.3: Cleaver and bifaces from the village Chuagara or Chau Gora.
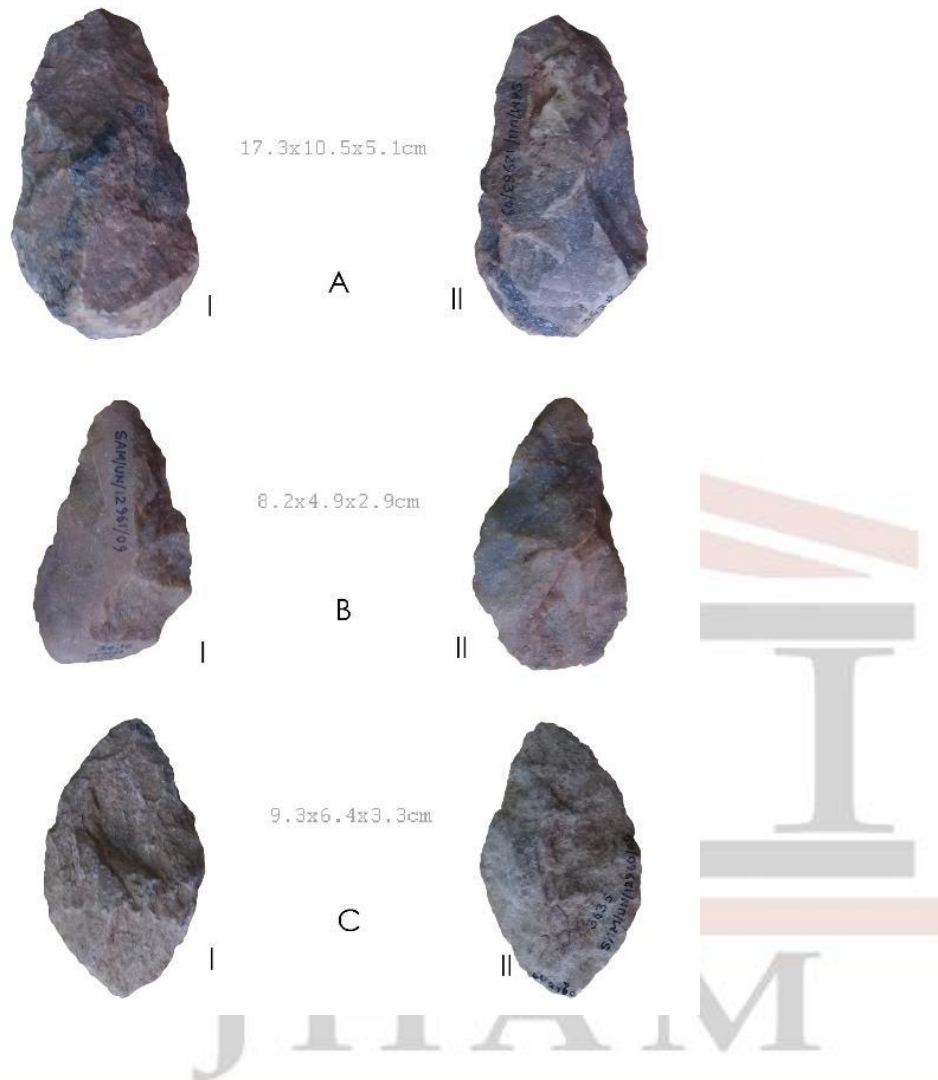
Figure 4.4: Bifaces from the village Chuagara or Chau Gora.

o. Biface (Figure 4.4B):

Both the sides are trimmed well. Three large flakes are removed from the dorsal face retaining a cortex on the right margin. Five flakes are trimmed from the ventral face and left a ridge in the middle of the surface. Retouches can be seen on both the margins. Anterior is pointed and posterior is broad.

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p. Biface (Figure 4.4C):

Trimmed both of the sides. Small flakes removed from both of the sides and retaining a steep surface. Anterior is pointed and same as the posterior. Both of the margins are dressed by removing small flakes.

q. Two Pointed tools (Accession no. 3635 and 3639):

Two long points made of flakes. Anterior of these tools are pointed and thin, while the posteriors are thick and convex. Along the right margin, in the case of both the tools, deep and small flakes are removed to form the working end.

r. Biface (Figure 4.5A):

Both the surfaces are trimmed. Posterior is broad and straight and dressed by removing small secondary flakes retaining cortex on the dorsal surface.

s. Biface (Figure 4.5B):

Trimmed both the faces of a pebble to form a triangular shape. Both the lateral margins are trimmed retaining cortex in the middle of the dorsal face. Ventral is dressed by removing several small flakes. Anterior is pointed and thin, while the posterior is thick and straight. Retouches can be seen on the left lateral margin.

t. Flake Tool (Figure 4.5C):

Rounded flake tool. Flakes are removed from both the surface to form a rounded shape. Small flakes are detached from both of the surface. Retouches can be seen along the anterior edge.

u. Biface (Figure 4.6A):

Trimmed both the sides of a pebble. Butt is rounded and cortex is left on both the faces. Anterior is pointed and thick. Four large flakes are removed from the right margin of the dorsal retaining cortex in the middle. Upper part of the ventral face is flaked and cortex remains at the butt.
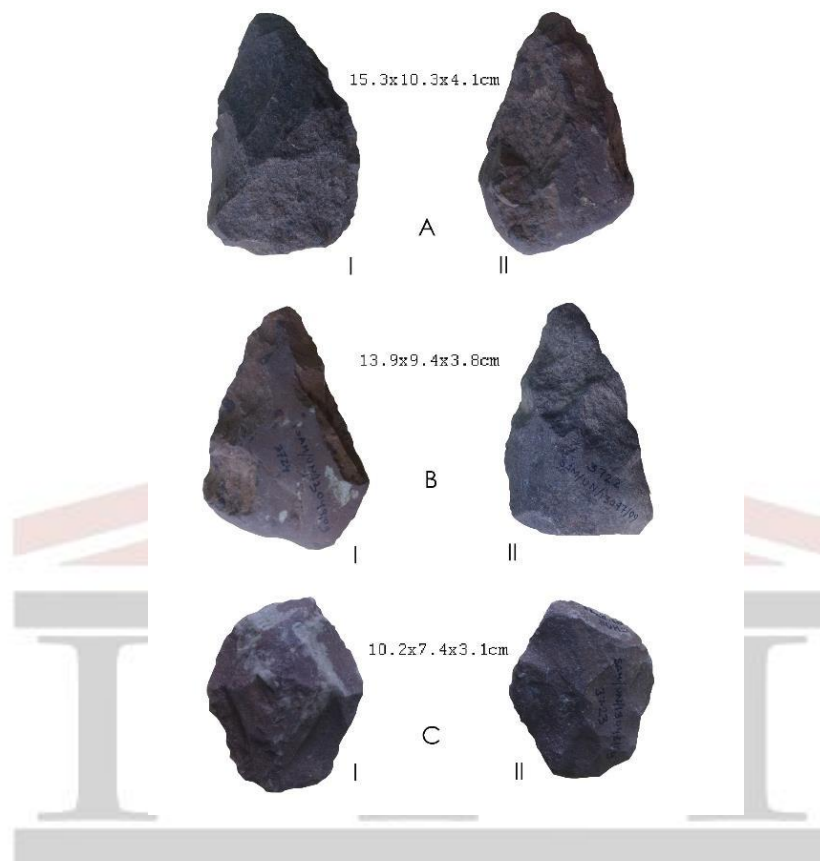
Figure 4.5: Implements from the village Chuagara or Chau Gora.
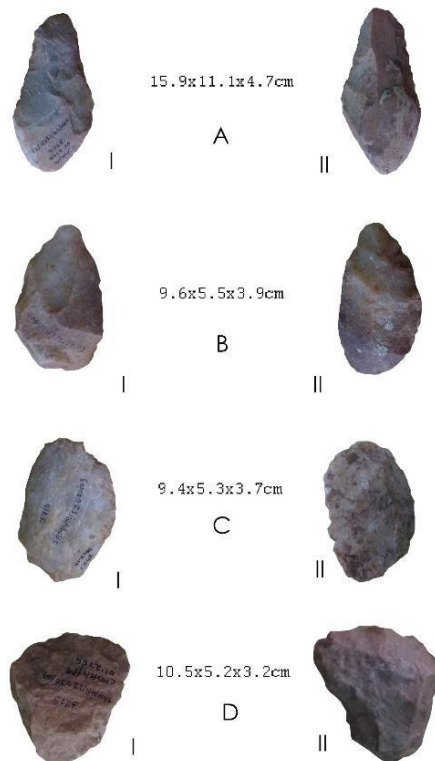
Figure 4.6: Tools from the village Chuagara or Chau Gora.

v. Biface (Figure 4.6 B):

Biface of pebble. Both the surfaces are trimmed. Six large flakes are removed from the dorsal face and retaining cortex on the butt. Five large flakes are also removed from the ventral and cortex is left at the butt. Both the lateral margins on the dorsal faces are shaped by removing small flakes.

w. Flake tool (Figure 4.6 C):

Flake tool with a sharp edge. The left margin and right margin is straight. Small flakes are removed from both the surface. Retouches can be seen along the margins.

x. Cleaver (Figure 4.6 D):

Small cleaver with a zigzag cutting edge along the anterior. The anterior is broad and the cutting edge is formed due to meet both the bevelled surfaces. Posterior is pointed. Large flakes are removed from both of the margins. Retouches can be seen along the margins.

y. Pointed tool (Accession no. 3709):

Pointed tool made of flake. Anterior is pointed and posterior is broad. Small flakes are removed from both the side margins.

z. Scraper (Accession no. 3708 and 3707):

Two flakes, out of which one has a cutting edge on left side, and another one has a cutting edge along the pointed top. Small flakes are removed from all of the sides. Retouches are also seen along the margins.

aa. Celt (Figure 4.8A):

Polished surface. Straight cutting edge is formed by joining both the bevelled surfaces. Both the margins are rounded. Posterior is convex. Scuffle marks are seen on one surface.

bb. Celt (Figure 4.8 B):

Small Celt. One side is broken. Working edge is straight. Both the side margins are rounded. The celt is roughly rounded and the cutting edge is formed due to joining both the bevelled surfaces.

cc. Celt (Figure 4.9 A):

Posterior is pointed and both the margins are rectangular. Anterior is broad and has a straight cutting edge which is formed by joining both the bevelled surfaces. A part of the cutting edge is broken.
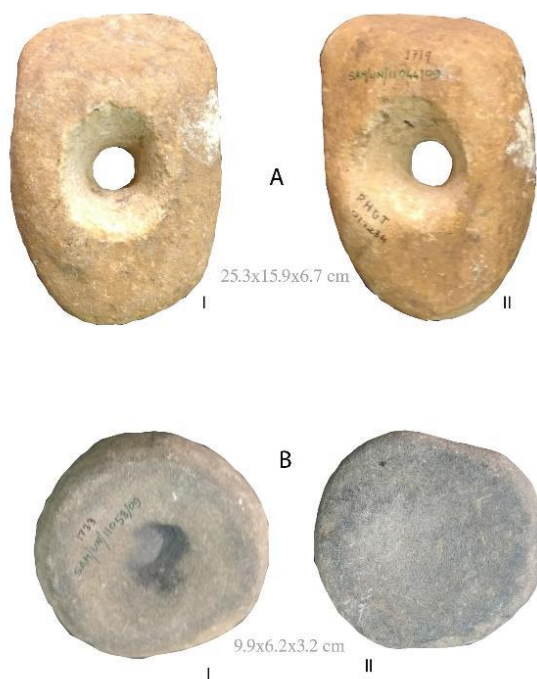
Figure 4.7: Mace Head and Quern from the village Chuagara or Chau Gora.
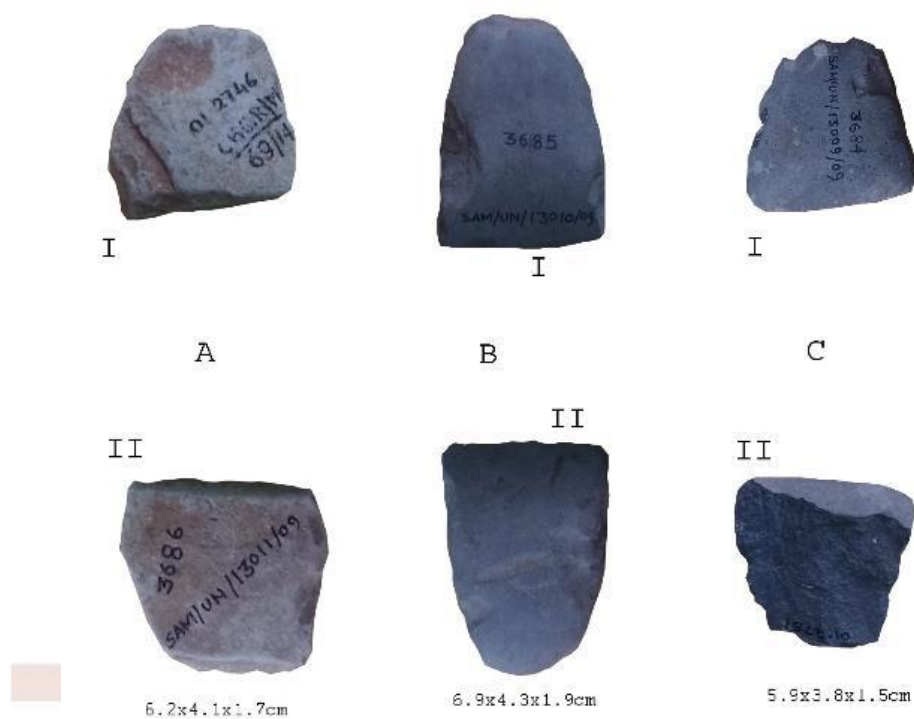
Figure 4.8: Polished Stone Implements from the village Chuagara or Chau Gora.

dd. Celt (Figure 4.9B):

Rectangular shaped, both the margins are rounded. Cutting edge is formed by intersecting both the bevelled surfaces. Towards posterior the surface is comparatively pointed, but it has a straight end at the butt.

ee. Celt (Figure 4.9C):

Large celt. Posterior is pointed and convex. Surface is rough. Cutting edge is straight. Both the margins are rounded.

ff. Broken Celt (Figure 4.8C):

Broken celt, both the surfaces are polished.

gg. Ring Stone or Mace Head (Figure 4.7A):

Big oval shaped stone. A hole is in the middle. Both the margins are linear. Working end is broad and sharp and formed by joining bevelled surfaces of both the sides.

hh. Quern (Figure 4.7B):

Rounded shape. Both the surfaces are plain. Margins are also rounded. A small hole in the middle of one of the surface.

101 pieces of small and tiny tools **(Figure 4.10)** have been found beside these heavy tools. These tools are entirely made of tiny flakes and blades. According to their basic properties they can broadly be classified in the following groups; scrapers (32 pieces), burins (5 pieces), borers (7 pieces), transactions (9 pieces), blades (44 pieces), notches (2 pieces), and segments (2 pieces).
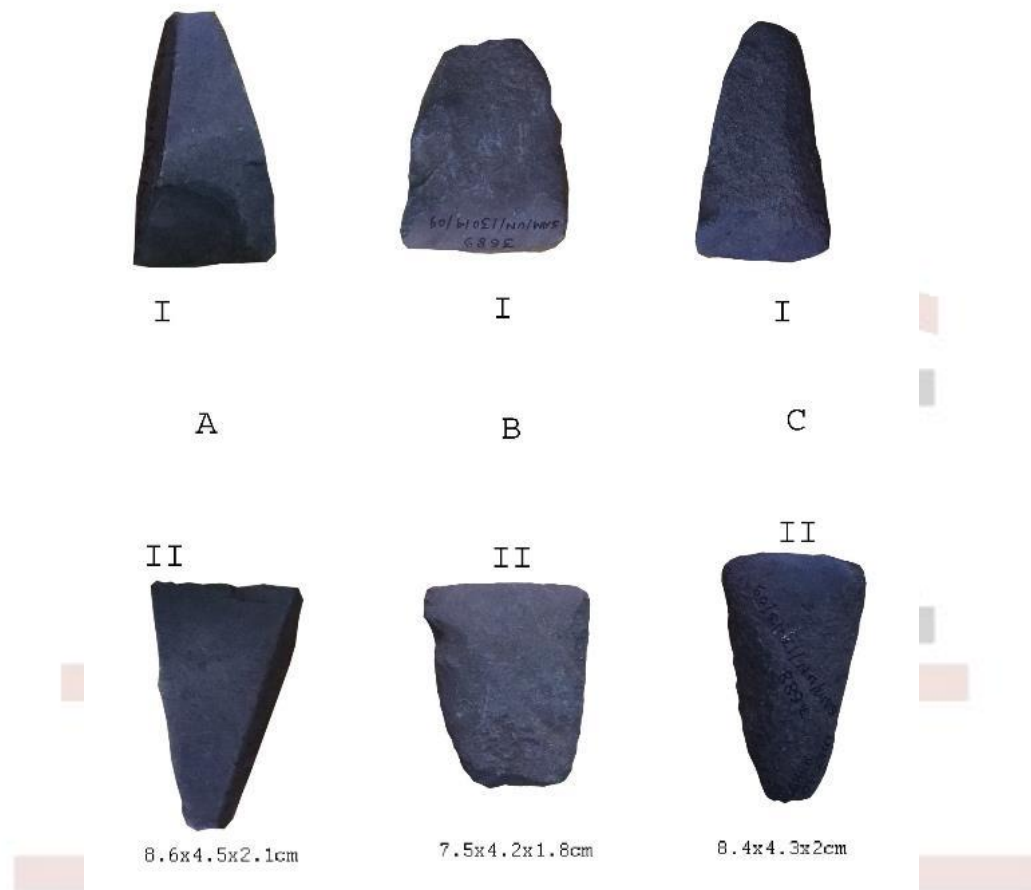
Figure 4.9: Celts from the place Chuagara or Chau Gora.

Figure 4.10: Microliths from the site Chuagara.

Discussions

Chuagara is one of the sites in this Suvarnarekha- Burahabanga complex where tools of most of the prehistoric culture have been found. Apart of the collected tools have been collected and stored in the Museum of State Archaeology, West Bengal. The site is located in a plain land surrounded by small hills beside the river Suvarnarekha. After analysis the tools of different periods, the following observations can be made:

1. This site like the most of other sites located beside the Suvarnarekha and the Burahabanga in between the altitude of 1156 and 241 feet are undulating plains covered by thick jungles and drained by major perennial rivers like the Burahabanga and the Suvarnarekha. Raw material are available on the surface and the rivers beds in these areas. But no site has been discovered in the valley north of the study area and between the two major rivers.

2. Most of the tools collected from the upper surface without any stratigraphic context beside a small stream which connected to the river Suvarnarekha, in this regard, it should be mentioned that polished stone tools and microliths can date back to the early, even in some cases the late historical period. But the area from where these tools have been collected is situated along the undulating plains covered with thick jungles — no early or late historical sites have been found in this region. And its stratigraphical position below the polished stone tools are already established by the excavation of Kuchai.

3. All the collected palaeolithic tools are bifaces and made on flakes. The flakes on which the biface is made was produced at firs preparing the core carefully by initially roughly trimming the sides and from the upper surfaces. The cortex was removed in such a way that flake scars usually meet in the centre. Then, in the next stage, a flattish place called

"Striking Platform" on the core especially along the margins where two surfaces of the core intersect. Finally, a blow was delivered either directly or by punching on the prepared surface by holding or supporting the core with a suitable medium. The celts and adzes were first shaped by percussion flaking and then the cutting edge of the whole surface was ground down by rubbing on a slab of wetted sandstone, or other hard rock (with sand as an abrasive if the rock itself was not friable). The ring stone of mace head made through pecking or drilling alternately from both sides of the stone until the two conical pits met and formed a perforation. Chisels are made only by precaution flaking. The small and tiny tools are mostly made by pressure flaking technique.

4. However, among a few sites noted in this area Chuagara is noteworthy for revealing stone tools of three different stages of prehistoric culture. Though, any postulation would be vague based on the surface collections, but location of the site among the other prehistoric sites and absence of early historic even late medieval materials somehow let us postulate that collected materials must be placed with the bracket of prehistoric period.

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Lord Ganesha in Temples of Bhubaneswar

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Abstract

Pursuits of all men are directed towards achieving their goal. But very often people find that in spite of the best efforts, they do not achieve their goals. It is then their minds turn towards God. But in the path of devotion, the devotee's mind is changed to and engaged in the pleasure pursuit of the fascinating world. So, it is essential to wean away his mind from all its continuous engagements. Since our mind cannot conceive the truth, the contemplative sages have given us a number of symbolic representations of that higher being in form of deities. And thus, gave rise to different religion that is formed expression of collective experience. They take definite shape in the most highly developed and the most sensitive minds which capable of taking part in super individual life of humanity. India, which the anthropologists believe to be the strains of the Austric and proto Australoid race bringing in new culture, that came in contact with other pre-existing culture that form a synthesized culture that was essentially local. This culture became most pronounce in India gave rise to different religion which lasted long at different time period as the dynasties that ruled the area were all long lived and strongly maintained the integrity of this geographical unity. Buddhism, Jainism, Saivism, Shaktisim, Vaisnavism etc and other religious cults with their belief, iconography, cultural traditions made its impact on the land from the very beginning and spread all over the country. And, Odisha otherwise known as Utkala, Odra etc was no less profoundly influenced by all these religions and contributed the finest cultural heritage in field of art and architecture. With the growth and development of Brahmanical religion in Orissa, number of temples grew throughout the land. Odisha has rich heritage in the form of beautiful temples which are notable alike for their wealth of architectural

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excellent workmanship of their carving. In my proposed study, an attempt has been made to trace the development of Odissan architecture, with special reference to Lord Ganesh as seen in the iconography in temples of Bhubaneswar. My subject will also try to context the various manifestation of the origin of Lord Ganesha with its mythological stories as mentioned in four maha puranas. And a modest attempt has been made to highlight the religious importance of Ganesha cult that prevailed beyond Bhubaneswar in a place where Vaishnavism has metamorphosed into the state.

Key Words: synthesized culture, excellent workmanship, iconography.

Introduction

Hemmed at west by the thick clad of jungle and mountainous ranges and by sea at the east, the eastern part of India forms an ideal ground for a unique history. The original inhabitants of this area which the anthropologists believe to be the strains of Austric and proto Austroid races, came in contact with the pre-existing races that formed a synthesized culture that was essentially local. This culture became most pronounce in India giving rise to different religion which lasted long at different time period as the dynasties that ruled the area where all long lived and strongly maintained the integrity of this geographical unity. Buddhism, Jainism, Saivaism, Shaktism, Vaishnavism etc. and religious cults with their belief, iconography and cultural traditions made its impact on this land. This area is known as Utkala or Odisha. Odisha profoundly influenced by all these religions had contributed the finest cultural heritage in field of art and architecture.

Although the pre-historic stone implements and copper celts that was discovered in different places of Odisha, the historic phase of Odishan art begins with Ashoka's conquest on this land in 3rd century B.C. Eminent archaeologist Dr. K.C. Panigrahi has rightly observed that the "Odishan art and architecture is co-eval with her dated history, which started from 261 B.C i.e. when Ashoka conquered this country, then known as Kalinga. Not only that, this Kalinga war formed a turning point, and it was difficult to determine as to how much of Odishan's culture if she had any at that period survived after this Great War, but it is definite that Ashoka's occupation of Odisha gave a start to Odishan art and culture" (Pradhan,1996:5-6)

After the Ashokan age the architectural specimens which survived witnessed a simultaneous growth of Mahayana Budhism and Saivaism, though Buddhist architecture probably did not develop beyond 9th century A.D. Unhampered by the foreign rule, Odisha is fortunate enough to retain her artistic remains of different phases of history in a continuous

development till 3rd quarter of 16th century A.D. resulting in the emergence of an independent school of temple architecture. However, the temple architecture in India had its humble beginning right from the Aryan period that blossomed during the Gupta period.

The Indian architecture generally falls into two styles-Dravida and Nagara. The Dravida style developed in South India and the Nagara style in North India. In the Dravidian style the Sikhara (i.e Spire) of the temple is marked by a succession of gradually receding storeys. The Nagara style of temple architecture is characterized by curvilinear Sikharas. The Odishan temple architecture appears to have been a product of the Nagara style of temple architecture. But it has also some distinctive characteristics of its own. Some scholars, therefore, hold that an independent style of view is supported by the fact that the Amriteswar temple inscription (situated at Holal in the Bellary district of Tamilnadu) mentions Kalinga style as one of the four styles of temple architecture, the other being Nagara, Dravida and Besara style. Pratistha Lakhsyanasara samu chaya by Vaivochana a silpa text of 11/12th century A.D. mentioned Kalinga temple as of rekha order. Other text like Bhubana Pradipa, Silpa Prkasha, Silpa Ratkakosha etc. deals with exclusively of Kalinga style.

Like the Nagara temples of North India, the Odishan temples have curvilinear Sikharas (spires). But in the North Indian temples, the main Sikhara is supported by a number of miniature Sikharas, whereas in Odishan temples the main Sikhara which rises in a vertical manner rest on its own strength. In North Indian temples the miniature Sikharas support, dominate and adorn the main Sikhara. But in case of Odishan temples, the miniature Sikhara which form parts of the wall of the temple decorate but do not dominate the main Sikhara. In case of the North Indian temples, the superstructures of the frontal hall (Mandap) "prepare and defer the climax of the spire, surmounting the sanctum (main temple)", but in the Odishan temples the frontal hall (jagamohan) is subordinate to the main temple.

These temples were constructed as per the direction contend in the sastras. The Silpa text in the Odisha mentions three types of temples i.e., Rekha deul, Pidha deul, Kakhra deul. The outstanting feature of the Rekha temples is a curvilininear spire (or a super structure). The Pidha temple which is characterized by curvilinear tower known as the Jagamohana or the front porch (mukhasala) is actually the frontal hall of the Rekha temple i.e., main temple. Jagamohana is also called as vadra deul where the devotee assembled. In a pidha deul, the roof of which is made of pidha or horizontal stages. Built on a common platform both the structures are square internally. It is surmounted by a pyramidal roof of receding steps.

In earlier phase, there was no pidha deul or the Jagamohana or the frontal hall had a flat roof. In course of time to meet the growing need of ritual two more structures are added namely natyamandapa (dancing hall) and bhoga mandapa (offering hall) during Ganga period i.e.,

around 12th century A.D. All the four components are arranged in one axial alignment and often the temple complex is enclosed by the boundary wall (Pradhan,1996:147).

Khakhara temples are exceptions. The khakra order is noted by a semi cylindrical baulted roof that looks like an inverted boat or pumpkin gourd. The temples of this order are usually meant for shakti worship. In general, most of the temples are of Rekha type.

A Rekha temple has three major portions-bada (perpendicular wall), gandi (curvilinear spire) and the mastaka (apex or head). The bada consists of three parts- pabhaga, jangha and baranda. The horizontal mouldings at the base of the temple are called pabhaga. The vertical wall between pabhaga and baranda is called jangha. The upper set of mouldings in the bada which separate the bada from the gandi is called baranda. The wall of the bada has some vertical projections, called ratha. The badas of the earlier temples were trirathas (i.e., having three vertical projections) and those of the later temples were pancharathas or sapatarathas (i.e., having five or seven vertical projection).

The gandi of a Rekha temple is curvilinear and that of a jagamohan is pyramidal. The gandi of a Rekha temple like bada, also has vertical projections which are called pagas. The pagas, five in number on each side, have a central paga which is called raha paga. The pagas in the corner are known as Kanikka pagas. The pagas end with bisama (the topmost course of the gandi) in a gradual convex curve.

The Mastaka or head of the temple has five parts- beki (cylindrical neck above bisama), amalak (ribbed disc), Khapuri (skull), akasalinga or Sivalinga, ayudha (sacred weapon).

The earliest temples of Odisha which belong to the Gupta period do not bear the above typical characteristics of the Kalinga school of temple architecture. The remnants of temples, belonging to this period, have been found in Jajpur of the cuttack district and the Mahendra mountain of the Ganjam district. The small temple of Bhima, existing on the Mahendra mountain belongs to the early Gupta period. This temple has a flat roof.

Odishan temples constructed a sub style of Nagara style of north Indian temple. These temples style was in full vigor in the wake of vast religious and cultural resurgence that took place when Sailodbhavas ruled from middle of 6th century A.D. till the 1st quarter of 8th century A.D. The temple building activities gained momentum under the Bhaumakaras (736 to 950 AD) and Somavamsis (950 to 1112 AD) and reached the climax during the Ganga period (1112 to 1435 AD). These activities however continued under the Suryavansis Gajapati (1435 to 1542 AD) though on a very small, improvised scale (Pradhan,1996:147).

The building activities of Kalingan style that continued from 6th century till 16th century AD in an unbroken line made Odisha rich in cultural heritage in the form of beautiful temples which are notable alike for their wealth of architectural and sculptural motives and excellent workmanship of carving. And Bhubaneswar the ancient Shaiva kshetra served as an experimental ground of these temple building activities.

With the emergence of typical Kalingan style of temple architecture in the 7th century AD, the Odishan sculpture got a vast and new field for experiment in iconography. The figures of gods (such as parsva-devatas), demi god (such as Gandharva and yaksha), decorative female figure (Alasa-Kanyas), erotic sculpture,flora, fauna and geometry design decorated in the body of the temple beside the main deity. The acolyte or subordinate deity (pasva-devatas) occupies the niches of the temples and Bhubeswar being filled with saiva temples are occupied with parsha-devatas like Ganesha in the southern niches, Kartikeya in the east or in west niches and Devi on the northern niches.

Iconography is a concrete science, and it helps us to determine the identity of a particular deity with their symbolic representation. Symbol is the shortest form for a whole set of ideas and feeling. Each deity in the Hindu temple is represented with their symbol that bestow life lesson and evolved in the spirituality and positive progression for a normal human being.

Lord Ganesha who is one of the enigmatic deities in the hindu pantheon, perhaps the most popular deity among all deities, known by various names such as Vinayaka, Vigneswara, Gajanana, Vakra tunda and many more is rich in symbolism and used as a spiritual guide to all human being. Each symbol associated with the elephant headed lord is a reminder to manifest the powers held within us. A Ganesha statue can be of many postures i.e., seated, standing or dancing forms holding various symbolic object. His elephant head symbolizes calmness, majesty, wisdom and strength. His grotesque body is a symbol of illusion and duality. His small eyes denote of concentration. His large ears and broken tusk denote supernatural auditory powers and skill in action respectively. While his large belly symbolizes completeness, contentment and fulfillment. His curve of the trunk significance special meaning like: - if the trunk turns left, it signifies blessing of wealth, success and pleasure and if it is right, it represents Moksha (take the path achieving bliss), his cracked tusk held in the right-hand states strength and demonstrate that we must finish what we start. The rosary in his hand suggests that the pursuit of knowledge should be continuous. The most popular symbol is bowl full of sweets or Modaka patra which symbolizes reward of Sadhana. His rope is to pull you nearer to the highest goal while his axe symbolizes of cutting of all bonds of attachment. Finally, his vahana or vehicle who is a mouse and is always in his control symbolizes that he is the controller of one's desire.

With the rise of brahaminical religion in Odisha, saivaism gained momentum so also Ganesha worshiped though not the principal deity but as a subordinate deity (parsha-devata). Ganesha is probably a non-Aryan deity worshipped by the ancient tribes in India. During the vedic period the four vedas do not mentioned the worship of Ganesha. Most probably Ganesha was introduced to the brahminical pantheon in the later period. The story of manifestation of Lord Ganesha appear in four mahapuranas i.e., Linga, Padma, shiva, Brahmaviabarta purana. There are several stories of origin of Ganesha mentioned in this puranas that are acceptable to his devotees because of the truth that under lies each narration. The stories of Vinayaka or Ganesha from various puranas are as follows: -

Linga Purana: -

All Gods were very desperate in heaven. The problem was that whatever good work they wanted to do were constantly met with obstacles from all sides but whatever unholy acts the demons performed were always met with success. To get out of such situation all Gods gathered together and invoked the almighty Shiva. On behalf of the Devatas, Brihaspati their preceptor (Chinmayananda,2018:12) spoke to the lord: "O Merciful One!" Thou art so kind and great that thou bestowed all the boons which the Asuras (demons) ask for, and the devas are put to great trouble by the sinful acts of their evil-minded cousins, the demons. So, we entreat thee to be merciful to us and create obstacles in all the evil schemes of the demons. The lord said: 'Be it so!' and glanced at his divine consort, Uma and manifested a divine child whose face was of an elephant, holding a trident in one hand and a rope in the other. As soon as the divine child manifested, the hearts of the Devas were filled with joy and serenity, and they prostrated at his feet. Shiva then taking the child on his lap, embraced him and said: "you have incarnated to fulfill the desires of devas and to bring destruction to the evil-minded devils. Wherever you find that organisers of collective endeavor (yagnas) do not properly reward the performers, please see to it that their efforts do not bear any fruit. Those who wish to propitiate me or my all-powerful aspects like Vishnu, Brahma or Indra to get their desires fulfilled shall have first invoke your grace by offering worship to you the very beginning. Those who worship other gods without first invoking your blessings, will meet with failure in their efforts". Thus, this divine child 'Bala Ganapathy' thereafter created the "Vighna Ganas" and together with them prostrated at the feet of the lord and took His position by the side of the father.

Padma Purana: -

Goddess Parvati and Lord Shiva after their marriage spent their days together. Parvati's deep devotion for Shiva was reciprocated by the Lord's deep attachment for His Divine consort.

One day while absorbed ecstatic bliss mother Parvati anointed Her body with fragrant oil and powder and with the perspiration that came off her body, she created a male form with an elephant's head. She took this creation of hers and playfully lowered it into the water of the celestial river Ganga, the second Divine consort of Lord Shiva. The moment it was immersed the

form became alive and grew into a big and powerful being, extremely handsome and resplendent with spiritual glory.

Then mother Parvati addressed him as "My Son!", Ganga also called the newborn as her son. The Gods and Rishis paid their obeisance to the elephant faced deity and addressed Him as "Gangeya" the son of Ganga. Lord Brahma the creator bestowed on him lordship over the Ganas and consecrated Him as Ganapathy and he became worshipful by everyone in all the three worlds.

Mother Parvati the embodiment of the universal mind. Parvati means parva-vathy, one having the three parvas or aspects. The three parvas i.e, knowledge, will and action. She is the universal mother who has created all that are seen and experienced by us, meaning all creations take place when the three factors of knowledge, will (or desire) and action combine together harmoniously. These three factors however, by themselves cannot mingle together and create anything unless the fourth factor, namely consciousness or chit enlivens then. So, Parvati is wedded to Lord Shiva, the chit Swaroopa. Thereafter she moves about with her Lord, and soon she is lost in the divine ecstatic Bliss of consciousness, the Bliss of Meditation, when the finite is absorbed in infinite.

Thus, Ganesha is born, the very replica of the Lord of the Universal Mother's heart. He is naturally the most auspicious representation of the supreme, at once a symbol of immaculate spiritual experience and an altar of perfection to be invoked for all success.

Shiva Purana: -

The origin of Lord Ganesha described in Shiva Purana is more or less the same manner as in Padma Purana, but imaginatively enlarged to include some more aspects. The story goes thus:

Once Jaya and Vijaya the two divinely beautiful maidens attending Mother Parvati approached her and told that all the ganas are more loyal to Lord Shiva than to her. Though they are not neglected but they wanted to have a very powerful gana for themselves, who will be implicitly loyal to her. Parvati heard them but kept silent.

Mount Kailasa, the abode of Lord Shiva and Parvati was a pilgrimage for all devas, rishis, ganas and others. They in their hordes there, to worship and to sing praises of the Lord in order fulfillment of their desires. They used to spread all over the place, setting their camps in the vast open space in Kailasa.

One-day Mother Parvati wanted to refresh Herself by taking a cool bath in the large bathing pool in Kailasa. She summoned Nandi, the chief of ganas and told him to guard the entrance of the bathing pool, so that no one would wander into that area and disturb her. So, Nandi stood guarding the entrance of the mother as she began her bath. A little while after, Lord Shiva Himself came there. Nandi told him in all reverence about the Mother's instructions, but the lord brushed it aside and went straight to the pool. Parvati was abashed to see the lord in front of her. Then she recollected the prompting of her attendants Jaya and Vijaya and decided to create a gana who would be absolutely loyal to her.

Another day when Mother Parvati went to bath, she rolled out of her body some dust and created a handsome and powerful male and said to him "you are my son", and extremely dear to me. Please stand guard to me at the entrance of the bathing pond and allow none whomsoever to come in without my permission. She gave me a stout stick and endowed him with her powers. At that moment, Lord Shiva came that way. The guard stopped Him and refused permission to go in. Thus, Lord Shiva lost his temper and beheaded the guard. Mother Parvati came out only to see her dear son lying headless. Overcome by anger and sorrow, she went about destroying everything that came her way. The Gods and rishis shuddered with fear and confusion and requested Lord Shiva to calm her down. So, Shiva pacified her and instructed his followers to bring the head of the first living being which is seen lying with its head pointing towards north. During their search, they found a baby elephant. They thus cut off its head and placed it on the body of Parvati's son and breathed life into him. The son of Parvati was given the name Ganesha by Shiva and also made him the Lord of the Ganas, who shall be worshipped first among all Gods.   This explains Ganesha's mystical creations, its popularity and his omnipresence in most of the Hindu temples. (Chinmayananda,2018:30)

Brahmavaivarta Purana: -

The story of the origin of Ganesha is narrated in Brahmavaivarta purana is more fascinating. The story goes thus:

One day after the marriage, Mother Parvati asked Lord shiva to have a noble son. The lord thought for a while and then said to Parvati to observe a vow named 'Punyaka' for one full year. He then gave a detailed instruction in which the vow was to be observed. An auspicious day was fixed for the commencement of the vow. Hearing this all God's, Goddess and rishis all came to Kailash to offer them good wishes. In the meantime, Lord Vishnu arrived to bless them. The celestial sage Sanat Kumar offered his services as the presiding priest and thus the auspicious moment started.

After completing of a long year Parvati was happy that everything went well. At the time of offering Dakshina (reward) to the presiding priest Sanat Kumar made an unexpected demand: he wanted Lord Shiva himself to be given away in Dakshina. Hearing this Goddess Parvati was aghast at this impossible demand and thus she tried her to please him by giving him number of valuable articles, but it was all in vain. Now Parvati was in great trouble. At that moment Lord Vishnu arrived and consoled her and asked her to give away Lord Shiva at first and then take him back by offering him one lakh of cows. On the advice of Lord Vishnu, Parvati gave away Her Lord but when she offered Sanat Kumar one lakh cows in exchange of Lord, he refused the offer. Thus, situation became very tensed. Seeing Goddess Parvati in such a situation all God and Goddess started persuading Sanat Kumar to hand over Lord Shiva back to Mother Parvati. Ultimately the presiding priest Sanat Kumar handed over Lord Shiva without any resistance. Goddess Parvati became very happy and rewarded lavishly to those who came to attend the ceremony. At that time, she suddenly heard a heavenly voice "Mother of the Universe, please go

and look into your bed, your son is already born". On hearing this the mother rushed to her room and found a divinely beautiful son lying on the bed. There was no limit to her happiness.

One by one all the God and Goddess came to have a look at the new baby, among them who came to pay their obeisance was Saturn who was the son of Sun God but He himself is generally regarded as the Lord of miseries. After paying his respects he stood with his face turned away from Parvati and his son. Seeing this Parvati asked him the cause of not looking at the child. Saturn replied that he had a curse on him that whomever he looks upon will have his head cut off by the mere look. Since then, he (Saturn) uses to avoid looking at any living being directly for fear of destruction. Mother Parvati heard this and said "well, the whole world moves according to the will of the Lord. Don't you worry. Please look at me and my son".

Saturn had to obey Mother's command. He, therefore avoided the Mother from his sight and by the corner of his left eye looked at the divine child. Immediately the child's head was cut off and fell far away. Saturn was overcome by remorse and stood silently with his head cast down.

Mother Parvati fainted with sorrow and there was a big commotion at Kailash. Lord Vishnu reached there quickly sized up the situation and rushed in the northern direction. He saw a family of elephant sleeping on the bank of river Pushpabhadra and among them was a baby elephant whose head was pointed to the north. The lord cut its head and brought it to Kailash and placed it on the head less child who sprang up to life. There was a great joy among all.

Seeing Saturn standing silently with his head down, Mother Parvati thought that he should better remain in a disembodied state to avoid recurrence of such disaster in the world, so turning to him, she pronounced a curse "May you remain hereafter in a disembodied state".

Soon after Lord Shiva gathered all Gods, Goddess, rishis and others to offer a ceremonial worship to the divine child and gave Him eight names such as Vighnesa, Ganesha, Heramba, Gajanana, Lambodara, Ekadanta, Soorpakarna and Vinayaka- and said: "you have been worshiped by me, and hence you deserve to be offered the first worship by everybody in all rituals and ceremonies".

In Mahapurana, the stories of the birth of Ganesha have been described while Upapuranas describes his different incarnations redeeming the world from the pitiable conditions to which the demonic forces have reduced them. (Chinmayananda,2018:36)

The worship of the deified form of female energy, which is called Shakti in our religious terminology, is traced back in the Indian history to the pre-vedic Indus Valley Civilization. In Odishan context, some scholars trace the worship of Sakti in form of Vraja at Jajpur to the pre-Christian era on the basis of certain reference to this deity in Mahabharat, Harivamsa and Vayupurana. But Shakti worship at Viraja, the ancient place name of Jajpur, overshadowed by the predominance of Buddhism for some centuries, preceding the Gupta era (Pradhan,1996:192). With the efflorescence of the Brahmanical religion in the Gupta period, the Shakti worship

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assumed new importance. While during the Sailodbhava and Bhaumakara periods the deification of female energy was conceived and executed in various ways. The image of Siva was accompanied by that of his consort Parvati. Deification of female energy was also introduced within the framework of Saivism, because Siva was conceived as Ardhanariswar (half male and half female). The most important factor contributing to the popularity of the worship of mother goddess during these periods was the growth of Tantrism that flourished from 7th century A.D onwards which continued to dominate Buddhism and Brahmanical religion. The Somavamsis who succeeded the Bhaumakaras were Saivites. During their rule the worship of Shakti or Tantrism still continued that extended till the Gangas who showed no interest in Tantrik cult, yet worship of Shakti did not disappear.

Thus, with the growing influence of the Tantras and popularity of Saktism in India, Ganesha iconography was found in company with his female counterpart whom he was represented holding with his left arm, either besides him or on his left thigh. The devi as a rule, had her arm around his neck, while in the left, as we have said above, often held the bowl of modakas. Saktism was particularly practiced by a powerful sect who adopted Ganesha their special deity and established his worship to the exclusion of practically every other Hindu God.

In mudgala purana, Ganesha is given 32 different names, as follows:- Sri Bala Genesha, Sri Taruna Ganesha, Sri Veera Ganesha, Sri Sakti Ganesha, Sri Dwija Ganesha, Sri Siddhi Ganesha, Sri Ucchishta Ganesha, SriVighna Ganesha, Sri Kshipra Ganesha, Sri Heramba Ganesha, Sri Laxmi Ganesha, Sri Maha Ganesha, Sri Vijaya Ganesha, Sri Nritta Ganesha, Sri Udva Ganesha, Sri Ekakshara Ganesha, Sri Vara Ganesha, Sri Tryksha Ganesha, Sri Kshipraprasada Ganesha, Sri Haridra Ganesha, Sri Ekadanta Ganesha, Sri Srushti Ganesha, SriUddanda Ganesha, Sri Rnamochaaka Ganesha, Sri Dhundi Ganesha, Sri Dwimukha Ganesha, Sri Trimukha Ganesha, Sri Simha Ganesha, Sri Yoga Ganesha, Sri Durga Ganesha and Sri Sankashta Ganesha (Chinmayananda,2018:50).

We all know that the importance given to image worship and belief in personal God led to the creation of temples. As discussed earlier that with the growth and development of Brahminical religion in Odisha led to the growth and of temples throughout the land. Odisha has a rich heritage in form of beautiful temples which are notable alike for their wealth of architectural and sculptural motifs, and excellent workmanship of their carvings. There are many temples in Odisha which signifies its rich heritage. And Bhubaneswar which is otherwise traditionally known as Saiva Kshetra, art and architecture are intimately associated with religion consequently and temples form the most illuminating commentary on the religion and religious practices of the people. The temples of Bhubaneswar are of absorbing interest, as its images of the divinities throw light on the gradual changes in iconographic features of the images, leading to the fabrication of the myths. In that all of the extent the early temples of Bhubaneswar that includes Parasuramesvara, Sisiresvara, Bharatesvara, Svarnnajalesvara, Markandesvara and Vahiranyesvara temples are dedicated to Lord Shiva. With few exceptions (like Vaital and Mohini temples which are Shakti temples), the Parsava-devatas housed in the raha niches of the

early Shiva temples are Ganesha on the south, Karttikeya on the back (east or west) and the Devi on the north. Ganesha when not serving as parsavadevatas or on later temples (that includes Muktesvara, Brahmesvara, Kedaraesvara, Meghesvara, Lingaraj, Siddhesvara, Vaskesvara etc.) with a two-storey design and a more complex iconographic program, these deities may also serve as a varanadevatas in the subsidiary paga niches. Ganesha may in addition accompany the matrkas where his role as a teacher is stressed. This role, as patron of letters and scribes, is also stressed when appears with Saraswati on lintels above niches housing siksadana motifs. He also appears in the center of the lintel over doorways of early temples (Donalson and Behera, 1998).

Lord Ganesha who is considered as the remover of obstacles occupies his iconographical position in the temple of Odisha towards 6th century AD. T.E Donalson in his book "Hindu Temple art of Orissa" states that the images of Ganesha in Odisha can be grouped into three broad modes, with variation in each, according to his pose-seated, standing & dancing (Donalson,2001).

In a temples of Bhubaneswar Lord Ganesha images are appropriately placed on the southern side, so as to be the first image perceived in the prdakshina (circumabulation), when the temple faces east. Ganapati images in many places has four arms, mostly in seated and standing mode while the dancing form images, he has eight arms. In four armed images his attributes are standardized with the only major change, aside from the placement of the Kuthara(hatchet), the broken tusk which replaces the radish seen on early images. On early temples the seated pose is most popular while the standing or dancing pose is seen on later temples.Though found in different pose in temples in Odisha, it is observed that the numerous images of Ganesha found in temples of Bhubaneswar are of two types because of the presence or abscence of the mouse the characteristic mount of the god, the first type occurred on the early temples of Parasuramesvara (Fig-1), Vaital, Sisiresvara (fig-2), Bharatesvara, Svarnnajalesvara, Markandesvara, Mohini and Vahiranyesvara temples. And also, it is found in some later temples like Uttaresvara, Lingaraja and Yamesvara and also in the inner walls of the Ganesha Gumpha at Udayagiri. Apart from this characteristic feature it has been observed that a variant feature by the proboscis turning to left or to the right in early as well as later temples respectively. The second type with the mouse as the distinctive feature occurs in the later temples like Muktesvara, Brahmesvara, Meghesvara, Lingaraj (fig-3), Kedaraesvara (fig-4), Siddhesvara, Vaskesvara etc.

Fig-1 Parasuramesvara temple parsvadevata

Fig- 2 Sisireswar temple: Ganesha (as parsvadevata)

Fig- 3 Lingaraj temple Siddhivinayaka at entrance gate.

Ganesha when seated is usually assumes the ardhaparyarika pose with the right knee up lifted, frequently held in place by a yoga patta, except when accompanying the matrkas or embracing his shakti, in which case he is in lalitasana with one leg pendent. The left invariably holds a modak patra from which his proboscis (elephant trunk) is plucking sweet. The uplifted back left hand generally holds the kuthar. The right hand holds a rosary and radish or broken tusk. When Ganesha seated in ardhaparyarika the left-hand rest on the uplifted knee whereas seated in lalitasana it is extended in varada. In the earlier images the coiffure (style of hair dressing) of Ganesha is generally flat in treatment, however towards 8th & 9th century A.D. the coiffure found was arranged in a Karanda-mukuta, resembling an inverted jar, consisting of tightly coiled curls neatly aligned in a Jata mukuta with jatas fanning out on either side of centre diadem (crown) frequently ornamented with a kirtimukha mask. There is generally a crescent moon in the coiffure and facetoons (chain of flower or leaves) of pearl decorated on the upper forehead. A tussle hangs from each ear while bells usually ornament his necklace and anklets. On early images snakes were used as belts and the sacred thread while in the later images a snake was used only as a sacred thread. In earlier images the pedestal is seen with fruits and offerings, and on outward facing lion in each corner. The images of 8th century A.D represented by lions that were replaced with jackfruit. While towards 9th century the jack fruit on either side is seen carried out by rodent like figure of a mouse is generally added by the tripod from which it is stealing sweet (fig. 5). By 10th century AD the tripod and jack fruit disappear from the pedestal with only the mouse remains the decorative figure. Attendants figure generally confine to the niche jam or to the pedestal. Thus, an iconographical change is observed from the early to the later phase temples which may be due to socio cultural change that was brought by the various dynastic rule since the ancient times.

Fig 4 Kedareswara Temple: Ganesha (as parsavadebata)

Fig- 5.   Seated Ganesha worshiped at Gauri Sankar temple,
(Located in the northern side of Lingaraj temple)
Decorated with jack fruit on either side of the tripod.

The standing image of Ganesha are less varied in iconography because most of them date after the 10th century by which time cult images became fairly standardize. In few surviving early images Ganesha generally faces to his left and his proboscis is curled up placing a sweet in his mouth. He holds the standard attribute in his four hands with the Kuthar or the Axe uplifted as on seated images. Towards 10th century AD, the standing pose was replaced by the seated pose where he assumes more hieratic frontal pose rather than facing to one side. He invariably plucks sweet with his proboscis from modak patra held in his major left hand. The lower left-hand rest on the handle on the Kuthara which is placed in the lower corner with the blade end down. The right hand holds a rosary and a broken tusk. Attendants generally occupies the lower corner of the niche and mouse peers up from the lower right (fig 6). (Panigrahi,1981: 126).

Fig- 6 Lingaraja Temple: Ganesha as
parsvadevata of the main temple.

Another remarkable Ganesha iconography, the Natya or dancing Ganesha appears to Odishan temples prior to 10th-11th century A.D., while in Bhubaneswar it was not a popular figure. Natya Ganesha generally has 6-8 arms with the upper set of hands stretching a serpent over his head. The proboscis plucks sweets from a modaka patra held in one of the left hands.

The major right or left hand crosses the body in Gajahasta, the hand holding a rosary on six armed images, while one of the hands on the opposite side is held in Kataka hasta. The remaining eight hands hold a rosary and broken tusk while the other left hand usually holds the Kuthara. The feet are generally in the lalita or Catura mode with one uplifted slightly, only the heel raised, so that there is only a slight deviation in the bend of the knees. He is frequently accompanied by a dancing attendant on either side while the mouse and devotees are carved on the pedestal. In a few small examples he is depicted on the back of his mount. Apart from the iconographic representation of lord Ganesha, He occupies a prominent place in independent sculpture either made of bronze or clay. Few of it is now well preserved in the state museum at Bhubaneswar (fig-7) and (fig-8)

Fig- 7 Nrtta Ganesha of bronze dated 19th century at Odisha state museum

Fig- 8 Standing Ganesha of bronze (from Paralakhemundi) at Odisha state museum

The pattchitra tradition of Odisha claims a distinct place of its own because of it exquisite workmanship. Pasting together the different layer of cloth with the help of tamarind glue, the chitrakar or painter first prepare the canvas and then does the painting. These earliest indigenous paintings from Odisha mostly deal with Jagannath cult, Krishnalila, Ramayana and other pauranik stories and popular legends. However, a finest piece of photo painting showing five headed Ganesha at the center and its above and below circle depict various events of His life is well preserved in state museum at Bhubaneswar (fig 9).
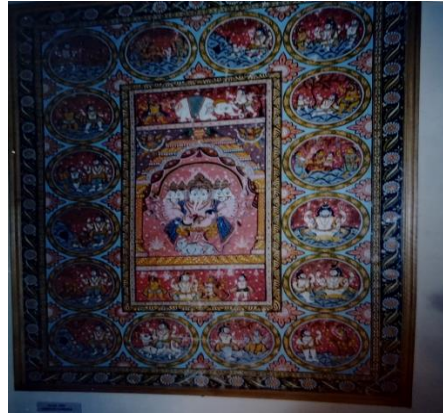
Fig- 9 Modern Pata-Painting representing the story
Of Ganesha in Odisha State Museum.

Lord Ganesha is the most enigmatic deity in Hindu pantheon. This elephant headed God, has an important role in the system of Hindu worship. His puja precedes the puja of all other Gods and Goddess for which he is given an epithet "Agrapuja" (Singh,1993:25). Hindus worship him at the beginning of any religious ceremony and on special occasions. Being called by various names he is found mention not only in Brahmanical puranas but also in Buddhist text. However, Ganesha, though not worshipped as principal deity in the temples of Bhubaneswar the iconographic representation of Lord Ganesha is found in all most all the early as well as later temples. The iconographic representation either in temples or as an individual sculptural motives or in canvas is profound and multilayered. This clearly shows that Ganesha was one of the most revered deity among all deities in Bhubaneswar. Now some irresistible question arises: that, due to the presence of numerous Saivite temples at Bhubaneswar (which was also known as Saiva Kshetra) belonging to different period, we get evidence of large number of cult images of Lord Ganesha or is it a fact that Ganapatya cult was popular all over Odisha as it is at Bhubanewar? Question may also arise that with the evolution of temple architecture at Bhubaneswar, does the Ganesha iconography found at Bhubaneswar temples showed similarity with other Ganesha iconography if so, found in temples outside Bhubaneswar in an age when the basic doctrine of Vaishnavism has become metamorphosed into a state? All these can only be answered if one explores few more temples outside Bhubaneswar.

Cuttack and Bhubaneswar are called as the twin city. Cuttack one of the oldest cities of India and the temples of this place are that older. The temple of Lord Ganesha in Jauliapatti near Chaudhary bazaar market, Cuttack is a famous temple though not a big temple, but the most interesting feature of this temple is that Lord Ganesha here is worshipped as the main deity and not as Parsavadebata, while the iconographic feature of Ganesha of this temple possess all the features of sculptural representation found in the latter group of temples of Bhubaneswar. Another 300-year-old temple of Lord Ganesha was discovered from Rani Pokhari (pond), near the famous Barabati fort. Legend says that this 5feet high standing idol is made of single black

polished stone, which was once thrown to the Rani Pokhari a pond inside Barabati fort apparently to save it from the wrath of invaders. Later some washer men found it and installed it near Kanika chhak. During the British regime at around 1800 A.D the idol was shifted to Badhei Sahi where it is now worshipped. This idol also possesses all the features of sculptural representation belonging to the latter group of temples of Bhubaneswar and is worshipped as the main deity of the temple. A few kilometers from the city of Cuttack the famous Dhabaleswar temple is located on the top of a small hill named Dhaulagiri. A 14th century A.D temple built by the Ganga rulers this Dhabaleswar temple enshrines Shiva Linga named as "Dhabaleswar" and Ganesha (seated figure), Kartikeya and eight armed Durga are found around the main shrine. Similarly, another Mahavinayak temple situated in Chandikhole in Jajpur district, is one of the oldest Ganesha temples of the state, where Lord Ganesha is worshipped as one deity in a single Garbhagriha or Sanctum along with Shiva, Vishnu, Durga and Sun God. 150 Kms away from Baripada, Mayurbhanj district we find one of the most beautiful temple of Goddess Kichakeswari or Chamunda. Several images of Goddess bear the evidence of the popularity of Shaktism. The temple, made of chlorite, is architecturally brilliant and well carved from its outer surface and is one of the most impressive temple of Kalinga architecture. The style of the temple is contemporary of Brahmeshwara and Lingaraj temples of Bhubaneswar. The exterior of temple is highly decorated with magnificent sculptors that include a dancing figure of Ganesa (fig 10.).

Fig-10 Dancing figure of Ganesha as parasvadevata
At Kishakeshwari Temple

Another interesting figure of Ganesha can be seen at Charda-Kapileswar temple, at Sonepur district' where he his worshiped as parsavadevata and is seen riding on his mount (mouse).one rare piece of sculpture (fig-11)

Fig-11 Ganesha as Parsavadevata riding on his Mount

Gramesvara temple of Ghoda Tikili village on Phulnakhra road, is a Shiva temple belonging to Bhauma period and a contemporary of Markandesvara temple of Bhubaneswar. The temple possess Ganesha in the southern niche is four handed and holds a rosary, a broken tooth, a sweetmeat ball to which his trunk is applied and a battle-axe. The mouse is present at his right foot. The other two niches are empty.

One of the oldest temples at Amanakuda 3 miles from Niali of Puri district, the famous Valunkesvara Shiva temple is situated. Here we find a Seated Ganesha as parsavadevata having four hands, the trunk unusually directed to the right side and has no sweet balls in the left rather his left hands hold a battle axe(lower) and a staff(upper) respectively, while in his right hands he holds a rosary(upper) and another object resembling like a sugarcane. (Tripathy,1987:264).

The famous Dakshinesvara temple of Bagalapur situated on the Phulnakhra-Adaspur road in the village Bagalapur which evidently bears the name after the queen Baghalla Devi, wife of the king Anangabhima Deva. This temple contains a Shiva Linga along with a Varahi image. Below the seat of Varahi image is a panel which is divided into three compartments, or is triratha in conception. The middle one contains a buffalo which is her mount and left one a lady devotee offering worship and the right one a four handed Ganesha. The Goddess Varahi has been incorporated into Buddhist pantheons but her associate with Ganesha which in this case, seems to be more a Brahmanical deity and then a Buddhist one, completely preludes the chance of any Goddess of Varahi belonging to the Buddhist pantheon as some writers have taken for, rather they prove the vpopularity of Varahi worship as a Matrika. (Tripathy,1987:249).

From the above discussion we can conclude that Ganesha is also associated with Buddhist Pantheon. Professor and Head, Department of Ancient Indian History, Culture and Archaeology, Utkal University in Bhubaneswar, Odisha, Dr. Sanjay Acharya said that "Buddhism and Jainism were rebel children of Hinduism. Buddhism split into Hinayana and Mahayana, with the latter eventually bringing in idol worship. Interestingly, it was in protest against the ritualistic practices

which had crept into Hinduism that the new religion Buddhism had come up. "Odisha is believed to be the land where Tantrism evolved, he said. Esoteric Buddhism, in its different forms like Vajrayana, Sahajayana and Kalachakrayana were practiced in Odisha. "Art and architecture were never a monopoly of any one religion. Religion too has gone through a process of acculturation,". Satyen Mohapatra an eminent writer, writes in his article "Japan's Lord Ganesha Has an Odisha Connection!" that the changes which Lord Ganesha undergoes may be many but with his distinctive elephant head, he remains the ever wise and remover of all obstacles.

The popularity of Ganesha, as the bestowed of success was not confined to the Brahman cult, for his adoration was taken over by the Buddhists. In the Tantric Age of Buddhism, he was included into the Buddhist Pantheon and has given a unique position and forms in their rites and ceremonies. In fact, Ganesha of Tantric Buddhism has mysterious and dignified position. It is not known how the cult of Ganesha came into the Vajrayana Buddhism, but Ganesha rose to unbelievable heights defeating even the Hindu trinity and other Buddhist deities. The cult of Ganesha entered into Tibet, Nepal, China, Japan and many other Buddhist countries of Asia, and even identified as the Bodhisattava Avalokitesvara and represented in the pose of a Buddha. (Singh,1993:26).

From the above discussion we can conclude that Ganesha cult was widely prevalent not only in India but also outside India and it is considered to be the most popular deity in Hindu as well as Buddhist Pantheon. In the medieval period, the Ganapatya cult was also popular in Odisha. The Ganesha images mostly appeared as parsvadevatas of the Shaiva temples and in some places are found to be worshipped as presiding deities. Puri which is known as Shri Khetra and the inhabitants of this place were the worshippers of Pancha Devatas namely Shiva, Vishnu, Durga, Surya and Ganesha who are enshrined in different parts of the Puri town. The cult of Jagannatha assimilated the essence of all the sects and evolved as a major religion of India. Ganesha shrines of the Jagannatha temple complex have link with various rites and festivals of Lord Jagannatha temple. Due to the popularity of Ganapatya cult, three temples are found to be erected inside the Jagannatha temple complex. (Behera,1982 : 48-49).

The first temple of Ganesha is situated in the inner enclosure of the southern side of the Jagannatha temple complex. The temple is a single structure of rekha order. This temple is built in both laterite and sand stones. It faces to south. Ganesha as the presiding deity of the temple. The slab of deity measures 6 feet in length and 3 feet in width. It is made of black chlorite. The image of Ganesha has been installed on the double petalled lotus pedestal and it is carved in dancing posture. The pedestal of deity is finely decorated with flower devices and a devotee in kneeling posture. Mouse, the traditional mount of Ganesha is also carved on the right of the pedestal. The upper two hands of deity hold snake, the right side three hands possess rosary,

broken tusk, one hand lies on his belly and the left three hands display lotus flower, a pot of ladus and abhaya mudra respectively. Two female sakhi figures are standing on both sides of the Ganesha image. Rahu head is decorated on the top of the background slab of deity. Two flying apsara figures are carved on the top corners of both sides of the slab. Inner walls of the sanctum are completely undecorated. (Tripathy,1996: 31).

The second Temple famous as Bata-Ganesha is situated on the inner enclosure of the southern side near the natamandapa of the Jagannatha temple complex. It is a small temple and consists of two components such as vimana and jagamohana.

Although Bata-Ganesha temple is a small shrine still it is famous for its religious sanctity. The temple is built in sandstones. It faces to south. The image of Ganesha is worshipped in the sanctum as the presiding deity of the temple. The four handed deity Ganesha has been installed in seated posture on the plain pedestal. Hedisplays rosary in right upper hand, broken tusk in right lower hand, parashu in left upper hand and a pot of ladus in left lower hand respectively. The backside head of the deity is decorated with trefoil makara headed arch. There is no mouse carved in the pedestal of the deity. Inner walls of the sanctum are completely undecorated. The doorway of the sanctum is bereft of ornamentation.

The third temple is the temple of Kanchi Ganesha is situated in the inner enclosure of the western side of the Jagannatha temple complex. It has Ganesha as presiding deity of the temple. The image is made of black chlorite and its height is about 5 feet. The four handed deity Ganesha has been installed in seated posture on the decorative pedestal. He displays broken tusk in right upper hand, rosary in right lower hand, parashu or hatchet in left upper hand and the left lower hand holds Shridha devi. The trunk or proboscis of the deity is touching the shakti of devi. Mouse, the mount of Ganesha is also carved on the right of the pedestal. People popularly call the deity (image) as Bhanda or Natua Ganesha. On the basis of tradition, Surya Narayana Dash has described that this Ganesha image was brought from Kanchi region by Kanchi expedition of king Purushottama Deva of the Suryavansi ruler of Odisha. (Das,1966:163). After defeating king Salva-Narasingha Deva of Kanchi, Purushottama Deva had taken away this Ganesha image along with the image of Sakhi-Gopal as the trophy of his victory. (Panigrahi, 1985:216-17 & Mohapatra 1989:31-32). The iconographic features of the Ganesha image indicate that it is not made in the traditional art style of Odisha. Most probably, it was brought from Kanchi by Purushottama Deva, the Gajapati ruler of Odisha. The iconographic features of this Ganesha image are not found same in any other Ganesha images of Odisha.

Built in the medieval period, the existence of Ganesha temples proves that the worship of Ganapati cult was also prevalent in Puri. Although the architectural patterns of the above Ganesha temples of the Jagannatha temple complex are not so significance, but from the religious and artistic points of view these three Ganesha shrines are very important in Odisha.

Saivism and Vaishnavism had always co-existed in Odisha. The co-existence of these two religious cults was demonstrated by the worship of the conjoint deity of Hari (Vishnu) and

Hara (Shiva) in temple of Linjaraja. Although the Gangas were great Saivites prior to the establishment of their rule over Odisha, they afterwards espoused Vaishnavism and the Jagannath cult which had assimilated Vaishnavism. Therefore, during the Ganga rule, Saivism lost its place of Prominence which it had enjoyed during the Somavamsi Rule. Jagannath cult exercises deep influence over the socio-religious-political life of Odisha. It (Jagannath cult) is an amalgam of diverse religious cults like tribal religion, Brahmanical religion, Buddhism, Saivism, Shaktism, Tantrism and above all Vaishnavism. However, from the above discussion we can conclude that although Odisha had witnessed different religious cults since ancient times, Ganesha cult was popular in all ages throughout Odisha. Ganesha, the elephant headed God is one of the most enigmatic deity in Hindu pantheon and is found to be worshipped in almost all the temples of Bhubaneswar and beyond, somewhere as the main deity, but mostly as pasavadevata. All most all the temples here have images of Genesha in various forms (that includes sculptural as well as art form) which clearly shows that Ganesha was one of the most revered deity among all deities.

Thus, with the presence of numerous temples at Bhubaneswar, belonging to different period, that provides us with a large number of cult images helped us to explore and study the cultural traits of the ages and evolution in iconography of these images.

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A Study of Iconographic Representations on Ratneswar Temple, Bhattabati and Digital Restoration through Image Inpainting Process

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Abstract

Abstract: The clay temples' conditions are deteriorating as a result of neglect and lack of awareness. Terracotta images and panels that depict historical stories are being destroyed on a daily basis. Through numerous studies, a method to electronically repaint or repair the damaged area of the terracotta work has recently emerged. The terracotta decorations in this case are being repaired using an image processing technique.

By duplicating the necessary visual information from the known portion of the image, image inpainting repairs a damaged or missing piece of an image. This method was put out for a variety of uses, including the digital restoration of ancient pictures, old documents, and old paintings. The methods used in these applications primarily deal with various artefacts, such as water blotches and cracks. The two parts of this present study highlighted the study of iconographic features on terracotta panels and the image inpainting technique to restore and recreate electronically, the damaged terracotta icons of Ratneswar Temple.

Keywords: Iconography, Image inpainting, ANN, Ratneswar Temple.

Introduction

According to history, the Ratneswar temple was constructed in the first half of the 18th century at Bhattabati village in Mursidabad, West Bengal. This Shiva temple, which features magnificent terracotta artwork, may be the most attractive in the area and is readily comparable to any other terracotta temple in West Bengal. The terracotta plaques placed in niches of varied shapes and sizes on four walls of the five-pinnacled Ratneswar Shiva Temple are well-known. The terracotta pieces are both aesthetically and socio-culturally significant. The pieces are of exceptional artistic quality, demonstrating the ability of Bengal artisans. The topics discussed on the panels are also quite important, since they disclose a piece of regional, social and religious history. Bengal's own regional iconographic development can be seen on some of the unique terracotta images on the walls of this temple.

Due to the lack of maintenance, awareness, the conditions of the terracotta temples are going in a bad phase. The designs, the art, the historical story telling terracotta images and panels are being destroyed day by day. Recently, a process to repaint or repair the destroyed portion of the terracotta work, electronically has evolved through various researches. Iconography is the study of how and why cultural ideas and their visual expressions develop historically, as well as the context in which an image is created and disseminated. Here an image processing technique is involved to repair the designs. Shih K. Timothy and Chang Rong-Chi [Timothy K, et al, 2005] proposed a new algorithm of image inpainting by a layer fusion strategy to restore Chinese and western damaged artworks. The recovery of edges, extrapolation of nearby pixels, curvature-driven diffusions, and other modern techniques of painting from a variety of perspectives (e.g., an image from movie or visual representation from a distinct period or viewpoint) is shown by Chan T. F. and Shen J.[Chan.T.F. et al, 2001]. A straight forward and quicker approach for filling the damaged region was suggested by Oliveira et al. [Manuel. M, et al, 2001]. This method can quickly paint an image, and it may be used to interactively create precise masks. According to variational principles and the image prior mode, Chan and Shen [Chan.T.F. et al, 2002] create inpainting schemes, by this method some elements of the human disocclusion process in vision psychology are satisfactorily explained.

An essential part of image processing is the region filling procedure used after information is lost in digital photographs. Image inpainting is the term for restoration techniques intended to naturally eliminate imperfection or undesired elements from an image so that a viewer who is not biased would mistake the outcome for the original image.

The present study involves two sections. The first section of the study will highlight Bengal's unique regional iconographic features demonstrated on terracotta panels of the very culturally rich temple of Ratneswar, Bhattabati in Murshidabad district, West Bengal. The second section will deal with the image inpainting technique to restore and recreate electronically the damaged terracotta icons on this temple.

Methodology

Iconography is the study of how and why cultural ideas and their visual expressions develop historically, as well as the context in which an image is created and disseminated. The information about the particular cultural symbols and motifs included in a piece of artwork could assist in the process of identifying the concerned matter. We must be familiar with the meanings of such symbols in order to comprehend them. The iconographic study has three steps which are as follows:

1. Pre-iconographic (primary or natural subject matter): it is the identification of the pure forms.
2. Convention and precedent (iconography): it involves finding a text or oral tradition that describes what we are seeing.
3. Uncovering the intrinsic meaning (iconology): This process, which is known as iconology, is actually an extension of iconography. In reality, it would be more accurate to refer to the full methodology as the iconographic-iconological method; art historians occasionally combine this third stage with other methodologies because it is cumbersome. This entails setting the image within its particular period, place, and culture.

Image processing: It is a technique for applying various procedures to an image in order to improve it or extract some relevant information from it. Image inpainting is a conservation process where damaged, deteriorating, or missing parts of any artwork are filled in to present a complete image. It is a kind of signal processing where the input is an image and the output can either be another image or features or characteristics related to that image. This process can be applied to both physical and digital art mediums such as:

• Paintings, sculptures, terracotta figurines

• Chemical photographic printing

• Digital images reconstruction

Existing image inpainting techniques can be divided into two different groups: traditional and deep learning-based methods. Here in this study the deep learning-based method is used. Image inpainting now has the tool it needed thanks to recent significant advancements in deep learning, particularly Convolution Neural Networks for image recognition. Translation-invariant operators are built into both the CNN and the sparse auto-encoder. This significantly lowers the performance of DL techniques when a task calls for translation-variant interpolation (TVI). These DL techniques are effective, but they still cause some blurriness in the image and cannot paint on complicated scenes since they lack a semantic knowledge of the image. The CNN method employs a coarse-to-fine network with a contextual attention module (CAM). By computing the cosine similarity between the background and foreground feature patches, the CAM may determine where to borrow background data for the whole region. The model uses two layered generative networks (coarse and refinement networks) to create an initial image, which is then refined by the refinement network using CAM to create the inpainting's final output. By producing unique objects that are not in the original image and semantic hole filling, deep learning approaches have significantly enhanced the quality of image inpainting and shown promising outcomes.

Area of Study Ratneswar Temple, Bhattabati

Within 5 kilometres of Lalbagh Sadar Ghat is Bhattabati, which is under the jurisdiction of Nabagram Police Station. The second Qanungo of Bengal Joy Narayan is supposed to have resided in this area at Bhattabati around the early 18th century, when the Ratneswar Temple is said to have been constructed. The Ratneswar Temple is Shiva temple with five pinnacles (*Ratnas*). It is well known for the terracotta plaques that are attached to each of its four sides.

The temple has a foundation area of 8.75 square metres and faces south. The doorway's first arch measures 2.85 metres in height. The second arch that hangs over it from the plinth is 4.37 metres tall. Whereas the third arch is 5.80 metres tall. Between the first and second arches, there is a rectangular area that is richly embellished all around the edges and decorated with a variety of motifs. A dancing girl and a female "Tabalchi" are seen performing before a nobleman in the lower right corner of the image.

Fig.1: Construction between 1ˢᵗ and 2ⁿᵈ arches

Fig.2: The western facade ceramic panel.

There are also images of king and queen sitting in court with courtiers all around them. A wedding is happening to the right, and even the lucky mango leaves that are draping the happy couple are unique. A nobleman and a lady are represented as though they are having a conversation while seated on a throne in the middle of the picture. A magnificently carved series of "mangal-ghats" arranged vertically above one another divide the entire facade in half (Fig.1). A set of 24 tiny panels showing the Dasavatara flanked by ganas such as Narada, Kali, etc. are supported by the smaller arch above.

A stunning ceramic panel depicting the full Mahisarura Mardini manifestation, including Lakshmi, Saraswati, Kartick, and Ganesh, can be found on the western facade (Fig.2). When one turns to face the north, they are immediately astounded by the enormous Vamanavatara sculpture. The sculpture has significant damage, and the legs of the bowed Bali are visible. But Vamana's three

actions are obvious. This magnificent object is topped by an excellent rendering of the Rasa-lila, which is also damaged.

Allover these Four sides of the temple are decorated with terracotta panels and the panels may be listed and classified as Ramayana Plaques, Krishna Leela Plaques, Dasavatara plaques of Vishnu, Devi Durga Panel, and Chaitanya Leela Panel. The focus of this study is on the 1st and 5th avatars of Hindu god Vishnu which were carved on Dasavatara plaques of Vishnu in Ratneswar Temple.

Fig. 3: Damaged Matsyavatara(left) and Vamanaatara(right) at Ratneswar temple: Bhattabati

Image processing using Neural Networks

Neurons or nodes are the building blocks of multi-layered networks called neural networks. The central processing elements of the neural network are these neurons. They are made to function similarly to human brains. They take in data, educate themselves to spot patterns there, and then forecast the results. A basic neural network has three layers: Input layer, Hidden layer, Output layer. Image inpainting is a conservation process where damaged, deteriorating, or missing parts

of any artwork are filled in to present a complete image. This process can be applied to both physical and digital art mediums such as:

- Paintings, sculptures, terracotta figurines

- Chemical photographic printing

- Digital images reconstruction.

The tools used for this image processing are:

1. OpenCV are around 2000+ optimised algorithms in this collection that are helpful for computer vision and machine learning.
2. Scikit-image is an image preparation library that is open-source. With just a few built-in functions, it can execute complicated manipulations on images using machine learning. It is a reasonably straightforward module that works with numpy arrays. operations that can be done using scikit image are :
   - Use the try_all_threshold() method on the picture to implement thresholding operations. Seven global thresholding techniques will be used. The filters module contains this.
   - Utilize the sobel() method in the filters module to accomplish edge detection. We must first convert the image to grayscale because this method demands a 2D grayscale image as an input.
   - Use the filters module's gaussian() function to achieve gaussian smoothing.
   - Use the exposure module to apply histogram equalisation, the equalize_hist() method to apply conventional histogram equalisation to the original image, and the equalize_adapthist() method to apply adaptive equalisation.
   - Use the rotate() function found in the transform module to rotate an image.
   - Use the rescale() function from the transform module to rescale the image.
   - Use the binary erosion() and binary dilation() functions in the morphology module to perform morphological operations.
3. PIL stands for Python Image Library. A wide variety of image formats, including PPM, JPEG, TIFF, GIF, PNG, and BMP, are supported. The steps are:
   - The open() method can be used to load an image.
   - Use the show() function to display a picture.
   - Utilize the format attribute to learn the file format.
   - Use the size attribute to determine the image's size.
   - Use the mode attribute to learn more about the pixel format.

- Use the save() method to save the image file after the desired processing. The image file is saved by Pillow in the png format.
- Use the resize() method, which accepts two arguments (width and height), to resize the image.
- Use the crop() method, which accepts one argument that is a box tuple that specifies the position and size of the cropped zone, to crop the image.
- Use the rotate() method, which accepts one argument that is an integer or float number denoting the degree of rotation, to rotate the image.
- Use the transform() method, which accepts one argument from the list below, to flip the image. FLIP LEFT RIGHT, FLIP TOP BOTTOM, and Image.ROTATE 270, Image.ROTATE 180, and Image.ROTATE 90.

4. Numpy library is use to carry out basic picture operations like flipping, feature extraction, and analysis. Numpy multi-dimensional arrays can be used to represent images, hence their type is NdArrays. A three-dimensional numpy array is a colour image.

Fig.4: (a) Input file image, (b) Defining Mask, (c) Output file image

Results of Restoration through image inpainting for Matsyavatara:
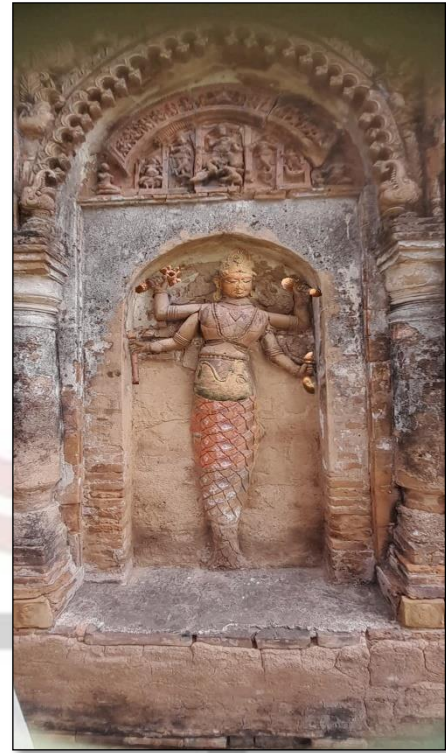

Fig. 5a: Before image inpainting   Fig. 5b: After image inpainting

Recreated objects: Head, 4 hands, head of fish, Tail of fish.

Restoration through image inpainting for Vamanavatara:

Fig.6a: Before image inpainting

Fig.6b: After image inpainting

Recreated objects: Right hands, Right leg, Bali (Grand son of Prahlada), Left leg

Conclusion: The image of Matsyavatara and Vamanavtara by using image inpainting can be compared with the other heritage images of these avatara. From the image of Matsyavatara of Charbangla temple at Baronagar, Murshidabad and Vamanavatara of Narayan temple at Hadal-narayanpur, Bankura it can be concluded that the image inpainting of the avataras of Ratneswar temple are almost similar.

Fig.7a: Matsyavatara, Charbangla temple   Fig.7b: Vamana avatara, Narayan temple

Image inpainting may be consider as an essential tool for image restoration, identification of iconographic features & iconographic study. Many of the terracotta images depicted on the walls of the temples in West Bengal are in fragile condition which are gradually deteriorating, so it's the right time to restore these terracotta images digitally with the help of modern technology. This process is not only limited to the terracotta images but can also be applied in different aspects of iconographic study of the different sculptural remains unearthed during excavations. Scientific tool such as a robotic arm may be used in excavation process which will help in digging out the ancient remains and then, using the image inpainting process the sculpture could be reconstructedfor further iconographic investigations [Parua, et. al, 2021]

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Book Review

Expressions of the Soul: Folk Dances of Rajasthan-Costumes, Culture and Traditions

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Author's Point
India 2022

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The role of costume and its importance related to the dance moves in the folk dances of western Rajasthan have been minutely studied, analysed, and documented with passion by Dr Kiran Kapoor in the book titled, **'Expressions of the Soul: Folk Dances of Rajasthan-Costumes, Culture and Traditions'** with the simple writing makes it enjoyable to read.

Dr Kapoor has meticulously documented the selected ten folk dances just of the Marwar region of western Rajasthan, where she has covered its six districts named 'Jaisalmer, Jodhpur, Barmer, Pali, Jalore and Sirohi. The female and males of different communities of the region perform folk dances, and the selected ones are 'Ghoomar, Kalbeliya, Loor, Teratali (by women) Ghair, Dandiya, Dhol, Kacchi Ghori, (by male) Garasiya (by female and male) and Bhawai (by a male in women attire). With these few dances and their various aspects, the author tried to show glimpses of the rich heritage of the colourful dance tradition of Rajasthan, which have a glorious past, today people need to preserve it and her efforts of documenting it are in that direction.

Dr Kapoor had gathered authentic information from the artisans, tailors, jewellery hairstyles, makeup artists, feet wear and accessories in absence of less information on folk dancers in museums. However, the important information comes from archival records and miniature paintings of Rajasthan. The author divided the book into four main chapters to explain 'the

Rajasthan', its 'Traditional Garments', 'Dance: the hidden language of the soul' and 'Folk dances and their traditions. An interesting and important feature is the male and female dancers' costumes construction with detailed sketching in the appendix will be helpful for a fashion designer to take it further. Such a wounderful thought for students, only the experienced professor can think and work, who had devoted her life to teaching, working closely with the students of Fabric and Apparel Science, Lady Erwin College, Delhi University.

Keeping the interest of common readers (National and International) Dr Kapoor introduced the 'Rajasthan: The Glittering Jewel', where she discussed the famous festivals and fairs in detail. When and how these festivals were celebrated, different types of dances and their costumes associated with them give a wide perspective to the dance book. While discussing 'the traditional garments of Rajasthan', the author described female and male costumes in detail. Explaining the traditional garments, types of garments, and their wearing style makes an interesting study. The third chapter; 'Dance: The Hidden Language of the soul' is an important aspect to understand the dance and its various types. Tracing the history of Indian dance is reflected from cave paintings to the Harappan period and the earliest recorded history comes from Bharat Muni's Natya shastra. Bharat muni provides the comprehensive grammar, and technique of the performing arts-(be it dance, drama or music) and three aspects of dance; Natya, Nritta and Nritya have been explained well. Various reasons for dance and the classification of various dance forms have been explained beautifully.

The main chapter is dedicated to Folk Dances and their traditions, in which the number of dance forms practised in western Rajasthan has been discussed in detail. The most fascinating aspect is that each folk dance has been analysed by 'History of dance', 'Dance performance', 'Communities dancing', 'Costumes of dance' and 'Movements of the dance about the costume', in which the last one is exceptional. Here the author has explained the dancer's costume with the movement of dance steps, beats of music, the rhythm of dance, and how a particular costume's length, pattern, and construction has been designed thoughtfully. The folk dances are not a mere source of entertainment, as happened in the past. At present, these dances have become the stage performance, a source of livelihood, and the involvement of government and NGOs step in, which had made several changes in dance forms, speed, movement and costumes also. It's much more important to preserve, and document the folk dances, their forms and costumes so that future generations should refer to them. In this regard the author had done commendable work, to make the book for everyone to enjoy, learn and understand the importance of the tradition.