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-Vedakumar Manikonda
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TRC Journal of Telangana Studies

Hyderabad,
29.06.2019

EDITORIAL

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-Adapa Satyanarayana
Editor,
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Hyderabad,
27.06.2019

REDISCOVERING THE THIRD WALL OF WARANGAL FORT, TELANGANA, INDIA:

A Brief Account of the Methodology and Findings of the Research, Survey and Mapping of Location and Present Condition conducted of the Forgotten Third Wall of Warangal Fort.

- K. Sri Sravanti ; Vasanta Sobha Turaga

ABSTRACT:

The internationally researched and famous tourist monument of Warangal Fort, located in Warangal, Telangana, India, and built by the Kakatiyan rulers in the 12th -13th Centuries, is popularly described for its two fortification walls in concentric circles. However, the authors, while consulting as Heritage Conservation Architects to LEA Associates South Asia Pvt. Ltd. for preparation of KUDA (Warangal Region) Master Plan during July-October 2017, have found through their research that the Warangal Fort was much bigger than the popularized two concentric fort walls and a few remnants are surviving even today. This paper presents a brief account of the methodology and findings of the research, survey and mapping of location and present condition conducted of the forgotten Third Wall of Warangal Fort.

Image of Inner Fort Wall – built in Stone

ACKNOWLEDGEMENT:

The research, survey and mapping of the Third Wall of Warangal Fort was conducted by the authors through Vasaamaha Consultants, Hyderabad, as part of Heritage and Tourism sector surveys during July-October 2017 for LEA Associates South Asia Pvt.Ltd., for preparation of KUDA (Warangal Region) Master Plan for Kakatiya Urban Development Authority.

1. INTRODUCTION:

Dr. Philip B. Wagoner, an international authority on Warangal history and architecture**,** in his latest book **'Heritage of Kakatiyas-Hanamkonda, Warangal, Palampet, Ghanpur'**, (published by the Deccan Heritage

Third fort wall extents in Survey of India District map – erstwhile Warangal District

Foundation, Kakatiya Heritage Trust and Jaico Publishing House, 2018), described the "Circular Plan, Fortification and Gateways' (pg 56-58) of Warangal Fort:

"A circular plan was adopted with intersecting north-south and east-west avenues that created a four quadrant urban plan. Not only does Warangal present one of the earliest and best preserved specimens of medieval Indian urban planning, it also preserves important evidence of military architecture. Its massive ***outer wall*** *consists of packed earth, produced while excavating the surrounding moat and averages about 60 metres wide at its base. In those places where it is not badly eroded this, this so-called "mud wall" rises up to a height of about 10 metres. It measures approximately 2.4 kilometers in diameter, enclosing an area of 485 hectares and access though it is provided by eight passageways, located more or less at the cardinal and intermediate directions.*

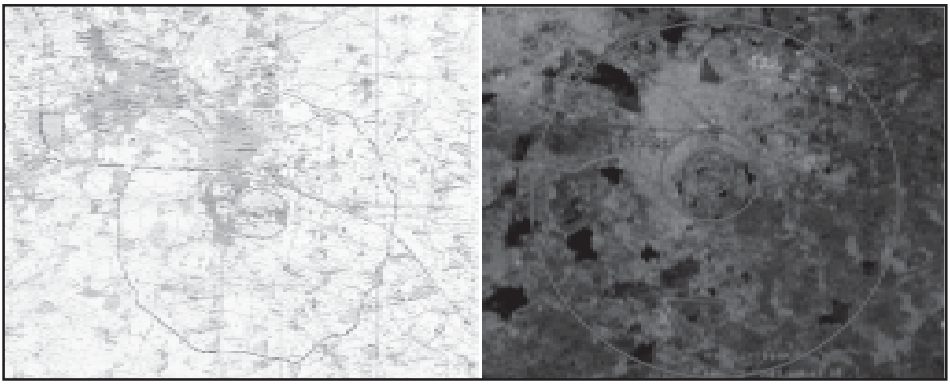
Inside, there is a second, concentric ***inner wall*** *made of earth clad with stone, which measures just over one kilometer in diameter and contains an area of approximately 78 hectares, here referred to as Warangal Fort. The wall is constructed of massive granite slabs encasing the earthen core, averaging about 15 metres in thickness at its base and about 5 to 8 metres in height from ground to battlement walkway".*

2. Third and other Walls of Warangal Fort – References from Secondary Sources

i. Archaeological Survey of India – Website and Brochure

Beyond the two 'Outer' and 'Inner' walls, as described by historians and popularly believed to be the extents of Warangal Fort, as built and surviving, existence of a Third wall and even more walls is mentioned in literature and official website of the ASI.

Warangal Fort, a National Protected Monument, listed as 'Warangal Defences and Gateways' in the official website of the Archaeological Survey of India states:



Second and Third fort walls extents Survey of India Toposheets (4 maps joined of 1: 25000 scale. Three Fort walls approximately marked on on Google earth Image

"Warangal (Orugallu or Ekasilanagara) became the capital of Kakatiyas in 12th century AD. ***It has three concentric fortifications,*** *with the inner stone fortification containing 45 bastions and gateways at the four cardinal points, and signifies essence of early medieval defence architecture".* But, officially, the ASI acknowledges only two walls for on-site protection, as seen in the map published by ASI in a brochure.

Warangal Fort Plan from ASI Brochure showing two concentric walls

Image of Inner Fort Wall – built in Stone

ii. References from Literature:

About Warangal Fort, **Acharya Hari Siva Prasad** wrote in Telugu publication**, 'Orugallu Asalu Charitra'**, 2012, mentioning that the concentric fort walls, extended to 8 miles (12km) in the 8th century itself:

"The fort was constructed between 8th and 13th Centuries AD. The foundations of Swayambhu temple have been laid and the concentric fort was planned during Prola I of Kakatiya dynasty in the 8th Century itself. With Swayambhu temple located exactly in the centre, ***concentric fort walls extending to 8 miles*** *were marked in the 8th century itself. Ganapatideva built brick walls in the 12th Century and Rudramadevi developed moat (about 18 feet deep) and gardens"*

Yet another publication in Telugu, **Telangana Kotalu** by **Nagabala Suresh** (2016), mentioned the Fort was of seven walls and the outer most wall was called *'Puttagoda'* (built of clay/mud) :

"The fort is spread over an area of 19 sq.km. According to legends, the fort had seven concentric circular walls. The innermost wall was made in Raatigoda (granite), middle wall in Mattigoda (mud) and the outer most wall was called Puttagoda (mud/clay). The fort had seventeen wells and a watch tower on the Ekasila Gutta".

In the treasured book of **'Kreedabhiraamam' by Vinukonda Vallabharayudu,** the author described Orugallu city of 15th Century, as he enters through magnificent gates. As he walked, he described a moat that is perceived to be so deep that it might have touched *Saptapatala* and fort walls that rose so high to have touched clusters of stars. He then talked about vast courtyards that were as huge as the globe and a massive doorway with golden shutters that appeared looming large like a mountain. The author mentioned a number of temples and other structures, including galleries.

3. Rediscovering the Third Wall of Warangal Fort - Research and Surveys by Vasaamaha, 2017.

Taking cue from literature and official references of the existence of the Third Wall of Warangal, further research was taken up by the Vasaamaha Team in 2017, to explore and rediscover the Warangal Fort Third Wall and map its present condition. Following methodology was adopted:

i. Study of Survey of India Maps:

Referring to Survey of India maps is the first step of any urban planning, historical research. In the very first look at the District series and Topo sheets of Warangal city/region, the Third wall of Warangal was found clearly and strikingly marked (see pictures). It is a surprise that the Third wall remains unexplored and unmentioned, in spite of such evidence. The clear marking on the Survey of India maps made planning further research and field surveys of the Third Wall very much plain and straight forward.

ii. Study of Google Earth Images:

The Third wall plan from the Survey of India maps was transferred on to the present Google earth images and matched with ground situation.

iii**. Verification of distances and calculation of areas:**

The approximate distances and areas calculated from the scaled Survey of India maps and Google Earth Images, matched the those given in literature

Fortwall no.	measurements	From map and Google Earth Image	Mentioned in literature
Inner wall	Radius	8.52 km	"Diameter measures over a kilometer" [Dr. Wagoner]
	Fort Area	2.1 sq.km	700ac [2.8 sqkm] [Dr. Wagoner]
Middle/ Outer Wall	Radius	3.17 km	"App. 2.4km in dia" [Dr. Wagoner]
	Fort Area	4.26 sq.km	1052ac [4.3 sqkm] [Dr. Wagoner]
Third Wall	Radius	5.71 km	8 miles [12km] dia – [Prasad]
	Fort Area	10.2 sq.km	

iv. **Referencing with Geo-coordinates:**

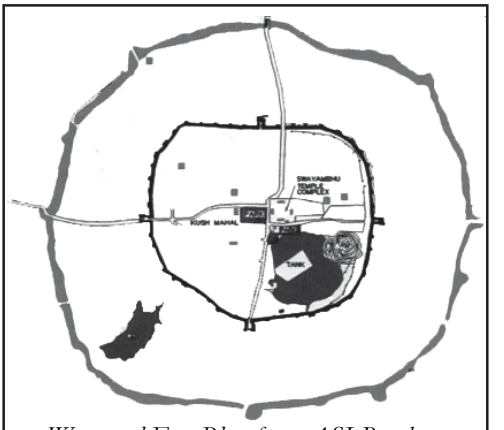
In order to locate and position the Third wall on ground, reference points taken from survey of India maps were overlaid on Google Earth images and geo-coordinates were noted down. With the help of the geo-coordinates field survey route was planned.

iv**. Field Survey with Geo-coordinates - Third Wall Circumference Divided into 13 Section - :**

The Third wall Circumference was divided into 13 arbitrary sections for convenience. Field survey was carried out following the noted Geo-coordinates. The entire Third wall length was mapped for location and condition and photographs were taken of each section.

The Thirteen Sections were: 1.Bollikunta, 2. Kanparthi, 3.Vasanthapur, 4.Vanchanagiri, 5.Dharmaram, 6.Mogilicherla, 7.Reddypalam, 8. Dasaipet, 9.Mulugu X Road,10. Battupally Road, 11.Amavaripeta, 12 Singaram and 13. Mamnoor

Circumference of the Third Wall divided into 13 arbitrary Sections for Field Survey



Warangal Fort Plan from ASI Brochure showing two concentric walls

4. Findings - Mapping and Survey of Present Condition of Third Wall of Warangal Fort

i. Map of surviving parts of the Third Wall of Warangal Fort

Present Condition map and status of the Third Wall of Warangal Fort

The field survey information overlaid on AutoCAD Base Map (LEA)

ii. Photographic Documentation of the present condition at the location of the Third Wall of Warangal Fort – presented in 13 Sections

iii. Third Wall – Construction and Present Condition – Description.

The circumference of the Outermost Wall of Warangal Fort, called *'Puttagoda'* meaning 'wall built of clay/mud', at a radius of about 6 km *(8 miles diameter)*, could be traced on ground to a major extent with the help of Survey of India maps, Google Earth images and geo-coordinates tracking. About

Images of Present Remnants of the Third Wall of Warangal Fort at different places

forty percent of the Third wall is surviving in the form of remnants. About twenty to forty percent is seen as mounds (formed out of debris) and the remaining is lost, buried under roads and new development.

Images of Present Remnants of the Third Wall of Warangal Fort at different places

Built of Mud, the surviving remnants of the Third wall display a magnificent and glorious past. At places, the thickness of the remains of wall goes to a maximum of 8 to 10 m meters and height rising to even 12 meters.

At present, the Third wall is on the verge of getting erased totally due to lack of protection

Constructed of mud murrum, the material is easily being removed and lifted for use in building construction and land filling, and the walls are being flattened down for land grabbing. The location of the Third wall on the outskirts of Warangal city and standing amidst agricultural areas, in a way stays protected from development pressures, but makes the unsecured areas vulnerable for destruction.

5. Future of Third Wall of Warangal Fort -Recommendations

The options providing protection for the Third wall are as follows. The fort Wall length, running into a few tens of kilometers and its area of few sq. km is vast and huge, having its own implications and possible resistance from public

- Acquiring a National Protection Status - declaration by the Director General of Archaeological Survey of India or by Court directives. Once declared a National Monument, the 100m and 200m zone regulations on outer and

inner sides of the walls apply by AMASR 2010 Amendment Act and fall under the purview of the National Monuments Authority.

- Acquiring a State Protection -through Gazette notification by the State government or Court directives. Additional burden to the capacity of the State Archaeology department.
- The Third Wall can be protected by the Telangana Heritage Act and notified for protection under KUDA Master Plan
- The surviving portions of the Third Wall should be immediately demarcated, fenced and protected from any further loss or damage. The area surrounding the Third wall sites, which may not be in continuity, can be developed for visitor/tourism facilities, after conserving the wall and a buffer area.

6. CONCLUSION

The Third Wall of the Warangal Fort Wall is a forgotten legacy. In spite of its mention in Telugu literature, the existence of the Third Wall is not included in the popular history and tourism circuits. It is unfortunate that in spite of the clear marking of the Third wall on Survey of India maps, its presence is not included in development plans and historical studies. The Archaeological Survey of India, even though mentioning the Third wall on its website describing Warangal Fort, a National Protected Monument, has not included it in the Central Government organisation's Protection and Management purview.

Images of Present Remnants of the Third Wall of Warangal Fort at different places

Research and Surveys conducted by the authors through Vasaamaha Consultants in 2017, for LEA Associates for KUDA Master Plan, have confirmed the location and spread of the Warangal Walls and Third wall extending to 12 km diameter. A major portion of the Third wall is traceable and chunks of the wall remnants are surviving at places, which need to be protected and conserved.

It is believed that the Circular plan of Warangal Fort with gateways at cardinal positions, is modeled as a Cosmogram (Dr. Michell and Dr. Wagoner). The re-discovered Third wall, yet another circle would be integral part of the Fort and Cosmogram theory. The remnants of the Third wall need to be preserved as evidence for further research and add to the traditional knowledge systems that are being lost.

The existence of the Third wall should be included in historical records and text books. Immediate action should be taken for protection and conservation. The forgotten Third wall of Warangal Fort needs to be brought back in memory of people and preserved for posterity.

REFERENCES:

Census Report, Warangal District, 1961

The AP State Gazetteer, 2016

"Andhra Pradesh Samagra Charitra-Sanskriti", comprehensive history of Andhra Pradesh in four volumes, Published by Telugu University in 2009

Inscriptions of Warangal District by Dr. N. Venkataramanayya, Rtd Deputy Director (Epigraphy), 1974, published by Dept. of Archaeology and Museums', Govt. of Telangana, Reprint 2016

The Kakatiyas of Warangal by Dr. PV ParabrahmaSastry, 1978, published by Department of Archaeology and Museums, AP Govt and Reprinted 2016

Gold Coins of the Kakatiyas, a Treasure Trove from Padmakshigutta, Warangal District published by Department of Archaeology and Museums, Govt. of AP in 2011

History of Velama Kingdoms Rachakonda and Devarakonda, by T. Dayakar Rao, Bhagavan Pubications, Hyderabad **2016**

"Delhi, Warangal and Kakatiya Historical Memory", Article byPhillip B. Wagoner , Deccan Studies Journal, Volume I, Number 1A, January-June 2002, Centre for Deccan Studies, Hyderabad

Kreedabhiraamamu by Vinukonda Vallabharayudu, published by emesco, 2009.

Warangal Zilla Vignana Sarvasvam, by Dr. Gunji VenkataRatnam, Orugallu Vignana Sarvaswa Samiti, Warangal, 2008

'Orugallu Asalu Charitra',Prof. Hari Siva Kumar, Telugu University, 2012

'Kakatiya Kaladarshanam', thesis by **Prof. Mudigonda Siva Prasad** MA Phd, 2016

'Discover Warangal, a tourist delight' by Dr. SrinathSriperumbudur, published by Department of History and Tourism Management, Kakatiya University, 2006.

"Heritage of Kakatiyas- Hanamkonda, Warangal, Palampet, Ghanpur" by Philip B. Wagoner, published by Deccan Heritage Foundation Ltd, Kakatiya Heritage Trust and Jaico Publishing, 2018

Unpublished Thesis "Integrated Conservation Strategies For Symbiotic Interface Between Planning, Development And Heritage Of Warangal Fort", by Nisha Naidu, Department of Architectural Conservation, School of Planning and Architecture, New Delhi, 2010.

FROM INTERNET

National Protected Monuments :http://asi.nic.in/

HRIDAY Report: http://hridayindia.in/warangal/

MAPS AND GOOGLE EARTH:

Survey of India maps: 1. District Map Series, Warangal District; 2. Topo Sheets, 1:25,000 Scale- set of 4 sheets, 1998/2005

Google Earth Images, 2017; Google Maps 2017.

CAPTURING HISTORICAL REALITY: ROLE PLAYED BY ARTISTS AND PHOTOGRAPHERS (WITH SPECIAL REFERENCE TO NIZAMS PERIOD).

- Dr B.Lavanya

I. INTRODUCTION

Capturing the past through images has a special charm. The images in human societies have travelled through the test of times from ancient to modern period. In the process they crossed the realms of creativity and reality thereby forming an important source for reconstructing history. The most visible forms of the images are paintings and photography. While qualifying themselves as forms of art in their own right, they provide a visual representation of the past with an undeniable glimpse of history. The present paper is an attempt in chronicling this journey and reconstruct history of one of the most important regions of India, Hyderabad Nizams.

The tradition of painted photography was a syncretic visual culture of photography and painting, which began in India in the 19th century, almost at the same time as photography came to India. The process of painting and photographs techniques varied and they hold a distinctive identity within the visual culture of India. Both paintings and photographs as archival wealth gives insight into people and places of the past.

MINIATURE PAINTINGS

The role-played and success attained by artists in pictorial art of Hyderabad is unsurpassed. Several miniature paintings of the time are not just the results of the patronage of royal or noble approach, but also are the results of the joint work of a number of artists, who actually applied the colour, painted the picture and gave it a form, life and a theme. It was generally believed that every year painters participated in a religious ceremony during which their paint brushes, instruments colour and even the formulae used for the preparation of the pigments were consecrated .[1] It was in philosophic and religious thought and in music, poetry and its vast literature that painters discovered the chief sources of their inspiration. They also got inspired from long Indian tradition, sculpture, dance, architecture, which are interrelated like many facets of the festival of life.

Most importantly the patronage of the rulers, the landscape of the kingdoms, human beings and their feelings and things of love and beauty in

nature had an immeasurable influence on painters. These inspirations and influences resulted in the illustration of fantastic portraits of rulers, their courtly life, royal activities, feminine subjects, fantastic landscape, architectural settings, interior and exterior decoration of royal court, and stunning beauty of nature like trees, animals, birds, water, clouds, sky, hills, etc. The miniatures were generally in accordance with the techniques of large mural paintings, the roles laid in texts and rule of proportions which were regulated by a precise system, measurement in order make the image in fragments and form a kind of physiological perspective. [2]

Artists used the limited space available in miniatures, to compose as many as figures and details as possible in depicting scenes, which had narrative significance. Design, perspective and composition were all made subsequent to an ornamental sense to transform them into a particular style with a movement and features. Above all it was textiles, jewels, crowns and the constantly reduced elements of nature like mountains, clouds and most importantly the work of women and men which gave the painters to experiment in a complex stylization that paved the way for the forms, which were almost abstract and appeal to the eclectic tastes.

The master painters, migrated artists and beginners, all influenced each other, and ultimately produced several miniatures imitating their styles or adopted the outline of the plane sketch of each other models. Sometimes greatest artists used to draw the outlines of figures, while other artists coloured them. The best works were usually displayed in the palace or in the neighboring fortress and also for sale to foreign Travellers and merchants.

Few outstanding painters of Golconda and Hyderabad were Muhammad Taqi, Rasul Khan, Mir Ghulam Khan, Rai Venkatachallam, Seshachalam, Haider Ali, Rahim Khan, Ibrahaim Khan, Qasim Ali Al Mudhahhib, Mohammed Ali, Hasan Ali, Tajalli Ali Shah, Mir Mahmud, Mir Hashim. 24 Mir Sayyed Ali, Abdus Samad, Mir Mohammad Rahim Deccani, Ali Reza, Shaykh Abbasi, Ali Naqi, Muhammad Murad Samargandi, Jan Quli Farrukh Beg .[3]

Foreign painters from Bukhara, Safavid, Bodlian, Dublin, Leningrad also worked at their courts. While some Mughal artists came to Deccan and painted few portraits, other Deccani artists painted at Mughal court. All of them produced excellent miniatures with a cool background, arched arabesque, floral designs, fine furnishings, fantastic features and themes peculiar of Deccani

idiom and medieval culture.The foreign eclectic and hybrid elements were absorbed into a unique characteristic decorative style.

From the beginning of the 18th Century a group of artists known as 'moothys' had worked for the local rulers painting pictures of the courts and deities. [4] All who spoke Telugu were called Raju, Razu, Tinigara or Chitrakara and resided near the palace. About 1775 AD artist's families were stationed at Hyderabad, who painted themes of Deccan Hyderabad with sets of native rulers natural life and nature deities.

Though painting continued after the fall of Golconda, the actual phase of painting got differentiated as Hyderabad school only after the foundation of Asaf Jahi dynasty in 1724 AD.The founder of the Asaf Jahi dynasty was Mir Qamaruddin Khan, Chin Qilich Khan, Nizam- Ul – Mulk. From 18th Century that is with the coming of Asaf Jahis, the painting at Hyderabad acquired new features in regard to subject – matter, costume-jewellry, colouring atmosphere, landscape and general setting and hence came to be known Hyderabad school of painting.

Though main styles of Mughal and Rajasthan had their impacts on it, still the school retained its own features and trends seen in artist's draughtsmanship, quality of picturing, multiplicity in details of drawing, rich colouring, representation of real nature and architectural peculiarities. In various group and individual scenes elements of standardized conventions can be perceived, which easily differentiates Hyderabad style from various Schools of Medieval Deccani paintings. It retained the general medieval Deccani characteristic features, which made it to occupy another importance in medieval artistic history.

.Among the earliest paintings, a portrait of Asaf Jah 1 (C 1724 – 1748 AD.) of mid-18th Century is a remarkable one it depicts Asaf Jah sitting on a terrace with a rosary in his hands, representing a simple, pious and spiritual life. [5] A painting of Nizam - ul – Mulk, Asaf Jah depicts him breast predominantly standing on a terrace facing left holding a red sword, while two attendants stand with 'morchals' on the right. [6] Gold, silver, red and orange colours are used for the depiction of various features in the painting. It represents the majestic royal personality of the Sultan and the loyal obedience of the attendants serving the Sultan.

A miniature by an artist Venkatachellam depicts Nizam Ali Khan II (C 1761 – 1803 AD) standing under a flower – filled tree with birds. He is

illustrated holding a flower in his right hand as if enjoying its fragrance. A long sword attached to his waist can also be seen in the picture. He wears several chains of pearl necklaces. He wears a long flowing jama. The painting gives the picture of royal grace and aesthetic outlook of Sultan. The representation of the sword is another symbol royalty. It is dated to (C 1791 – 1792 AD.). [7]

Another painting depicts a prince at a well where sitting on horseback, he receives water from one of the five girls who draw water at a well beneath a tree. [8] the prince must be on his ride on the Deccani landscape as picture in the background depicts a distant landscape with extensive green field and a deer restling by a pool. Red, gold and yellow Colours give it a attractive look.

A Miniature painting of Nizam Ali Khan depicts him seated on a terrace receiving a minister. [9] A servant with a 'morchal' stands behind him and a pavilion and garden are seen in the picture. A Persian inscription points him out as Nizam Ali Khan Bahadur. This ruler who is also is known as Asaf Jah –II was cultivated man and a generous patron of the arts. Poets, musicians, painters and calligraphers, flocked to his coat. His long and prosperous rule and general well – being of the people provided lot of the impetus for the development of the arts. He was very fond of having his portraits drawn in indoor and outdoor settings. He got his biography, 'Tuzuk – i - Asafi '; written and illustrated in 1793 AD by the Tajjalli Ali Shah. [10] Ali and Rai Venkatachallem were his court artists. One painting of 'Tuzuk – i – Asafi' illustrates Nizam Ali Khan hunting with huge army.

The painters of Asaf Jah-I even continued to work under his successors. Nizam Ali Khan, Asaf Jah-II. Being a great patron of arts gave encouragement to the tradition of miniature painting due to which diverse types of work of several painters were executed under his inspiring support.

After Nizam Ali khan, his successor Sikandar Jah Asaf Jah-III (C1803-1829 AD) also continued the tradition with same spirit but quality of paintings remained inferior. He was enthroned immediately after the subsidiary Alliance of 1800AD and hence made Hyderabad a British dependency due to which British's interfered in the internal matters of Nizam's administration like appointment of Diwan etc.

Main figures are depicted usually as tall and of fine built. Costumes of long plain or flowing muslin jamas and small pagirs depicted are typical of Asaf Jahi style. Men were depicted generally wearing half sleeves jacket was

known as Neem-Astin. Asaf Jah – I and Nasir Jung generally used it. It was given as gift to men of very high position by them.[11] Different kinds of jewellry were own by men like pearl chains, thus the 'dust band' or 'asumram'.

The jewellery depicted in most of the paintings of Hyderabad School was rich and consisted mainly of ornaments like kanthi, pachladi, satladi, etc. Armlets worked with gold and red between double row of pearls, wristlets of eight fold pearl stings or gold bangles between two rows of pearls and double pearl or gold anklets. Ruby and emerald drops, gold earrings with pearls in the ear and gold rings with pearls, rubies and emeralds are other ornaments depicted in paintings. In dress-trend, women generally wore a transparent white, red, yellow, blue, green or mauve colour 'peshwaj' dress over a long choli and tight trousers with plain or flowered material. Duppattas too were transparent and covered the front and fell on the back or crossed in front along the two stringed pearl chains reaching the back. This mode of wearing the duppatta is known as khada duppatta and is a peculiarity of the medieval Deccan. In several miniatures there was a swing and sweeping movement of duppattas.

But one very important and striking feature of Hyderabad school of painting is that innumerable paintings on nobility and women were executed when compared to earlier Medieval Deccani art traditions and hence this school acquired recognition and identity in this field. Moreover school had special qualities and features which distinguished it from other Schools.

Variety of paintings on nobility, courtiers -related aspects, themes on religion and few themes exclusively of commoners were depicted during Nizam's rule Among the nobles both communities, Muslim and Hindu commissioned many miniatures Few were also depicted which includes both Muslim and Hindu religions indicating the secular attitude of not only the reigning Nizams but also of artists whom they gave patronage.

PHOTOGRAPHY

By 1850s photography was gaining wide popularity in the country and among the princely states. Eventually the photography replaced the portrait painting in royal courts. In particular Lala Deen Dayal's name has become a synonym for 19th century photography in India who documented the exotic life of the Maharajas, the British officials, marvellous architectural heritage, buildings, monuments, temples, railway lines and beautiful landscapes, jewellery, costumes of nobility, etc. Lala Deen Dayal is also famous as Raja Deen Dayal was born in 1844 in Meerut He received technical education at Thomason

Civil Engineering College in Roorkee. In 1896 he expanded his business and opened the largest photography studio in Bombay,He established a Photographic Studios in Indore (1875), Secunderabad (1889) and Bombay (1897). He even reputedly had a "zenana" studio run by a British woman, Mrs. Kenny-Levick. .With his studios successfully running in Indore, Secunderabad and Bombay back in the late 1800s and early 1900s, they captured some of the most illustrious and iconic moments in the history of India in photographs, estimated to be over 30000 in number. [12]

Photography first came to India in the mid-19th century, when British administrators brought their cameras to the country to document the landscape, historical monuments and people. As early as the 1850s, photographic societies were formed in three presidencies: Bombay, Madras and Calcutta. The relationship between photography and painting was an ambiguous one. They remained as part of experimenting, learning and documenting. Photographers in the 19th century, like Raja Deen Dayal photographed various aspects of History, which were exhibited in Art Exhibitions throughout India and in major exhibitions in USA, UK, Spain and other countries. Deen Dayal is also known for having been a premier court photographer for some of the leading Princely states in the country at the time.

The Nizams belonged to the Asaf Jah dynasty founded in 1748 CE by Asaf Jah I Qamar-ud-din Khan and Mir Mahbub Ali Khan (1869–191 CE), the sixth Nizam, whom historians of photography remember as the untiring patron of Raja Deen Dayal, the 'doyen' of early photography in India. [13] The native inhabitants of Hyderabad Deccan, regardless of ethnic origin, are called "Mulki" (countryman), a term still used today. [14]

In 1894, the Nizam Mahabub Ali Pasha of Hyderabad, the sixth ruler of a powerful Nizams of Hyderabad conferred upon the photographer Deal Dayal the title of Raja Bahadur Mussavir Jung ("Bold Warrior of Photography") and a Mansab. Since then, the prolific nineteenth-century Indian photographer has been known as Raja Deen Dayal, He documented Nizam VIth administration, Shikars, and other past times, attire, royal customs, wedding Ceremonies, visits by foreign ambassadors, various British officials and the visit of King George V, then Prince of Wales, economic conditions of the times like droughts and floods and other calamities. The photographs also captured visiting nobility, lavish parties, extravagant parades, hunting expeditions as well as palaces and their interiors and the relief work organized

by the Nizam in times of famine .He was regularly called to photograph numerous international exhibitions taking place around South Asia, and he continued to photograph official visits of British royalty and dignitaries, many of which were sold later as albums.

He also accompanied the Nizam VI to Delhi for the Durbar in 1903.He was honored in 1885 by Lord Dufferin and appointed official photographer to the viceroys like Earl Elgin and Duke of Connaught. He had a unique honor of being appointed as "Photographer to Her Majesty and Queen" by Queen Victoria in 1887.

In 1894, Dayal received an official order to leave for Pakhal jungle where the Nizam was enjoying Shikar (hunt). He was ordered to capture the scene. Later, during a durbar held in the celebration of the Nizam's birthday, Dayal was appointed as the official court photographer with an impressive salary of rupees 600 per month. "The Nizam further ordered the salary to be payable retrospectively for six years in honour of the work Dayal had done during that time." [15]

Encouraged by the growing appreciation and consequent demand for his photographs he decided to trade a lucrative career in Government Service to photograph the countryside. His albums of India views and ancient monuments became very popular were bought as gifts by the British and Indian Royalty. In appreciation of his work and dedication, the Nizam also composed a couplet in Urdu in his name.

The photographs of the time also captured the incredible range and quality of the jewellery like Champakali necklace; table-cut diamonds, pearls and emeralds, pair of bazubands, padaks and chintaks, champakalis and kanthis, bazubands and paizebs, sarpechs and turras. gold, diamonds, etc. Treasures of the Deccan – Jewels of the Nizams, co-authored by Usha Balakrishnan and Deepthi Sasidharan gives a glimpse into these jewels. Featuring rare portraits from the archives of the Chowmahalla Palace the book captures the history, romance, wealth and majestic lives of the Asaf Jahs of Hyderabad. Accompanying these pictures is the history behind those pieces, which gives insight into the craftsmanship and context of the jewels. [16]

The photographs pictured the immense architectural wealth created by the Nizams of Hyderabad like Golconda Fort, the Falaknuma Palace or Castle as it was originally called was one of the most lavish private homes, the opulent Bashir Bagh Palace constructed by Sir Asman Jah, a Paigah noble, the Afzal

Mahal, the Charminar is Hyderabad's most famous landmark and in this vintage image we see the Mecca Masjid,the Purana Pul which was believed to be Hyderabad's oldest bridge over the River Musi, railway system, Old Mosque at Khairtabad, the Hussain Sagar a manmade lake built, James Street in Secunderabad, the twin city of Hyderabad, established as a result agreement between Nizam and east India Company. etc .[17]

The art form also emerged in the richest cities and courts. "Here, Hyderabad had a double advantage," says historian and curator Deepthi Sasidharan. In the 19th century, royal portraits were considered aspirational must-haves and symbolic gifts too. In Hyderabad, photographs of the royal family were displayed in the palace. Getting a picture made when dignitaries visited became a convention in the Nizam's court. She remarked the biggest contribution of photography is that it shows how some things remain constant in the churn of time.The collection of photographs taken of the Nizams include a number of family portraits. "The traditional costume of the women was a loose kurti and trousers, with a 'khada dupatta, a five metre-long cloth with an identical border on both sides," she explains. Banarsi brocade and muslin were among the fabrics worn. In one photograph of Lady Jahandar-un-nisa, one observes the kind of costume that the famed 18th-century Hyderabadi courtesan Mah Laqa Bai wore, indicating how long styles and couture traditions endured in the city. The women wore seven types of earrings and more than two necklaces. "Early photographic processes produced images that were sometimes so clear that one can notice all the details in present times. These pictures complete the circle of vocabulary used by jewelers, and pieces in the collection," [18]

Raj Deen Dayal's, Prince of Photographers presents the story of Deen Dayal, a photographer of India whose genius was acknowledged worldwide. Narender Luther in his book mentions that of all the Indian photographers, Deen Dayal's name stands out as a "bright star in the firmament. "He was the one Indian photographer who not only stood on par with European photographers but also outclassed many of them," [19] The photographs represented different jewellery of the times like pearls ,diamonds, Hansli Parab Mai Aweeza Zamarrud — Gold necklace set with diamonds and emerald drops, Baglus Almas, Gold buckle set with diamonds, Tora Paon Jaravi Almas Yakhot Zamarrud , Gold anklets set with diamonds, rubies and emeralds anklets, Since the Nizams had adopted a European lifestyle post the demise of the Mughal empire and often wore western-influenced clothes such as

high-collared coats, they were presented with few opportunities to display their opulent jewels. Hence, they wore adornments like belts or elaborate headgears, making these an indispensable part of the Nizams' jewellery collection.

Many photographs were taken by the masters of the art and photographic companies of the time, like Felice Beato, Samuel Bourne, John Murray, F W Baker and Co., H D Girdwood, Hands, underwood and underwood, Burke and Baker, Bourne & Shepherd, and Johnston & Hoffman, Skeen and Co, Frith, Underwood and Underwood, Ralph Bezzant Holmes, Henderson and Johnson, Del Tufo and Co, among others. Commercial photographers set up shop at Calcutta (1854), Bombay (1855) and Madras (1856), and the earliest photographs of India were primarily of its architectural wonders, unusual topography and prodigious prototypes of indigenous ethnicities. By 1860-65, every city with a British presence had several studios, and early media like daguerreotypes disappeared to give place to stable mediums such as albumen silver prints and silver gelatin prints. Thousands of photographs were taken from 1850 onward, as Britain strove to document its colonies. In turn, the British passed on their skills to native Indian draftsmen and surveyors, strengthening the use of photography as an administrative tool.

The photographs also reflected the attire styles of time.The Nizams are known to wear sherwani along with a turban that was attached with jewellery studded sarpech and their immense interest towards pearls and jewellery made them to exhibit the exquisite pieces of necklaces made out from precious stones, gems and pearls. The VI Nizam of Hyderabad, Asaf Jah who was especially famous for his lifestyle and the fashion he used to follow had tremendous interest towards clothes which led to cement a separate wing for clothes in his palace. He didn't used to wear the same attire for more than twice. He was also fond of various styles and popularized some of the clothes and accessories including collars, shoes, coats, headgears and perfumes. Many Nizams were inspired from the lifestyle of Asaf Jah and followed it too, mainly the 6th Nizam of Hyderabad, Mir Mahbub Ali Khan gathered Asaf Jan's sense of style and owned a two-tier wardrobe that had all filled up with expensive attires. The Nizams enjoyed displaying their jewels and pearls lavishly and therefore, their traditional royal finery comprised of a lot of necklaces with the most exquisite gems and pearls. Their attire comprised of a sherwani with a turban-headed with a bejeweled sarpech. Several similar portraits survive

in the collection of Dayal material in the Peabody Essex Museum in Salem, Massachusetts .[20]

Raja Deen Dayal died in 1905, bequeathing to history an intimate glimpse into the lives of princes, and the British, ordinary fold and tribals, as well as vistas of archaeological sites, monuments and the architectural heritage of the country. [21]

Dayal and his studio rapidly became an institution in the court of the richest, most powerful of Indian princes. "In the Nizam," writes Worswick, "Dayal had encountered a patron whose tastes were reminiscent of the great Mughal princes of 16th and 17th century India and a setting which was in fact the last surviving remnant of the Mughal Empire."[22]The new art proved a great adventure: a life of strenuous expeditions coupled with enormous patience went into the production of the first photographic prints. The early daguerreotypes were replaced by something called the wet-plate process, later replaced by the dry-plate process taking photographs remained a laborious, delicate and often messy business. Spurred by his interest, Deen Dayal visited Hyderabad on his archaeological safari, where he managed to take some pictures of the Nizam taking salute of his troops. Dayal and his studio rapidly became an institution in the court of the richest, most powerful of Indian princes. "In the Nizam," writes Worswick, "Dayal had encountered a patron whose tastes were reminiscent of the great Mughal princes of 16th and 17th century India and a setting which was in fact the last surviving remnant of the Mughal Empire." [23] What is extraordinary about Dayal's photographic documentation of the period is that it goes far beyond recording the endless pageant of royal drama. There are enough princely portraits, royal tours and shikars here to satiate the most opulent taste; far more striking are the natural landscapes, the faces of ordinary people and peasants; portraits of mendicants and gurus, tribals and circus acrobats that convey with the same intensity of detail the lives of the other half.

Few Historians took a biographical approach, not to declare Raja Deen Dayal as a great master but "to interrogate the institutional systems and practices that contributed to the development of his practice as well as to understand the frames of analysis through which he has been interpreted during his lifetime and in the postcolonial period.[24] His images also recirculate widely: images of the Hyderabadi Nizam's territory and royal ceremonies end up not only in lavish albums for diplomatic gift-giving, but are also sold as individual prints,

cheap souvenir booklets and postcards, and published as engravings in London-based illustrated magazines. He positioned his craft between British interests and those of the princely states he served. Dayal is less the name of an individual artist and more a reliable brand name in the marketplace, recognized for "quality," understood as an economic value based on the studio's ability to offer a rich tonal range and sharp details through careful control of lighting and camera lens, whether the subject be a group sitting for a portrait, a panoramic landscape, or a ceremonial procession involving hundreds of people and animals on a busy street.[25]

Deen Dayal, like a great photographer of any period, understood not merely the complex form of photography in his time but also its manifold functions. In that sense he was true in his artistry - serving, as John Kenneth Galbraith points out in his foreword, not only the "vanity and the urge for immortality" of a privileged few, but also as a primary chronicler of life in general. Dayal's photography serve as an obsessive inventory of the Nizam's property.[26]

The fabulous wealth of the Nizams of Hyderabad is well documented, due to their lavish lifestyles, opulent palaces and the exquisite jewellery an astounding array of jewels. The artists gave documentary evidence of Nizams period and how they ruled with distinctive identity. The legacy of his negative plates and original prints are of great importance to the world of photography. The collection includes the British rule in India, portraits of royalty as well as the common people, landscapes and monuments.

Thus, it will be academically rewarding to use both paintings as well as photography as a potent source of history. These two as primary sources threw light on diverse aspects of Nizam's history ranging from political to cultural aspects from a transition from capturing historical information from creative to reality. They give vivid insights into Deccan's rich art and cultural heritage but also provide valuable testimonials for historians.

Thus Artists and Photographers as aesthetic specialists created qualitative historical sources which documented royalty, rich glory of Nizams, their hunting scenes, their passions, life styles, traditions, different personalities of women, religious practices of the day, jewellery, costumes, customs, monuments, railway tracks and bridges, architecture, city planning, the interiors of Hyderabadi palaces with chandeliers, furniture, and sculpture, Nizam's dominions, the elite culture of other Hyderabadi nobles, archaeological and religious sites and day

to day happenings. The sources created by these artists and photographers remain an attractive and authentic historical records with clarity and eloquence.

REFERENCES:

1. Francis Brunel, Splendour of Indian Miniatures, Editions Delroisse, France. pp 4-8.
2. Mario Bussagli, Indian Miniatures, Paul Hamlyn, 1969, Introduction.
3. Khandalavala K, Reflections of Deccani Painting, Deccani kalams, Marg (A Magazine of Arts), Marg Publications, Vol. XVI No.2, Bombay March 1963, p.24.
4. Mildred and Archer W.G, Indian Painting for the British (1770-1780) O.U.P, 1955, p.74.
5. Jagdish Mittal, Paintings of the Hyderabad School, Marg (A Magazine of Arts) Deccani kalams, Marg Publications, Vol. XVI No.2, Bombay March 1963,p 44
6. Toby Falk and Mildred Archer, Indian Miniatures in the India Office Library, Oxford University Press, Delhi, 1981, p.227.
7. Gray Basil,"Painting" in The Art of India and Pakistan, ed. Leigh Ashton, London 1950 pl-150. It is in the collection of Late Mohummad Ashraf, Hyderabad.
8. Toby Falk and Mildred Archer, Indian Miniatures in the India Office Library, Oxford University Press, Delhi, 1981 .p 234..
9. Ibid p 234
10. Jagdish Mittal, Islamic Paintings of the North and the Deccan, Roopalekha, (A Journal of the All India fine Arts fine Arts and crafts society), vol. XXXVII, No.1, New Delhi, Vol. XXXVIII, No 1 and 2 to p 138.
11. Jagdish Mittal, Paintings of the Hyderabad School, Marg (A Magazine of Arts) Deccani kalams, Marg Publications, Vol. XVI No.2, Bombay March 1963,p 56.
12. Vinit Vyas, Lala Deen Dayal – Doyen of Indian Photography. Art History, May 18, 2018.
13. Ali, Cheragh ,Hyderabad (Deccan) Under Sir Salar Jung, Volume 3,Printed at the Education Society's Press, 1886.(Introduction)
14. Leonard, Karen Isaksen . Locating Home: India's Hyderabadis Abroad. Stanford University Press,2007. (Introduction)
15. B.N. Goswamy, The Tribune, Art N Soul: Riches and Gems from the Nizams of Hyderabad, July 2019, pp 176-177
16. Usha R Balakrishnan, Deepti Sasidharan & Navina Najat Haidar, Treasures of the Deccan - Jewels of the Nizams and Painted Visions, 2 volumes by, Graf Media, Goa, 2018.
17. Neerja Deodhar , In the photographs of Hyderabad's Nizams, a documentation of sartorial choices, diplomatic relations, May 13, 2019 .
18. Deepthi Sasidharan delivered a lecture titled 'Hyderabad of the Nizams: Visual splendour through 19th century photographs' at the Dr. Bhau Daji Lad Mumbai City Museum, Mumbai

19. Narendra Luther, Raj Deen Dayal: Prince of Photographers, Hyderabadi, 2003.(Introduction)

20. Prahlad Bubbar, "An Early Group of Photographs by Lala Deen Dayal." An Early Group of Photographs by Raja Deen Dayal: Indian and Islamic Art. London,2016. Raja Deen Dayal is celebrated for his pioneering eûort in recording the landscapes, architecture and people of India with objectivity. His understanding of the land, his familiarity with its history, his awareness of its culture, all distinguished him from the major photographers of the late 19th century.

21. More than 150 photographs by 19th Century Indian photographer Deen Dayal are going to be put up on exhibition at the National Gallery of Modern Art, Bangalore. from June 22 to July 20, from 9:30 am to 6 pm.

22. Clark Worswick, Princely India: Photographs by Raja Deen Dayal 1884-1910. (1st Edition) Hamish Hamilton Ltd; First UK Edition 1980. (Introduction)

23. Ibid.

24. Deepali Dewan and Deborah Hutton, Raja Deen Dayal: Artist Photographer in 19th-Century India (New Delhi: The Alkazi Collection of Photography; Ahmedabad: In Association with Mapin Publishing, 2013.p-42.

25. Ibid pp-34-37. Lavish albums of these photographs were made for diplomatic gift-giving, but are also sold as individual prints, cheap souvenir booklets and postcards, and published as engravings in London-based illustrated magazines.

26. Ajay Sinha, Composite Realities: The Art of Photographic Manipulation in Asia, Guest edited by Claire Roberts and Yi Gu, Volume 6, Issue 1: Fall 2015. (Book Review).

HYDERABAD, A GLOBAL CITY OPPORTUNITIES AND CHALLENGES

-Chaganti Nagaraja Rao

In a recently held symposium on "Hyderabad-a global city," speakers defined Global City as one which attracts eminent people into its expanding fold, satisfies the Common Gateway Interface Index criteria, which is a specification for transfer of information between a World Wide Web server and a CGI programme. In this respect Hyderabad city, being the second largest internet city in the country, will certainly become a global city in the near future as it has maximum fulfilled the above criteria.

HISTORY OF THE CITY:

Hyderabad, a formerly princely state of South Central India and now the capital of the newly formed Telangana state, is the sixth largest city in India. The city has a Rich History spanning over 400 years. The city was founded in 1591 by Muhammad Quli Qutb Shah, a ruler of the Qutb Shahi dynasty, the Muslim Qutb Shahi sultans of Golconda. The kingdom of Golconda enjoyed a place of distinction next only to that of the Mughal Empire in North India. In the year 1591, when the Moon was in the constellation of Leo, Jupiter in its own abode and all celestial planets favourably placed, he laid the foundation of a new city which he called Bhagynagar after his beloved queen 'Bhagmati'. Bhagmati embraced Islam and took the name Hyder Mahal and consequently Bhagynagar was renamed Hyderabad after her.

The city has a rich Muslim and Hindu cultural heritage and contains many splendid buildings, reflecting the ancient Islamic architecture. After the partition of the Indian subcontinent in 1947, the Nizam had chosen independent status. On September 13, 1948, India invaded Hyderabad and Hyderabad's accession to India was achieved. A popular ministry and legislature were set up in March 1952. The city had become the capital of the Andhra Pradesh which was formed by merging the Telangana districts with the coastal Andhra districts on November 1, 1956. After the bifurcation of Andhra Pradesh in June 2014 into Andhra Pradesh and Telangana states, Hyderabad remained the capital of Telangana state. Hyderabad is known as city of gardens and is described by a Mughal chronicler as "a resort of heavenly peace and world comfort."

Throughout history the city has been graced not only by national leaders of global repute like Dr. Neelam Sanjiva Reddy, the former President of India. P.V.Narasimha Rao, the first South India Prime Minster of India and a profound

scholar *et al* but also by a Nobel Laureate Ronal Ross, who carried on his research while he was working in the Indian Medical Association in Hyderabad on the cure for malaria and for which he was awarded the Nobel Prize in Medicine in 1902.

DEMOGRAPHY:

Hyderabad city has a population of 6,196,939 as per 2011 census with an area of 650 sq.kms. The city is situated at 541 meters above mean sea level. The population mainly consists of Hindus (64.93%), Muslims (30.13%), Christians (02.75%) and others (02.19%).

CLIMATE:

Hyderabad enjoys a salubrious climate with temperatures ranging from 10 degrees during the peak of winter to 43 degrees in the peak of summer. It has an average rain fall of 73.66 centimetres. Owing to hot and dry climate, vegetation is rather sparse. The parks and gardens in the city are abounded by a variety of trees including toddy, palm, mango, guava, tamarind, and banyan.

TOURISM:

The city has a natural beauty of its own with criss-crossing roads, hilly regions, large expanses of open heaths, dazzling facades of ancient stupendous structures with embellished interiors etc. It has several places of international tourist destinations which include Charminar, Birla Mandir, Ramoji Film City, Salar Jung Museum, Falaknuma Palace, Chilkoor Balaji Temple, Golconda Fort, Public Garden, Naubat Pahad etc. The Charminar was acclaimed as a great architectural composition in Indi-Saracenic style with open arches and four minarets. The Mecca Masjid, a mosque, built near Charminar is another marvel in stone with lofty pillars and engraved arches.

TRANSPORTATION:

Secunderabad is the biggest railway junction in the South Central Railway after Vijayawada. The city is connected by rail to all major cities of India and the Rajiv Gandhi International Airport provides air services to most of the countries in the world.

ECONOMIC DEVELOPMENT:

A large number of engineering and manufacturing industries are located in the city. The private sector also expanded, notably in cigarette and textile manufacture. The fast growth of industry and commerce made it the fourth richest city in India and one of the best places for investment.

MEDICAL FACILITIES:

The city has two well organised government hospitals with medical collages attached and a number of super speciality hospitals for treatment of women and children as well as facilities for treating leprosy, tuberculosis, cancer and eye diseases. Hyderabad is one of the few cities in India where the best medical facilities are available. Gandhi General Hospital, Osmania Hospital and Nizam Institute of Medical Sciences have a nationwide reputation as medical institutions providing treatment for all types of diseases.

Hyderabad is studded with several super speciality hospitals with most modern equipment, catering to the needs of all types of people providing best treatment for all kinds of ailments as a result of which the city has become a favoured place for medical treatment. Apollo Hospital, a 650-bedded multi-speciality hospital, Nizamia (Unani) General Hospital, L.V.Prasad Eye Institute, Care Hospital, Krishna Institute of Medical Sciences, Yasoda Hospitals, Global Hospital have earned a name as world class hospitals providing the best medical treatment. Human heart transplantation was successfully conducted twice in Yasoda hospital. Besides general allopathic treatment, alternative medicine, rejuvenation therapy, Yoga and traditional healing systems are attracting patients from different countries to Hyderabad.

LIBRARIES:

Among the famous libraries mention should be made of the State Central Library in Afzulgunz which is one of the biggest libraries in the country and which can be described as an intellectual power house. The library has a collection of about 17,000 rare and valuable manuscripts dating back to 5th and 6th centuries which were transferred to the Telangana Oriental Manuscripts Library in 1967. As on date the library has a total collection of 5,01,861 books out of which 1,60,575 are English;1,64,261 are Telugu; 53,911 are Hindi; 85,481 are Urdu, Arabic and Persian; 3,460 are Sanskrit; 1,326 are Tamil; 15,141 are Kannada; and 17,706 are Marathi. The fact that Sanskrit books were collected

as early as 1936 clearly discloses the secular attitude of the then rulers of Hyderabad and their spirit of tolerance of other faiths.

CULTURAL LIFE AND RECREATION:

Hyderabad is a culturally vibrant city. There are several public and private cultural organisations that conduct cultural activities that suit the tastes of different communities and people possessing varied cultural background. Ravindra Bharati, a public auditorium which is an ideal venue for cultural activities like music, dance, drama besides other events like felicitations and inaugurations is situated in the heart of the city.

CULTURAL HERITAGE OF HYDERABAD:

Hyderabad has a rich cultural heritage which is manifest in its archaeological and heritage sites which date back to the Monolithic times and to early Christian era which stand testimony to cultural confluence of the city. The city is studded with 130 heritage buildings and 32 prized monuments. There are several idyllic locations of breath-taking natural beauty, dense forests, deep valleys, beautiful lakes, gushing rivers, majestic waterfalls and wildlife heavens. The city's art and architecture reflect the glorious past of the city and a source of inspiration to the connoisseurs. The heritage of the city is well-preserved by the diversified cultural existences which offer a unique experience to the visitors. The natural beauty of the city coupled with marvellous timeless structures, both ancient and recent, make the city an incomparable tourist attraction. The magnificent forts and palaces of Hyderabad city have a very few parallels and none to surpass in the country which remind us of the grandeur and glory of the city. These are built by Kakatiyas, Asaf Jahis, Qutb Shahis, Bahamanis and the Great Mughals. Hussain Sagar Lake is one of the biggest lakes in the State. In the middle of the lake stands the world's largest free-standing statue of the Buddha. It is a must see place when illuminated at nights. The Qutb Shahi and Paigah Tombs are a culmination of the Persian, Pathan and Hindu architectural styles using grey granites with stucco ornamentation.

CHARMINAR:

This unique monument was built in 1591, as the centre of the city by Mohammad Quli Qutb Shah. The four graceful tall minarets soaring to a height of 48.7 metres, the intricate carvings and exemplary architecture on Charminar

at once hold the visitor's attention captive. This unique monument is inextricably connected to the city as its icon.

GOLKONDA FORT:

Originally built by Kakatiyas during 945-975 CE, this fort is famous for its acoustics, palaces and indigenous water supply. The visitor can travel backwards in time to recapture the bygone era and its glorious past from the unique Sound& Light show.

HOTELS AND RESORTS:

Besides several luxurious hotels in the city which offer excellent stay options with unique hospitality, characteristic of local culture, the State Tourism Development Corporation has developed world class hotels for the comfortable stay of the visitors from all over the world. Owing to its location and the international airport with international standards, Hyderabad is called the Convention Capital of India as the city hosted recently international Meetings, Incentives, Conferences, and Exhibitions (MICE). The city hosted the World Metropolitan Congress in the Novotel hotel in October, 2015 attended by delegates from all over the world and graced by A.P.J.Kalam, former President of India. Among the international hotels mention should be made of Novotel, Marriott, Grand Kakatiya and Convention Centre, Hyderabad. The Hyderabad Convention and Visitors Bureau can be described as the perfect MICE destination. The fact that local star hotels could provide comfortable accommodation for the American President and his staff is noteworthy.

MUSEUMS:

The museums in Hyderabad city give the city a place of distinction among the cities of India. The Salar Jung Museum and State Museum have a very few parallels in the country. Salar Jung museum has the largest one man's collection in the world. It has exhibits from all over the world including sculptures, paintings, carvings, textiles, ceramics, metallic artefacts, carpets, clocks and furniture. The State Museum houses the famous Egyptian mummy which dates back 2500. Among the other important museums in Hyderabad mention should be made of Nehru Centenary Tribal Museum, Mahatma Gandhi Digital Museum, HEH the Nizam's Museum. Birla Science Centre and Health Museum.

PLACES OF PUBLIC WORSHIP:

Hyderabad has, within and around the city, a large number of temples, churches and mosques known for their architectural significance and ancestry. The Chilkur Balaji temple is 500 years old and has Puranic testimony. Tradition speaks that devotees who perform circumambulation for eleven times with a desire will get the desire fulfilled and then they have to perform 108 times circumambulation to acknowledge the God's response. The lord is popular as Visas Balaji since it is also believed that praying here for a Visa to go and work abroad will get positive result. While Macca Masjid, close to Charminar is the second biggest mosque in the country where 10,000 worshippers can offer prayer at a time, the Churches in Secunderabad are some of the most ancient ones in the country.

SANCTUARIES AND ECO-TOURISM:

Lovers of nature will enjoy perfect retreats in the wildlife and untouched forests in the surroundings of the city. The Nehru Zoological Park is one of the biggest zoological parks in India and is most visited destination where the visitor has to spend at least 6-9 hours to have a total round of the park and enjoy its scenic beauty and attraction and thrill of wildlife.

LAKES AND WATERFALLS:

While it is a fact that civilizations grow on the banks of rivers and places where there is water in abundance, the Kakatiya rulers of the region had been credited with planning and constructing reservoirs in the undulating terrain of the Deccan plateau, whereby they promoted the growth of civilization.

Defence: An aerospace manufacturing facility is established in Hyderabad. Helicopter spare parts are manufactured in the city. Hyderabad is defence production exporter. The city becomes a Defence Industrial Production Corridor in the near future. Telangana has already had the largest defence manufacturing ecosystem in India with more than 10 Defence PSUs, over 25 large domestic manufacturers and more than 1,000 Small and Medium Enterprises catering to the supply chain. Tata Aerospace will be sole global producer of fuselages for AH-64 Apache helicopter delivered by Boeing to its global customers including the US army, besides making secondary aero structures and vertical spar boxes of the combat helicopter. Hyderabad has created a strong defence base.

CHALLENGES:

While Telangana is one of the most urbanised states in India with 40% population living in urban areas, Hyderabad city and its surroundings have one third of the state's population. As the city has been developing for the last four decades in all aspects like business, tourism etc the city faces infrastructure challenges to accommodate the influx of people from other regions. The population of the city has grown enormously during the last three decades owing to several factors like availability of employment in the unorganised sector, availability of good quality of life at affordable rates compared to most other cities of India, the salubrious climate which suits people of all ages and such other reasons. But the infrastructure available is not adequate for burgeoning urban population and a fast expanding city. Infrastructure deficiencies are to be addressed which is a major challenge to the city managers. Despite increase of housing construction activity the needs of the poor and lower middle classes are to be addressed adequately. The drainage system, no doubt the best in India, designed only for a population of 5.00 lakhs. Now that the population has increased to nearly eight million the existing underground drainage system is not enough for the city to absorb and dispose waste water stagnated all over the city.

In regard to mobility and transportation the completion of Metro rail will address the problems of traffic to some extent. Even then there is the need to improve the road network and increase public transport facility to meet the growing demand for it. Public transport should increase by 40%. Since the city is one of the best investment destinations the floating population will increase from time to time. This results in additional infrastructure needs. There are certain areas in the city which are to be redeveloped and rejuvenated to cope with present requirements. As Hyderabad is expanding fast in all aspects, international standards of infrastructure are to be maintained. There is the dire need to improve service delivery in respect of water supply, sanitation, public transport including construction of subways and foot over bridges to ensure safety to pedestrians etc.

OPPORTUNITIES:

Hyderabad city is the best city of investment destination in view of growing trade and commerce and the promising future for the city to grow in

to a global city. The pace of development continues as indicated by the prevailing trends in commerce and industry. Hyderabad is a centre of excellence for innovation in every field of human endeavour including defence sector.

HYDERABAD-A GLOBAL CITY IN THE NEAR FUTURE:

There are three cities in the world which are described to be atop the global cities, viz., New York, London and Tokyo since they most satisfy the criteria for being called a global city. Hyderabad city has already established itself as a city with connectivity, diversity, centre of higher education with international standards, and financial and business services. The city is a cultural hub in that the city, throughout the year, hosts several sports activities and world class cultural events. It is one of the best tourist destinations in the country, nay, even in the world with a cultural history dating back to 400 years. Hyderabad is a city with a glorious past, a fast progressing present and a promising future. The city is centre of new ideas and communications. The history, historicity, art and artifice, culture, economic development, transport, tourist importance, investment possibilities, medical facilities, international connections, present quick pace of development etc of the city qualify Hyderabad or to be more precise the Twin Cities to become a global city in the near future as it possesses all the requirements of a global city.

RURAL INDEBTEDNESS IN NIZAM HYDERABAD STATE

-G. Dayakar.

INTRODUCTION:

Majority of the population in India and in south India were living in rural areas. Agriculture is considered as the only source of primary occupation as huge size of rural population of the country is solely depending on agriculture. Thus the development of rural areas should receive to top priority in our developmental programmes. Accordingly, it requires development of agriculture, implementation of land reform measures and development of co-operatives. Agriculture is considered as the backbone of the Indian economy. More than 70 percent of our total population earns their livelihood from agriculture[1]. It is also contribute a major portion to our national income. In India over two-thirds of our working population are engaged directly on agriculture and also similarly depend for their livelihood. Agriculture is only the major source of food supply as it is providing regular supply of food to such a huge size of population of our country. Agriculture in India has been the major source of supply of raw material to various important industries of our country.

The Hyderabad State also one of the important agricultural based economic State. It is played an important role in the history of the India. Most of the people lived in rural areas. They are primarily devoted for the development of agriculture sector. The rural population in Hyderabad State in 1881, 91.1 percent, 1891, 90.8 percent, 1901, 89.9 percent, 1911, 90.3 percent, 1921, 90.5 percent, 1931, 88.8 percent and in 1941, 86.6 percent[2] respectively. The rural population directly and indirectly depended both on agriculture and agricultural related sectors in the State.

The State occupies an area of 82,698 Sq. Miles, which is less than that of Bombay (1,11,434 Sq. Miles), and Madhya Pradesh (1,30,272 Sq.Miles) but it compared well with the State of Bihar(70,330Sq.Miles), and Andhra(67,000 Sq. Miles)[3]. Hyderabad State was predominantly rural and agrarian as 86 percent of the population lived in the Villages and 55 percent of them depended directly on agriculture. Out of the total area of 53,000,000 acres of land only 30,000,000 acres i.e., about 60 percent, were under Governmental land revenue system, (called *Diwani* or *Khalsa* area); about 15,000,000 acres, i.e., about 30 percent, under the *Jagirdari* system, and about 10 percent as the Nizam's own direct State, i.e., *Sarf-i- Khas* system[4].

The income from the peasantry, from the *Sarf-i-Khas* area, amounting to Rs. 20,000,000 annually was entirely used to meet the expenditure of the Nizam's family and its retinue. The whole area was treated as his private State. He was not bound to spend any amount for economic and social benefit or development of people's livelihood in that area. If anything was spent, it used to be from other general revenue of the State. In addition, the Nizam *Nawab* used to be given Rs.7, 000,000 per annum from the State treasury[5].

After the Police Action when the *Sarf-i-Khas* area merged in the *Diwani* area, the Nizam and his family offspring were to be paid Rs. 5,000,000 per annum as compensation, apart from another Rs. 5,000,000 as Privy Purse. The peasants in these areas were nothing but band-slaves, or total serfs under the Nizam. Even whatever little rights existed in the *Diwani* area was denied to them[6].

INDEBTEDNESS:

The Indian agriculturist is born in debt, lives in debt and dies in debt. Recurring famines engendering by erratic monsoons, money-lending must have come into vogue in India as well as Hyderabad State from earliest history. Small and fragmented holdings, accumulation of high rates of compound interest, crop insecurity, cattle deficiency, improvident expenditure or marriages and others ceremonies, fixed and burdensome character of land tax and unproductive expenditure on liquor and litigation, had all contributed in varying degrees for indebtedness among the peasantry. The peasants to met money-lender for loan for above reasons.

In Nizam Hyderabad State the local money lenders credit supporters the peasants as the rope supports the hanged. In Hyderabad State Kabulis, Rohillas, Arabs, Marwaris, Reddy, Komaties and others were important money-lenders. Money-lenders are two types such as professional money-lenders and non-professional money-lenders. These money-lenders provide money or grains for peasants with high rate of interest. The money lenders gave loan with 12 percent to 24 percent interest. Kabuli Money-lenders, Rohillas and Arabs were given loan to the cultivators and others. Kabuli's, Rohillas and Arabs collected 150 percent interest from the labourers per annum. They collected high interest from the cultivators. The Nizam Government had taken loan from the Palmer and Company with interest of 24 percent[7]. The Palmer and Company received loan from the local merchants and money lenders with interest rate of 12 percent. The Nizam Government also faced this problem from the Palmer

and Company. The common people position is very crucial. Once a cultivator falls into the clutches of the money-lender, he seldom gets out of them. It was felt that the situation was further aggravated by the British law and justice.

CAUSES:

There are several causes for the rural indebtedness in Nizam Hyderabad State. Such as[8]

1. The Small size of holdings, accentuated by sub-division and fragmentation due to laws of inheritance.
2. Recurring loss of livestock (lack of Fodder)
3. Insecurity of Crops.
4. Extravagant expenditure on Marriage and domestic expenses.
5. Litigation, especially in Marathwada region.
6. The money-lenders system of business.
7. *Vishwas Kharidi* or conditional sales.
8. The *Laoni* and *Lagwad* systems.
9. Famines.

In 1880, an average land holding size is 23.04 acres. In 1914-15, the wet land in Telangana is 1.86 and dry land is 14.80 acres at the same time in Marathwada, wet land 0.66 and dry land 25.63 acres. In 1935-36, the land holdings in Telangana wet land 1.59 and dry land 12.26 acres and in Marathwada 0.41 wet land and 21.15 dry land. In 1941-42 in Telangana region the land holdings are 1.37 wet land and 10.28 dry lands. At the same time in Marathwada region 0.43 wet land and 18.95 dry land holdings[9].

Money-lending is two types such as the *Laoni* and *Lagwad* which was given by Sahukars and others. Under the *Laoni* system the money-lender advanced amount to the cultivator before the sowing season on condition of repayment in kind immediately after the harvest. Under the *Lagwad* system the money-lender advanced to the cultivator expenses for weeding when the crop is coming upon the condition that the loan would be cleared immediately after harvest at the rate of 2 percent interest per month. Another type is *Vishwas Kharidi* or conditional sales, according to this the cultivators were given loans on the oral agreement with money-lender that if they fail to pay the loan in time it should be deemed that the land was sold to the money-lender. Thus all the different types of the loan condition is common i.e. the cultivator should

pay with in stipulated time if he failed to repay then the land was goes to the hands of money-lender and Sahukars etc. adopting various systems and practices the money-lenders with heavy rates of interest made the cultivators unable to repay their debts and confiscated their lands by hook or crook[10]. Many small cultivators having lost their lands to the crooked Sahukars became the agricultural labourers.

Famines are very frequent in Deccan. In 1730, the first famine occurred in Hyderabad State. Later number of recurring famines were effected the State. The famines in 1749, 1787, 1792-93 (in Telangana region), 1804 (Maratha region), 1823, 1830, 1833, 1854, 1862, 1866, 1877-78 (most parts of Southern India), 1897-98 and 1900 (Marathwada region), 1919-22[11], 1927, 1934-35 and 1938-39 (Telangana region) were destroy the agriculture sector both in Telangana and Marathwada region. The Nizam Government appointed a Commissioner of famine in 1896. For the first time it cloud be opined that the State started to think on famine relief measures. The Nizam Government spent 2 crores of rupees for famine relief in 1900. These famines also cause for debt in rural areas[12].

RATE OF INTEREST:

In Hyderabad State almost the entire rural credit was met only by the private agencies. It was felt by the Government that the rural indebtedness was not by any means peculiar to the State, as it was common for the rest of the rural India. The Co-operative Societies are given loans to the labourers and cultivators with high interest rate in the State. An average rate of interest in rural areas of the State was Rs. 18-13-8[13]. The prominent interest rate in vogue was between 12 to 25 percent. The details of the Co-operative Societies interest rate is from 1919 to 1950 in Hyderabad State is as follows.

TABLE

Rate of interest charged by Primary Societies (1919-20 to 1949-50)

Sl. No	Year	Rate of Interest percentage
1.	1919-20	12
2.	1929-30	$12\ ^{1/2}$
3.	1939-40	$9\ ^{3/8}$
4.	1949-50	$3^{1/8}$ to $9^{3/8}$

Source: Narayana, B.K, *Agricultural Development in Hyderabad State*, 1900-1956, Keshav Prakashan, Secunderabad, 1956, P.96.

The above table is given details about the interest rate in Primary Co-operative Societies in Hyderabad State. Societies charged 12 percent interest in 1919-20 and 9\! in 1949-50 respectively. The private agencies, Sahukars, Rohillas, Arabs, Kabullies and money–lenders charged 24 percent interest on cultivators and labourers. It is one of the dangerous and crucial system in rural agrarian society of Hyderabad State. Some time the money-lenders controlled the administrators and local chiefs. They are very powerful in village societies. The *Zamindars*, *Jagirdars*, Patel, Policepatel, Malipatel and Patwari etc were support to the money-lenders and encourage their activities in both rural and urban areas.

DEBT:

The seriousness or the importance of the problem of agricultural indebtedness in the Dominions could be judged from the fact that, by1940, about one-third of the agricultural land had gone out of the possession of the owners into the hands of Sahukars and money lenders in the Diwani area and the former were, thenceforth made to cultivate their lands as tenants-at- will. It has gained added dimension in view of the development that greater percentage of debts, amounting to as much as 50.43 of the total debts in Warangal District as against 38.30 in respect of the State, was provided by members of the cultivating families such as Reddy and Kapus, whose primary interest remained to grab the lands of the debtors at the earliest opportunity and then get their huge landed States cultivated, as absentee or mostly non cultivating landlords, either by tenants or by *Bhagelas*. Besides land transfer or dispossession, indebtedness of agriculturists led to poorness of agriculture, for the debt burden little enabled them to spend on inputs. The practice that the indebted cultivators were bound to sell their produce at 20 percent less than the prevailing market prices[14] to their creditors and thereby get their debt commitments fulfilled at least partially though not fully in a crop year, left little income remaining over and above their needs of substance.

According to S.M Barucha Report, the total number of Villages in Nizams Dominion during 1937 was 15,254, in this he selected 312 Villages and conducted survey about indebtedness in the State. The selected villages in Aurangabad Suba were 87, Gulbarga Suba ware 78, Medak Suba ware 57 and in Warangal Suba ware 90 respectively. He mentioned the total *Pattedars* in selected villages were 45,358 and absent *Pattedars* 4,177 and total were 49,353. Total calculated amount of secured unsecured and *Hissedars* debt in selected

villages were Rs. 7, 93,809[15]. Barucha also mentioned in his Report the number of professional and agricultural money-lenders in the 312 selected villages were 5,274. The numbers of *Pattedars* and *Hissedars* in those villages were 55,027. It gives an average of money-lender to ten clients[16]. According to S.M. Barucha (1936-37) almost every agricultural family was indebted to the extent of Rs.390 and per capita debt in the Dominion was Rs.30.

Under money lending system, the money-lender advances a certain amount to the cultivator before the sowing season, on condition that as soon as the harvest is ready, the debtor will return the loan in kind at a price which is stipulated to be less than the future market price of the next harvest, by a certain percentage which is between fifteen and forty percent. This system mainly prevailed both in Telangana and Marathwada regions. When the harvesting season is near, the Sahukar sometimes does not allow the crop to be removed till his claim is satisfied. The Sahukars most of the times collected large amount from the cultivators. They collected high rates of the interest from the respected cultivators. Some of the cultivators to submit their land to money-lender under the loan left from the villages and settled other villages[17]. The peasant failed to repay the loan with high interest the land was taken over by the Sahukar. Adopting various systems and practices the money lenders with heavy rates of interest made the peasants unable to repay their debts and confiscated their lands by hook or crook. Thus, many small cultivators having lost their lands to the crooked Sahukars became the agricultural labourers. The money lending system is very dangerous in the Nizam State. The money lenders to collect everything under the loan and he could not show any mercy on the cultivators. The detail of the debt burden is as follows.

TABLE

SAMPLE SURVEY: DEBT BURDEN IN 1928-30

Sl. No	District	Resident Families	Indebted families excluding land mortgages	Non-land mortgages Debt in Rs.
1.	Mahaboobnagar	242	113	19,340
2.	Nizamabad	148	113	14,460
3.	Nanded	1,217	518	1,02,571
4.	Warangal	2,203	1,190	2,14,680
5.	Aurangabad	982	395	98,024
6.	Raichur	928	366	81,746

Source: Kesava Iyengar, ***Economic Investigations in Hyderabad State***, 1928-30, Vol-I, (General Survey), the Government Central Press, Hyderabad-Deccan, 1931, P.29.

The above table reveals that the debt burden in some selected district of Hyderabad State in 1928-30. The sample is given resident families, indebted families excluding land mortgages and non-land mortgages debt. In Mahaboobnagar 113 indebted families and the mortgages debt is 19,340 Rupees. The debt is more in Telangana region particularly in Warangal district is 2,14,680 Rupees. In Marathwada region, Nanded district debt burden is 1,02,571 Rupees. Compare with the Telangana region, the Marathwada and Karnataka region is very backward and it had huge debt burden shows the above table from selected the three district[18]. The most of the families were face the debt system in Hyderabad State. The details of the Telangana districts, particularly northern Telangana region debt is given in the following table.

Table

DEBT IN 1931, 1939, 1950

S.No.	Districts	1931 (Rs)	1939 (Rs)	1950 (Rs)
1	Warangal	2,50,845	3,06,270	6,13,772
2	Karimnagar	1,04,589	1,32,996	1,80,840
3	Adilabad	85,095	2,52,137	4,09,862
4	All Districts Total.	18,26,593	29,80,620	54,52,663

Sources: Kesava Iyengar: *Rural Economic Enquiries in the Hyderabad State* 1949-51; Government Press, Hyderabad- Deccan, 1951, P.436**.**

The above table reveals that the total 16 Districts of the Hyderabad State debt in 1931 was 18, 26,593, in 1939 was Rs. 29,80,620 and in 1950 was 54,52, 663 respectively**.** The debt increased year by year. The debt is more in the Hyderabad State particularly in Adilabad and Warangal Districts. The money-lenders played an important role in the above mentioned Districts.

RELIEF MEASURES:

The cultivators suffered with money lending system, *Vetti*, *Bhagela* system and landlordism in Hyderabad State. Most of the cultivators also became landless labourers due to economic depression. They were forced to sell their lands for unreasonable rates for Rs.20 to 25 an acre[19]. According to the Economic Investigation Committee of Kesava Iyengar, 30 percent of the land was handed over by the peasants to the money lenders in Aurangabad. In

Warangal it was stated that 9 percent of the cultivated land and 25 percent of wet land changed hands from the cultivators to the money lenders and other non- agricultural classes[20]. It was a feudal State and acquired the worst characteristics of medieval feudalism. The horrible reality of the feudal system in its most vulgar character exploited the rural illiterate poor and made them live almost in serfdom enforcing inhuman *Vetti* system. As such, middle class peasants and the landless became poor and were not allowed to live in peace by the landlords, the village officials and money lenders. The result was increase in the rural indebtedness and deterioration of living standards due to very low level of wages. The Nizam government appointed a committee on agricultural indebtedness in the State and on the recommendation of the committee Government taken several steps for the development of the State and control the rural indebtedness. The Nizam Government had taken relief measures for rural indebtedness. But the measures were not adequate to meet the problem. The government had taken several steps for the development of the agriculture and industries. The measures such as[21]

1. Government given *Taccavi* loans to the cultivators.
2. Prevention of land alienation (Land alienation Regulation, 1936).
3. Restriction on Money-lending (Money-lenders Act, 1938).
4. Land Records and Records of Rights (1945).
5. Establishment of State of Hyderabad and Land Mortgage Banks.
6. Debt conciliation (the Debt Conciliation Act, 1938).

These measures were helped to relief the debtors from the money-lenders. Nizam Government established several Co-operative Societies, Mortgage Banks and State Bank of Hyderabad. These were provides loan with low interest rate and also provide sufficient time for repay the loan. But in practice, the employees of the respective Banks were behave like modern police.

DEBT CONCILIATION BOARDS

The Government of Hyderabad established several Debt Conciliation Boards in different parts of the State. These boards peruse the litigations between debtors and money-lenders. In the year 1350F there are 16 Debt Conciliation Boards were established. These boards dismissed several cases pertaining to the Debt. Particularly 3529 cases involved the amount of Rs 39.64 lakhs; in this 762 cases for 1012 lakhs were dismissed under the section 8. While 754 cases of Rs 7.83 lakhs were closed under Section 21 as amicable

settlement could not be reached between the parties.214 cases for a sum of Rs. 2.22 lakhs were disposed of under Section 10 (2), which means that creditors cannot claim this amount in any court of law.998 cases of total value of Rs.10.87 lakhs were conciliated under section 14 and a reduction of Rs. 3.18 lakhs or 29 percent of the demand was secured. Owing to the recalcitrance of creditors certificates were granted in 43 cases amounting to Rs. 0.30 lakhs[22].

Including 1850 cases brought over from 1348F, 5885 cases involving a total debt of Rs. 58, 15,967 came before the Board in 1349F for disposal. Out of them 2,556 cases amounting to Rs. 22, 66,667 were dismissed under Section 8 and 15 of the Regulation. 334 cases representing a total indebtedness of Rs. 3, 59,550 were closed under Section 9(2) of the Regulation. Actual conciliation was effected in 1182 cases embracing a total indebtedness of Rs. 11,07,358 which was scaled down to Rs.6,90,308 securing a remission of Rs. 4,17,050 or 37.66 percent of the demand[23]. 1813 cases amounting to Rs.21, 42,392 were left pending at the end of 1349F. In all, 2771 cases involving a sum of Rs. 31.34 lakhs were disposed of by the boards and 758 cases remained pending at the end of 1350F. The percentage of disposal cases was 78.

CONCLUSION:

In Deccan the Hyderabad occupied prominent place. The Nizam rulers encouraged agriculture, irrigation, industries, mining and trade and commerce. During late medieval period, due to famines, low rainfall, ceremonies, marriages, *Vetti* and *Bhagela* systems led for the rural indebtedness in the State. The Kabullies, Rohillas, Arabs, Reddies, Kapus, Sahukars, and others were given loans to the cultivators and labourers with high interest rate. The high interest rate is unable to repay the debt and the cultivator's forcibly sell their land to the cultivators. The Nizam government observed all these things and taken several relief measures. The Government provided *taccavi* loan to the cultivators. It also established Co-operative Societies, Mortgage Banks and State Bank of Hyderabad for helpful to the cultivators as well as industrialists. These banks provide loan facilities for the debtors with low interest rate. The government also established Debt Conciliation Boards for clear the litigations between the debtor and money-lenders.

FOOTNOTES

1. Dhar, P.K, *Indian Economy, its Growing Dimensions*, Kalyani Publishers, New Delhi, 1993, P.227.
2. Qureshi, *The Economic Development of Hyderabad; the Rural Economy*, Vol- I, Orient Longman, Bombay, 1947, P.25.
3. Abdul Thaha. S, *Forest Policy and Ecological Change Hyderabad State in Colonial India*, Cambridge university Press, New Delhi, 2009, P.5
4. Sundarayya. P, *Telangana People's Struggle and its Lessons,* Communist Party of India (Marxist), Culcutta,1972,P.9
5. Ibid.
6. Ibid.
7. *The Memorial of William Palmer of Hyderabad*, 12th May, 1824, the Right Honourable Lord Amherst, Papers, P.P3-4.
8. Barucha, S.M, *Agricultural Indebtedness in H.E.H. the Nizam 's Dominions* , Government Central Press, Hyderabad Deccan, 1937,P.22.
9. *Report of the Agrarian Reforms Committee*, 1949, Hyderabad Government, Hyderabad-Deccan.
10. Bhaskar Rao, V, *Agrarian and Industrial Relations in Hyderabad State* , Associated Publishing House, New Delhi, 1985,P.20.
11. *Report on the Working of the Departments under the Revenue Secretariat*, H.E.H. the Nizam's Government, 1920-21 A.D., Hyderabad-Deccan, P.9.
12. Qureshi, *The Economic Development of Hyderabad; the Rural Economy*, Vol- I, Op-Cit, P.149.
13. Barucha, S.M, *Agricultural Indebtedness in H.E.H. the Nizam's Dominions*, Op-Cit, P.7.
14. *Report of the Economic Investigation in Hyderabad State (1929-30)*, Vol-I, Government of Hyderabad, Hyderabad-Deccan, 1931,P. IV.
15. Barucha S.M, *Agricultural Indebtedness in H.E.H. the Nizam's Dominions* ; Op-Cit, P.56.
16. Ibid .p.27
17. Ramakrishna Reddy.V. : *Economic History of Hyderabad State (Warangal Suba: 1911-1950);* Gain publishing House, Delhi, 1987, P.230.
18. Kesava Iyengar, *Economic Investigations in Hyderabad State* , 1928-30, General Survey, Vol-I, The Government Central Press, Hyderabad-Deccan, 1931, P.29.
19. Ravi Narayana Reddy: *Heroic Telangana (Veera Telangana)*; Communist Party Publication, Vijayawada, 1976, p.6.
20. Bhaskar Rao.V.; *Agrarian and Industrial Relations in Hyderabad State* ; Op-Cit, p.20
21. Barucha S.M. : *Agricultural Indebtedness in H.E.H. the Nizam's Dominions* ; Op-Cit, p.30.
22. Barucha, S.M, *Agricultural Indebtedness in H.E.H the Nizams Dominions*, Op-Cit, P.31.
23. An Enquiry into the conditions of Tenancy in the Agrarian Economy of Hyderabad with special reference to the *Hyderabad Tenancy and Agricultural Land Act of 1950*, the Hyderabad Economic Association, Hyderabad-Deccan, 1952.

ROCK ART FINDINGS OF DIFFERENT TIME PERIOD IN GUNDLA POCHAMPALLY, MEDCHAL DISTRICT, TELANGANA STATE

-Sai Krishna E

Abstract

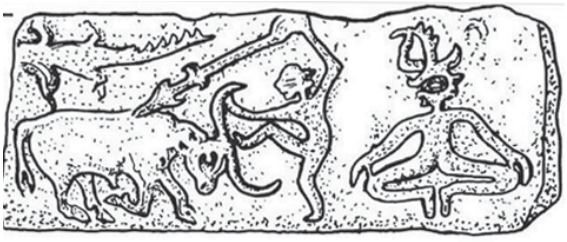
This paper is related to rock art findings which includes rock paintings, some type of cup marks, rock grooves and rock engraving in the Gundla Pochampally, where the author reside, it is in Medchal District which was earlier in Ranga Reddy District, Telangana, around 30 Kms from Hyderabad along National Highway -7 road and around 2 Km of southwest direction from the main village in the forest area as the area is covered with thick vegetation, granite hills and granite boulders, the rock art found at four different locations within 50 mtr are depicted on the granite boulders within the forest area, the time period are from around prehistory to early history and one rock engraving found is done on a single granite stone erected at the border of the forest of same village its time period is around medieval age as it depicts a type of 'ass curse' image and given a particular name to that engraving stone by the local villagers in Telugu called as 'Gadidha bodu rai' when it translated to English words from Telugu 'Gadidha' means 'Donkey', 'Bodu' means ' bare' and 'rai' means 'stone' therefore after complete translation its meaning is 'Donkey's bare stone'. And based on that the author was able to trace out the rock engraving site exactly with a local village person. The author would like to do scientific work at these sites and at other areas of the forest by systematic excavation in the near future to get more details as most of the rock art at those sites are dull and not clearly visible and which are almost fading away as well as getting lost not only due to natural weathering activities but also due to human activities. Therefore the author would request The Archaeological Survey of India, State Archaeology Department and other concerned societies to come forward to safeguard those sites as those sites can become heritage sites in the near future for knowing our ancestors past. From these findings we can

say that the Telangana state as a huge potential for pre, proto, early and medieval period archaeological sites.

INTRODUCTION

The some portion name of it in telugu 'Gundla' or 'Gundlu' means 'boulders'. It is around 30 Km from Hyderabad under National Highway - 7 road and from Highway it is in interior around 5 Km, where the author found the four new prehistoric rock art sites within the 50 m range at around 2 Km of south west direction from the main village in the forest area, at site 1 the rock art depicted on the granite boulder of Length 27 feet, Wall 7 feet, Ceiling 5 feet & Height 8 feet where the rock art is depicted, their is 6 feet 3 inch's long, 5 feet 9 inch's wide and around 1 feet 3 inch's depth hole on the rock boulder. The rock art depicted mostly in red ochre color, the granite boulder is standing on other boulder. The wall of the boulder facing towards east and it is wider in north and narrowing down towards south and nearby the sites there is a seasonal water pond. The rock art depicts humped Bull with horns facing South (left), Deer or Bull like figure with two horns facing North (right from our viewing) in front of a human being and in left looks like a human being which is in the centre holding the throat of two animals and it depicts like the Indus seal's where he or she holds the throat of two tigers with two hands or it may be a dancing group holding hands together. There is long neck animal depicted looks like a Giraffe or Nilgai, two legged peacock and some animals which are faded. The Elephant with long trunk facing towards South (Left (Tail portion) to Right (Head portion) when we see towards wall) is also depicted. There is interesting figure were the human being facing towards north about to pierce the Humped Bull facing towards south (Right to left when we face towards east or frontal portion of the rock art wall) on the frontal portion of the head by a spear rod with his/her left hand and the depiction may look like of a terracotta tablet of water buffalo sacrifice in right to left direction which is shown back of same tablet of human being holding two tigers beneath it a Elephant and above a spoke wheel which found in Harappa which are shown in Master of Animals and Animal Masters in the Iconography of the Indus Tradition by Jonathan Mark Kenoyer. The above Humped Bull and Elephant are shown in opposite directions with different coloring style. In other portion the Cattle fetus with a humped Bull or superimposition of humped Bulls are depicted and at the left corner it looks like a person is sitting on an object and in one place it is showing man hunting the Deer with bow and arrow. On ceiling

herds of deer with fully colored in red ochre of different species like spotted deer, Sambar or Stag, which are young and adult moving mostly in one direction from east to west some are demarcated with a line like a boundary, in one group a human being is drawn in miniature form compared to animals and back of them holding a spear rod with a tip point in right hand and a shield in left hand are depicted. Antelope and a unending knot like in Harappan seals depicted on the ceiling. At some places human figures are shown in elongated or stick like, anthropomorphic figure, There are other animals depictions like a Goat, a Hog Deer, a Dog, a Fox. At cornedr end of the boulder there is a design with a pole erected and a net is fixed at the top as well as few geometrical desings with other animals are depicted. On the ceiling the Spiral design and an animal in the right top corner are depicted this type of spiral design found at Kokapet site which is around 57 km from this site and according to Krishna Sastry (1983:47) the design is commonly found in Malwa ware. At site 2 & 3 which are around 50 metres from site 1 the rock art here depicted at two levels one is at around 20 feet and other at 25 feet from the ground on the boulder ceiling's and looks like a cave to protect from all weathering of the rock art. The rock art consists of a Stag with big horns depicted in stick like form as well as some other animals are depicted and at top right corner looks like a humped bull are depicted mostly in Red Ochre. At this site the art is depicted on the ceiling and can be seen while in sleeping position, at most we can sit in folding position and observe. At site 3 unknown animals are seen mostly faded away due to weathering and they are depicted in red ochre color fully colored. At site 4 the rock painting which is of Neolithic period depicted as there are three big horned humped bulls depicted on granite boulder which has smooth surface with the dimensions of height 2.7 feet, width of 4 feet. The direction of images are in west to east orientation (left to right when we see towards painting wall surface). At one place looks like a human being riding on the long necked animal at right corner, which is shown in stick like figure and the person was shown holding plank may be made of wood in one hand and the other side is tied to the those big horned humped bulls and at below it depicts type of agicultural impliments or a person hunting in



sleeping position with bow and harrow. There is a narrow space between the boulder and the rock may be used as resting place, on the floor surface some microlith stone tools have found.

One rock engraving found near by these rock art sites is done on a single granite stone erected at the border of the forest of same village its time period is around medieval age as it depicts a type of 'ass curse' image and given a particular name to that engraving stone by the local villagers in Telugu called as 'Gadidha bodu rai' when it translated to English words from Telugu 'Gadidha' means 'Donkey', 'Bodu' means ' bare' and 'rai' means 'stone' therefore after complete translation its meaning is 'Donkey's bare stone'. And based on that the author was able to trace out the rock engraving site exactly with a local village person. Found a small Telugu inscription with a engraving of local deity. The local name given to such rock boulders are as *Chittal Ralu* earlier it was pronounced as *Chitrala Ralu* where *Chitralu* means 'the images' and *Ralu* means 'stones' and for the other rock boulder the local name is given as *Padiga Rai* where *Padiga* means 'snakes hood' and *Rai* means 'stone' such local names where given to number of other boulders. Also found stone tools and potsherds in the surrounding areas of the sites, based on those findings the time period of the site can be approximately around upper palaeolithic to the medieval period and even more when coming to prehistory, the rock art paintings can be around Mesolithic to chalcolithic and even more there is a continuation of culture from pre-history to the present in this village. It is covered with thick vegetation, granite hills and granite boulders, the rock art is depicted on the granite boulder surfaces, these boulders arranged one over the other and standing on the tip of the other rocks and boulders. The soil sediment at the surrounding of the sites consist of deeply weathered rock, red soil and blackish soil, silt clay, some organic or ash color soil looks like a habitation site, in some areas there are huge big size round cobbles rich in iron content. Sites are in government assigned lands and the area is around 40 acre given to the village backward community people and some people given there assigned land for lease to the contractors to extract the soil and due to that in the vicinity of the sites around 50 mtr range, major portion of the area has been dug out and bulldozed with heavy machineries and dynamites in unsystematic way and due to that some boulders have been broken and removed, may be there were sites which are destroyed. The other area in the

surrounding opproximately 750 acres comes under forest coverage, planted mostly by Nilgiri trees which are looked after by state forest department.

STUDY AREA

The present sites in Gundla Pochampally village of Medhcal District earlier it was in Ranga Reddy District, Telangana are lies on N 17° 34' 54.93", E 78° 27' 45.13", altitude of around 533 from MSL. (Fig.1).

Cup Marks or Ringin stones and Rock Grooves

The Author found type of cupules in general which are found from lower palaeolithic age all over world or ringing stones which are found in general during Neolithic period are found in present village in vertical position of the boulder, some are in cup shape with smooth surface and some are in unfinished stages with smooth surface, why the author is saying those can be ringing stones with semi cup shaped marks as the author also tried to hit the granite boulder with the small rounded stones and due to that the ringing or gong like sound was produced and it can be heared in the surrounding forest area and reached far away places. Also found manmade grooves which are elliptical in nature with a depth, number of abrasion marks on the granite rock hills and boulders with color variation from the surrounding area from darkish to light with a slight depth and made on the granite boulders found such marks where formed due to the grinding the grains or for sharpening the broken out edges of stone tools like of Neolithic (3rd Millenium BC) stone tools like celt, axes etc. The final stage of stone axe production consists of grinding and, eventually, polishing. As in the case of pecking, this labour-intensive process rarely affects the whole surface of the artefact, leaving traces of earlier work stages and even parts of the surface skin of the raw material (Roberto et al. 2009, 14-15; Allchin 1957). In many cases only the cutting edge is polished As indicated below, it is possible that a considerable portion of the blanks or preforms were not ground in the Sanganakallu area, but in settlements further away. It is likely that only some of the artefacts were polished locally (see also Boivin et al. 2005, 77). One of the longest known archaeological features of the three hill-settlements are the grinding or polishing grooves and hollows found in the granitic bedrock or across much of the surface of large boulders (Subbarao 1948; Boivin et al. 2007). Use-wear analysis, as developed for the study of macro-lithic artefacts (Adams 2002; Risch 2002), has been carried out on the working surfaces of these features, in order to confirm

their participation in the axe-grinding process. This is the first such analysis of the features, and indeed of any grinding hollows in India. The mesoscopic observation (5-20X) of the working surfaces has shown that not all of these features served the same purpose and that many were used for different tasks. Mainly the smaller and oval hollows or 'slicks' present evidence of intensive abrasion and use-wear traces related to the grinding of stone. The larger rounded hollows, in contrast, show traces related preferentially to grain processing. Experimental tests confirmed that the deeper oval features allow a nearly mechanical grinding of the blank's edges by placing the whole artefact in the hollow, pressing it with the flat hand and carrying out a rocking movement with it. Such an operation is much more comfortable than holding the blank in the hand and grinding only the frontal cutting edge against the rock surface. In fact, many artefacts show polishing traces around the periphery, especially on the bevelled edge and the opposite butt, while the flat surfaces of the dorsal and ventral faces remain largely unchanged because of a lack of contact with the convex grinding hollows. A different form of grinding must have been carried out in the V-shaped polishing grooves, which are much less frequent in the settlements. Such features are known from ethnographic and experimental examples and allow the polishing of lateral edges (e.g. Kennedy 1962; Delage 2004, 40). In addition to the highly levelled grain surfaces, the intensity of the activity carried out in these grooves and the hardness of the worked material is also revealed by scratches and deep striations on the groove surfaces. Dr K. Rajan, Professor of History, Pondicherry University, said that "The cultural transformation from food-gathering to production of food is considered a revolution in human history and it happened during the Neolithic times, about 5,000 years ago." Human beings stayed in one place, observed the seasons and started doing agriculture. Dr. Rajan said the tools attained their final shape after passing through four stages: chiselling, pecking, grounding and polishing. The tools got smoothened after being constantly rubbed against the rocks. More rubbing led to their becoming polished tools. Since the Neolithic man constantly used these axes for cutting trees and plants, or digging out tubers from the soil, their sharp, working edges got blunted. The polished stone tools belonged to two varieties: axes and adzes. While axes were used for cutting trees and plants, the adzes were used for ploughing. The adzes were tied to wooden staff and used for ploughing.

After the advent of the Iron Age (circa 1,000 BCE), iron ploughs were made (THEHINDU, 2016).

Ass Curse Stone or Gadidha bodu rai or Gaddhegaal

The rock engraving found is done on a single granite stone erected at the border of the forest of same village its time period is around medieval age as it depicts a type of 'ass curse' image and given a particular name to that engraving stone by the local villagers in Telugu called as 'Gadidha bodu rai' when it translated to English words from Telugu 'Gadidha' means 'Donkey', 'Bodu' means ' bare' and 'rai' means 'stone' therefore after complete translation its meaning is 'Donkey's bare stone'. And based on that the author was able to trace out the rock engraving site exactly with a local village person. Gaddhegal or the Ass Curse Stele is rock edict that has peculiar features like sun, moon and kalasha. Each stone has three panels: the topmost has the auspicious mangal kalash along with a sun and moon; another informs readers about the land grant followed by the curse, and the final panel depicts the curse in cringe-worthy clarity. The mangal kalash depicts the auspiciousness of the occasion-as the king earns merit when issuing a land grant to a Brahmin-while the sun and moon indicate the perpetuity of the ruler's reign. These symbols ensure perpetuity of the grant and bestow prosperity upon the grantee. It shows generally are inscription (inclusive of the Gaddhegaali i.e. the ass curse) bearing stones with a sculptural panel depicting copulation either as a donkey or a congress between woman and donkey, this is one of the main reasons that these steles are for the lack of word thereof abhorred most of the times or simply representatively converted to icons/format of or related to God. In both cases it leads to destruction or defacement either with malicious/wilful destruction or benign aspect of understanding respectively. Here simply ignorance and or indifference play a major role.Ignorance with regards to these steles stem from them considered as vulgar/obscene or of malicious origin. This leads to wilful destruction/defacement of these steles as they are considered as vulgar especially when a copulating donkey-woman is shown and most of the times hence are either simply thrown away and or destroyed (Mokashi 2015, Wirkud 2016: 342-351). The ass curse imagery engraved on these rock edicts suggests a warning to the transgressor of the grant as these boundary markers issued by kings to Brahmins, the use of a donkey in some of these curses might stem from the fact that it was considered an "unholy" animal. However, many of the donkeys depicted

on the stones are wearing a collar, which talks about their domestication. -"When new areas are conquered, land was granted to Brahmins". "The Brahmins then collect the revenue from these lands and hand a part of the profit back to the king." - once sought to keep trespassers at bay by cursing the mother of any "unworthy", who dared disobey the decree, with this vile act of bestiality. Thus, these grant stones are historical records of the origins of the zamindari system.

These stones date back a thousand years to the Silaharas dynansty, which spanned the 10th-13th century AD. The most recent land grant stones dates back to the 17th century. A majority of these stones are found in Mumbai and Raigad because the Silaharas ruled from Thane under the auspices of the Rashtrakutas in Karnataka. shown below are few places. Interestingly, the "ass curse" is almost always written in Marathi even when the rest of the inscription is in Sanskrit because it was directed at the common people. In later years, however, when Marathi became the court language under the Yadavas, the entire inscription was in Marathi. They provide a host of other important information including the extent of both the Silaharas and Yadava dynasties, the lowly position of women in society at that time, the way in which land was measured and the existing government authorities during different reigns as generally even today, there are many Marathi curses whose origins can be traced to these stones. This may be the first time the Ass Curse Stone or Gadidha bodu rai or Gaddhegaal stone found in the Telangana region in Gundla Pochamaplly Village in Medchal district.

Found a small Telugu inscription with a engraving of local deity.

The below fig. 59 shows a Telugu inscription below the deity which is written as "Pochampally today Yellaiah". The Deity is depicted with the sitting posture with two eyes, nose on forehead the three lines marked and on the shoulders the stick like figure is depicted below it in the centre some semi circular marks depicted may be they are the ornamentation, in right hand of the stick above is depicted a four spoked wheel and in the left shoulder depicted a counch shell and overall its look likes a form of Vishnu deity. The time period of this image may be of medieval period.

one the other way to the Indus Valley people and there way of life but does not know exact time period and need more data, for that more scientific work as to be done. Also found the stone artefacts like cores, flakes, microliths, blades, Celt, axe etc., made on quartz, sand stone, lime stone,

opal, chert, granite, hematite etc., and also found thick potsherds of red and black, ash color in the vicinity of the sites, there is also a seasonal water pond in nearby. There are sites in the surrounding like Hasthalpur, in Medak District which is around 35 km from this site and from Hyderabad 70 km discovered rock art and the time period is between 50,000 to 30,000 BC. Other sites like Wargal, Edithanur, Dharmaram, Bangla Venkatapur which are in Medak district roughly 30 to 50 km from this site found rock art on granite hills which gives a time period of prehistory to early histroy and other districts in Telangana area and can be compared with the other sites of India too.

Conclusions

Based on the above findings and previous findings in neighbor areas the time period of the sites occupied by prehistoric people in this village and surrounding area can be approximately around upper Paleolithic (35000 B.P) to the early history and even more as the author had found out some pre and proto historic stone tools, some potsherds and the rock art paintings can be around Mesolithic (12000 B.P) to Neolithic (4000 B.P) and even more as well as there is a continuation of culture from pre-history to the present in this village and need to do proper scientific work at these sites as well as surrounding areas of the village to get more details as most of the rock art at those sites are dull and not clearly visible and which are almost fading away and getting lost not only due to natural weathering activities but also due to human activities. As in recent times due the real estate boom the real estate people spread to the suburban areas and destroyed as well as destroying the thick forest areas in the surrounding village by cutting the huge trees, blasting the granite hills and boulders using the dynamites in unsystematic way and land is dug out by heavy machineries to make the area plane for making the plots and ventures to sell. For the constructional, road development and for other activities the soil of nearby archaeological sites is sold, some people who venture into the forest area as these people doesn't have the knowledge and know the importance of the rock art they are painting, scratching and scribbling on the rock art. So the author would request the Archaeological Survey of India, State Archaeology Department and other concerned societies to come forward to safeguard the sites by preserving and conserving as well as making these sites as heritage sites as these sites in this area have huge potential in knowing more about the pre, proto, early and medieval history of Telangana.

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REFERENCES

1. Chakravarthy, K. K 1984. *Rock - Art of India.* Arnold – Heinemann, New Delhi.
2. Chandramouli, N 2002. *Rock Art of South India (with special reference to A.P.).* Delhi: Bharatiya Kala Prakashan.
3. Cirlot. J, E. 1971. *A Dictionary of Symbols.* Routledge & Kegan Paul Ltd, London.
4. Coomaraswamy. A , K. *Motifs and their Symbolism: Floor Art and other Arts.* Shodhganga.
5. Counts, B, Derek. and Arnold, Bettina 2010. *The Master of Animals in Old World Iconography.* Master of Animals and Animal Masters in the Iconography of the Indus Tradition by Jonathan Mark Kenoyer. Budapest.
6. Dalal, F, Kurush et al. 2015. *Four Gadhegals Discovered in District Raigad, Maharashtra.* Ancient Asia, 6: 1, pp. 1-6.
7. Government of Telangana 2015. *Rock Art Sites in Telangana.* Telangana: Department of Archaeology and Museums.

8. Krishna, Sastry, V. V 1983. *The Proto and Early Historical Cultures of Andhra Pradesh.* Hyderabad: The Government of Andhra Pradesh.

9. Malla, Bansi, Lal. 2014. *Rock Art Studies Volume I & II.* IGNCA, Aryan Books International, new Delhi.

10. Mokashi, Rupali. 2015. *Gaddhegal Stones: An Analysis of Imprecations and Engraved Illustrations.* International Journal of Innovative Research and Development. Vol 4 Issue 9.

11. Neumayer, Erwin. 1993. *Lines on Stone.* New Delhi: Manohar Publishers and Distributors.

12. Pandey, S. K. 2002. *Indian Rock Art.* Delhi: Aryan Books International.

13. Parpola, Asko., Pande, B, M & Koskikallio, Petteri. 2010. *Corpus of Indus Seals and Inscriptions. Volume 3: New material, untraced objects, and collections outside India and Pakistan.* Vammalan Kirjapaino Oy, Sastamala, Finland.

14. Risch, Roberto et al. 2009. *The Prehistoric Axe Factory at Sanganakallu-Kupgal (Bellary District), Southern India.* Internet Archaeology/Author(s) URL: http://intarch.ac.uk/journal/issue26/26/toc.html

15. Wakankar, V. S. 2005. *Painted Rock Shelters of India.* Director Archaeology. Archives and Museums, Government of Madhya Pradesh, Bhopal.

16. Wirkud, Harshada. 2016. *Public Perception of Ass-curse Steles and the Issue of Defacement Faced during Explorations in Maharashtra.* Heritage: Journal of Multidisciplinary Studies in Archaeology 4 (2016): 342-351.

TECHNIQUES OF TEMPLE CONSTRUCTION DURING THE KAKATIYA PERIOD IN TELANGANA

-E. Sivanagireddy

During Period from the 12th century A.D. onwards a spurt in the activity of building temples in stone upto the roof level and sometimes the entire temple has been observed in Andhra and Telangana. Above the superstructure of stone temples, the vimanas were some times built in brick. However, temples built to a remarkable height with extended mandapas prolifically in stone have been noticed during the period in the Telugu speaking areas. Gopalareddy[1] has classified the temples of the period into four categories, viz., *ekakuta, dwikuta, trikata* and *mandapas*. Sivanagi Reddy and Subrahmanyam have reported another variety, called *panchakuta*[2] temples at Ramanujapuram and Atmakur in Warangal region. *Ekakuta* temples are seen with *garbhalaya* and *arthmandapa; dwikuta* or *yugala* type consist of the temples either facing each other or standing side-by-side in 'L' shape or facing each other connected by a common *mandapa* noticeable at Mallesvaram[3] in Mahaboobnagar region. In the *trikuta* variety, the main shrine is supposed to be in the centre, the remaining two constructed on either side are connected by a common rangamandapa. Another variety of *trikuta* has three shrines all in a row with a common mandapa as noticed at Kusumanchi[4]. In panchakuta variety two more temples, each on either side to the existing triküta plan are added with another common *mandapa*[5] as seen at Ramanujapuram and Atmakur.

Earlier, scholars like Yazdani,[6], Murthy,[7] Ramarao,[8] Sarma,[9] Srinivasan,[10] Rajandra Prasad,[11] Prasada Rao,[12] and Ramanaiah,[13] have all dealt with the art and architectural forms of the temples of this period describing the details in all their grandeur. However, a focus on only their technological feats is still a dessitram. The architects of the period preferred to a combination of various building materials like sand, stone, brick, lime, iron and wood, depending on the properties of each item. The geology of each sub-region played prominent role in building the temples. The architects used sand for filling the foundation trench and in preparation of lime mortar and concretes. Sand bed foundations were provided for the temples at Nidikonda,[14] Palampet, Hanumakonda[15] in Warangal region and at Nagunuru and Manthani in Karimnagar region.

Granite and sand stone are chosen for almost all the exterior and interior of the temples whereas, the load bearing components like pillars, beams and floor slabs were carved in basalt stone. Basalt stone was also used for decorative purposes such as the door frames, bracket figures, ceilings and sculptures. Certain temples were constructed either in red sand stone or white and pink granite stones exclusively. The temples at Jakaram, Ramanujapuram, Ghanpur, Palampet, all in Warangal region, and those at Nagunuru, Manthani and Ranjala in Karimnagar region were constructed in red sand stone during the 13th century A.D. The temples at Chebrolu Kanchikacherla in Costal Andhra region at Kothapalli, Kalabgur, Tumukunta and Kaluvakolanu in Karimnagar-Mahaboob Nagar region were built in granite only. The *Keerthi toranas* and *Swayambhu* temple at Warangal were built in pink granite stone[16]. The temples at Nagulapadu, Nidikonda, Hanumakonda, Palampet, and Ghanpur were constructed in a combination of basalt with sand stone and granite.

Sedimentary rocks or shale stones were also used in construction of temples at places like Malleswaram in Mahaboob Nagar region, Siddheswaram in Kurnool region and Pushpagiri in Kadapa region. Use of stone slabs of massive size was the characteristic feature of the building technology of the period. Different types of stone were preferred to other materials because of their being able to withstand the vicissitudes of the climate and seasonal variations[17]. Timber, bamboos and ropes were brought for scaffolding. The craftsmen of various categories, viz., the Chief architect, *Sthapati*, stone carvers, blacksmiths, masons, painters and ordinary workers became full time workers in temple building.

Selection of suitable sites was an important criterion in temple construction. The architects of the period seem to have followed the principles laid down in the *Agama* and *Silpa* texts in this regard. Though the traditions were known earlier many of these texts were written down during this period. The temples were constructed near the confluence of rivers, in the tanks, on the tank bunds, in forests, on hills and hill slopes and on the plains[18]. Before the construction work was taken up, the fitness of the soil was to be checked according to the *Silpa Sastras*[19]. A pit was to be dug and the dug out earth was to be filled again into the pit if it exceeded the height of the pit the soil was of good

quality. In another method, water was put into the pit and observed the next morning and then the quality of the soil was adjudged[20]. The soil thus selected was to be tilled and levelled[21]. Details of how foundations were to be laid have also been described in texts. According to them, the foundation pit was dug to be depth of one man's height with raised hands, or should be a dug until the rock bottom or water level was met[22]. The pit was then to be filled with fine earth to a height of 8" on which a layer of mud concrete, a mixture of stones and wet clay, was to be laid to a height of one hasta followed by sand. It was then to be cured with water duly trodden by elephants and levelled with rammers. The next course upto the height of the pit, was to be packed with the same concrete described above and this was finally followed by stones and bricks as the first course of the temple. Some other texts prescribe only stones for filling the foundation pit. On this course, called the adharaœila, stood the entire temple[23]. Medieval texts on temple architecture, viz., the *Manasara*[24] and *Mayamata*[25] have prescribed certain norms for laying the foundations of the temples. The use of a saturated sand bed has been mentioned in these texts[26]. The architects of the medieval times in Telangana followed the same methods for the temples that were built at Nidikonda, Hanumakonda, Palampet, Ghanpur and Nagulapadu in Warangal and Nalgonda regions. The foundation trenches at Jakaram[27] and Ramanujapuram[28] were filled up with fine earth, collected from the rivers or tanks as mentioned in the *Manasara*. In the Marichisamhita[29] the construction of a wall, called *Khatakudya* in the foundation pit has been mentioned over which the plinth of the temple was to be constructed. Had the architects followed the method in the building of the above mentioned temples they would not have collapsed.

After the foundations were laid, stones quarried for the temple vargams were brought to the site. Some of the quarrying methods of the period have been observed by us at places like Ramanujapuram, Nidikonda, Katakshapur, Palampet and Hanumakonda in our field survey. Heavy to medium sized stones were extracted from the selected local quarry, after marking the sizes in linear drawings in red oxide. This was followed by chisel marking on the bouldery surface. Iron chisels, with flat tips of considerable size, were then inserted with groves already made on the line and were hammered out one by one progressively to

get the stone cut to the required sizes. This was done in the conventional 'blocking technique which was followed by the 'ridge and groove technique'[30]. In another method of extraction, wooden wedges placed in small holes, carved in the rock and then swollen by sprinkling of water to cause splitting of the rock. Instances of lines of small holes prepared for this purpose on boulders are a very common sight at the quarries of Ramanujapuram and Palampet Stone was commonly extracted from the surface of the rock exposed to the open air, against the principles laid down in the *Silpasastras* which prescribe that those stones were to be selected which were buried in the ground in order to overcome the weathering effect. The stones thus obtained were transported by wooden carts drawn by oxen or elephants. The technique of transportation of heavy blocks from the quarry to the site has been clearly depicted in a linear drawing on one of the walls of the Raichur fort[31] datable to the 13th century A.D. [**Figure1**].

Figure 1: A linear drawing of transportation of heavy stones on a wooden cart, Raichur Fort.

Mention has also been made in a *Jaina* chronicle to this practice referring to the transportation of the temple vargams in an ox-drawn cart for the construction of the temple at Mount Abu[32]. The stones thus brought to the site of construction were dressed as per the plan and elevation. The stones intended for making architectural members like *upana, jagati*, pillars, beams ,eve slabs, latticed-windows, etc. were first marked with red oxide and then chiselled with pointed chisels of varied size in order to get deep marks. Different degrees of dressing have been noticed. In the second stage, flat chisels were used to smoothen the surface and later on, they were polished with grinding stones specially made for the architectural members such as door-frames pillars, beams, ceilings, floor slabs, and other vargams. A small wooden cart drawn manually was employed to transport the finished ones from the workshop to the actual spot of construction. While dismantling the Kakatiya temple at Ramanujapur in Warangal district we have used a small wooden cart to shift the temple *vargams* in the same method [Plate]. For lifting and arranging the stones of the *adhistana* and *mandapa*, an iron pully block with ropes had to be used. An earthen ramp according to the required height was also used for building the walls and the *sikharas*. According to a local legend, the great temple at

Tanjore was constructed by laying an earthern rampart as well as wooden scaffolding[33]. Brick work over the roof was attended to by wooden scaffolding and for finishing the bottom sides of the ceilings and eve slab, shiftable wooden ladder- scaffolding was put in use.

Temporary ramps such as the one that remains at Bhojpur[34] must have been erected at the sites of all the large temples to facilitate the transportation of the huge stone blocks from work sites to their place construction. The ramp at Bhojpur is a long sloping structure, raised behind the temple, built of semi- dressed slabs of the local sand stone, topped by compact earth and sand. It rose from the natural ground over three hundred feet away in the immediate vicinity of workshops and sloped gently upwards to attain a total height of forty feet. One method used in case of the Lingaraja temple[35] at Bhuvanesvar was an inclined earthen plane, which was constructed towards the west, whose remains are still to be seen on casual digging. Generally, the ramps at the work sites must have been removed or dismantled after the completion of the construction as is evident in the case of the temples of the Kakatiyas. The stones for construction of the first layer, *upana*, of the retaining wall *pradaksinapatha* were long, heavy and broad. The average stone measured 10-0 x 3-0 x 1'-0. Each stone had an uneven bottom, levelled surface on the top, fine finish on the front side, while the rear side was left unchiselled. The uneven bottom was provided to obtain a firm grip over the sand bed against lateral movements. According to the plan, after paving the first layer of stones with fine joints, over the sand bed foundation, it was again filled with sand to the height of the first course, The sand was pounded and packed beneath this layer. Iron dowels were cramped at the joints after obtaining the uniform level of the layer. As the joints, the stones were grooved to a considerable depth so as to insert iron dowels. The clamps thus inserted were hammered in red hot to ensure that the joints had fixed firmly. The iron dowels have been found intact on some of the inside layers of the temples noticed at Nidikonda, Jakaram, Ramanujapur and Godisala visible even today. A similar method of construction was employed for all the layers, upto the first terrace or *pradaksinapatha*. Corresponding to this level the floor slabs of the *pradaksinapatha* and the *adharasila* of the *adhisana* were arranged over the saturated sand bed. Fine mortar of mud was used under the floor slabs in order to avoid the tilting of the slabs in the future and also to fill

the gaps inside them. This was clearly noticed while dismantling the temples at Nidikonda[36]. The technique in shaping the *adharasila* stone was quite interesting [**Figure2**].

Figure 2: Sectional elevation of a Kakatiya Temple, Nidikonda

In cross section, most of the stones were more or less semicircular having a broad upper surface and a blunt projected under surface. The layer acted as a catalyst or a shock-absorber while transmitting the superimposed load directly to the ground. The *adhistana* layers were constructed on the *adharasila* in the same manner as explained in the case of the *Pradak°inapatha*. The *adhistana* here acted as another retaining wall for the saturated sand bed, filled inside, on which the floor slabs of the *garbhalaya, arthamandapa* were arranged for the second terrace, i.e., the actual flooring of the temple. In some cases the sand stone slabs used for floor beams were subjected to a very high bending force, which resulted in a tensile strength of about 150 kg/sq. cm. Infact, the sand stone floor beams could not take such a high tensile load and invariably failed under tension. The same was the case with columns as in case of the *mandapa* at Palampet[37] On a prepared platform of stone slabs, kept on the sand bed, the columns were erected at suitable places taking care to see that their load was distributed on to the sand bed through the floor slabs by raft action[38]. The columns, as well as the walls, of the temples were not provided with deep foundations as noticed in case of Nidikonda, Jakaram, and Palampet temples. Pillars are carved out of long slabs which were extracted horizontally in the quarry and then installed vertically. In some cases as observed at Jakaram and Thousand Pillared temple at Hanamkonda, the stone became prone to disquamation and vertical cracks. The columns were carved out of granite, dolerite and redsand stones, Dolerite stone was used for pillars where the intensity of load was found high in case of the Kakatiya temples. It is observed that the compressive strength of granites ranged from 1000-2000 kg/sq.cm while the tensil strength varied from 80-160 kg/sq.cm.[39] For the dolerite rocks, the compressive strength varied from 2000-3000 kg/sq.cm. The Chelvai sand stone strength was found to be ranging from 600-1000 kg/sq.c. while their tensil strength varied from 50-80 kg/sq.cm. The outer wall of the temple started over the adhistäna kapota layer, whereas the inner wall was raised from the floor level. The door-frames were also erected at this stage. The inner wall was

constructed with heavy stone blocks in horizontal courses, whereas the outer wall had both horizontal and vertical slabs. The padavarga was usually made of two parallel facings of stone slabs placed on edges, with a filling of earth in the space between them. This was a rule for this entire period. The thickness of the wall varied from 1.00 mtr. to 1.50 metrs. as noticed at Ramanujapuram, Ghanpur and Nidikonda in Warangal region whereas the Venkateswara Temple at Somasila in Mahaboobnagar region, was constructed with a single course of wall only. There were thorough-stones called as bonds in some cases as observed at Somasila temple, built with two layers. No mortar was used for joints in the walls, a common feature for all temples of the period. Another interesting feature noted at some temples of the Period was provision of stone bulbs on the exterior surface of the stones of the wall portion which were used to lift and lead the stones during construction of the temples, as seen at Kusumanchi or Somasila in Khammam and Mahboobnagar region. These stone bulbs were chiselled off after the construction of the temple is over in all respects [Plate]. This is considered as an important aspect of the stone technology of the Kakatiya Period Further, the stones were placed one over the other and the monolithic action was achieved by counter weights in the form of the other members being placed on them. Dowel bars were used to attain the monolithic action. As soon as the layer of stones had been set up, stones for the next layer were cut into shape, carved and marked with numbers and kept ready for erection.

The vertical monolithic wall of the temples in general was superimposed by *phalikapadma* and *podika* layers. At the roof level both the inner and outer layers were levelled equally. The hearting portion was filled with earth, sometimes with stone chips. Simultaneously, erection of the *rangamandapa* pillars over the floor slabs in grid pattern was done. Then, the beams were placed on the pillars, as well as on the inner walls and on the uttaram layer so as to obtain a uniform level of the structure. The roof inside the *garbhagriha, Arthanmandapa* and the central span of the *rangamandapa* were arranged in *Lupa-vitana*[40] type, wherein the first course of four triangular stones, *konavattas*, were arranged over the beams in rhombus shape. Similary, the second course of four slabs *chadaravata* were formed into a square over which the central roof slab was placed. Probably, this type of roofing was designed

to reduce the unwanted load, instead of placing heavy stones, for spacious spans of the *garbhagriha* and *arthamandapa*. This arrangement also gave an impressive look to the visitors. In case of shorter spans, flat roofings were opted for, often with a single slab. In some cases, the roof was arranged in an inverted bowl shaped, cusped and coffered central ceiling. The plan and moulding of the ceilings such as the *adhopadma*, figure bearing belt, teeth course and the central *padmakesara* and drop are noteworthy. Such an arrangement has been noticed at Palampet[41] Jangaon[42] Manthani and Chandravalli[43] roof in the *Vastuvidya*[44] a medieval text. Over the *uttaram* layer, on the outside, massive and ornamental eave slabs called *Kapota*, projecting beyond the plinth (roughly 5-0 to 7'-0 in width), were arranged all around. To prevent the cornice from falling down by its own weight, a layer called, *vyala*, was placed as counter weight and sometimes, a parapet wall containing *salagaras* was also provided for, on the inner edge of the *kapota* as noticed at Palampet, aspect of the *kapota* layer was not only to drain off the rain water but also to serve as horizontal bond which sealed the hearting portion in between the inner and outer walls of the temples. The roof slabs of the temples at Palampet, Ghanpur, Jakaram and Ramanujapur are of pink coloured medium grained Chelvai sand stone with silicious matrix, and for the temples at Katakshapur, Hanumakonda, Kothapalli, Nidikonda and Nagulapadu, it is granite stone [Map & Chart]. The visible bottom sides of the slabs were well-dressed and polished, while the other side was left undressed and kept as it is and joined together by lime mortar on top side. Every stone of the ceiling was carved separately and fitted together temporarily on the ground. Then the stones were hoisted upon to the roof and arranged in position so that they were interlocked. The designs were complex and a great deal of skill and patience must have been required to produce and finish them. The roof concrete of good resistance was laid over with a mixture of bricks, lime and pebble. While dismantling of roof concrete at Ramanujapuram was observed that brick masonry in lime mortar was constructed as a level course temples. This type tallies with the description of the construction of[45] Pangal[46] and Pillalamarri[47] Jakaram[48] upto the vyala layer and finally, it was sealed with lime concrete using brick bats and small pebbles. After the construction of the temple upto the roof level, the *vimana* portion either pyramidal or in the Dravidian

style with *kutakostas*, was over started as we notice at Palampet[49]. During this period, the *vimanas* were constructed both in stone and brick. Temples with stone *sikhara* are few at places like Palampet, Panagal, Ghanpur and Nagunuru[50].

In addition to the temples, separate mandapas were also constructed during the period, based on the trebeated system, in which there was the use of columns and beams in short spans. The individual pillared mandapas constructed in this system have been noticed at Hanumakonda, Ainole, and Ghanpur[51]. The contemporary Hoyasalas had also constructed such *mandapas* at Belur, Halebid and Somanathpur in this system[52]. The architects of the period also knew the technique of building double storyed *mandapas*. Following the centre line method, the pillars of the upper storey were positioned on the same alignment of the ground floor pillars. The double storeyed mandapas of the period have been noticed at Mallesvaram[53], Duddeda[54], Bandaramesvarapalli[55], and Ghambhiraopet[56] and Panagal and Kodavatur[57]. Though the technique of erecting standing toranas was initiated during 11th century as seen at Mallesvaram[58] and Vallala[59] . A, which was improved during 13th century A.D. The toranas, at Warangal and Ainole[60] were arranged with double vertical pillars. On the top of the pillars the lintel beam, in three pieces of stone was arranged over which a decorative *makara torana* was placed as counter-weight. Single pillared toranas at Hanumakonda[61], Ramagundam[62] and Kolanupaka[63] were provided with single lintel Enclosing the temples and mandapas, the architects of the period constructed *prakaras* with neatly dressed stone slabs in single or double courses and decorated them with a coping stone. The foundation to the *prakaram* wall was provided with massive dressed slabs with 3-0 to 4'-0 in width. The *prakaras* at Ramanujapur[64] and Bandarameswarapalli[65] have the best examples of the *mandapa-dwaras*. The primary purpose in erecting a *prakara* wall round a religious edifices was that of protecting it from entry into its precincts of undesirable agents like cattle or enemy. The *prakaras* of the period range from 5'-0 to 12-0 in height and 3'-0 to 4'-6" in thickness. They were constructed with huge well-chiselled blocks of stone. The compound wall at Palampet was constructed with double layers of dressed blocks of stone, some of which measure 21'-0 x 3'-6" x 3'-6". They were fitted each other in such a way that even a small pin could not be inserted.

The top stone was dressed with coping for protection against the rain water. The space between the two layers of the compound wall was filled only with earth. The architectural stability and the artistic excellence of the *prakara* walls of the period have been extolled in an inscription found at Kondaparthi dated to 1241 A.D.[66]. It is of absorbing interest to note that in some cases, apart from the stone *prakaras*, massive earthen embankments have been found raised round the temple complexes to safeguard them. Examples of this type were found at Ghanpur, Katakshapur and Kondaparthi. Each component of the temple was so technically designed as to serve both a functional and decorative purpose. For example, the bracket figures were designed not only to receive the superimposed load, but also to add aesthetic grandeur to the structure on the whole. Bracket figures were provided to support the corresponding beams and had been carved with human and animal figures, *madanikas* or *vyalas*[67]. The bracket figures have been employed at Palampet[68], Ghanpur[69], Jangaon[70] and Manthani[71] in Warangal-Karimnagar region and at Tripurantakam[72] in Prakasam region regarding the load distribution, an important factor in building technology, the architects had been careful to design their structures to be distributed on the temple walls and pillars. In some cases, load was laid on the door frames, which resulted in the breakage of the lintels and collapse of the door frames as has been noticed at Jakaram[73] and Ghanpur[74].

As per the load distribution calculations, the main columns at Ramappa temple at Palampet, with a spacing of 4.5 mtrs, carried a maximum load of 45 tonnes. This rested directly on floor slabs with a cross section of 90 x 40 cm, In turn, the floor slabs rested on the sand filling. It is noteworthy, that with its superimposed load, its bending stress went upto 180 kg/sq. cm. against its usual bending stress of 110 kg/sq. cm on non-uniform section of the floor slabs[75], This is the reason why they have succumbed to heavy pressure and have broken. The observation the distribution load on four inner columns of the temples like the Ramappa temple at Palampet, cdearly shows that due to the high intensity of the load transmitted, it collapsed, once it went above the usual stress permitted. While dismantling the temple at Nidikonda[76], it was observed that the total load of the inner walls of the temples which consisted of the roof, beams, and the self weight of the walls was

concentrated over the inner floor slabs of the *garbhalaya* and *arthamandapa*. The load of the *rangamandapa* was received by the four central pillars which concentrated on the floor slabs that corresponded to the floor level of the temple. The load of the *prastara, padavarga* and *adhistana* was transmitted on the *adharasila*, corresponding to the floor level of the *pradak°inapatha*[77] as noticed at Nidikonda.

The architects here provided deeper foundations to the outer wall when compared to the inner wall of the temple. The technical aspect to note here is that, the two vertical distributing load points were transmitted the loads directly to the sand bed, downwards as well as in the lateral directions. The important technical device employed here was the balancing of loads by providing massive retaining walls. The inner retaining wall of the *adhisana* acted as a curtain wall to stop the outward thrust that emanated from the inner wall and facilitated that the load be carried smoothly and directly to the ground. Similarly, the outer retaining wall or *pradak°inapatha* played a major role in transmitting the entire load of the superstructure to the foundations arresting the lateral pressure from the *adharasila* and the *rangamandapa*. The entire load of the structure was balanced in equilibrium, over the compact sand bed and it was achieved by their perfect method of the joinery of massive stones. The builders were successful in the joinry technique of the massive stone slabs. Heavy and massive slabs were used in order to minimise the number of joints. The joints of the exposed faces, both vertical and horizontal, were chiselled in such a manner that even a thin fibre could not pass through them. As mentioned earlier the joint was cramped with iron dowels. The architectural skill and workman- ship of the architects of the period particularly in stone joinery, dressing and construction of temples has been elaborately described in the Kondaparti[78] inscription of Ganapatideva's reign. It is mentioned that the prakara around the trikuta temple at Kondaparti was constructed with blocks of stones closely fitted and uniformly chiselled and it appears to have been hewn out of a single hung stone block. It seems that the architects followed certain guidelines prescribed in the *Silpa* and *Agama* texts in the joinry of beams, layers and pillar accessories. The corner stones of each horizontal layer were arranged in the form of *nandyavartha*[79] joint, i.e., the stone placed in the east was to project towards the south and likewise. In some cases

the stones of the horizontal layers and the accessories of the pillars, i.e., *kudam, phalika-padma, podika* were arranged in *sukaraghrana*[80] joint. In this case the upper stone would have a triangular bulb/projection whereas a suitable groove would be dressed to the lower one, like a socket and cylinder, also called as boar-snout system. The temple *vargams* at Nidikonda, the *rangamandapa* pillars at Palampet, Hanumakonda, Jakaram and Ramanujapuram were given such treatment. Sometimes the corner beams were provided with *mallabandha*[81] type of joint as seen at Nidikonda, Jakaram, Katakshapur, Ghanpur and Palampet temples. This is also called as the halved joint because the ends of the stones at joint were cut half horizontally and fixed **.**

Joinery of Kakatiya Temples.

At Nidikonda[82] it is also observed that a few granite slabs, heavy in size, were planted vertically at the inner corners of the layers at plinth level. A trial trench below the lower most layer revealed the occurrence of a compact sand bed mixed with stone chips to a depth of 2'-6" and exclusively with sand to a depth of 2-0, below which a layer mixed with sand and morrum was continued in the foundation pit, revealing a well planned practice of laying foundations known from the 10th to 14th centuries A.D. The temple at Mogilicherla[83] and Somasila[84] were constructed in *sandhara*[85] type with closed *pradaksinapathas* and without latticed windows by the side of the vertical door frames. Later, *nirandhara*[86] type of temples were constructed during the period, having half curtain walls called the *Kakshasanas* or *asanapattis*[87] on the *adhistanas* with a provision for latticed windows on the door frames. This facilitated the reduction of the self weight of the door frames and also allowed sufficient light into the sanctum sanctorum. Such windows were arranged on the door frames of the *arthamandapa* and *rangamandapa* walls as seen at Jakaram in Warangal and Manthani in Karimnagar region. The architects of the medieval period exhibited their skill and mastery in maintaining architectural refinement, unity and compatibility in the spatial organisation of temples. The classical example of this type is Thousand Pillared temple at Hanumakonda, in the distribution of the principal architectural members, viz., the temple proper, nandi pavillion and the mandapa. Besides these units, other structures like pachanalaya the kitchen, beautifully designed well, called

Pushkarini, a small unicelled shrine and a pillared *mandapa* were also judiciously distributed around the main temple.

Certain drawbacks in building technology of the period have been observed by us. The detailed investigations conducted at different temples of the period have revealed that the architects of the period relied on sand box method for laying the foundation. Further, the load bearing walls and columns were directly constructed on the floor slabs which were resting on the sand box, without taking the foundations till the hard strata was met[88]. However, taking an overall view of the various technical aspects while dismantling the temples constructed during the 11th-13th centuries A.D., it needs to be concluded that the architects possessed high standards of technical skills, in building massive and magnificent religious edifices.

It was during the Kakatiya Period that temples were prolifically built with stone technology all over Andhra and Telangana. Brick was also used to build the *sikharas* above the stone structures. More elaborated mandapas, temples with twins and triple cells and even five celled ones under one common roof began to be built. Massive *toranas*, and *prakaras* have also been built using blocks of stone quarried nearby. An important feature of the building technology consisted of sand box foundations for the stone temples. All the sides of the sand box were reverted with massive stone slabs, which served as retaining walls also called as *upapeethas* that have been found at Hanumakonda, Nidikonda, Palampet, etc. Floors were also laid with stones. The walls had two layers whose hearting portion was filled with mud mixed with stone chips. No binding material was used and grip was ensured on the top of each layer by providing vertical grooves so as to fit in the stone bulbs carved on the bottom of the layer that came above the previous one as observed at the Nidikonda temple[89].

In case of most of the temples built between 12th-13th centuries A.D., the load bearing and receiving components were of dolerite stones. This can be seen at temples of Ghanpur, Kusumanchi, Palampet and Warangal. To ensure sufficient light inside the temples in the case of closed *mandapas*, stone windows were provided at the walls and on either side of the door frames of the *arthamandapas*. Perforated jallis with *gonetra* and *swastika* design have been found at Jakaram, Manthani,

Ramanujapurama and at a good number of other temples. The arrangement of tiered roof slabs diagonally for spacious spans speaks of the sound knowledge in structural engineering. Brick technology was also put to use to build the *vimanas* to reduce the unwanted load over the roofs of the *garbhagrihas*, a feature that has been noticed at Palampet, Pillalamarri and Chebrolu. Water seepage was overcome by arranging the lofty and wider eve slabs to drain out the rain water and the roof was laid with lime concrete. A thick concrete of 2'-0 in depth which was dismantled by us at Jakaram and Godisala temples which indicates its prolific use. The *sthapatis* had employed different joinery methods for joining the various architectural members. All the above achievements are testimonials to the technological expertise of the traditional builders of the temples who were well-trained in temple building activity right from the selection of the site to the consecration of the temple, following the prescriptions of traditional texts and treatises on temple building during the Kakatiya period.

REFFERENCES

1. Y. Gopala Reddy, *The Ghanpur Group of Temples*, Hyderabad, 1985, p. 6
2. E. Sivanagi Reddy and B. Subrahmanyam, A Unique Panchakuta Temple of Kakatiya Period at Ramanujapuram, in S.N. Rao (ed.), *Cultural Heritage of the Kakatiyas*, Warangal, 1993, pp. 47-51.
3. E. Sivanagi Reddy, The Malleswaram Group of Temples, *PAPHC*, 14th Session, Warangal, 1992, p.90.
4. K.V. Chalam, The Temples of Kusumanchi, *Itihas*, vol. XI, no.1, Hyderabad, 1983, pp. 119-128
5. E. Sivanagi Reddy, B. Subrahmanyam, *Op.Cit*., 1993, p. 47
6. G. Yazdani, *Early History of the Decom*, vol. I, pt. VIII, Oxford, 1952, pp. 27-29.
7. S. Gopala Krishna Murthy, *The Sculpture of the Kakatiyas*, Hyderabad, 1964.
8. M. Rama Rao, *Select Kakatiya Temples*, Tirupati, 1966.
9. M.R.K. Sarma, *Op.Cit.*, K.R. Srinivasan, *Op.Cit.*, Delhi, 1972.
10. K.R. Srinivasan, *Op. Cit.*, Delhi, 1972.
11. B.R. Prasad, *Art of South India, Andhra Pradesh*, Delhi, 1980
12. C. Prasada Rao, *The Kakatiya Sculpture*, Hyderabad, 1987.
13. Ramanaiah, *Temples of South India*, Delhi, 1989
14. E. Sivanagi Reddy and B. Subrahmanyam, 'Kakatlyula Kalasidhilalu-1: Nidikonda 56 Devalayamu (Telugu)', *Aardhana*, vol. 32, no. 9, Hyderabad, 1987.

15. M. Pandu Ranga Rao,*Geo-Technical Appraisal and Evaluation of Kakatlya Monuments*,Warangal, 1991 (Typed script).
16. E. Sivanagi Reddy and B. Subahmanyam, 'Materials and Techniques of the Kakatiya Temples', paper presented at a *National Seminar on Art and Architecture of the Kakatiyas*, 17-19, November 1992 P.S Telugu University, Srisailam.
17. M. Pandu Ranga Rao, *Op. Cit*., 1991, p. 33.
18. S. Kramrisch, *The Hindu Temple*, vol. I, Calcutta, Reprint, Delhi, 1976, p. 121
19. *Brihat Sarmhita*, L. 11, 90-92; *Bhavishya Purana*, Ch. CXXX, 45-46 101.
20. *Isanasivagurudeva Paddhati*, III ch. XXVI, 40-41.
21. *Tantrasamucchaya*, pt. I. 1. 59
22. *Kasyapa Silpa*, IV. 19; *Tantra Samucchaya*, I. Ch. I, 24-81
23. *lbid*, II, XII. 3
24. P.K. Acharya, *Architecture of Manasara*, Manasara Series,vol.IV,(2nd Edition), Delhi, 1980,PP.109-121
25. Bruno Dagens, *Mayamata*, Premier Partie, Pondicherry, 1970, Chapter XII.
26. See Raghunatha Bhattacharya, (ed.), *Marichi Samhita*, Madras, 1927, Chapter 6. (Jalantamva Silarntam va khanitoa, salyapohy, Valukabhiraparya, Hastipadena ghatfam kritvam) and also the details of the foundations are also dealt in *Isana Sivagurudeva Paddhati* as follows The depth of the foundation pit should be equal to the height of a man standing with raised hands, or be dug to the rock-bottom or the water level according to the geo-physical the site. conditions of after the pit is dug, it should be filled with pure earth, 8" high; on this layer another one is placed of one cubic height which is composed of layers of strong stones each embedded in wet earth and separated one from the other by sand and earth; it is moistened with water, trodden by elephants and levelled with heavy wooden stampers. Then the temple plinth is started".
27. E. Sivanagi Reddy and B. Subrahmanayam, 'Kakatiyula Kalasidhilalu-3: Jakaram Sivalayamu (Telugu), *Aradhana*, vol. 36, no. 6, June 1991.
28. E.Sivanagi Reddy and B. Subrahmanayam, 'Kakatiyula Kalasidhilalu-2: Panchakutalayamu, Ramanujapuram, *Aradhana*, vol. 36, no. 1, January, 1991.
29. Gerald Colas, Some Remarks about the Construction of the temple accroding to Marichisamhita', *Svuoj*, vol. XXI-XXII, Jan- Dec, 1978-79, pt. 1-4, pp. 43-50.
30. KV. Soundara Rajan, 'Tamil Temple Architecture and Art', *Marg*,vol. XXXIII, no. 2, 1990, p. 16.
31. Andreas Volwashen, *Living Architecture-India*, Calcutta, 1969, p. 181.
32. *Ibid*, p. 180.
33. *lbid*, p. 181
34. Kirit Mankodi, 'Scholar Emperor and a Funerary Temple, Eleventh Century Bhoipur' in, Vidya Dehejia (ed.), *Royal Patrons and Great Tenple Art* (Marg), Bombay, 1988, pp. 101-112

35. A. Boner, et al, *Netw Light on Sun Temple at Konarak*, Delhi, 1972, p. 83.
36. The author has dismantled this Kakatlya Temple during 1983-84 because of its dilapidated condition. 37. M. Pandu Rang Rao, *Op. Cit.*, 1991, p. 124
38. E. Sivanagi Reddy and B. Subrahmanyam, *Op. Cit.*, 1991, p. 17
39. M. Pandu Ranga Rao, *Op. Cit*, 1991, p. 102.
40. P.K. Acharya, *Op. Cit*., 1980, p. 181
41. M.R.K. Sarma, *Op. Cit*., 1972, p. 196
42. J. Ramanaiah, *Op. Cit*., 1989, p. 120.
43. *Ibid*, p. 108 &125
44. P.O. Sompura, 'The Vastuvidya of Viswakarma', in Pramod Chandra (ed.), *The Studies in Indian Temple Architecture*, Varanasi, 1975, pp. 47-56.
45. B.R. Prasad, *Op. Cit*. 1980. p. 182.
46. M. Rama Rao, *Select Andhra Temples, Hyderabad*, 1970; *Op. Cit*, 1966. PL.XXXVIII
47. B. R. Prasad, *Op. Cit*., 1980, p. 182, and also in M. Rama Rao, *Op. Cit*. 1966, p. XL.
48. E. Sivanagi Reddy and B. Subrahmanyam, in *Aradhana*, vol. 36, no. 1, January, 1991
49. M.R.K. Sarma, *Op. Cit*., 1972,
50. J. Ramanaialh, *Op. Cit*., 1989, pp. 108-116.
51. Y.Gopala Reddy, *Op.Cit*., 1985,
52. S.K. Maity, *Masterpieces of Hoyasala Sculpture*, Coper Hagen, p. 8.
53. E. Sivanagi Reddy and B. Subrahmanyam, 'Okanati Agastheskarame Neti Malleswaram' *Eenadu* (Mahboobnagar District Special), 23rd March, 1991, p. 4.
54. Personal Communique with G. Venkata Ratnam, Epigraphy Assistant, Department of Archaeology and Museum, Hyderabad 120. 9
55. P. Brahmachary, Rajeswaralayam-Bandarameswarapalli', *Saptagiri*, vol. 21, no. 7, 1990, p. 11. .
56. J. Ramanaiah, *Op.Cit*., 1969 p. 141 141.
57. Personal Communique with N. Rama Krishna Rao, Asst. Director, Archaeology and Museums Deepartment, Warangal.
58. B.R. Prasad, *Op.Cit*., 1980, p. 144, Pl. 44
59. Personal Communique with Dasarath Reddy, President, Youth Association of the Village.
60. S. Gopalakrishna Murthy, Op Cit., 1964, p. 30
61. *Ibid*, 1964, p. 30.
62. J. Ramanaiah, *Op.Cit*., 1989, p. 143, Pl. 45
63. S. Gopalakrishna Murthy, *Op. Cit*., 1964, p. 30

64. E. Sivanagi Reddy and B. Subrahmanyam, in Aradhana, vol. 36, no. 1, January, 1991.
65. P. Brahamchary, *Op. Cit*., 1990
66. *Hyderabad Archaeological Series*, no. 13, pp. 16, ff. V. 42.
67. Christopher Tadgel, *The History of Architecture in India*, Delhi, 1990, p, 138
68. Y. Gopal Reddy, 'Sailent Features of the Kakatiyan Style of Architecture', in V.V. Krishna 140.

    with N.Rama Krishna Rao, Asst. Director,Archaeology and Museums (ed.), *Op. Cit*., 1987, p. 45
69. Y. Gopala Reddy, 'Ghanpur Group of Temples', *JAHRS*,vol. XXIX, pp. 27-29.
70. J. Ramanaiah, *Op. Cit*., 1989, p. 120, Pls. 99 &100
71. *Ibid*, Pl. 104
72. Y. Gopala Reddy, 'Madanikas of Palampet, *JOI*, vol. XXIX,no. 3, March 1974, pp. 219-230.
73. E. Sivanagi Reddy and B. Subrahmanyam, in *Aradhana*, vol. 36, no. 6, June, 1991.
74. Y. Gopala Reddy, Op. Cit., *JAHRS*, vol. XXIX, pp. 27-29
75. M. Pandu Ranga Rao, *Op. Cit*., 1991, Appendix, 5-8, pp. 119-122
76. The Temple at Nidikonda in Jangaon Taluk of Warangal District was dismantled in 1983, under the supervision of the author it was thoroughly documented from the roof to the plinth level.
77. E. Sivanagi Reddy and B.Subrahmanyam, *Op. Cit*., 1991, p. 15
78. P.V.P. Sastry *Op. Cit*., 1978, p. 300 Prakarojayati Trikutamabhitastat tena Nirmapitah Suslistaik Kramasirshakairupachito Nilopalaih kalpitah Yatchalakshita sandhi bandha Kadhane dekasila Tak shakaih Sam Takshya Evamahiyasam Iva silam yatnat samuttanithah), and also See N. Venkatarmanaiah, *Inscriptions of Andhra Pradesh*; *Waragal District*, Hyderabad, 1974, p. 198
79. P.K. Acharya, *Op. Cit*., 1980, p. 198
80. *Ibid*, 1980, pp. 178-179
81. *Ibid*, 1980, pp. 178-179.
82. E. Sivanagi Reddy and B. Subrahmanyam, *Op. Cit*., 1991, p. 16.
83. S. Gopalakrishna Murthy, *Op. Cit*., 1964, p. 11
84. Bruno Dagens, *Entre Alampuret Srisailam*, Tome I, Pondicherry, 1986, p. 320
85. T.V. Mahalingam, *Studies in the South Indian Temple Complex.* Dharwar, 1970, p. 14.
86. *Ibid*, 1970, p. 14
87. Y. Gopala Reddy, 'The Asanapattis in Kakatiya Temples' in, D. Handa (ed.), *Ajayasri*, (Ajay Mitra Sastry Felicitation Volume), vol. I, Delhi, 1989, p. 165

88. M. Pandu Ranga Rao, *Op.Cit.*, 1991, p. 310.

89. The temples at Nidikonda, Jakaram, and Ramanujapuram have been dismantled under the supervision of the author by the Department of Archaeology and Museums, Hyderabad, during the years 1983, 1989 and 1990.

ABBREVIATIONS:

PAPHC: Proceedings of the AP History Groups

JAHRS: Journal of Andhra Historical Research Society

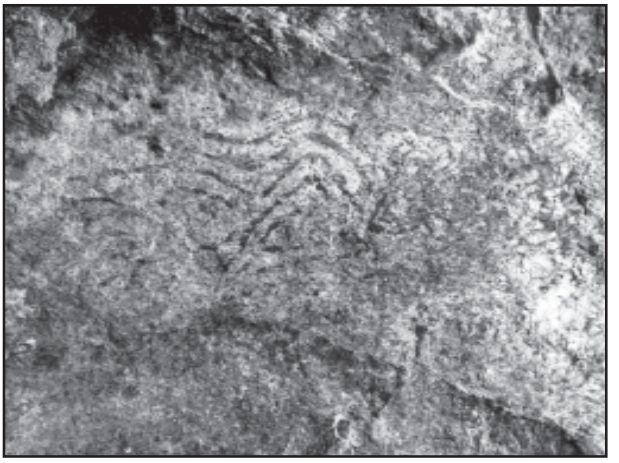
JOI : Journal of Oriental Institute.

కంచన్ పల్లి

– శ్రీరామోజు హరగోపాల్

కంచన్ పల్లి రాతిచిత్రాల తావు-1

కొత్తరాతిచిత్రాల తావు దొరికింది. మెదక్ జిల్లా కౌడిపల్లి మండలం కంచన్ పల్లి గ్రామానికి ఆగ్నేయాన మాలగుట్ట అని పిలువబడే కలిసిపోయివున్న రెండు చిన్నగుట్టలున్నాయి. అందులో 17054'9"–ఉత్తర అక్షాంశంపై, 78015'47"– తూర్పురేఖాంశంపై వున్న సన్నాసిరాళ్ళు అని పిలువబడే ఒక పడిగెరాయికి ఎర్ర(జేగురు) రంగులో వేసిన రాతిచిత్రాలు (Rock Paintings) న్నాయి. ఈ చిత్రాలు దాదాపు పది అడుగుల ఎత్తు, 12 అడుగుల వెడల్పులున్న రాతిగోడ కాన్వాస్ మీద పెద్దసైజులో వేసివున్నాయి. ఈ బొమ్మల్లో తలలు కింది వైపున్న 2 రెండడుగుల ఎత్తు చేపలు, తల పైకివున్న 3 అడుగుల ఎత్తున్న చేప ఒకటి, మరోరెండు వెలిసిపోయిన చేపలు, ఒక ఫించంతో అందమైన ఒకనెమలి బొమ్మ, ఒక పెద్దవృత్తం, మరొకటి దానిపైన రంగునింపిన వృత్తం, వాటిపక్కన నిలువు గీతలు వేసిన బొమ్మలున్నాయి. మరెన్నో రంగుపెచ్చులూడిన బొమ్మలు ఏ ఆకారాలు తెలియ నట్లున్నాయి. మధ్యలో ఒక జింకవంటి జంతువులో నగం(వెనక) భాగం చిన్నతోకతో కనిపిస్తున్నది. గుర్తింప వీలులేని కొన్ని రాతిచిత్రాల జాడలు అగుపిస్తున్నాయి. మరొక నెమలి పైనున్న చేపలవక్కన వెల్లకిల పడివున్నట్లు కనిపిస్తున్నది. బహుశః అది చనిపోయిన నెమలిని చిత్రించి నట్లనిపిస్తున్నది.



మా చరిత్రబృందం సభ్యులు బండి మురళీధర్ రెడ్డి, వేముగంటి మురళీకృష్ణ, శ్రీరామోజు హరగోపాల్, తెలంగాణ హిస్టరీ కాంగ్రెస్‌లో 'తెలంగాణ రాతిచిత్రాలలో నెమలి' అనే అంశంమీద ఇటీవలే పరిశోధనాపత్రాన్ని సమర్పించారు. తెలంగాణలో రాతిచిత్రాలలో నెమళ్ళు ప్రత్యేకం. అందులో కంచనపల్లి నెమళ్ళు ప్రత్యేకం.

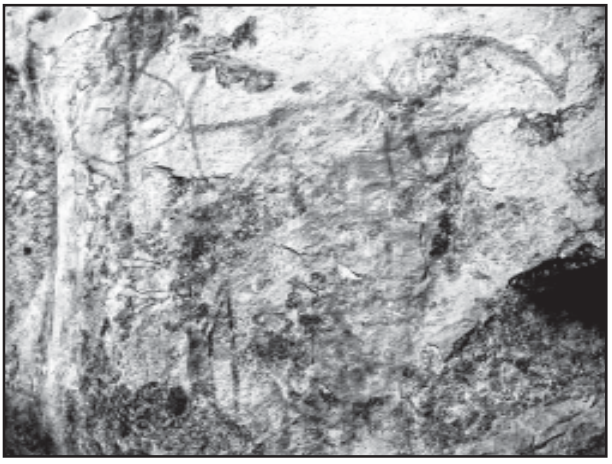
ఇందులోని చేపలచిత్రాలతో పోలిన చేపబొమ్మ మహబూబ్ నగర్ జిల్లాలోని అక్కమహాదేవి గుహల్లోని రాతిచిత్రాలలో వుంది. వరంగల్ జిల్లా పాండవులగుట్ట రాతిచిత్రాలలోని జేగురురంగు నింపిన పొడుగైన మూడు చేపలబొమ్మలు తలలు పైకి వుంచినట్టు గీసివున్నాయి. మహబూబ్ నగర్ జిల్లా కోయిల్ కొండలో కూడా చేపలబొమ్మలు రంగునింపినవే. కాని, ఇక్కడ కంచనపల్లి రాతిచిత్రాలు ప్రత్యేకచిత్రణతో కూడినవి. వీటి శైలి, ఇతివృత్తం వేరు. బొమ్మలమీద బొమ్మలు వేయడంవల్ల (Superimposition-అధ్యారోపణం) పాతచిత్రాలు, కొత్తచిత్రాలు కలగలసి పోయినవి. చేపల బొమ్మలు, నెమలిబొమ్మలు పూర్వమానవుల వేటవృత్తిని

సూచించేవే. ఈ రాతిచిత్రాలున్న తావులో పనిముట్లు దొరకలేదు. పైనుండిపడ్డ నీటిధారలవల్ల అక్కడ సన్ననిమట్టి పేరుకుపోయింది. ప్రస్తుతం బొమ్మలున్న రాతిగోడ కిందవున్న సొరికె అడవిపందుల ఆవాసమైంది.

గుట్టపాదాలవద్ద మట్టిలో కూరుకుపోయిన ఒక క్లీవర్ (మొన విరిగివుంది) దొరికింది. చాపర్ వంటి రాతిబిళ్ళ కూడా లభించింది. ఆ ప్రాంతమంతా గులకరాళ్ళున్నాయి. గులకరాతితో చేసిన గొడ్డలి వంటి మొద్దు పనిముట్లు సేకరించిన వాటిలో వుంది. రాతిచిత్రాలలోని పాత, కొత్తచిత్రాలను, వాటిరేఖలను బట్టి ఇవి మధ్యరాతియుగం నాటివని అనుకోవచ్చు.

కంచన్ పల్లి రాతిచిత్రాల తావు-2

కంచనపల్లి గ్రామంలోనే ఎల్లమ్మబండ దగ్గర ఇంకొక రాతిచిత్రాలతావు గుర్తించబడింది. తెల్లరాళ్ళగుట్టకు దక్షిణంగా వున్న చిన్నరాతిగుట్టమీద నేలకు 15 అడుగుల ఎత్తులో తూర్పుదిక్కు తెరుచుకుని వున్న రాతిగుహ వుంది. దానిమీద కప్పురాయికి ఎరుపురంగులో చిత్రించిన రాతిచిత్రాలున్నాయి. అవన్నీ పూర్తిగా రెండు సమాంతరరేఖలతో ముగ్గులవలె వేసిన డిజైన్లు. పూలవంటి డిజైన్లు. అచ్చంగా నాగర్ కర్నూల్ జిల్లా పాతబొల్లారంలో వివిక్రుష్ణశాస్త్రి, ఈమని శివనాగిరెడ్డి, ఠాకూర్ రాజారాంసింగ్, బి. సుబ్రహ్మణ్యం చూసిన బొమ్మలను పోలివున్నాయి. వీటిలో ఏ బొమ్మను కూడా జంతువుగానో, మానవాకృతిలోగాని గుర్తించలేకుండా వున్నాయి. నైరూప్య లేదా అబ్ట్రాక్ట్ చిత్రాలలో వర్టిక్యులారిటి వుండకపోయినా ఊహ చేయవచ్చు.



ఇటువంటి నైరూప్య రాతిచిత్రాలదశ పాతరాతియుగం, మధ్యరాతియుగం కాలాలకు చెందినదై వుంటుంది. రాతిచిత్రాలతావు పరిసరాల్లో మంచి సన్నరాళ్ళ (మైక్రోలిథ్స్)పనిముట్లు దొరికాయి.

ఒకే రాతిగుట్టకు రెండు వేర్వేరు చోట్ల ఈ చిత్రాల పరిణతి, భేదాలు, చిత్రాలలో వస్తువు, చిత్రణాశైలులు ఈ ప్రదేశాల్లో పురాతన మానవ ఆవాసాలను గుర్తించడానికి, వారి జీవనసంస్కృతి ప్రతిబింబాలను దర్శించడానికి పెద్ద సాక్ష్యాలు. ఈ చిన్నతావుల్లో నివసించిన మానవసమూహాల ద్రిమ్మరిజీవితాల్లో ఈ రాతిచిత్రాల సంతకాలు, ఈ రాతిచిత్రాల రాతపత్రాలు వారు మనకు చెపుతున్న వారి వికాసగాథల్ని వినిపిస్తుంటాయి.

పాతమెదక్ జిల్లాలో, కొత్త సిద్ధిపేట, సంగారెడ్డి, మెదక్ జిల్లాలలో చిత్రితశిలాశ్రయాలు చాలా వున్నాయి. ఇంకెన్నో వెలుగుచూడనివి వుండవచ్చు.

ఇప్పటికి పాతవి, కొత్తవి కలిపి

1. జక్కన్నపేట,
2. తిమ్మారెడ్డిపల్లి,
3. శివారు వెంకటాపురం,

4. ధర్మారం,
5. కంచనపల్లి(2తావులు),
6. రత్నాపూర్,
7. కుకునూర్,
8. నైనిజలాల్ పూర్,
9. బుడిగెపల్లి,
10. రేగొండ,
11. వర్గల్(2తావులు),
12. బంగ్లా వెంకటాపురం,
13. ఎడితనూరు,
14. అచ్చాయపల్లిలలో

రాతిచిత్రాలతావులున్నాయి.

కంచనపల్లిలో రెండు రాతిచిత్రాల తావులని గుర్తించింది మెదక్ నివాసి, ఔత్సాహిక అన్వేషకుడు, మా చరిత్రబృందం సభ్యుడు డిమార్కిస్టు కె.శంకర్ రెడ్డి.

ఈ అన్వేషణలో కొత్త తెలంగాణ చరిత్రబృందం సభ్యులు శ్రీరామోజు హరగోపాల్, వేముగంటి మురళీకృష్ణ, గుండం మోహన్ రెడ్డి (తెలంగాణ జాగృతి), సాయికృష్ణ, సహాయకులు చిట్టి(నరసింహారావు), నాగరాజు మరియు కొడిపల్లికి చెందిన అంపటి సంతోష్ కుమార్, కంచనపల్లి గ్రామస్తులు పాపయ్య, వెంకయ్యలు పాల్గొన్నారు.

ఆధార సూచికలు:

1. *Annual Report – 1986-87*. 1990. V.V. Krishna Sastry (ed.), Department of Archaeology and Museums, Govt. of Andhra Pradesh, Hyderabad.
2. CHANDRAMOULI, N. 1994. Rock Art of Andhra Pradesh-South India, *Purakala* 5 (1-2).
3. CHANDRAMOULI, N. 2003a. Rock Art of Andhra Pradesh, in M.L.K. Murthy (ed.) *Pre and Proto Historic Andhra Pradeshup to 500 BC*, vol.I (Comprehensive History of Andhra Pradesh Series), Orient Longman, Hyderabad.
4. CHANDRAMOULI, N. 2003b. Rock Art of Telangana*,* A Report of the minor research project (UGC unassigned grants) submitted to the School of History, Culture and Archaeology, PottiSreeramulu Telugu University, Srisailam, Andhra Pradesh, unpublished.
5. CHANDRAMOULI, N. 2012. Beginning of Cattle domestication in Andhra region: Perspectives of rock art and archaeology, *Purakala* 22.
6. CHANDRAMOULI, N. 2013.*Rock Art of Andhra Pradesh A New Synthesis*, Indira Gandhi National Centre for the Arts (Aryan Books International), New Delhi.
7. GNANESWAR RAO, KATTA, SRIRAMOJU HARAGOPAL, KATTA SRINIVASA RAO and VEMUGANTI MURALIKRISHNA 2017. Identification of Natural Pigments used in Rock Paintings from different Rock shelters in Telangana with portable Raman Spectroscope, a paper presented in 22nd Congress of The Rock Art Society of India

(RASI) held at Deccan College Post Graduate and Research Institute, Pune from 26-28 October.

8. HARAGOPAL, SRIRAMOJU and VEMUGANTI MURALIKRISHNA 2018. A Rock Art Site at Ratnapur in Telangana, *Purakala* 27-28.
9. *INDIAN ARCHAEOLOGY – A REVIEW*: 1959-60, 1963-64, 1964-65, 1967-68, 1973-74, 1974-75, 1975-76, 1976-77, 1977-78, 1983-84.
10. KESEV V. GENTELA, ARAVIND KUMAR and K. JOHN MILTON 2018. A Study of Rock Art Sites at Devarlamorey and Peerollaloddi in Lower Godavari Valley, Telangana, *Purakala* 27-28.
11. KRISHNA MURTHY, L. S. 1941. Geology of parts of Mahabubnagar and Gulbarga District*, The Journal of Hyderabad Geological Survey* 4 (1).
12. KRISHNA SASTRY, V. V. 1983. The *Proto and Early Historical Cultures of Andhra Pradesh,* Department of Archaeology and Museums, Govt. of Andhra Pradesh, Hyderabad.
13. MURALIKRISHNA, VEMUGANTI 2017. Rock Art in Vargal in Telangana State (in Telugu), a paper presented in 21stCongress of The Rock Art Society of India (RASI) held at Dept. of AIHC & Archaeology, Sri Venkateswara University, Tirupathi from 16-18 February.
14. NEUMAYER, ERWIN 1993. *Lines on Stone: The Pre historic Rock Art of India*, Manohar Publishers and Distributors, New Delhi.
15. NEUMAYER, ERWIN2011. *Rock Art of India: The Pre-historic cave-Art of India*, Oxford University Press, New Delhi.
16. REDDY, B. M. 2016. Discovery of the Rock Art sites in Andhra Pradesh and Telangana in 2015-16, *Purakala*26.
17. REDDY, B. M. 2018. Discovery of Rock Art sites in Telangana State reported during 2016-2017, *Purakala*27-28.
18. SAIKRISHNA, E.2017. New Rock Art findings in Gundla pochampally, Medchal District, Telangana, a paper presented in 22nd Congress of The Rock Art Society of India (RASI) held at Deccan College Post Graduate and Research Institute, Pune from 26-28 October.

చీర్యాలలో శిథిల శివాలయం: కళ్యాణీ చాళుక్యుల శాసనం

– శ్రీరామోజు హరగోపాల్

తెలంగాణా జాగృతి ఆధ్వర్యంలో తెలంగాణ చరిత్రను అన్వేషిస్తున్న కొత్తతెలంగాణ చరిత్రబృందం సభ్యులు శ్రీరామోజు హరగోపాల్, వేముగంటి మురళీకృష్ణ, సహాయకుడు చంటి, వారసత్వశాఖ ఉద్యోగి జి.రాజేందర్ గైడెన్స్ లో మేడ్చల్ జిల్లా, కీసర మండలంలోని చీర్యాల గ్రామంలో 1200యేండ్లనాటి పురాతన శివాలయ శిథిలాలను సందర్శించారు. అక్కడున్న శాసనాన్ని ఎడిట్ చేసి, పరిష్కరించారు.

మనం చూసే వీరగల్లులలో ప్రాణత్యాగం చేసిన శివభక్తుల ప్రతిమలు కూడా చేరి గౌరవించ బడుతున్నాయి. అటువంటి వీరగల్లు చీర్యాలలోని శివాలయ శిథిలాలలో కనిపించింది. భక్తుని తల నరుకుతున్న వీరుని శిల ఒకటి అక్కడ వుంది. ఆ శిథిలాలలో ఒక కాలు ఆనవాలు మిగిలిన నందిశిల్పం, దేవాలయ శిఖరం, దేవాలయ స్తంభాలు, రాతిగోడల భాగాలు కనిపిస్తున్నాయి. దేవాలయానికి అంతరాళం లేనట్టుంది. గర్భగుడి పూర్తిగా కూలిన రాళ్ళతో నిండిపోయింది. తూర్పు ముఖంగా వున్న శివాలయానికి ఎదురుగా నంది (మంటపంలో) వుంది. గుడికి 30అడుగుల దూరంలో పశ్చిమాభిముఖుడై వున్న ఎరుపురాతిలో చెక్కిన 5 అడుగుల ఎత్తు, అడుగున్నర మందం, మూడడుగుల వెడల్పున్న వినాయకశిల్పం వుంది. వినాయక రూపం రాష్ట్రకూటశైలిలో వుంది. ఈ వినాయకునికి రెండుచేతులే వున్నాయి. వినాయకుని విగ్రహం వెనకవైపు కూడా వినాయకుని సిగ, వీపుభాగం చెక్కివుంది. ఆ దేవాలయ ప్రాంగణంలో భక్తాంజనేయుడు దక్షిణాభి ముఖంగా నిలిపివుంచబడి, పూజలందు కుంటున్నాడు.

అక్కడే రాతిసలపలకు ఒరిగించి పెట్టిన 4అడుగుల పొడవు, ముప్పావు అడుగు వెడల్పుతో వున్న నల్లరాతిమీద శాసనం చెక్కబడివుంది. ఈ శాసనం కళ్యాణీ చాళుక్యుల పాలనాకాలంనాటిది. 1వ జగదేకమల్లుడు కళ్యాణపురం(కర్ణాటక) నెలవీడుగా (తాత్కాలిక రాజధాని) వున్నపుడు, శ్రీర్యాలపురం (చీర్యాల)లోని పెద గండిరడ్డి గడేశ్వరదేవరకు (స్థానికనామం) కొన్ని మరుతురుల భూమి, కొన్ని మాడల ధనం, రాటనాలపన్ను, కొడంగలసుంకం యిచ్చినట్టు శాసనంలో చెప్పబడింది. అట్లే గడేశ్వరునికి కవచము చేసిన బ్రహ్మోజుకు కూడా 1 మరుతురు భూమి యిచ్చినట్టు తెలుపబడింది.

చీర్యాల

మండలం: కీసర

జిల్లా: మేడ్చల్

శిథిల శివాలయం ఆవరణలో నాలుగడుగుల పొడవు, ముప్పావు అడుగు వెడల్పున్న నల్లరాతి స్తంభంపై శాసనం

రాజవంశం: కళ్యాణీ (పశ్చిమ) చాళుక్యులు

రాజు: 1వ జగదేకమల్లుడు

తేది: శక సం.(9)6(4) అంటే క్రీ.శ. 1042, (ఆ)షాఢ శుద్ధ 15, గురువారము

భాష: కన్నడము

లిపి: తెలుగన్నడము

శాసన పంక్తులు: 27

శాసన సారాంశము:

కళ్యాణీచాళుక్య చక్రవర్తి 2వ అయ్యన తమ్ముడు జయసింహుడు 'జగదేకమల్ల' బిరుదుతో క్రీ.శ.1014లో సింహాసనాన్ని అధిష్టించాడు. 1042 లేక 1044వ సం.లో ఆహవమల్ల, త్రైలోక్యమల్ల బిరుదులు కల సోమేశ్వరుడు జగదేకమల్లుని తర్వాత అధికారానికి వచ్చాడు. క్రీ.శ.1042సం.లో వేయబడిన ఈ శాసనంవల్ల "శ్రిర్యాలపురము" (చీర్యాల) వాసి (పె)దగండిరడ్డి దేవాలయములోని గడేశ్వరదేవరకు (ప)ది మరుతురులు, మాడ, రాటణమునకు ... మాడలు, ...పొలము కొలిచి రెండు మరుతురుల భూమి, ప్రతియంటికి రెండు మాడలు, గడేశ్వరదేవరకు, అడ్డా... గంధి కాలువ (కింద) 1మర్తురు భూమి, రాటణమునకు 1పుట్టెడు ధాన్యం, కొడంగడసుంకం చెల్లించాలని, గడేశ్వరదేవ కవచము చేసిన బ్రహ్మోజుకు 1మర్తురుభూమి ఇచ్చినట్లు తెలుస్తున్నది.

పూర్వం కొన్ని దేవాలయాల ఆవరణలో ఒకచోట సాగునీటినందించేందుకు పెద్దబావిని తవ్వించి, దానికి రాటణస్తంభాన్ని ఏర్పాటు చేసి, అవసరమైన రైతులకు నీరు అందజేసి, వారివద్ద కొంత పన్ను వసూలు చేసేవారు. మనకిటువంటి రాటణస్తంభాలు వరంగల్ దగ్గరలో వున్న శాయంపేట దేవాలయంలో, జాఫర్ గడ్ లోను, ఖమ్మంజిల్లా రాజేశ్వరపురంలోని దేవాలయంలోను కనిపిస్తాయి.

ఆనాటి కాలంలో రాజులు విధించే సుంకాలలో అంగడిసుంకం ఒకటి. ఈ శాసనంలో 'కొడంగడసుంకము' అని వుంది.

ఈ శాసనం రాసినవాడు ....రాజు అని చివరలో రాసివుంది.

చీర్యాల శాసన పాఠం:

1. "...ద్రి.....హో రాజాధి
2. .....శ్రయ కులతిలక చాళుక్యాభర
3. .....రాజ్యముత్తరోత్తరాభివృద్ధి ప్ర
4. ....ళ్యాణ పురద నెలవీడి నోళు
5. .....త్తుమిం ఏస్వస్తిశ్రీ మచ్చాళు
6. (9)6(4)నేయ శ్రీమతు జగనేకమల్ల
7. ....శాడ శుద్ధ15 గురువారదందు శ్రి
8. (ర్యా)లపురము (పె)దగండిరెడ్డి మరి
9. ...ది మఱుతురున మాడ రె

10. ..త్తురున మాడ రాటనము కా
11. మాడలు ష...మి పొలము
12. గొలువ మరుతురు రెండు
13. రానకు నెఱియింటికి రెండు
14. స్వస్తిశ్రీ గడేశ్వరదేవర
15. ...ద...ము..పొ.....
16. ..గడేశ్వరదేవరకు మఱుురు
17. .....శ్వర దేవరకు అడ్డా
18. ..గంధి కాలువ మఱు1
19. ....సోమ.....
20. రాటణము ...పుట్టెండు1
21. ...ము నంద్య కొడంగడ సుంక
22. ..విలలు..శ్రీగడేశ్వరదేవా
23. చము జేసినె బ్రమ్మొజునకు
24. మ1 గన్డపసముద్రము మ1
25. మ..స్వదత్తం పరదత్తం వా
26. ...సహస్రాణి మిష్టాయాం జా
27. ... ...రాజు వ్రాలు

ఈ శాసనాన్ని చదివి, పాఠం రాసింది:

Book Revie

In the Club : Associational Life in Colonial South Asia

- By Benjamin B. Colen

The book under review is first of its kind to survey the "History of clubs" and "History in clubs" as far as the Indian sub-continet is concerned. However, the author of the book has given enough space in the book to review the history and management of the clubs in europe since the clubs had origins in the continent.

The author has clearly demarcated between the dubs established before and after 1857. Because, the pre-1857 clubs had acted as the places of discussions and strategic plans of the Britishers to tackle the sepoy Mutiny. There after Indians too started founding their clubs. The pace of Indian clubs being estblished was more vigorous during 1880s, the author has given categorical information. Mostly only the presidency cities - calutta, Bombay and Madras had the clubs established before 1857. Starting from 1827 when the Bengal club was established the author has described the associational life of pre-1857 clubs - Himalaya club of Mussories, 1841, caunpore club, 1844, Shahjahanpore club, 1854. Every history student of India knows that all of the above club centres (towns) had played major role in sepoy mutiny of 1857. However, cohen says in a different toen that to our shocking, calutta's Bengal club had no reference material on the 1857 revolt. Yet, he concluded that the clubs served thin member's imperial needs during 1857.

In general the author observed that the clubs served as the local havens to their members. He narrated the manner of mutings and their decisions apart from management, membershps, votings, defts, etc.

Cohen has tried his level best to present the similarities and differences between the clubs of presidenties and princely states. Further. since Hyderabad was the largest priccels state in India the author has given enough scope to describe the clubs in Hyderabad and its suburb secunderabad of course he didn't neglect any club of the princely states. But is may be proper here to take the instance of the largest princely state of Hyderabad to know the associational life and the dynamics that had taken place in the clubs of ithe princely states.

Known to the history, Hyderabad Boat club was the first club established in 1877. But by next year Secunderabad club came into existence. Soon Hyderabad Boat Club was merged with the lawn and Tennis Clubs to become the Hyderabad. Boat and Gymakhana Club, also known simply as the Hyderabad club. Its early bungalow was given by sir salarjung, the prime Minister of the H.H> The Nizam's Government. Subsequertly the Hyderabad club was shifted to old Telegraphs Bungalow. The Nizam's Govenrment provided to the club its home and furnisture.However, by Nizam's club came into being for Hyderabad state Government officers. There was friendly interecourse between indian and European gentlemen in Hyderabad clubs unlike in other princely states before 1880s. The Secunderabad club also disregarded racialism despite fact that most of its members were from the white race. But graducally by late 19th century racialism showd its face. The author has shown areason for this development that the presence of limited member of Britons in Hyderabad (unlike in the presidency cities) the consequent less number of clubs in Hyderabad and the conservative atitude of the Britons posted in the princely states were responsible for the eruption of racism in Hyderabad clubs.

Establishment of new clubs in Hyderabad to later to the needs of more specific communiteis were also shown responsible for the failure of big clubs like Hyderabad Boat club. On the whole, the author has observed that the clubs in presidenies and other princely states were successful whereas the clubs of Hyderabad city were, by and large, a failure the quoted 30 page reference from the book entitle "Ethnic contlict and civc Life" (new haven, Ct : Yale University press, 2002 : P.P. 171-200) in which its author Ashutosh Varshney has showed references to the communal violence supported in Hyderabad.

However, there was bright side too for the Hyderabad clubs. The author has stated that on weekends, residents of Hyderabad were more likely to hear disco music pulsating from the Nizam's club than orachestral suites. Clubs of distant places like the conoor club had tinks with clubs in Secunderabad. The secunderabad clubs occupies a premier local within cowded urban environments - spacious and protected.

Thus the Hyderabad clubs had the history of entertaining the elite people and at times saising their bad faces of racism and communatism.

- Dr. D. Satyanarayana.

OUR CONTRIBUTORS

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2. For referencing, Chicago Manual of Style is preferred in the following order:

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