PRINCIPLE AND METHODS OF ARCHAEOLOGY
SUBJECT CODE: 18KP2HELH2
UNIT-I

ARCHAEOLOGY

Definitions Archaeology is the study of past through material remains. It deals with the study of human behaviors and cultural changes happened in the past. The word archaeology comes from the Greek-" *arkhaiologia*" or archaeolos and logos means 'discourse about ancient things; but today it has come to mean the study of the human past through material traces. According to Colin Renfrew and Paul Bhan, since the aim of archaeology is the understanding of humankind, it is a humanistic discipline, a humane study. Archaeology aims to study past of the human interactions with their living environment and the corresponding cultural changes. The human past has broadly divided into the pre historic and historic period by the archaeologists and ancient historians. Pre historic means the period of human beings before the beginning of writing. Paleolithic, Mesolithic, Neolithic and Chalcolithic periods are the example. Historic means the period after the advent of writing or the period after the decipherment of ancient scripts. There is no rigid time limit for archaeology. Archaeology intends to study the life of the human beings in the pre-historic, proto-historic and historic period. It deals with the material remains of the human beings from the early Stone Age primitive tools to the modern palaces, fortifications etc.

DEFINITION:

The word archaeology has its origin from two Ancient Greek words 'arkhaios', meaning ancient or old, and 'logia', which stand for learning or study. Archaeology is the study of the ancient and recent human past through the recovery and analysis of material remains. Many consider it to be a subfield of anthropology (the study of all human culture and evolution), along with many other subfields comprising biological, cultural and linguistic anthropology. Archaeology can be considered both a social science and a branch of the humanity (the study of humans and their society). However, it also uses other branches of learning such as biology, chemistry, geology, botany, geography and various other disciplines. By using all these disciplines, the archaeologists are able to understand human civilizations of the past and recreate main aspects of the environment in which these bygone societies lived. Archaeology is the only method available for the study of human actions in the material world, when other evidences such as a variety of written materials and oral traditions narrating certain phenomenon fail. The survival of written documents is relatively

limited and hence from the time that these documents become available, they provide additional tools to archaeology for its interpretation of past activities of man, on the basis of material remains. Archaeology, from this point of view, has to not only interpret material remains of human activity, but also throw light on the literary interpretations of the past phenomenon. It helps us to appreciate and preserve our shared human heritage. It informs us about the past, helps us understand where we came from, and shows us how people lived, overcame challenges, and developed the societies we have today. The development of the field of archaeology has its roots in history and those who were interested in the past, such as kings who wanted to show past glories of their respective nations. In the 5th century BC, Herodotus, the Greek historian, was the first scholar to systematically study the past and perhaps the first to examine artifacts and test their accuracy. In the Song Empire (960–1279) of Imperial China, officials unearthed, studied, and catalogued ancient artifacts. In the 15th and 16th centuries, there was a rise of antiquarians in Renaissance Europe who was interested in the collection of artifacts. The antiquarian movement shifted into nationalism and personal collections were used to create national museums. It developed into a much more systematic discipline in the late 19th century and became a widely used

SCOPE:

Prehistoric archaeology has become an institution nowadays, encompassing a number of different scholars forming sub-disciplines. Each scholar propagates new theories and follows different methods having different approaches. In the recent past, there has been a growing realization that prehistoric archaeology has contributed a lot not only to study the antiquities or relics of the past societies but also to study the modern people or contemporary societies with simple technology from the light of their practices set in prehistoric times. It can also help with specific archaeological studies when the ways of life of the modern society are very much similar to those of the past life. It has become a current focus of research. In one way or another we compare something from the past with an object in use today. For example, megalithism, or using megaliths to create monuments, is a dead cultural phenomenon in most parts of the world. But it is still practiced by different tribal communities in the same way or in some modified form in North-East India, especially in Nagaland, Manipur and Meghalaya. Page 3 of 46 Megalithism is a living tradition among these tribal communities. Hence many specialists in the field of ethno-archaeology take keen interest to reconstruct the past life of the ancient people of these regions in the light of this living tradition.

KINDS OF ARCHAEOLOGY

One of the primary aims of archaeology is to unravel the human past through material remains. It is an interesting job of interpreting material culture in human terms. It requires hard work in field as well as formulating hypothesis in the laboratory. Therefore, an archaeologist should be familiar in other related disciplines such as history, anthropology, and other related social and general sciences. Thus, one should have a multidisciplinary approach while practicing archaeology. Archaeology is of many kinds, and each type demands either specific or multiple specialisations. The different kinds of archaeologies have been classified into two broad categories on the basis of the nature of the work that is involved, and on the basis of historical time periods.

ENVIRONMENTAL ARCHAEOLOGY:

Environmental archaeology is a sub-field of archaeology that deals with the study of interrelationship between the past societies and their natural environment. It is commonly divided into three sub-disciplines viz., zoo-archaeology that deals with the study of ancient faunal remains, geo-archaeology that deals with the study of soil, sediments, rocks, natural deposits, etc., and their relationship to the archaeological record, and archaeo-botany that studies ancient floral remains. Environmental archaeology answers questions relating to the type of natural habitat that the past societies were surrounded by, the flora and fauna living in that age, varieties of wild and cultivated crops, animals hunted and domesticated, species of plants and animals that are now extinct, climatic changes that took place over a period of time, and the effects of changes in natural environment on the lives of the people and on their subsequent disappearance. Environmental archaeology includes field studies along with laboratory experiments. Karl Butzer (1934-2016) was a pioneer in this field.

ETHNO-ARCHAEOLOGY:

Ethno-archaeology is the science that deals with the study of past societies, focusing on material remains rather than culture. It is sometimes called anthropological archaeology as it involves extensive application of anthropological methods. By applying ethno-archaeological methods, archaeologists, in a way, try to link the past with the present. It can provide insight into how the ancient people in a given region may have lived. By the application of the principles of ethno-archaeology one can get valuable insight into ancient social structures, religious and cultural beliefs, technology, etc. However, the connection

between modern and ancient societies is certainly still very confusing. This is because, even if two societies share some common characteristics, they may be distinct from each other in many aspects, which tend to change by default over a period of time. Nonetheless, studying advanced techniques of modern communities may help to a certain extent to provide an insight into the rudimentary techniques, which may have been used by the ancients. Lewis Binford (1931-2011) and Ian Hodder (born 1948) have conducted ethno-archaeological studies among the Inuit (Eskimos) in Canada and in several parts of Africa to make a better understanding of pre-historic huntergatherers.

SETTLEMENT ARCHAEOLOGY:

Settlement archaeology is a branch of modern archaeology which was started by Bruce G Trigger (1937-2006). It is defined as the study of societal relationships using archaeological data. It investigates former settlement and abandoned areas, forms of housing and settlements, and the prehistoric settlements of entire regions. It is the study of spatial distribution of ancient human activities and occupation, ranging from the differential location of activities within a single room to the arrangement of sites in a region. The special model of archaeological features is analyses in order to reconstruct past decisions regarding use of environment, allocation of natural resources, ritual pattern, social relationships and other related matters. A report by Gordon Willey (1913-2002) on Prehistoric Settlement Pattern in the Viru Valley had made a first attempt to study the pre-historic settlement pattern.

LANDSCAPE ARCHAEOLOGY:

Landscape archaeology is a broad division in archaeology that deals with the study of the ways in which past people constructed and used the environment around them. It is the study of the various changes occurring in different landscapes, both naturally as well as due to human intervention. For archaeological purposes, landscapes have been categorized into natural and cultural landscapes. The study of how landscapes and natural habitats are interconnected with human behaviour and cultural changes is extensive. There are a variety of changes that landscapes may undergo over a period of time. These comprise natural changes relating to climate, topography, soil, natural calamities such as landslides, floods, tsunamis, rivers changing their courses etc., and human-induced changes such as agriculture, industrial and construction activities, clearing of forest areas, etc. Techniques in landscape archaeology are also used in order to analyses inequalities that may have prevailed in a social structure at a given period of time.

HOUSEHOLD ARCHAEOLOGY:

Household archaeology is a relatively recent development in archaeology that occurred between the late 1970s and early 1980s. It involves a small-scale excavation within a specified area on an archaeological site. It considers each household as a social unit that not only depicts the social, cultural, economic, and political responsiveness of the people of a particular household/family, but also throws light on the affiliation of the society in general. It is also helpful in studying features of secular art and architecture, food habits of the people, their religious beliefs, and so on. Gender classification in the social order is an interesting aspect that can be studied by this kind of archaeological method. Different kinds of evidences are taken into consideration in the study of household archaeology, which include floral and faunal remains, pottery, processes of site formation and so forth.

CONTEXTUAL ARCHAEOLOGY:

Contextual archaeology is an approach to archaeological interpretation proposed by Ian Hodder in the mid-1980s in which stress is laid on methods of identifying and studying contexts to facilitate understanding of its meaning. This includes two lines of enquiry. The first is to consider the environmental and behavioural context of action; understanding an object, for instance, by placing it in relation to the larger functioning whole from which it is drawn. Second, look at the networks of links that objects were placed within in the past and attempt to read meaning from such groupings as if the objects were words in a text.

MARXIST ARCHAEOLOGY:

Marxist archaeology is an archaeological theory that interprets archaeological information within the framework of Marxism. It is a move towards archaeological interpretation and explanation that is based on the work of Karl Marx and Friedrich Engels to explore materialist models of social change and the central questions of social relations. Although neither Marx nor Engels described how archaeology could be understood in a Marxist conception of history, it was developed by archaeologists in the Soviet Union during the early twentieth century. Knowledge of who has power and how that power is exercised are seen as important elements in explaining social change. Marxists regard each human society as defined and shaped by its ‘mode of production’, which includes both the ‘forces of production’ (i.e. science, technology, and all other human and natural resources), and the

'relations of production' (i.e. the ways in which people relate to one another in order to facilitate the production and distribution of goods). Social organisation and change are seen as conflicts between segments of society: for example, those based on class, sex, or age. Gordon Childe (1892-1957) was one of the first western archaeologists to draw heavily on Marxist theory. He laid emphasis on the forces of production as being fundamental influences on prehistoric economies, societies, and ideologies. In many of his early works, Childe effectively challenged the fascist German–based views of pre-history prevalent at the time.

GENDER ARCHAEOLOGY:

Gender archaeology is a method of studying past societies through their material culture by closely investigating the social construction of gender identities and relations. It is the study of the roles, activities, ideologies and identities of men and women, and the differences between them. It is believed that in archaeology, everything is perceived through the eyes of men (this is called androcentrism), understanding women only in biological roles such as mother and sexual partner, and describing the differences between men and women as polar opposites. Margaret Conkey (born 1943) and Janet D. Spector (1944-2011) are regarded as the pioneers in the Anglo-American field to examine the application of feminist approaches and insights to archaeological practice and theory. Gender archaeology was created to balancearchaeological interest in men and women by directing as much attention to women's activities as to men's, to reveal that women are not the same in all cultures and their activities are of interest for comparative studies, and to help make archaeology into a discipline that concerns people, rather than merely artefacts. Sarah Pomeroy (born 1938), a classicist and art historian, is considered a leading authority on women in the ancient Mediterranean world.

COGNITIVE ARCHAEOLOGY:

Cognitive archaeology is a theoretical point of view in archaeology which focuses on the ways ancient societies thought and the symbolic structures that can be perceived in past material culture. Collin Renfrew (born 1937) and Paul Bahn (born 1953) are the chief propagators of this theory. Cognitive archaeologists examine the role that ideology and differing organisational approaches would have had on ancient peoples. The way that these abstract ideas are visible through the remains that these peoples have left can be investigated and debated often by drawing inferences and using approaches developed in fields such as semiotics, psychology and the wider sciences. Cognitive archaeology is interested in the material expression of human ways of thinking about things, such as gender, class, status, and kinship.

UNDERWATER ARCHAEOLOGY:

Underwater archaeology is also known as marine archaeology or maritime archaeology. It is a discipline within archaeology as a whole that particularly studies man's interaction with the sea, lakes and river. It is concerned with the study of underwater evidences such as shipwrecks, water-buried cities, and other inundated archaeological sites. It is an expensive branch of archaeology and is much costlier than any terrestrial archaeological excavation. Archaeological remains in the sea or in other underwater environments are typically subject to different factors than artefacts on land. Underwater excavations require knowledge of specific techniques and methods that need to be adopted. Underwater archaeologists try to discover submerged evidences by diving into the deep waters along with sophisticated archaeological tools. Sometimes an underwater excavation may also turn out to be a little risky because one cannot guess what the conditions under the sea would be like. However, it makes an exciting profession for adventure lovers. Discovery and recovery of King Henry VIII's warship Mary Rose and Titanic are considered among the extraordinary achievements in the field of underwater archaeology.

AVIATION ARCHAEOLOGY:

Aviation archaeology is concerned with discovering historical remains of aircraft, airborne weaponry, abandoned air bases or runways. In brief, it deals with everything that has to do with the history of aviation. Sometimes, aircraft wrecks are found under the sea, which are ultimately recovered, recorded and studied. It is because of this reason that many people consider aviation archaeology as a branch of marine archaeology. However, this may only be true to a limited extent as there are also numerous aviation archaeological remains found on land, in which case, it becomes a separate branch in itself. Crash sites vary largely in magnitude and remains. The remains can be military remains or civil remnants. Instances of ancient air bases discovered by aviation archaeologists have also been recorded. In so far as the actual professional practice of aviation archaeology is concerned, there may be some legal limitations, which can be overcome through sufficient paperwork and permissions.

AERIAL ARCHAEOLOGY:

Aerial archaeology is the investigation of archaeological remains from the sky. This concept gained momentum after aerial survey and photography were considered to be important during the two World Wars. Archaeologists attempted to gain a bird's eye view of archaeological sites to get a better outlook. Early investigators used hot air balloons, scaffolds, and cameras tied to the kites. After the invention of airplane and the military significance placed on aerial photography during the World Wars, archaeologists were more effectively able to use the technique to discover and record archaeological sites.

INDUSTRIAL ARCHAEOLOGY:

Industrial archaeology is the methodical study of material evidence concerned with the industrial past. The evidence, collectively referred to as industrial heritage, comprise buildings, machinery, artefacts, sites, infrastructure, documents and other items related to production, manufacture, extraction, transport or construction of a product or range of products. The field of industrial archaeology encompasses a range of disciplines including archaeology, architecture, museology, technology and urban planning and other specialties, in order to piece together the history of industrial activities.

EXPERIMENTAL ARCHAEOLOGY:

Experimental archaeology is a type of archaeology in which the archaeologists attempts to figure out how the archaeological deposits are formed. In the course of this search, they experiment with different processes that they believe people in the past have applied to manufacture all those things which make the archaeological deposit. It has been part of archaeology since the beginning of the discipline. As artefacts were identified and arranged into chronological sequences, so assumptions were made about their manufacture and use. Replication of prehistoric stone tools is an interesting activity practiced in experimental archaeology. Some of the most methodical experiments in pre-historic agriculture were conducted in Denmark in the first half of the twentieth century, but the concept became more formally recognised as an archaeological tool in the 1960s. The formal recognition of experimental archaeology culminated in two important books published in the 1970s, by John Coles and Robert Ascher.

SALVAGE OR RESCUE ARCHAEOLOGY:

Salvage archaeology or rescue archaeology, is a technique of retrieving the data from threatened archaeological sites. Rescue excavation was a term coined in the 1960s when development and road building destroyed much of our archaeological heritage. Salvage archaeological operations are conducted on sites that are on the verge of being destroyed by new road constructions, dams, buildings, or any other kind of infrastructure development. The duty of the archaeologist, then, is to locate maximum possible sites in an assigned area, explore them, and excavate them if deemed necessary, and ultimately record in detail all the finds that have been obtained. Generally, in the case of salvage archaeology, time is a constraint, and so detailed excavation is difficult to carry out. Therefore, archaeologists tend to record whatever is found on the surface at the time of exploration. But, if it is realized during the exploration that the site holds an important place in history, then detailed excavation can be carried out and can thus alter the construction plans in some way or the other

BATTLEFIELD ARCHAEOLOGY:

Battlefield archaeology, also called military archaeology, is one of the most exciting types of archaeologies. It is concerned with excavating battlefields of the past and recovering evidences associated with military activities, which may have been responsible for subsequent changes in the social, political and economic fields of the society. Archaeological evidences obtained from battlefields have the potential to change those historical viewpoints which have been widely accepted and acknowledged. Evidences on such sites comprise remains of war implements, skeletal remains, and various artefacts related to military history. These war sites giveimportant evidences to events, which occurred not only during a given war, but also before and after it, because not only actual battlefields but even military camp sites provide valuable evidences. Additionally, just as all the other sites tell us about how and when people lived, war sites tell us how and when they died. On the whole, battlefield archaeology is an interesting case-study of how written historical accounts can undergo changes when actual material remains relating to the recorded events are recorded. Battlefield archaeology is not concerned with the causes of war but of the sites where the war actually happened, and of the archaeology of the event.

COMMERCIAL ARCHAEOLOGY:

Commercial archaeology is a branch of archaeology that deals with everything that is associated with trade and commerce. This comprises evidences regarding the commodities that were traded and bartered, numismatic finds, ancient means of transportation that were used for commercial purposes, and others. The study of ancient trade routes and sea ports, harbours and marketplaces is also incorporated in commercial archaeology. This is a fascinating study, as it answers questions such as which countries had trade relations and in what commodities, what were the media of exchange between them, how the commodities were transported, who and what all was involved, how they coordinated, etc. Sometimes, at commercial sites, ancient inscriptions are found, which valuable resources for reconstructing economic histories are.

FORENSIC ARCHAEOLOGY:

Forensic archaeology is a recently developed branch of archaeology. It is concerned with the use of archaeological methods in finding evidences on crime scenes. Forensic archaeologists are generally engaged by the security services with the purpose of investigating crimes and catching the offenders. Forensic archaeologists collect evidences like human burials, artefacts, footprints, tool marks, etc., and attempt to understand the situation in which a particular crime might have happened; and to determine the influences on the remains of external factors that may have disturbed the crime scene. They also attempt to find whether all the remains are in situ, and if not, how and when they landed up where they currently lie. The discoveries of forensic archaeologists prove to be very valuable in the court of law, and help the police to a great extent in the investigation of the committed crime.

UNIT-II

EPIGRAPHY

Epigraphy which simply means the study of old inscriptions is a special branch of palaeography. It is a branch of scholarship devoted to the study of written matter recorded on hard and durable material such as stone or metal. As many early civilizations have left behind many epigraphs, 'epigraphy is a prime tool in recovering much of the first hand record of antiquity'.

The early cultures have used for epigraphy many materials like stone, metal, clay, terra-cotta, pottery, wood. papyrus, parchment etc., and techniques like cutting, carving, engraving casting, embossing, scratching, painting, drawing and so on.

Certain sub disciplines may be included under the over-all canopy of epigraphy. A few among them are: numismatics (it includes the reading of the legends on coins and medals), papyrology, reading the palm leaves and so on.

Inscriptions are generally classified into three groups — i) monumental, ii) archival and iii) incidental.

i. Being intended for enduring display, the monumental inscriptions are executed on lasting materials like stone or metal. Sometimes they may be inscribed in places out of ordinary reach, such as the Egyptian hieroglyps in tomb chambers intended to be sealed for ever, and the Bistun inscrip tions of Darius I.

Coins and seals with legends may be included as micromonumental inscriptions.

ii. The Babylonian and Minoan clay tablets, the Egyptian Papyrus and the Indian palm-leaf manuscripts are archival inscriptions,

ii. The incidental inscriptions include those which are not seriously meant for preservation such as wall scrawlings and Graffitis on potsherds. However, based upon the impression on a potsherd B.B. Lal has shown that the inscription begins from the right and when there are more than one line they were boustrophedon.

THE BRAHMI SCRIPT

The inscriptions of Asoka are in Brahmi script except in the Northwest, where Kharoshti was used. The discovery and deci pherment of the Asokan inscription constitute a thrilling chapter in modern Indian palaeography. The script of Asoka had re mained lost to India for more than a millennium. Fahien (4th. century) and Hieun Tsang (7th century), two great Chinese scho lars could neither read these inscriptions nor get any local scho lar who could read them. They recorded wrong readings based on guess work or hearsay information. Later, in the 14th century Firoz Shah Tughlak evinced great interest in these pillars from Meerut and Topia (U.P.) to Delhi. In spite of his best efforts he could find none to decipher the script. Akbar, in the 16th century evinced similar interest on these inscriptions, but to no effect.

The foundation of the Asiatic Society of Bengal inspired sholars to engage in the study of India's past in all its aspects. Besides many literary works like the Vedas and the epics, the inscriptions also drew the attention of the Western scholars asso ciated with this

society. The later began in 1705 when Charles Wilkins read the Bodal pillar inscription of Narayana Pala of Bengal. The same year Pandit Radhakant Sharma read the Delhi-Topia pillar inscription of Visaladeva, a Chahamana king of 12th century. Being comparitively recent in date they were read with less difficulty. Again Charles Wilkins and Col. James Tod were able to decipher many of the letters of the Gupta script. In 1834 Cap. Troger read part of the Allahabad pillar inscription of Samudra Gupta. Dr. Mill was more successful in this regard and he read completely the Bitari pillar inscription of Skanda Gupta in 1837. It was James Princep who deciphered successfully the Delhi, Kashmir, Eran. SanchiAmaravati and Girnar inscriptions of the Guptas.

The greater and real challenge to the scholars was the Brahmi script, in which the Asokan inscriptions had been written. The credit of this great achievement must go to James Princep. In 1834-35 he had the estampages of several Asokan Brahmi inscriptions. He found that the medial signs in them resembled those of the Guptan script. He separated the medial signs and consonants and compared them with the Gupta characters. Thus he fixed the sound values of many of the Brahmi letters and classithem under *vargas* or phonetic classes. Still many letters remained unidentified. In 1837 he collected the estampages of the short inscriptions on the Sanchi railings and analysed them. At the end of all these inscriptions he found two letters being common, preceeded by sa, the Prakrit suffix meaning ‘of'. So he could easily conjecture that the word preceeding sa must be a proper name and that following it must be an equivalent of 'gift' or 'dedication. This last word could easily be guessed; It had only two letters - the first letter was marked with the medial sign for à and the second with the sign for anusvara (am). The word was danam. Thus *da* and *na* were deciphered. Still a few more letters could not be read. Buhler found out e, va, and la and Grierson found *ha* in Gaya.

All these enabled Bubler publish a complete list of the Brahmi characters.

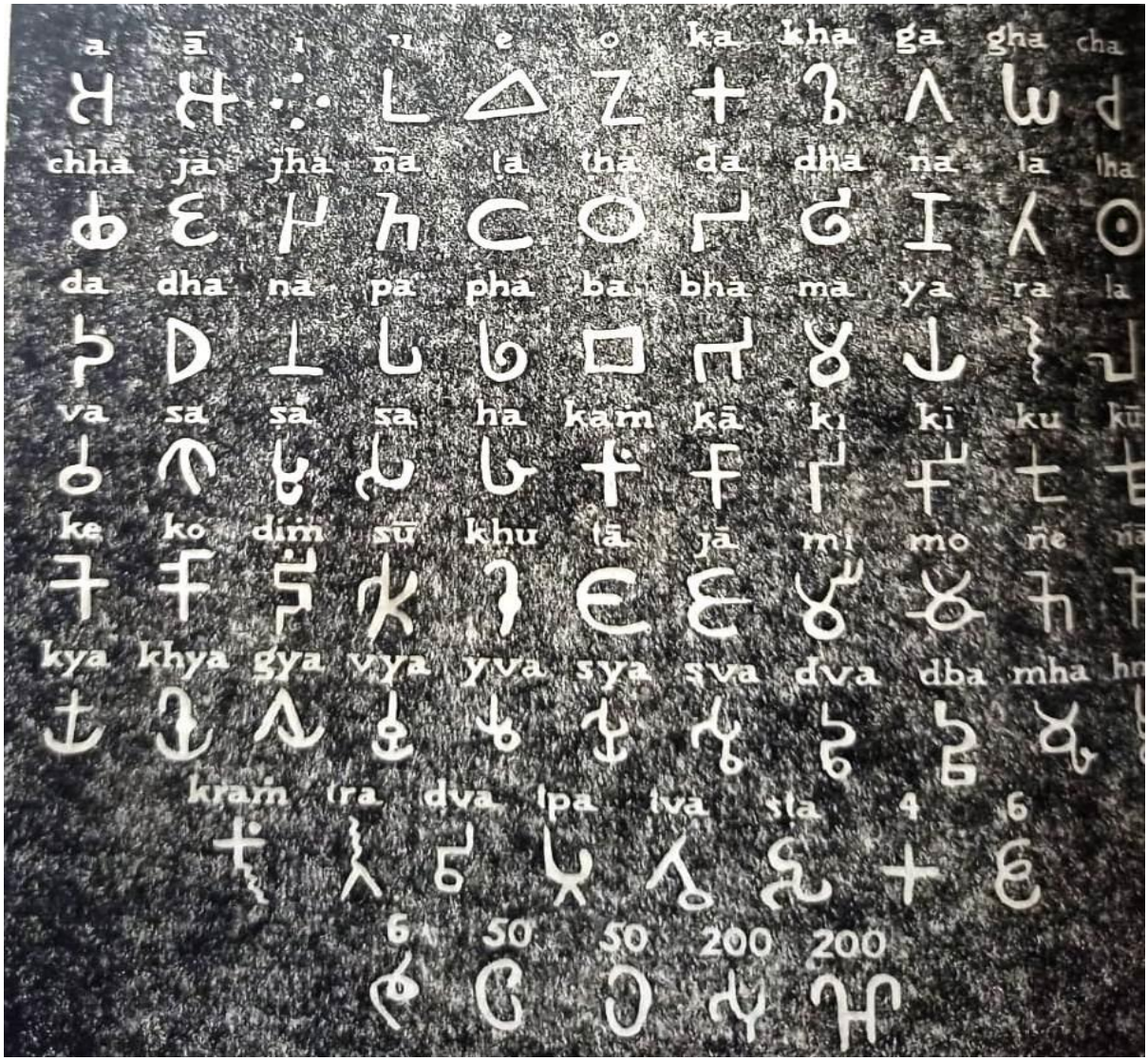
The decipherment of the Kharoshti script was comparitively easier, because Greek, Saka and Kushan coins unearthed in the North West India had bilingual legends: in Greek and in Kharoshti. In the "beginning as Princep mistook the language of the Kharoshti inscription to be Pahlavi, the progress in the decipherment of this script was delayed. But Charles Masson while engaged in Archaeological researches in Afganistan rightly felt that the language of these labels was Prakrit. So he first fixed up the Prakrit equivalents for the Greek legends. Then he was able to read the legends rightly and thus decipher Kharoshti. He

also rightly read out the Kharoshti legends on certain coins and found that they belonged to Menander and Appolodotus.

Following Masson, others like Princep, Noris and Cunningham deciphered many unidentified Kharoshti letters. As a result, the long Kharoshti inscriptions of Asoka were read. Buhler prepared a systematic table of the Kharoshti alphabet also.

ORIGIN OF BRAHMI

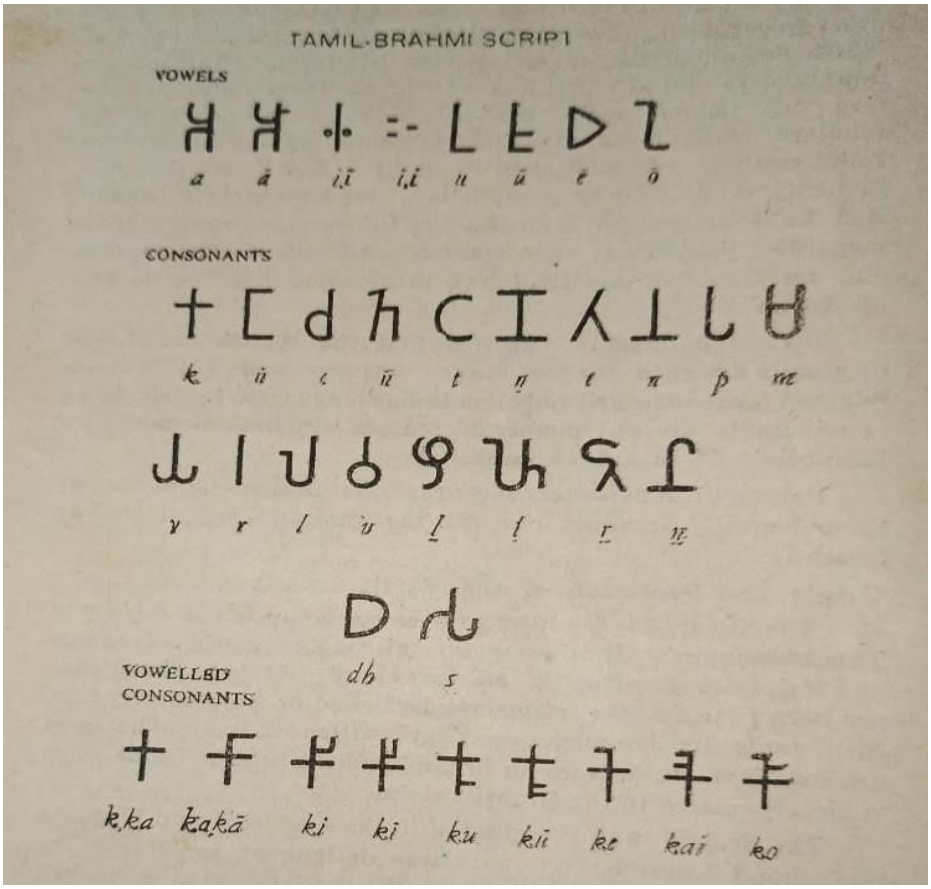
Since 1837 when James Princep deciphered the Asokan Brahmi Inscriptions many western and Indian scholars attempted to solve the mystery of the origin of the Indian alphabet from various angles and have produced a vast literature. Some of the suggestions were very fantastic. It is still a subject for heated argument. Even the actual name of the script of Ancient India is a matter of controversy.



ORIGIN AND EVOLUTION OF THE TAMIL SCRIPTS

'The history of Tamil script does not go up to the history of Tamil language'. It is a popular misconception that language and script are the same or are very closely related, Lauguages are born first and the scripts are developed or adopted very late. Still there are languages without written scripts. The most ancient Tamil records are in Brahmi and the present Tamil script is closely related to the Grantha script.

The Brahmi that was adopted to the needs of Tamil language and found inscribed on caves was designated as Dravidi by Buhler, a word first occurring in the Lalitavistara, a Sanskrit Buddhist work of 6th century A.D. R. Nagaswamy preferred to call it Damili, a term found in the Samavayanga Sutta, a Prakrit Jaina work of 1st century A.D. I. Mahadevan coined a new term: Tamil Brahmi.



TAMIL - BRAHMI SCRIPT

T.N. Subramanian 15 put forward the hypothesis that Brahmi was originally Tamil script and it was later taken over by Prakrit, a language which, according to him, was a synthesis of Dravidian and Aryan languages. T. V. Mahalingam points out that it is difficult to accept this hypothesis in the present stage of our knowledge.

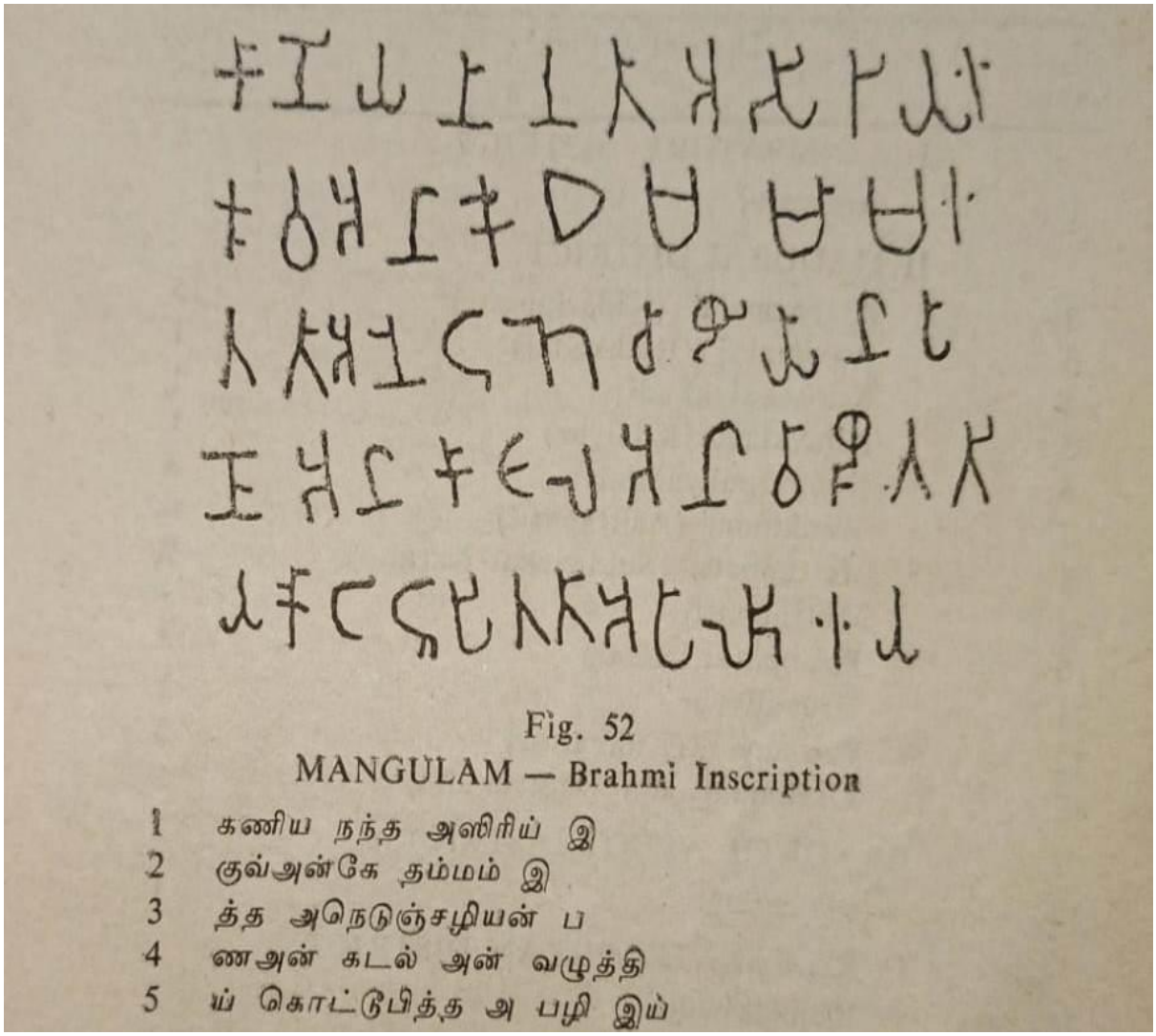


Fig. 52

MANGULAM — Brahmi Inscription

1 கணிய நந்த அலிரிய் இ
2 குவ்அன்கே தம்மம் இ
3 த்த அநெடுஞ்சழியன் ப
4 ணஅன் கடல் அன் வழுத்தி
5 ய் கொட்டுபித்த அ பழி இய்

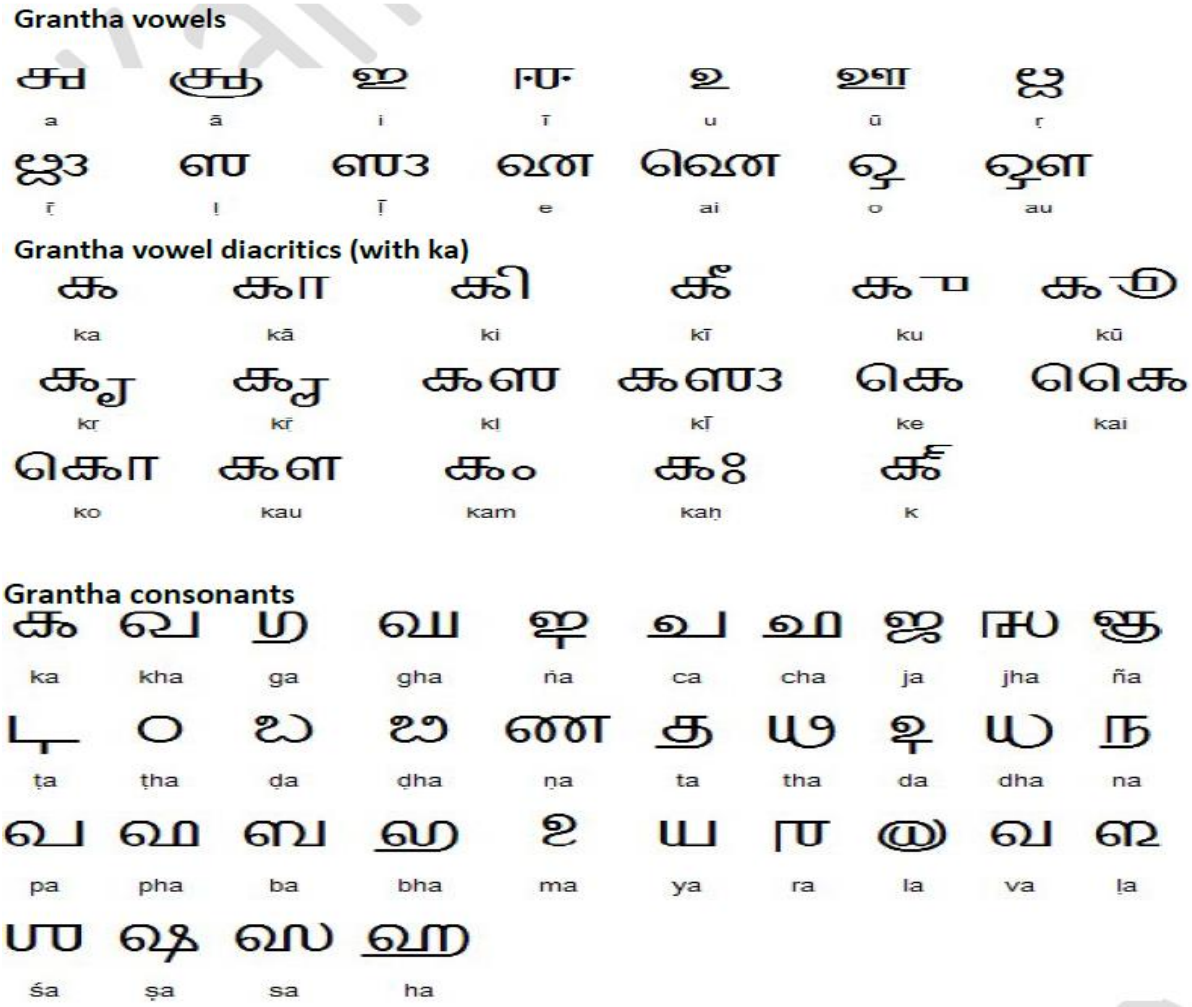
ENGLISH TRANSLATION

Dedication (dhammam) to Kaniyanantan, a teacher (asiriya). This monastery (palli) was caused to be given (koduppitta) by Katalan Valutiyan, an officer (panan) under Nedunjaliyan

In the Tamil country the cave inscriptions are the earliest available written Tamil records. They are in the Brahmi script. They are mostly found in the Madurai Ramanathapuram Tirunelveli, Tiruchy and Coimbatore Districts (See Table 1). They are generally of one or two lines cut on the brow of the caves or on the cave beds. These caves were occupied by the Buddhist or Jain monks.

GRANTHA SCRIPT:

The Grantha alphabet is a descendent of the Brahmi alphabet and started to emerge during the 5th century AD. Most of the alphabets of southern India evolved from Grantha, and it also influenced the Sinhala and Thai alphabets. The Grantha alphabet has traditional been used by Tamil speakers to write Sanskrit and is still used in traditional vedic schools (patasalas) Notable features ¬ Each letters represents a consonant with an inherent vowel (a). Other vowels were indicated using a diacritics or separate letters. ¬ Letters are grouped according to the way they are pronounced.



TAMIL SCRIPT

It evolved through three important stages:

i. The archaic variety (c. 620-900)

ii. the middle variety (900-1250 or of the Imperial Cholas), and iii. the modern variety (since 1250 or since the Imperial Pandyas)

VATTELUTTU SCRIPT

Its evolution too may be divided into four major stages:

i. Archaic variety (c. 400-550 A.D).

ii. Early variety (c. 550-950 A.D.),

iii. Middle variety (950-1350) : The early records of the Cholas in the Pandya country are in this variety and it continued in Kerala.

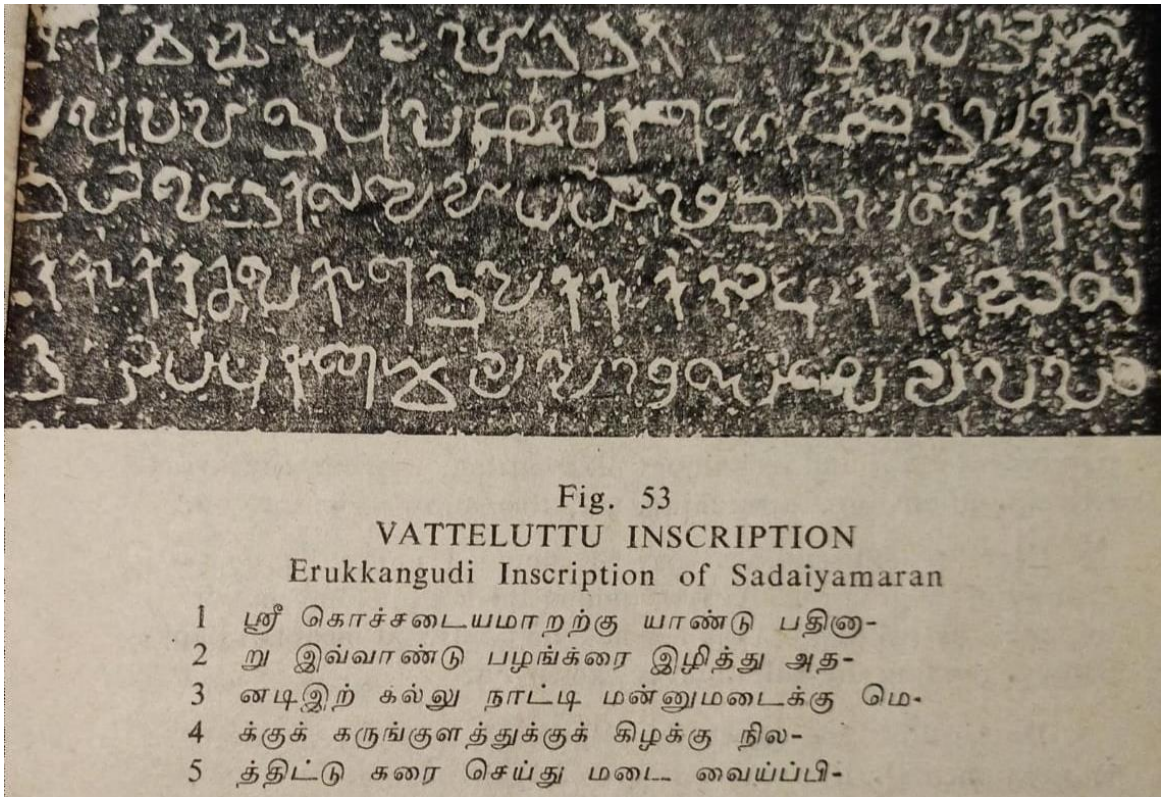


Fig. 53
VATTELUTTU INSCRIPTION
Erukkangudi Inscription of Sadaiyamaran

1 ஸ்ரீ கொச்சடையமாறற்கு யாண்டு பதினு-
2 று இவ்வாண்டு பழங்கரை இழித்து அத-
3 னடிஇற் கல்லு நாட்டி மன்னுமடைக்கு மெ-
4 க்குக் கருங்குளத்துக்குக் கிழக்கு நில-
5 த்திட்டு கரை செய்து மடை வைய்ப்பி-

After the introduction of the printing press the Tamil script has acquired its modern form. Its evolution is a continuous process, because the Government of Tamil Nadu has recommended some changes which have come to force.

ANAMALAI:

Is located near Othakkadai, which is 5 km distance on the road from Madurai to Trichy. It is a combination of two words Anai and Malai. Anai means elephant and Malai means hill, this acquired the name of elephant due to the structure of the hill which look like an elephant lying on the ground. Cave temple has an inscription of Pandyas as Tirupparankundram temple. On the slope of the hill two cave temples were carved: one is for Narasimhaperumal and another one is for Muruga.

KALUGUMALAI:

In the cut-out temple style both the interior and exterior of the rock was tieeled out. The only cut out temple beyond the Pallava domain is Kalugumalai cut-out temple in the Pandyan Empire. Kalugumalai monolithic belonged to the period between the last quarter of the 8th century C.E and the middle of 9th century C.E. At Kalugumalai the Pandyan architects and sculptors converted a monolithic rock into a beautiful Siva temple as in Ellora. This temple faces the east. The facade like the entire lower portion is roughly cut and unfinished. In moty unfinished sanctum there is now an image of Ganesha. Locally they llit Vettuvankoil a synonym for a sculptor's temple suggesting that a distinguished sculptor had been at work here. Local folklore gives another meaning "the temple of the one who killed".

The front porch of the Vettuvankoil temple is practically devoid of any ornamentation except two friezes of ganas in varying poses and some of them imaged in playing musical instruments. The sculptor has paid attention to the arrangement of the curels and Jatas on the heads of the ganas. The smiling faces beaming with enthusiasm give away their frolic some nature. A gana plays Urdhva type of drum keeping time of the flute. There is appreciation of music writ large on the beaming face of the gana seated next. The second row presents the ganas not only keeping time or playing musical instruments but also rhythmically swaying their limbs, throwing up their heads in ecstatic dances. The lion heads embellish the kudus of the octagonal vimana top. This lovely conception is further decorated with lotuses with large and small petals.

The kudus are of an alternative design. In case of the kudu with lion head top where is greater decorative design. From the lion's mouth issues a tassel which joins two makara mukhas on ethier side of the mouth. There are four figures-Brahma, mirudangam played Dakshinamoorthy, Siva-Parvathy - facing four quarters just under the caves of the vimana top". Four nandis are in a realistic style. The yajnopavita" with the double bell clasp, the arm-bends, the necklace, the katisutra with a ribbon shaped knot, all indicate an early date o carving. The top-story has a row of vyala lions frisking their stylized little horns and raising the fore pews. Gana dwarfs are sometime placed by warfish images with prominent beards and grave countenances evidently solving a philosophical tangle. Monkey kings and dwarfs were portrayed. The figures of damsels in the shallow niche below the kudus are extremely attractive. The mithuna and sudarshini motif in sculpture are used as a decoration of architecture.

There are many features in regard to the structure of sculptures in this temple. Lord Muruga with six hands is found here. The architectural feature in this context is that Lord Muruga with his vehicle peacock, structured in a single stone is seen here. More than sixty rock cut cave temples are there in Pandya country. Because of page limitation selective temples are studied to this research.

MANDAGAPATTU

Is situated in the Viluppuram district of Tamilnadu. This otherwise insignificant village holds very important position in the Indian temple architecture, especially of the Pallavas. The village boasts of a rock-cut shrine, the earliest one of the Pallavas and of the northern Tamilnadu if not in the whole state. The Pallavas ruled from their capital town of Kanchipuram which is around 100 km from this village. It is very interesting to note that they decided to construct the first specimen of their art far from their capital town. The only explanation may lie that the hill in the village, attached to a tank, provided the right and appropriate spot for carving out a rock-cut shrine.

The first modern reference of the monument is found in 1882, in the list of antiquarian remains of the Madras Presidency, Viluppuram was a taluk during that period. In 1918, this cave temple was featured among the Pallava antiquities by Dubreuil however it was not discussed in detail. The inscription of this cave-temple was copied in 1905 and edited by T A Gopinatha Rao in 1923-24. He was the first scholar to propose that it was Mahendravarman I who introduced the rock-cut shrines in southern India. First detailed description of the cave-temple appeared when A H Longhurst took up the Pallava architecture in detail. Though he was aware of the inscription and its details however, he did not explicitly take the cave-temple as the first such creation of the Pallava king. A better description and interpretation was made available by K R Srinivasan in 1958. He was successfully able to differentiate the Mahendra style with the rest of the Pallava creations by utilizing the form and shape of the pillars. His landmark study, which is in use till date, paved the path for all the future scholars.

KEELADI

The site Keeladi with the cultural deposit mound extending over a vast area of more than 110 acres, amidst the coconut grooves is located at Thirupuvanam Taluk in Sivagangai District. Previously excavation was conducted by Excavation Branch at Bangalore, Archaeological Survey of India at the site during 2014-2015, 2015-2016, and 2016-2017. In

continuation of exposing the hidden treasures and antique of this site, the State Department of Archaeology has been conducting excavation at this site after getting approval from the CABA.

KEY FINDINGS – KEELADI EXCAVATION

- Excavation work, during this season had yielded 5820 antiquities with enough cultural traits in the form of structural activity (brick structures, terracotta ring wells, fallen roofing tiles with double holes and deeply finger pressed grooves to draw rain water).
- Antiquities like few pieces of golden ornaments, broken portions, copper objects, iron implements, terracotta gamesmen (chessman), hop scotches, ear ornaments, spindle whorls, figurines and portions besides beads of terracotta, glass, semi-precious stones (agate, carnelian, crystal, etc.).
- Popular ceramic types like finer variety of Black and Red ware, Black ware, Black Polished ware, Red ware, Rouletted ware, few pieces of Arretines were also found. There are also enough numbers of graffiti sherds of both pre and post firing nature. A good number of Tamil Brahmi sherds also have been unearthed.
- All these finds clearly indicate the cultural richness of the ancient civilization of the Tamils of this region having its close proximity to the temple city Madurai. Hence it becomes essential to continue to probe such cultural hidden treasures of Keeladi site in future and reveal the cultural wealth of the ancient Tamil society.

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