




HIS6E01-PRINCIPLES AND METHODS OF ARCHAEOLOGY MODULE-4 EXCAVATION

Prepared by
Priyanka.E.K
Dept of History
Little Flower College
Guruvayoor

- 
- Follows exploration
 - Once the ancient sites or mounds have been spotted & the field data about them collected, the archaeologist can choose the most imp & interesting among them for excavation
 - Surface exploration give idea only about the general nature & broad cultural view of site- through excavation we get a comprehensive picture of the succession of cultures as well as material content of site


- Excavations conducted to know
 - (1) the vertical dimension of a site i.e. total thickness of the cultural accumulation of a site from its earliest inception- from the virgin soil upwards
 - (2) the different periods or phases in its history- including the different occupation levels & building levels
 - (3) horizontal dimension: the material contents of each period like the lay-out of the town, house patterns, nature of buildings & a host of human artifacts throwing valuable light on material culture of people


- 
- Simply digging of earth & removing the buried soil, its very nature
 - It is slow, systematic & planned digging to study the nature & the contents of occupation layers in the reverse order in which they laid down
 - CHARECTERISTICS
 1. Done with great care planning
 2. Its position in relation to the layers of deposits in which it is found & in relation to other objects is documented in records for verification at any time
 3. Data relating to environmental factors like flora, fauna, soil etc are recorded & studied to know the ecological setting
 4. Record of the excavation is made known to the public through publications
 - Undertaken only by well trained & experienced archaeologists with a team of experts

- 
- Or long time excavation considered merely as a method of collecting antiquities “ a glorified treasure hunt”
 - Pitt Rivers in Britain & Petrie in Near East- placed emphasis on the context in which they were found i.e. the layers in which they were found & their relation to other layers & objects
 - Today “no excavation can be considered satisfactory unless the excavator can make a reasonable assessment supported by evidence of period & circumstances of laying down of each deposit & the construction of each feature & of their general co-relation”

■

- Context, cultural sequence, chronology are imp in an excavation
- METHODS OF DATING- ABSOLUTE & RELATIVE
- TYPOLOGICAL METHOD
- Artifacts are classified according to their form or shape
- Every artifacts have type series indicating a particular form or shape & date
- Distribution of types in space & time would indicate the diffusion- this is a logical evolutionary arrangement constructed by archaeologist called as 'seriation'
- Typological classification when applied in corroboration with stratigraphic method serves as a useful tool to understand different forms & traditions in manufacture of different classes of artefacts

- 
- STRATIGRAPHICAL METHOD
 - First used by William Smith in 1816- for geological stratification with the help of fossils
 - Surest method of determining the order of succession of events & cultures in a given site- major tool for archaeological interpretation of a site
 - First task of archaeologist is to understand the principle of stratigraphy
 - Means excavation layer by layer, keeping all the artefacts from each deposit in separate groups
 - It ends at a layer where there is no longer any trace of human handiwork

- 
- Different kinds of soil depending upon the cause of the deposition natural or human like the layers of sand, clay, silt, gravel or lime can be identified
 - Natural layers should be differentiated from man made or cultural layers
 - Not only provides the sequence of culture or the order of succession of events in a site but also enables us to arrive at some probable dates at least in terms of centuries
 - Two terms used in relation to datable object in a stratum-terminus post quem & terminus antequem
 - Terminus post quem- artefacts sealed beneath a floor gives a terminus post quem for that floor, since it could not have got there after the floor was laid
 - Terminus antequem-datable objects found on the floor, since the floor should have come earlier than artefacts found on it


EXCAVATION OF BURIALS

- Imp source of information- pyramids, megalithic monuments royal tombs of Ur
- General Features of burials
 1. The location of burials
 2. Position of the body- extended or flexed
 3. Nature of the burial- primary, secondary- latter re-burial of bones
 4. Nature of receptacle like urn or sarcophagus or stone chamber, rock cut caves etc
 5. State into which original burial pit was dug & fillings made & sealed- ritual history
 6. Nature of grave goods
 7. Skeletal analysis

GRID/HORIZONTAL EXCAVATION

- In which a series of squares of uniform size is laid out & the other is stripping complete area without the aid of square divisions or balks
- Former method was popularized by British archaeologist including Wheeler & Kenyon
- Latter method- open stripping has gained popularity in recent years especially in US



- 
- Grid divides the area into series of exact squares which are parallel to the site baseline(latitude) & to the datum line(true meridian longitude)
 - The size of square box depend on the depth to be excavated- normally 5 to 10 meters- squares are separated by balks of uniform width of 50 cms
 - Balks are to be retained till the end of excavation because besides providing access to different boxes they preserve four vertical sections which establish relation b/w layers & features
 - Help the excavator in correlation of stratigraphy from the different parts of site
 - Advantage in grid system is that it lends itself to expansion in any direction without hampering the basic datum line of sections

OPEN STRIPPING

- Resort to open stripping method after knowing stratigraphy of site
- Square unit system & balks that go with are avoided- then total stripping is carried out in a single operation or in connected series
- Each layer & feature is followed individually & cleared completely
- It is employed when time is short or in an emergency excavations
- Help to clear large area & save considerable amount of time & effort
- Main problem in this method is to have proper control over the stratigraphical base & also movt of people & the disposal of excavated earth in absence of balk & pathways- demand much skill & caution
- Popular in USA-no huge mound or complicated stratigraphy

QUADRANT METHOD

- For excavating a circular mound- megalithic cairn circle, stupa, trenches can be laid out in quadrant method
- Mound or burial is divided into four quarters each of which is excavated sequentially
- Introduced in India by Wheeler to excavate the megalithic burials of Brahmagiri
- The mound is marked out into 4 quadrants by 2 strings

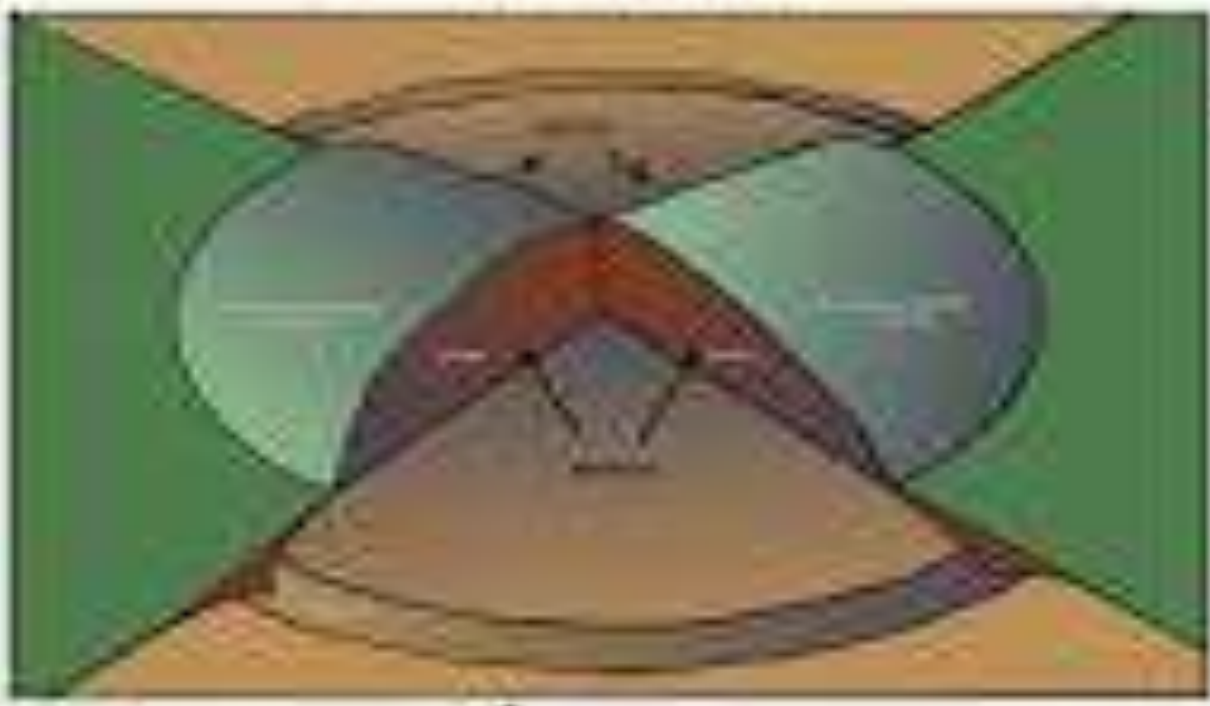


Initial position of catheter




Initial position of catheter

Initial position of catheter



Initial position of catheter

Initial position of catheter

- 
- Quadrant are numbered or named in order they are excavated
 - Serve as a datum line for recording the artifacts or grave goods or other features in burial
 - Balk sections would preserve the stratigraphy of deposits & features such as level at which the primary burial pit was cut & that nature of filling over it

DOCUMENTATION

- Archaeological excavation is a ‘recorded destruction’ & therefore it should be recorded properly- photographs, drawings, artefacts etc
- **A. Field Note Book-** contain both plain or lined & graph sheets, former recording of the work done, observations, drawings, features & artefacts- site name, grid number, excavators name & year of excavation- also contain findings, description of layers, contents, pottery, artefacts, features- purpose | to give day to day account of work done & discoveries- basic record for final publication of results of excavation

- **B. Antiquity Envelops-** cloth bags or paper envelops containing artifacts –(1) serial number & date, (2) site-name, location,(3) designation of grid / squares/ location (4)stratum- layer number/ pit number(5) object (6) supervisor
- **C. Antiquity Register**
- **D. Recording of pottery Evidence**
- **E. Section Drawings**
- **F. Plans-** horizontal picture of objects from top
- **G. Survey plans & Contour Maps-**
 - Site Map- map showing exact location of excavated site
 - Contour map- map with contour lines or levels of elevation of landmarks
- **H. Photo-Documentation**

PUBLICATION/ EXCAVATION REPORT

- 1. Title
- 2. Abstract
- 3. Introduction
- 4. Lay-out of excavation
- 5. Stratigraphy & sequence of cultures
- 6. chronology
- 7. Structures & other features
- 8. Potteries
- 9. Artefacts
- 10. Technical Reports- scientific reports on carbon-14, Thermo-Luminescence dating, soil analysis, physical reports on bones, skulls, metallurgical reports
- 11. Interpretation & conclusions
- 12. Appendices, bibliography & illustrations

CONSERVATION & MUSEUM DISPLAY

- CONSERVATION OF ARTIFACTS
- MUSEUM DISPLAY