South Indian Megalithic Culture: database and its application
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Database and its Applications

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Introduction

The Indian subcontinent is divisible into five geographical regions.

1. In the north, the great Himalayan mountain range and the sub-Hi-
   malayan zone run from Peshawar in the west to Assam in the east,
2. The Indo-Gangatic, the alluvial plains cover Uttar Pradesh, Punjab,
   Sindh and Bihar,
3. Central Indian table land (Windhyan plateau),
4. The Deccan plateau and
5. The Kaveri delta.

The Peninsular part of India comprises the Kaveri delta, the Deccan
plateau and the Vidharba. This peninsular part of India has been referred
to as »South India« in this paper - which is the region of study.

The term »megalith« applies to tombs built with large stones either in
natural forms or dressed or a grave marked with rude stone or an exca-
vation in rock cave containing remains of the dead. In various parts of the
Old World, the practice of erecting megaliths on a large scale began from
the Neolithic times and continued into the Bronze Age and Late Iron Age
and survives till today with the hill tribes of northeast India. Where, when
and how the ideas of megalithism originated and diffused is still a vexing
problem (Childe, 1957; Smith, 1913 and Peake, 1916). The megalithic
culture was the earliest known culture responsible for introducing a full-
fledged agricultural economy based on irrigation in South India. Iron
made rather a sudden but widespread appearance either with megalithic
culture or closely followed it.

In India, ever since the first notice of megaliths in Kerala was made by
Babington (1923), a vast body of evidence has reported from various sec-
tors of South India. In February 1958, a Seminar on Indian Megaliths was
organised under the auspices of the Banaras Hindu University, the pro-
ceedings of which are published. Dr .B.K. Guru Raja Rao (1972) surveyed
all the published material on the Megaliths of South India and has given

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an integrated account. In 1963, Dr. S.B. Deo published a report of his excavations at Takalghat and Khapa (1970) and also highlighted the problems of South Indian Megaliths (1973). However, unfortunately the real archaeological context of the megaliths was not grasped till recently.

Material evidence from the megaliths, indicating their sepulchral character, has been accumulating enormously but with very little progress in obtaining information about chronology and their authors. As a result of sustained efforts and hard work by a number of scholars, much of the mist surrounding this phase of Indian archaeology is gradually clearing. However, due to inherent ambiguity of cultural phase and non-availability of datable material the fundamental questions like the origin, the authorship and the chronological horizon of this culture have not approached universally acceptable solutions. The reason that prompted the choice for developing a database for South Indian Megaliths is that: though much work has been done in the field so far, the collective information is not available for further analysis to know about origin, authorship and chronology of the culture. Hence, it was decided to collect all the available information on South Indian megaliths and create a database which in turn helps scholars to retrieve the necessary data for the analysis.

Database: South Indian Megaliths

Database management is one of the most important functions provided by modern computer systems. The storage of data is done so as to achieve independence from the programs that use the data and the structure of the data allows for further application development (Elbra,1982). There exists a wide variety of packages designed to aid the storage and manipulation of data in information retrieval applications. These range from simple file management programs providing facilities to simplify data capture and report generation to complex database management systems. To have better management and least redundancy of data, it was decided to create a Relational Data Base using Unify Data Base Management System (Release 3.1).

Unify is a collection of over twenty different programs, all integrated together to create and modify applications systems that store and retrieve data. The primary user interface to the system is the menu handler. It comes with a set of built-in menus and own menus can also be created. The non-procedural query and update can be made by using Structural Query Language (SQL). It is possible to add, modify delete and query information in the database interactively. Unify offers Query By Forms. QBF allows to fill in search values on a screen form, which is then used to find the record which matches.

Data on megaliths are characterised by various objectives and their levels. Instead of deciding only one prime objective, and framing a number of attributes necessary for that, it is arranged in such a fashion to break prime objective into secondary objectives. It facilitates the identification of objectives and the variables in a effective manner. It also simplifies the data maintenance. The number of variables necessary to attain the secondary objective from the records. And the collection of all such records froms the database or datapool.
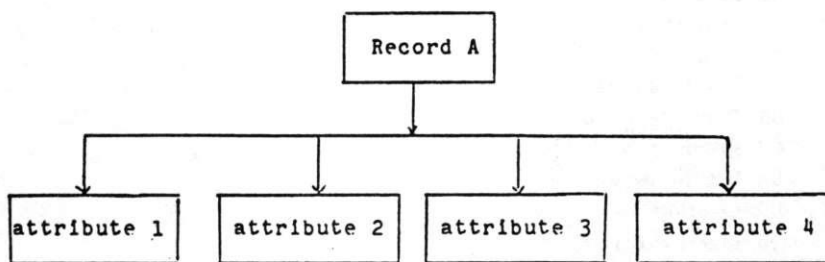
This very structural form of information demands different types of computer environment - as Unify operating environment. The structure of the database is such that at the lowest level, there arc four Records related to a particular project. Each Record can be employed separately depending on respective and restricted objectives such as: the metrical data from the Record A; including information on artifacts can be employed for further statistical and metrical analysis. Similarly, Record incorporating the details of the habitational deposit and the site will be valuable for various applications such as: size of the population, size of the settlement, their inter-relation and many other estimates related to ancient human-geography.

Record A:

Information regarding the site:

1. Code No.
2. Name of the site
3. Taluka
4. District
5. State
6. Geo-coordinatcs
7. Nature of the site
   01. Habitation

    02. Burial
    03. Habitation + Burial
    04. Habitation or Burial or Habitation + Burial (?)
    05. Habitation (?)
    06. Burial (?)
    07. Burial or memorial or commemorative
    08. Habitation + Burial (?)
  8. Cultural period(s)
    01. Megalithic
    02. Megalithic (?)
    03. Iron age
    04. Iron age (?)
    05. Pre-Satavahana
    06. Pre-Satavahana (?)
    07. Pre-Mauryan
    08. Pre-Mauryan (?)
    09. Overlap
    10. Overlap (?)
  9. Published References.

The constituent attributes for the site are identified. Which governs the subsequent analysis.

Record B:

    Attributes for each artifact are identified and the qualitative data are recorded.

Details of artifacts

  1. Site code
  2. Name of the artifact (given by author)
  3. Name and type of the artifact
  4. Author's identification doubtful (Y/N)
  5. Illustrated (Y/N)
  6. Number of similar artifacts found
  7. Material used
    01. Iron
    02. Copper
    03. Gold
    04. Silver
    05. Bronze
    06. Stone
    07. Terracotta

08. Bone
09. Wood
10. Information not available
8. Functional use
01. Domestic
02. Implement
03. Tool
04. Weapon
05. Horse equipment
06. Horse trapping
07. Game object
08. Ornament
09. Symbolic object
10. Miscellaneous
11. Indeterminate
9. Surface collection (Y/N)
10. Cultural period
11. Stratigraphy
12. Burial No.
13. Type of burial (by author)
14. Type of burial / sub-type
15. Subsidiary structural features (present/absent/not applicable)
1. Antechamber (s)
2. Subsidiary small chambcr(s)
3. Transected stone troughs
4. Anthropomorphic figurc(s)
5. Cupmarks
16. Location of the artifact
17. State of preservation
18. Ethnographic parallels 19. Comparisons
20. Published reference codc(s).

Record C:

Similarly, data on ecozone, size of the burial site, amount of habitational deposit and estimated population are stored. They are:

1. Site code
2. Thickness of total cultural deposit
3. Thickness of iron using culture deposit
4. Extent of habitational site
5. Extent of burial site
6. Number of burials

7. Number of non-sepulchral burials

8. Zone

9. Serial number

10. Estimated population.

Record D:

 In this record the published references are incorporated giving all the details, such as: author(s), title, year of publication, publisher, pages and source.

Remarks

The total number of sites reported so far is more than 1933. However, sometimes the data is not available and the available data is either incomplete or incorrect or in inappropriate form. Therefore, before incorporating the data in the database it is necessary to spend more time in collecting the data and arranging it in a suitable format.

The applications and scope will vary according to the requirement of the user. But the scope will be clear from the database structure. Record A, Record B, Record C and Record D can be processed independently according to the aim of the user and report can be generated. Or any combination of the Records or all the Records together can be processed independently or interactively and report can be formed.

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DATABASE – STRUCTURE