SYLLABUS
MASTER OF ARTS (M.A.)
IN
ANCIENT INDIAN HISTORY, CULTURE AND
ARCHAEOLOGY
SEMESTER IV
(UNDER CBCS)

DECCAN COLLEGE
POST GRADUATE AND RESEARCH INSTITUTE
PUNE – 411 006 (INDIA)
(Declared as Deemed to be University under section 3 of UGC Act 1956 )
2017
ARC401: ART AND ARCHITECTURE OF INDIA (600 C.E. to 1200 C.E.)

Course Objectives:
The objectives of this course are to introduce the major developments in art and architecture in India during the Medieval Period.

Course Outcomes:
Students become familiar with the monuments and sculptures of India during the period covered in the course.

Unit 1: Theoretical Aspects and Development of Regional Schools (3hrs)
   i. Brief review of the ancient Shilpa texts
   ii. Concept of Forms, Styles and Modes of Temple Architecture
   iii. Rise and Development of Regional Schools.

Unit 2: Early Structural Temples in North, Central, and Western India (8hrs)
   i. General Review of Post-Gupta Monuments and Sculptures in Northern India
   ii. Pratiharas: Deogarh, Gwalior, Gyarspur
   iii. Asian group of temples in Rajasthan
   iv. Kalchuris: Candrehe, Bheraghat, Maihar
   v. Maitrakas and Saindhavas: Gop.Khimeshvara, Ghumali, Miyani

Unit 3: Late Structural Temples in North, Central, and Western India (8hrs)
   i. Paramaras: Udaypur, Jamali, Nemawar
   ii. Solanki: Sunak, Modhera, Sejakpur, Dilwarac. Chandellas: Khajuraho group of temples

Unit 4: Structural Temples and monuments: Eastern India (4hrs)
   i. Development and Characteristics of Kalinga style of Temple Art and Architecture
   ii. Parshurameshvara, Mukteshvara, lingaraj and Konark sun temple

Midterm
Unit 5: Rock-cut Monuments, Structural Temples and Sculptures: Deccan  (12hrs)

i. Chalukyas of Badami: Aihole, Badami, Pattadakal, Mahakuta
ii. Rock-cut caves at Elephanta
iii. Rashtrakutas: Alampur Group of Temples, Ellora Rock-cut caves and Monolithic temples
v. Yadavas: Sinnar, Balasane and Jhodge
vi. Shilaharas: Ambarnath and Khidrapur

Unit 6: Rock-cut Monuments, Structural Temples and Sculptures: South India  (8hrs)

i. Pallavas: Mahabalipuram and Kanchipuram
ii. Pandyas: Kalugumalai and Tirupattur
iii. Cholas: Kumbhakonam, Tanjavur, Gangaikonda cholapuram and Darasuram,
iv. Hoyasalas: Belur, Halebid and Somanathpur

Unit 7: Bronzes of India  (2 hrs)

i. The Pallavas and The Cholas of South India
ii. The Palas of the Senas of Eastern India

Recommended Readings:


   i. New Delhi: Munshiram Manoharlal.
ARC 402: ANCIENT INDIAN NUMISMATICS

Course Objectives:
To introduce the currency system of ancient India and acquaint the development in the coinage.

Course Outcomes:
Students will be able to identify and decipher the coins. They will also be able to understand the socio-political background that accrue through the coinage of that time; thus getting holistic picture of that economic system prevalent in ancient India.

Unit 1: Introduction to Numismatics (9 hrs)
   i. Numismatography: History of Numismatic Studies in India
   ii. Numismatic Studies: Terminology, Scope and Importance in the Reconstruction of socio-cultural and economic History
   iii. Provenance of Coin: Findings from Archaeological excavations and Stratigraphic relevance, Stray findings, Hoards, Private and Public Collections

Unit 2: Study of Ancient Indian Coinage: polity-economic dimensions (20 hrs)
   i. Different categories of the coins and weight standard as linked from the historical text: Shatamana, Vimshatik and Karshapana series.
   ii. Punch-Marked Coins: Archaic and Universal; Early Uninscribed Cast Copper Coins (EUCC)
   iii. Coins of Indo-Greek, Indo-Scythian and Indo-Parthian dynasties, Tribal coins, Local Coins, Coins of City States
   iv. Coinage of the Kushanas
   v. Coins of the Satavahana and Contemporary Rulers
   vi. Coins of the Western Kshatrapas: Kshaharata and Kardamaka Rulers
   vii. Coins of the Sangama Period: Chera, Chola and Pandya
   viii. Distribution of Roman Coins in India
   ix. Coins of the Guptas

Unit 3: Chemical and Statistical Analyses of Coins (9 hrs)
   i. Recent advancement in numismatic studies
   ii. Metallurgy of Coins
   iii. Minting Techniques
   iv. Destructive and Non-destructive methods of Analysis
   v. Statistical Analysis: Frequency Tables and Histograms
Unit 4: Practical Training (7 hrs)

i. Introduction of scripts: Brahmi, Kharoshthi and Greek

ii. Coin Cleaning: Treatment and Preservation

iii. Identification of coins, preparation of coin catalogue and report writing

Recommended Readings:


xviii. Numismatic Digest A Journal Published by Indian Institute of Research in Numismatic Studies, Anjaneri (Nasik).


ARC 403: ETHNOARCHAEOLOGY

Course Objective:
The objective of this course is to become familiar with the ethnologies of different communities in India and their relevance for understanding archaeological data.

Course Outcome:
Students are familiarized with the importance of ethnographic data as a source to understand archaeological data.

Unit 1: Concepts in Ethnoarchaeology (10 hrs)

i. Nature and interrelationship of archaeological and ethnographic records: Role of Analogy.
ii. Definition, scope and methods of ethnoarchaeology;
iii. Brief review of the Ethnoarchaeological researches in India.
iv. Ethnoarchaeology and reconstruction of past material culture; e.g. Settlement pattern, technology, ceramics, food processing, etc.

Unit 2: Tribe and Caste (5 hrs)

i. The composition of Indian society
ii. Castes and tribes. Origin and evolution of the caste system in India and its archaeological significance.

Unit 3: Ethnoarchaeological Studies In Indian Settings (16 hrs)

i. Forager/collector model to Palaeolithic and Mesolithic societies: e.g. Andaman Islanders
ii. Ethnoarchaeological researches on the living hunter-gatherers in central, western and southern regions of India. Pardhis, Van Vagris, Korkus, Gonds, Bastar, Birhors, Yanadis, Chenchus, and Musahars. Veddas of Sri Lanka
iii. Present day shifting cultivation practices and their relevance to the study of Mesolithic, Neolithic and Chalcolithic cultures of India.
iv. Ethnoarchaeology of the South Indian Neolithic culture
v. Ethnoarchaeological research for reconstructing the early agro-pastoral Chalcolithic communities of central and western India; Mahadeo Kolis, Bhils and Dhangars.
vi. Living Megalithic tradition in India.
vi. Ethnoarchaeology of fishing (inland and coastal) economies
viii. Ethnoarchaeology of marginal resource utilization (shell fishing)
Unit 4: Ethnoarchaeological Studies Outside India: (8 Hrs)

i. Important Ethnoarchaeological studies of living hunter-gatherer societies outside India: Eskimos of Alaska, Bushmen of the Kalahari Desert and Australian Aborigines

Unit 5: Ethnoarchaeological Applications for Sciences in Archaeology (6 hrs)

i. Role of analogy in problems pertaining to the application of sciences in archaeology; biological anthropology, ethnobotany and archaeo-zoology.

Recommended Readings:


ARC 404: EARLY IRON AGE OF INDIA

Course Objective:
The Early Iron Age is a formative period in Indian Civilization and so its archaeology is of great interest. In this course the data from different parts of India is reviewed.

Course Outcomes:
Students are introduced to the archaeological record of the Iron Age in India and some of the theoretical issues related to state formation and the development of complex societies.

Unit 1: (8 hrs)
   i. Antiquity of Use of Iron
   ii. Iron, Nature of Iron ore and major Iron ore locations/deposits in India.
   iii. Beginning of Iron Age in India: Archaeological and Literary evidence
   iv. Various theories regarding the introduction of iron in India.
   v. Concept of polycentric origin.

Unit 2: Early Iron Age Culture of India (8 hrs)
   i. Historiography of Early Iron Age Research in India.
   ii. Emergence of various ideas of development and craft specialisation.
   iii. Introduction of Iron: Emergence of Complex Societies
   iv. Painted Grey Ware Culture: chronology, material Culture, distribution and
      Characteristic features.
   v. Iron in Gandhar Grave Culture of Swat Valley

Unit 3: Early Iron Age and Megalithic Traditions: (11 hrs)
(Distribution, typology, material culture, Art and craft specialization, subsistence, trade and commerce, and Chronology.)
   i. Evidence and nature of distribution of Megalithic culture in India.
   ii. Settlement pattern of Early Iron age and Megalithic people
   iii. Megalithic traditions/culture in Northern India
   iv. Megalithic traditions/culture in Central India
   v. Megalithic traditions/ culture South India
   vi. Megalithic traditions/cultures in North-Eastern India
Unit 4: Socio-Cultural- Economic Life of Early Iron Age People (8 hrs)

i. Role of Iron in emergence of Second Urbanisation: Various causes, processes and consequences.
ii. Society and Social life during Early Iron Age
iii. Living Megalithic traditions in India: An Ethno-archaeological Perspective
iv. Iron Smelting Processes and Metallurgy: Past and Present
v. Herostones/Viragal

Unit 5: Important Excavated Sites: (10 hrs)

Ataranjikhera, Ahirachhatra, Burzhom, Megalithic Cultures of the Adwa Valley (Central Vindhya), Joythma (Nagaland), Mahurzhari, Naikund, Bhagimohiri, Takalghat-Khapa, Ramapuram, Hirebenekal, Brahmagiri, Chandravali, Adichennalur, Kodumanal, Ummichiipoyh

Recommended Readings:


xviii. Tripathi, Vibha. 1976. The Painted Grey Ware: an Iron Age Culture of Northern India.
   Delhi: Concept Publishing House.

ARC 406: Ancient Technology and Archaeological Chemistry

Course Objective:

i. Primarily it aims at providing students with adequate grounding in the application of natural science to the solution of problems related to Archaeology, and its allied branches to unravel human history, his environments with special reference to Indian subcontinent.

ii. Instilling in the students the applications and implications of interdisciplinary nature of the science in Humanities.

iii. Developing in the students the ability to determine the appropriate methods and tools needed to address in case of ancient biological and non-biological materials.

Course Outcome:

i. Attainment in understanding and appreciating a spectrum of analytical tools applied to the study of ancient materials.

ii. Inculcating the realization of the difference between the methods used by the archaeologists, experts of heritage management on one hand while the scientists practicing Archaeological Chemistry on the other.

iii. Helping students develop ability to determine the appropriate tools needed to address in seeking answers of ancient technology, conservation and preservation, reconstruction of ecology, diet, pathology and provenance of ancient materials.

Unit 1: (03 hrs)

i. What is Archaeological Chemistry: Scope and Definition

ii. History and Development of the subject

iii. Archaeological materials and chemical methods of study: Soil, minerals, metals, bioinorganic materials including fossils, bones, plants etc.

Unit 2: (03 hrs)

i. Geochemical Surveys of archaeological sites

ii. Field methods and Laboratory methods

iii. Case studies in Indian Archaeology

Unit 3: (04 hrs)

i. Physical methods of provenance analyses

Unit 4: (05 hrs)

i. Archaeometallurgy: A review
ii. Iron metallurgy in ancient India
iii. Copper metallurgy in Ancient India
iv. Zinc and Brass in Archaeological Perspective in India

Unit 5: (10 hrs)

i. Clay, Pottery and other Ceramic materials
ii. Ancient technology of pottery production
iii. Ceramic technology of the Harappan and Deccan Chalcolithic
iv. Ceramic technology of early historic and medieval period
v. Chemistry and making of ceramics
vi. The Provenance of Pottery, physical methods of ceramic analysis

Unit 6: (04 hrs)

i. Ancient Glass: super cooled liquids
ii. Glass making, Components of glass and glass types, decay of glass
iii. Provenance of glass

Unit 7: (03 hrs)

i. Palaeobiochemistry of organic materials
ii. Palaeodietary studies: Trace elements, Lipids, Residue analyses
iii. Palaeoenvironmental reconstruction: Stable Isotopes, Trace elements

Unit 8: (03 hrs)

i. Chemical Methods of (Relative) Dating
ii. Fluorine dating, principles, methods, techniques and application.
iii. Uranium series dating, principles, methods, applications with relevant examples
Unit 9:  
(10 hrs)

Educational tours to National Institutes and Laboratories:

i. Tata Institute of Fundamental Research (TIFR), Mumbai, I.I.T., Mumbai,
ii. National Chemical Laboratory (NCL), Pune
iii. Indian Institute of Tropical meteorology (IITM), Pune
iv. ISSCER, Pune.

Recommended Readings:


ARC 407: QUANTITATIVE METHODS AND INFORMATION SCIENCE

Course Objectives:
The objective of this course is to introduce basic statistical methods and GIS to archaeology students.

Course Outcomes:
Students are familiarized with some computer and GIS applications and basic statistical methods.

Unit 1: Computing Fundamentals (5 hrs)
   i. Information Science: Development and scope
   ii. Readymade software and programming languages
   iii. Practical lessons of programming

Unit 2: Managing Information (5 hrs)
   i. Excavation and Computers
   ii. Archaeological Database management
      a. What is database?
      b. What is archaeological data?
      c. Recording artefacts
      d. Analyzing data
      e. Data Security

Unit 3: Digital Landscapes (5 hrs)
   i. GIS
   ii. Remote Sensing
   iii. Digital Image Processing
   iv. Modelling and Simulation
   v. Maps and GPS based cartography

Unit 4: Preserving And Managing Evidence of the Past (3 hrs)
   i. CRM and increasing computer usage
   ii. CRM at the regional level
   iii. Museums, computers and archaeological collections
Unit 5: Communicating Archaeology (3 hrs)
  i. Interactive multimedia and the Internet
  ii. Use of web resources for research
  iii. E-Publication

Unit 6: Place of quantitative methods in archaeological research (4 hrs)
  i. Historical perspective
  ii. Importance of quantitative methods
  iii. Archaeological theory and quantitative thinking
  iv. Validity and reliability of quantitative analysis

Unit 7: Basic Statistics (8 hrs)
  i. Classification and tabulation of data
  ii. Visual methods
  iii. Measures of central tendency
  iv. Concept of variability
  v. Measures of association

Unit 8: Relationship between variables (5 hrs)
  i. Chi square test and contingency tables
  ii. Ranking and Correlation tests
  iii. Regression Analysis

Unit 9: Sampling Techniques (4 hrs)
  i. Sample and population,
  ii. Probability and non-probability methods
  iii. Sampling errors

Unit 10: Advanced Statistical Methods (3 hrs)
  i. Multivariate methods
  ii. Comparing samples
  iii. Analysis of variance
Recommended Readings:


ARC 408: ENVIRONMENTAL ARCHAEOLOGY (GEOARCHAEOLOGY)

Course Objectives:
The objective of this course is to introduce students to the scope and methods of geoarchaeology.

Course Outcomes:
Students learn about the different natural contexts and processing affecting archaeological sites.

Unit 1: (3 hrs)
Definition, concepts and development of Geoarchaeology

Unit 2: Landform Evolution (12 hrs)

i. Identifying the natural Processes
   a. Slope
   b. Fluvial
   c. Glacial
   d. Aeolian
   e. Lacustral

ii. Post depositional features
   a. Soils and sediments
   b. Calcrete formation
   c. Ferricretes
   d. Weathering
Unit 3: Methods (8 hrs)

i. Field techniques (Physical and Chemical)
   a. Regional scale
      GIS and Remote sensing
      Map studies
   b. Site specific
      Resistivity
      Magnometry
      Section description
      Sampling

ii. Laboratory techniques
    Grain size analysis
    Soil characterization
    Mineralogy
    Phosphate analysis
    Stable Isotope studies

iii. Absolute and Relative Dating methods

Unit 4: Cultural Ecology (10 hrs)

i. Human responses to changing environment
   a. Palaeolandscape
   b. Palaeoclimate
   c. Sea level changes

ii. Origin, growth and decay of cultures

iii. Human Impact on landscape

Unit 5: Regional Studies (12 hrs)

a. India

b. Other countries
Recommended Reading:

Basic Texts:


Additional Readings:


xi. Lape, Peter V. and Chao Chin-yunga. 2008. Fortification as a Human Response to Late Holocene Climate Change in East Timor in *Archaeology in Oceania*, Vol. 43, No. 1, Climate Change and Archaeology in the Pacific - Part II


