

M.A. IN ARCHAEOLOGY

Course Information Booklet

School of Historical Studies

Nalanda University

August, 2026 (Applicable from the Batch of 2026-28)

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Course Information: M.A. Archaeology (w.e.f. Fall, 2026)

Department of Archaeology

SHS, Nalanda University

Previous Year

Semester I (Total Credit – 20)			Semester II (Total Credit – 20)		
Course Name	Course Code	Course Credit	Course Name	Course Code	Course Credit
Core Courses (4)			Core Courses (3)		
Introduction to Archaeology: Principles and Methods	C-1	3	Field Methods in Archaeology	C-1	3
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Application of Sciences in Archaeology	C-3	3	Protohistory of South Asia	C-3	3
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Elective Courses (1)			Elective Courses (2)		
Landscape Archaeology	E-1	3	Epigraphy and Numismatics	E-1	3
Archaeology of Buddhism	E-2	3	Ethnoarchaeology	E-2	3
Archaeology of Nalanda (Short elective I of II)	E-3.1	1.5	Environmental Archaeology	E-3	3
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Foundation Courses			Practical Component		
The Nalanda Spirit	F-1	2	Archaeology Practical I: Laboratory & Excavation	P-1	2
Research Methodology	F-2	2	Nalanda Praxis: Community Archaeology	P-2	2
Seminar			Seminar		
Seminar	S	1	Seminar	S	1

Final Year

Semester III (Total Credit – 20)			Semester IV (Total Credit – 20)		
Course Name	Course Code	Course Credit	Course Name	Course Code	Course Credit
Core Courses (2)			Core Courses (1)		
Indian Knowledge System: Archaeological Perspective	C-1	3	Cultural Heritage Management	C-1	4
Historical Archaeology	C-2	3			
Elective Courses (3)			Elective Courses (1)		
Museology	E-1	3	Archaeology of Bihar	E-1	3
Experimental Archaeology (Short elective I)	E-2.1	3	Public Archaeology	E-2	3
Digital Archaeology (Short elective II)	E-2.2	3			
Shared Past of India and Southeast Asia	E-3	3			
Archaeology and Heritage of Prehistoric Homo Sapiens	E-4	3			
Practical Component			Practical Component		
Archaeology Practical II: Dissertation-based Fieldwork	P-1	2	Sastartha and Project Report Writing	P-1	3
Analytical Archaeology: Data Analysis and Interpretation	P-2	2			
Seminar			Dissertation & Seminar		
Seminar	S	1	Dissertation	D	9
			Seminar	S	1

Assessment and Evaluation Framework

The overall assessment for a course shall comprise:

- End-Semester Evaluation: 55%
- Continuous Assessment (Semester-long): 45%

Within the overall assessment, written examinations shall constitute 40% of the total evaluation, while diverse assessment indicators shall constitute the remaining 60%.

A. Written Examination Component (40%)

Component	Weightage
End-Semester Written Examination	25%
Month 3	5%
Month 2	5%
Month 1	5%
Total	40%

B. Continuous and Holistic Assessment Component (60%)

The remaining 60% shall be assessed through one or more of the approved evaluation indicators, distributed as follows:

Component	Weightage
End-Semester Assessment (Project/Presentation/Assignment, etc.)	30%
Month 3 Assessment Component	10%
Month 2 Assessment Component	10%
Month 1 Assessment Component	10%
Total	60%

Evaluation Indicators

Assessment components shall be drawn from one or more of the following indicators, depending on the specific requirements of the course:

- (a) Presentations and Demonstrations
- (b) Written Assignments
- (c) Periodic and End-Semester Written Examinations
- (d) Laboratory, Field, Archival, or Experiential Activities
- (e) Classroom Participation, Debates, Discussions, and *Shastrarth*
- (f) Research Papers, Projects, or Creation of a Product/Platform
- (g) Translations and Original Commentaries

Indicative Evaluation Pattern

Assessment Component	Month 1	Month 2	Month 3	End Semester
Written Examination	5%	5%	5%	25%
Presentations/Demonstrations, Research Paper/Project, Classroom Discussions/Debates, Assignments, etc.	10%	10%	10%	30%
Sub-total	15%	15%	15%	55%

SEMESTER-I

Course Code: P07C101

Introduction to Archaeology: Principles and Methods (Core)

Course Description:

Semester-I

Archaeology is the study of past human behaviors and culture, understand through the survived material culture left behind by our ancestors. This course introduces the students to the fascinating discipline of Archaeology. It is intended for anyone interested in knowing about the evolution of past human cultures and other necessary key concepts. We will explore the various aspects of early tools, technology, belief systems, diet, settlement patterns, burial patterns, and the landscape through time and space. This course will provide a basic knowledge of the nature of archaeological records, cultural development, theory, methods, and practice. The course will highlight the nature of the interdisciplinary subject in understanding the human past.

Course Objectives:

1. Understand the basics, concepts, methods and practices of Archaeology
2. Familiarise with the Archaeology time scale and dating methods.
3. Gain knowledge of the formation of the archaeological record and acquire skills to investigate, analyse and interpret archaeological remains.
4. Learn about the key field techniques, laboratory methods

Module -1: What is Archaeology? Overview and Introduction

Defining Archaeology, Objective, and scopes

Module 2: Introduction to Prehistory, Protohistory and Historical Archaeology

History, Anthropology and Geology in Archaeological Research; Environmental Archaeology (Archaeobotany, Archaeozoology, Paleoecology); Ethnoarchaeology and Landscape Archaeology; GIS, Remote Sensing and Spatial Technologies; DNA Studies, Archaeochemistry and Archaeometallurgy; Underwater and Public Archaeology and Heritage Management.

Module-3: Interdisciplinary Approaches and Scientific Methods in Archaeology

Lab Module

Human origin and evolution, Paleolithic cultures, Neolithic, Chalcolithic, Harappan, Megalithic, and the rise of early historic cities and states.

Module-4: Concept of Chronology and Dating methods

Dating methods: Relative and absolute dating methods: Carbon dating, Thermoluminescence and OSL, Potassium-Argon, Paleomagnetic dating methods, Dendrochronology, Epigraphy, Numismatic.

Module-5: Archaeological Records, Classification and Identification

Lab Module

Archaeological data: techniques of exploration, excavation, Archaeological records and classification: Artefacts, Ecofacts, Assemblages, Identification of stone stools, pottery, bones and fossils, Rocks and minerals and other organic remains.

Module -:6 Basic Concepts in Archaeology

Cultural evolution and processes, Stratigraphy, Site formation processes and Site catchment analysis

Recommended Readings:

1. Chakrabarti, D.K., 2006. *The Oxford Companion to Indian Archaeology: The Archaeological Foundation of Ancient India (Stone Age to A.D. 13th Century)*. Oxford: Oxford University Press.
2. Daniel, G.E., 1975. *A Hundred and Fifty Years of Archaeology*. London: Duckworth.
3. Fagan, B., 1988. *In the Beginning: An Introduction to Archaeology*. Glenview: Scott, Foresman and Company.
4. Fagan, B., 1996. *The Oxford Companion to Archaeology*. Oxford: Oxford University Press.
5. Gamble, C., 2008. *Archaeology: The Basics*. London: Routledge.
6. Ghosh, A., ed., 1990. *An Encyclopedia of Indian Archaeology*. Leiden: Brill.
7. Hall, M. and Silliman, S.W., eds., 2006. *Historical Archaeology*. Malden, MA: Blackwell.
8. Harris, E.C., 1979. *Principles of Archaeological Stratigraphy*. London: Academic Press.
9. Hodder, I., 1992. *Theory and Practice in Archaeology*. London: Routledge.

10. Johnson, M., 2010. *Archaeological Theory: An Introduction*. 2nd edn. New York: Wiley.
11. Paddayya, K., 2014. *Multiple Approaches to the Study of India's Early Past: Essays in Theoretical Archaeology*. New Delhi: Aryan Books International.
12. Rajan, K., 2002. *Archaeology: Principles and Methods*. Tanjavur: Manoop Publishers.
13. Renfrew, C. and Bahn, P., 2006. *Archaeology: Theories, Methods and Practice*. London: Thames and Hudson.
14. Schiffer, M.B., 1987. *Formation Processes of the Archaeological Record*. Albuquerque: University of New Mexico Press.
15. Shanks, M., 2008. 'Post-Processual Archaeology and After'. In: R.A. Bentley, H.G. Maschner and C. Chippindale, eds. *Handbook of Archaeological Theories*. Walnut Creek, CA: Left Coast Press, pp.133–144.
16. Wheeler, R.E.M., 1954. *Archaeology from the Earth*. Harmondsworth: Penguin Books.

Course Code: P07C102
Archaeological Theories (Core)

Semester-I

Course Objectives

This course explores the prominent theories in archaeology from its inception to the present day, within the context of general developments in anthropological and archaeological thought. It examines the intellectual, historical, and methodological foundations of archaeological research and introduces key concepts and ideas fundamental to archaeological inquiry, focusing on major developments and approaches. The course covers research design and methods from the field to the laboratory, with special attention to the history of ideas and their impact on the discipline. This understanding of archaeological theory will provide students with insights into the dynamic nature of archaeological thought, an appreciation of its development, and the tools to evaluate different perspectives on the past.

Outcome

1. Capacity to construct and to evaluate arguments in light of archaeological evidence
2. An understanding of continuity and change in humans and their cultures
3. An awareness of the diversity of humans and their cultures
4. An ability to examine a variety of sources critically and to analyze them in terms of their contexts
5. The capacity to evaluate humans and their culture in light of archaeological evidence
5. An awareness of complexity of humans and their culture

Module-1: Introduction

Introduction to Archaeological Theories

Theoretical Developments in Biology, Geology and Cultural Studies before the Advent of Archaeology

Age of Antiquarianism

Module- 2: Traditional Archaeology

Cultural History-Oriented Archaeology

Development of theoretical frames by Vere Gordon Childe, Grahame Clark, W. W. Taylor

Functional and Ecological Approach in Archaeology, Conjunctive Approach

Cultural Ecology: Julian Steward

Conjunctive Approach

Module-3: New Archaeology or Processual Archaeology

New Archaeology/ Processual Archaeology and its critics

Post-processual and contextual Archaeology

General Systems Theory and Material Culture Studies

Middle-Range Theory, Ethnoarchaeology Case study of Processual Archaeology:

Inamgaon-Walki

Module- 4: Post-Processual Archaeology G.K.

Definition and Scope of Post-Processual Archaeologies

Cognitive Archaeology

Module-5: Current Issues in Archaeology G.K.

Gender Approach in Archaeology

Museums: from Display to experience

Heritage Management and Cultural Resource Management

Climate and Archaeology: The Green Movement

Ethics in Archaeology

Recommended Readings

1. Binford, L.R., 1962. Archaeology as anthropology. *American Antiquity*, 28, pp.217–225.
2. Bird, D.W. and O'Connell, J.F., 2006. Behavioral ecology and archaeology. *Journal of Archaeological Research*, 18, pp.143–188. doi: 10.1007/s10814-006-9003-6.
3. Chakrabarti, D.K., 1988. *A History of Indian Archaeology: From the Beginning to 1947*. New Delhi: Munshiram Manoharlal.
4. Daniel, G.E., 1975. *A Hundred and Fifty Years of Archaeology*. London: Duckworth.
5. Flannery, K.V. and Marcus, J., 1998. Cognitive archaeology. In: D. Whitley, ed. *Reader in Archaeological Theory: Post-Processual and Cognitive Approaches*. London: Routledge, pp.35–48.
6. Gosden, C., 1999. *Anthropology and Archaeology: A Changing Relationship*. London: Routledge.

7. Greene, K., 2003. *The History, Principles and Methods of Modern Archaeology*. 3rd ed. London: Routledge.
8. Hodder, I., 1992. *Theory and Practice in Archaeology*. London: Routledge.
9. Hodder, I., 1995. *Interpreting Archaeology: Finding Meaning in the Past*. New York: Routledge.
10. Hurcombe, L., 2007. *Archaeological Artefacts as Material Culture*. New York: Routledge.
11. Johnson, M., 2020. *Archaeological Theory: An Introduction*. 3rd ed. Hoboken: Wiley-Blackwell.
12. Kelly, R.L., 1995. Foraging and subsistence. In: *The Foraging Spectrum: Diversity in Hunter-Gatherer Lifeways*. Washington, DC: Smithsonian Institution Press, pp.65–110.
13. Paddayya, K., 1990. *New Archaeology and Aftermath: View from Outside the Anglo-American World*. Pune: Ravish Publishers.
14. Paddayya, K., 2014. *Multiple Approaches to the Study of India's Early Past: Essays in Theoretical Archaeology*. New Delhi: Aryan Books International.
15. Paddayya, K., n.d. Theoretical perspectives in Indian archaeology: An historical review. In: P.J. Ucko, ed. *Theory in Archaeology: A World Perspective*. London: Routledge, pp.109–147.
16. Rajan, K., 2002. *Archaeology: Principles and Methods*. Thanjavur: Manoo Pathippakam.
17. Raman, K.V., 1986. *Principles and Methods of Archaeology*. Madras: Parthajan Publications.
18. Renfrew, C. and Bahn, P., 2006. *Archaeology: Theories, Methods and Practice*. London: Thames and Hudson.
19. Schiffer, M.B., 1995. *Behavioral Archaeology: First Principles*. Salt Lake City: University of Utah Press.
20. Shanks, M., 2008. Post-processual archaeology and after. In: R.A. Bentley, H.G. Maschner and C. Chippindale, eds. *Handbook of Archaeological Theories*. Lanham: AltaMira Press, pp.133–144.
21. Trigger, B.G., 2006. *A History of Archaeological Thought*. 2nd ed. Cambridge: Cambridge University Press.
22. Ucko, P.J., 1995. *Theory in Archaeology: A World Perspective*. London: Routledge.

Course Code: P07C103

Application of Sciences in Archaeology (Core)

Course Description

Semester-I

This course introduces students to the diverse scientific disciplines that help in interpreting archaeological data. Archaeology is a highly interdisciplinary subject that takes help from various scientific disciplines and employs a range of techniques, including physical, chemical, and biological analyses, to determine the date, geographic origins, and methods of manufacture of artefacts. These techniques are used for investigating the ancestry, diet, and life histories of past humans, animals, and plants. Students will explore several specialized areas, including faunal studies, vertebrate paleontology, and the fundamentals of skeletal anatomy in animals. The course will cover the study of fossilisation process, mammalian teeth and dietary adaptations, paleoecology, and the evolution and extinction of animals in reconstructing prehistoric environments. The course also highlights the role of other scientific applications in archaeology, such as paleobotany, genetics, remote sensing, chemistry, and metallurgy. Students will gain insights into the various scientific tools available for archaeological research and understand how these tools contribute to interpreting the past.

Course Outcome

Upon successful completion of this course, students will develop a basic understanding of the role of various sciences in archaeology, interpret generated data and be able to determine suitable application of scientific methods for historical inquiry. The course shall provide foundations and uses of scientific techniques. The course shall help students integrate relevant scientific methods, often combining organic and inorganic materials, to enrich archaeological interpretation from a single object to site contexts, societies, and their global connections. Archaeological sciences are at the forefront of interdisciplinary research; therefore, the course will be an advantage for students with a science background.

Module- 1 Introduction and allied sciences

Role of Allied Sciences in Archaeology

Module-2. Archaeobotany

Sampling Strategies: Excavation Techniques for Plant Remains, Flotation and Sieving Methods, Microfossils: Pollen, Phytoliths, Starch Grains, methods of analysis, and case studies, Preservation conditions and contexts, Ethnobotany.

Module: 3 Paleontology

Role of faunal studies in Archaeological Research, Basics of Animal classification and vertebrate (reptilian and mammalian) Anatomy and Osteology, Animal classification, Mammalian osteology, process of fossilisation and fossils as ecological proxies, Fossil preparation, Identification and Systematic Palaeontology of Fossil Vertebrates, Bone and fossil Drawings and Palaeoart, Photo-documentation and digitisation of fossil records.

Module-4 Archaeozoology

Archaeozoology: definition and scope, Relationship with other disciplines (archaeology, biology, anthropology), Archaeozoological Methods: Laboratory Techniques.a) Qualitative Analysis: Taxonomical and Anatomical level identifications, Taphonomic Observations, Palaeopathology b) Quantitative Analysis, Weight methods, Osteometrical studies, iv. Estimation of Age and sex of domestic mammals v. Animal Domestication a). Mesolithic food economy b). Neolithic and Chalcolithic faunal economy d). Iron Age/Megalithic, Animals from historic and medieval contexts and their significance.

Module -5 Bio-Anthropology

Evolutionary Perspectives on human health, disease, genetic predispositions, and cultural factors; techniques for the recovery and analysis of human remains; skeletal analysis and identification: determining age, sex, ancestry; trauma analysis and pathology in forensic anthropology.

Module -6 Technologies in Settlement and Landscape Analysis

Module-7 Geo Archaeology

Introduction to remote sensing technology in Archaeology, Definition, application and Methods.

Module-7 Geo Archaeology

Study of soils/sediments: Determination of texture, colour, pH, calcium carbonate, organic carbon, phosphate etc. Identification of rocks and minerals

Recommended Readings

1. Agrawal, O.P., 1977. *Care and Preservation of Museum Objects*. New Delhi: National Research Laboratory for Conservation of Cultural Property.

2. Albarella, U., 2017. *The Oxford Handbook of Zooarchaeology*. Oxford: Oxford University Press.
3. Badam, G.L., 1979. *Pleistocene Fauna of India*. Pune: Deccan College.
4. Bass, W.M., 1981. *Human Osteology: Laboratory and Field Manual of the Human Skeleton*. 2nd ed. Columbia: Missouri Archaeological Society.
5. Biswas, A.K., 2005. *Science in Archaeology and Archaeological Materials*. New Delhi: D.K. Printworld.
6. Bone, J.F., 1979. *Animal Anatomy and Physiology*. Reston: Reston Publishing Co.
7. Brothwell, D. and Pollard, A.M., 2001. *Handbook of Archaeological Sciences*. New York: John Wiley and Sons.
8. Collingwood, R.G., 1989. *The Idea of History*. Reprint. Madras: Orient Longmans.
9. Cornwall, I.W., 1974. *Bones for Archaeologists*. Revised ed. London: L.M. Dent and Sons.
10. Goyal, P., 2021. *Animal-Based Subsistence of the Harappan Culture in Gujarat with Special Reference to Kanmer*. South Asian Archaeology Series, 5. Kansai University, Japan.
11. Griffin, P.B. and Solheim, W.G., 1990. Ethnoarchaeological research in Asia. *Asian Perspectives*, 28(2), pp.145–161.
12. Jain, S.K., 1991. *Contributions to Indian Ethnobotany*. Jodhpur: Scientific Publishers.
13. Kramer, C., ed., 1980. *Ethnoarchaeology*. Guildford Survey: Columbia University Press.
14. Plenderleith, H.J. and Werner, A.E.A., 1971. *The Conservation of Antiquities and Works of Art*. London.
15. Pollard, M., Armitage, R.A. and Makarewicz, C.A., 2023. *Handbook of Archaeological Sciences*. John Wiley and Sons Ltd.
16. Sarkar, H., 1981. *Museums and Protection of Monuments and Antiquities in India*. New Delhi.
17. Sathe, V., 2022. Science in archaeological investigation. Appendix I. In: A. Sundara and Srinivas Padigar, eds. *Prehistoric Foundations of Bharata*. Vol. II. Bengaluru: Mythic Society, pp.645–694.
18. Sathe, V., 2025. *Bones, Fossils and Archaeology: An Interface between Natural History and Archaeology*. Proceedings of the National Seminar on Recent Advances in Archaeology, Lingraj College, Belagavi.

19. Settar, S. and Korisettar, R., 2002. Archaeology and interactive disciplines. In: *Indian Archaeology in Retrospect*. Vol. III. New Delhi: ICHR.
20. Singh, A.P., 1987. *Conservation and Museum Techniques*. New Delhi.
21. Singh, R. and Kajia, L.R., 1979. *Map Work and Practical Geography*. Allahabad: Central Book Depot.
22. Spyrou, A., Nonles, G., Hadjikoumis, A., Evin, A., Hulme-Beaman, A., Cakirlar, C., Ameen, C., Loucas, N., Nikita, E., Hanot, P., de Boer, N.M., Avgousti, A., Zohar, I., May, H. and Rehren, T., 2022. Digital zooarchaeology: State of the art, challenges, prospects and synergies. *Journal of Archaeological Science: Reports*, 45, p.103588, pp.1–9.
23. Stolow, N., 1979. *Conservation Standards for Works of Art in Transit and on Exhibition*. Paris.
24. Stolow, N., 1987. *Conservation and Exhibition: Packing, Transport, Storage and Environmental Consideration*. London.

Course Code: P07C104
Prehistory of South Asia (Core)

Course Description

Semester-I

This course introduces the basic concepts of prehistory, focusing on both South Asia and the broader global context. It explores human origin, evolution, dispersal, stone tools technology, changing quaternary environment and associated fauna. The course broadly covers prehistoric evidence of South Asia, beginning with the Palaeolithic to the Mesolithic period, and discusses their site distribution pattern, subsistence, and settlement pattern. The symbolic behaviour represented in various portable art and rock paintings of the Indian subcontinent will be highlighted, giving a holistic idea about the prehistoric cultures of the world.

Course Outcomes:

1. Students will be familiar with the basic concept and outline of the Prehistory.
2. Introduced to the various theories, issues, and dimensions of human origin, evolution, dispersal, and relationship between humans and the environment, which has impacted the development of human culture in different ecological zones.
3. Introduces the development of lithic technology and the symbolic behaviour of the prehistoric period.

Module-1: Introduction to Prehistory

Prehistory: Definition, scope, terminology and periodisation,

Module-2 Human evolution, dispersal and adaptation

Lab module

Human evolution, Species, Dispersal, Fossil records, Genetic evidence, documentary, and Discussions.

Module-3: Quaternary Environment

Human and environment during the Pleistocene & Holocene

Module 4: South Asian Paleolithic Culture

Pre-Acheulian evidence: Pabbi hills, Riwat, Masol.

Acheulian/Lower Palaeolithic culture, Middle Palaeolithic culture, Upper Palaeolithic culture, Mesolithic culture. Important excavated sites, Prehistoric settlement pattern.

Chronology and geographical distribution of sites.

Module-5: Lithic Technology

Lab Module

Stone tool technology, typology, material and study of stone artefacts

Chaine operative, Techniques: Large flake, Direct/Indirect percussion, pressure techniques.

Experimental Knapping (Subject to availability of raw materials and hammers stone)

Module-6: Prehistoric Rock Art

Prehistoric rock painting in India: nature and distribution, Development, Themes, and chronology of prehistoric art.

Recommended readings

1. Akhilesh, K., Pappu, S., Rajapara, H.M., Gunnell, Y., Shukla, A.D. and Singhvi, A.K., 2018. Early Middle Palaeolithic culture in India around 385–172 ka reframes Out of Africa models. *Nature*, 554(7690), pp.97–101.
2. Champion, T., et al., 2016. *Prehistoric Europe*. London: Routledge.
3. Chauhan, P.R., 2006. Human origins studies in India: Position, problems, and prospects. *Assemblage*, 9. (<http://www.assemblage.group.shef.ac.uk/issue9/chauhan.html>)
4. Chauhan, P.R., 2010. The Indian subcontinent and ‘Out of Africa I’. In: J. Fleagle, J. Shea and R. Leakey, eds. *Out of Africa: The First Hominins of Eurasia*. Paleobiology and Paleoanthropology Series. Dordrecht: Springer Press, pp.145–164.
5. Chazan, M., 2018. *World Prehistory and Archaeology: Pathways through Time*. New York: Routledge.
6. Chakrabarti, D.K. and Lal, M., 2014. *Prehistoric Roots*. New Delhi: Vivekananda International Foundation and Aryan Books International.
7. Dhavalikar, M.K., ed., 2013. *Prehistory of India*. New Delhi: Manohar.
8. Fagan, B.M. and Durrani, N., 2017. *World Prehistory: A Brief Introduction*. London: Routledge.
9. Gaillard, C. and Mishra, S., 2001. The Lower Palaeolithic in South Asia. In: F. Semah, C. Falgueres, D. Grimaud-Herve and A.-M. Semah, eds. *Origin of*

- Settlements and Chronology of the Paleolithic Cultures in SE Asia*. Semenanjung and Paris, pp.73–92.
10. Gamble, C., 1986. *The Paleolithic Settlement of Europe*. Cambridge: Cambridge University Press.
 11. Inizan, M.L., Reduron-Ballinger, M., Roche, H. and Tixier, J., 1997. *Terminology of Knapped Stone*. Nanterre: CREP.
 12. Milisauskas, S., ed., 2011. *European Prehistory: A Survey*. Dordrecht: Springer Science & Business Media.
 13. Mishra, S., 2007. The Indian Lower Palaeolithic. *Bulletin of the Deccan College Postgraduate and Research Institute*, 66–67, pp.47–94.
 14. Mishra, S., Chauhan, N. and Singhvi, A.K., 2013. Continuity of microblade technology in the Indian subcontinent since 45 ka: Implications for the dispersal of modern humans. *PLoS ONE*, 8(7), p.e69280. doi: 10.1371/journal.pone.0069280.
 15. Misra, V.D., 1997. Lower and Middle Palaeolithic cultures of Northern Vindhya. In: V.D. Misra and J.N. Pal, eds. *Indian Prehistory: 1980*. Allahabad: University of Allahabad, pp.61–74.
 16. Misra, V.N., 2001. Prehistoric colonisation of India. *Journal of Indian Academy of Sciences (Bioscience)*, 26, pp.491–531.
 17. Misra, V.N. and Bellwood, P., eds., 1985. *Recent Advances in Indo-Pacific Prehistory*. New Delhi: Oxford-IBH.
 18. Neumayer, E., 1993. *Lines on Stone: The Prehistoric Rock Art of India*.
 19. Neumayer, E., 2010. *Rock Art of India*. Oxford and New Delhi: Oxford University Press.
 20. Paddayya, K., 1982. *The Acheulian Culture of Hunsgi Valley (Peninsular India): A Settlement System Perspective*. Pune: Deccan College.
 21. Paddayya, K., 2007. The Acheulean of Peninsular India with special reference to the Hunsgi and Baichbal Valleys of the Lower Deccan. In: M.D. Petraglia and B. Allchin, eds. *The Evolution and History of Human Populations in South Asia*. Dordrecht: Springer, pp.97–119.
 22. Paddayya, K., 2008. India: Paleolithic cultures. In: D.M. Pearsall, ed. *Encyclopaedia of Archaeology*. New York: Elsevier, pp.768–791.
 23. Paddayya, K. and Deo, S.G., n.d. *Prehistory of South Asia: The Lower Palaeolithic or Formative Era of Hunting-Gathering*. Bengaluru: The Mythic Society.

24. Pant, P.C. and Jayaswal, V., 1991. *Paisra: The Stone Age Settlement of Bihar*. Delhi: Agam Kala Prakashan.
25. Pappu, R.S., 2001. *Acheulian Culture in Peninsular India: An Ecological Perspective*. New Delhi: D.K. Printworld.
26. Pappu, S., Gunnell, Y., Akhilesh, K., Braucher, R., Taieb, M., Demory, F. and Thouveny, N., 2011. Early Pleistocene presence of Acheulian hominins in South India. *Science*, 331, pp.1596–1599.
27. Petraglia, M.D. and Allchin, B., eds., 2007. *The Evolution and History of Human Populations in South Asia: Interdisciplinary Studies in Archaeology, Biological Anthropology, Linguistics, and Genetics*. Dordrecht: Springer.
28. Sali, S.A., 1990. *Stone Age India*. Aurangabad: Shankar Publishers.
29. Sankalia, H.D., 1974. *The Prehistory and Protohistory of India and Pakistan*. Pune: Deccan College Postgraduate and Research Institute.
30. Settar, S. and Korisettar, R., 2004. *Prehistory: The Early Archaeology of South Asia*. Vol. 1. Delhi: ICHR-Manohar Publishers.
31. Shea, J.J., 2017. *Stone Tools in Human Evolution: Behavioral Differences among Technological Primates*. New York: Cambridge University Press.

Course Code: P07E101

Landscape Archaeology (Elective)

Course Description

Semester-I

Landscape archaeology studies the relationships among people, settlements, natural features, routes, resources and cultural places. It moves beyond the investigation of individual sites and monuments to understand how societies inhabited, modified and perceived wider regions.

The course introduces the main concepts and methods of landscape archaeology through selected examples from South and Southeast Asia. It examines settlement patterns, rivers, water systems, agrarian landscapes, sacred geography, monastic networks, trade routes and coastal connections. Students will also receive basic training in archaeological survey, mapping, satellite imagery and landscape documentation. Particular attention will be given to the interpretation and conservation of living archaeological landscapes.

Course Outcomes

On completion of the course, students will be able to:

1. Understand the principal concepts and approaches of landscape archaeology.
2. Identify relationships among settlements, environment, resources and movement.
3. Apply basic methods of archaeological survey, mapping and spatial documentation.
4. Interpret agrarian, religious, urban and maritime landscapes.
5. Examine archaeological landscapes through selected South and Southeast Asian examples.
6. Prepare a short landscape-based research proposal.

Course Modules

Module I: Understanding Archaeological Landscapes

1. Meaning and scope of landscape archaeology
2. Site, settlement, region, space and place
3. Development of settlement and landscape approaches
4. Natural and cultural landscapes
5. Human interaction with rivers, forests, plains and coasts
6. Landscape, memory and cultural identity

Module II: Methods of Landscape Study

- Regional and local archaeological survey
- Settlement distribution and site hierarchy
- Mapping of routes, water sources and resource areas
- Historical maps, aerial photographs and satellite imagery
- Introduction to GIS and remote sensing
- Field documentation and preparation of landscape maps
- Uses and limitations of spatial technologies

Module III: Settlement, Water and Agrarian Landscapes

- Rivers and changing settlement patterns
- Indus and Gangetic landscapes
- Tanks, reservoirs, canals and traditional water systems
- Agrarian landscapes of the Deccan and South India
- Anuradhapura and the dry-zone landscape of Sri Lanka
- Angkor, Bagan and other low-density urban landscapes
- Relationships among cities, villages and agricultural hinterlands

Module IV: Sacred and Political Landscapes

- Sacred mountains, rivers, caves and pilgrimage routes
- Ritual movement and religious geography
- Buddhist monastic landscapes in central India, Andhra and the Western Ghats
- Nālandā and the wider archaeological landscape of Magadha
- Borobudur, Prambanan and Angkor
- Megaliths, memorials and landscapes of death
- Boundaries, fortifications and landscapes of political authority

Module V: Maritime and Living Landscapes

- Ports, coastal settlements and riverine routes
- Monsoon winds and maritime movement
- Arikamedu, Sriwijaya and the Mekong Delta
- Bay of Bengal connections between South and Southeast Asia
- Villages, craft traditions and living sacred places
- Oral history and local knowledge in landscape research
- Urbanization, agriculture and climate-related threats
- Community participation in landscape conservation

Recommended Readings

1. Ashmore, W. and Knapp, A.B. (eds.) 1999. *Archaeologies of Landscape: Contemporary Perspectives*. Oxford: Blackwell.
2. Brumm, A. et al. 2021. 'Oldest cave art found in Sulawesi', *Science Advances*, 7(3), eabd4648.
3. Chase, A.F. et al. 2012. 'Tropical landscapes and the ancient Maya: Diversity in time and space', *Archaeological Papers of the American Anthropological Association*, 21(1), pp. 11–22.
4. Classen, C.L. 2024. *Environmental and Settlement Archaeology of South Asia*. New Delhi: Academic Press.
5. Coningham, R.A.E. et al. 2007. 'The archaeological landscape of Anuradhapura, Sri Lanka: An emergent city in its hinterland', *Antiquity*, 81(313), pp. 608–619.
6. Evans, D. et al. 2013. 'Uncovering archaeological landscapes at Angkor using lidar', *Proceedings of the National Academy of Sciences*, 110(31), pp. 12595–12600.
7. Evans, D. et al. 2016. 'Airborne laser scanning as a revolution in tropical forest archaeology', *Journal of Archaeological Science*, 73, pp. 50–62.
8. Fletcher, R. 2009. 'Low-density, agrarian-based urbanism: A comparative view', *Insights*, 2(4), pp. 1–19.
9. Fogelin, L. 2006. *Archaeology of Early Buddhism*. Lanham: AltaMira Press.
10. Hawking, B.J. 2022. *Maritime Taskscapes of Southeast Asia: The Archaeology of Srivijaya and its Trade Networks*. Singapore: NUS Press.

11. Ingold, T. 1993. 'The temporality of the landscape', *World Archaeology*, 25(2), pp. 152–174.
12. Miksic, J.N. 2013. *Singapore and the Silk Road of the Sea, 1300–1800*. Singapore: NUS Press.
13. Morrison, K.D. 2009. *Daroji Valley: Landscape History, Place, and the Making of a Dryland Reservoir System*. New Delhi: Manohar.
14. O'Reilly, D. and Shewan, A. 2021. 'The Plain of Jars: Archaeological landscapes of Laos', *Antiquity*, 95(379), pp. 112–126.
15. Petrie, C.A. et al. 2017. 'Adaptation to variable environments, resilience to climate change: Investigating land, water and settlement in Indus Northwest India', *Current Anthropology*, 58(1), pp. 1–30.
16. Ray, H.P. 1994. *The Winds of Change: Buddhism and the Maritime Links of Early South Asia*. New Delhi: Oxford University Press.
17. Shaw, J. 2007. *Buddhist Landscapes in Central India: Sanchi Hill and Archaeologies of Religious and Social Change, c. Third Century BC to Fifth Century AD*. London: British Association for South Asian Studies.
18. Smith, M.L. 2001. 'The archaeology of a "destroyed" site: Surface survey and historical documents at the Early Historic capital of Sisupalgarh, India', *Asian Perspectives*, 40(2), pp. 269–289.
19. Stark, M.T. 2006. 'Early mainland Southeast Asian landscapes in the first millennium A.D.', *Annual Review of Anthropology*, 35, pp. 407–432.
20. Wilkinson, T.J. 2003. *Archaeological Landscapes of the Near East*. Tucson: University of Arizona Press.

Course Code: P07E102

Archaeology of Buddhism (Elective)

Semester-I

Course Description:

This course explores the relationship between archaeology and Buddhism, focusing on the archaeological evidence of Buddhist practices, art, and architecture. It examines how archaeological discoveries contribute to our understanding of the development, spread, and cultural significance of Buddhism in Asia.

Course Objectives:

- To introduce students to the interdisciplinary field of archaeology and its relevance to the study of Buddhism.
- To explore the archaeological evidence of Buddhist sites, artifacts, and monuments.
- To analyze the historical, social, and cultural contexts in which Buddhism developed and thrived.
- To understand the influence of Buddhism on art and architecture through archaeological discoveries.
- To develop critical thinking skills and the ability to interpret archaeological data related to Buddhism.

Module- 1.

General Introduction: Archaeology, Geography of Buddhist sites in East, South and South-East Asia

Module- 2

Archaeology and Spread of Buddhism: Beginning of Buddhism: Archaeology of Lumbini and Neighbouring Sites (Kushinagar, Rampurva); Proliferation of Buddhism in Ganga Plain:

Module- 3

Excavated sites of Sarnath, Sravasti, Rajagriha; Spread of Buddhism with Ashoka: Vaishali, Sanchi (India), Anuradhapura (Srilanka); Spread of Buddhism with the Kushanas: Archaeology of early monasteries of Gandhara and Mathura

Module- 4

Archaeological Landscape of Buddhism India: Sanchi, Amaravati, Guntupalli, Kanaganahalli
Sannathi, Phanigiri

Module- 5

Archaeology of Buddhist Monasteries in India: Rock-Cut Cave-Monasteries of Deccan,
Great Monasteries of East: Nalanda, Telhara, Vikramshila, Paharpur

Module- 6 Archaeology of Buddhism in Asia: Case Studies on Bamiyan-Khitan, Dunhuang
and Magao Caves, Anuradhapura, Borobudur; Ayutthaya, Pagan

Recommended Readings

1. Bandaranayake, S. 1989. 'Monastery plan and social formation: the spatial organisation of the Buddhist monastic complexes of the Early and Middle Historical Period in Sri Lanka and changing patterns of political power', in Miller, D., Rowlands, M. and Tilley, C. (eds.) *Domination and Resistance*. London: Unwin Hyman.
2. Barnes, G.L. 1995. 'An introduction to Buddhist archaeology', *World Archaeology*, 27(2), pp. 165–182.
3. Byrne, D. 1995. 'Buddhist stupa and Thai social practice', *World Archaeology*, 27(2), pp. 266–281.
4. Chakrabarti, D.K. 1995. 'Buddhist sites across South Asia as influenced by political and economic forces', *World Archaeology*, 27(2), pp. 185–202.
5. Chakrabarti, D.K. 2001. 'The archaeology of Hinduism', in Insoll, T. (ed.) *Archaeology and World Religion*. London: Routledge, pp. 61–82.
6. Coningham, R.A.E. 2001. 'The archaeology of Buddhism', in Insoll, T. (ed.) *Archaeology and World Religion*. London: Routledge, pp. 61–82.
7. Cunningham, A. 1871–1872. 'Annual report', *Archaeological Survey of India*, 3, pp. 13–46.
8. Cunningham, A. 1962. *The Stupa of Bharhut*. Varanasi: Indological Book House.
9. Dutt, S. 1962. *Buddhist Monks and Monasteries of India: Their History and Their Contribution to Indian Culture*. Delhi: Motilal Banarsidass Publishers.
10. Fisher, R.E. 1993. *Buddhist Art and Architecture*. London: Thames & Hudson.

11. Fogelin, L. 2006. *Archaeology of Early Buddhism*. Oxford: Altamira.
12. Fogelin, L. 2007. 'The archaeology of religious ritual', *Annual Review of Anthropology*, 36, pp. 55–71.
13. Grave, P. 1995. 'Beyond the mandala: Buddhist landscapes and upland-lowland interaction in north-west Thailand AD 1200–1650', *World Archaeology*, 27(2), pp. 243–265.
14. Heitzman, J. 1984. 'Early Buddhism, trade and empire', in Kennedy, K.A.R. and Possehl, G.L. (eds.) *Studies in the Archaeology and Palaeoanthropology of South Asia*. New Delhi: Oxford and IBH, pp. 121–137.
15. Indrawooth, P. 2004. 'The archaeology of early Buddhist kingdoms of Thailand', in Bellwood, P. and Glover, I. (eds.) *South East Asia from Prehistory to History*. London: Routledge Curzon, pp. 120–148.
16. Insoll, T. 2001. *Archaeology and World Religion*. London: Routledge.
17. Insoll, T. 2004. 'Are archaeologists afraid of gods? Some thoughts on archaeology and religion', in Insoll, T. (ed.) *Belief in the Past: The Proceedings of the 2002 Manchester Conference on Archaeology and Religion*. Oxford: Archaeopress, pp. 1–12.
18. Kinney, A.R., Klokke, M.J. and Kieven, L. 2003. *Worshipping Siva and Buddha: The Temple Art of East Java*. Honolulu: University of Hawai'i Press.
19. Liu, X. 2011. 'A Silk Road legacy: the spread of Buddhism and Islam', *Journal of World History*, 22(1), pp. 55–81.
20. Lopez, D.S. 1995. *Buddhism in Practice*. Princeton: Princeton University Press.
21. Mabbett, I. 1986. 'Buddhism in Champa', in Marr, D.G. and Milner, A.C. (eds.) *Southeast Asia in the Ninth to Fifteenth Centuries*. Singapore: Institute of Southeast Asian Studies, pp. 289–313.
22. Manguin, P.-Y. 2004. 'The archaeology of early maritime polities in mainland Southeast Asia', in Bellwood, P. and Glover, I. (eds.) *South East Asia from Prehistory to History*. London: Routledge Curzon, pp. 282–313.
23. Moore, E.H. 2007. *Early Landscapes of Myanmar*. Bangkok: River Books.
24. Morrison, K.D. 1995. 'Trade, urbanism, and agricultural expansion: Buddhist monastic institutions and the state in the early historic western Deccan', *World Archaeology*, 27(2), pp. 203–221.
25. Panadian, J. 1991. *Culture, Religion, and the Sacred Self: A Critical Introduction to the Anthropological Study of Religion*. New Jersey: Prentice Hall.

26. Phuoc, L.H. 2010. *Buddhist Architecture*. LaVergne: Grafikol.
27. Ray, H.P. 1994. 'Kanheri: the archaeology of an early Buddhist pilgrimage centre in western India', *World Archaeology*, 26(1), pp. 35–46.
28. Schopen, G. 1997. *Bones, Stones, and Buddhist Monks*. Honolulu: University of Hawai'i Press.
29. Sharrock, P. 2009. 'Garuda, Vajrapani and religious change in Jayavarman VII's Angkor', *Journal of Southeast Asian Studies*, 40(1), pp. 111–151.
30. Sinopoli, C.M. 2006. 'Imperial landscapes of South India', in Stark, M.T. (ed.) *Archaeology of Asia*. Cornwall: Blackwell Publishers, pp. 324–345.
31. Soni, S. 1991. *Evolution of Stupas in Burma: Pagan Period, 11th to 13th Centuries A.D.* New Delhi: Motilal Banarsidass Publishers.
32. Strachan, P. 1990. *Imperial Pagan: Art and Architecture of Burma*. Honolulu: University of Hawai'i Press.
33. Wolters, O.W. 1999. *History, Culture and Religion in Southeast Asian Perspectives*. Rev. edn. Ithaca: Cornell University and the Institute of Southeast Asian Studies.
34. Wriggins, S.H. 2004. *The Silk Road Journey with Xuanzang*. Boulder: Westview Press.

Course Code: P07E103.1
Archaeology of Nalanda
Short Elective (1.5 Credits)

Semester-I

Course Description:

This course introduces students to the interdisciplinary study of archaeology, history, architecture, and material culture of Nalanda Mahavihara, one of the glorious centres of learning in the ancient world. Students will examine textual sources and archaeological evidence to reconstruct the organisation, technologies, construction materials, ancient water management systems and intellectual life of one of the world's premier centres of learning. The course integrates site-analysis, material studies (coins, inscriptions, seals, metallurgy, ceramics), architectural typology, and conservation practice to equip students with skills for historical interpretation and heritage management.

Course Outcomes:

Upon successful completion of the course, students will be able to:

- a) Explain the historical development, cultural significance, and archaeological context of Nalanda Mahavihara using literary, epigraphic, and archaeological sources.
- b) Analyse the architecture, construction techniques, water management systems, and material culture of Nalanda, including inscriptions, coins, seals, and metallurgical remains.
- c) Evaluate the processes of decline, destruction, conservation, and revival of Nalanda, with reference to archaeological research, heritage management, and preservation initiatives.

Module -1 Historical background

Archaeology of Magadha and Rajgir and surrounding region

Early explorations and rediscovery, Overview of major excavations, Stratigraphy, and periodization

Module -2 Monastic Structure/Stupa Architecture

Site Planning Layout of the monastic complex, Architectural Developments, Religious and functional aspects of architectural remains.

Module -3 Building materials and Techniques

Bricks, lime mortar, stone, dimensions of buildings

Sculpture and Iconography –Stone, Stucco, and Metal

Major Iconography style: Buddhist, Brahmanical, and Jaina images

Module -4 Ancient Water Management Systems

Ancient hydrological system of Nalanda: Wells, drainage, tanks, ponds, and water channels

Module -5 Inscriptions, Coins, and Seals and Metallurgical evidence

Endowments and inscriptions

Coins, Seal and Sealings

Metallurgical evidence of smelting from the site

Various types of Bronze and Copper Images

Module -5 Decline, Destruction and Revival

Archaeological evidence for destruction of Nalanda: Evidence of fire, Architectural Damage.

Destruction of other learning centres: Odantapuri, Vikramsila, Telhara

Legacies of Ancient Nalanda at New Nalanda University

Recommended Reading:

1. Abhay, K. 2025. *Nalanda: How It Changed the World*. New Delhi: Penguin Random House India Private Limited.
2. Asher, F.M. 2015. *Nālandā: Situating the Great Monastery*. Mumbai: The Marg Foundation.
3. Broadley, A.M. 1872. *Ruins of the Nalanda Monasteries at Burgaón, Sub-division Bihār, Zillah Patna*. Calcutta: The Bengal Secretariat Press.
4. Ghosh, A. 1986. *Nālandā*. 6th edn. New Delhi: Archaeological Survey of India.
5. Krishnan, G.P. 2008. *On the Nalanda Trail: Buddhism in India, China & Southeast Asia*. Singapore: Asian Civilisations Museum.
6. Lāma, G.K. 2018a. *An Archaeological Journey of Nalanda (1838–2016)*. Delhi: Buddhist World Press.
7. Lāma, G.K. 2018b. *The Art Heritage of Nalanda*. Delhi: Buddhist World Press.
8. Misra, B.N. 2017. *Nālandā: An Ancient International Institute of Advanced Studies in History, Art, Architecture, Iconography, Literature, Education, Philosophy and Religious Treatises*. Vols. 1–3. Delhi: Buddhist World Press.

9. Nanda, A.H.G. 2023. *Mahāvihāras of Early India (8th–9th Century CE): Networks, Interactions, and Cultural Exchanges*. PhD dissertation. Nālandā University.
10. Nalanda Mahavihara: UNESCO Nomination Dossier. 2015. Prepared by the Archaeological Survey of India, Government of India.
11. Pal, P. 1988. ‘A forgotten monastery of ancient Bihar’, *South Asian Studies*, 4(1), pp. 83–88.
12. Panth, R. (ed.) 2008. *Contribution of Nālandā to World Culture*. Nalanda: Nava Nalanda Mahavihara.
13. Rajani, M.B. 2016. ‘The expanse of archaeological remains at Nalanda: a study using remote sensing and GIS’, *Archives of Asian Art*, 66(1), pp. 1–23.
14. Sankalia, H.D. 1934. *The University of Nālandā*. Madras: B.G. Paul & Co.
15. Sastri, H. 1942. *Nālandā and Its Epigraphical Material*. ASI Memoir No. 66. Delhi: Manager of Publications.
16. Singh, A. 2024. *Nālandā, a Glorious Past*. New Delhi: Primus Books.
17. Sinha, S.P. 2005. *Social and Economic Life of Early Medieval Bihar*. Allahabad: Raka Prakashan.

Course Code: P07E103.2
Hands-on Archaeology
Short Elective (1.5 Credits)

Semester-I

Course Description:

Hands-on Archaeology is a practical and experiential learning course designed to provide students with direct exposure to archaeological materials, methods, and analytical techniques. Through laboratory exercises, artifact handling, and field-based learning, students will gain skills in the identification, classification, documentation, and interpretation of stone tools, pottery, bones, fossils, and terracotta figurines. The course emphasizes the application of archaeological methods for recording, analyzing, and interpreting material remains, enabling students to understand how archaeological evidence is used to reconstruct past human lifeways, technological traditions, and cultural practices. Field visits to archaeological sites in Rajgir and Ancient Nalanda will provide opportunities to observe archaeological contexts and heritage landscapes of the Archaeological sites.

Course Outcomes

Upon successful completion of the course, students will be able to:

- Identify, classify, and document archaeological materials, including stone tools, pottery, bones, fossils, and terracotta objects using standard archaeological methods.
- Apply laboratory and field-based techniques for artifact analysis, recording, documentation, and interpretation.
- Analyze archaeological evidence and field observations to reconstruct past human activities, cultural traditions, and environmental conditions.

Module I: Touch and Experience Archaeological Materials

- Stone tools: identification and Flint knapping
- Pottery: Classification and
- Terracotta figurines and small finds
- Artifact recording and measurement

Module II: Bones, Fossils, Plants and Archaeological Interpretation

- Identification of faunal and human skeletal remains
- Introduction to fossils

- Data analysis and interpretation of archaeological materials

Module III: Field Learning and Archaeological Site

- Explorations of Caves, and new archaeological sites
- Archaeological field visits to Rajgir and Nalanda Mahavihara and surrounding sites
- Site observation, mapping, and documentation techniques
- Field notebooks and photography

Recommended Readings

1. Carver, M., Gaydarska, B. and Montón-Subías, S. (eds.) 2014. *Field Archaeology from around the World: Ideas and Approaches*. Springer.
2. Choudhary, B.K. (ed.) 2015. *Archaeological Gazetteer of Nalanda District*. Patna: K.P. Jayaswal Research Institute.
3. Jha, S.K. 2011. *Rajagrha: The City of Eminence*. Patna: K.P. Jayaswal Research Institute.
4. Rajan, K. 2002. *Archaeology: Principles and Methods*. Thanjavur: Manoo Pathippakam.
5. Srivastav, K.M. 1982. *New Era of Indian Archaeology*. New Delhi: Cosmo Publications.

Note: The Course details on the Nalanda Spirits and Research Methodology will be discussed and deliberated during respective sessions.

SEMESTER- II

Course Code: P07C201

Field Methods in Archaeology (Core)

Course Description:

The Field Archaeology course is designed to provide students with practical experience and essential skills required for conducting archaeological investigation, analysis of the recovered materials and report writing. This course will provide hands-on training in field methods including exploration and excavation techniques and fieldwork to prepare students for successful archaeological research projects. Upon successful completion of this course, students will gain a comprehensive understanding of various excavation and exploration methods in archaeology. They will develop skills in identifying and categorizing artifacts and ecofacts, and will be capable in post-excavation analysis, including processing, cataloging, and interpreting the finds artifact documentation through detailed recording, photography, and drawing. This course prepares students for professional practice in archaeology through meticulous research, analysis, and report writing.

Course Objectives:

1. Gain a comprehensive understanding of practical methods of doing Archaeology and to understand the scientific principles and methods used in archaeology.
2. Learn the process of archaeological research from site selection to post-excavation analysis.
3. Develop the necessary skills to plan and participate in an archaeological survey or excavation.
4. Learn to identify potential archaeological sites using GIS and remote sensing technology.
5. Learn the techniques of site mapping, surveying, and data recording using modern technology and traditional methods.
6. Gain ability in excavation techniques, including site and context recording,
7. Learn how to clean, conserve, and catalog archaeological artifacts.
8. Develop skills in artifact classification, dating, and interpretation
9. Practice presenting findings through written reports and presentations.
10. Learn the importance of Government permits and ethical considerations in archaeological fieldwork.

Module-1: Archaeological Survey Strategy

Archaeological survey methods: Conventional methods: literary sources, legends, myths and folklore, Understanding site stratigraphy and site formation process.

Module -2 Exploration Methods

Literature review, Use of topo sheets, village-to-village Survey, field walking, and Sampling strategies.

Module -3 Scientific Methods in Archaeological Survey

Satellite imageries, aerial photographs and remote sensing and GIS techniques; Google Earth applications in Archaeological study, Drone Survey, geophysical survey methods; underwater archaeology explorations method: side scan sonar methods.

Module-4: Excavation methods

Types of Archaeological excavation: Vertical, Horizontal, Harris metric methods. Sondage, Quadrant methods. (Mock trench Excavation or Field trip to undergoing Archaeological Excavation site, subject to official permission and suitable arrangement).

Module-5 Laboratory Methods in Archaeology

Study and analysis of material culture: Stone tools analysis, beads, structure, pottery, coins, Stone, terracotta, Stucco figurines, ornamental objects, ritual objects, and objects related to a different production system; Pottery and Antiquity analysis: Identification, classification.

Module-6 Documentation Methods

Documentation of Artefacts and figurines: Datasheet preparation, Photography and videography, 3D documentation of Stone tools, Bone tools, ornamental objects, coins, metal objects, and other antiquities and Stone, terracotta, Stucco figurines, Sketches and Drawings: Structural Plan Drawing

Field Training: Explorations of Archaeological sites and monuments Rajgir, Nalanda, Gaya, Nawada and other areas subject to official permission and suitable arrangements.

Excavation Training: 15 Days Trainingsubject to official permission and necessary arrangements.

Recommended Readings

1. Atkinson, R.J.C. 1953. *Field Archaeology*. London: Longmans.
2. Barker, P. 1982. *Techniques of Archaeological Excavation*. London: Batsford.
3. Balme, J. and Paterson, A. 2014. *Archaeology in Practice: A Student Guide to Archaeological Analyses*. West Sussex: John Wiley and Sons Inc.
4. Burke, H., Smith, C. and Zimmerman, L.J. 2008. *The Archaeologist's Field Handbook*. Lanham: Rowman Altamira.
5. Carver, M., Gaydarska, B. and Montón-Subías, S. (eds.) 2014. *Field Archaeology from around the World: Ideas and Approaches*. Cham: Springer.
6. Crawford, O.G.S. 1953. *Archaeology in the Field*. London: Phoenix.
7. Dancey, W.S. 1985. *Archaeological Field Methods: An Introduction*. New Delhi: Surjeet Publications.
8. Donoghue, D.N.M. 2001. 'Remote sensing', in Brothwell, D.R. and Pollard, A.M. (eds.) *Handbook of Archaeological Sciences*. Chichester and New York: John Wiley & Sons, pp. 555–564.
9. Harris, E.C. 1979. *Principles of Archaeological Stratigraphy*. London: Academic Press.
10. Heron, C. 2001. 'Geochemical prospecting', in Brothwell, D.R. and Pollard, A.M. (eds.) *Handbook of Archaeological Sciences*. Chichester and New York: John Wiley & Sons, pp. 365–374.
11. Howard, P. 2006. *Archaeological Surveying and Mapping: Recording and Depicting the Landscape*. London: Routledge.
12. Nishimura, Y. 2001. 'Geophysical prospection in archaeology', in Brothwell, D.R. and Pollard, A.M. (eds.) *Handbook of Archaeological Sciences*. Chichester and New York: John Wiley & Sons, pp. 543–554.
13. Parcak, S.H. 2009. *Satellite Remote Sensing for Archaeology*. London: Routledge.
14. Rajan, K. 2002. *Archaeology: Principles and Methods*. Thanjavur: Manoo Pathippakam.
15. Raman, K.V. 1991. *Principles and Methods in Archaeology*. Madras: Parthajan Publication.
16. Schiffer, M.B. 1972. 'Archaeological context and systemic context', *American Antiquity*, 37(2), pp. 156–165.

17. Schiffer, M.B. 1987. *Formation Processes of the Archaeological Record*. Albuquerque: University of New Mexico Press.
18. Schiffer, M.B. 1991. 'Archaeological method and theory', *Journal of Field Archaeology*, 18(4), pp. 523–526.
19. Srivastav, K.M. 1982. *New Era of Indian Archaeology*. New Delhi: Cosmo Publications.

Course Code: P07C202

Art and Architecture of South Asia (Core)

Semester-II

Course Description:

The course primarily aims to explore the history and issues of art, aesthetics, and architecture as it originated and developed in the Indian context. Art practices in India are meant to convey its civilizational values manifested through philosophy, literature and culture. Exploring Indian art, one invariably encounters with a rich and versatile repertoire of styles and symbols. The course will introduce to students the key conceptual and theoretical questions: the history and issues of art, aesthetics and architecture, in the Indian context. The thrust of the course is to prepare a foundation in the domain of Indian art and architecture, gradually moving towards a critical conceptualization.

This course will also provide an overview of architectural practices that emerged in premodern South Asia between 1300-1700. We will discuss the origins and practices of Indo-Turkish forms of architecture primarily in north India, along with exploring specific sites like the Qutb Complex as being illustrative of many layers of architectural stylistic borrowings from Indian practices of architecture as well as West Asia. This part will continue along a temporal continuity to look into Timurid practices of architecture beginning in the 16th century, through its various manifestations, like the mausoleum complex of the Taj Mahal and its scholarly interpretations. Thereafter it will study manuscript illustration as art practice during this period, situated in the historical context of Mughal engagement with Indic knowledge traditions. This course will end with a focused study on Numismatic art.

Course Outcomes

- To introduce key domains and debates in the field of study
- Fostering visual literacy: understanding "meaning" of a work of art from the point of view of the viewer and the involvement of artists and patrons
- Appreciation of visual culture, diversity of themes, the vitality of forms across geographic areas and time-brackets
- Understanding the crucial role of Indian art in defining aesthetics, patronage, and inter-regional cultural exchange

- Exploring the impact of visual culture on the formation of human values, beliefs, creativity, cultural roots and identity in India
- Visual analysis and interpretation using independent thinking, research and synthesis

Modules

- Introduction: Arts, aesthetics, art forms; Spirit of Indian Art (AKS); *Rasa* theory
- Foundation of Indian Art: Age of the Mauryans, Shunga and Kushanas
- Evolution in Buddhist Rock Cut Architecture
- Narrative Art and Architecture of Buddhist Stupas: Sanchi, Bharhut, Amaravati
- Sacred Sculptures: Gandhara, Mathura, Sarnath, Nalanda and Eastern Schools
- Temple Architecture
- Diffusion of Architectural Styles in Medieval India; Secular and religious
- Painting and Manuscript Decoration as Art
- Numismatic Art

Recommended Readings

1. Chakrabarti, A. (ed.) 2016. *The Bloomsbury Research Handbook of Indian Aesthetics and the Philosophy of Art*. USA: Bloomsbury Academic.
2. Coomaraswamy, A. 1918. *The Dance of Shiva*. New York: The Sunrise Turn Inc.
3. De, S.K. 1923. *Studies in the History of Sanskrit Poetics*. Vol. 1. London: Luzac & Co.
4. De, S.K. 1925. *Studies in the History of Sanskrit Poetics*. Vol. 2. London: Luzac & Co.
5. Fisher, R.E. 1993. *Buddhist Art and Architecture*. London: Thames and Hudson.
6. Franke, H. 2005. 'Akbar's *Kathasaritsagara*: The translator and illustrations of an imperial manuscript', *Muqarnas*, 22, pp. 175–199.
7. Gnoli, R. 1985. *The Aesthetic Experience According to Abhinavagupta*. Varanasi: Chowkhamba Sanskrit Series Office.
8. Haidar, M. n.d. *Indo-Turkish Architecture*.
9. Huntington, S.L. 1985. *The Art of Ancient India*. Part 1. New York: Weatherhill.
10. Juneja, M. 2005. 'Spaces of encounter and plurality: Looking at architecture in pre-colonial North India', in Malik, J. and Reifeld, H. (eds.) *Religious Pluralism in South Asia and Europe*, pp. 1–20.

11. Koch, E. 2005. 'The Taj Mahal: Architecture, symbolism, and urban significance', *Muqarnas*, 22, pp. 128–149.
12. Kramrisch, S. 1994. *Exploring India's Sacred Art*. Delhi: Motilal Banarsidass Publishers.
13. Krishnamoorthy, K. 1968. *Some Thoughts on Indian Aesthetics and Literary Criticism (Special Lectures)*. Madras: University of Madras.
14. Le Huu Phuoc. 2010. *Buddhist Architecture*. Grafikol.
15. Mitter, P. 1992. *Much Maligned Monsters: A History of European Reactions to Indian Art*. Chicago: University of Chicago Press.
16. Pandey, K.C. 1995. *Comparative Aesthetics*. Vol. 1. Varanasi: Chowkhamba Sanskrit Series Office.
17. Paranjape, M. and Visuvalingam, S. (eds.) 2006. *Abhinavagupta: Reconsiderations*. New Delhi: Samvad India Foundation.
18. Raghvan, V. 1963. *Studies on Some Concepts of the Alāṅkāraśāstra*. Madras: The Adyar Library.
19. Tomory, E. 2002. *A History of Fine Arts in India and the West*. 2nd edn. New Delhi: Orient Longman. First published 1982.

Course Code: P07C203

Protohistoric Archaeology of South Asia (Core)

Semester-II

Course Description

The succeeding protohistoric period will cover the cultural development phase of the Neolithic, Chalcolithic, and Harappan cultures. It traces the development and spread of agriculture during the Neolithic and the origin and development of Harappan urbanism in the third to second millennium BCE. The Chalcolithic culture co-existed with the Harappan civilisation and later continued in western India, Gangetic valley, central and eastern India. The next phase that saw the emergence of the Iron Age in India led to surplus agricultural wealth contributed to the development of complex societies, trade, and urbanisation during the first millennium BCE.

Course Outcomes:

1. Learn about the origin and spread of agriculture and domestication in South Asia
2. To collect, analyse, and interpret archaeological data in a way that adds to the understanding of cultural heritage in the proper context.
3. To demonstrate the ability to collect and analyse archaeological data.

Module-1

Protohistory: definition and terminology

Mesolithic to Neolithic transition from hunter gatherer to farmer.

Neolithic revolution (Debate on single vs multiple origins).

Origin of agriculture in South Asia.

Module-: 2 South Asian Neolithic Culture

Neolithic cultures of Afghanistan and Baluchistan, Kashmir valley, Vindhya, Ganga plains, East and Northeast India and South Indian Neolithic culture.

Module-3: Harappan Civilisation

General introduction to Harappan civilisation -Terminology, various theories on origin and development of urbanization.The Early, Mature and Late Harappan phase (Material culture and geographical distribution)

Harappan town planning, Technology, Art, Aesthetic, Architecture, Craft specialisation, Trade networks, script, religion, Mortuary Practices.

Decline: various theories, origin of Post Harappan culture, Harappan Legacy

Documentary and discussions

Module-4: Chalcolithic Culture of India

Chalcolithic culture of Central India: Kayatha and Malwa.

Chalcolithic culture of Deccan: Savalda, Daimabad, and Jorwe.

Chalcolithic culture of Rajasthan: Ahar and Ganeshwar Jodhpura.

Chalcolithic culture of Eastern India.

Chalcolithic culture of Ganga plain: Ochre coloured pottery (OCP), Copper Hoard.

Module-5: Iron Age and Megalithic Culture

Origins of Iron in South Asia problem and perspective

Megalithic culture in South Asia- definition, Identification and typology.

Painted grey ware (PGW) culture, Black and red ware (BRW) and Northern black polished ware (NBPW).

Recommended Readings:

1. Agrawal, D.P. 2000. *Ancient Metal Technology and Archaeology of South Asia*. New Delhi: Aryan Books International.
2. Agrawal, D.P. and Kharakwal, J.S. 2003. *Bronze and Iron Ages in South Asia*. Vol. 2. New Delhi: Aryan Books International.
3. Allchin, F.R. and Allchin, B. 1993. *The Birth of Civilisation in India*. Revised edn. New Delhi: Penguin Books.
4. Atre, S. 1988. *Archetypal Mother: Harappan Religion: A Systemic Approach*. Pune: Ravish Publishers.
5. Chakrabarti, D.K. 1984. 'Study of the Iron Age in India', *Puratattva*, 13, pp. 81–85.
6. Coningham, R., Settar, S. and Korisettar, R. (eds.) 2002. *Indian Archaeology in Retrospect: Protohistory—Archaeology of the Harappan Civilization*. Vol. 2. New Delhi: Manohar.
7. Deo, S.B. 1985. 'The Megaliths: Their culture, ecology, economy and technology', in Deo, S.B. and Paddayya, K. (eds.) *Recent Advances in Indian Archaeology*. Pune: Deccan College.

8. Kennedy, K.A. 2000. *God-Apes and Fossil Men: Paleoanthropology of South Asia*. Ann Arbor: University of Michigan Press.
9. Mohanty, R.K. and Selvakumar, V. 2002. 'The archaeology of megaliths in India: 1947–1997', in Settar, S. and Korisettar, R. (eds.) *Indian Archaeology in Retrospect*. Vol. 1. New Delhi: Manohar Publishers, pp. 313–352, 479–481.
10. Mohanty, R.K. and Walimbe, S.R. 1993. 'A demographic approach to the Vidarbha megalithic cultures', *Man and Environment*, 18(2), pp. 93–103.
11. Possehl, G.L. 2002. *The Indus Civilization: A Contemporary Perspective*. Walnut Creek, CA: AltaMira Press.
12. Settar, S. and Korisettar, R. (eds.) 2002. *Indian Archaeology in Retrospect. Vol. II: Protohistory—Archaeology of the Harappan Civilization*. New Delhi: Manohar Publishers and Distributors.
13. Shinde, V. 1994. 'The Deccan Chalcolithic: A recent perspective', *Man and Environment*, 19(1–2), pp. 169–178.
14. Shinde, V. 2016. 'Current perspectives on the Harappan civilisation', in *A Companion to South Asia in the Past*, pp. 127–144.
15. Shinde, V., Deshpande, S.S. and Sarkar, A. 2016. *Chalcolithic South Asia: Aspects of Crafts and Technologies*. New Delhi: Pentagon Press.
16. Shinde, V.S., Kim, Y.J., Woo, E.J., Jadhav, N., Waghmare, P., Yadav, Y., Munshi, A., Chatterjee, M., Panyam, A., Hong, J.H. and Oh, C.S. 2018. 'Archaeological and anthropological studies on the Harappan cemetery of Rakhigarhi, India', *PLoS ONE*, 13(2), e0192299.
17. Shinde, V., Narasimhan, V.M., Rohland, N., Mallick, S., Mah, M., Lipson, M., Nakatsuka, N., Adamski, N., Broomandkhoshbacht, N., Ferry, M. and Lawson, A.M. 2019. 'An ancient Harappan genome lacks ancestry from steppe pastoralists or Iranian farmers', *Cell*, 179(3), pp. 729–735.
18. Shirvalkar, P. 2024. 'First Urbanisation: Some Old Thoughts and a New Model', in Parashar-Sen, A. (ed.) *Handbook on Urban History of Early India*. Cham: Springer, pp. 21–36.
19. Tripathi, V. 2001. *The Age of Iron in South Asia: Legacy and Tradition*. New Delhi: Aryan Books International.
20. Tripathi, V. 2012. *Rise of Civilization in the Gangetic Plain: The Context of Painted Grey Ware*. New Delhi: Aryan Books International.
21. Wheeler, R.E.M. 1968. *Indus Civilization*. 3rd edn. Cambridge: Cambridge University Press.

Course Code: P07E201

Epigraphy and Numismatics (Elective)

Semester-II

Course Description

Epigraphy is the study of inscriptions or epigraphs and numismatics is the study of coins. This course introduces the students to trace the history of Indian writing system and coinage, through the discipline of epigraphy and numismatics. This course introduces the students to the intricate history of Indian writing system and coinage. The course shall focus on the various theories on the origin and development of Indian writing system and coinage, various methods of manufacturing coins and the recent advancements in their research.

Course Outcome

Upon successful completion of this course, student will be able to trace the history of Indian writing systems and coinage in India. They will also be able to discern how the study of inscriptions and coins can be valuable tools in the process of reconstructing historical narratives and understanding the past.

Course Content

Module – 1 Introduction to Palaeography and Epigraphy

Antiquity of writing in Old World Civilization General Introduction - Pictography, Ideography, Phonetic Alphabets and Petroglyphs.

Antiquity of writing in India Harappan script and various attempts of decipherment.

Historiography of Epigraphical and Palaeographical studies.

Terminology scope and importance as a source of history.

Language and scripts: writing materials - lithic and copper plate inscriptions, seals and sealings

Forms and format of the inscriptions

Dates and Eras, Indian Numerals

Origin and development of Brahmi and Kharoshti Scripts.

Module-2 Palaeography

Early Brahmi- Asokan, Sunga, Kushana and Kshatrapa

Late Brahmi - Gupta, Box - headed and Nail - Headed Characters.

Siddhamatrika Sript, Sarada and early Nagari script.

A brief introduction to scripts of South India.

Module -3: Case studies on selected inscriptions:

Asokan Rock Edict XIII and Pillar Edict VII, Hathigumpha inscription of Kharavela

Besnagar Garuda Pillar inscription of Heliodorus, Junagarh Rock inscription of Rudradaman I

Swot relic casket inscription, Sarnath Buddha image inscription, Lucknow Museum Jain image inscription from the time of Huvishka, Gupta inscriptions - Allahabad Pillar inscription of Samudragupta, Mehrauli Pillar inscription of King Chandra

Bhitri Inscription, Bhitari pillar inscription of Skandagupta, Nasik Cave inscriptions - Ushavadata inscription, Vasistiputra Pulumavi Year 19, Aihole inscription of Pulikeshin II Sangli copper Plate of Govinda IV, Uttaramerur inscription of Parantaka I

Tiruvallangadu Copper Plates of Rajendra Chola, Year 6, Tharsappalli Copper Plate inscriptions

Module -4: Introduction to Numismatics

Numismatics: Terminology, Scope and importance as a source of History

Origin and Antiquity of coins in India, Early Coins: Punch-marked coins, Early uninscribed Cast Coins.

Technique of manufacture of coins.

Module- 5: Coins of the rulers of foreign origin

Indo Greek, Indo Scythians, Indo Parthian

Post Mauryan local coinage, Monarchical, Tribal, city state Coinage

Module -6: Pre-Satavahan and Satavahan coins, Deccan and Western Chatrapa

Module -7: Kushana coins and Gupta coins

Kushan Coinages, major types, Metrology, lead and copper coins of the Guptas.

Module -8: Early medieval coins of North India- salient features

Early Medieval coins of South India – salient features.

Recommended Reading

1. Allan, J. 1989. *A Catalogue of the Indian Coins in the British Museum – Coins of Ancient India*. Eastern Book House.
2. Altekar, A.S. 1957. *The Coinage of the Gupta Empire*. Banaras: Numismatic Society of India, Banaras Hindu University.
3. Bhandarkar, D.R. 1981. *Inscriptions of the Early Gupta Kings*. Vol. III. New Delhi: Archaeological Survey of India.
4. Bopearachchi, O. 1991. *Monnaies Gréco-Bactriennes et Indo-Grecques—Catalogue Raisonné*. Paris: Bibliothèque Nationale.
5. Bopearachchi, O. 2015. *From Bactria to Taprobane: Selected Works of Osmund Bopearachchi*. Vol. I: *Central Asian and Indian Numismatics*. New Delhi: Manohar Publishers.
6. Chattopadhyaya, B. 1977. *Coins and Currency System in South India*. New Delhi: Munshiram Manoharlal.
7. Cribb, J. and Bracey, R. 2020. *Kushan Coins: A Catalogue Based on the Kushan, Kushano-Sasanian and Kidarite Hun Coins in the British Museum (1st–5th Centuries AD)*. London: British Museum Press.
8. Cunningham, A. 1990. *Coins of Ancient India from the Earliest Times Down to the Seventh Century A.D.* New Delhi: Asian Educational Series.
9. Dani, A.H. 1963. *Indian Palaeography*. Oxford: Clarendon Press.
10. *Epigraphia Indica*. Various years. Vols. I–X. New Delhi: Archaeological Survey of India.
11. Errington, E. and Curtis, V.S. n.d. *From Persia to Punjab: Exploring Ancient Iran, Afghanistan and Pakistan*. Mumbai: CSMVS.
12. Fishman, A.M. 2013. *The Silver Coinage of the Western Satraps in India (50–400 AD): Catalogue and Rarity Guide*. Vol. 1. CreateSpace Independent Publishing Platform.
13. Gardner, P. 1989. *A Catalogue of the Indian Coins in the British Museum – Coins of the Greek and Scythian Kings of Bactria and India*. Eastern Book House.
14. Goyal, S.R. 1995. *The Coinage of Ancient India*. Jaipur: Kusumanjali Prakash.

15. Gupta, P.L. and Hardaker, T.R. 1985. *Ancient Indian Silver Punch-Marked Coins of the Magadh-Maurya Karshapana Series*. Rev. edn. Nasik: Indian Institute of Research in Numismatic Studies.
16. Gupta, S.P. 1979. *Origin of Brahmi Script*. New Delhi: D.K. Publications.
17. Handa, D. 2007. *Tribal Coins of Ancient India*. New Delhi: Aryan Books International.
18. Hultzsch, E. 1991. *Inscriptions of Asoka*. Vol. I. New Delhi: Archaeological Survey of India.
19. Jha, A. and Rajgor, D. 1994. *Studies in the Coinage of the Western Kshatrapas*. Nasik: Indian Institute of Research in Numismatic Studies.
20. Jongeward, D. and Cribb, J. 2015. *Kushan, Kushano-Sasanian, and Kidarite Coins: A Catalogue*. New York: American Numismatic Society.
21. Konow, S. 1991. *Kharoshthi Inscriptions*. Vol. II, Part I. New Delhi: Archaeological Survey of India.
22. Narain, A.K. 1966. *Seminar Paper on the Chronology of the Punch-Marked Coins*. Varanasi: Department of Ancient Indian History, Culture and Archaeology, Banaras Hindu University.
23. Ojha, G.H. 1918. *Bharatiya Prachina Lipimala [The Palaeography of Ancient India]*.
24. Ramesh, K.V. 1984. *Indian Epigraphy*. Vol. 1. New Delhi: Sundeep Prakashan.
25. Rastogi, N.P. 1990. *Inscriptions of Asoka*. Varanasi: Chowkhamba Sanskrit Series.
26. Salomon, R. 1998. *Indian Epigraphy: A Guide to the Study of Inscriptions in Sanskrit, Prakrit, and the Other Indo-Aryan Languages*. New York: Oxford University Press.
27. Shastri, A.M. 1976. *Coins and Early Indian Economy*. Varanasi: Numismatic Society of India.
28. Sircar, D.C. 1965a. *Indian Epigraphy*. Delhi: Motilal Banarsidass.
29. Sircar, D.C. 1965b. *Inscriptions of Asoka*. New Delhi: Publications Division, Government of India.
30. Sircar, D.C. 1966. *Early Indian Numismatics and Epigraphical Studies*. Calcutta: Indian Museum.
31. Sircar, D.C. 1983. *Select Inscriptions*. Vol. II. Delhi: Motilal Banarsidass.
32. Sircar, D.C. 1993. *Select Inscriptions*. Vol. I.: V.K. Publishing House.
33. Sivaramamurthi, C. 1954. *Indian Epigraphy and South Indian Scripts*.
34. Thaplyal, K.K. 1972. *Studies in Ancient Indian Seals*. Varanasi: Akhil Bharatiya Sanskrit Parishad.

35. Thaplyal, K.K. 1985. *Inscriptions of the Maukharis, Later Guptas, Pushpabhutis and Yasovarman of Kanauj*. New Delhi: Indian Council of Historical Research.
36. Thaplyal, K.K. 1998. *Coins of Ancient India*. Varanasi: Bharat Book Centre.
37. Verma, T.P. 1983. *A Catalogue of the Greek and Indo-Greek Coins in the Department*. [Place of publication]: Department of Ancient Indian History.

Course Code: P07E202

Ethnoarchaeology (Elective)

Semester-II

Course Description:

This course offers the definition, scope, and methods of ethnoarchaeology, providing a comprehensive overview of the field. Students will explore the history of ethnoarchaeological research globally and within India, focusing on castes and tribes, the origin and evolution of the caste system, and its archaeological significance. The course includes the study of ethnographic atlases to understand differential levels of cultural development across space and time. Theoretical models in ethnoarchaeology will be examined, with emphasis on the forager/collector model's applicability to Palaeolithic, Mesolithic, and Agricultural societies of South Asia. Through the lens of ethnoarchaeology, students will learn to reconstruct past material cultures, including settlement patterns, technology, ceramics, and food processing techniques. The course will also cover significant ethnoarchaeological studies of living hunter-gatherer societies.

Course outcome

- Define the scope and methods of ethnoarchaeology and critically evaluate its role in archaeological research.
- Analyze the history of ethnoarchaeological research globally and within India, focusing on the archaeological significance of caste and tribal systems.
- Apply Theoretical Frameworks: Explore and critically assess theoretical models to study the Palaeolithic, Mesolithic, and Agricultural societies of South Asia.
- Interpret Ethnographic Data:
- Reconstruct Material Cultures, including settlement patterns, technology, ceramics, and food processing techniques.
- Integrate ethnoarchaeological perspectives to enhance critical thinking and analytical skills in interpreting archaeological data.

Module-1

Definition, Scope and Methods of Ethnoarchaeology

Brief review of the history of ethnoarchaeological research outside and in India.

Role of Analogy and Middle Range Theory in Ethnoarchaeology

Role of Ethnology to Ethnography, Ethnography as Field Methods, Historical Stages in Ethnographic practices; Different Ethnographic Field Methods

Module-2

Theoretical models in Ethnoarchaeology; Forager-Collector Model, Catchment Analysis. g. Applicability of the forager/collector model for South Asia.

Module-3

Ethnoarchaeology and reconstruction of past material culture;
E.g. Settlement patterns, technology, ceramics, storage and food processing

Module- 4

Important examples of ethnoarchaeological studies of living hunter-gatherer societies of the world, e.g. the Eskimo, Bushmen, Australian Aborigines. South Asia: Andaman Islanders, Birhors, Chenchus, Yanadis, Veddas, Kanjars, Pardhis, Van Vagris, Bhils.

Module-5

Ethnoarchaeology of the Neolithic/Chalcolithic culture.
Present-day shifting cultivation practices in India

Module 6

Living Megalithic traditions in India

Recommended Readings

1. Ajay Pratap. 2000. *The Hoe and the Axe: Ethnohistory of Shifting Cultivation in Eastern India*. New Delhi: Oxford University Press.
2. Allchin, B. (ed.). 1994. *Living Traditions: South Asian Ethnoarchaeology*. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
3. Balick, M.J. and Cox, P.A. 1996. *Plants, People and the Science of Ethnobotany*. Ann Arbor: Museum of Anthropology, University of Michigan.
4. Barkataki, S. 1969. *Tribes of Assam*. New Delhi: National Book Trust, India.
5. Bettinger, R.L. 1987. 'Archaeological Approaches to Hunter-Gatherers'. *Annual Review of Anthropology* 16, 121–142.
6. Bhattacharya, J.B., Dutta, B.B. and Datta Ray, B. 1980. *Shifting Cultivation in North-East India*. 2nd rev. edn. Shillong: North East India Council for Social Science Research.

7. Bichieri, M.G. (ed.). 1972. *Hunters and Gatherers Today*. New York: Holt, Rinehart and Winston.
8. Binford, L.R. 1988. *In Pursuit of the Past*. New York: Thames and Hudson.
9. Cooper, Z. 1992. 'The Relevance of the Forager/Collector Model to Island Communities in the Bay of Bengal'. *Man and Environment* XVII(2), 111–122.
10. Cooper, Z. 2002. *Archaeology and History: Early Settlement in the Andaman Islands*. New Delhi: Oxford University Press.
11. David, N. and Kramer, C. 2001. *Ethnoarchaeology in Action*. Cambridge: Cambridge University Press.
12. Fuchs, S. 1973. *The Aboriginal Tribes of India*. Delhi: Macmillan India.
13. Gould, R.A. 1980. *Living Archaeology*. Cambridge: Cambridge University Press.
14. Grigg, D.B. 1980. *The Agricultural Systems of the World*. Cambridge: Cambridge University Press.
15. Griffin, P.B. and Solheim II, W.G. 1990. 'Ethnoarchaeological Research in Asia'. *Asian Perspectives* 28(2), 145–161.
16. Jain, S.K. 1991. *Contributions to Indian Ethnobotany*. Jodhpur: Scientific Publishers.
17. Kramer, C. (ed.). 1980. *Ethnoarchaeology*. New York: Columbia University Press.
18. Lee, R.B. and DeVore, I. (eds). 1975. *Man the Hunter*. 2nd edn. Chicago: Aldine Publishing Co.
19. Leshnik, L.S. and Sontheimer, G. (eds). 1975. *Pastoralists and Nomads*. Wiesbaden: Otto Harrassowitz.
20. Maheshwari, J.K. 1996. *Ethnobotany in South Asia*. Jodhpur: Scientific Publishers.
21. Meehan, B. and Jones, R. (eds). 1988. *Archaeology with Ethnography: An Australian Perspective*. Canberra: Department of Prehistory, Research School of Pacific Studies, Australian National University.
22. Misra, V.N. 1990. 'The Van Vagris – "Lost" Hunters of the Thar Desert, Rajasthan'. *Man and Environment* XV(2), 89–108.
23. Morris, B. 1982. *Forest Traders: A Socio-Economic Study of the Hill Pandaram*. London School of Economics Monograph, Social Anthropology 55. London: Athlone Press.
24. Murty, M.L.K. 1981. 'Hunter-Gatherer Ecosystems and Archaeological Patterns of Subsistence Behaviour on the South-East Coast of India: An Ethnographic Model'. *World Archaeology* 12, 47–58.

25. Murty, M.L.K. 1985. 'Ethnoarchaeology of the Kurnool Cave Area'. *World Archaeology* 17(2), 192–205.
26. Nagar, M. and Misra, V.N. 1993. 'The Pardhis: A Hunting-Gathering Community of Central and Western India'. *Man and Environment* XVIII(1), 113–144.
27. Nagar, M. 1975. 'Role of Ethnographic Evidence in the Reconstruction of Archaeological Data'. *Eastern Anthropologist* 28(1), 13–22.
28. Nagar, M. 1983. 'Ethnoarchaeology of the Bhimbetka Region'. *Man and Environment* VII, 61–69.
29. Nagar, M. 1992. 'Tribal Societies in India', in Doshi, S. (ed.), *Tribal India: Ancestors, Gods and Spirits*. Bombay: Marg Publications.
30. Parker, B., Bhattacharya, J.B., Dutta, B.B. and Datta Ray, B. 1980. *Shifting Cultivation in North-East India*. 2nd edn. Shillong: North East India Council for Social Science Research.
31. Raju, D.R. 1988. *Stone Age Hunter-Gatherers: An Ethno-Archaeology of Cuddapah Region, South-East India*. Pune: Ravish Publishers.
32. Ford, R. (ed.). 1994. *The Nature and Status of Ethnobotany*. Ann Arbor: Museum of Anthropology, University of Michigan.
33. Rivers, W.H.R. 1967. *The Todas*. London: [publisher not provided].
34. Ray, S.K. 1984. 'Aspects of Neolithic Agriculture and Shifting Cultivation, Garo Hills, Meghalaya'. *Asian Perspectives* XXIV(2), 193–221.
35. Satapathy, K.K. and Sarma, B.K. 2002. 'Shifting Cultivation in India: An Overview'. *Asian Agri-History* 6(2), 121–139.
36. Roy, S.C. 1920. *The Bihors: A Little Known Jungle Tribe of Chhota Nagpur*. Ranchi: [publisher not provided].
37. Sinopoli, C.M. 1991. 'Seeking the Past through the Present: Recent Ethnoarchaeological Research in South Asia'. *Asian Perspectives* 28(2), 145–161.
38. Smiley, F.E. et al. 1980. *The Archaeological Correlates of the Hunter-Gatherer Societies: Studies from the Ethnographic Record*. Ann Arbor: University of Michigan Press.
39. Steensberg, A. 1980. *New Guinea Gardens: A Study of Husbandry with Parallels in Prehistoric Europe*. Cambridge: Cambridge University Press.
40. Steensberg, A. 1986. *Man the Manipulator: An Ethnoarchaeological Basis for Reconstructing the Past*. Copenhagen: National Museum of Denmark.

41. Steensberg, A. 1993. *Fire Clearance Husbandry: Traditional Techniques Throughout the World*. Herning: Poul Kristensen.
42. Sathe, V. 2017b. 'Smaller but not Secondary: Evidence of Rodents in Archaeological Context in India'. *Ancient Asia* 8(6), 1–20. doi: 10.5334/aa.131.

Course Code: P07E203
Environmental Archaeology (Elective)

Course Description:

Semester-II

Environmental Archaeology is an interdisciplinary field that examines the interactions between humans and their environment throughout history. This course provides students with a comprehensive understanding of how ancient communities adapted to and modified their surroundings and how these interactions are recorded in the archaeological record. Through a combination of theoretical knowledge and practical skills, students will explore topics such as paleoenvironmental reconstruction, subsistence strategies, and the impact of climate change on past societies. The course will cover various methodological approaches, including the analysis of botanical and faunal remains, geoarchaeology, microscopy of hard tissues and isotopic analysis. Case studies from different geographical regions and time periods will be used to illustrate key concepts and techniques. Students will also engage in fieldwork and laboratory activities to apply their learning in real-world contexts.

Course Objectives:

- Understand the principles and scope of environmental archaeology.
- Analyze how ancient human populations interacted with their environment.
- Apply various scientific techniques to reconstruct past environments and subsistence strategies.
- Critically evaluate the impact of environmental changes on cultural development and societal collapse.
- Conduct independent research and present findings on topics of environmental archaeology.

Course Structure:

Module-1

Introduction to Environmental Archaeology: Concepts and History

Quaternary time period: Peninsular India: Bori, Morgaon, Didwana, Karewas.

Module-2

Paleoenvironmental Reconstruction: Methods and Techniques

Dating techniques; Paleo-proxies (Ice-cores, Speleotherms, Tree rings, Lake sediments etc.); Monsoon and Paleo-Monsoon; Paleo-Climate Modelling: an introduction.

Module-3

Palaeontology and past environmental interpretations

Pleistocene vertebrate fauna from the Indian Subcontinent

Module-4

Fieldwork and Laboratory Methods in Environmental Archaeology

Geoarchaeology: Soils, Sediments, rock analysis, and Landscape Evolution

Module-5

Isotopic Analysis and Environmental Proxies

Case Studies in Environmental Archaeology: Global Perspectives

Current Research and Future Directions in Environmental Archaeology

Recommended Readings:

1. Agrawal, D.P. 1992. *Man and Environment in India Through Ages*. New Delhi: Books and Books.
2. Albarella, U. 2001. *Environmental Archaeology: Meaning and Purpose*. Dordrecht: Springer.
3. Bell, M. and Boardman, J. 1992. *Past and Present Soil Erosion*. Oxbow Monograph 24. Oxford: Oxbow Books.
4. Brown, A.G. 1999. *Alluvial Archaeology*. Cambridge: Cambridge University Press.
5. Butzer, K. 1976. *Geomorphology from the Earth*. New York: Harper and Row.
6. Chakraborty, K.S. and Sathe, V. 2014. 'Diagenetic Study of the Fossils and Semi-Fossilised Bones from the Late Pleistocene and Early Holocene Deposits'. *Heritage: Journal of Multidisciplinary Studies in Archaeology* 2, 625–650.
7. Chakraborty, P. 2020. 'Applications of Bone Histology in Tracking Exploitation Markers: From the Site Inamgaon, Maharashtra'. *Anatomy and Biological Anthropology* 33(2), 79–97.
8. Clutton-Brock, J. 1998. *Evolutionary History of Domesticated Animals*.
9. Courty, M.A. 1995. 'Late Quaternary Environmental Changes and Ancient Land Use (Northwest India)', in Johnson, E. (ed.), *Ancient Peoples and Landscapes*, pp. 105–126. Lubbock: Museum of Texas Tech University.
10. Davidson, D.A. and Shackley, M.L. (eds). 1976. *Geoarchaeology: Earth Science and the Past*. London: Duckworth.

11. Dhavalikar, M.K. 2002. *Environment and Culture*. Pune: Bhandarkar Oriental Research Institute.
12. Dinacruize, D. 2000. *Environmental Archaeology: Principles and Practice*. Cambridge: Cambridge University Press.
13. Fuller, D.Q., Stevens, C.J. and Nesbitt, M. 2014. *Archaeobotany*. London: Routledge.
14. Gladfelter, B.G. 1977. 'Geoarchaeology: The Geomorphologist and Archaeology'. *American Antiquity* 42, 519–538.
15. Gladfelter, B.G. 1981. 'Development and Directions in Geoarchaeology', in Schiffer, M.B. (ed.), *Advances in Archaeological Method and Theory*, Vol. 4. New York: Academic Press.
16. Goudie, A. 1977. *Environmental Change*. Oxford: Clarendon Press.
17. Hassan, F.A. 1979. 'Geoarchaeology: The Geologist and Archaeology'. *American Antiquity* 44, 519–538.
18. Holliday, V.T. 1992. *Soils in Archaeology: Landscape Evolution and Human Occupation*. Washington, D.C.: Smithsonian Institution Press.
19. Huckleberry, G. 2000. 'Interdisciplinary and Specialized Geoarchaeology'. *Geoarchaeology* 15(6), 523–536.
20. Kalof, L. 2007. *Looking at Animals in Human History*. London: Reaktion Books.
21. Larson, E.E. and Birkeland, P.W. 1982. *Putnam's Geology*. 4th edn. New York: Oxford University Press.
22. Needham, S. and Macklin, M.G. (eds). 1992. *Archaeology Under the Alluvium*. Oxford: Oxbow Books.
23. Goldberg, P., Holliday, V.T. and Reid, C. (eds). 2000. *Earth Sciences and Archaeology*. New York: Kluwer Academic/Plenum.
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25. Rapp, G. and Gifford, J.A. (eds). 1985. *Archaeological Geology*. New Haven and London: Yale University Press.
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Course Code: P07P201
(Practical Component)
Archaeology Practical I: Laboratory & Excavation

Semester-II

Practical Component

This course provides hands-on training in the identification, classification, documentation and interpretation of archaeological materials. Students will work with lithics, ceramics, bones, fossils and other archaeological specimens using standard laboratory procedures. Emphasis will be placed on careful observation, specimen handling, recording, comparative analysis and the preparation of laboratory reports.

Students will also receive introductory training in microscopy, 3D scanning, digital documentation and remote-sensing applications. Experimental exercises will help them understand the manufacture and use of stone tools, pottery, metals and other materials. Where appropriate, short exploration exercises may be undertaken to connect field recovery with the processing and analysis of archaeological materials in the laboratory.

The practical will include:

- Introduction to laboratory organization, safety and specimen handling
- Identification of lithic raw materials
- Classification, measurement and documentation of stone tools
- Introductory observation of use-wear and tool function
- Identification and classification of pottery
- Study of ceramic fabric, form, surface treatment and manufacturing techniques
- Preparation of pottery drawings, descriptions and catalogue records
- Identification of faunal remains, human skeletal material and fossils
- Introduction to taphonomy and preservation processes
- Use of microscopes for material observation
- Introduction to 3D scanning and digital documentation
- Basic application of remote-sensing data in archaeological research
- Experimental reconstruction of selected ancient technologies
- Organization, analysis and interpretation of laboratory data
- Preparation and presentation of laboratory reports

Learning Outcomes

On completion of the practical, students will be able to:

1. Handle archaeological specimens safely and systematically.
2. Identify and classify basic lithic, ceramic, faunal and fossil materials.
3. Measure, describe, draw and catalogue archaeological objects.
4. Recognize basic manufacturing techniques, surface treatments and use traces.
5. Use microscopes and introductory digital documentation equipment.
6. Understand the role of 3D scanning and remote sensing in archaeological research.
7. Conduct a small experimental archaeology exercise.
8. Organize laboratory data and prepare a concise analytical report.

Required Outputs

Each student will submit:

- Laboratory notebook
- Lithic identification and recording sheets
- Pottery classification and documentation sheets
- Ceramic drawings and descriptive catalogue
- Bone or fossil identification record
- Digital or 3D documentation exercise
- Experimental archaeology record
- Consolidated laboratory report

Assessment

Component	Weight
Laboratory participation, discipline and specimen handling	15%
Lithic identification and documentation	20%
Pottery analysis and recording	20%
Bone and fossil identification	15%
Equipment and digital documentation exercise	10%
Experimental exercise and final laboratory report	20%
Total	100%

Laboratory

Laboratory is a practical training course designed to provide students with hands-on experience in the analysis and interpretation of archaeological materials and scientific techniques used in archaeological research. The course introduces students to lithic, ceramic, faunal, and fossil analyses through laboratory-based exercises and specimen handling. Students will gain familiarity with archaeological equipment and digital technologies, including microscopes, 3D scanners, and remote sensing tools. The course also incorporates experimental archaeology to enhance understanding of ancient technologies, manufacturing processes, and human behaviour. Through observation, experimentation, recording, and data analysis, students will develop essential laboratory skills required for archaeological investigations.

Course Outcomes

Upon successful completion of the course, students will be able to:

- Identify, classify, and document archaeological materials such as stone tools, pottery, bones, and fossils using standard laboratory methods.
- Apply scientific and digital techniques including microscopy, 3D scanning, and remote sensing for the documentation and analysis of archaeological materials and sites.
- Conduct experimental archaeological investigations to understand ancient technologies, production processes, and human adaptation.
- Interpret archaeological data and prepare laboratory reports using appropriate analytical and recording techniques.

Module I: Lithic Analysis

- Introduction to archaeological laboratory methods
- Raw material identification
- Lithic classification and documentation
- Use-wear and functional studies
- Lithic recording techniques

Module II: Pottery Analysis

- Pottery identification and classification

- Ceramic technology and manufacturing processes
- Pottery typology and chronology
- Fabric analysis and surface treatment
- Pottery drawing, recording, and documentation
- Interpretation of ceramic assemblages
- Identification of faunal and human skeletal remains
- Introduction to zooarchaeology

Module III: Bone and Fossil Identification

- Fossil identification and palaeoenvironmental reconstruction
- Taphonomy and preservation processes

Module IV: Archaeological Equipment

- Microscopic analysis
- Introduction to 3D scanning and digital documentation
- Remote sensing applications in archaeology

Module V: Experimental Archaeology and Data Interpretation

- Principles of experimental archaeology
- Stone tool replication and knapping exercises
- Pottery-making and firing experiments
- Experimental approaches to ancient technologies
- Analysis and interpretation of archaeological materials
- Laboratory based report writing and presentation of results

Excavation

Students will participate in supervised archaeological excavation at a selected site. The practical will introduce the complete sequence of field investigation, from preliminary site assessment and preparation of the excavation grid to stratigraphic excavation, documentation, recovery of archaeological material and preliminary post-excavation analysis.

The fieldwork will include:

- Preliminary inspection and understanding of the archaeological setting
- Site cleaning, surface observation and preparation of the site plan
- Establishment of datum points, grids and excavation trenches
- Use of excavation tools and appropriate field procedures
- Identification and recording of layers, features, deposits and interfaces
- Maintenance of trench registers, context sheets and daily field diaries
- Preparation of plans, sections, sketches and photographic records
- Collection, labelling and initial classification of pottery and other finds
- Recording of samples, ecofacts and special finds
- Procedures for conservation, storage and transportation of excavated materials
- Interpretation of stratigraphy and occupational sequence
- Preparation of a preliminary excavation report

Learning Outcomes

On completion of the practical, students will be able to:

1. Understand the organization and operation of an archaeological excavation.
2. Establish and maintain an excavation grid and basic site records.
3. Excavate archaeological deposits according to stratigraphic principles.
4. Identify and record contexts, features and finds.
5. Prepare field drawings, photographs, registers and daily diaries.
6. Handle, label and classify archaeological material correctly.
7. Interpret the preliminary occupational sequence of an excavated area.
8. Prepare a concise and properly documented field report.

Required Outputs

Each student will submit:

- Daily field diary
- Trench or context records
- Plans, sections and field sketches
- Photographic register
- Finds and sample register
- Preliminary classification of recovered materials

- Individual excavation report

Assessment

Component	Weight
Field participation, discipline and teamwork	20%
Excavation technique and stratigraphic understanding	25%
Field diary and context records	20%
Plans, sections and finds documentation	15%
Final excavation report and presentation	20%
Total	100%

Course code: P07P202
Foundational Course/Practical Component
Nālandā Praxis: Community Archaeology

Semester-II

Course Description

Nālandā Praxis: Sahabhāgitā is a practice-oriented seminar connecting archaeological study at Nalanda University with the communities and heritage places of the surrounding region. *Sahabhāgitā*, meaning participation, expresses the central purpose of the course: to develop heritage work through dialogue and cooperation with local people.

The course introduces students to the basic principles of community archaeology, public participation, oral history and local heritage documentation. Students will work in a nearby village, town, archaeological site, craft centre, school or museum. They will identify local heritage resources, engage with residents and document community knowledge connected with archaeological places, religious traditions, crafts, landscapes and everyday cultural practices.

The exercise will culminate in a small public initiative such as a heritage walk, school activity, community exhibition, bilingual information material or local heritage-awareness programme. The course will also examine modest and sustainable livelihood possibilities connected with heritage, including local guiding, craft promotion, community museums and visitor services.

Course Objectives

The course aims to:

1. Connect classroom learning with community-based archaeological practice.
2. Introduce students to participatory methods of heritage documentation.
3. Record local histories, memories and cultural knowledge.
4. Develop heritage awareness among schools and local communities.
5. Encourage responsible livelihood opportunities connected with local heritage.
6. Strengthen cooperation between Nalanda University and communities of the surrounding region.

Course Outcomes

On completion of the course, students will be able to:

1. Explain the basic principles of community archaeology.
2. Identify local heritage places and relevant community stakeholders.
3. Conduct interviews and document oral histories responsibly.
4. Assess public knowledge and concerns regarding local heritage.
5. Prepare clear and accessible heritage-awareness material.

6. Design a small community outreach activity.
7. Suggest practical and locally appropriate heritage initiatives.
8. Prepare a concise community heritage action plan.

Course Modules

Module I: Community Archaeology and Sahabhāgitā

- Meaning and scope of community archaeology
- Participation, consultation and collaboration
- Archaeology as a shared public practice
- Local communities as holders of historical knowledge
- Ethics, consent and respectful communication
- Responsibilities of students working with communities

Module II: Local Heritage Documentation

- Identification of archaeological and cultural places
- Mapping communities and local stakeholders
- Oral history and interview methods
- Documentation of crafts, rituals and cultural practices
- Local place names, memories and traditions
- Assessment of heritage awareness
- Preparation of field notes, photographs and basic maps

Module III: Heritage Awareness and Public Engagement

- Communicating archaeology in accessible language
- Heritage-awareness activities for schools
- Community heritage walks and local exhibitions
- Posters, brochures and bilingual information material
- Involvement of teachers, artisans, youth and local workers
- Museums and archaeological sites as public learning spaces

Module IV: Heritage, Livelihood and Local Action

- Local guiding and visitor assistance
- Promotion of traditional crafts and cultural skills
- Community-managed heritage activities
- Small museums and local interpretation centres
- Benefits and risks of heritage tourism
- Preparation of a community heritage action plan
- Presentation of findings to the participating community

Community Exercise

Students will work individually or in small groups in a selected village, town, archaeological site, museum, school or craft community. The exercise will include:

- Identification of a local heritage place or cultural practice
- Recognition of community stakeholders
- Interviews with residents, teachers, artisans and local workers
- Documentation of oral histories and cultural knowledge
- Assessment of local heritage awareness and concerns
- Preparation of accessible educational material
- Organization of one small public-engagement activity
- Identification of a suitable livelihood or community initiative
- Preparation of a short community heritage action plan

Suggested Outputs

Each student group will produce:

1. A field notebook and stakeholder record
2. A short documentation report
3. One public resource, such as a poster, brochure, heritage map or digital presentation
4. One community activity, such as a heritage walk, school session or small exhibition
5. A concise community heritage action plan

Assessment

Component	Weight
Seminar participation and preparatory work	15%
Field notebook and community documentation	25%
Heritage-awareness material	20%
Community activity and presentation	20%
Community heritage action plan	20%
Total	100%

SEMESTER-III

Course Code: P07C301 Indian Knowledge Systems: Archaeological Perspectives (Core)

Course Description:

Semester-III

This course examines Indian Knowledge Systems through archaeological and material evidence. It explores knowledge relating to environment, agriculture, water management, technology, crafts, architecture, education, and cultural traditions. The course integrates archaeological evidence with literary, epigraphic, oral, and ethnographic sources while examining continuity, innovation, regional diversity, and contemporary relevance. The structure follows the concise thematic format adopted in the Archaeology LOCF syllabus.

Course Objectives

1. Introduce students to the nature, scope, and sources of Indian Knowledge Systems from an archaeological perspective.
2. Examine archaeological evidence related to environmental knowledge, agriculture, technology, crafts, architecture, and water management.
3. Understand the role of educational institutions, oral traditions, craft communities, and cultural networks in the production and transmission of knowledge.
4. Develop a critical understanding of continuity, innovation, regional diversity, and transformation within Indian knowledge traditions.
5. Explore the relevance of traditional knowledge for heritage conservation, sustainability, and contemporary society.

Modules

Module I: Introduction to Indian Knowledge Systems

1. Meaning, nature, and scope of Indian Knowledge Systems
2. Material culture as evidence of knowledge and practice
3. Writing, inscriptions, manuscripts, and material evidence of learning
4. Centres of knowledge transmission: Takṣaśilā, Nālandā, Vikramaśīla, Vallabhi, and others
5. Continuity, innovation, and regional diversity
6. Oral traditions, apprenticeship, and *guru-śiṣya paramparā*

Module II: Environment, Agriculture, and Water Management

1. Traditional knowledge of environment, landscapes, plants, and animals
2. Development of agriculture, pastoralism, and food-production systems
3. Wells, tanks, reservoirs, canals, and irrigation systems
4. Traditional water-management practices and archaeological case studies

Module III: Technology, Crafts, and Material Knowledge

1. Stone-working, pottery, bead-making, glass, and textile traditions
2. Mining and metallurgy: copper, bronze, iron, zinc, and steel
3. Raw materials, workshops, production centres, and craft specialisation
4. Archaeological and ethnoarchaeological approaches to traditional technologies

Module IV: Architecture, Settlement Planning, and Engineering

1. Indigenous building materials and construction techniques
2. Settlement planning, drainage, fortifications, and hydraulic engineering
3. Stūpa, monastic, rock-cut, and temple architecture
4. Measurement, proportion, geometry, and *Vāstu* traditions

Module V: Living Traditions, Heritage, and Contemporary Relevance

1. Continuity and transformation of traditional knowledge practices
2. Archaeology, ethnography, and living craft traditions
3. Indigenous knowledge, sustainability, and environmental resilience
4. Documentation, conservation, community participation, and ethical concerns

Selected Bibliography

1. Agrawal, D.P. 2000. *Ancient Metal Technology and Archaeology of South Asia: A Pan-Asian Perspective*. New Delhi: Aryan Books International.
2. Bag, A.K. (ed.). 1997. *History of Technology in India, Vol. I: From Antiquity to c. 1200 AD*. New Delhi: Indian National Science Academy.
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9. Nigam, J.S. 2014. *Ceramic Traditions in Indian Archaeology: Mesolithic to Medieval*. Delhi: Rishi Publications.
10. Shaw, J. 2007. *Buddhist Landscapes in Central India: Sanchi Hill and Archaeologies of Religious and Social Change*. London: British Association for South Asian Studies.
11. Shinde, V. 2022. *Bhartiya Knowledge System*. Pune: Bhishma Prakashan.
12. Singh, R.N. 2005. *Ancient Indian Glass: Archaeology and Technology*. Delhi: Parimal Publications.
13. Singh, U. 2008. *A History of Ancient and Early Medieval India: From the Stone Age to the 12th Century*. Delhi: Pearson Longman.
14. Tripathi, V. 2001. *The Age of Iron in South Asia: Legacy and Tradition*. New Delhi: Aryan Books International.

Course Code: P07C302

Historical Archaeology (Core)

Semester-III

Course Description:

This course offers an in-depth exploration of Historical Archaeology, focusing on the material culture of historical period. It aims to advance students' knowledge of archaeological methods and interpretations in reconstructing the socio-cultural formations, political developments, and patterns of contact and exchange from early historic times onward. Emphasis will be placed on integrating textual sources with archaeological evidence to develop a nuanced and holistic understanding of Historical Archaeology of India.

Course Objective:

Students will learn about the contradictions and compatibility in the meeting of historical and archaeological methods in the study of past human culture. As both disciplines work within the same chronological brackets, often there are debates arising which need to be addressed by an interdisciplinary approach. This course also trains them to skilfully use sources and methods to address enquiries into the historical urbanization process, settlements, landscape and hydrological issues.

Module-1

Concept of Historical Archaeology; Nature of Sources: Epigraphy; Numismatics, Sculptures and Architecture.

Module-2

Development of Historical Archaeology in India: Pre-Independence and Post-Independence Periods

Module-3

Debates on Epics and Archaeology: Connections between the Ramayana and Mahabharata and Archaeology, Excavated Sites Associated with Epics Excavated sites

Module-4

Historical Geography of Ashokan Sites, Artefacts, and Geographic Indicators of Ashokan Inscriptions

Module-5

Selected Archaeological Landscapes and archaeological approach to Hydrology

Case studies

Recommended Readings

1. Allchin, F.R. 1995. *The Archaeology of Early Historic South Asia: Emergence of Cities and States*. Cambridge: Cambridge University Press.
2. Chakrabarti, D.K. 2006. *The Oxford Companion to Indian Archaeology: The Archaeological Foundations of Ancient India*. New Delhi: Oxford University Press.
3. Chakraborti, R. 1992–93. ‘Maritime Trade and Voyages in Ancient Bengal’. *Journal of the Ancient Indian History* 19, 145–171.
4. Champakalakshmi, R. 1996. *Trade, Ideology and Urbanization: South India 300 B.C. to A.D. 1300*. Delhi: Oxford University Press.
5. Chattopadhyaya, B.D. 1984. *A Survey of Historical Geography of Ancient India*. Calcutta: Firma KLM.
6. Coningham, R. and Young, R. 2015. *The Archaeology of South Asia: From the Indus to Asoka, c.6500 BCE–200 CE*. Cambridge: Cambridge University Press.
7. Daymond, D.P. 1974. *Archaeology and History: A Plea for Reconciliation*. London: Thames and Hudson.
8. Dhavalikar, M.K. n.d. *Historical Archaeology*. [PDF available with instructors].
9. Falk, H. 2006. *Asokan Sites and Artefacts: A Source-Book with Bibliography*. Bremen: Hempen Verlag.
10. Ghosh, A. 1973. *City in Early Historic India*. Shimla: Indian Institute of Advanced Study.
11. Ghosh, A. (ed.). 1989. *An Encyclopaedia of Indian Archaeology*. Vols. I–II. New Delhi: Munshiram Manoharlal.
12. Gokhale, S. 2008. *Lord of Dakshinapatha: Coins, Trade-Centres under the Satavahanas*. Delhi: Bharatiya Kala Prakashan.
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15. Lad, G. n.d. *Mahabharata and Archaeological Evidence*. Pune: Deccan College. [PDF available with instructors].

16. Ray, H.P. 1995. *The Winds of Change: Buddhism and the Early Maritime Links of South Asia*. New Delhi: Oxford University Press.
17. Raychaudhuri, H. n.d. *Studies in Indian Antiquities*. Calcutta: University of Calcutta.
18. Roy, T.N. 1983. *The Ganges Civilization: A Critical Study of PGW and NBPW Periods of the Ganga Plains of India*. New Delhi: Ramanand Vidya Bhawan.
19. Sinha, B.P. 2021. *Archaeology in Bihar*. K.P. Jayaswal Memorial Lecture Series, Vol. V. Patna: K.P. Jayaswal Research Institute.

Course Code: P07E301
Museology (Elective)

Semester-III

Course Description

This course introduces students to the history, purpose, organisation, and functioning of museums. It examines different types of museums, collection management, conservation, exhibition planning, museum communication, education, and digital documentation. The course also engages with contemporary issues concerning provenance, repatriation, restitution, and the changing social role of museums.

Course Objectives

1. Introduce students to the history, development, scope, and functions of museums.
2. Familiarise students with different types of museums and their organisational practices.
3. Provide an understanding of collection management, documentation, conservation, exhibition planning, and museum communication.
4. Examine legal and ethical concerns relating to museum collections, provenance, repatriation, and restitution.

Learning Outcomes

- Understand the history, functions, and diverse roles of museums.
- Identify the principles of museum administration and collection management.
- Develop basic knowledge of documentation, conservation, exhibition design, and museum education.
- Critically examine ethical and legal issues concerning museum collections and cultural heritage

Module I: Introduction to Museums and Museology (G.K.)

20. Definitions, aims, and scope of museums, museology, and museography
21. History of collecting and development of museums globally

22. Origin and growth of museums in India: Selected case studies: National Museum, Indian Museum, Bihar Museum, Chhatrapati Shivaji Maharaj Vastu Sangrahalaya, and archaeological site museums
23. Museum laws, policies, and professional organisations

Module II: Museum Management, Documentation, and Conservation (G.K.; AGN)

1. Acquisition, accessioning, cataloguing, and documentation of collections
2. Storage, handling, security, and preventive conservation
3. Digitisation, metadata, digital archives, and collection databases
4. Risk assessment, disaster management, and the RE-ORG Method

Module III: Types and Functions of Museums (AGN)

1. Archaeological, site, art, science, natural history, ethnographic, and community museums
2. Functions and changing social roles of museums
3. Public Awareness and Museum

Module IV: The Museum as a Western Construct: Epistemology and Critique (AGN)

1. Colonial knowledge and the making of the museum in India
2. Emergence of the public museum as a civic and disciplinary institution
3. Indian and Indigenous Ways of Relating to the Past
4. The living object versus the museum specimen

Module V: Repatriation, Restitution, and Decolonisation of Museums (E.T.)

1. Provenance, ownership, and the ethics of collecting
2. Colonial collecting practices and the displacement of cultural objects
3. Repatriation and restitution of antiquities and cultural property
4. Contemporary debates, international conventions, national policies, and selected case studies

Module VI: Museum Communication, Exhibition, and Education (V.S.)

1. Exhibition as a system of communication and types of exhibitions

2. Exhibition planning, interpretation and visitor engagement
3. Museum education, outreach programmes, accessibility, and public participation

Recommended Readings

1. Agrawal, O. P. 1977. *Care and Preservation of Museum Objects*. New Delhi: National Research Laboratory for Conservation of Cultural Property.
2. Aiyappan, A., and S. T. Satyamurti. 1960. *Handbook of Museum Technique*. Madras: Government Press.
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10. Guha-Thakurta, Tapati. *Monuments, Objects, Histories: Institutions of art in colonial and post-colonial India*. Columbia University Press, 2004.
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15. Lonetree, Amy. 2012. *Decolonizing Museums: Representing Native America in National and Tribal Museums*. Chapel Hill: University of North Carolina Press.

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20. Punja, Shobita. 1990. *Museums of India*. Hong Kong: Guidebook Company.
21. Simpson, Moira G. 2001. *Making Representations: Museums in the Post-Colonial Era*. London: Routledge.
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24. Vrdoljak, A.F., 2006. *International law, museums, and the return of cultural objects*. Cambridge University Press.
25. Hunt, T., 2019. Should museums return their colonial artefacts? *The Guardian*, 29.
26. Dudley, Sandra H. *Museum objects*. Abingdon: Routledge, 2012.
27. Smith, C.S., 1989. Museums, artefacts, and meanings. *The new museology*, pp.6-21.

Recommended Readings

1. Atalay, S. 2012. *Community-Based Archaeology: Research with, by, and for Indigenous and Local Communities*. Berkeley: University of California Press.
2. Brown, J. and Hay-Edie, T. 2014. *Engaging Local Communities in Stewardship of World Heritage: A Methodology Based on the COMPACT Experience*. World Heritage Papers 40. Paris: UNESCO World Heritage Centre.
3. Chakrabarti, D.K. 2003. *Archaeology in the Third World: A History of Indian Archaeology since 1947*. New Delhi: D.K. Printworld.
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18. Simon, N. 2010. *The Participatory Museum*. Santa Cruz, CA: Museum 2.0.
19. Smith, L. 2006. *Uses of Heritage*. London: Routledge.
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Experimental Archaeology (Short Elective-I)

Semester-III

Course Description:

The experimental Archaeology course is designed to provide a comprehensive understanding of the methods and applications of experimental archaeology. The course offers students to combine theoretical knowledge with practical skills to reconstruct and understand ancient technologies and lifeways. Students will learn to design and execute their own experimental projects and get opportunities to recreate past material culture along with their possible contexts. The course will cover a range of topics, including analyses of artifacts, and the use of experimental archaeology as a research tool and for public outreach. The basic concepts and classificatory schemes used for the study of prehistoric technology will be introduced and examined through practical analysis of archaeological and experimentally-produced assemblages. This course is important to know the cognitive, behavioural, economic and technological contexts of the artefacts and assemblages.

Course Objectives:

- To understand how Archaeological objects were made using experimental archaeology,
- To synthesize and analyse experimentally-produced assemblages
- To train students how to replicate prehistoric tools, weapons, and artifacts.
- To understand the techniques for working with stone, metal, ceramics and other materials

Module-1 Introduction to Experimental Archaeology

Definition and scope of experimental archaeology.

Historical background and development of the field.

Ethical considerations in experimental archaeology.

Module -2 Methodology

Archaeological Materials and Technologies:

Designing and conducting experiments.

Data collection, analysis, and interpretation.

Module-3 Replication of Lithic Technology

Experimental replication of Stone tools, Rock Art,

Archaeology of Fire and practical sessions on making fire

Practical session on working with stone use, function, Butchery, Pyrotechnologies, Archaeometallurgy.

Module-4 Replication of Bone/Ceramic/Metal Technology

Experimental replication of Bone tools, Pottery, Terracotta figurines

Module-4 Case Studies and Findings

Experimental studies of Prehistoric and Historical construction methods

Comparisons between experimental findings and archaeological evidence.

Discussion of the implications for understanding past societies.

Module-5 Experimental Projects

Presentations of experimental projects.

Recommended Readings

1. Ascher, Robert. 1961. 'Experimental archaeology'. *American Anthropologist* 63, 4: 793–816.
2. Cahen, D., Keeley, L.H. and Van Noten, F.L. 1979. 'Stone Tools, Toolkits, and Human Behavior in Prehistory'. *Current Anthropology* 20, 661–683.
3. Callahan, E. (ed.). 1979. 'The Basics of Biface Knapping in the Eastern Fluted Point Tradition: A Manual for Flintknappers and Lithic Analysts'. *Archaeology of Eastern North America* 7, 1–18.
4. Callahan, E. 1974. *Experimental Archaeology Papers, No. 3*. Richmond: Department of Sociology and Anthropology, Virginia Commonwealth University.
5. Callahan, E. 1976. *Experimental Archaeology Papers, No. 4*. Richmond: Department of Sociology and Anthropology, Virginia Commonwealth University.
6. Coles, J. 1979. *Experimental Archaeology*. London: Academic Press.
7. Crabtree, D.E. 1972. *An Introduction to Flintworking*. Occasional Papers 28. Pocatello: Idaho State Museum.

8. Crabtree, D.E. 1976. 'Notes on Experiments in Flintknapping: 3, The Flintknapper's Raw Materials'. *Tebiwa* 10, 8–24.
9. Crabtree, D.E. 1968. 'Mesoamerican Polyhedral Cores and Prismatic Blades'. *American Antiquity* 33, 446–478.
10. Crabtree, D.E. 1970. 'Flaking Stone with Wooden Implements'. *Science* 169, 146–153.
11. Crabtree, D.E. and Swanson, E.H. 1968. 'Edge-Ground Cobbles and Blade-Making in the Northwest'. *Tebiwa* 11, 50–54.
12. Dibble, H.L. 1988. 'Typological Aspects of Reduction and Intensity of Utilization of Lithic Resources in the French Mousterian', in Dibble, H.L. and Montet-White, A. (eds), *Upper Pleistocene Prehistory of Western Eurasia*, pp. 181–197. University Museum Monograph 54. Philadelphia: University of Pennsylvania.
13. Dibble, H.L. 1991. 'Local Raw Material Exploitation and Its Effects on Lower and Middle Paleolithic Assemblage Variability', in Montet-White, A. and Holen, S. (eds), *Raw Material Economies among Prehistoric Hunter-Gatherers*, pp. 33–48. Lawrence: University of Kansas Publications in Anthropology 19.
14. Dibble, H.L. 1997. 'Platform Variability and Flake Morphology: A Comparison of Experimental and Archaeological Data and Implications for Interpreting Prehistoric Lithic Technological Strategies'. *Lithic Technology* 22, 150–170.
15. Dibble, H.L. and Pelcin, A. 1995. 'The Effect of Hammer Mass and Velocity on Flake Mass'. *Journal of Archaeological Science* 22, 429–439.
16. Dibble, H.L. and Whittaker, J.C. 1981. 'New Experimental Evidence on the Relation between Percussion Flaking and Flake Variation'. *Journal of Archaeological Science* 6, 283–296.
17. Ferguson, J.R. (ed.). 2010. *Designing Experimental Research in Archaeology: Examining Technology through Production and Use*. Boulder: University Press of Colorado.
18. Greaves, R.D. 1997. 'Hunting and Multifunctional Use of Bows and Arrows: Ethnoarchaeology of Technological Organization among Pumé Hunters of Venezuela', in Knecht, H. (ed.), *Projectile Technology*, pp. 287–320. New York: Plenum Press.
19. Hurcombe, L. 2004. 'Experimental Archaeology', in Renfrew, C. and Bahn, P. (eds), *Archaeology: The Key Concepts*, pp. 110–115. London: Routledge.

20. Kelterborn, P. 2005. 'Principles of Experimental Research in Archaeology'. *EuroREA* 2, 119–120.
21. [Author unknown]. [Year unknown]. 'Lindenmeier Folsom'. *Tebiwa* 9, 3–39.
22. Millson, D.C.E. 2010. 'Introduction', in Millson, D.C.E. (ed.), *Experimentation and Interpretation: The Use of Experimental Archaeology in the Study of the Past*, pp. 1–6. Oxford: Oxbow.
23. Outram, A.K. 2008. 'Introduction to Experimental Archaeology'. *World Archaeology* 40(1), 1–6.
24. Petersson, B. 2011. 'Introduction', in Petersson, B. and Narmo, L.E. (eds), *Experimental Archaeology: Between Enlightenment and Experience*, pp. 9–26. Acta Archaeologica Lundensia, Series 8, No. 62. Lund: Lund University.
25. Reynolds, P.J. 1999. 'The Nature of Experiment in Archaeology', in Harding, A.F. (ed.), *Experiment and Design: Archaeological Studies in Honour of John Coles*, pp. 156–162. Oxford: Oxbow.

Course Code: P07E302.2
Digital Archaeology (Short Elective)

Semester-III

Course Description:

This course provides a comprehensive knowledge on the digital technologies and their applications in archaeology. Students will learn about the latest advancements, including artificial intelligence, 3D modeling, remote sensing, and various digital survey technologies. Students will develop a strong foundation in the theories and methods of cultural heritage studies, while also gaining practical skills in programming and the digital capture, management, analysis, curation, and visualization of data.

Course Objectives

The Digital Archaeology course aims to equip students with a comprehensive understanding of digital tools and techniques, such as GIS, 3D modeling, remote sensing, and photogrammetry, essential for archaeological research. Students will learn effective data management and analysis methods, apply artificial intelligence in archaeology, utilize digital techniques during fieldwork, presentation and publications. The students will be encouraged to engage in collaborative research, integrating interdisciplinary perspectives, and to innovate in the development of new digital methodologies, preparing them to contribute effectively to the field of archaeology.

Module 1. Introduction to Digital Archaeology

Module 2. Digital Technology and Archaeological field work: Survey and Excavation

Reading toposheets, Geological Maps, Google Earth, and its applications,
Ground-penetrating radar (GPR) and other Geophysical Survey methods.

Module 3.

Geographic Information Systems (GIS), Aerial and Remote Sensing Technology in Archaeology: Digital Elevation Modules (DEM), LiDAR and aerial photography, Drones in Archaeological survey, Image processing Techniques (Photoshop, Illustrator, DStretch), GPS-based site mapping.

Module 4.

Explore AI applications: Chat GPT, Meta AI, Grok AI, Google Notebook LM, site prediction, artifact analysis, and data management.

Machine learning algorithms and its potential and application in archaeology.

Module 5. Digital Documentation

3D Scanning, Photogrammetry, 3D modeling, visualization, and virtual reconstruction, Virtual Reality, 3D visualization for site reconstruction and public engagement,

Module 6. Application of useful Android Apps, programs and their application in Archaeology

Recommended Reading

1. Caraher, W. 2016. 'Slow Archaeology: Technology, Efficiency, and Archaeological Work', in Averett, E.W., Gordon, J.M. and Counts, D.B. (eds), *Mobilizing the Past for a Digital Future: The Potential of Digital Archaeology*, pp. 421–441. Grand Forks: University of North Dakota.
2. Conolly, J. and Lake, M. 2006. *Geographical Information Systems in Archaeology*. Cambridge Manuals in Archaeology. Cambridge: Cambridge University Press.
3. Demetrescu, E., Ferdani, D., Dell'Unto, N., Leander Touati, A.-M. and Lindgren, S. 2016. 'Reconstructing the Original Splendour of the House of Caecilius Iucundus: A Complete Methodology for Virtual Archaeology Aimed at Digital Exhibition'. *SCIRES-IT-SCientific REsearch and Information Technology* 6(1), 51–66.
4. Ferdani, D., Demetrescu, E., Cavalieri, M., Pace, G. and Lenzi, S. 2020. '3D Modelling and Visualization in Field Archaeology: From Survey to Interpretation of the Past Using Digital Technologies'. *Groma: Documenting Archaeology*, 1–21.
5. Fiorucci, M., Khoroshiltseva, M., Pontil, M., Traviglia, A., Del Bue, A. and James, S. 2020. 'Machine Learning for Cultural Heritage: A Survey'. *Pattern Recognition Letters* 133, 102–108. doi: 10.1016/j.patrec.2020.02.017.
6. Gillings, M. and Goodrick, G.T. 1996. 'Sensuous and Reflexive GIS: Exploring Visualisation and VRML'. *Internet Archaeology* 1. doi: 10.11141/ia.1.2.
7. Gunnarsson, F. 2018. *Archaeological Challenges, Digital Possibilities: Digital Knowledge Development and Communication in Contract Archaeology*. Lnu Licentiate No. 21. Växjö: Linnaeus University Press.
8. Kintigh, K.W. 2015. 'Extracting Information from Archaeological Texts'. *Open Archaeology* 1(1), 96–101. doi: 10.1515/opar-2015-0004.

9. Kwan, M.-P. 2008. 'From Oral Histories to Visual Narratives: Re-presenting the Post-September 11 Experiences of the Muslim Women in the USA'. *Social & Cultural Geography* 9(6), 653–669.
10. Lercari, N. 2017. '3D Visualization and Reflexive Archaeology: A Virtual Reconstruction of Çatalhöyük History Houses'. *Digital Applications in Archaeology and Cultural Heritage* 6, 10–17.
11. Morgan, C. and Wright, H. 2018. 'Pencils and Pixels: Drawing and Digital Media in Archaeological Field Recording'. *Journal of Field Archaeology* 43(2), 136–151.
12. Reilly, P. 1990. 'Towards a Virtual Archaeology', in Rahtz, S. and Lockyear, K. (eds), *Computer Applications in Archaeology*, pp. 133–139. Oxford: British Archaeological Reports.
13. Richards, J., Tudhope, D. and Vlachidis, A. 2015. 'Text Mining in Archaeology: Extracting Information from Archaeological Reports', in Barceló, J.A. and Bogdanovic, I. (eds), *Mathematics and Archaeology*, pp. 240–254. Boca Raton: CRC Press.
14. Schuurman, N. 2000. 'Trouble in the Heartland: GIS and Its Critics in the 1990s'. *Progress in Human Geography* 24(4), 569–590. doi: 10.1191/030913200100189111.
15. Tagliaferri, L. 2017. 'Tutorial: An Introduction to Machine Learning'. Available at: <https://www.digitalocean.com/community/tutorials/an-introduction-to-machinelearning>.

Course Code: P07E303

Shared Past of India and Southeast Asia (Elective)

Semester-III

Course Description:

The course explores the entwined and connected past of landmasses that fall in South and Southeast Asia. Looking beyond the boundaries of a broader Asia, the heterogeneous manifestations in South and Southeast Asia will be examined within the single frame of ‘shared history.’

Course Objectives:

This course will offer a detailed examination of cultural, socio-political, religious and artistic processes in Cambodia, Vietnam, Thailand, Myanmar, and Indonesia for understanding historical formation in mainland and maritime Southeast Asia. In addition to the multifaceted networks and agencies of exchanges, state formation, agrarian economy, role of temple-oriented material and cultural development, interconnected history of Buddhism and Saivism, art, architecture, shared ideas, motifs and expressions in regions of South (India and Srilanka) and Southeast (mainland and insular) Asia will be examined in detail in this course.

Module-1

Brief Outline of Geographic, Historical, and Political Background (400-1300 CE)

Historiography and Recent Debates on the mode of cultural exchanges: Sinicization, Indianization, Localization

Module-2

Patterns of Socio-Political Formulations: From Chiefdom Societies to Early Polities: Metal Age Societies to Hindu Buddhist Kingdoms: Funan-Chenla, Angkor, Champa, Mon-Dvaravati, Sailendra, Srivijaya, Majapahit-Singasari

Module-3

Shared Religious Practices: Spread of Buddhism, Cults of Vishnu, Siva, Harihara; Sanskrit Inscriptions in Southeast Asia; Devaraja Cult of Cambodia, Linga Worship in Vietnam

Module -4

Shared Motifs and Architectural Practices: Temples of Dieng Plateau, Sambor Prei Kuk, My Son, Dong Duong, Angkor Wat, Bayon, Candi Borobudur, Candi Prambanan

Recommended Reading:

1. The Cambridge History of Southeast Asia, Vol. 1: From Early Times to c. 1500, edited by Nicholas Tarling, Cambridge University Press
2. Asian Encounters: Exploring Connected Histories, ed. U. Singh and Parul P. Dhar, Oxford University Press, 2014
3. The Concept of Cultural Convergence Revisited: Reflections on India's Early Influences in Southeast Asia, Hermann Kulke in Asian Encounters 3. Lost Kingdoms. Hindu Buddhist Sculptures of Early Southeast Asia, edited by John Guy et al). Metropolitan Museum of Art
4. Digital Archetypes: Adaptation of Early Temple Architecture in South and Southeast Asia, Sambit Datta, David Benyon, Ashgate, 2014
5. Vibrancy in Stone; Masterpieces of the Da Nang Museum of Cham Sculpture Tran Ky Phuong. Vo Van Thang, Peter Sharrock, 2018, River Books
6. Acri, Andrea, Helen Creese and Arlo Griffiths (Eds.). (2011). From Lanka eastwards: The Ramayana in the Literature and Visual Arts of Indonesia, Leiden: Brill
7. Monica L. Smith. (1999). "Indianization' from the Indian Point of View Trade and Cultural Contacts with Southeast Asia in the Early First Millennium C.E", Journal of the Economic and Social History of the Orient, Vol. 42, No. 1, pp. 1-26.
8. Miksic, John N. and Geok Yian Goh, (2017). Ancient Southeast Asia, London: Routledge
9. Kenneth R. Hall, (2011). A History of Early Southeast Asia: Maritime Trade and Societal Development, 100-1500, London: Rowman & Littlefield Publishers
10. Kulke. H. (1993; 2001). Kings and Cults: State Formation and Legitimation in India and Southeast Asia, New Delhi: Manohar Kulke, Hermann. (2001). "Royal Temple Policy and the Structure of Medieval Hindu Kingdoms, in Kings and Cults: State Formation and Legitimation in India and Southeast Asia, by Kulke, pp. 1-16. Delhi: Manohar.
11. Wolters, O.W. (1999). History, Culture and Region in Southeast Asian Perspectives, Singapore Institute of Southeast Asian Studies

Overview

The earliest hominins using stone tools appeared in Africa more than 3 million years ago, while the earliest evidence for prehistoric *Homo sapiens* (PHS) dates back to approximately 300,000 years ago, again in Africa. Since then, PHS have been dispersing globally and while doing so, intermixing with other hominin groups and diverging into distinct populations and adapting to or exploring different environments.

This course shall discuss key concepts for the study of human evolutionary history to understand the methods involved and why understanding our evolutionary past has wide relevance for us today.

We shall explore how past climatic events have shaped human dispersals globally. We shall also focus on the recent research on ancient DNA to understand PHS's interaction(s) with the Neanderthals and Denisovans.

Lastly, the course shall focus on disseminating knowledge through museums, commercialisation methods, multimedia platforms, and tourism management of archaeological sites for students to understand how cultural heritage can be preserved, interpreted, and shared with the public, fostering interdisciplinary learning and community engagement.

Teaching Methods

Teaching will be mainly in the form of illustrated lectures combined with occasional discussion sessions on specific topic(s) or recent publications. A workshop either on stone knapping or rock art shall be organised for the students. Additionally, students shall also be encouraged to undertake independent study and coursework.

Course Outcomes

By the end of the course students will be expected to:

- Understand how the fossil evidence informs us of PHS origins and dispersals
- Have an understanding of the key issues and areas of debate relevant to the study PHS

- Have an introductory knowledge of the various human species that lived at the same time as PHS
- Outline PHS's adaptation to various environments
- Understand the impact of ancient DNA studies on wider debates in human evolution
- Have an appreciation of the multidisciplinary nature of paleoanthropological research, as well as its dynamic nature as new discoveries and research provide fresh insights
- Understand the significance of sharing knowledge and explore various multimedia tools for effective dissemination.

Module 1: The beginnings

1. Anatomy of *Homo sapiens*
2. Fossil discoveries from Africa
3. Lithic technologies associated with prehistoric *Homo sapiens* (PHS) in Africa
4. Impacts of extreme environmental events on PHS

Module 2: The spread

1. Archaeology of PHS in West Asia
2. Archaeology of PHS in South Asia
3. Archaeology of PHS in Southeast Asia
4. Archaeology of PHS in Australia and other parts of the World

Module 3: Current debates on migrations

1. Multiple dispersal of PHS out of Africa and processes of replacement of archaic populations
2. Multi-regional origin theory
3. Assimilation theory
4. Continued evolution and global diversity of *Homo sapiens*

Module 4: Early humanity: culture, kin, and creativity

1. Symbolic behaviour associated with PHS
2. Our immediate cousins: Neanderthals, Denisovans and Floresiensis (Hominin Contemporaries)
3. Contributions of PHS to early art, music, burials, ornamentation, fire- case studies
4. Researchers working on PHS archaeology

Module 5: Disseminating Knowledge

1. Museums- case studies
2. Transforming heritage into experience through workshops and virtual museum
3. Role of Multimedia (newspaper, podcast, YouTube channel)
4. Archaeological Heritage and Tourism related to prehistoric sites

Recommended Readings

1. Ajithprasad, P. 2014. 'Palaeolithic Cultural Developments and Modern Human Dispersal in Gujarat'. *Puratattva* 44, 16-28.
2. Allen, J. and O'Connell, J.F. 2003. 'The Long and the Short of It: Archaeological Approaches to Determining When Humans First Colonised Australia and New Guinea'. *Australian Archaeology* 57(1), 5–19.
3. Argue, D. 2022. *Little Species, Big Mystery: The Story of Homo floresiensis*. Victoria: Melbourne University Press.
4. Basak, B. and Srivastava, P. 2017. 'Earliest Dates of Microlithic Industries (42–25 ka) from West Bengal, Eastern India: New Light on Modern Human Occupation in the Indian Subcontinent'. *Asian Perspectives* 56(2), 237–259.
5. Chauhan, P. 2020. 'Interpretative Shifts in Understanding the Prehistoric Settlement of the Indian Subcontinent', in *Interrogating Human Origins*, pp. 239–256. London: Routledge.
6. Clarkson, C., Harris, C., Li, B. et al. 2020. 'Human Occupation of Northern India Spans the Toba Super-Eruption ~74,000 Years Ago'. *Nature Communications* 11, 961. doi: 10.1038/s41467-020-14668-4.
7. Clarkson, C., Petraglia, M., Korisettar, R., Haslam, M., Boivin, N., Crowther, A., Ditchfield, P., Fuller, D., Miracle, P., Harris, C., Connell, K., James, H. and Koshy, J. 2009. 'The Oldest and Longest Enduring Microlithic Sequence in India: 35,000 Years of Modern Human Occupation and Change at the Jwalapuram Locality 9 Rockshelter'. *Antiquity* 83, 326–348.
8. Haslam, M., Clarkson, C., Roberts, R.G., Bora, J., Korisettar, R., Ditchfield, P., Chivas, A.R., Harris, C., Smith, V., Oh, A., Eksambekar, S., Boivin, N. and Petraglia, M. 2012. 'A Southern Indian Middle Palaeolithic Occupation Surface Sealed by the 74 ka Toba Eruption: Further Evidence from Jwalapuram Locality 22'. *Quaternary International* 258, 148–164.

9. Higham, T. 2022. *The World Before Us: How Science is Revealing a New Story of Our Human Origins*. London: Penguin.
10. Wragg Sykes, R. 2020. *Kindred: Neanderthal Life, Love, Death and Art*. London: Bloomsbury Sigma.
11. Hoffercker, J. 2017. *Modern Humans: Their African Origin and Global Dispersal*. New York: Columbia University Press.
12. Holliday, T. 2023. *Cro-Magnon: The Story of the Last Ice Age People of Europe*. New York: Columbia University Press.
13. Humphrey, L. and Stringer, C. 2018. *Our Human Story*. London: Natural History Museum.
14. Gilligan, I. et al. 2024. 'Paleolithic Eyed Needles and the Evolution of Dress'. *Science Advances* 10, eadp2887. doi: 10.1126/sciadv.adp2887.
15. Iain, M. 2003. *The Evolutionary Origins and Archaeology of Music: An Investigation into the Prehistory of Human Musical Capacities and Behaviours Using Archaeological, Anthropological, Cognitive and Behavioural Evidence*. PhD thesis. Cambridge: Faculty of Archaeology and Anthropology, University of Cambridge.
16. Killin, A. 2018. 'The Origins of Music: Evidence, Theory, and Prospects'. *Music and Science* 1. doi: 10.1177/2059204317751971.
17. Mishra, S., Chauhan, N. and Singhvi, A.K. 2013. 'Continuity of Microblade Technology in the Indian Subcontinent Since 45 ka: Implications for the Dispersal of Modern Humans'. *PLoS ONE* 8(7), e69280. doi: 10.1371/journal.pone.0069280.

Course Code: P07P301
Practical Component
Dissertation-based Fieldwork (P-3.1)

Semester-III

Field Location: Determined by the subject and geographical scope of the student's dissertation

Practical Component

This advanced practical is directly connected with the student's M.A. dissertation. Each student will undertake focused fieldwork based on an approved research problem and methodology. The nature of the work may vary according to the dissertation topic and may include archaeological survey, site and landscape documentation, museum or archival research, architectural recording, artefact study, oral history, ethnographic observation, spatial mapping or heritage assessment.

Before entering the field, the student will prepare a research design specifying the objectives, study area, sources, methods, schedule and expected outcomes. Fieldwork will be undertaken under faculty supervision and, where necessary, with permission from the relevant archaeological authority, museum, archive, institution or community.

The practical will include:

1. Formulation of fieldwork objectives based on the dissertation question
2. Review of earlier surveys, excavation reports, maps and relevant scholarship
3. Selection of appropriate field methods and documentation formats
4. Preparation of a fieldwork schedule and logistics plan
5. Identification of sites, collections, institutions and community stakeholders
6. Archaeological reconnaissance and systematic field observation
7. Site, monument, landscape or artefact documentation
8. Preparation of measured drawings, maps, photographs and spatial records
9. Collection of primary data through surveys, interviews or archival and museum study
10. Maintenance of a detailed field diary and daily data register
11. Preliminary classification and evaluation of the collected evidence
12. Assessment of gaps, limitations and the need for follow-up investigation

13. Integration of field evidence with the dissertation argument
14. Preparation of an advanced fieldwork report

Possible Forms of Fieldwork

Depending on the dissertation topic, the practical may involve one or more of the following:

1. Archaeological site or regional survey
2. Settlement and landscape documentation
3. Architectural and monument recording
4. Study of sculptures, ceramics, inscriptions or other archaeological materials
5. Museum reserve collection and catalogue research
6. Archival and photographic documentation
7. GIS-based mapping and spatial recording
8. Ethnoarchaeological or community-based research
9. Oral-history documentation
10. Heritage condition and risk assessment
11. Documentation of crafts, technologies or living cultural practices

Learning Outcomes

On completion of the practical, students will be able to:

1. Translate a dissertation question into a workable field research design.
2. Select methods appropriate to a specific archaeological problem.
3. Collect and organize primary archaeological evidence independently.
4. Maintain accurate field, visual and spatial records.
5. Evaluate the reliability, limitations and ethical implications of field data.
6. Relate field observations to wider archaeological and historical questions.
7. Integrate primary evidence into dissertation chapters and arguments.
8. Present research findings in a clear and academically responsible form.

Required Outputs

Each student will submit:

- Approved field research design
- Fieldwork schedule and record of permissions
- Detailed field diary
- Site, object, interview, museum or archival data sheets
- Maps, plans, drawings and photographic register, as applicable
- Organized primary-data catalogue
- Preliminary analysis of the collected evidence
- Dissertation fieldwork report

Assessment

Component	Weight
Research design and methodological preparation	15%
Quality and consistency of fieldwork	25%
Field diary and primary documentation	20%
Organization and preliminary analysis of evidence	20%
Fieldwork report and presentation	20%
Total	100%

Course Code: P07P302
Practical Component
Analytical Archaeology: Data Analysis and Interpretation

Semester-III

Course Description

This practical, two-credit laboratory and seminar course bridges the gap between raw data recovery and rigorous historical reconstruction. Analytical archaeology requires a critical methodology to process material remains, quantify data, and synthesize findings with historical sources. A primary focus of this course is the methodological tension between the material record and textual archives. Students will learn how to approach textual sources—ranging from epigraphy and monastic hagiographies to visitor reports—with strict critical historiography, moving beyond the literal acceptance of miraculous accounts or potentially biased narratives.

Through hands-on laboratory modules, students will practice applying empirical evidence to test historical claims. Case studies will draw heavily upon South and Southeast Asian contexts, comparing the stratigraphic realities of Buddhist monastic sites like Sankissa, Nalanda, and the village of Bihar against textual accounts, as well as applying stylistic and typological analysis to regional art forms such as Chola bronzes and Chāmpa sculptures.

Course Outcomes

The students will be able to:

1. Execute Material Analyses: Apply standard laboratory techniques for sorting, classifying, and quantifying archaeological materials, particularly ceramics, lithics, and sculptural fragments.
2. Reconcile Texts and Material Data: Critically evaluate textual sources against empirical archaeological data, identifying hagiographic bias and historical inaccuracies.
3. Conduct Stylistic and Iconographic Typology: Analyze complex art historical objects, tracing their cultural adaptation and chronological evolution across regions.
4. Apply Quantitative Methods: Utilize basic statistical and spatial analysis to identify patterns in artifact distribution and site layouts.

5. Formulate Evidence-Based Interpretations: Write scientifically rigorous laboratory reports and interpretative syntheses that favor empirical archaeological praxis over sectarian or legendary narratives.

Module I: Working with Raw Data

- How Sites Form: Understanding how objects get buried, broken, or preserved over time (formation processes).
- Lab Basics: Hands-on practice with sorting, washing, cataloging, and storing artifacts.
- Building Typologies: Grouping artifacts (like pottery or lithics) by their physical traits to track changes over time.

Module II: Texts vs. The Dirt

- Fact-Checking History: Learning how to test historical texts, travelogues, and religious hagiographies against actual physical evidence.
- Case Studies in Bias: Examining the gap between what texts say and what the ground shows at sites like Sankissa and the village of Bihar.
- Inscriptions as Objects: Analyzing epigraphy not just for what the words say, but where the stone or metal was physically placed in the landscape.

Module III: Analyzing Art and Style

- Tracking Visual Changes: Practical exercises in recognizing how artistic styles shift as they move across different regions.
- Cultural Adaptation: Comparing specific sculptural forms, such as the differences between South Asian guardian figures and Southeast Asian Chāmpa Dvārapālas (e.g., the Nhạn Sơn figures).
- Metalwork Analysis: Techniques for documenting and analyzing the physical properties of metal artifacts, including Nalanda and Chola bronzes.

Module IV: Numbers and Maps

- Basic Statistics: Using simple math to find patterns in large groups of artifacts to understand inter-communal dynamics and site usage.

- **Spatial Mapping:** Plotting where artifacts were found on a site map to figure out how different spaces (like monastic cells vs. public areas) were actually used.
- **Visualizing Data:** Creating clear charts and graphs to include in archaeological reports.

Module V: Writing It All Down

1. **Writing the Report:** How to combine lab numbers with textual critique to build a strong, evidence-based argument.
2. **Editing for Publication:** Best practices for formatting, verifying citations, and writing clearly.
3. **Final Practical Test:** Students receive a mock dataset containing a biased historical text and conflicting raw artifact counts, and must write a synthesized report solving the discrepancy.

Learning Outcomes

On completion of the practical, students will be able to:

1. Classify and organize different categories of archaeological evidence.
2. Distinguish primary observation from subsequent interpretation.
3. Evaluate texts, inscriptions and archaeological remains critically.
4. Analyse sculptures and other objects through material, stylistic and iconographic evidence.
5. Apply basic quantitative and spatial methods to archaeological data.
6. Recognize the strengths and limitations of different sources.
7. Integrate textual, material and visual evidence without privileging one category automatically.
8. Develop alternative explanations where evidence is incomplete or contradictory.
9. Prepare a clear and properly supported analytical report.

Assessment:

Component	Weight
Classification and contextual analysis	15%
Textual and archaeological comparison	20%
Object, stylistic and iconographic analysis	20%
Quantitative and spatial exercise	15%
Final analytical report	20%
presentation	10%
Total	100%

Recommended Readings

1. Asher, F.M. 1980. *The Art of Eastern India, 300–800*. Minneapolis: University of Minnesota Press.
2. Barnes, G.L. 1995. 'Buddhist Archaeology'. *World Archaeology* 27(2), 165–182.
3. Chakrabarti, D.K. 2001. *Archaeological Geography of the Ganga Plain: The Lower and the Middle Ganga*. New Delhi: Permanent Black.
4. Clarke, D.L. 1968. *Analytical Archaeology*. London: Methuen.
5. Fogelin, L. 2006. *Archaeology of Early Buddhism*. Lanham, MD: AltaMira Press.
6. Glover, I. and Bellwood, P. (eds). 2004. *Southeast Asia: From Prehistory to History*. London: Routledge.
7. Guy, J. 2014. *Lost Kingdoms: Hindu-Buddhist Sculpture of Early Southeast Asia*. New York: Metropolitan Museum of Art.
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9. Huntington, S.L. 1984. *The "Pāla-Sena" Schools of Sculpture*. Leiden: Brill.
10. Lefèvre, V. 2011. *Champa: Art and Archaeology*. Bangkok: River Books.
11. Moreland, J. 2001. *Archaeology and Text*. London: Duckworth.
12. Orton, C., Tyers, P. and Vince, A. 1993. *Pottery in Archaeology*. Cambridge: Cambridge University Press.

13. Renfrew, C. and Bahn, P. 2020. *Archaeology: Theories, Methods and Practice*. 8th edn. London: Thames & Hudson.
14. Salomon, R. 1998. *Indian Epigraphy: A Guide to the Study of Inscriptions in Sanskrit, Prakrit, and the Other Indo-Aryan Languages*. New York: Oxford University Press.
15. Schiffer, M.B. 1987. *Formation Processes of the Archaeological Record*. Albuquerque: University of New Mexico Press.
16. Schopen, G. 1997. *Bones, Stones, and Buddhist Monks: Collected Papers on the Archaeology, Epigraphy, and Texts of Monastic Buddhism in India*. Honolulu: University of Hawai'i Press.
17. Shennan, S. 1997. *Quantifying Archaeology*. Edinburgh: Edinburgh University Press.
18. Thapar, R. 2004. *Somanatha: The Many Voices of a History*. New Delhi: Penguin Books India.
19. Trautmann, T.R. 1997. *Aryans and British India*. Berkeley: University of California Press.
20. Willis, M. 2009. *The Archaeology of Hindu Ritual: Temples and the Establishment of the Gods*. Cambridge: Cambridge University Press.

SEMESTER-IV

Course Code: P07C401 Cultural Heritage Management (Core)

Course Description:

This course explores the multifaceted field of cultural heritage management. Students will learn the theory, practice, and ethical considerations related to preserving and promoting cultural heritage. Topics covered in the course are world heritage sites, conservation strategies, museum curation, and community engagement.

Course Objectives:

6. Understand the history, theories, principles, guidelines, professional ethics, and entrepreneurship scope in conservation as a multidisciplinary science.
7. Learn about elements, factors affecting monuments, conservation challenges, and structural conservation measures.
8. Gain knowledge about the definition, development, functions, organization, and types of museums and museum buildings.
9. Understand the processes of collecting, documenting, conserving, and preserving artifacts.
10. Develop skills in exhibition presentation, techniques, display case design, exhibit lighting, and security measures.
11. Understand with the Indian Treasure Trove Act-1878, The Ancient Monuments and Archaeological Sites and Remains Act 1958, and the Antiquities and Art Treasure Act 1972.
12. Understand the UNESCO Convention rules and regulations for protecting world cultural and natural heritage.

Module-1 Concept of Cultural Heritage

Definition of Natural and cultural heritage and its significance.

Forms of tangible and intangible heritage.

Antiquarian Laws

Module-2 World Heritage Sites

Concept, Criteria for selection of heritage sites, monuments and zone by UNESCO

UNESCO World Heritage List.

Case studies of World Heritage Sites in India

Heritage Zone: Concept, Planning & Implementation

Challenges and benefits of world heritage designation.

Module- 3 Conservation and Preservation

Conservation ethics and principles.

Preventive conservation, restoration, and documentation.

Scientific techniques in conservation of Stone, Metal, Painting, Textile, Manuscripts

Module -4 Museum Studies

History of Museumization Process

Colonial Origin of Museum, Management and Repatriation of Colonial Collection, cataloging, and digitization.

Decolonization of Global Museums

Museum management, exhibition design, and visitor experience.

Role of museums in cultural heritage dissemination.

Module-5 Sustainable Heritage Management

Interrelation of Community and Heritage

Nature and Types of Stakeholders: Effects of UNESCO Inscription

Community-based approaches to heritage management.

Traditional knowledge in Heritage Management

Module-6 Cultural Heritage and Climate Change

Understanding the environmental factors that affect heritage sites.

Case studies of loss and damage to cultural heritage due to climate-related factors.

Methods of heritage site monitoring and assessment.

Methods for documenting and preserving intangible cultural heritage in a changing climate.

The effects of climate change on cultural practices, traditions, and oral histories.

Recommended Reading:

1. Agrawal, O.P. 2007. *Essentials of Conservation in Museology*. New Delhi: Sundeep Prakashan.
2. Ambrose, T. and Paine, C. 2012. *Museum Basics*. New York: Routledge.
3. Banerjee, N.R. 1990. *Museums and Cultural Heritage of India*. Delhi: Agam Kala.
4. Hoffman, B.T. 2006. *Art and Cultural Heritage: Law, Policy, and Practice*. Cambridge: Cambridge University Press.
5. Berenfeld, M.L. 2008. 'Climate Change and Cultural Heritage: Local Evidence, Global Responses'. *The George Wright Forum* 25(2), 66–82.
6. Bhatnagar, A. 1999. *Museum Museology and New Museology*. Delhi: Sundeep Prakashan.
7. Biswas, S.S. 1999. *Protecting Cultural Heritage*. Delhi: Arya Books.
8. Caple, C. (ed.). 2011. *Preventive Conservation in Museums*. New York: Routledge.
9. Kumar Roy, D. 2006. *Museology: Some Cute Points*. New Delhi: Kalpaz Publications.
10. Sarkar, H. 1981. *Museum and Protection of Monuments and Antiquities in India*. Delhi: Sundeep Prakashan.
11. Singh, A.P. 1985. *Conservation and Museum Techniques*. Delhi: Agam Kala.
12. Szczepanowska, H.M. 2013. *Conservation of Cultural Heritage: Key Principles and Approaches*. New York: Routledge.
13. UNESCO. 1972. *Convention Concerning the Protection of the World Cultural and Natural Heritage*. Paris: UNESCO. Available at: <http://whc.unesco.org/archive/convention-en.pdf>
14. UNESCO World Heritage Centre. n.d. *The Criteria for Selection*. Available at: <http://whc.unesco.org/en/criteria/>

Course Code: P07E401
Archaeology of Bihar (Elective)

Semester-IV

Course Description:

This course will offer comprehensive understanding of Bihar's archaeological importance in Indian subcontinent and the ways it has shaped contemporary historical and cultural narratives. Offers to understand the regional archaeological heritage of Bihar. The course covers periods from prehistoric times to the medieval era, students will engage with the major archaeological discoveries; include the prehistoric sites, chalcolithic sites, early historic urbanisation, the development of religious and cultural centers, and the influence of various dynasties on the region's material culture. The course also emphasize on exploring more archaeological sites their research, including excavation and conservation practices. This course is ideal for students interested in the regional archaeology.

Learning Outcomes:

10. Develop a thorough understanding of the archaeology of Bihar.
11. Analyze the cultural and historical impact of key archaeological sites in the region.
12. Apply archaeological methods and techniques in the study artifacts and sites.
13. Critically evaluate the role of archaeology in interpreting the past.

Course Structure:

Module- 1 Scope of Archaeology in Bihar

Module- 2 Prehistory, Protohistoric and Historical Archaeology of Bihar.

Module- 3 Magadh Empire and its Archaeological evidences

Module- 4 Art and Architecture of Bihar

Module-5 Study of Nalanda, Odantapuri, Telhara, Bodh Gaya, Vaisali, Vikramashila, Lalpahadi and other important sites.

Module- 6 Medieval Archaeology of Bihar

Module-7 Current Research, Future Directions in the Archaeology of Bihar

Recommended Readings

1. Albrecht, U. 2001. *Buddhism in Bihar: The History and Cultural Heritage*. New Delhi: Aryan Books International.
2. Chakrabarti, D.K. 2010. *A History of Buddhism in Bihar: From the Beginnings to the Early Medieval Period*. New Delhi: Manohar Publishers.
3. Choudhary, B.K. (ed.). 2015. *Archaeological Gazetteer of Nalanda District*. Patna: K.P. Jayaswal Research Institute.
4. Jha, S.K. 2011. *Rajagrha: The City of Eminence*. Patna: K.P. Jayaswal Research Institute.
5. Kinnard, J.N. 1998. *The Emergence of Buddhism in Bihar: An Archaeological Perspective*. Delhi: Munshiram Manoharlal Publishers.
6. Mishra, D.K. 2006. *Buddhism in Bihar: A Historical Overview*. Patna: Bihar State Text Book Publishing Corporation.
7. Narayan, B. 2000. *Prehistoric Archaeology of Bihar*. Patna: K.P. Jayaswal Research Institute.
8. Patil, D.R. 1963. *The Antiquarian Remains in Bihar*. Patna: Kashi Prasad Jayaswal Research Institute.
9. Singh, V.K. (ed.). 2022. *Archaeological Atlas of Bihar*. Patna: Bihar Heritage Development Society.
10. Sinha, B.P. 2021. *Archaeology in Bihar*. K.P. Jayaswal Memorial Lecture Series, Volume V. Patna: K.P. Jayaswal Research Institute.
11. Sinha, H.P. 1992. *Archaeological and Cultural History of North Bihar*. New Delhi: Books and Books.
12. Sinha, C.P. 2018. *Art and Archaeology in Bihar*. New Delhi: B.R. Publishing Corporation.
13. Verma, B.S. 1971. 'Excavations at Chirand: New Light on the Indian Neolithic Culture-Complex'. *Puratattva* 4, 19–23.
14. Verma, R.K. 2007. *Buddhist Pilgrimage Sites in Bihar: A Comprehensive Guide*. Patna: Patna University Press.

Course Code: P07E402
Public Archaeology (Elective)

Semester-IV

Course Description:

Public archaeology connects archaeological research with the people who live around heritage places. This course focuses on local communities, small towns, villages and economically disadvantaged groups whose histories and cultural practices are often overlooked in official accounts of heritage. It examines how archaeological sites, museums, historic buildings, sacred places, traditional crafts and cultural landscapes can become sources of public knowledge, local pride and carefully planned economic opportunity.

With a comparative focus on India and Sri Lanka, the course introduces students to public archaeology, community participation, heritage legislation, local museums, tourism and public communication. It considers the continuing distance between government institutions and communities living near protected monuments. It also examines how restrictions imposed for conservation may affect religious practices, access to land, traditional livelihoods and everyday relationships with heritage places.

Students will learn to prepare practical heritage-awareness programmes for schools, villages and small towns. The course emphasizes local guides, craft communities, women's groups, youth associations, oral histories and community museums. It promotes forms of heritage management that protect archaeological places while ensuring that local people participate in interpretation, decision-making and economic benefits.

Course Outcomes

On completion of the course, students will be able to:

- Understand the principles of public and community archaeology.
- Examine relationships between archaeological sites and neighbouring communities.
- Identify local histories, cultural practices and forms of knowledge associated with heritage places.
- Understand how heritage regulations affect communities and traditional livelihoods.
- Plan heritage-awareness activities for schools, villages and small towns.
- Develop accessible interpretation for audiences with different educational and economic backgrounds.

- Assess the possibilities and risks of heritage-based tourism and livelihood programmes.
- Prepare a practical community heritage management proposal.

Course Modules

Module I: Public Archaeology and Local Communities

Meaning and scope of public archaeology

Community archaeology and local participation

Heritage as part of everyday life

Local knowledge, oral history and cultural memory

Archaeologists and their responsibilities to communities

Making archaeological knowledge accessible to the public

Module II: Institutions, Laws and Community Access

Development of archaeological institutions in India and Sri Lanka

Archaeological Survey of India and the Department of Archaeology, Sri Lanka

Protected monuments and heritage regulations

Rights, responsibilities and restrictions around protected sites

Community access to living religious and cultural places

Communication between heritage authorities and local residents

Need for locally responsive heritage administration

Module III: Heritage Awareness in Villages and Small Towns

Understanding local perceptions of archaeological heritage

Heritage-awareness programmes for schools and colleges

Public lectures, heritage walks and site visits

Exhibitions in community halls, libraries and local museums

Interpretation through regional languages

Posters, brochures, storytelling and street theatre

Involvement of teachers, students and local cultural groups

Module IV: Community Knowledge and Cultural Practices

Oral traditions, place names and local histories
Traditional crafts, skills and technologies
Sacred places, festivals and living religious practices
Agricultural and ecological knowledge
Participation of women, artisans, workers and marginalized groups
Documentation with community consent
Recognition of different interpretations of the past

Module V: Heritage, Livelihoods and Local Economy

Economic conditions of communities surrounding heritage sites
Training and employment of local guides
Support for artisans, craft workers and local producers
Community-managed visitor services
Homestays, local food and small heritage enterprises
Fair distribution of income from heritage tourism
Risks of commercial exploitation and displacement
Protecting heritage without excluding local residents

Module VI: Museums, Tourism and Public Communication

Local and site museums as community institutions
Representation of local communities in museum displays
Community-curated exhibitions
Responsible tourism and visitor management
Accessible signage and interpretation
Digital storytelling and social media
Public campaigns against vandalism, looting and illicit trafficking
India–Sri Lanka case studies in community heritage management

References:

1. Atalay, S. 2012. *Community-Based Archaeology: Research with, by, and for Indigenous and Local Communities*. Berkeley: University of California Press.

2. Brown, J. and Hay-Edie, T. 2014. *Engaging Local Communities in Stewardship of World Heritage: A Methodology Based on the COMPACT Experience*. World Heritage Papers 40. Paris: UNESCO World Heritage Centre.
3. Chakrabarti, D.K. 2003. *Archaeology in the Third World: A History of Indian Archaeology since 1947*. New Delhi: D.K. Printworld.
4. Chapagain, N.K. (ed.). 2013. *Asian Heritage Management: Contexts, Concerns, and Prospects*. London: Routledge.
5. Coningham, R.A.E. and Lewer, N. 2000. 'The Vijayan Colonization and the Archaeology of Identity in Sri Lanka'. *Antiquity* 74, 707–712.
6. Crooke, E. 2007. *Museums and Community: Ideas, Issues and Challenges*. London: Routledge.
7. Guha, S. 2015. *Artefacts of History: Archaeology, Historiography and Indian Pasts*. New Delhi: SAGE.
8. Ham, S.H. 2013. *Interpretation: Making a Difference on Purpose*. Golden, CO: Fulcrum Publishing.
9. Lahiri, N. 2017. *Monuments Matter: India's Archaeological Heritage since Independence*. Mumbai: Marg Foundation.
10. Little, B.J. 2007. *Historical Archaeology: Why the Past Matters*. Walnut Creek, CA: Left Coast Press.
11. Marshall, Y. 2002. 'What Is Community Archaeology?' *World Archaeology* 34(2), 211–219.
12. Matsuda, A. and Okamura, K. (eds). 2011. *New Perspectives in Global Public Archaeology*. New York: Springer.
13. Merriman, N. (ed.). 2004. *Public Archaeology*. London: Routledge.
14. Moser, S., Glazier, D., Phillips, J.E., Nasser el Nemr, L., Mousa, M.S., Aiesh, R.N., Richardson, S., Conner, A. and Seymour, M. 2002. 'Transforming Archaeology through Practice: Strategies for Collaborative Archaeology and the Community Archaeology Project at Quseir, Egypt'. *World Archaeology* 34(2), 220–248.
15. Neogi, T. 2011. 'The Concept of Community Archaeology and Heritage Management in India'. *Chitrolekha International Magazine on Art and Design* 1(3).
16. Ray, H.P. 2007. *Colonial Archaeology in South Asia: The Legacy of Sir Mortimer Wheeler*. New Delhi: Oxford University Press.
17. Silva, R. 1990. 'The Cultural Triangle of Sri Lanka'. *Museum International* 42(3), 133–138.

18. Simon, N. 2010. *The Participatory Museum*. Santa Cruz, CA: Museum 2.0.
19. Smith, L. 2006. *Uses of Heritage*. London: Routledge.
20. Waterton, E. and Smith, L. 2010. 'The Recognition and Misrecognition of Community Heritage'. *International Journal of Heritage Studies* 16(1–2), 4–15.

Course Code: P07P401
Practical Component
Śāstrārtha and Project Report Writing

Semester-IV

Śāstrārtha is conceived as an academic initiative to revive the classical Nālandā tradition of intellectual dialogue and scholarly disputation. Students are encouraged to participate in open debate and critical enquiry, engaging with differing positions, polemics, and reasoned argument in the pursuit of truth. Through questioning, defence, reflection, and scholarly exchange, the initiative seeks to cultivate intellectual rigour and a deeper commitment to the search for knowledge. (TBA)

Semester-IV

Dissertation

The dissertation is the most important module of the master's program, requiring students to undertake original research in the field of archaeology. Students will select a topic from a range of specialized areas, including prehistory, protohistory, historical archaeology, art and architecture, paleography, epigraphy, numismatics, iconography, or scientific applications in archaeology. The research process may involve extensive investigation, data collection, and analysis, contributing new insights to the chosen field of study. Through this rigorous academic exercise, students will demonstrate their ability to conduct independent research, apply methodological and theoretical frameworks, and present their findings coherently. The dissertation will reflect the student's scholarly capabilities and is essential for the fulfilment of the Master Degree.