

**CURRICULUM**

**OF**

**ARCHAEOLOGY**  
**BA/BS (HONS)**  
**MA/MS (HONS)**

(Revised 2006)



**HIGHER EDUCATION COMMISSION**  
**ISLAMABAD**

## **CURRICULUM DIVISION, HEC**

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## PREFACE

Curriculum of a subject is said to be the throbbing pulse of a nation. By looking at the curriculum one can judge the state of intellectual development and the state of progress of the nation. The world has turned into a global village; new ideas and information are pouring in like a stream. It is, therefore, imperative to update our curricula regularly by introducing the recent developments in the relevant fields of knowledge.

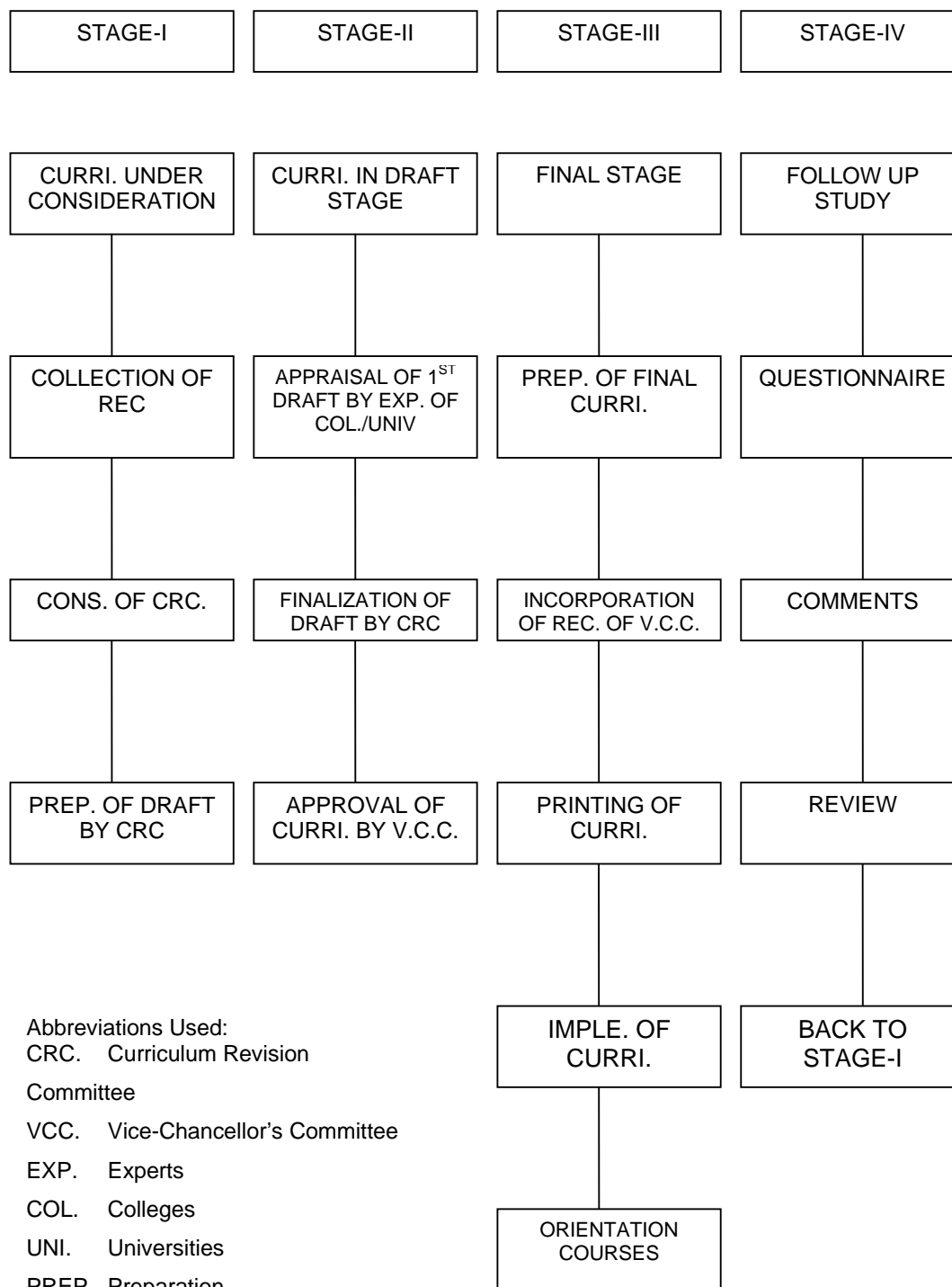
In exercise of the powers conferred by sub-section (1) of section 3 of the Federal Supervision of Curricula Textbooks and Maintenance of Standards of Education Act 1976, the Federal Government vide notification no. D773/76-JEA (Cur.), dated December 4, 1976, appointed University Grants Commission as the competent authority to look after the curriculum revision work beyond class XII at bachelor level and onwards to all degrees, certificates and diplomas awarded by degree colleges, universities and other institutions of higher education.

In pursuance of the above decisions and directives, the Higher Education Commission (HEC) is continually performing curriculum revision in collaboration with universities. According to the decision of the special meeting of Vice-Chancellors' Committee, curriculum of a subject must be reviewed after every 3 years. For the purpose, various committees are constituted at the national level comprising senior teachers nominated by universities. Teachers from local degree colleges and experts from user organizations, where required, are also included in these committees. The National Curriculum Revision Committee for **Archaeology** in its meeting held in June 26-28, 2006 at the HEC Regional Centre, Peshawar revised the curriculum after due consideration of the comments and suggestions received from universities and colleges where the subject under consideration is taught. The final draft prepared by the National Curriculum Revision Committee duly approved by the Competent Authority is being circulated for implementation by the institutions.

*Prof. Dr. Altaf Ali G. Shaikh*  
*Adviser (Acad/R&D)*

August 2006

# CURRICULUM DEVELOPMENT



Abbreviations Used:  
 CRC. Curriculum Revision Committee  
 VCC. Vice-Chancellor's Committee  
 EXP. Experts  
 COL. Colleges  
 UNI. Universities  
 PREP. Preparation  
 REC. Recommendations



# INTRODUCTION

Final Meeting of the National Curriculum Revision Committee of Archaeology was held on June 26-28, 2006, at the HEC Regional Centre, Peshawar, to finalise a draft curriculum for four-year integrated programme of study for Bachelor Degree and M.A/M.S and Ph.D. Degrees. The following attended:

1. Prof. Dr. Muhammad Farooq Swati  
Chairman,  
Department of Archaeology,  
University of Peshawar, Peshawar. Convenor
2. Prof. Dr. Taj Ali  
Department of Archaeology,  
University of Peshawar, Peshawar. Member
3. Prof. Dr. Ihsan Ali  
Vice Chancellor,  
Hazara University, Mansehra Member
4. Prof. Dr. Ghulam Mustafa Shar  
Department of Archaeology,  
Shah Abdul Latif University  
Khairpur (Sindh) Member
5. Dr. Farzand Masih  
Chairman, Department of Archaeology  
University of the Punjab,  
Lahore. Member
6. Dr. Muhammad Salim  
Associate Professor,  
Taxila Institute of Asian Civilizations  
Quaid-i Azam University, Islamabad. Member
7. Ms. Naushaba Anjum  
Keeper Coins, Lahore Museum,  
Sharae Quaid-i Azam, Lahore Member
8. Mr. Ibrahim Shah  
Lecturer, Department of Archaeology  
University of Peshawar, Peshawar Member/Secretary
9. Mr. Badshah Sardar  
Assistant Professor,  
Department of Pakistan Studies,  
Allama Iqbal Open University, Islamabad Member
10. Ms. Lubna Samreen  
Department of Archaeology  
University of Peshawar, Peshawar. Member

Starting the meeting with recitation from the Holy Qur'an, Mr. M. Tahir Ali Shah, Assistant Director (Curriculum) HEC, Islamabad, welcomed the participants on behalf of the Chairman, HEC. Mr. Farman Ullah Anjum, Director, HEC Regional Centre, Peshawar gave a brief on the aims and objectives of revising the curriculum and said that it was high time to bring higher education at par with internationally recognised standard. Consequent upon which switching over to four-year integrated programme of study at Bachelor and two-year M.A/M.S levels becomes inevitable. The main focus is the University campuses.

All the members unanimously chose Dr. M. Farooq Swati as Convenor and Mr. Ibrahim Shah as Secretary of the Committee. The Convenor said that apart from the Core Courses (Islamiyat, Pakistan Studies and English) where we have no choice, all major, supportive minor (elective) and optional courses should be revised in a way to fit into the new format provided by the HEC.

The Committee revised and divided courses for the above mentioned levels under the new programme. Valuable suggestions of individual participants were incorporated in the final draft accordingly.

The Convenor was pleased on the active participation of the members from most of the big Universities and the Lahore Museum. The Committee thanked the HEC for updating the syllabi of all courses, which was really the need of time.

The Committee passed the resolution that this is high time to give proper importance to Archaeology and to realise its importance both at the national and international levels. It is in fact the backbone of the economy of Pakistan and therefore needs proper consideration.

Mr. Farman Ullah Anjum, Director HEC Regional Centre, Peshawar concluded the meeting with the vote of thanks.

## Four Year Integrated Programme of Study for Bachelor Degree

### Semester Wise 4-Years Plan

<b>Semester- I</b>	<b>Cr. Hrs.</b>	<b>Semester- II</b>	<b>Cr. Hrs.</b>
English	3	English	3
Introduction to Archaeology-I	4(3+1)	Introduction to Archaeology-II	4(3+1)
Ancient History of South Asia-I	2	Ancient History of South Asia-II	2
General Mathematics	2(1+1)	Computer Application in Archaeology	2(1+1)
Elective – I*	3	Elective – I*	3
Elective – II*	3	Elective – II*	3
	<b>17</b>		<b>17</b>
<b>Semester- III</b>	<b>Cr. Hrs.</b>	<b>Semester- IV</b>	<b>Cr. Hrs.</b>
English	3	English (Communication Skills)	3
Introduction to Stone Age of Pakistan	4(3+1)	Introduction to Bronze Age of Pakistan	4(3+1)
Computer Techniques & Graphics	2(1+1)	Provincial Cultural Heritage	4(3+1)
Pakistan Studies	2	Islamic Studies/Ethics	2
Elective – I*	3	Elective – I*	3
Elective – II*	3	Elective – II*	3
	<b>17</b>		<b>19</b>
<b>Semester- V</b>	<b>Cr. Hrs.</b>	<b>Semester- VI</b>	<b>Cr. Hrs.</b>
Field Archaeology	3(2+1)	Management of Cultural Heritage	3(2+1)
Physical Anthropology	3(2+1)	Cultural Anthropology	3(2+1)
World Civilizations-I	3(2+1)	World Civilizations-II	3(2+1)
Ancient Art and Architecture	3(2+1)	Indus Civilization	3(2+1)
Tourism in Pakistan	3(2+1)	Ancient Religions	3(2+1)
Archaeological Conservation	3(2+1)	Research Methodology	2(1+1)
	<b>18</b>		<b>17</b>
<b>Semester – VII</b>	<b>Cr. Hrs.</b>	<b>Semester - VIII</b>	<b>Cr. Hrs.</b>
Palaeography and Epigraphy	3(2+1)	Internship with report writing and presentation in a Seminar.	6
Numismatics	3(2+1)		
Muslim Architecture of Pakistan and India	3(2+1)		
Calligraphy, Painting and Minor Arts & Crafts	3(2+1)	Research Project based on field study with Report writing and presentation in a Seminar.	6
Muslim History of Pakistan And India	3(2+1)		
	<b>15</b>		<b>12</b>

**Note:** Number of options that shall be offered during the course of study will depend upon availability of faculty and lab facilities. More groups can also be added depending on the availability of resources.

## **ELECTIVE/SUPPORTIVE MINOR COURSES**

**Note:** The level and details of Elective /Supportive Minor Courses should be determined by the concerned Board of Studies of each institution.

1. History of Ancient Religions
2. Application of GPS/GIS in Archaeology
3. Introduction to Palaeozoology
4. Introduction to Geology
5. Muslim History of Pakistan
6. Introduction to Anthropology
7. Introduction to Geography
8. Cultural and Natural Tourism
9. Conservation and Preservation of Cultural Property
10. Introduction to Ancient Indian Languages
11. Origin and Growth of Archaeology in South Asia
12. Research Methodology
13. Introduction to Palaeobotany
14. Introduction to Chemistry
15. Introduction to Environmental Sciences

## **LIST OF OPTIONAL COURSES**

- 411 Prehistory and Early Urbanisation in Pakistan and Border Lands
- 412 Palaeolithic Cultures of Pakistan with Reference to South and Central Asia
- 413 Prehistory and Civilisation of Mesopotamia
- 414 Indus Civilisation
  
- 421 Ancient History of Pakistan and India
- 422 Gandhara Civilisation
- 423 Ancient Religions of Pakistan and India
- 424 Muslim History of Pakistan and India
  
- 431 Provincial Archaeological Heritage and Museums in Pakistan
- 432 Quranic Archaeology
- 433 Archaeology of Afghanistan and Centre Asia
- 434 Theory and Science in Archaeology
  
- 441 Art and Architecture of Pakistan and India (Pre Muslim Period)
- 442 Early Muslim Architecture in the Middle East
- 443 Muslim Architecture of Pakistan and India
- 444 Colonial Architecture of Pakistan
  
- 451 Muslim Calligraphy, Painting, Minor Arts and Crafts
- 452 Traditional Arts and Crafts of Pakistan
- 453 Folk Heritage of Pakistan
  
- 461 Palaeography and Epigraphy of Pakistan and India
- 462 Numismatics of Pakistan and India
  
- 471 Research Methodology and Research Report

## Four Year Integrated Programme of Study for Bachelor Degree

- a. The students will join the four year (8 Semesters; 124-136 credits hours) Bachelor Degree Programme at the University campus after 12 years of schooling. Each semester will be spread over 16-18 weeks including the examination period.
- b. One credit hour will be equal to 50 minutes student-teacher contact per week for 15-16 weeks and for laboratory/practical work its duration will be 3 hours.
- c. Students who qualify at least fourteen years of education at other institutions if wish to join the integrated four year programme may be allowed to do so for the last two years of the programme provided they complete required make-up courses offered by the university.

### Semester – I

Course No.	Course Title	Cr. Hrs.
101	English	3
102	Introduction to Archaeology-I	4(3+1)
103	Ancient History of South Asia –I	2
104	General Mathematics	2(1+1)
105	Elective – I*	3
106	Elective – II*	3
	<b>Total Cr. Hrs.</b>	<b>17</b>

### Details of the Courses

**Course 101:**        **English** (Details to be obtained from approved curriculum)

**Course 102:**        **Introduction to Archaeology-I**

#### THEORY

- Definition and Terminology of archaeology
- Aims and objectives of archaeology
- Brief history and development of archaeology

#### PRACTICAL

- Visit to local sites and museums
- Systematic surface collection
- Photographic documentation of archaeological site
- Identification and drawing of artefacts

## RECOMMENDED READINGS

- Agrawal, D.P. Ghosh, A. (eds.), *Radiocarbon and Indian Archaeology*, Bombay, 1973.
- Aitkin, M.J. *Science-based Dating in Archaeology*, Longman, London, 1990.
- Bowman, S.G.E. *Radiocarbon Dating*, the British Museum publication, London, 1990.
- Fagan, B.M. *In the Beginning: An Introduction to Archaeology*, Harper Collins, 7<sup>th</sup> ed., 1991.
- Hole, F. and Heizer, R.F. *Prehistoric Archaeology: A Brief Introduction*, New York, 1977.
- Joukowsky, M. A. *Complete Manual of Field Archaeology, USA, 1980*.
- Renfrew, C. and Bahn, P. *Archaeology: Theories, Methods and Practice*, Thames and Hudson, London, 1991.
- Wheeler, R.E.M. *Archaeology from the Earth*, London, 1961.

## Course 103: Ancient History of South Asia – I

- Sources of ancient history
- Vedic Aryans: their social, political, economic and religious life
- Buddhism: life and teachings of the Buddha
- Jainism
- Hinduism
- Achaemenian rule in Pakistan
- Alexander's invasion of Pakistan
- Mauryan dynasty: administration of Chandragupta Maurya, Ashoka's contributions to Buddhism

## RECOMMENDED READINGS

- Abdur Rahman, *The Last two Dynasties of the Sahis*, Islamabad, 1979.
- Basham, A.L. *The Wonder that was India*, rpt. India, 1963.
- Dani, A.H. *The Historic City of Taxila*, Tokyo, 1986.
- Majumdar, R.C. *et.al. An Advanced History of India*, Part-I, Lahore, rep. 1980.
- Qureshi, I.H. (ed.), *A Short History of Pakistan*, Book One, Karachi, rep.1992.
- Smith V.A. *The Early History of India, from 600 BC to the Muhammad Conquest*, Oxford, 1967.
- Thapar, R. *A History of India*, vol. 1, Penguin Books, New York, 1979.
- Thapar, R. (ed.) *Recent Perspectives of Early Indian History*, Bombay 1995
- Abdur Rahman, 'New Light on the Khingala, Turk and the Hindu Sahis', *Ancient Pakistan*, Vol. XV, 2002, 37-42
- 'Ethnicity of the Hindu Shahis', *Journal of the Pakistan Historical Society*, Vol. LI, No.3, 2003, 3-10

**Course 104: General Mathematics** (Details to be obtained from approved curriculum)

**Course 105: Elective – I** (Details to be filled in by respective University)

**Course 106: Elective – II** (Details to be filled in by respective University)

## Semester – II

Course No.	Course Title	Cr. Hrs.
111	English	3
112	Introduction to Archaeology-II	4(3+1)
113	Ancient History of South Asia-II	2
114	Computer Application in Archaeology	2(1+1)
115	Elective – I*	3
116	Elective – II*	3
	<b>Total Cr. Hrs.</b>	<b>17</b>

### Details of the Courses

**Course 111: English** (Details to be obtained from approved curriculum)

#### **Course 112: Introduction to Archaeology – II**

- Relation of archaeology with History, Anthropology, Geography, Geology, Zoology, Botany, Physics and Chemistry
- Basic Concept of Archaeology: artefacts, stratigraphy, archaeological sites, settlement-pattern, context
- Survey in Archaeology
- Excavation techniques
- Chronology: artefacts, coins, inscriptions, C<sup>14</sup> dating, dendrochronology and correlation of artefacts

#### **PRACTICAL**

- Study of regional maps
- Location of sites/monuments on the maps
- Identification of key features of different periods

#### **RECOMMENDED READINGS**

Agrawal, D.P. Ghosh, A. (eds.), *Radiocarbon and Indian Archaeology*, Bombay, 1973.

Aitkin, M.J. *Science-based Dating in Archaeology*, Longman, London, 1990.

Bowman, S.G.E. *Radiocarbon Dating*, the British Museum publication, London, 1990.

Fagan, B.M. *In the Beginning: An Introduction to Archaeology*, Harper Collins, 7<sup>th</sup> ed., 1991.

Hole, F. and Heizer, R.F. *Prehistoric Archaeology: A Brief Introduction*, New York, 1977.

Joukowsky, M. A. *Complete Manual of Field Archaeology, USA*, 1980.

Renfrew, C. and Bahn, P. *Archaeology: Theories, Methods and Practice*, Thames and Hudson, London, 1991.

## **Course 113: Ancient History of South Asia - II**

- Indus-Greeks
- Scythians
- Parthians
- Kushanas: Achievements of Kanishka
- Gandhara Art
- Sasanians
- White Huns
- Odi Shahis (i.e. Hindu Shahis)

### **RECOMMENDED READINGS**

Abdur Rahman, *The Last two Dynasties of the Sahis*, Islamabad, 1979.  
Basham, A.L. *The Wonder that was India*, rpt. India, 1963.  
Majumdar, R.C. *et.al. An Advanced History of India*, Part-I, London, 1960.  
Qureshi, I.H. (ed.), *A Short History of Pakistan*, Book One, Karachi, 1967.  
Smith V.A. *The Early History of India, from 600 BC to the Muhammad Conquest*, Oxford, 1967.  
Thapar, R. *A History of India*, vol. 1, Penguin Books, New York, 1979.  
Abdur Rahman, 'New Light on the Khingala, Turk and the Hindu Sahis', *Ancient Pakistan*, Vol. XV, 2002, 37-42  
Abdur Rahman, 'Ethnicity of the Hindu Sahis', *Journal of the Pakistan Historical Society*, Vol. LI, No.3, 2003, pp. 3-10

**Course 114: Computer Application in Archaeology** (Details to be obtained from approved curriculum)

**Course 115: Elective – I** (Details to be filled in by respective University)

**Course 116: Elective – II** (Details to be filled in by respective University)

## Semester – III

Course No.	Course Title	Cr. Hrs.
201	English	3
202	Introduction to Stone Age of Pakistan	4(3+1)
203	Computer Techniques and Graphics	2(1+1)
204	Pakistan Studies	2
205	Elective – I*	3
206	Elective – II*	3
<b>Total Cr. Hrs.</b>		<b>17</b>

### Details of the Courses

**Course 201:**        **English** (Details to be obtained from approved curriculum)

**Course 202:**        **Introduction to Stone Age of Pakistan**

#### THEORY

- Palaeolithic (Lower, Middle and Late): Soan Valley, Sanghao Cave, Rohri Hills
- Mesolithic: Thar Desert, Khanpur Cave, Rohri Hills
- Neolithic: (Early Farming Communities of the NWFP, Baluchistan, the Punjab and Sindh): Mehrgarh, Jhandi Babar, Kili Gul Muhammad, Gumla, Sheri Khan Tarakai, Sarai Khola.

#### PRACTICAL

- General Map of the region indicating physical features
- Location of prehistoric sites and monuments on the map
- Identification of characteristic features of various sites/periods
- Visit to sites and monuments in the area

#### RECOMMENDED READINGS

Agrawal, D.P. *Archaeology of India*, Curzon Press Ltd., London, 1982.

Allchin, R & B. *The Rise of Civilisation in India and Pakistan*, UK, 1982.

Journals: *Pakistan Archaeology*; *Ancient Pakistan*; *Ancient Sindh*; *Frontier Archaeology*; *Lahore Museum Bulletin and Journal of Asian Civilisations* (relevant volumes).

Khan, F., Knox, J. R. & Thomas, K. D. *Explorations and Excavations in Bannu District of North West Frontier Province of Pakistan, 1985-1988*, London, 1991.

Paterson, T.T., and Drummond, H.J.H. *Soan the Palaeolithic of Pakistan*, Karachi, 1962.

Rendell, H. M., Dennell, R.W. & Halim, M. A. *Pleistocene and Palaeolithic Investigations in the Soan Valley, Northern Pakistan*, Oxford, 1989.

Salim, M., *The Middle Stone Age Cultures of Northern Pakistan*, Islamabad, 1986.

— The Palaeolithic Culture of Pothwar with Special reference to the Lower Palaeolithic, *Central Asian Studies*, Quaid-I-Azam University, Islamabad, 1997.

De Terra, H. and Paterson, T. T. *Studies on the Ice Age in India and Associated Human Cultures*, Washington, 1939

- Course 203:** **Computer Techniques and Graphics** (Details to be obtained from approved curriculum)
- Course 204:** **Pakistan Studies** (Details to be obtained from approved curriculum)
- Course 205:** **Elective – I** (Details to be filled in by respective University)
- Course 206:** **Elective – II** (Details to be filled in by respective University)

## Semester – IV

Course No.	Course Title	Cr. Hrs.
211	English (Communication Skills)	3
212	Introduction to Bronze Age of Pakistan	4(3+1)
213	Provincial Cultural Heritage	4(3+1)
214	Islamic Studies/Ethics	2
215	Elective – I*	3
216	Elective – II*	3
<b>Total Cr. Hrs.</b>		<b>19</b>

### Details of the Courses

**Course 211:** **English** (Details to be provided later)

**Course 212:** **Introduction to Bronze Age of Pakistan**

#### THEORY

- Indus Urbanisation (Early, Mature and Late Period): Mehrgarh, Jhandi Babar, Kot Diji, Rahman Dheri, Gandhi Umar Khan, Maru, Harappa, Mohenjo Daro
- Post Indus Period (Pirak, Jhukar, Jhangar, Cemetery-H).
- Gandhara Grave Sites in Swat, Dir, Chitral, the Peshawar valley and the emergence of Iron Age.

#### PRACTICAL

- General Map of the region indicating physical features
- Location of sites and monuments on the map
- Identification of characteristic features of various sites/periods
- Identification of architectural features of various periods
- Visit to historical sites and monuments in the area

#### RECOMMENDED READINGS

Agrawal, D.P. and Chakrabarti, D.K., eds., *Essays in Indian Protohistory*, Delhi, 1979.

Agrawal, D.P. *Archaeology of India*, Great Britain, 1985.

— *Kusumar: Pre-Historic Chronology and Radiocarbon*.

— *The Copper-Bronze Age in India*, Delhi, 1971.

Allchin, F.R. *Lewan and the Bannu Basin*, Oxford, 1986.

— *Neolithic Cattle-Keepers of South India*, Cambridge, 1963.

Allchin, R & B. *The Rise of Civilisation in India and Pakistan*, UK, 1982.

Asthana, S. *Pre-Harappan Cultures of India and the Borderlands*, New

- Delhi, 1985.
- Chakrabarti, D.K. *The External Trade of the Indus Civilisation*, Delhi, 1990.
- Dales, G.F. and Kenoyer, M. *Excavations at Mohenjodaro, Pakistan: the Pottery*, Pennsylvania, 1986.
- Dani, A.H. *Indus Civilisation—New Perspective*, Islamabad, 1981.
- Dani, A.H. *Recent Archaeological Discoveries in Pakistan*, Unesco, Tokyo, 1988.
- Journals: *Pakistan Archaeology; Ancient Pakistan; Ancient Sindh; Frontier Archaeology; Lahore Museum Bulletin and Journal of Asian Civilisations, South Asian Archaeology, East and West* (relevant volumes).
- Kenoyer, M. *Ancient Cities of the Indus Valley Civilization*, Oxford, 1998.
- Khan, F., Knox, J. R. & Thomas, K. D. *Explorations and Excavations in Bannu District of North West Frontier Province of Pakistan, 1985-1988*, London, 1991.
- Khan, F.A. *The Glory that was Harappa*, Karachi, n.d.
- *Preliminary Report on Kot Diji Excavations 1957-8*, Karachi, 1958.
- *The Indus Civilisation and Early Iran*, Karachi, 1964.
- *The Kot Diji Culture*, Khairpur University, 2002.
- Lal, B.B. and Gupta, SP. *Frontiers of the Indus Civilisation*, New Delhi, 1984.
- Lal, B.B. *The Earliest Civilisation of South Asia*, New Delhi, 1997.
- *Sarasvati Flows On*, Delhi.
- Mackay, E.J. *Further excavations at Moenjodaro, I* Delhi, 1938.
- *Early Indus Civilisation*, London, 1935.
- *Chanhudaroexcavation 1935-36*, New Haven, 1943
- Mughal, M. R. *Ancient Cholistan*, Lahore, 1998.
- Mughal, M. R. *Present Stage of Research on the Indus Valley Civilisation*, Karachi, 1973.
- Possehl, G., ed., *Ancient Cities of the Indus*, 1979.
- ed., *Harappan Civilization*, New Delhi, 1982.
- Rao, S.R. *Lothal and the Indus Civilisation*, Bombay, 1973.
- Sankalia, H.D. *Prehistory and Protohistory of India and Pakistan*, Poona, 1974.
- Settar, S and Korisettar, R. *Indian Archaeology in Retrospective: Protohistoric Archaeology of the Harappan Civilisation*, Vol. II, New Delhi, 2002.
- Shaffer, J. *Prehistoric Baluchistan*, New Delhi, 1979.
- Urban, G and M. Jansen, (eds.), *Forgotten cities on the Indus*, Germany, 1991.
- Wheeler, S.M. *Civilisations of the Indus and Beyond*, London, 1966.
- *The Indus Civilisation*, Cambridge, 1968.

- Course 213:** **Provincial Cultural Heritage** (To be filled by respective Universities)
- Course 214:** **Islamic Studies/Ethics** (Details to be obtained from approved curriculum)
- Course 215:** **Elective – I** (Details to be filled in by respective University)
- Course 216:** **Elective – II** (Details to be filled in by respective University)

## Semester – V

Course No.	Course Title	Cr. Hrs.
301	Field Archaeology	3(2+1)
302	Physical Anthropology	3(2+1)
303	World Civilizations-I	3(2+1)
304	Ancient Art and Architecture	3(2+1)
305	Archaeological Conservations	3(2+1)
306	Tourism in Pakistan	3(2+1)
	<b>Total Cr. Hrs.</b>	<b>18</b>

### Details of the Courses

#### Course 301: **Field Archaeology**

##### PAPER-A: FIELD ARCHAEOLOGY

##### THEORY

#### 1. Introduction

- Concept, definition and scope of Archaeology
- The New Archaeology
- History of archaeological research in South Asia to the present
- The role of Archaeology in national development
- Qualification of an archaeologist
- Archaeology and Anthropology
- Archaeology and History
- Archaeology and Social Sciences
- Archaeology and Natural Sciences
- Archaeology as a scientific discipline

#### 2. Time

- The “Three age system”
- Relative and absolute chronology
- Stratigraphy and law of superimposition
- Pleistocene geochronology
- Pollen analysis
- Varve analysis
- Ordering of artefacts
- Cross-dating with objects of known age
- Dendrochronology
- Thermoluminescence dating
- Radiocarbon dating
- Potassium-Argon dating
- Obsidian-hydration dating
- Fission-track method
- Archaeomagnetic dating

#### 3. Discovery

- How the ancient sites got buried
- Avenues leading to the discovery of a site
- Chance finds

- Aerial reconnaissance: satellite imagery, aerial photography

#### **4. Survey**

- Geographical Information System (GIS)
- Global Positioning System (GPS)
- Map reading
- Interpretation of aerial photographs
- Photogrammetry
- Survey at ground level
- Chain survey
- Contour map
- Use of compass and theodolite
- Electron Distance Measurer (EDM) /Total Station
- Electrical resistivity survey
- Proton magnetometer
- Sound-wave survey

#### **5. Excavation**

- Organisation of an archaeological excavation
- Excavation tools
- Lay-out of an excavation
- Excavation methods: sondages, grid-strip, quadrant, etc.
- Types of Excavation: vertical, horizontal, rescue, etc.
- Sampling
- Trial trench
- Demarcation of layers
- Sample collection: soil, pollen, wood, charcoal, bones, etc.

#### **6. Excavation Problems**

- Open hunting camps
- Caves and rock-shelters
- Villages and towns
- Religious buildings: monastery, Hindu temple, mosque, etc.
- Stupa
- Burials
- Mud-brick structures
- Wooden structures
- Pit excavation

### **PAPER-B: FIELD ARCHAEOLOGY**

#### **THEORY**

In this course the student will be explained about various field techniques involved in the field Archaeology, inferences and interpretation of Archaeological data, explanations in Archaeology, reconstruction of environment, ecological systems and subsistence patterns. The student will be required to participate in the field training.

#### **1. Recording**

- Three dimensional measurements
- Graph plotting

- Record card
  - Computer recording
  - Field diary
  - Archaeological photography
  - Archaeological drawing
2. **Pottery-yard**
    - Layout of pottery-yard
    - Washing/cleaning and registration
    - Classification
    - Typology
    - Pottery tabulation
    - Pottery distribution map
    - Frequency chart
  3. **Registration, Cataloguing and Publication**
    - Antiquity registers
    - Registration and cataloguing of antiquities
    - Antiquity distribution map
  4. **Reconstruction of Environment and Subsistence Patterns**
    - Reconstructing ancient environments
    - Palynology
    - Subsistence patterns
    - Animal bones
    - Vegetal remains
    - Agriculture
    - Domestic and wild animals
    - Birds, fish, and molluscs
    - Rock art
    - Prehistoric diet
    - Trade
  5. **Ordering and Interpretation**
    - Seriation
    - Typology
    - Ethnographic analogy and comparative method
    - Probability theory, statistical techniques
    - Culture change: invention, migration and diffusion
  6. **Computer Application in the Analysis of Archaeological Data**
  7. **Report Writing**

#### **PRACTICAL**

- Pre-excavation exploration
- Archaeological surveying
- Use of survey equipment
- Site documentation: photographic, linear, visual
- Pre-excavation planning
- Excavation and documentation of archaeological features

- Three dimensional documentation of structures, artefacts, sections
- Handling, classification and tabulation of pottery in pottery-yard
- Application of basic conservation techniques to artefacts in the field
- Maintenance of field diaries
- Artefact drawing
- Use of computer-based techniques for seriation, cluster-analysis

## RECOMMENDED READINGS

Alexander, J. *The Directing of Archaeological Excavations*, London, New York, 1970.

Atkinson, R.J.C. *Field Archaeology*, 2<sup>nd</sup> ed., London, 1953.

Barker, P. *The Technique of Archaeological Excavation*, London, 1983.

Binford L.R. and Binford S.R., eds., *New Perspective in Archaeology*, Chicago, 1968.

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Butzer, K.W. *Environment and Archaeology: An Introduction to Pleistocene Geography*, 2<sup>nd</sup> ed., Chicago, 1971.

Clarke, D.L. *Analytical Archaeology*, 2<sup>nd</sup> ed., London, 1978.

— ed., *Models in Archaeology*, London, 1972.

Coles, J.M. *Archaeology by Experiment*, London, 1973.

— *Field Archaeology in Britain*, London, 1977.

Daniel, G.E. *150 Years of Archaeology*, Cambridge, 1976.

— *The Origins and Growth of Archaeology*, London, 1967.

Deetz, J. *Invitation to Archaeology*, New York, 1967.

Doran, J.E. & Hodson, F.R. *Mathematics and Computers in Archaeology*, Edinburgh University Press, 1975.

Fagan, B.M. *In the Beginning: An Introduction to Archaeology*, Harper Collins, 7<sup>th</sup> ed., 1991.

Fleming, S. *Dating in Archaeology*, London, 1977.

Harris, E.C. *Principles of Archaeological Stratigraphy*, 2<sup>nd</sup> ed., London, 1989.

Hodder, I. And Orton, C. *Spatial Analysis in Archaeology*, Cambridge, 1976.

Hole, F. and Heizer, R.F. *An Introduction to Prehistoric Archaeology*, 3rd ed., New York, 1973.

Joukowsky, M. *A Complete Manual of Field Archaeology*, Englewood Cliffs, USA, 1981.

Parkes, P.A. *Current Scientific Techniques in Archaeology*, London, 1986.

Renfrew, C. and Bahn, P. *Archaeology: Theories, Methods and Practices*, London, 1991.

## Course 302: **Physical Anthropology**

### Theory

#### 1. Introduction

- Concept, definition, main features and scope of Anthropology
- Main divisions of Anthropology: physical, cultural and social
- Relation of Anthropology with biological and social sciences

- Application of Anthropology in today's world
2. **Life on the Earth**
    - Life on earth
    - Animal-kingdom
    - Mammals, characteristic features of mammals
    - Primate group, behaviour of primate group
    - Apes, characteristic features of apes
  3. **Evolution Theories**
    - Religious theories
    - Scientific theories
  4. **Early Ancestors of Man**
    - Ramapithecus
    - Bipedalism
    - Early hominid foot prints
  5. **Australopithecines**
    - Australopithecus Afarensis
    - Australopithecus Africanus
    - Australopithecus Robustus
    - Australopithecus Boisei
    - Zinjanthropus
  6. **Homo**
    - Homo Habilis
    - Homo Erectus: Pithecanthropus, Sinanthropus
  7. **Neanderthalman**
  8. **Homo Sapien** (Modern man)

#### RECOMMENDED READINGS

- Barnouw, V. *An Introduction to Anthropology*, (2 vols.), vol. 2, Ontario, 1971.
- Beals, R.L. and Hoijer, H. *Anthropology Introduction to Anthropology*, 4<sup>th</sup> ed., New York, 1972.
- Farb, P. *Humankind: A History of the Development of Man*, London, 1978.
- Gowlett, J.W. *Ascent to Civilisation*, London, 1984.
- Hoebel, E.A. *Anthropology: The Study of Man*
- Jacobs and Stern. *General Anthropology-A Brief Survey of Physical, Cultural and Social Anthropology*
- Kottak, C.P. *Cultural Anthropology*, New York, 1975.
- Leakey, L.S.B. *Olduvai Gorge: 1951-61: A Preliminary report on the Geology and Fauna*, vol. 1, Cambridge, 1964.
- Oakley, K.P. *Framework for Dating Fossil Man*, London, 1964.
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- Leakey, R. E., Leakey, M. G. and Walker, A. C. 1988 'Morphology of *Afropithecus Turkanaensis* from Kenya', *Nature* 76: 289-307
- Pilbeam, D. (1982) 'New hominoid skull material from the Miocene of

Pakistan', *Nature*: 295: 232-234

Pilbeam, D., Rose, M. D., Barry, J. C., and Shah, S. M. I. (1990) 'New Sivapithecus humeri from Pakistan and the relationship of Sivapithecus and Pongo', *Nature* 348: 237-239

Pilbeam, D. (1996) 'Genetic and Morphological Records of the Hominoidea and Hominid Origins: A Synthesis', *Molecular Phylogenetics and Evolution*, Vol. 5, No. 1, February, 155-168

## **Course 303: World Civilizations- I**

### **THEORY**

#### **1. Concept of Civilisation**

- Concept of culture and civilisation
- Elements of civilisation
- Basic conditions of civilisation

#### **2. Mesopotamian Civilisation**

- Environmental background
- Chronology (3500–600 BC)
- Socio-political set-up of the Sumerians, Akkadians, Babylonians, Assyrians and Chaldeans
- Various aspects of civilisation: art, architecture, writing, seals, religion and economy

#### **3. Egyptian Civilisation**

- Egypt geophysical history and its impact on local cultures
- Art and architecture
- Religion
- Writing system
- Contribution in literature, science, philosophy, medicine

#### **4. Chinese Civilisation**

- Shang Dynasty
- Chou Dynasty
- Chen Dynasty
- Han Dynasty
- Art and architecture
- Contributions in philosophy

### **PRACTICAL**

- Study of regional maps showing physical features of each region
- Identification of key elements of the arts of different periods
- Study of different architectural styles of various periods

### **RECOMMENDED READINGS**

Durant, W. *Our Oriental Heritage*, New York, 1954.

Ralph and Burns, *World Civilization*, New York, 1974.

Roaf, M. *Cultural Atlas of Mesopotamia and the Ancient Near East*

Smith, W.S. *The Art and Architecture of Ancient Egypt*, London, 1958.

Watson, W. *Early Civilisation of China*, London, 1966.

## Course 304: Art and Architecture

This course will review art and architectural traditions of Pakistan and India of Pre-Islamic period. It requires visits to archaeological sites and museums. The course-contents are as follow:

### 1. Architecture

- Vedic Period architectural traditions
- Mauryan architecture
- Buddhist architecture: stupa, monastery, rock-cut sanctuaries, etc.
- Hindu architecture: Temple
- Gupta Architecture

### 2. Art

- Mauryan art
- Shunga art
- Early Andhra art
- Later Andhra art
- Mathura art (Kushana Period)
- Gandhara art (Kushana Period)
- Origin of the Buddha image
- Gupta art
- Ajanta cave paintings
- Iconography of Hindu Triad
- Rock Art of Pakistan

### RECOMMENDED READINGS

Bhattacharyya, B. *The Indian Buddhist Iconography*, Calcutta, 1963.

Blurton, T.R. *Hindu Art*, London, 1992.

Brown, P. *Indian Architecture—Buddhist and Hindu Periods*, 3<sup>rd</sup> ed., rev. and enl., Bombay, 1956.

Dani, A.H. *Gandhara Art of Pakistan*, Peshawar, 1968.

Foucher, A. *The Beginnings of Buddhist Art*, London, 1914.

Grunwedel, A. *Buddhist Art in India*, New Delhi, 1901, rev. & enl. Burgess, J., 1985.

Harle, J.C. *The Art and Architecture of the Indian Subcontinent*, London, 1986.

▽ *Gupta Sculptures*, London, 1974.

Harvey, P. *An Introduction to Buddhism—Teachings, History and Practices*, Cambridge, rpt. 1991.

Huntington, S.L. and Huntington, J.C. *The Art of Ancient India—Buddhist, Hindu, Jain*, New York, Tokyo, 1985.

Ingholt, H. *Gandhara Art in Pakistan*, New York, 1957.

Knox, J.R. *Amaravati, Buddhist Sculpture from the Great Stupa*, British Museum, 1992.

Marshall, J. *Taxila*, Cambridge, 1951.

▽ *The Buddhist Art of Gandhara*, Cambridge 1960.

Nasim Khan, M., *Buddhist Paintings in Gandhara*, Peshawar, 2000.

— Rock Carvings at Kinro-Kor: A Prehistoric Site of the Northern Areas

of Pakistan, *Lahore Museum Bulletin*, 2001, pp.  
 Nehru. L. *Origin of Gandharan Style—A Study of Contributory Influences*, Delhi, 1989.  
 Pandey, C.B. *Mauryan Art*, Delhi, 1982.  
 Rowland, B. *Art and Architecture of India—Buddhist, Hindu, Jain*, London, 1953.  
 ▽ *The Wall Paintings of India, Central Asia and Ceylon*, Bostan, 1938.  
 Singh, M. *The Cave Paintings of Ajanta*, London, 1965.  
 Swati, M.F. Special Features of the Buddhist Art in the Swat Valley, *Athariyyat (Archaeology)*, vol. 1, Peshawar, 1997, pp. 1-60.  
 — Gandhara and the Exploration of Gandhara Art of Pakistan, *Athariyyat (Archaeology)*, vol. 1, Peshawar, 1997, pp. 77-95.  
 Yazdani, G. et al, *Ajanta*, Parts I-IV, Oxford, 1930-1955.  
 Zwalf, W. *A Catalogue of the Gandhara Sculpture in the British Museum* (2 vols.), (Vol. I: Text; Vol. II: Plates), London, 1996  
 Masih, F. *Temples of the Salt Range and North and South Kafirkot: A Detailed Analysis of Their Architecture and Decoration* (Ph. D. Thesis, Unpublished), Department of Archaeology, University of Peshawar, 2000  
 Agrawala, R. C. ed. *Interaction Between Brahmanical and Buddhist Art*, New Delhi, 2004

Relevant volumes of the following journals

*Archaeological Survey of India, Annual Report*  
*Ancient Pakistan*, Department of Archaeology, University of Peshawar.  
*Athariyyat (Archaeology)*, vol. 1, Peshawar, 1997.  
*East and West*  
*Journal of the Asiatic Society of Bengal*  
*Journal of Central Asia* (now *Journal of Asian Civilisations*), Islamabad.  
*Journal of the Royal Asiatic Society, London*  
*Lahore Museum Bulletin*, Lahore.  
*Pakistan Archaeology*, Department of Archaeology and Museums, Government of Pakistan.  
*Silk Road Art and Archaeology*  
*South Asian Archaeology*  
*South Asian Studies*

## **Course 305: Archaeological Conservation**

### **THEORY**

#### **ARTEFACTS**

##### **1. Introducing Archaeological Conservation**

- The processes of conservation
- Pre-excavation considerations
- Field laboratory
- First-aid treatment to archaeological objects
- Environmental control of excavated artefacts
- Different types of material used for the conservation and restoration of archaeological artefacts
- Conservation in practice: a collaborative exercise

## **2. Simple Chemistry: Definition of Basic Terms**

- Acid, Base, Alkali, pH
- Humidity: relative humidity, micro-organisms
- Temperature
- Light and its units
- Conductivity
- Atmospheric pollution

## **3. Agents of Deterioration and Preservation**

- Introduction
- Organisms/Micro-organisms
- Animals and plants
- Archaeological environments
- Agents of decay
- Water, Oxygen, acidity and alkalinity, redox potential, salts
- Temperature
- Conditions in archaeological environments for preservation

## **4. General Techniques of Conservation**

- Siliceous and related materials
- Metals
- Organic materials
- Preservation of archival materials: paper conservation

## **BUILT HERITAGE**

### **5. Fundamentals of Conservation of Built Heritage**

- Preservation of built-heritage
- Restoration of built-heritage

### **6. The Importance of Buildings & works of Historic value**

- Ancient monuments, building areas and works
- Monuments, building areas and works of historic significance still in use

### **7. Major Documentary Studies**

- Photographic documentation
- Maps and plans

### **8. Material Analysis**

- Chemical analysis of material used
- The study of degradation and deterioration by biological and environmental factors

### **9. Organisation and Administration in Conservation and Restoration**

### **10. Conservation Methods**

- Stone
- Brick masonry
- Wood
- Mud

## **PRACTICAL**

- Application of first-aid techniques to excavated artefacts in the field

- Conservation and restoration of pottery, coins, metals, paper and textiles
- Study, identification and analysis of various constructional materials
- Various applications of constructional materials
- Identification and analysis of various processes of environmental degradation on built-heritage

## RECOMMENDED READINGS

Agrawal, O.P. Conservation in South and South-East Asia, *Museum*, vol. 27, No. 4, Paris, 1975.

— *Care and Preservation of Museum Objects*, National Research Laboratory for Conservation of Cultural Property, Lucknow, 1977.

Cronyn, J.M. *Elements of Archaeological Conservation*, London, 1989.

Dowman, E.A. *Conservation in Field Archaeology*, London, 1970.

Hodges, H., ed., *In Situ Archaeological Conservation*, Santa Maria, 1987.

Newton, R. and Davidson, S. *Conservation of Glass*,

Smith, C.W. *Archaeological Conservation Using Polymers: Practical Applications for Organic Artifact Stabilization*, Texas, 2003.

Thomson, G. *The Museum Environment: Conservation in the Arts, Archaeology and Architecture Series*, London, 1978.

Timar, K.H. *Chemical Principles of Textile Conservation*,

UNESCO, *Master Plan for the Preservation of Mohenjo Daro*, 1972.

*Save Our Common Heritage*, 1982.

*Handbook of Museum Conservation*.

*The Conservation of Cultural Property, with Special Reference to Tropical Conditions*, Paris, 1968.

Wasim Ahmad, 'Requirements for the Preservation of Manuscripts And Rare Collection In Museum Libraries & Archives', *Lahore Museum Bulletin*, Vol. 1 No.1, Lahore, 1988, pp. 79-84.

----- 'Paper Testing And Dating', *Lahore Museum Bulletin*, Vol. I, No 2, Lahore, 1988, pp. 147-54.

----- 'Atmospheric Effects On Archaeological Material In Museum', *Lahore Museum Bulletin*, Vol. II, No.1, Lahore, 1989, pp. 63-68.

----- 'On The Spot Treatment Of Archaeological Objects', *Lahore Museum Bulletin*, Vol. II, No. 2, Lahore, 1989, pp. 83-88.

----- 'Conservation Of Painted Wooden Doors And Carved Wooden screen in Lahore Museum', *Lahore Museum Bulletin*, Vol. III, No 1, Lahore, 1990, pp. 85-90

----- 'Conservation And Repair Of Three Burmees UMBERELLAS', *Lahore Museum Bulletin*, Vol III, No. 2, Lahore, 1990, pp. 94-104.

----- 'Restoration Of Bronze Cooking Pot From Moenjo Daro', *Lahore Museum Bulletin*, Vol IV, No.1, Lahore, 1991, pp. 81-4

----- 'Repair And Restoration Of Rare Manuscript Miratul Quds Of Akbar's Period In Lahore Museum', *Lahore Museum Bulletin*, Vol. IV, No 2, Lahore, 1991, pp.111-116.

----- 'Preservation And Conservation Of Library Material', *Lahore Museum Bulletin*, Vol. V, No. 1, Lahore, 1992, pp.115-120.

----- 'Effects Of Atmospheric Pollution On Antiquities', *Lahore Museum Bulletin*, Vol. V, No. 2, Lahore, 1992, pp. 97-102.

## Course 306: **Tourism in Pakistan**

### THEORY

#### 1. **Tourism**

- Introduction, definition, types and scope of tourism
- Related industries, origin and destination, basic infrastructure
- Planning, marketing and execution strategies
- Qualities and qualification of a tour manager, ethics of tourism
- Maps and tourist literature

#### 2. **Cultural Tourism**

- Significance and scope of cultural tourism
- Geography and geo-physical features of Pakistan
- Eco-tourism

#### 3. **Prehistoric Sites**

- Major cultural parameters of the Soan Valley, Rohri Hills, Sanghao Cave, Mehrgarh, Kot Diji, Mohenjodaro and Harappa

#### 4. **Pre-Muslim Sites and Monuments**

- Major cultural parameters of Taxila, Peshawar, Swat, Dir, Chitral, Takht-i-Bahi, Jamalgarhi, Shahbazgarhi, Salt Range, Rock Art of Northern Areas, and Jain Temples of Tharparkar

#### 5. **Muslim Period Sites and Monuments**

- Major cultural parameters of Banbhore, Mansura, Multan, Odi Gram, Lahore, Uchh Sharif, Rohtas Fort, Thatta, Lal Mara Sharif, Choukandi, Tombs of Baluchistan, Attock and Peshawar Forts.

### PRACTICAL

- Planning and execution of a cultural tourism itinerary

### RECOMMENDED READINGS

Journals: *Ancient Pakistan; Ancient Sindh; Pakistan Archaeology, South Asian Archaeology* (relevant volumes)

Khan, F.A. *Architecture and Art treasures in Pakistan*

— *Banbhore*, Karachi, 4<sup>th</sup> ed., 1976.

Marshall, J. *A Guide to Taxila*, Karachi, rpt. 1960.

— *The Buddhist Art of Gandhara*, Cambridge, 1960.

Siddiqi, M.I. *Wadei Sindh ki Tehzib* (Urdu), Karachi, 1959.

Wheeler, R.E.M. *Five Thousand Years of Pakistan*, London, 1950, rpt. 1992.

Khan M. Ishtiaq, *World Heritage Sites in Pakistan*, Islamabad, 2000.

\_\_\_\_\_, *Lahore Fort*, Department of Archaeology, Karachi, n.d

\_\_\_\_\_, *Shalamar: The Glory that Was*, Department of Archaeology, Karachi, n.d.

Khan M. Waliullah, *Lahore and its Important Monuments*, Karachi 1961

Dani, A. H. *Thatta: Islamic Architecture*, Islamabad, 1982  
 \_\_\_\_\_, *Human Records on the Karakurram Highway*, Islamabad, 1983  
 \_\_\_\_\_, *History of Northern Areas of Pakistan*, Lahore, 2001  
 \_\_\_\_\_, *Chilas the City of Nangaparvat (Dyamar)*, Islamabad, 1983  
 \_\_\_\_\_, *The Historic City of Taxila, UNESCO, and Centre for East Asian Cultural Studies*, Tokyo, 1986  
 \_\_\_\_\_, ed. *Indus Civilization: New Perspectives*, Islamabad, 1981  
 Marshall, S. J. *A Guide to Taxila*, Cambridge, 1960  
 Nadiem I. H. *Rohtas A Formidable Fort of Sher Shah*, Sang-e-Meel Lahore, n.d.  
 Sardar, B. *Buddhist Rock Carvings in the Swat Valley*, Islamabad, 2005  
 Zwalf, S. *The Shrines of Gandhara*, London, 1979

## Semester – VI

Course No.	Course Title	Cr. Hrs.
311	Management of Cultural Heritage	3(2+1)
312	Cultural Anthropology	3(2+1)
313	World Civilizations-II	3(2+1)
314	Indus Civilization	3(2+1)
315	Ancient Religions of Pakistan and India	3(2+1)
316	Research Methodology	2(1+1)
	<b>Total Cr. Hrs.</b>	<b>17</b>

### Detail of the Courses

#### Course 311: **Management of Cultural Heritage**

##### THEORY

##### 1. **Cultural Heritage**

- Definitions of UNESCO, ICOM, ICCROM, etc.

##### 2. **Museum and Its Function**

- Definition and its scope
- Functions: collection, recording, preservation, exhibition and education
- Different types of museums
- History of Museology in Pakistan
- Problems and prospects of museums in Pakistan

##### 3. **Museum Administration**

- General organisation
- Staff and their functions: Curator, technical, public-relation, educational, clerical, security, and contingent
- Collections: Primary documentation, study, research, storage and display

##### 4. **Documentation**

- Record keeping: Registers/Computer punch cards

- Temporary accession
- Permanent accession
- Record of storage
- Gallery record

## 5. Care and Storage of Museum Objects

- Objects on display
- Objects in stores
- Storage conditions
- Accessibility
- Record of movement of museum exhibits & reserve
- Care against theft, dampness, dust, temperature, and light
- Care and repair of museum objects

## 6. Museum Architecture

- Requirement of museum building
- Plan for a museum
- Storage facilities
- Display galleries
- Service facilities: Library, photography, offices, workshops, Laboratories, etc.
- Public facilities: Cafeteria, gift-shop, lavatories

## 7. Museum Exhibition

- Permanent exhibition
- Planning and setting up an exhibition
- Showcase designing
- Labels
- Lighting
- Background of exhibits
- Mounting objects
- Temporary exhibition
- Travelling exhibition

## 8. Museum Education Research Programme

- Educational programme of a museum: Lectures, seminars, film-shows and cultural-shows.
- Research and publications
- Research facilities in a museum
- Museum library

### PRACTICAL

- Two weeks internship in the local museum learning temporary and permanent museum display, lighting, labelling, humidity and environmental control, security of artefacts, accession and cataloguing of museum exhibits and museum education service

### RECOMMENDED READINGS

Burn, N.J. *Field Manual for Museums*, Washington D.C., n.d.

Dani, A.H. *A Survey of Museums and Archaeology in Pakistan*, Peshawar,

1970.

Dar, S.R. *Archaeology and Museums in Pakistan*, Lahore, 1977.

— *Museology and Museum Problems in Pakistan*, Lahore 1980.

— *Repositories of our Cultural Heritage: A Handbook of Museums in Pakistan*, Lahore, 1979.

Journals: UNESCO, *The Organisation of Museums*; *Museums Association of Pakistan*; *Canadian Museums Association*; *Studies in Conservation*; *International Council of Museums*; *Journal of the American Group for Conservation*; *Technology and Conservation*.

Shakoor, M.A. *Museum Studies and Archaeology*, Peshawar, 1953.

Singh, A.P. *Conservation and Museum Techniques*

Thomson, G. *The Museum Environment: Conservation in the Arts, Archaeology and Architecture Series*, London, 1978.

UNESCO, *Handbook of Museum Conservation*.

## **Course 312: Cultural Anthropology**

### **THEORY**

#### **1. Introduction**

- Concept, definition and scope of Prehistory
- Effects of physical environment on the growth of cultures
- Geological strata and interpretation of associated finds
- Chronological periods in the history of the earth.
- Pleistocene chronology
- Principal features of the Pleistocene and Holocene Periods

#### **2. Concept of Culture**

- Man, culture and society
- The evolution of culture
- Culture is learned
- The concept and method of cultural ecology
- Culture and language
- Culture and personality

#### **3. Lower Palaeolithic Culture**

- Characteristic features
- Cultures of Lower Palaeolithic Period
- Principal tool-types, their manufacturing techniques and probable functions

#### **4. Middle Palaeolithic Culture**

- Characteristic features
- Cultures of Middle Palaeolithic Period
- Principal tool-types, their manufacturing techniques, and probable functions
- Intellectual developments: art and religion

#### **5. Upper Palaeolithic Culture**

- Characteristic features
- Cultures of Upper Palaeolithic Period

- Principal tool-types, their manufacturing techniques and probable functions
- Intellectual developments: art and religion

## 6. Mesolithic Culture

- Characteristic features
- Cultures of Mesolithic Period
- Principal tool types, their manufacturing techniques and probable functions
- Intellectual developments: art and religion

## 7. Neolithic Revolution

- Domestication of plants and animals
- Evolution of stone-tool technology
- Introduction of ceramics
- Evolution of permanent settlements
- Evolution of related arts and crafts
- Early Neolithic Cultures

## RECOMMENDED READINGS

Agrawal, D. P. *The Archaeology of India*, Scandinavian Institute of Asian Studies, Monograph No.46, London, 1985.

Allchin, B. and R. *Lewan and the Bannu Basin: Excavations and Survey of Sites in North West Pakistan*, Great Britain, 1986.

Braidwood, R.J. *Prehistoric Man*, Chicago, 1975.

Clark, G. and Piggot, S. *Prehistoric Societies*, London, 1968.

Clark, G. *The Stone Age Hunters*, London, 1975.

— *World Prehistory in New Perspective*, 2<sup>nd</sup> ed., Cambridge, 1977.

Clark, J.D. *The Prehistory of Southern Africa*, Great Britain, 1959.

Dales, G.F. A Review of the Chronology of Afghanistan, Baluchistan and the Indus Valley, In: *AJA* 72/4:305-307, 1968.

De Terra, H. and Paterson, T.T. *Studies on the Ice Age in India and Associated Human Cultures*, Washington, 1939.

Dennell, R.W. *Pakistan Prehistory: A Glimpse at the First Two Million Years*, Cambridge, 1991.

Durrani, F.A. Rahman Dheri and the Birth of Civilisation in Pakistan, *Bulletin of the Institute of Archaeology*, 18:191-207. London, 1981.

— Some Early Harappan Sites in Gomal and Bannu Villages, in Gupta, S.P. Lal, B.B. eds. *Frontiers of Indus Civilisation*, 1984: 505-510.

Jarrige, J.F. Excavations at Mehrgarh, Pakistan in *South Asian Archaeology*, 1975: 76-87. Leiden. 1979.

---- Excavations at Mehrgarh: Their Significance for Understanding the Background of the Harappan Civilization, in Possehl, G., ed., 1982: 79-84.

Journals: *Pakistan Archaeology*; *Ancient Pakistan*; *Ancient Sindh*; *Journal of Central Asia* later named as *Journal of Asian Civilisations* (relevant volumes).

Leakey, L.S.B. *Olduvai Gorge: 1951-61: A Preliminary report on the Geology and Fauna*, vol. 1, Cambridge, 1964.

Masson, V.M. Sarianidi, V.I. *Central Asia*, London 1972.

Meadow, R. A Chronology for the Indo-Iranian Borderlands and

- Baluchistan: 4000-2000 B.C. in Agrawal, D.P. and Ghosh, A., eds, 1973: 190ff.
- Oakley, K.P. *Framework for Dating Fossil Man*, London, 1964.
- *Man the Toolmaker*, 3<sup>rd</sup> ed., 1956.
- Paterson, T.T. and Drummond, J.H.J: *Soan the Palaeolithic of Pakistan*, Karachi, 1962
- Quivron, G. Lechevallier, M. The Neolithic in Baluchistan: New Evidence from Mehrgarh, *South Asian Archaeology 1979*, Berlin, 1981, pp. 71-92.
- Rendell, H.M., Dannel, R.W. and Halim, M.A. *Pleistocene and Palaeolithic Investigations in the Soan Valley, Northern Pakistan*, ed. Allchin, F.R., Allchin, B. BAR International Series 544, Oxford, 1989.
- Salim, M. *The Middle Stone Age Cultures of Northern Pakistan*, Islamabad, 1986.
- Salim, M. The Palaeolithic Cultures of Potwar with Special Reference to the Lower Palaeolithic, *Central Asian Studies*, Quaid-e-Azam University, Islamabad, 1997.
- Sankalia, H.D. *Stone Age Tools, Their Techniques, Names and Probable Functions*, Poona, 1964.
- ed., *The Prehistory and Protohistory of India and Pakistan*, Bombay, 1962.
- Shaffer, J.: Prehistoric Baluchistan, new Delhi. 1978.
- Sharma, G.R. and Clark, J.D. Palaeoenvironment and Prehistory in the Middle Son Valley, India, 1983.
- Tosi, M. The Proto-Urban Cultures of Eastern Iran and the Indus Civilization: Notes and Suggestions for a Spatio-Temporal Frame to Study the Early Relations between India and Iran, *South Asian Archaeology 1977*, Naples, pp. 149-172.
- Leakey, R. E., Leakey, M. G. and Walker, A. C. 1988 'Morphology of *Afropithecus Turkensis* from Kenya', *Nature* 76: 289-307
- Pilbeam, D. (1982) 'New hominoid skull material from the Miocene of Pakistan', *Nature*: 295: 232-234
- Pilbeam, D., Rose, M. D., Barry, J. C., and Shah, S. M. I. (1990) 'New *Sivapithecus humeri* from Pakistan and the relationship of *Sivapithecus* and *Pongo*', *Nature* 348: 237-239
- Pilbeam, D. (1996) 'Genetic and Morphological Records of the Hominoidea and Hominid Origins: A Synthesis', *Molecular Phylogenetics and Evolution*, Vol. 5, No. 1, February, 155-168

## Course 313      **World Civilizations-II**

### Theory

#### 1. Iranian Civilisation

- Origin of Iranian Civilisation
- Achaemenians: history and formation of their empire
- Provincial administration system
- Zoroastrian Religion
- Art and architecture
- Cyrus
- Darius I and Darius II
- Sasanians

## 2. Greek Civilisation

- Origin and development of the Greek Civilisation
- Origin of city states
- Hellenic and Hellenistic phases
- Art and architecture
- Literature
- Philosophy
- Science

## 3. Roman Civilisation

- Origin and development of Roman Empire
- General characteristics of Roman Culture
- Art and architecture
- Philosophy and science
- Roman Law

### PRACTICAL

- Study of regional maps showing physical features of each region
- Identification of key elements of the arts of different periods
- Study of different architectural styles of various periods

### RECOMMENDED READINGS

Durant, W. *Our Oriental Heritage*, New York, 1954.

Ralph and Burns, *World Civilization*, New York, 1974.

Roaf, M. *Cultural Atlas of Mesopotamia and the Ancient Near East*

Smith, W.S. *The Art and Architecture of Ancient Egypt*, London, 1958.

Watson, W. *Early Civilisation of China*, London, 1966.

## Course 314 Indus Civilization

### THEORY

#### 1. Introduction

- Terminology of the Indus Civilisation
- Environmental background.
- Discovery of Indus Civilisation
- Present state of research on Indus valley

#### 2. Early Indus Period (from Mehrgarh to the Rise of Mature Indus Period)

- Distribution of Settlements (Tochi-Gomal/Hakra/Amrian/Kot Dijian/Harappan)
- Development of art and architecture
- Major settlements of Early-Indus Civilisation

#### 3. Mature Indus Period

- Settlement pattern.
- Art and architecture
- Town planning
- Seals
- Major crafts

- The Indus script
- Trade relations
- Indus Civilisation ---- new perspectives
- Decline of the Indus Civilisation

#### 4. Late Indus Period

- Settlement pattern
- Late Indus Cultures in Sindh, Punjab, Baluchistan, Gujrat

#### 5. Preservation/Conservation of Mohenjo Daro: A critical appraisal

#### PRACTICAL

- Tour of the site of Mohenjo Daro
- To study architecture
- To study city-plan and layout
- To study conservation and preservation work
- Prepare map of Mature Indus Period, Kotdijian Period and Late Indus Period sites/settlements
- Pottery identification of various periods

#### RECOMMENDED READINGS

- Agrawal, D.P. and Chakrabarti, D.K., eds. *Essays in Indian Protohistory*, Delhi, 1979.
- Agrawal, D.P. *Archaeology of India*, Great Britain, 1985.
- *The Copper-Bronze Age in India*, Delhi, 1971.
- Allchin, B. and Allchin, R. *The Birth of Indian Civilisation*, London, 1968.
- *The Rise of Civilisation in India and Pakistan*, Cambridge University Press, 1982.
- Allchin, F.R. *Lewan and the Bannu Basin*, Oxford, 1986.
- *Neolithic Cattle-Keepers of South India*, Cambridge, 1963.
- Allchin, F.R., Allchin, B., Durrani, F.A. and Khan, F. *Lewan and the Bannu Basin*, Great Britain, 1986.
- Ancient Pakistan*, University of Peshawar, (relevant volumes.).
- Asthana, S. *Pre-Harappan Cultures of India and the Borderlands*, New Delhi, 1985.
- Chakrabarti, D.K. *The External Trade of the Indus Civilisation*, Delhi, 1990.
- Dales, G.F. and Kenoyer, M. *Excavations at Moenjodaro, Pakistan: the Pottery*, Pennsylvania, 1986.
- Dani, A.H. *Indus Civilisation—New Perspective*, Islamabad, 1981.
- Fairservis, W.A. *The Roots of Ancient India*, 2<sup>nd</sup> ed., Chicago, 1975.
- *The Origin, Character and Decline of an Early Civilization*, 1967.
- Gupta, S.P. *Archaeology of Soviet Central Asia and the Indian Borderland*, Vols. I & II, Delhi, 1979.
- Jacobson, J., ed., *Studies in the Archaeology of India and Pakistan*, New Delhi, 1986.
- Kenoyer, M. *Ancient Cities of the Indus Valley Civilization*, Oxford, 1998.
- Khan, F.A. *The Glory that was Harappa*, Karachi, n.d.
- *Preliminary Report on Kot Diji Excavations 1957-8*, Karachi, 1958.
- *The Indus Civilisation and Early Iran*, Karachi, 1964.
- *The Kot Diji Culture*, Khairpur University, 2002.

- Lal, B.B. *The Earliest Civilisation of South Asia*, New Delhi, 1997.
- Mackay, E.J. *Further excavations at Mohenjo Daro*, Delhi, 1938.
- *Chanhudaro Excavation 1935-36*, New Haven, 1943
- Masrshall, J. *Mohenjo Daro and the Indus Civilisation*, London, 1931.
- Mughal, M.R. *Ancient Cholistan*, Lahore, 1998.
- Mughal, R. *Present Stage of Research on the Indus Valley Civilisation*, Karachi, 1973.
- Pakistan Archaeology (relevant volumes.)*
- Possehl, G., ed., *Ancient Cities of the Indus*, 1979.
- ed., *Harappan Civilization*, New Delhi, 1982.
- *Ancient Cities of Indus*, New Delhi, 1979.
- *Harappan Civilization: Contemporary Perspective*
- *The Indus Civilisation in Saurashtra*, New Delhi, 1980.
- Rao, S.R. *Lothal and the Indus Civilisation*, Bombay, 1973.
- Sankalia, H.D. *Prehistory and Protohistory of India and Pakistan*, Poona, 1974.
- Settar, S and Korisettar, R. *Indian Archaeology in Retrospective: Protohistoric Archaeology of the Harappan Civilisation*, Vol. II, New Delhi, 2002.
- Shaffer, J. *Prehistoric Baluchistan*, New Delhi, 1979.
- South Asian Archaeology, (relevant volumes.)*
- Urban, G. *et alii*, eds. *Forgotten cities on the Indus*, Germany, 1991.
- Various articles on preservation of Mohenjo Daro.
- Vats, M.S. *Excavation at Harappa*, 2 vols, New Delhi, 1940.

## **Course 315: Ancient Religions of Pakistan and India**

### **1. Jainism**

- Jain tradition regarding twenty-four *tirthankaras* (prophets)
- Parsva and Mahavira
- Mahavira's life sketch
- Importance of the Ardha Magadhi canon
- Mahavira's meeting with Gosala Mankhaliputta (head of the Ajivika sect)
- Vardhamana Mahavira and his doctrine
- Jainism after Mahavira
- Jain canon, philosophy and icons.

### **2. Buddhism**

- Buddhist literature
- Origin and development of Buddhism
- Teachings of Gautama Buddha
- Hinayana and Mahayana sects
- Vina Sutta and Abhidhamma Pitakas
- Sthaviravadin School
- Evolution of the Great Vehicle (Mahayana)
- Mahasanghika and Sarvastivadins
- Adi Buddhas
- Boddhisattvas
- Lalitavistara

- Buddhist ethics and morality

### 3. Hinduism

- Vedas
- Upanishads and freedom of religious speculation
- Vaishnavism: Origin and evolution
- Vasudeva-Krishna and the Bhagavata sect
- The Bhagavad-Gita
- Vishnu's *avatars* (incarnations)
- The doctrine of four *vyuhas* (phases of conditioned spirit)
- Images and their emblems of identification
- Saivism
- The Pasupata sect and its teachings
- Saivism as a popular cult
- Mahesvara and Mahadeva
- Saiva images
- Important gods and goddesses and their characteristic iconographic features

### Recommended Readings

- Basham, A.L. *History and Doctrines of the Ajivikas*, London, 1951.
- Bhandarkar, R.G. *Vaishnavism, Saivism and Minor Religious Sects*, Strassburg, 1915.
- Conze, E. *Buddhism, Its Essence and Development*, 2<sup>nd</sup> ed. Oxford, 1953.
- Dauids, R.T.W. *Buddhism, Its History and Literature*, 2<sup>nd</sup> ed. London, 1926.
- Dowson, J. *A Classical Dictionary of Hindu Mythology and Religion*, 7<sup>th</sup> ed. London, 1950.
- Farquhar, J.N. *A Primer of Hinduism*, London, 1912.
- Keith, A.B. *Buddhist Philosophy in India and Ceylon*, Oxford 1923.
- McGovern, W.N. *Manual of Buddhist Philosophy*, London, 1923.
- Stevenson, S. *The Heart of Jainism*, Oxford, 1915.
- Thomas, E.J. *History of Buddhist Thought*, London, 1933.
- Thomas, E.J. *The life of the Buddha as Legend and History*, London, 1975.
- *History of Buddhist Thought*, 2<sup>nd</sup> ed., London, 1951.
- Hopkins, E. W. *Epic Mythology*, Strassburg, 1915.

## Course 316: **Research Methodology**

### THEORY

- Definition, problems, types etc.
- Archaeological research project.
- Archaeological research design
- Formulation of hypothesis
- Implementation of research
- Data collection
- Analysis of archaeological data
- Interpretation and synthesis of archaeological data

- Research report

#### **PRACTICAL**

- Monograph on any site/monument, ancient inscriptions/coins, etc.

#### **RECOMMENDED READINGS**

Hult, C.A. *Researching and Writing Across the Curriculum*, 2<sup>nd</sup> Ed., California, 1990.

Lester, J.D. *Writing Research Papers: A Complete Guide*, London, 1987.

Marius, R. *A Short Guide to Writing about History*, London, 1989.

Sharer, R.J. and Wendy A. *Fundamentals of Archaeology*, London, 1980.

Naz Arifullah, S. and Bhutti, K.M. *Research Process Simplified*, Peshawar,

Goode & Hatt, *Methods in Social Research*, National Book Foundation, Islamabad, 2000

Mali, A. L. Pancholi Kundan, *The Fundamentals of Research Methodology*, Jaipur, 1988.

Bahr, C. & Albert, *Social Science Research Methods*, National Book Foundation, Islamabad, 2000

### **Semester VII**

<b>Course No</b>	<b>Course Title</b>	<b>Cr. Hrs</b>
401	Palaeography and Epigraphy	3(2+1)
402	Numismatics	3(2+1)
403	Muslim Architecture of Pakistan and India	3(2+1)
404	Muslim Calligraphy, Painting and Minor Arts & Crafts	3(2+1)
405	Muslim History of Pakistan and India	3(2+1)
<b>Total Cr.Hrs.</b>		<b>15</b>

#### **Details of the Courses**

#### **Course 401: Palaeography and Epigraphy**

##### **1. Palaeography: Brahmi**

- Origin of writing in Pakistan and India (South Asia)
- Brahmi script: characters, conjuncts
- Origin of Brahmi script
- Decipherment
- Asokan Brahmi
- Provincial styles
- Kushan characters
- Regional styles
- Gupta characters
- Proto-Sarada
- Sarada
- Devanagari

## 2. Palaeography: Kharoshthi

- Kharoshthi script: alphabets, conjuncts
- Origin of Kharoshthi script
- Decipherment
- Asokan Kharoshthi
- Development
- Transitional phases of writing

## 3. Epigraphy

- Importance of Epigraphic research in Archaeology
- History of Epigraphic Studies in Pakistan and India
- Survey of the Epigraphic records
- Epigraphy as a source of ancient history of Pakistan and India.

### RECOMMENDED READINGS

Agrawala, P.K. *Imperial Gupta Epigraphs*, Varanasi, 1983.

Bhandarkar, D.R. A List of Inscriptions of Northern Indian in Brahmi and Its Derivative Scripts, from about 200 A.C., Appendix to *Epigraphia Indica*, vols. 19-23, Calcutta, 1932-38.

Buhler, G. Indian Palaeography, Appendix to *The Indian Antiquary*, Calcutta, 1904, rpt. 1959.

Burgess, J. *Epigraphia Indica*, Vol. II, Indian rpt. 1970.

▽ *Report on the Buddhist Cave Temples and Their Inscriptions*, Varanasi. rpt. 1964.

*Corpus Inscriptionum Indicarum*, Calcutta, Vol. II.

Cunningham, A. *Corpus Inscriptionum Indicarum*, Vol. I, *Inscriptions of Asoka*, Varanasi, rpt.1961.

Dani, A.H. *Indian Palaeography*, Oxford, 1963.

▽ *Kharoshthi Primer*, Lahore, 1979.

*Epigraphia Indica* (volumes and readings suggested by the teacher).

Hultzsch, E. *Corpus Inscriptionum Indicarum*, Vol. I, *Inscriptions of Asoka*, Oxford, 1925.

Konow, S. *Corpus Inscriptionum Indicarum*, Calcutta, Vol. II, 1929.

Nasim Khan, M. Ashokan Inscriptions: A Palaeographical Study, *Athariyyat*, vol. 1, 1997, pp. 131-50.

— Epigraphy in Pakistan, *The Glory that was Pakistan, 50 Years of Archaeological Research in Pakistan*, Peshawar, 1998, pp. 39-44.

— Epigraphy as a Source of Gandhara History, *Journal of Humanities and Social Sciences*, vol. 6, no. 2, 1998, pp. 30-45.

— Proto-Sharada Inscription from Hund-Pakistan, *Indian Archaeological Studies*, No. 20, 1998-99, pp. 77-83.

Pandey, R.B. *Indian Palaeography*, Banaras, 1952 (2<sup>nd</sup> ed. 1957).

Salomon, R. *Indian Epigraphy*, New Delhi, 1998.

Sircar, D.C. *Indian Epigraphical Glossary*, Varanasi, 1966.

▽ *Indian Epigraphy*, Delhi, 1965.

Upasak, C.S. *History and Palaeography of Kharoshthi Script*, Varanasi, 2001.

## Course 402: Numismatics

This course is divided into two parts: a) Numismatics of Pre-Muslim period of Pakistan and India and b) Numismatics of Muslim period of Pakistan and India. The Course contents are as follow:

### 1. Introduction

- Numismatics: Definition, scope and significance
- Metallurgical studies
- Mints
- Cataloguing
- History of coins
- Techniques of manufacturing coins

### 2. Numismatics: Pre-Muslim Period

- Antiquity of coinage in Pakistan and India
- Punch marked coins
- Indo-Greek coins
- Scytho-Parthian coins
- Kushan coins
- Huna coins
- Hindu-Shahi coins

### 3. Numismatics: Muslim Period

- Arab period Coins in Pakistan
- Coins of the Ghaznavid and Ghorid rulers
- Coins of the early Sultanate period (the Khaljis, Tughlaqs, Syeds, Lodhis, Suris)
- Coins of the Mughal rulers
- Coins of the Durranis and the Sikhs

### RECOMMENDED READINGS

- Abdur Rahman, *The Last Two Dynasties of the Shahis*, Islamabad, 1979.
- Allan, J. *Catalogue of the Coins of Ancient India in the British Museum*, London, 1936, rpt. 1967.
- Bhandarkar, D.R. *Lectures on Ancient Indian Numismatics*, Patna, rpt. 1984.
- Bivar, A.D.H. The Kushano-Sasanian Coins Series, *The Journal of the Numismatic Society of India*, Vol. XVIII, Part I, Varanasi, 1956, pp. 157-65.
- Bopearachchi, O. and Amanur Rahman, *Pre-Kushana Coins in Pakistan*, Islamabad, 1995.
- Bopearachchi, O. *Indo-Greek, Indo-Scythian and Indo-Parthian Coins in the Smithsonian Institution*, Washington, 1993.
- Chakraborti, S.K. *Socio-religious and Cultural Study of the Ancient Indian Coins*, Delhi, 1986.
- Cooper, R.D. *The Art and Craft of Coin Making: A History of Minting Technology*, London, 1988.
- Cribb, J. *Money: from Cowering Shell to Credit Cards*, London, 1986.
- Cunningham, A. *Coins of Medieval India from the Seventh Century Down to the Muhammadan Conquests*, London, 1894, rpt.1967.

- ▽ *Later Indo-Scythians*, Vol. II, rpt. Varanasi, 1962.
- Gardner, P. *The Coins of the Greek and Scythic Kings of Bactria and India in the British Museum*, London, 1886, 1<sup>st</sup> American ed., Chicago, 1966.
- Lanepole, *Catalogue of the Muslim Coins in the British Museum*
- Mitchiner, M. *The Origin of Indian Coinage*, London, 1973.
- Narain, A.K. *Indo-Greeks*, Oxford, 1957.
- Rosenfield, J. *The Dynastic Art of the Kushans*, Delhi, 1967.
- Sahni, B. *The Technique of Casting Coins in Ancient India*, Memoirs of the Numismatic Society of India, Vol. I, Bombay, 1945.
- Singh, S.S. *Early Coins of North India: An Iconographic Study*, New Delhi, 1984.
- Smith, V.A. *Coins of Ancient India*, Vol. I of *Catalogue of the Coins in the Indian Museum, Calcutta*, Oxford, 1906-19, rpt. Varanasi, 1972.
- Thomas, E. *The Chronicles of the Pathan Kings of Delhi*, rpt. Delhi, 1967.
- Whitehead, R.B. *Catalogue of Coins in the Punjab Museum*, Vol. III, rpt. Lahore, 1977.
- *Catalogue of Coins in the Punjab Museum*, Lahore, Vol. I, Oxford, 1914.
- *Catalogue of Coins in the Lahore Museum, Lahore*, Vol II, *Coins of the Mughal Emperors*, Lahore, rpt. 1977.
- Wilson, H.H. *Ariana Antiqua—A descriptive Account of the Antiquities and Coins of Afghanistan*, London, 1841, rpt. Delhi, 1971.
- Wright, N.H. *The Coinage and Metrology of the Sultans of Delhi*, rpt. Delhi, 1974.

## **Course 403: Muslim Architecture of Pakistan and India**

### **1. Arab Period**

- Settlement pattern and architecture of Banbhore
- Settlement pattern and architecture of Mansurah

### **2. Ghaznavid/Ghaurid Period**

- Tomb of Abdullah bin Harun in Lasbela
- Udigram Mosque
- Tomb of Khalid bin Walid
- Tomb of Sadan Shaheed
- Tombs at Lal Mahra

### **3. Sultanate Period**

- Monuments of Delhi and Ajmir: Quwwat ul Islam Masjid, Qutb Minar, Alai Darwaza, Tughlaqabad, Buildings of Feroz Shah Tughlaq, Tombs of Syeds and Lodhis, the Suri period buildings.

### **4. Mughal Period**

- Monuments of Agra: Taj Mahal, Akbar's tomb
- Monuments of Delhi: Red Fort, Jami Masjid
- Monuments of Fatehpur Sikri
- Monuments of Lahore: Badshahi masjid, Wazir Khan masjid, Shalimar Garden, Jahangir's tomb and Shahi Fort
- Monuments of Peshawar: Mahabat Khan masjid, Palosi Piran complex

- Monuments of Thatta: Shahi masjid and Dabgaran masjid

## 5. Provincial/Regional Styles

- Provincial style monuments of Kalhora and Talpur Rulers of Sindh
- Choukandi type tombs of Sindh and Baluchistan
- Provincial style monuments of the Punjab
- Provincial style monuments of the NWFP
- Sindhi Islamic architecture —Makli Hill (Thatta)
- Wooden architecture of the Northern Areas of Pakistan

## RECOMMENDED READINGS

Abdur Rahman, *Islamic Architecture of Pakistan: An Introduction*, Peshawar, 1981.

Ali, T. *Anonymous Tombs in the Gomal Valley and the Beginning of Tomb Architecture in Pakistan*, Peshawar, 1988.

Arnold, T. et al, *Islamic Art and Architecture*, Goodword Books, 2001.

Brown, P. *Indian Architecture (The Islamic Period)*, Bombay, 1942.

Chughtai, M.A. *The Badshahi Masjid: History and Architecture*, Lahore, 1972.

— *The Wazir Khan Mosque Lahore: History and Architecture*, Lahore, 1975.

Dani, A. H. *Thatta-Islamic Architecture*, Islamabad, 1982

Ettinghausen, R. and Grabar, O. *The Art and Architecture of Islam 650-1250*, New Haven: Yale University Press, 1987

Field, R. *Geometric Patterns from Islamic Art & Architecture*, Taurin Publications, 1998

Guide Books on *Thatta, Lahore Fort, Shalimar Garden, Banbhore*, Department of Archaeology and Museums, Government of Pakistan

Hillenbrand, R. *Islamic Architecture: Form, Function and Meaning*, New York: Columbia University Press, 1994

Khan, A. N. *Multan: History and Architecture*, Islamabad, 1983.

— *Uchch: History and Architecture*, Islamabad, 1980

— *Development of Mosque Architecture in Pakistan*, Islamabad, 1991

— *Islamic Architecture in South Asia (Pakistan, India and Bangladesh)*, 2003

Mookerjee, A., ed., *5000 Designs and Motifs from India*, Dover Publications, 1996.

Nath, R. *Architecture of Fatehpur Sikri*, Jaipur, 1988.

— *The History of Sultanate Architecture*, New Delhi, 1978

*Sultanat Period Architecture*, Anjumane M'amaran, Lahore, 1992.

Shah, I. *The Mahabat Khan Mosque and Its Decorative Beauty* (M. Phil thesis, unpublished), Department of Archaeology, University of Peshawar, 1996.

## Course 404: **Muslim Calligraphy, Painting, Minor Arts and Crafts**

### 1. **Calligraphy**

- Origin and development of Arabic script
- Status or position of a calligrapher
- Significance of calligraphy in Islamic arts
- Origin and development of calligraphy
- Principal forms of calligraphy
- Sub styles of calligraphy
- Master calligraphers of Pakistan

### 2. **Schools of Painting**

- Early Arab
- Mesopotamian
- Mongol
- Persian
- Mughal

### 3. **Minor Arts**

- Metalwork
- Glasswork
- Woodwork
- Book illumination
- Bookbinding
- Ceramics

### **Recommended Readings**

Binyon, Wilkinson and Gray. *Persian Miniature paintings*

Brown, P. *Indian Painting*, Calcutta, 1917, 7<sup>th</sup> ed. 1960.

▽ *Indian Paintings Under the Mughals*, Oxford, 1924.

Chughtai, M. A. *Fanoon-e-Latifa ba-'ahdi Aurangzeb* (Urdu)

Coomaraswamy, A., *Mughal Paintings*

*Craft and Textiles of Sindh and Baluchistan*, Institute of Sindhology, Jamshoro, 1982.

*Crafts of Punjab and Muree Hill*, Punjab Small Industry Corporation, 1986.

Critchlow, K. *Islamic Patterns: An Analytical and Cosmological Approach*, Slovenia, 1976, rpt. 1992.

Das, A.K. *Splendour of Mughal Paintings*, Bombay, 1986.

Dimand, M. A. *A hand book of Mohammeden Art*  
*Encyclopaedia of Arts*, London, 1966.

Ettinghausen, R. *Arab Painting*, London, 1962.

Gray, B. *Persian Painting*, London, 1961.

▽ *The Arts of India*, Oxford, 1981.

Humbert, C. *Islamic Ornamental Design*, London, 1980.

Kalter, J. and Thames H. *Arts and Craft of Swat Valley*, 1991.

Khatibi, Abdelkadir, *The Splendour of Islamic Calligraphy*, rpt. London, 2001.

Losos, L. *Painting Techniques*, London, 1987.

Mortin, F.R. *The Miniature Painting and Painters of Persia, India and*

*Turkey, I, II*, London, 1912-1917.

Porter, V. *Islamic Tiles*, New York, 1995

Riaz-ud Din, A. *Traditional Arts and Crafts of India and Pakistan*,

Rogess, J.M. *Mughal Miniatures*, London, 1993.

Rice T.R.D. *Islamic Art*

Ziauddin T. W. *Muslim Calligraphy*

## **Course No. 405: MUSLIM HISTORY OF PAKISTAN AND INDIA**

### **1. Arabs**

- Early contact
- Conquests of Baluchistan, Sindh and the NWFP
- Muslim rule in Baluchistan and Sindh under the Arab Khilafat

### **2. Turks**

- Trans Khyber activities of Ghaznavids and the rise and fall of Lahore as a centre of Muslim State AD 997-1210
- The rise of the Ghorids and the establishment of Delhi as the capital of Muslim India
- The Delhi Sultanate with Multan, Uchch and Lahore as centres in the west and Awadh and Bengal in the east AD 1150 to 1325.
- Fragmentation and Turbulence AD 1325 to 1425

### **3. Afghans**

- Lodhis
- Suris

### **4. Mughals and Post Mughals**

- Phases of establishment and transition from Sultanate to Badshahat AD 1526 to 1576
- Phase of Vibrant Mughal Society, culture and administration AD 1576 to 1707
- Decadence and decline AD 1707 to 1830
- Final stages AD 1830 to 1857

### **5. Provincial Chapter**

- Every province will develop its Muslim period history accordingly

## **RECOMMENDED READINGS**

Ali, M. *The Court of the Great Mughals*, Lahore, 1986.

Amjid, Y. *Tareekh-e-Pakistan*, Vols. I, II, (Urdu)

Barani, Z. *Tarikh-i Feroz Shahi*, Urdu tr. Aftab Asghar, Lahore, 1986.

*Cambridge History of India*, Vols. III, IV.

Elliot and Dowson, *The History of India as Told by Its Own Historians*, all vols., Lahore, 1976 (1<sup>st</sup> pub. 1867-77).

Ikram S.M. *History of Muslim Civilisation in India and Pakistan*,

Ikram, Shaikh, M. *Ab-i Kauthar* (Urdu), Lahore, 1994.

— *Mauj-i Kauthar* (Urdu), Lahore, 1992.

— *Rud-i Kauthar* (Urdu), Lahore, 1988.

Mahajan, V.D. *Mughal Rule in India*, 14<sup>th</sup> ed., n.d.

Nazim, M. *The Life and Times of Sultan Mahmud of Ghazna*, New Delhi, 1971.

Percival Spear, *A History of India*, Vol. II,  
*Peshawar District Gazetteer 1897-98*.

Qureshi, I.H., ed., *A Short History of Pakistan*, 4 vols, Karachi, 1967.

Sa'id, Hakim, M. et al, eds. *Road to Pakistan*, Vol. I, Karachi, 1990.

Smith, V.A., *Oxford History of India*

## DETAILS OF OPTIONAL COURSES

Scholars are required to choose minimum of 15 credit hours optional courses from the following in the 7<sup>th</sup> and 8<sup>th</sup> semesters.

### Course No. 411

## PREHISTORY AND EARLY URBANISATION IN PAKISTAN AND BORDER LANDS

### THEORY

#### 1. Palaeolithic Period

- Environmental conditions
- Characteristic features
- Principal tool-types
- Palaeolithic cultures of Pakistan
- Palaeolithic cultures of Afghanistan and Central Asia
- Palaeolithic cultures of India

#### 2. Mesolithic Period

- Change in environmental conditions
- Characteristic features
- Principal tool-types
- Mesolithic cultures of Pakistan
- Mesolithic cultures of Afghanistan and Central Asia
- Mesolithic cultures of India

#### 3. Prehistoric Art

- Characteristic features
- Material, techniques and motifs
- Prehistoric art of Pakistan
- Prehistoric art of Afghanistan and Central Asia
- Prehistoric art of India

#### 4. Neolithic and Early Farming Communities

- Environmental conditions
- Characteristic features
- Principal tools
- Shift from hunting–gathering economy to food producing economy
- Trade and occupations
- Art and religion
- Neolithic cultures of Pakistan

- Neolithic cultures of Afghanistan and Central Asia
- Neolithic cultures of India

## 5. Early Urbanisation in Pakistan

- Characteristic features
- Early urban centres in Baluchistan, Sindh, Punjab and NWFP
- Chronological sequence, settlement patterns and cultural material
- Relations and impacts on the adjoining regions.

## RECOMMENDED READINGS

Agrawal, D. P. *The Archaeology of India*, Scandinavian Institute of Asian Studies, Monograph No.46, London, 1985.

Allchin, B. and R. *The Rise of Civilisation in India and Pakistan*, Cambridge University Press, 1982.

— *Lewan and the Bannu Basin: Excavations and Survey of Sites in North West Pakistan*, Great Britain, 1986.rtfgvb54

Barnouw, V. *An Introduction to Anthropology*, (2 vols.), vol. 2, Ontario, 1971.

Beals, R.L. and Hoijer, H. *Anthropology Introduction to Anthropology*, 4<sup>th</sup> ed., New York, 1972.

Bohannan, P. *Social Anthropology*, New York, 1963.

Bordes, F. *The Old Stone Age*, Eng. tr., New York, 1972.

Braidwood, R.J. *Prehistoric Man*, Chicago, 1975.

Clark, G. and Piggot, S. *Prehistoric Societies*, London, 1968.

Clark, G. *World Prehistory in New Perspective*, 2<sup>nd</sup> ed., Cambridge, 1977.

Clark, J.D. *The Prehistory of Southern Africa*, Great Britain, 1959.

Dales, G.F. A Review of the Chronology of Afghanistan, Baluchistan and the Indus Valley, In:AJA 72/4:305-307, 1968.

— Persian Gulf, Baluchistan, Southern Afghanistan Early Contacts, *Food Fiber and the Arid Land*, University of Arizona Press, Tucson.

De Terra, H. and Paterson, T.T. *Studies on the Ice Age in India and Associated Human Cultures*, Washington, 1939.

Dennell, R.W. *Pakistan Prehistory: A Glimpse at the First Two Million Years*, Cambridge, 1991.

Durrani, F.A. Rahman Dheri and the Birth of Civilisation in Pakistan, *Bulletin of the Institute of Archaeology*, 18:191-207. London, 1981.

— Some Early Harappan Sites in Gomal and Bannu Villages, in Gupta, S.P. Lal, B.B. eds. *Frontiers of Indus Civilisation*, 1984: 505-510.

Gowlett, J.W. *Ascent to Civilisation*, London, 1984.

Hoebel, E.A. *Anthropology: The Study of Man*

Jacobs and Stern. *General Anthropology-A Brief Survey of Physical, Cultural and Social Anthropology*

Jarrige, J.F. Excavations at Mehrgarh, Pakistan in *South Asian Archaeology*, 1975: 76-87. Leiden. 1979.

Journals: *Pakistan Archaeology; Ancient Pakistan; Ancient Sindh; Journal of Central Asia* later named as *Journal of Asian Civilisations* (relevant volumes).

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- Quivron, G. Lechevallier, M. The Neolithic in Baluchistan: New Evidence from Mehrgarh, *South Asian Archaeology 1979*, Berlin, 1981, pp. 71-92.
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- Salim, M. *The Middle Stone Age Cultures of Northern Pakistan*, Islamabad, 1986.
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- Sankalia, H.D. *Stone Age Tools, Their Techniques, Names and Probable Functions*, Poona, 1964
- ed., *The Prehistory and Protohistory of India and Pakistan*, Bombay, 1962.
- Sarianidi, V.I. Margiana in the Bronze Age, *The Bronze Age Civilization of Central Asia*, ed. by P.L. Kohl, New York,
- New Finds in Bactria and Indo-Iranian Connections, *South Asian Archaeology 1975*, Naples, 1979.
- Shaffer, J.: Prehistoric Baluchistan, new Delhi. 1978.
- Sharma, G.R. and Clark, J.D. Palaeoenvironment and Prehistory in the Middle Son Valley, India, 1983.
- Tosi, M. The Proto-Urban Cultures of Eastern Iran and the Indus Civilization: Notes and Suggestions for a Spatio-Temporal Frame to Study the Early Relations between India and Iran, *South Asian Archaeology 1977*, Naples, pp. 149-172.

## Course No. 412

### PALAEOLITHIC CULTURES OF PAKISTAN WITH REFERENCE TO SOUTH AND CENTRAL ASIA

#### 1. Lower Palaeolithic

- Pleistocene geology and palaeo-environment
- Distribution of sites
- Raw material, flaking techniques and tool types
- Fossil man, Homo Erectus
- Remains of animal bones

#### 2. Middle Palaeolithic

- Pleistocene geology and palaeo-environmental studies
- Distribution of Open air sites and cave sites
- Raw material, flaking techniques and tool types
- Fossil man, Neanderthal man, Cultural Contacts
- Faunal remains

#### 3. Upper Palaeolithic

- Pleistocene geology, geomorphology and palaeo-environmental studies
- Distribution of sites
- Raw material, techniques and tool types
- Fossil man, Homo sapiens, development of language, art and religion
- Faunal remains

#### RECOMMENDED READINGS

Agrawal, D. P. *The Archaeology of India*, Scandinavian Institute of Asian Studies, Monograph No.46, London, 1985.

Allchin, B. and R. *The Rise of Civilisation in India and Pakistan*, Cambridge University Press, 1982.

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— *World Prehistory: An Outline*, Cambridge, 1962.

Clark, J.D. *The Prehistory of Southern Africa*, Great Britain, 1959.

Dales, G.F. A Review of the Chronology of Afghanistan, Baluchistan and the Indus Valley, *AJA* 72/4:305-307, 1968.

— *Persian Gulf, Baluchistan, Southern Afghanistan Early Contacts, Food Fiber and the Arid Land*, University of Arizona Press, Tucson.

De Terra, H. and Paterson, T.T. *Studies on the Ice Age in India and Associated Human Cultures*, Carnegie Institute, Washington Publication No.493, 1939.

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Dennell, R.W. *Pakistan Prehistory: A Glimpse at the First Two Million*

Years, Cambridge, 1991.

Journals: *Pakistan Archaeology*; *Ancient Pakistan*; *Ancient Sindh*; *Journal of Central Asia* later named *Journal of Asian Civilisations* (relevant volumes).

Leakey, L.S.B. *Olduvai Gorge: 1951-61: A Preliminary Report on the Geology and Fauna*, vol. 1, Cambridge, 1964.

Oakley, K.P. *Framework for Dating Fossil Man*, London, 1964.

— *Man the Toolmaker*, 3<sup>rd</sup> ed., 1956.

Paterson, T. T. and Drummond, J.H.J. *Soan the Palaeolithic of Pakistan*, Department of Archaeology, Karachi, 1962.

Paterson, T.T. and Drummond, J.H.J: *Soan the Palaeolithic of Pakistan*, Karachi, 1962

Phillipson, D.W. *African Archaeology*, Cambridge, 1985, rpt. 1995.

— *The Later Prehistory of Eastern and Southern Africa*, London, 1977.

Powell, T.R.G. *Prehistoric Art*

Quennell, C.H.B. and M. *Everyday Life in Prehistoric Times*

Rendell, H.M., Dannel, R.W. and Halim, M.A. *Pleistocene and Palaeolithic Investigations in the Soan Valley, Northern Pakistan*, ed. Allchin, F.R., Allchin, B. and Ashfque, S.M., BAR International Series 544, Oxford, 1989.

Salim, M. *The Middle Stone Age Cultures of Northern Pakistan*, Islamabad, 1986.

— Salim, M. The Palaeolithic Cultures of Potwar with Special Reference to the Lower Palaeolithic, *Central Asian Studies*, Quaid-e-Azam University, Islamabad, 1997.

Sankalia, H.D. *Stone Age Tools, Their Techniques, Names and Probable Functions*, Poona, 1964

— ed., *The Prehistory and Protohistory of India and Pakistan*, Bombay, 1962.

Shaffer, J. *Prehistoric Baluchistan*, New Delhi. 1978.

Sharma, G.R. and Clark, J.D. *Palaeoenvironment and Prehistory in the Middle Son Valley*, India, 1983.

## **Course No. 413**

### **PREHISTORY AND CIVILISATION OF MESOPOTAMIA**

#### **THEORY**

- Environmental background
- Earliest settlements and farming communities in Mesopotamia from 8<sup>th</sup> to mid 3<sup>rd</sup> millennium BC
- Origin of urban society and emergence of Sumerian art from 3500 to 3000 BC
- Study of various aspects of civilisation: art and architecture, seals, religion, economy, socio-political set-up from the early dynastic to the Babylonian period from 3000 to 1594 BC

#### **PRACTICAL**

- Map study of various geographical features
- Location of various sites on the map
- Study of pottery, seals, temple-plans

- Art and architecture of various periods to be recognised on slides
- Glyptic art

## RECOMMENDED READINGS

Childe, V.G. *New Light on the Most Ancient East*, London, 1969.

Delogaz, *Private Houses and Graves in Dyala Region*,

Edwards, I.E.S. *The Cambridge Ancient History*, vol. 1, Part II, 3<sup>rd</sup> ed., Cambridge, 1971.

Hallo, W.W. and Simpson, W.K. *The Ancient Near East: A History*, USA, 1971.

Henry, F. *The Art & Architecture of the Ancient Orient*, London, 1954.

Hilprecht, H.V. *Exploration in Bible Lands*, Edinburgh, 1903.

Hitti, P.K. *The Near East in History, A 5000 Year Story*, USA, 1961

Layard, A.H. *Discoveries in the Ruins of Nineveh and Babylon*, 2 vols., London, 1853.

Mellart J. *Neolithic of the Near East*, New York, 1975.

▽ *Earliest Civilizations of the Near East*, New York, 1965.

Moortagat, *Art of Ancient Mesopotamia*,

Oates, J. and David, *The Rise of Civilization*, Elsevier Phaidon Press Ltd. Oxford, 1976.

Perkins, A.L. *The Comparative Archaeology of Early Mesopotamia*, USA, 1949.

Perrot, *Sumer*,

Redman Charles, L. *The Rise of Civilization*, W.H. Freeman & Company, USA, 1978.

Storminger, *The Art of Mesopotamia*,

Woolley, *The Royal Cemetery*, Oxford, 1934.

## Course No. 414

### INDUS VALLEY CIVILISATION

#### THEORY

#### 1. Introduction

- Terminology of the Indus Civilisation
- Environmental background.
- Discovery of Indus Civilisation
- Present state of research on Indus valley

#### 2. Early Indus Period (from Mehrgarh to the Rise of Mature Indus Period)

- Distribution of Settlements (Amrian / Kot Dijian / Sothi/ Ravian)
- Development of art and architecture
- Major settlements of Early-Indus Civilisation

#### 3. Mature Indus Period

- Settlement pattern.
- Art and architecture
- Town planning
- Seals

- Major crafts
- The Indus script
- Trade relations
- Indus Civilisation new perspectives
- Decline of the Indus Civilisation

#### 4. Late Indus Period

- Settlement pattern
- Late Indus Cultures in Sindh, Punjab, Baluchistan, Gujrat

#### 5. Preservation / Conservation of Mohenjo Daro (World Heritage Site)

##### PRACTICAL

- Tour of the site of Mohenjo Daro
- To study architecture
- To study city-plan and layout
- To study conservation and preservation work
- Prepare map of Mature Indus Period, Kotdijian Period and Late Indus Period sites/settlements
- Pottery identification of various periods

##### RECOMMENDED READINGS

- Agrawal, D.P. *Archaeology of India*, Great Britain, 1985..
- *The Copper-Bronze Age in India*, Delhi, 1971.
- Allchin, B. and Allchin, R. *The Rise of Civilisation in India and Pakistan*, Cambridge University Press, 1982.
- Allchin, F.R., Allchin, B., Durrani, F.A. and Khan, F. *Lewan and the Bannu Basin*, Great Britain, 1986.
- Ancient Pakistan*, University of Peshawar, (relevant volumes.).
- Asthana, S. *Pre-Harappan Cultures of India and the Borderlands*, New Delhi, 1985.
- Chakrabarti, D.K. *The external of the Indus Civilisation*, Delhi, 1990.
- Dales, G.F. and Kenoyer, M. *Excavations at Moenjodaro, Pakistan: the Pottery*, Pennsylvania, 1986.
- Dani, A.H. *Indus Civilisation—New Perspective*, Islamabad, 1981.
- Gupta, S.P. *Archaeology of Soviet Central Asia and the Indian Borderland*, Vol. I & II, Delhi, 1979.
- Interim Reports of Mohenjo Daro, Vol. I & II.
- Jacobson, J., ed., *Studies in the Archaeology of India and Pakistan*, New Delhi, 1986.
- Kenoyer, M. *Ancient Cities of the Indus Valley Civilization*, Oxford, 1998.
- Khan, F.A. *The Glory that was Harappa*, Karachi, n.d.
- *Preliminary Report on Kot Diji Excavations 1957-8*, Karachi, 1958.
- *The Indus Civilisation and Early Iran*, Karachi, 1964.
- *The Kot Diji Culture*, Khairpur University, 2002.
- Mackay, E.J. *Further excavations at Moenjodaro*, Delhi, 1938.
- *Early Indus Civilisation*, London, 1935.
- *Chanhudaroexcavation 1935-36*, New Haven, 1943
- Mughal, M.R. *Ancient Cholistan*, Lahore, 1998.
- Mughal, R. *Present Stage of Research on the Indus Valley Civilisation*,

Karachi, 1973.

*Pakistan Archaeology (relevant volumes.)*.

Possehl, G., ed., *Ancient Cities of the Indus*, 1979.

— ed., *Harappan Civilization*, New Delhi, 1982.

— *Ancient Cities of Indus*, New Delhi, 1979.

— *The Indus Civilisation in Saurashtra*, New Delhi, 1980.

Sankalia, H.D. *Prehistory and Protohistory of India and Pakistan*, Poona, 1974.

Settar, S and Korisetar, R. *Indian Archaeology in Retrospective: Protohistoric Archaeology of the Harappan Civilisation*, Vol. II, New Delhi, 2002.

*South Asian Archaeology*, (relevant volumes.).

Urban, G. et alii, eds., *Forgotten cities on the Indus*, Germany, 1991.

Vats, M.S. *Excavation at Harappa*, 2 vols., New Delhi, 1940.

Wheeler, S.M. *Civilisations of the Indus and Beyond*, London, 1966.

— *The Indus Civilisation*, Cambridge, 1968.

## **Course No. 421**

### **ANCIENT HISTORY OF PAKISTAN AND INDIA**

#### **1. Introduction**

- Geographical factors in history of Pakistan
- Sources of ancient history

#### **2. Vedic Age**

- Rigvedic Period
- Vedic Period
- Epic Age

#### **3. Religious Movements**

- Jainism
- Buddhism
- Hinduism

#### **4. Early Historic Perios**

- Achaemenian
- Invasion of Alexander the great
- The Mauryas: Chandergupta Maurya, Bindusara and Ashoka

#### **5. Foreign Invasions**

- Indo Greeks
- Scythians
- Parthians
- Kushanas
- Sasanians
- Kidara Kushanas
- White Huns

#### **6. Native Dynasties**

- Guptas
- Harsha Vardhana

- Turk Shahis
- Hindu Shahis

## Recommended Readings

- Abdur Rahman, *The Last Two Dynasties of the Sahis*, Islamabad, 1979.  
 Basham, A.L. *The Wonder that was India*, Indian rpt. 1963.  
 Lioyd, J. G. *Alexander the Great: Selections from Arrian*, Cambridge, 1981.  
 Majumdar, R.C. *Ancient India*, Banaras, 1952.  
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 ▽ *An Advanced History of India*, 2<sup>nd</sup> Ed. Lahore repr. 1980  
 Moreland, W.H. *et alii*, *A Short History of India*, London, 1936.  
 Qureshi, I. H., ed., *A Short History of Pakistan*, Book-1, Karachi, 1967.  
 Ray, H. C. *Dynastic History of Northern India*, Vol-II, Calcutta, 1973.  
 Raychaudhuri, H.C. *Political History of Ancient India*, Culcutta, 1953.  
 Smith, V. A. *Early History of India*, Oxford, 1924.  
 Stein, A. *On Alexander's Track to the Indus*, Lahore, 1998.  
 Thapar, R. *A History of India*, Great Britain, 1966.  
 Various Authors, *The Cambridge History of India*, Cambridge, 1922.

## Course No. 422

### GANDHARA CIVILISATION

#### 1. Introduction

- Nomenclature
- Historical geography of Gandhara

#### 2. The Origin of Second Urbanisation in Pakistan

- Pushkalavati: Bala Hissar, Shaikhan Dheri, Mirabad, Rajar and Mirziarat Dheris
- Taxila: Bhir Mound, Sirkap, Sirsukh

#### 3. Major Religions of Gandhara

- Buddhism
- Life and teachings of the Buddha
- Spread of Buddhism in Gandhara and adjacent regions.

#### 4. Synthesis of Cross-Cultural Currents and the Emergence of Gandhara Civilisation

#### 5. Arts

- Sculptural Art
- Paintings
- Rock Art: Carvings and Engravings

#### 6. Architecture

- Religious Architecture: Stupa, Monastery

- Secular Architecture: Settlements and Forts

## 7. Numismatics and Palaeography

## 8. Interaction Zone

- Influences from the East and West

## 9. Silk Road

- Trade along the Silk Roads

## 10. Decline

- Causes: Cultural, Environmental, Military and Spiritual

## 11. Legacy of the Gandharan Civilisation

### RECOMMENDED READINGS

Ackermann, H.C. Narrative Stone Reliefs from Gandhara in the Victoria and Albert Museum in London, *IsMEO Reports and Memoirs XVII*, Rome, 1975

Barger, E. and Wright, P. Excavations in the Swat and Explorations in the Oxus Territories of Afghanistan, *Memoirs of Archaeological Survey of India*, No. 64, Delhi, 1941.

Beal, S., tr., *Si-yu-ki, Buddhist Records of the Western World*, 2 vols., London, 1883 (2<sup>nd</sup> ed. 1906)

Bernard, P. Ai-Khanum on the Oxus: A Hellenistic City in Central Asia, *Proceedings of the British Academy*, Vol. LIII, 1967.

Bhattacharyya, B. *The Indian Buddhist Iconography*, Calcutta, 1963.

Brown, P. *Indian Architecture—Buddhist and Hindu Periods*, 3<sup>rd</sup> ed., rev. and enl., Bombay, 1956.

Buchthal, H. *The Western Aspects of Gandhara Art*, Trust of the British Academy, 1945.

Coomaraswamy, A.K. *History of Indian and Indonesian Art*, London, 1927.

Cribb, J and Errington, E., eds., *The Crossroads of Asia*, 1992.

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Dani, A.H. *Gandhara Art of Pakistan*, Peshawar, 1968.

Foucher, A. *Notes on the Ancient Geography of Gandhara*, Calcutta, 1915.

— *The Beginning of Buddhist Art*, London, 1914.

Goetz, H., *Five Thousand Years of Indian Art*, New York, 1959.

Grunwedel, A. *Buddhist Art in India*, New Delhi, 1901, rev. & enl. Burgess, J., 1985.

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Hallade, M. *The Gandhara Style and the Evolution of Buddhist Art*, London, 1968.

Harle, J.C. *The Art and Architecture of the Indian Subcontinent*, England, 1986.

▽ *Gupta Sculptures*, London, 1974.

- Harvey, P. *An Introduction to Buddhism—Teachings, History and Practices*, Cambridge, rpt. 1991.
- Huntington, S.L. and Huntington, J.C. *The Art of Ancient India—Buddhist, Hindu, Jain*, New York, Tokyo, 1985.
- Ingholt, H. *Gandhar Art in Pakistan*, New York, 1957.
- Journals: *Ancient Pakistan; Pakistan Archaeology; Ancient Sindh; East and West; Silk Road Art and Archaeology; South Asian Studies; South Asian Archaeology*
- Law, B.C., *Historical Geography of Ancient India*, Paris, 1954.
- Lohuizen-de-Leeuw, J.E.van, *The Scythians*, Leiden, 1949.
- Marshall, J. *Taxila*, 3 vols., Cambridge, 1951.
- ▽ *The Buddhist Art of Gandhara*, Cambridge 1960.
- Mitra, D. *Buddhist Monuments*, Calcutta, 1971, rpt. 1980.
- Mollet, J.W. *Dictionary of Art and Archaeology*, London, 1883, rpt. 1994.
- Nasim Khan, M. *Buddhist Paintings in Gandhara*, Peshawar, 2000.
- Nehru, L. *Origins of the Gandhara Styles: A Study of Contributory Influences*, Delhi, 1989.
- Rowland, B. *Art and Architecture of India—Buddhist, Hindu, Jain*, London, 1953.
- ▽ *The Wall Paintings of India, Central Asia and Ceylon*, Bostan, 1938.
- Sardar, B. *Buddhist Rock Carvings in the Swat Valley*, Islamabad, 2005.
- Schlumberger, D. The Excavations at Surkh Kotal and the Problem of Hellenism in Bactria and India, *Proceedings of the British Academy*, Vol. XLVII, 1961, pp. 77-95.
- Swati, M.F. Special Features of the Buddhist Art in the Swat Valley, *Ââthâriyyât (Archaeology)*, vol. 1, 1997, pp. 1-60.
- Gandhara and the Exploration of Gandhara Art of Pakistan, *Ââthâriyyât (Archaeology)*, vol. 1, 1997, pp. 77-95.
- Recent Discovery of Buddhist sites in the Swat Valley, *Ââthâriyyât (Archaeology)*, vol. 1, 1997, pp. 151-84.
- Zwalf, W. *A Catalogue of the Gandhara Sculpture in the British Museum*, 2 vols., The Trustees of the British Museum, 1996.

## Course No. 423

### ANCIENT RELIGIONS OF PAKISTAN AND INDIA

#### 1. Jainism

- Jain tradition regarding twenty-four *tirthankaras* (prophets)
- Parsva and Mahavira
- Mahavira's life sketch
- Importance of the Ardha Magadhi canon
- Mahavira's meeting with Gosala Mankhaliputta (head of the Ajivika sect)
- Vardhamana Mahavira and his doctrine
- Jainism after Mahavira
- Jain canon, philosophy and icons.

#### 2. Buddhism

- Buddhist literature
- Origin and development of Buddhism

- Teachings of Gautama Buddha
- Hinayana and Mahayana sects
- Vina Sutta and Abhidhamma Pitakas
- Sthaviravadin School
- Evolution of the Great Vehicle (Mahayana)
- Mahasanghika and Sarvastivadins
- Adi Buddhas
- Boddhisattvas
- Lalitavistara
- Buddhist ethics and morality

### 3. Hinduism

- Upanishads and freedom of religious speculation
- Vaishnavism
- Origin and evolution of Vaishnavism
- Vasudeva-Krishna and the Bhagavata sect
- The Bhagavatgita
- Vishnu's *avatars* (incarnations)
- The doctrine of four *vyuhas* (phases of conditioned spirit)
- Images and their emblems of identification
- Saivism
- The Pasupata sect and its teachings
- Saivism as a popular cult
- Mahesvara and Mahadeva
- Saiva images
- Important gods and goddesses and their characteristic iconographic features

### Recommended Readings

- Basham, A.L. *History and Doctrines of the Ajivikas*, London, 1951.
- Bhandarkar, R.G. *Vaishnavism, Saivism and Minor Religious Sects*, Strassburg, 1915.
- Conze, E. *Buddhism, Its Essence and Development*, 2<sup>nd</sup> ed. Oxford, 1953.
- Davids, R.T.W. *Buddhism, Its History and Literature*, 2<sup>nd</sup> ed. London, 1926.
- Dowson, J. *A Classical Dictionary of Hindu Mythology and Religion*, 7<sup>th</sup> ed. London, 1950.
- Farquhar, J.N. *A Primer of Hinduism*, London, 1912.
- Keith, A.B. *Buddhist Philosophy in India and Ceylon*, Oxford 1923.
- McGovern, W.N. *Manual of Buddhist Philosophy*, London, 1923.
- Stevenson, S. *The Heart of Jainism*, Oxford, 1915.
- Thomas, E.J. *History of Buddhist Thought*, London, 1933.
- Thomas, E.J. *The life of the Buddha as Legend and History*, London, 1975.
- *History of Buddhist Thought*, 2<sup>nd</sup> ed., London, 1951.

## Course No. 424

### MUSLIM HISTORY OF PAKISTAN AND INDIA

#### 1. Arabs

- Early contact
- Conquests of Baluchistan, Sindh and the NWFP
- Muslim rule in Baluchistan and Sindh under the Arab Khilafat

#### 2. Turks

- Trans Khyber activities of Ghaznavids and the rise and fall of Lahore as a centre of Muslim State AD 997-1210
- The rise of the Ghorids and the establishment of Delhi as the capital of Muslim India
- The Delhi Sultanate with Multan, Uchch and Lahore as centres in the west and Awadh and Bengal in the east AD 1150 to 1325.
- Fragmentation and Turbulence AD 1325 to 1425

#### 3. Afghans

- Lodhis
- Suris

#### 4. Mughals and Post Mughals

- Phases of establishment and transition from Sultanate to Badshahat AD 1526 to 1576
- Phase of Vibrant Mughal Society, culture and administration AD 1576 to 1707
- Decadence and decline AD 1707 to 1830
- Final stages AD 1830 to 1857

#### 5. Provincial Chapter

- Every province will develop its Muslim period history accordingly

#### RECOMMENDED READINGS

Amjid, Y. *Tareekh-e-Pakistan*, Vols. I, II, (Urdu)

Barani, Z. *Tarikh-i Feroz Shahi*, Urdu tr. Aftab Asghar, Lahore, 1986.

*Cambridge History of India*, Vols. III, IV.

Elliot and Dowson, *The History of India as Told by Its Own Historians*, all vols., Lahore, 1976 (1<sup>st</sup> pub. 1867-77).

Ikram S.M. *History of Muslim Civilisation in India and Pakistan*,

Ikram, Shaikh, M. *Ab-i Kauthar* (Urdu), Lahore, 1994.

— *Mauj-i Kauthar* (Urdu), Lahore, 1992.

— *Rud-i Kauthar* (Urdu), Lahore, 1988.

Nazim, M. *The Life and Times of Sultan Mahmud of Ghazna*, New Delhi, 1971.

Qureshi, I.H., ed., *A Short History of Pakistan*, 4 vols, Karachi, 1967.

## **Course No. 431**

### **PROVINCIAL ARCHAEOLOGICAL HERITAGE AND MUSEUMS IN PAKISTAN**

Every university will develop its own course for this paper. This course will include provincial archaeological heritage and museums in different provinces of Pakistan. Each university will develop their respective course by concentrating on the respective provincial archaeological heritage and museums.

## **Course No. 432**

### **QURANIC ARCHAEOLOGY**

This course will deal with the identification and archaeology of all those lands and peoples who have been mentioned in the Holy Quran.

## **Course No. 433**

### **ARCHAEOLOGY OF AFGHANISTAN AND CENTRAL ASIA**

The Course will cover the Archaeological heritage of Afghanistan and Central Asia from 5<sup>th</sup> to millennium BC to the beginning of the Christian Era.

## **Course No. 434**

### **THEORY AND SCIENCE IN ARCHAEOLOGY**

This course will include the various new theories in Archaeology.

#### **1. Introduction**

- Growth of Archaeology
- Nature of archaeological data
- Archaeological research modelling
- Analytical archaeology

#### **2. Data Processing and Analysis**

- Data acquisition, processing and classification
- Analysis of archaeological data
- Temporal frameworks and chronology
- Spatial frameworks and ancient behaviour

#### **3. Interpretation and Explanation**

- Analogy
- Settlement archaeology and spatial analysis: Central Place Theory
- Palaeo-economy: Site Catchment Analysis

#### **4. Confirmation and Evaluation**

- Hypothesis testing
- Scientific confirmation

- Evaluation

## 5. Experimental Archaeology

## 6. Rescue Archaeology

## 7. Ethno Archaeology

### PRACTICAL

- Archaeological-model building
- Application of data-processing tools and electronic equipment for archaeological data-analysis

### RECOMMENDED READINGS

- Bertalanffy, L. Von. *General system Theory*, George Braziller Inc. 1968.
- Binford L.R. and Binford S.R., eds., *New perspective in Archaeology*, Chicago, 1968.
- Butzer, K.W. *Archaeology as Human Ecology*, Cambridge University Press, 1994.
- Dark, K.R. *Theoretical Archaeology*, Cornell University Press, New York, 1995.
- Fagan, B.M. *In the Beginning: An Introduction to Archaeology*, Harper Collins, 7<sup>th</sup> ed., 1991.
- Higgs, E.S. *Palaeo-Economy*, Cambridge University Press, 1975.
- Hodder, I. and Clive, O. *Spatial Analysis in Archaeology*, Cambridge University Press, 1987.
- Knudson, *Culture in Retrospect*, Chicago, 1978.
- Patterson, T.C. *The Theory and Practice of Archaeology*, New Jersey, 1994.
- Renfrew, C. & Bahn, P. *Archaeology: The Method and Practice*, 2<sup>nd</sup>. ed., London, 1996.
- Sharer, R. J. & Wendy Ashmore: *Fundamentals of Archaeology*, Inc. London, 1980.
- Watson, P.J., Steven A.L. and Redman, C.L. *Archaeological Explanation: The Scientific Method in Archeology*, Columbia University Press, New York, 1984.

### Course No. 441

### ANCIENT ART AND ARCHITECTURE OF PAKISTAN AND INDIA

This course will review art and architectural traditions of Pakistan and India of Pre-Islamic period. It requires visits to archaeological sites and museums. The course-contents are as follow:

#### 1. Architecture

- Vedic Period architectural traditions
- Mauryan architecture
- Buddhist architecture: stupa, monastery, rock-cut sanctuaries, etc.
- Hindu architecture: Temple
- Gupta Architecture

## 2. Art

- Mauryan art
- Shunga art
- Early Andhra art
- Later Andhra art
- Mathura art (Kushana Period)
- Gandhara art (Kushana Period)
- Origin of the Buddha image
- Gupta art
- Ajanta cave paintings
- Iconography of Hindu Triad
- Rock Art of Pakistan

### RECOMMENDED READINGS

- Bhattacharyya, B. *The Indian Buddhist Iconography*, Calcutta, 1963.
- Brown, P. *Indian Architecture—Buddhist and Hindu Periods*, 3<sup>rd</sup> ed., rev. and enl., Bombay, 1956.
- Dani, A.H. *Gandhara Art of Pakistan*, Peshawar, 1968.
- Foucher, A. *The Beginnings of Buddhist Art*, London, 1914.
- Grunwedel, A. *Buddhist Art in India*, New Delhi, 1901, rev. & enl. Burgess, J., 1985.
- Gupte, R.S. *Iconography of the Hindus, Buddhists and Jains*, Bombay, 1972, 2<sup>nd</sup> ed. 1980.
- Harle, J.C. *The Art and Architecture of the Indian Subcontinent*, London, 1986.
- ▽ *Gupta Sculptures*, London, 1974.
- Harvey, P. *An Introduction to Buddhism—Teachings, History and Practices*, Cambridge, rpt. 1991.
- Huntington, S.L. and Huntington, J.C. *The Art of Ancient India—Buddhist, Hindu, Jain*, New York, Tokyo, 1985.
- Ingholt, H. *Gandhara Art in Pakistan*, New York, 1957.
- Knox, J.R. *Amaravati, Buddhist Sculpture from the Great Stupa*, British Museum, 1992.
- Marshall, J. *Taxila*, Cambridge, 1951.
- ▽ *The Buddhist Art of Gandhara*, Cambridge 1960.
- Nasim Khan, M., *Buddhist Paintings in Gandhara*, Peshawar, 2000.
- Rock Carvings at Kinro-Kor: A Prehistoric Site of the Northern Areas of Pakistan, *Lahore Museum Bulletin*, 2001, pp.
- Nehru, L. *Origin of Gandharan Style—A Study of Contributory Influences*, Delhi, 1989.
- Pandey, C.B. *Mauryan Art*, Delhi, 1982.
- Rowland, B. *Art and Architecture of India—Buddhist, Hindu, Jain*, London, 1953.
- ▽ *The Wall Paintings of India, Central Asia and Ceylon*, Bostan, 1938.
- Singh, M. *The Cave Paintings of Ajanta*, London, 1965.
- Swati, M.F. Special Features of the Buddhist Art in the Swat Valley, *Athariyyat (Archaeology)*, vol. 1, Peshawar, 1997, pp. 1-60.
- Gandhara and the Exploration of Gandhara Art of Pakistan, *Athariyyat (Archaeology)*, vol. 1, Peshawar, 1997, pp. 77-95.

Yazdani, G. et al, *Ajanta*, Parts I-IV, Oxford, 1930-1955.  
Zwalf, W. *A Catalogue of the Gandhara Sculpture in the British Museum* (2 vols.), (Vol. I: Text; Vol. II: Plates), London, 1996  
Masih, F. *Temples of the Salt Range and North and South Kafirkot: A Detailed Analysis of Their Architecture and Decoration* (Ph. D. Thesis, Unpublished), Department of Archaeology, University of Peshawar, 2000  
Agrawala, R. C. ed. *Interaction Between Brahmanical and Buddhist Art*, New Delhi, 2004

### **Relevant volumes of the following journals**

*Archaeological Survey of India, Annual Report  
Ancient Pakistan*, Department of Archaeology, University of Peshawar.  
*Athariyyat (Archaeology)*, vol. 1, Peshawar, 1997.  
*East and West*  
*Journal of the Asiatic Society of Bengal*  
*Journal of Central Asia* (now *Journal of Asian Civilisations*), Islamabad.  
*Journal of the Royal Asiatic Society, London*  
*Lahore Museum Bulletin*, Lahore.  
*Pakistan Archaeology*, Department of Archaeology and Museums, Government of Pakistan.  
*Silk Road Art and Archaeology*  
*South Asian Archaeology*  
*South Asian Studies*

### **Course No. 442**

### **EARLY MUSLIM ARCHITECTURE IN THE MIDDLE EAST**

This course will review the architectural traditions of Islam from the Dawn of Islamic civilization in Arab Land upto the period of Umayyids of Spain. Course contents are as follows.

#### **1. Introduction**

- Origin and development of Islamic architecture
- Muslims architectural innovations: arches, *mehrab*s, vaults, towers, domes, etc.
- Borrowing, assimilation and creative organisation
- Architecture at the time of Muhammad (P.B.U.H.): Ka'ba and Masjid-i-Nabavi

#### **2. The Umayyid Style**

- The Dome of the Rock
- The Great Mosque of Damascus
- The Palace of Mshatta
- Qasair-e Amra and Qasr ul-Hair

#### **3. The Abbasid Style**

- The Foundation of Baghdad
- Al-Aqsa Mosque
- The Great Mosque of Qairawan
- The Great Mosque of Susa

- The Great Mosque of Samarra

#### 4. The Umayyid of Spain Style

- Hispano-Mauresque style
- Mosque of Cordova
- Mosque at Toledo
- The Alhambra (Granada)

#### RECOMMENDED READINGS

Calvert, A.F. *Moorish Remains in Spain*, London, 1906.

Cresswell, K. A. C. *A Short Account of Early Muslim Architectures*, London, 1958.

∇ *Early Muslim Architecture*, Vol-2, London, New York, 1932-40.

∇ *Early Persian Muslim Architecture*, Proc. of the 2<sup>nd</sup> International Cong on Persian Art, London, 1931.

∇ The History and Evolution of the Dome in Persia, *Indian Antiquary*, XVII, 1915.

∇ The Origin of the Persian Double Dome, *Burlington Magazine*, XXIV, 1913.

Dunn, W. The Principle of Dome Construction, *Architectural Review*, XXIII, 1908.

Firnival, W.j. *Leadless Decorative Tiles, Faience, and Mosaic etc.*, Staffordshire, 1914.

Ghyka, M. *Geometrical Composition and Designs*, London, 1964.

Hare, W.L. Types of Persian Brick and Tile Design, *Apollo*, XIII, 1931.

Hole, Edwyn. *Andalus √Spain under the Muslims*, London, 1968.

Lane, A. *Early Islamic Pottery*, London, 1957.

Mc Cable, J. *The Splendour of Moorish Spain*, London, 1935.

Pope, A.U. *Persian Architecture*, London, 1965.

Pugachenkov, G.A. *The Architecture of Central Asia at the time of the Timurids, Afghanistan*, 22,iii-iv, 1969-70.

Richard, E.T. *Moslem Architecture: 623-1516*, London, 1926.

∇ *The Dome of the Rock in Jerusalem*, Oxford, 1934.

Simakoff, N. *Islamic designs in Colour*, 1993.

Stierlin, H. et al, *Islamic Art and Architecture: From Isfahan to Taj Mahal*,

Wilson, E. *Islamic Designs for Artists and Craftspeople*, (Devor Pictorial Archives)

#### Course No. 443

#### MUSLIM ARCHITECTURE OF PAKISTAN AND INDIA

##### 1. Arab Period

- Settlement pattern and architecture of Banbhore
- Settlement pattern and architecture of Mansurah

##### 2. Ghaznavid/Ghaurid Period

- Tomb of Abdullah bin Haroon
- Udigram Mosque
- Tomb of Khalid bin Waleed
- Tomb of Sadan Shaheed

- Tombs at Lal Mahra

### 3. Sultanate Period

Monuments of Delhi and Ajmir: Quwwat ul Islam masjid, Qutab Minar, Alai Darwaza, Tughlaqabad, Buildings of Feroz Shah Tughlaq, Tombs of Syeds and Lodhis, the Suri period buildings.

### 5. Mughal Period

- Monuments of Fatehpur Sikri
- Monuments of Delhi: Red fort, Jami masjid
- Monuments of Agra: Taj Mahal, Akbar's tomb
- Monuments of Lahore: Badshahi masjid, Wazir Khan masjid, Shalimar garden, Jahangir's tomb, Shahi Fort
- Monuments of Thatta: Shahi masjid, Dabgaran masjid
- Monuments of Peshawar: Mahabat Khan masjid, Palosi Piran complex

### 6. Provincial Styles

- Provincial style monuments of Kalhora and Talpur Rulers of Sindh
- Choukandi type tombs of Sindh and Baluchistan
- Provincial style monuments of the Punjab
- Provincial style monuments of the NWFP
- Sindhi Islamic architecture --- Makli Hill (Thatta)
- Wooden architecture of the Northern Areas of Pakistan

### RECOMMENDED READINGS

Abdur Rahman, *Islamic Architecture of Pakistan: An Introduction*, Peshawar, 1981.

Ali, T. *Anonymous Tombs in the Gomal Valley and the Beginning of Tomb Architecture in Pakistan*, Peshawar, 1988.

Arnold, T. et al, *Islamic Art and Architecture*, Goodword Books, 2001.

Brown, P. *Indian Architecture (The Islamic Period)*, Bombay, 1942.

Chughtai, M.A. *The Badshahi Masjid: History and Architecture*, Lahore, 1972.

— *The Wazir Khan Mosque Lahore: History and Architecture*, Lahore, 1975.

Dani, A. H. *Thatta-Islamic Architecture*, Islamabad, 1982

Ettinghausen, R. and Grabar, O. *The Art and Architecture of Islam 650-1250*, New Haven: Yale University Press, 1987

Field, R. *Geometric Patterns from Islamic Art & Architecture*, Taurin Publications, 1998

Guide Books on *Thatta, Lahore Fort, Shalimar Garden, Banbhore*, Department of Archaeology and Museums, Government of Pakistan

Hillenbrand, R. *Islamic Architecture: Form, Function and Meaning*, New York: Columbia University Press, 1994

Khan, A. N. *Multan: History and Architecture*, Islamabad, 1983.

— *Uchch: History and Architecture*, Islamabad, 1980

— *Development of Mosque Architecture in Pakistan*, Islamabad, 1991

— *Islamic Architecture in South Asia (Pakistan, India and Bangladesh)*,

2003

Mookerjee, A., ed., *5000 Designs and Motifs from India*, Dover Publications, 1996.

Nath, R. *Architecture of Fatehpur Sikri*, Jaipur, 1988.

— *The History of Sultanate Architecture*, New Delhi, 1978

Shah, I. *The Mahabat Khan Mosque and Its Decorative Beauty* (M. Phil thesis, unpublished), Department of Archaeology, University of Peshawar, 1996.

## **Course No. 444**

### **COLONIAL ARCHITECTURE OF PAKISTAN**

#### **1. Introduction**

- British Colonial Period: an overview
- Characteristic features of the British colonial architecture
- Different styles of the British colonial architecture

#### **2. Religious Architecture**

- Churches
- Seminaries

#### **3. Secular Architecture**

- Markets
- Private residences
- Clock-towers
- Parks
- City-planning

#### **4. Military Architecture**

- Forts
- Observation-pickets
- Cantonments

#### **5. Health and Education Architecture**

- Hospitals and dispensaries
- Educational institutions

#### **6. Administrative Architecture**

- Judicial buildings
- Government buildings
- Municipal buildings
- Museums and art-galleries

#### **7. Communication Architecture**

- Roads and bridges
- Railway stations
- Tramways
- Post-offices
- Dak-bungalows
- City gateways

## RECOMMENDED READINGS

- Caroe, O. *The Pathans*, rpt. Karachi, 1992.  
Cunningham, J.D. *History of the Sikhs*, Delhi, 1955.  
Dani, A.H. *Peshawar: Historic City of the Frontier*, Peshawar, 1969.  
Jaffar, S.M. *Peshawar: Past and Present*, Peshawar, 1946.  
Lari, Y. *Karachi*, Oxford University Press, Karachi.  
▽ *The Architecture of Raj,*

## Course No. 451

### MUSLIM CALLIGRAPHY, PAINTING, MINOR ARTS AND CRAFTS

This course will give a comprehensive account of various arts (such as calligraphy, painting, ceramics, metalwork, glasswork, woodwork, etc.) of the Muslim world. The course contents are as follows:

#### 1. Calligraphy

- Origin and development of Arabic script
- Status or position of a calligrapher
- Significance of calligraphy in Islamic arts
- Origin and development of calligraphy
- Principal forms of calligraphy
- Sub-forms of calligraphy
- Modern calligraphers in Pakistan

#### 2. Schools of Painting

- Early Arab
- Mesopotamian
- Mongol
- Persian
- Mughal

#### 3. Minor Arts

- Metalwork
- Glasswork
- Woodwork
- Book illumination
- Bookbinding
- Ceramics

## Recommended Readings

- Al-Faruqi, I. and Al-Faruqi L.L. *The Cultural Atlas of Islam*, New York, 1986.  
Arnold, T. W. *Painting in Islam*  
Binyon, Wilkinson and Gray. *Persian Miniature paintings*  
Brown, P. *Indian Painting*, Calcutta, 1917, 7<sup>th</sup> ed. 1960.  
▽ *Indian Paintings Under the Mughals*, Oxford, 1924.  
*Craft and Textiles of Sindh and Baluchistan*, Institute of Sindhology, Jamshoro, 1982.

- Crafts of Punjab and Muree Hill*, Punjab Small Industry Corporation, 1986.
- Das, A.K. *Splendour of Mughal Paintings*, Bombay, 1986.
- Encyclopaedia of Arts*, London, 1966.
- Ettinghausen, R. *Arab Painting*, London, 1962.
- Gray, B. *Persian Painting*, London, 1961.
- ▽ *The Arts of India*, Oxford, 1981.
- Humbert, C. *Islamic Ornamental Design*, London, 1980.
- Kalter, J. and Thames H. *Arts and Craft of Swat Valley*, 1991.
- Khatibi, Abdelkadir, *The Splendour of Islamic Calligraphy*, rpt. London, 2001.
- Losos, L. *Painting Techniques*, London, 1987.
- Mortin, F.R. *The Miniature Painting and Painters of Persia, India and Turkey, I, II*, London, 1912-1917.
- Pope, A.U. *A Survey of Persian Art*, 6 vols., London, 1939.
- Rogess, J.M. *Mughal Miniatures*, London, 1993.
- Rice T.R.D. *Islamic Art*
- Ziauddin T. W. *Muslim Calligraphy*

## **Course No. 452**

### **TRADITIONAL ARTS AND CRAFTS OF PAKISTAN**

#### **1. Crafts**

- Raw materials
- Traditional tools and techniques of cutting, chiselling, engraving, grinding and polishing
- Total range of forms and designs
- Sculptural art
- Cut-work
- Inlay-work
- Mosaic and Pietre dure work
- Opus sectile work
- Beads and seals
- Cenotaphs

#### **2. Ceramic Crafts**

- Raw materials
- Traditional tools and manufacturing processes
- Total range of forms and designs
- Domestic ceramic
- Tiles
- Ceramic fittings

#### **3. Textiles**

- Raw materials
- Traditional tools and manufacturing processes
- Spinning, weaving, block-printing, embroidery
- Traditional decorative motifs

4. **Carpets**
  - Raw materials
  - Traditional tools and manufacturing processes
  - Traditional decorative motifs
5. **Wood Crafts**
  - Raw materials
  - Traditional tools and manufacturing processes
  - Total range of forms and designs
6. **Basketry Crafts**
  - Raw materials
  - Traditional tools and manufacturing processes
  - Total range of forms and designs
7. **Metal Crafts**
  - Raw materials
  - Copper, bronze, silver and gold
  - Traditional tools and manufacturing processes
  - Total range of forms and designs
8. **Leather Crafts**
  - Raw materials
  - Traditional tools and manufacturing processes
  - Total range of forms and designs
  - Camel skin products and decorative designs
9. **Minor Crafts**
  - Papier mâché
  - Lacquer work
  - Glass
  - Bone, ivory and shell

#### **RECOMMENDED READINGS**

- Chattopadhyaya, *Indian Handicrafts*, New Delhi, 1963.
- Feherrari, G. *Islamic Metalwork of the Eighth to the Fifteenth Century in the Keir Collection*, London, 1976.
- Khan, F.A. *Architecture and Art Treasure in Pakistan*, Karachi, 1969.
- Kqjter, J. *The Arts and Crafts of the Swat Valley: Living Traditions in the Hindu Kush*, London, 1991.
- Lucie-Smith, E. *The Thames and Hudson Dictionary of Art Terms*, rpt. London, 1995.
- Mollett, J.W. *Dictionary of Art and Archaeology*, London, 1994.
- Rehaman, I.A. et al, *Art and Crafts, Pakistan*, Karachi, 1980.
- Ward, R. *Islamic Metalwork*, London, 1993.

## **Course No. 453**

### **FOLK HERITAGE OF PAKISTAN**

This course will impart a comprehensive knowledge of various folk cultures of Pakistan. Field visit to various villages is essential. The course contents are as follow:

#### **1. Introduction**

- The land
- Physical regions
- Economy
- The languages
- Socio-religious groups
- Folk cultures

#### **2. Folk Culture of Northern Areas and Kashmir**

- Kahlash Valley Culture
- Indus and Swat Kohistani Cultures
- Hunza Ismaili Culture
- Kashmiri Culture

#### **3. Folk Cultures of the N.W.F.P.**

- Different ethnic groups
- Settlement Patterns and house types
- Occupations
- Kinship, marriage, and family
- Socio-economic patterns
- Traditional values and Folk lore
- Literature, music, and dance
- Arts and crafts

#### **4. Folk Cultures of Baluchistan**

- Different ethnic groups
- Settlement Patterns and house types
- Occupations
- Kinship, marriage, and family
- Socio-economic patterns
- Traditional values and Folk lore
- Literature, music, and dance
- Arts and crafts

#### **5. Folk Cultures of Sindh**

- Different Ethnic groups
- Settlement patterns and house types
- Occupations
- Socio-economic patterns
- Kinship, marriage, and family
- Traditional values and Folk lore
- Literature, music, and dance

- Arts and crafts

## 6. Folk Cultures of the Punjab

- Different Ethnic groups
- Settlement patterns and house types
- Occupations
- Socio-economic patterns
- Kinship, marriage, and family
- Traditional values and Folk lore
- Literature, music, and dance
- Arts and crafts

## RECOMMENDED READINGS

- Ahmed, A.S. *Millennium and Charisma among Pathans*, London, 1976.  
 Buddulph, J. *Tribes of the Hindoo Koosh*, Karachi, 1973.  
 Caroe, O. *The Pathans*, rpt. Karachi, 1992.  
 Dani, A.H. The Cultural History of Northwest Pakistan, *Year Book of the American Philosophical Society*, Philadelphia, 1960.  
 Elliot, J.G. *The Frontier 1849-1947*, London, 1968.  
 Gankavsky, V. *The Peoples of Pakistan ▽An Ethnic History*,  
 Jettmar, K. *Cultures of the Hindukush*,  
 Journals: All related journals through Pakistan  
 Khan, A.Z. *History and Culture of Sind*, Karachi, 1980.  
 Maloney, C. *Peoples of South Asia*,  
 Pehrson, R.N. *The Social Organization of the Marri Baloch*  
 Qadri, K. *Baloach Tribes (Urdu)*  
 Qureshi, S. *Legacy of the Indus*  
 Robertson, G.S. *The Kafirs of the Hindukush*, rpt. Karachi, 1974.  
 Seledtion from the Govt. Records, *Baluchitan through the Ages*, (Vols. I & II)  
 Wileley, J.M. *Punjabi Musalmans*

## Course No. 461

## PALAEOGRAPHY AND EPIGRAPHY OF PAKISTAN AND INDIA

This course is divided into two parts: Paleography and Epigraphy. In Paleography the origin and development of Brahmi, Kharoshthi, | arada and Devanagri scripts will be studied and learnt how to transcribe them into Roman alphabets. In Epigraphy the importance of epigraphical research will be reviewed and will include ancient inscriptions/*faramin* or those of the Muslim rulers of Pakistan and India. The course contents are as follows

### 1. Palaeography: Brahmi

- Origin of writing in Pakistan and India (South Asia)
- Brahmi script: characters, conjuncts
- Origin of Brahmi script
- Decipherment
- Asokan Brahmi
- Provincial styles

- Kushan characters
- Regional styles
- Gupta characters
- Proto-Sarada
- Sarada
- Devanagari

## 2. Palaeography: Kharoshthi

- Kharoshthi script: alphabets, conjuncts
- Origin of Kharoshthi script
- Decipherment
- Asokan Kharoshthi
- Development
- Transitional phases of writing

## 3. Epigraphy

- Importance of Epigraphic research in Archaeology
- History of Epigraphic Studies in Pakistan and India
- Survey of the Epigraphic records
- Epigraphy as a source of History of Pakistan and India.

### RECOMMENDED READINGS

Agrawala, P.K. *Imperial Gupta Epigraphs*, Varanasi, 1983.

Bhandarkar, D.R. A List of Inscriptions of Northern Indian in Brahmi and Its Derivative Scripts, from about 200 A.C., Appendix to *Epigraphia Indica*, vols. 19-23, Calcutta, 1932-38.

Buhler, G. Indian Palaeography, Appendix to *The Indian Antiquary*, Calcutta, 1904, rpt. 1959.

Burgess, J. *Epigraphia Indica*, Vol. II, Indian rpt. 1970.

▽ *Report on the Buddhist Cave Temples and Their Inscriptions*, Varanasi. rpt. 1964.

*Corpus Inscriptionum Indicarum*, Calcutta, Vol. II.

Cunningham, A. *Corpus Inscriptionum Indicarum*, Vol. I, *Inscriptions of Asoka*, Varanasi, rpt.1961.

Dani, A.H. *Indian Palaeography*, Oxford, 1963.

▽ *Kharoshthi Primer*, Lahore, 1979.

*Epigraphia Indica* (volumes and readings suggested by the teacher).

Ghafoor, A. *Calligraphers of Thatta*

Hultzsch, E. *Corpus Inscriptionum Indicarum*, Vol. I, *Inscriptions of Asoka*, Oxford, 1925.

Konow, s. *Corpus Inscriptionum Indicarum*, Calcutta, Vol. II, 1929.

Nasim Khan, M. Ashokan Inscriptions: A Palaeographical Study, *Athariyyat*, vol. 1, 1997, pp. 131-50.

— Epigraphy in Pakistan, *The Glory that was Pakistan, 50 Years of Archaeological research in Pakistan*, Peshawar, 1998, pp. 39-44.

— Epigraphy as a Source of Gandhara History, *Journal of Humanities and Social Sciences*, vol. 6, no. 2, 1998, pp. 30-45.

— Proto-Sharada Inscription from Hund-Pakistan, *Indian Archaeological Studies*, No. 20, 1998-99, pp. 77-83.

Pandey, R.B. *Indian Palaeography*, Banaras, 1952 (2<sup>nd</sup> ed. 1957).

Salomon, R. *Indian Epigraphy*, New Delhi, 1998.  
Sircar, D.C. *Indian Epigraphical Glossary*, Varanasi, 1966.  
▽ *Indian Epigraphy*, Delhi, 1965.  
Upasak, C.S. *History and Palaeography of Kharoshthi Script*, Varanasi, 2001.

## **Course No. 462**

### **NUMISMATICS OF PAKISTAN AND INDIA**

This course is divided into two parts: a) Numismatics of Pre-Muslim period of Pakistan and India and b) Numismatics of Muslim period of Pakistan and India. The Course contents are as follow:

#### **1. Introduction**

- Numismatics: Definition, scope and significance
- Metallurgical studies
- Mints
- Cataloguing
- History of coins
- Techniques of manufacturing coins

#### **2. Numismatics: Pre-Muslim Period**

- Antiquity of coinage in Pakistan and India
- Punch marked coins
- Indo-Greek coins
- Scytho-Parthian coins
- Kushan coins
- Huna coins
- Hindu-Shahi coins

#### **3. Numismatics: Muslim Period**

- Arab period coins in Pakistan
- Coins of the Ghaznavid and Ghaurid rulers
- Coins of the early Sultanate period (the Khaljis, Tughlaqs, Syeds, Lodhis, Suris)
- Coins of the Mughal rulers
- Coins of the Durrani and the Sikhs

### **RECOMMENDED READINGS**

Abdur Rahman, *The Last Two Dynasties of the Shahis*, Islamabad, 1979.  
Allan, J. *Catalogue of the Coins of Ancient India in the British Museum*, London, 1936, rpt. 1967.  
Bhandarkar, D.R. *Lectures on Ancient Indian Numismatics*, Patna, rpt. 1984.  
Bivar, A.D.H. The Kushano-Sasanian Coins Series, *The Journal of the Numismatic Society of India*, Vol. XVIII, Part I, Varanasi, 1956, pp. 157-65.  
Bopearachchi, O. and Amanur Rahman, *Pre-Kushana Coins in Pakistan*, Islamabad, 1995.  
Bopearachchi, O. *Indo-Greek, Indo-Scythian and Indo-Parthian Coins in*

- the smithsonian Institutue*, Washington, 1993.
- Chakraborti, S.K. *Socio-religious and Cultural Study of the Ancient Indian Coins*, Delhi, 1986.
- Cooper, R.D. *The Art and Craft of Coin Making: A History of Minting Technology*, London, 1988.
- Cribb, J. *Money: from Cowerie Shell to Credit Cards*, London, 1986.
- Cunningham, A. *Coins of Medieval India from the Seventh Century Down to the Muhammadan Conquests*, London, 1894, rpt.1967.
- ▽ *Later Indo-Scythians*, Vol. II, rpt. Varanasi, 1962.
- Gardner, P. *The Coins of the Greek and Scythic Kings of Bactria and India in the British Museum*, London, 1886, 1<sup>st</sup> American ed., Chicago, 1966.
- Lanepole, *Catalogue of the Muslim Coins in the British Museum*
- Mitchiner, M. *The Origin of Indian Coinage*, London, 1973.
- Narain, A.K. *Indo-Greeks*, Oxford, 1957.
- Rosenfield, J. *The Dynastic Art of the Kushans*, Delhi, 1967.
- Sahni, B. *The Technique of Casting Coins in Ancient India*, Memoirs of the Numismatic Society of India, Vol. I, Bombay, 1945.
- Singh, S.S. *Early Coins of North India: An Iconographic Study*, New Delhi, 1984.
- Smith, V.A. *Coins of Ancient India*, Vol. I of *Catalogue of the Coins in the Indian Museum, Calcutta*, Oxford, 1906-19, rpt. Varanasi, 1972.
- Thomas, E. *The Chronicles of the Pathan Kings of Delhi*, rpt. Delhi, 1967.
- Whitehead, R.B. *Catalogue of Coins in the Punjab Museum*, Vol. III, rpt. Lahore, 1977.
- *Catalogue of Coins in the Punjab Museum*, Lahore, Vol. I, Oxford, 1914.
- *Catalogue of Coins in the Lahore Museum, Lahore, Vol II, Coins of the Mughal Emperors*, Lahore, rpt. 1977.
- Wilson, H.H. *Ariana Antiqua—A descriptive Account of the Antiquities and Coins of Afghanistan*, London, 1841, rpt. Delhi, 1971.
- Wright, N.H. *The Coinage and Metrology of the Sultans of Delhi*, rpt. Delhi, 1974.

## **Course No. 471**

### **RESEARCH METHODOLOGY AND RESEARCH REPORT**

#### **THEORY**

- Archaeological research project.
- Archaeological research design
- Formulation of hypothesis
- Implementation of research
- Data collection
- Analysis of archaeological data
- Interpretation and synthesis of archaeological data
- Research report

#### **PRACTICAL**

- Monograph on any site/monument, ancient inscriptions/coins, etc.

## RECOMMENDED READINGS

Hult, C.A. *Researching and Writing Across the Curriculum*, 2<sup>nd</sup> Ed., California, 1990.

Lester, J.D. *Writing Research Papers: A Complete Guide*, London, 1987.

Marius, R. *A Short Guide to Writing about History*, London, 1989.

Sharer, R.J. and Wendy A. *Fundamentals of Archaeology*, London, 1980.

Naz Arifullah, S. and Bhutti, K.M. *Research Process Simplified*, Peshawar,

## Scheme of Study for M.A/M.S (Hons) & Ph.D

Research students registered for M.A/M.S (Hons)/Ph.D degrees in Archaeology shall pursue the following:

- a) Two semesters/one year coursework prescribed by the Department and
- b) A thesis/dissertation on a topic approved by the 'Advanced Study and Research Board' on the recommendation of 'Graduate Studies committee' of the Department.

The degree of M.A/M.S (Hons) and Ph.D. in Archaeology shall be offered on satisfactory completion of coursework, thesis/dissertation and viva-voce examination for M.A/M.S (Hons). The programme is spread over four semesters/two years for M.A/M.S (Hons) and six semesters/three for Ph.D. degree.

The minimum requirement of the credit hours/time limit will be distributed as:

### *Coursework*

M.A/M.S (Hons)	24 C.H. /One year
Ph. D.	18 C.H. Additional Course work

### *Dissertation*

M.A/M.S (Hons)	One – Two semesters/Six months-One Year
Ph.D.	Four semesters/Two years

Major Courses (Part-A) consist of 44 Courses and research scholar will have the option of selecting courses of 24 credit hours (including 6 C.H. from related courses) for M.A/M.S (Hons) and additional 18 credit hours (including 4 C.H. from related courses) for Ph.D. in consultation with his/her supervisor. These courses will be studied with reference to the original sources. For "Related Courses" (Part-B) both M.A/M.S (Hons) and Ph.D. students have the choice of selecting courses of 6 & 4 credit hours respectively in consultation with his/her supervisor. According to the normal procedure, a research scholar will first complete the coursework and then start working on the thesis/dissertation.

### **A: Major courses**

<b>Course #</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>
701.	Pre-Muslim Art of South and South East Asia	3
702.	Pre-Muslim Art of Central Asia and Iran	3
703.	Pre-Muslim Art of Mesopotamia and Egypt	3
704.	Pre-Muslim Art of Greece and Rome	3

705. Muslim Architecture in the Near East	3
706. Muslim Architecture in Spain and North Africa	3
707. Early Mediaeval Muslim Architecture in South or Central Asia	3
708. Mughal Architecture	3
709. Outline of the History of Paintings	3
710. Muslim Paintings in Western Asia	3
711. Mughal Paintings	3
712. Provincial Schools of Indian Paintings	3
713. Origin and Development of Arabic Writing	2
714. Origin and Development of Different Styles of Muslims Calligraphy	2
715. Muslim Calligraphy in South Asia	2
716. Early History of Coinage; origin of Coinage in South Asia	2
717. Coins of the Indo-Greeks, Scytho-Parthians and the Kushans	3
718. Coins of the Sasanians, Guptas, Hunas and the Hindu Shahis	3
719. Technique of Manufacturing coins	1
720. History of Muslim Coinage	2
721. Coinage of the Muslim rulers of Mediaeval India	3
722. Coins of the Mughals, the Durrans and the Sikhs	2
723. History of Architecture	2
724. Origin and Development of Hindu Architecture in North India (from Vedic times to the medieval period)	3
725. Buddhist Architecture in India	3
726. Mediaeval Hindu Architecture of South India	3
727. Geomorphology of the Pleistocene and Holocene Periods in Pakistan and the emergence of tool technology	2
728. Stone Age of Europe and America	3
729. Stone Age of Africa, the near East, Iran and Afghanistan	3
730. Stone Age of South and South-East Asia and China	3
731. History of the Decipherment of Scripts	3
732. Origin and Growth of Writing in South-Asia (Indus Script)	3
733. Origin and Development of Kharoshthi	2
734. Origin and Development of Brahmi (Gupta, Sarada and Devanagri)	3
735. The History and Origin of Language	3
736. Indo Aryan and Indo-Iranian Languages of the Subcontinent	3
737. Study of Settlement Pattern in South Asia (from the Neolithic To the Iron Age)	3
738. Process of Urbanisation in the Near East and South Asia (an analysis of factors related to the processes of domestication and development of trade and cities)	3
739. A Review of Ancient Civilizations	3
740. Evolution of Bronze Age Cultures in South Asia (a review and analysis of cultures from 5th/6th millennium BC to 1000 BC)	3
741. Origin, Development, Types and Functions of Museum	3
742. Museum Architecture: Security of Museum	1
743. Museum Environment: Climate Control; conservation of Collections	2
744. Museum Administration and Operation	3

- 745 Archaeological Conservation and Management of Cultural Heritage  
746 Anthropology and Environmental Archaeology  
747 Cultural Tourism and Archaeological Heritage

**B: Related Courses**

- |     |   |   |
|-----|---|---|
| 1.  | Origin and Growth of Archaeology in South Asia; Its Scope In Future.          | 2 |
| 2.  | One Hundred and Fifty Years of Archaeological Research (excluding South Asia) | 2 |
| 3.  | Dardic Languages of Pakistan  | 2 |
| 4.  | Dating Methods in Archaeology   | 2 |
| 5.  | Fieldwork   | 4 |
| 6.  | Research Methodology  | 2 |
| 7.  | Seminars  | 1 |
| 8.  | Functional Knowledge of Arabic  | 2 |
| 9.  | Functional Knowledge of Persian   | 2 |
| 10. | Functional Knowledge of Sanskrit and Prakrit                                  | 2 |

After successful completion of coursework, the student will pursue research under the guidance of a supervisor for at least two-semester/one year for M.A/M.S (Hons) and four semester/two years for Ph.D. degree and submit his/her thesis/dissertation as per the university rules and regulations related to the degree concerned. The thesis/dissertation is expected to be based on original research of the student.

## RECOMMENDATIONS

The Curriculum Revision Committee after revising courses for B.A /B.S. (Hons.), M.A./M.S. (Hons.) and Ph.D. in Archaeology unanimously resolved the following recommendations to the HEC to be supported and forwarded for implementation to the concerned quarters/agencies.

1. Field and practical work (exploration, survey, excavation, museum studies, sites and monuments study) is required and compulsory for acquiring B.A./B.S., M.A./M.S. degree in Archaeology. It is, therefore, recommended that sufficient amount of funds should be allocated in the budget/grants for the Departments of Archaeology in each University of the country on permanent recurrent basis.
2. Archaeology is a scientific discipline and depends on various laboratory and field equipments for analysis of archaeological data. Teaching departments of all the universities should, therefore, be strengthened by establishing Archaeological Documentation Laboratories and be provided with electronic equipment such as computers, plotters, printers, digital cameras, electronic microscopes, theodolites, EDMs (Electron Distance Meter), GPS (Global Positioning system), metal detectors, etc.
3. Laboratories for conservation of cultural property should be established at each of the teaching departments of archaeology.
4. Laboratories for palaeontological and palynological studies should be established at each of the department of archaeology.
5. Laboratories for C<sup>14</sup> and thermoluminescence dating should be established at each of the teaching departments.
6. Like a laboratory, a teaching museum is an essential component for an archaeological research. Therefore, it is resolved that museums should be established at each department of all the universities like the one established at Peshawar University and adequate budget be provided to them on annual basis.
7. Funds for holding national and international symposia/conferences, seminars and workshops be provided to review the archaeological research carried out in Pakistan.
8. Funds should be allocated for establishing a "Reading Material Resource Management Cell" at the Department of Archaeology, University of Peshawar, being the oldest and well-established Department in the country.
9. Archaeology plays an important role in the strategic, economic, educational and political conditions of a country. It is, therefore, recommended that full-fledged departments of Archaeology be established at the Universities of Balochistan, Karachi, Bahawalpur, Multan, AJK, Allama Iqbal Open University and Quaid-I-Azam University, Islamabad.
10. Keeping the rich and diverse cultural (Archaeological) heritage of all the provinces, the committee recommends that the subject of

Archaeology should be introduced at the Inter ad Degree levels in all colleges of the country.

11. Archaeology being taught in all the three Provinces at the University level, it is therefore recommended that it should be included in the competitive examinations at the Provincial and Federal levels.
12. Full fledged Provincial Departments of Archaeology and Museums should be established at Sindh, Balochistan, Northern Areas and Azad Jammu and Kashmir.
13. The Department of Archaeology, University of Peshawar, being the oldest and well-established teaching and research institute in Pakistan, should be upgraded to the status of "Centre of Excellence in Archaeology" by providing sufficient funds and physical facilities/infrastructure.
14. To protect cultural heritage of the Country, a consultant archaeologist and museologist should be nominated from teaching departments of Archaeology on various local bodies: Auqaf Department, Environmental Department, and City Development Authorities which are mainly concerned with building, demolition, development and rebuilding processes in rural/urban areas.
15. Culture Ministries (Federal and Provincial) should be approached to establish a fund under the title "Contract Archaeology". One percent (01%) money from all Government Contracts should go to this fund, which will be utilized in rescuing cultural (archaeological) material where threatened by such projects (such as building and developmental works).
16. The Federal and Provincial governments should be approached to advise the "Tourism departments" to recruit the degree holders of Archaeology on priority basis, since study of Cultural Tourism is an integral part of the curriculum of Archaeology in Pakistan.
17. The process of conducting excavation and exploration at all the provinces should be reviewed in order to rescue important sites from being destroyed by illegal digging/illicit traders. Fund should be provided to preserve and conserve the historical monuments throughout the country. In this regard co-ordination among the Federal, Provincial and Teaching Departments in the country is highly desired.
18. Government should adopt an aggressive and forward-looking policy towards the development of Cultural tourism in the country.
19. Switching over to the new programme will require to enhance infrastructure and faculty to over three times of the existing facilities to accommodate and facilitate growing number of students in the next two to three years.
20. Museums housing local cultural material should be established in all district headquarters. The federal government has already been agreed to recognise the importance of our cultural property. The government should make it practical to encourage tourism as a foreign exchange earning industry.