



A Compendium of **Indian** Art and Culture

For Civil Services and Other Competitive Examinations

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PREFACE

In recent years the significance of art and culture has increased enormously for students of competitive examinations as well as for readers in general. Readers are always anxious to know about India's heritage and culture because throughout the history of humanity, India has been at the centre of world civilization. Hundreds of ambassadors and travellers visited India in the past to learn about the religion, values, customs and traditions of India.

While most ancient civilizations such as the Greco-Roman and the Egyptian civilizations have largely vanished from the scene without leaving any trace, the Indian civilization has survived all internal and external challenges over the ages. This spirit of survival and continuity inspired me to carry out extensive research on Indian art and culture. This book is the crux of my knowledge acquired over a period of the last 15 years of my research and teaching in this area.

The book *Indian Art and Culture* endeavours to cover each and every dimension of Indian heritage, art and culture so that civil service aspirants do not have to go through any other book or source material while preparing for their competitive examinations. Efforts have been made in this book to cover topics in such a way that not only the requirements of UPSC and PSC examinations can be fulfilled as also those of other competitive examinations.

Spanning over 30 chapters, the book covers all important aspects of Indian art and culture, such as architecture, sculptures, paintings, coins, music, drama, literature, religion and philosophy, cultural institutions and so on. An entire chapter is dedicated to UNESCO's World Heritage Sites in India. The book concludes with a chapter on current developments in the area. Every chapter has practice questions at the end to help students in revising and assessing their level of comfort and command over the topics.

In this endeavour of bringing out the book, I must thank Ms Shivani Grover and other members of the team at Insight IAS Academy, who provided me all kinds of help and support from beginning to end. I would also like to thank the editorial team at Oxford University Press India for their valuable inputs.

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All suggestions to improve the content of the book are welcome. You can send your suggestions to me at sbaliyandelhi@gmail.com.

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CONTENTS

Preface

iv

1. Indian Architecture	1	Structural Temples in India	27
Palaces and Forts in India	2	Nagara Style of Temple Architecture	28
Harappan Forts	2	Dravidian Style of Temple Architecture	30
Mauryan Fort	3	Vesara Style of Temple Architecture	32
Mauryan Palaces	4	Significance of Temples	33
Various Forts in Delhi	5	Indo-Islamic Architecture	34
Cave Architecture in India	7	Introduction	34
Barabar and Nagarjuni Hill Caves	7	Comparative Analysis of Indian	
Cave Architecture during Post-Mauryan		Architecture and Islamic Architecture	34
Period	8	Assimilation of Indian and Islamic	
Cave Architecture during Gupta Period	10	Elements of Architecture or Emergence	
Cave Architecture during Post-Gupta		of Indo-Islamic Architecture	35
and Early Medieval Period	11	Evolution of Indo-Islamic Architecture	36
Ajanta Caves	12	Architectural Achievements of Delhi Sultans	39
Ellora Caves	12	Architectural Achievements of	
Elephanta Caves	13	Mughal Rulers	41
Pillar Architecture in India	14	Mughal Gardens	47
Introduction to Pillar Architecture	14	Monuments Built by Shershah Suri	48
Palace Pillars of Mauryan Period	14	Octagonal Tombs of Medieval Period	49
Independently Erected Pillars of Ashoka	15	Regional Architecture in India during	
Pillar Architecture in		Medieval Age	49
Post-Mauryan Period	18	Jaunpur School of Architecture	49
Pillar Architecture during Gupta Age	18	Bengal School of Architecture	49
Stupa Architecture in India	18	Malwa School of Architecture	50
Introduction to Stupa Architecture	18	Gujarat School of Architecture	50
Ten Original Stupas	19	Bahmani School of Architecture	50
Classification of Stupas	20	Mewar School of Architecture	51
Parts of Stupa	21	Marwar School of Architecture	51
Development of Stupa Architecture	22	Amber School of Architecture	51
Sanchi Stupa	23	Indo-Saracenic Architecture	51
Indian Temple Architecture	24	Introduction	51
Introduction to Indian Temple Architecture	24	Essential Features	51
Classification of Indian Temple Architecture	25	Prominent Indo-Saracenic Monuments	53
Monolithic Temples in India	26	2. Sculptures in India	59
Chaityas	26	Difference between Architecture	
Mandapas	26	and Sculpture	60
Ratha Temples	27	Progress during Harappan Civilization	61

Sculptures during Mauryan Age	63	Kalamkari Paintings	102
Sculptures during Post-Mauryan Age	65	Santhal Paintings	102
Sculptures during Gupta Period	70	Classification of Paintings on the Basis	
Progress during Post-Gupta and Early Medieval Age	70	of Material	103
Buddhist Gestures and Postures	72	Glass Painting	103
Introduction	72	Marble Painting	103
Important Hand Gestures of Buddha	72	Batik Painting	103
		Leaf Painting	104
		Patachitra Painting	104
		Pichwai Painting	104
		Phad Painting	105
		Prominent Painters of Modern Age	105
		Raja Ravi Varma	105
		Abanindranath Tagore	105
		Amrita Sher-Gil	106
		Maqbool Fida Hussain	106
		Nandalal Bose	106
		Syed Haider Raza	106
3. Paintings in India	79		
Six Limbs (Sadanga) of Indian Paintings	80	4. Music and Dance in India	111
Paintings during Stone Age	80	Fundamental Elements of Indian Music	112
Paintings in Harappan Civilization	82	Shruti	112
Paintings during Vedic Age	83	Swara	112
Paintings during Post-Mauryan Period	83	Raga	113
Paintings during Gupta Period	83	Tala	115
Paintings during Post-Gupta Period	85	Rasa	115
Ancient Rock Paintings in India	85	Progress in Music and Dance	
Paintings during Early Medieval Age	88	during Ancient Age	116
Progress in Paintings during Medieval Age	90	Progress in Music and Dance	
Paintings during Sultanate Period	90	during Medieval Age	117
Mughal Paintings	91	Progress during Sultanate Period	117
Contribution of Mughal Rulers		Progress during Mughal Period	118
to Painting	91	Development in Regional Kingdoms	119
Characteristic Features of Mughal Paintings	94	Indian Vocal Music	121
Paintings in India during 18th Century	95	Dhrupad	121
Rajasthani School of Paintings	95	Khayal	121
Pahari School of Paintings	96	Tarana	122
Modern Indian Paintings	97	Thumri	122
Company School/Patna School/Kasim		Tappa	122
Bazaar School	97	Qawwali	123
Nationalist School/Bengal School/Shanti		Kirtan	123
Niketan School	98	Harikatha	123
Folk Painting Traditions and Regional		Rabindra Sangeet	123
Styles of Paintings	98	Ghazals	123
Tantric Paintings	98	Classical Music in India	124
Madhubani Paintings	99	Music Gharanas	126
Ragamala Paintings	99	Fusion Music in India	126
Malwa Paintings	100		
Lodi Khuladar Paintings	100		
Deccan Style Paintings	100		
Mysore Paintings	100		
Tanjore Paintings	101		
Manjusha Art	101		
Warli Paintings	101		
Kalighat Paintings	102		
Gond Paintings	102		

Classification of Musical Instruments	127	8. Puppetry	175
Classical Dance of India	129	Classification of Puppetry	176
Various Postures of Classical		Significance and Relevance of Puppetry	179
Dances/Tandava	130		
Classical Dance Forms of India	131	9. Martial Arts	181
Folk Dances of India	136	Different Martial Art Forms of India	182
Andhra Pradesh	136		
Assam	136	10. Drama	190
Gujarat	137	Ancient Indian Plays	192
Jharkhand	138	Indian Traditional Theatres at Present	194
Kashmir	139	Prominent Indian Theatre Personalities	
Kerala	139	of Modern Times	198
Madhya Pradesh	139	Institutions Associated with	
Maharashtra	140	Theatre/Drama in India	201
Mizoram	140		
Odisha	140	11. Social Institutions	204
Punjab	141	Family	205
Rajasthan	141	Marriage	205
Tamil Nadu	142	Eight Forms of Marriage	206
Sangeet Natak Akademi	143	Sati	207
Aims and Objectives	143	Jauhar	207
Prominent Music Personalities	143	Stratification System	207
Tansen (1500–1586)	143	Gotra System	208
Kakarla Tyagabrahmam (1767–1847)	144	Ashrama System	208
M.S. Subbulakshmi (1916–2004)	144	Purusartha	209
		Slavery	210
5. Seals	148	Untouchability	210
Seals of Harappan Civilization	149	Samskaras	211
Seals Belonging to Historical Age	151		
6. Coins	153	12. Progress in Science and Technology	214
Coinage in Ancient India	153	Astronomy	215
Coinage during Post-Gupta Age	157	Mathematics	216
Coinage during Medieval Age	157	Medical Science	217
Coinage during British Rule	160	Chemical Science	218
Coinage in Independent India	161	Metallurgy	219
Significance of Coinage as Source of History	161		
7. Pottery	165	13. Educational Institutions	222
Black and Red Ware (BRW) Pottery	166	Educational Institutions in Ancient India	222
Ochre Coloured Pottery (OCP)	166	Introduction	222
Painted Grey Ware (PGW) Pottery	167	Takshashila University	223
Northern Black Polished Ware		Nalanda University	224
(NBPW) Pottery	168	Odantapuri Mahavihara/University	226
Red Wares	169	Vikramashila University	227
Pottery of Harappan Civilization	170	Somapura Mahavihara/University	228
Imported Wares	171	Jagaddala Mahavihara/University	228
		Pushpagiri Mahavihara/University	229

Prominent Cities Associated with Education and Learning during Ancient Age	229
Ujjain	229
Banaras	229
Kanchipuram	230
Vallabhi University	230
Educational Centres in India during Medieval Age	230

14. Ancient Indian Religion and Philosophy 234

Religious Life of Harappan Civilization	235
Vedic Religion	236
Buddhism	238
Fundamental Elements of Buddhist Teachings	240
Rules and Regulations of Buddhist Monastic Order (<i>Sangha</i>)	241
Buddhist Symbols	242
Four Great Events in Buddha's Life	243
Important Buddhist Monks	243
Anti-Buddhist Personalities	243
Buddhist Councils	243
Philosophy of Buddhism	246
Buddhist Literature	247
Spread of Buddhism outside India	247
Sects of Buddhism	249
Jainism	251
Mahavira	251
Rishabhanatha	253
Parshvanatha	253
Five Vows of Jainism	253
Three Jewels of Jainism	254
Jain Philosophy	254
Jain Nirvana	255
Jain Literature	255
Jain Councils	257
Critical and Comparative Analysis of Buddhism and Jainism	257
Jain Sects	259
Six Systems of Philosophy	261
Samkhya School of Philosophy	261
Vaisheshika School of Philosophy	262
Nyaya School of Philosophy	262
Yoga School of Philosophy	263

Mimamsa School of Philosophy	263
Vedanta School of Philosophy	264
Shankaracharya	264
Various Philosophical Doctrines	265
Other Heterodox Sects (600 BC – 300 BC)	265
Uchchedavada (Annihilationism)	265
Niyativada or Ajivikas	266
Materialism/Charvakas/Lokayatas	266
Akriyavada/Antinomianism	267
Akrittavada/Asasvatavada	267
Anichchitvada	267
Saiva Sects	268
Saiva Siddhanta	268
Suddha Saivas	268
Mattamayuras	268
Kapalikas	268
Kalamukhas	269
Aghoris	269
Nathpanthis	269
Pashupatas	270
Virasaivism/Lingayata	270
Kashmir Saivism/Pratyabhijna	270
Spanda Shastra	271
Siva Siddhanta	271
Agamantas	271

15. Religion and Philosophy during Medieval Age 275

Bhakti Movement	276
Prominent Bhakti Saints	276
Vaishnava Acharyas	281
Maharashtra Dharma	282
Sufi Movement	283

16. Socio-religious Reform Movements of 19th Century 290

Brahmo Samaj	291
Arya Samaj	294
Jat Pat Todak Mandal (Society for Abolition of Caste)	296
Sarvadeshik Hindu Sabha	296
Ramakrishna Mission	297
Theosophical Society	298
Paramahansa Mandal	298
Young Bengal Movement	298
Paramahansa Sabha	299

Prarthana Samaj	299	Darul Uloom Nadwatul Ulama	310
Radha Swami or Radha Soami Movement	300	Firangi Mahal Movement	310
Deva Samaj	300	Deobandi Movement	310
Madras Hindu Social Reform Association	300	Khaksar Movement	310
Madras Hindu Association	300	Movement of Titu Mir	311
Gandiya Sabha	300	Faraizi Movement	311
Veda Samaj	301	Ta'ayuuni or Tayuni Movement	311
Bharat Dharma Maha Mandala	301	Ahl-al-Quran (People of Quran)	312
Swaminarayan Sect	301	Pagal Panthi Movement	312
Satnami Sect	301	Majlis-e-Ahrar-e-Islam	312
Satya Mahima Dharma	301	Ahrar Movement	312
Bhil Seva Mandal	302	Azad Muslim Conference	313
Dharma Sabha	302	Krishak Praja Party	313
Seva Sadan	302	Khudai Khidmatgar	313
Servants of India Society	302	Khilafat Movement	313
Indian (National) Social Conference	303	All India Momin Conference	314
Social Service League	303	All India Shia Political Conference	314
Seva Samiti	303	Parsi Movement	314
Lokahitawadi	303	Rahnumai Mazdayasnan Sabha	
Satyashodhak Samaj	304	(Religious Reform Association)	314
Bahujan Samaj Movement	304	Rise and Development of Sikhism	315
Vokkaligara Sangha and Lingayata		Guru Nanak (1469 – 1539)	315
Education Fund Association	304	Guru Angad (1538 – 1552)	315
Aravipuram Movement/Sri Narayana		Guru Amar Das (1552 – 1574)	315
Dharma Paripalana Yogam	304	Guru Ramdas (1574 – 1581)	316
Justice Party	305	Guru Arjan Dev (1581 – 1606)	316
Self-respect Movement	305	Guru Hargobind (1606 – 1645)	316
Nair Service Society	305	Guru Har Rai (1645 – 1661)	317
Depressed Classes Mission	306	Guru Harkrishan (1661 – 1664)	317
Depressed Class Mission Society	306	Guru Tegh Bahadur (1664 – 1675)	317
All India Depressed Classes Federation	306	Guru Govind Singh (1675 – 1708)	317
Harijan Sevak Sangh	306	Banda Bahadur (1670 – 1716)	318
Pillai Movement	306	Kapur Singh (1697 – 1753)	318
Vaikom Satyagraha	306	Women Upliftment Movements	318
Nair Movement	307	Prominent Personalities	318
Praja Mithra Mandal	307	Prominent Organizations	320
Mahar Movement	307	Sikh Movements	322
Mahar Satyagraha	307	Nirankari Movement	322
Muslim Socio-religious Reform		Namdhari Movement	322
Organizations and Movements	307	Singh Sabha	323
Wahabi Movement	308	Gurdwara Reform Movements	323
Ahl-i-Hadith	308	Akali Movement	324
Ahmadiyya Movement/Qadiani Movement	308	Various Social Reform Legislations	324
Aligarh Movement	309	Abolition of Infanticide	324
Anjuman-i-Himayat-i-Islam (Society for		Abolition of Sati	324
Defence of Islam)	310	Suppression of Thugi	324

Abolition of Slavery	325	Moatsu Festival	339
Widow's Remarriage Act	325	Pooram	339
Native Marriage Act, 1872	325	Eid-al-Fitr or Eid-ul-Fitr	339
Age of Consent Act, 1891	325	Raja Parba	339
Child Marriage Restraint Act, 1929	325	Ratha Yatra	340
Infant Marriage Prevention Act	325	Kang Chingba Festival	340

17. Fairs and Festivals 328

Festivals of India	329	Tuluni Festival	341
Torgya Dance Festival	329	Kharchi Puja	341
Lohri	329	Bonalu	341
Makar Sankranti	329	Harela	341
Pongal	330	Raksha Bandhan	342
Kavadi Attam	330	Eid-al-Adha	342
Thaipusam	330	Paryushana	342
Nazu Festival	330	Shab-e-Barat	342
Sekrenyi Festival	331	Buddha Purnima	343
Sammakka Saralamma Jatara	331	Janmashtami	343
Khan Festival	331	Teej	343
Tamladu Tribal Festival	332	Gauri Habba	344
Lui Ngai Ni Festival	332	Ganesh Chaturthi	344
Khajuraho Dance Festival	332	Ullambana	344
Losar Festival	332	Nuakhai	344
Nyokum Festival	333	Muharram	345
Maha Shivratri	333	Onam	345
Sankarni Festival	333	Bhadra Purnima	345
Elephant Festival	333	Choekhor Harvest Festival	346
Mlokom Yulo Festival	333	Dussehra	346
Holi	334	Bathukamma	346
Gangaur Festival	334	Yemshe Festival	347
Shigmo	335	Durga Puja	347
Yugadi	335	Sharad Purnima	347
Sajibu Nongma Panba	335	Diwali or Deepawali	348
Nowruz	335	Karva Chauth	349
Gudi Padwa	336	Chhath	349
Ram Navami	336	Wangala	349
Mopin Festival	336	Gurpurab	350
Sarhul Festival	336	Rengma Ngadah Festival	350
Baisakhi	337	Hornbill Festival	350
Sangken Buddha Festival	337	Karthikai Deepam	351
Nababarsha	337	Losoong Festival	351
Bihu	337	Siron Molo Sochum Festival	351
Saga Dawa Buddhist Festival	338	Christmas	352
Vishu	338	Fairs of India	352
Mahavir Jayanti	338	Kumbh Mela	352
Easter and Good Friday	338	Pushkar Mela	353

Sonepur Cattle Fair	354
Kadalekai Parishe	354
Ambubachi Mela	355
Majuli Festival	355
Chitra Vichitra Fair	355
Shamalaji Fair	355
Desert Festival of Jaisalmer	355
Kapil Muni Fair	356
Surajkund International Crafts Mela	356
Gangasagar Mela	357
Goa Carnival	357

18. UNESCO's World Heritage Sites in India 360

What is Cultural Heritage?	361
What is Natural Heritage?	361
Selection Criteria for World Heritage Sites	361
Indian Cultural Sites in World Heritage Site List (29)	362
Agra Fort (1983)	362
Ajanta Caves (1983)	363
Ellora Caves (1983)	363
Taj Mahal (1983)	363
Group of Monuments Located at Mahabalipuram (1984)	363
Konark Sun Temple (1984)	363
Fatehpur Sikri (1986)	364
Churches and Convents of Old Goa (1986)	365
Khajuraho Group of Monuments (1986)	365
Group of Monuments at Hampi (1986)	366
Elephanta Caves (1987)	367
Group of Monuments at Pattadakal (1987)	368
Buddhist Monuments at Sanchi (1989)	368
Qutub Minar and its Monuments, Delhi (1993)	368
Humayun's Tomb, Delhi (1993)	369
Mahabodhi Temple Complex, Bodhi Gaya (2002)	370
Rock Shelters of Bhimbetka (2003)	370
Great Living Chola Temples (1987, 2004)	370
Champaner-Pavagadh Archaeological Park (2004)	371
Chhatrapati Shivaji Terminus (2004)	371
Red Fort Complex (2007)	372

Mountain Railways of India (1999, 2005, 2008)	372
Jantar Mantar, Jaipur (2010)	373
Hill Forts of Rajasthan (2013)	373
Rani-ki-Vav (Queen's Stepwell) at Patan, Gujarat (2014)	374
Archaeological Site of Nalanda Mahavihara, Bihar (2016)	374
Chandigarh Capitol Complex (2016)	375
Historic City of Ahmadabad (2017)	375
Victorian Gothic and Art Deco Ensembles of Mumbai (2018)	375

Indian Natural Sites in World Heritage

Site List (7)	376
Kaziranga National Park (1985)	376
Keoladeo National Park (1985)	376
Manas Wildlife Sanctuary (1985)	376
Sundarbans National Park (1987)	377
Nanda Devi and Valley of Flowers National Parks (1988, 2005)	377
Western Ghats (2012)	377
Great Himalayan National Park Conservation Area (2014)	378

Indian Mixed Site in World

Heritage Site List (1)	378
Khangchendzonga National Park (2016)	378
Benefits of a Site Getting Included in UNESCO World Heritage List	379

19. Cultural Institutions in India 383

Major Cultural Institutions	384
Archaeological Survey of India (ASI)	384
Anthropological Survey of India (ANSI)	385
Indian National Trust for Art and Cultural Heritage (INTACH)	386
Indian Council of Historical Research (ICHR)	386
Asiatic Society	387
Indian Museum	387
National Gallery of Modern Art (NGMA)	388
National Museum Institute of History of Art, Conservation and Museology (NMIHACM)	388
National Museum of India	389
National Council of Science Museums (NCSM)	390

Indian Council for Cultural Relations (ICCR)	391	Institutions/Organizations and Acts Associated with Indian Cinema	428
National Mission for Manuscripts (NMM)	392	Names of Film Industries	434
National Archives of India (NAI)	392	23. Progress of Literature in India	438
Chhatrapati Shivaji Maharaj Vastu Sangrahalaya (CSMVS)	393	Literature during Vedic Age	439
Dr. Bhau Daji Lad (BDL) Museum	394	Literature during Post-Vedic Age	443
Indira Gandhi National Centre for Arts (IGNCA)	394	Literature during Mauryan Age	444
Kalakshetra Foundation	395	Literature during Post-Mauryan Age	445
Nava Nalanda Mahavihara	395	Literature during Gupta Period	445
Victoria Memorial Hall	395	Literature of Post-Gupta and Early Medieval Age	447
Centre for Cultural Resources and Training (CCRT)	396	Sangam Literature	448
Directorate of Film Festivals	397	Literature during Pallava and Chola Periods	450
Nehru Memorial Museum and Library (NMML)	397	Literature under Vijayanagar Rulers	451
Crafts Council of India (CCI)	398	Literature during Medieval Age	451
Lalit Kala Akademi (LKA)	398	Prominent Books of Modern Age	457
Sangeet Natak Akademi (SNA)	399	24. Indian Handicrafts	464
National School of Drama (NSD)	400	Tribal Crafts	465
Sahitya Akademi	401	Clay Crafts	466
All India Radio (AIR)	401	Terracotta Crafts	467
		Stone Crafts	467
		Metal Crafts	468
20. Calendars	405	Jewellery Related Crafts	469
Calendars in India	405	Kundankari Jewellery	469
Important Astronomical Concepts and Ideas	407	Meenakari Jewellery	469
Eras/Yugas in India	408	Embroidery	470
21. Circus	416	Chikan Embroidery	470
Circus Tradition in India	417	Applique Work	470
Prominent Indian Circuses	417	Phulkari	470
Downfall of Circus Industry in India	419	Banjara Embroidery	471
Way Forward for Circus Industry in India	420	Gota Embroidery	471
		Mirror Embroidery	472
		Kantha Embroidery	472
		Aari Embroidery	472
22. Cinema	422	Kasuti Embroidery	473
Early Indian Cinema	423	Kashmiri Embroidery	473
Golden Era of Indian Cinema (1940s – 1960s)	425	Rabari Embroidery	473
Classic Decades of Indian Cinema (1970s and 1980s)	426	Toda Embroidery	474
New Bollywood Phase of Indian Cinema (1990s – Present)	426	Zardozi or Zari Embroidery	474
Regional Cinema in India	427	25. Languages In India	479
		Origin of Language	480
		Language Families of India	480
		Development of Scripts in India	482

Official Language Commission	488	Fernao Nuniz	512
What is a Classical Language?	489	Caesar Fredrick	512
Significance of Linguistic Identity	490	Father Monserrate	512
Constitutional Status of Language in India	490	Ralph Fitch	513
Three-Language Formula	491	William Hawkins	513
National Translation Mission (NTM)	491	William Finch	513
26. Awards and Honours	494	Sir Thomas Roe	513
Bharat Ratna	494	Edward Terry	513
Padma Awards	495	Francisco Pelsert	514
National Film Awards	496	Pietra Delawale	514
Dadasaheb Phalke Award	497	Peter Mundy	514
Jnanpith Award	497	Johan Albrecht De Mandelslo	514
Sahitya Akademi Award	497	Jean Baptist Tavernier	514
Sahitya Akademi Fellowships	497	Nicolo Manucci	515
Saraswati Samman	498	Francois Bernier	515
Vyas Samman	498	29. India's Cultural Contribution to the World	518
Fukuoka Prize	499	Indian Religion and Philosophy	519
Kalidas Samman	499	Mathematics, Astronomy and Medical Science	521
Tagore Award	499	Indian Art and Architecture	521
27. Indian Law and Culture	502	Indian Languages	522
Constitutional Provisions for Cultural Safety in India	502	Indian Games and Leisure Activities	523
Indian Laws Dealing with Cultural Conservation and Preservation	503	30. Current Developments in Art and Culture	527
28. Role of Foreign Ambassadors and Travellers	506	Aadi Mahotsav	527
Megasthenes	507	International Lavi Fair	527
Dionysius	507	First Ladakh Literature Festival	528
Deimachus	507	Shirui Lily Festival	528
Fa-Hien	508	Statue of Unity	528
Hiuen Tsang	508	Ramanuja—Statue of Equality	528
I-Tsing	509	Babasaheb Ambedkar—Statue of Equality	528
Al-Sulaiman	509	Jaipur City—UNESCO'S World Heritage Site	529
Al Masudi	509	Seva Bhoj Scheme	529
Al-Biruni	509	Gandhi Circuit, Bihar	529
Marco Polo	510	Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASAD) Scheme	529
Ibn Batuta	510	Government Adoption of Heritage Sites	529
Nicolo Conti	510	Kartarpur Corridor	530
Abdur Razzaq	510	Bharati Script	530
Athanasius Nikitin	511	Konyak Naga Women Dance	530
Ludovico Di Barthema	511	Sindhu Darshan Festival	530
Duarte Barbosa	511	World Capital of Architecture 2020	530
Domingo Paes	512		

National War Memorial	531	Manipur Sangai Festival	532
Chaukhandi Stupa	531	International Tourism Mart	533
India's First Music Museum	532	NDRF Unit to Save Heritage Structures	533
Portal for Indian Culture	532	Ladakhi Shondol Dance	533
National Council of Science Museums	532	Dindigul Lock and Kandangi Saree	533
India's First Maritime Museum	532	Azaadi Ke Diwane Museum	533
National Tribal Craft Mela	532	Ghumot Musical Instrument	534
Descriptive type questions for Mains examination			537

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CHAPTER

1

INDIAN ARCHITECTURE



INTRODUCTION

Architecture is one of the most lasting legacies of human beings. It is the finest expression of human creativity. Right from the age of Harappan civilization, a large number of monuments have survived in India in the form of caves, stupas, pillars, temples and mosques. These monuments are living examples of the values, beliefs and thinking processes of the masses as well as the classes. Indian architecture is deep rooted in its history, socio-economic life, culture and religion. The richness of Indian architecture can be realized from the fact that out of a total of 1,092 World Heritage Sites identified by UNESCO, 37 of them are in India itself.

With the great Himalayas forming its northern boundary to Cape Comorin (Kanyakumari) in deep South, India occupies an extensive territory and has a surface area equal to that of the whole of Europe, with the exception of Russia. Having a multitude of civilization and inexhaustible natural

Photo Credit: Rafal Cichawa/Shutterstock



resources, India was predestined by its natural position for an exclusive civilization. India is covered, throughout its length and breadth, with an astonishing number of monuments which reveal the cultural prosperity of this great nation. These monuments are not only religious but also secular in character. The wonderful and the overwhelming life of nature in India captivated the mind of man, infinitely exciting his active imagination, filling it with the most brilliant images and inspiring him to create marvellous pieces of art and architecture throughout human history.

The progress in the field of architecture in India is revealed not only by literary references but also by archaeological evidences. Though no monument belonging to Stone Age has been discovered so far but the paintings found on the walls of Bhimbetka caves clearly prove that even early man was not bereft of the taste of art. Indian craftsmen worked on hills for generations to transform them into amazing monuments. The Chaityas and Viharas located at Ajanta and Ellora in Maharashtra are finest among them. When someone looks at the Brihadeshwara temple of Tanjore, it is quite baffling to comprehend how ancient Indian craftsmen lifted rock pieces weighing multiple tons over more than 66 metres to construct the finest Vimana.

In this chapter you will study about the different styles of Indian architecture, which evolved in north and south India over a period of time. Besides studying the architectural forms and features, you will be in a position to appreciate their cultural values. To be a proud Indian citizen, we must have pride in our past. The knowledge of Indian art and architecture will enlighten you about the glorious achievements of our forefathers which attracted attention of scholars from all over the world. Indian monuments are an important source of Indian soft power in present times. They have placed India on a cultural pedestal in modern world.

PALACES AND FORTS IN INDIA

HARAPPAN FORTS

- One of the important aspects of Harappan town planning was the **provision of forts**. These are the oldest forts in the Indian subcontinent. Archaeological evidences have revealed development of fortification during pre- and early Harappan phase. Fortification was well developed and standardized during the Mature Phase of Harappan civilization. With the emergence of big towns and cities, forts were used as a measure to safeguard their own town.
- The Harappan cities were divided into **two parts—upper town and lower town**, but in the city of Dholavira (Gujarat) there was a ‘middle



Forts of Harappan Civilization

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town' between the two parts. The upper town in Harappan cities was generally fortified but at Kalibangan (Rajasthan) and Surkotada (Gujarat) even lower town was fortified. At Chanhudaro (Sind) fortification was absent completely.

- Fortification was carried out by using mud and mud bricks having stone rubble veneer. The fortification walls were massive in size. They were solid structures made of properly moulded bricks. The lower portion of the walls of forts was built by using 'stones and sun dried bricks'. In the construction of the upper portion of the walls of forts, 'burnt bricks' were used. Successive courses of bricks were laid in recessed manner due to which both faces registered a marked taper. This resulted into a raised wall from a broader base to a lofty narrow top forming trapezoidal cross-sections and often indicating the evidence of clay plastering.
- In areas where the availability of stones was easy, both inner and outer surfaces were covered with stones to sustain the strength of susceptible portions. It appears that special care was taken for the construction of the corners, gates and bastions of the forts. Such evidence of stone use in construction of forts was found at **Dholavira and Surkotada**.
- Though most scholars are of the opinion that the massive Harappan fortifications were for military purpose, the nonexistence of sudden turns in walls and absence of moats (Banawali is the only exception) to lead enemies into an ambush would have made them ill-suited for defence. It rather appears that they were built to control the **movement of goods in and out of the city**.
- Being a garrison defence outpost, the forts had elaborate gateway complexes with guard-rooms. The top parts of the gates of fortification walls were covered. There were rooms or sentinel posts at entrances. The entry into and exit from the fort were controlled by a guardroom. Evidences show that the gates of forts at Harappa were only 2.8 metre wide. This opening was just enough to allow movement of one bullock-cart to get in or out of the city, at a time.
- These forts demonstrate high level of architectural skills of the Harappans.
- **These forts provided safety to the residents of the cities from**
 - flash floods (sudden flood);
 - wild animals;
 - robbers and anti-social elements.

MAURYAN FORT

- Literary references left behind by Megasthenes in his book *Indica* inform us that the city of Pataliputra was surrounded by a wooden palisade.
- He mentioned that there were **64 gates and 570 watchtowers** in this fort. Soldiers with bow and arrow used to sit in these watchtowers to ensure that no intruder could threaten the safety of Pataliputra city.
- The wooden fort was surrounded by a 60-feet deep and 200-yard wide ditch to prevent the enemy forces from coming close to the walls of the fort.



- Archaeological evidences found at **Bulandibagh and Gosainkhanda** (both located in the city of Patna) have revealed this fortification of Pataliputra city. Remains of a wooden fort have been discovered at these places.

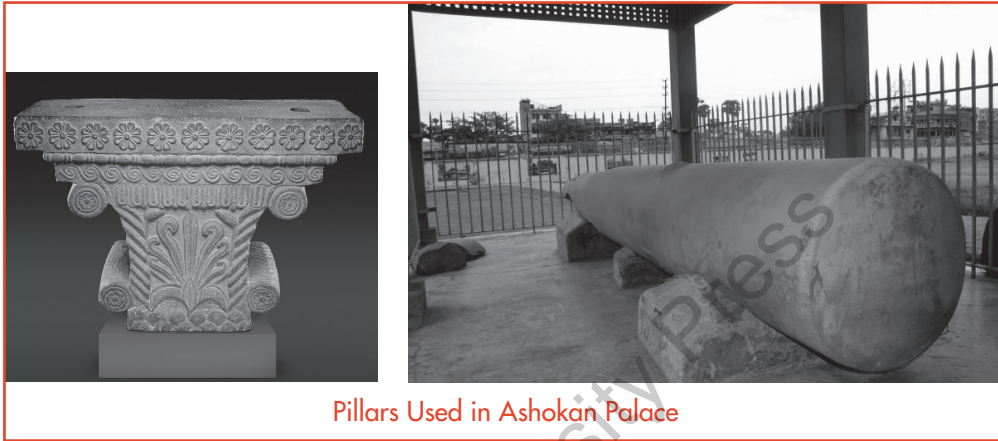
MAURYAN PALACES

- In whole of ancient history, palaces were built only during Mauryan age. The Mauryan ruler **Chandragupta Maurya built a palace with wood in his capital Pataliputra**. His grandson **Ashoka built an exact replica of this wooden palace in stone on the same spot**. It appears that the wooden palace was destroyed by fire because during archaeological excavations a 30-cm thick layer of ash was found beneath the stone palace built by Ashoka.
- Archaeological evidences have revealed that these palaces were located at **Kumrahar** (a place in modern city of Patna). It appears that Kumrahar formed the core of Pataliputra city of Mauryan times.
- Pataliputra was the capital of Mauryan empire. It was located in modern Patna. The modern name is based on 'Patan Devi' whose temple is there in Patna city. In the age of Mahatma Buddha, Pataliputra was just a village known as 'Patligrama'. King Ajatshatru fortified this village and it came to be known as 'Pataliputra'. King Udayin (son of Ajatshatru) transferred his capital to Pataliputra from Rajagriha (also known as Rajgir/Girivraja/Vasumati).
- In ancient times, Pataliputra was known by various names, such as Kusumpura (due to Kusum flowers) and Puspapura. In Greco-Roman records it was referred as Palibothro. In 1704, this city was renamed as Azimabad by Muhammad Azam, the son of Aurangzeb.
- The glory of the wooden palace of Chandragupta Maurya was described in detail by Megasthenes**. He was the ambassador of Bactrian King Seleucus Nicator. Megasthenes lived in Mauryan court for 5 years (304 BC – 299 BC). He compiled his observations in a book titled **Indica**. This book is not available in its original form but its references are found in the Greco-Roman literature of Arrian (author of a different book by the same name **Indica**), Strabo (author of **The Geographia**) and Aelian (author of **Various History**).
- According to Megasthenes, the Mauryan palace had a massive central pillared hall and it was far more beautiful than the palaces seen by him at Susa and Ecbatana (located in Iran/Persia). These Persian palaces were built by King Darius in the 6th century BC.
- Archaeological excavations carried out by L.A. Waddell, D.B. Spooner, K.P. Jaiswal and P.C. Mukherjee have discovered remains of the stone palace built by Ashoka. 80 pillars used in its central pillared hall have been discovered. Some of these pillars are in good shape while some others are in fragments. **The height of these pillars was 12.5 m, out of which 2.75 m portion was dug in ground and 9.75 m was above the ground**. These pillars had a glossy



Remains of Ashokan Palace at Kumrahar

polish on them. They were carved out at Chunar located in Mirzapur district, Uttar Pradesh. The central pillared hall of the palace was used during the 3rd Buddhist Council which was held at Pataliputra in 246 BC during the reign of Ashoka. Moggaliputta Tissa was the president of this Buddhist Council.



Pillars Used in Ashokan Palace

- The Ashokan palace was used by a number of Indian dynasties such as Sunga dynasty (founded by Pushyamitra Sunga), Kanvas and Guptas. It was abandoned by around 600 A.D.
- The Chinese traveller Fa-Hien or Faxian was amazed by the beauty and magnificence of this palace. Fa-Hien visited India during the reign of Chandragupta II (Chandragupta Vikramaditya) from 399 AD – 413 AD. He wrote a book named *Fu-kyo-ki*.

VARIOUS FORTS IN DELHI

- The Rajput rulers constructed fortified settlements near Surajkund in 10th century AD. Chauhan ruler Prithviraj III (the famous king Prithviraj Chauhan) constructed **Qila-i-Raj-Pithaura** near Lalkot in 12th century AD.
- A fortified settlement was established by Qutb-ud-din Aibak at the end of 12th century AD.
- Muizzuddin Kaiqubad erected a fort known as Kilokhari.
- **Siri Fort** was built by Alauddin Khilji in 1303 AD.
- Ghiyas-ud-din Tughlaq built **Tughlaqabad Fort** in 1321.
- Muhammad-bin-Tughlaq constructed **Adilabad Fort** and the city known as **Jahan Panah** in 1329.
- Firoz Shah Tughlaq built **Firoz Shah Kotla Fort** in 1354.
- **Khizrabad Fort and Mubarakbad Fort** were constructed during the rule of Sayyid Sultans.
- Ismail Shah constructed **Salimgarh Fort** in 1550.
- Humayun constructed **Dinpanah** in 1533. Shershah built **Purana Qila** at the site of **Dinpanah Fort** by destroying it.



Forts Built by Akbar

- Agra Fort, Lahore Fort, Ajmer Fort and Allahabad Fort were built by Akbar.
- Agra Fort has two gateways called **Amar Singh Gate** and **Delhi Gate** or **Elephant Gate**.
- Beam and bracket principle was used in the construction of Agra Fort and Lahore Fort. Use of arches was avoided.
- Lahore Fort has lion and elephant images in its brackets. It has peacock images at the friezes.

Forts Built by Shah Jahan

- **Shah Jahan**, the greatest builder among the Mughal emperors, modified the Agra Fort built by Akbar. **Shish Mahal (palace made of glass), Diwan-i-Aam and Diwan-i-Khas, Moti Masjid (Pearl Mosque), Nagina Masjid and Musamman Burj** were built inside this fort. In his days of captivity during the reign of Aurangzeb, Shah Jahan used to view Taj Mahal from Musamman Burj.
- The **Jami Masjid** of Agra was built by Shah Jahan's daughter Jahanara.
- Shah Jahan also constructed the city of **Shahjahanabad at Delhi**. The work on its construction began in 1639 and it was completed in 1648. The **Red Fort of Delhi and Jama Masjid of Delhi**, located inside the city of Shahjahanabad, were also built by Shah Jahan.
- The Red Fort of Delhi was also known as **Qila-e-Mualla**. It had 14 gates in different directions. The fort had Rang Mahal, Diwan-i-Aam and Diwan-i-Khas and a canal called Nahar-i-Bahisht. Rang Mahal was the Emperor's palace and it was most beautiful. The Peacock Throne was placed in Diwan-i-Aam. An inscription in Diwan-i-Khas says that, 'If there is heaven anywhere on the earth, it is here'. The Peacock Throne was looted away by Nadir Shah to Persia when he invaded India in 1739 AD.

Salimgarh Fort

- Salimgarh Fort was constructed in 1546 AD in Delhi by **Salim Shah Suri**. He was the son of Sher Shah Suri.
- During the Mughal period, several Mughal rulers such as Humayun and Shah Jahan camped at this fort.
- Humayun camped in this fort for 3 days before launching attack to recapture the city of Delhi. When Humayun won back the Empire of India, he renamed Salimgarh Fort as Nurghar.
- Aurangzeb converted this fort into a prison. This practice was continued by the British who established their control over this fort in 1857. The fort is a part of Red Fort complex. This complex was included in UNESCO's list of World Heritage Sites in 2007.

Jahangiri Mahal

- Jahangiri Mahal is located inside Agra Fort.
- It was built by Akbar for his Rajput wives. Nur Jahan also used it as her residence.

Shahjahani Mahal

- It is also located inside Agra Fort.
- It was built between **Khas Mahal made of white marble** and **Jahangiri Mahal made of red sandstone**.

CAVE ARCHITECTURE IN INDIA

Cave architecture belonging to ancient age is among the most remarkable components of Indian heritage. Hundreds of caves have been left behind by early Indians as heritage for later generations. These caves were cut out of live hills by Indian craftsmen by using most ordinary tools available to them. The level of craftsmanship visible in these caves is of very high order because there was hardly any opportunity available to a craftsman to rectify his mistake while cutting caves.

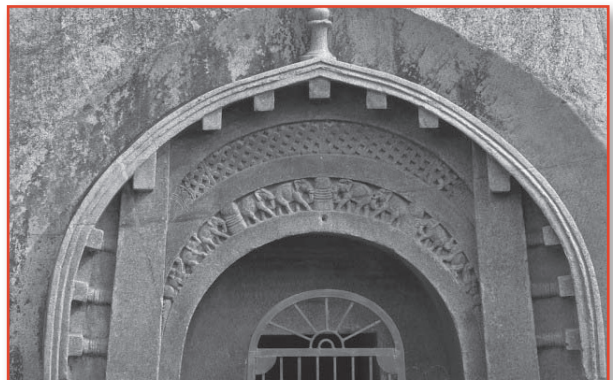
Thousands of tons of material were removed by Indian craftsmen with the help of ordinary tools such as hammer and chisel. Generations of craftsmen were involved in cave-cutting activities. They were patronized by merchants and traders passing through hills in which these caves are located. At times, local rulers also patronized these craftsmen.

Early caves were single storied but later on double and triple storied caves were also carved out during ancient age. The tradition of cutting double storied caves started at **Karle** (Pune district, Maharashtra). At Ajanta even triple storied caves have been found.

Many of these caves were polished from inside. Paintings were also made on the walls of some of these caves. Beautiful sculptures were also carved out in large number on the walls as well as at the entrance of caves.

BARABAR AND NAGARJUNI HILL CAVES

- Cave temples were cut in India for the first time during the reign of the Mauryan ruler Ashoka and his grandson Dasaratha. Caves located in **Barabar Hill** were cut during the reign of **Ashoka** and the caves located in **Nagarjuni Hill** under the patronage of his grandson **Dasaratha**. These caves were donated to the monks of Ajivaka sect. This sect was founded by Gosala Makkhaliputta in 6th century BC.
- There are four caves in Barabar Hill and three caves in Nagarjuni Hill.

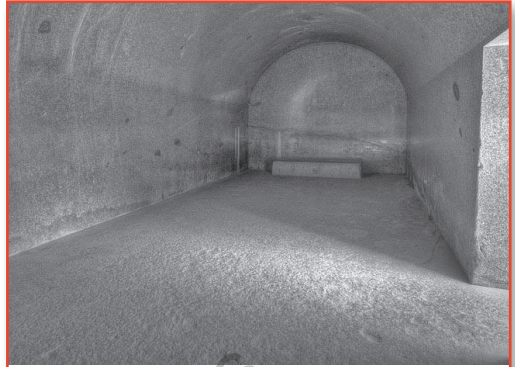


Lomas Rishi Cave at Barabar (Exterior View)



Both these caves are located close to each other in Jehanabad district of Bihar. Ashokan inscriptions found on the walls of caves refer Barabar Hill as 'Khalatika' mountain.

- The **caves located in Barabar Hill** are
 - Lomas Rishi Cave
 - Sudama Cave
 - Karna Chaupar Cave
 - Visvakarma Cave
- The caves located in Nagarjuni Hill are
 - Gopi Cave (Gopi-ka-Kubha)
 - Vadithi Cave (Vadithi-ka-Kubha)
 - Vapiya Cave (Vapiya-ka-Kubha)
- These caves are simple rectangular halls cut into the hill. Level of ornamentation is very low. Walls of caves have glossy polish similar to those found on Ashokan pillars.
- These caves are divided into two halls or chambers. The front hall was used for the gathering of worshippers and the second or the back chamber was used by monks for their residence as well as worship. It appears that there was a small stupa-like structure in the inner chamber originally but at present no such structure exists inside these caves.
- Carvings and other designs found on the facade of these caves indicate that rock-cut monuments are the exact replicas of earlier existing wood and thatched structures.
- These caves were popularized world over by the English author **E.M. Forster** in his book ***A Passage to India*** (1924).



Lomas Rishi Cave at Barabar (Interior View)

CAVE ARCHITECTURE DURING POST-MAURYAN PERIOD

- The most remarkable progress in the field of cave architecture took place during the five centuries of post-Mauryan age (200 BC – 300 AD). The tradition of cave architecture that commenced during the reign of the Mauryan emperor Ashoka reached its pinnacle during this period. This progress was witnessed in eastern India as well as in western India.
- The caves were in the form of Chaityas and Viharas. **Chaitya was a place of worship** and **Vihara was a place of residence for monks**. The **Viharas also acted as educational centres** where monks imparted learning.
- A cave during this age was commonly referred as '**Kirti**'. The façade or face of a cave was termed as '**Kirtimukha**'. At times a pillar known as '**Kirtistambha**' was cut in front of the caves.

Cave Architecture in Eastern India

- A large number of caves were carved out in Udaygiri-Khandagiri Hills, located near Bhubaneswar in Odisha, during this period under the patronage of the great **Kalinga ruler**



Kharavela (193 BC – 170 BC). There are 18 caves in Udaygiri Hill and 15 caves in Khandagiri Hill. In ancient times these hills were known as Kumari Parvat and Kumara Parvat respectively as informed by Hathigumpha inscription. These caves were discovered by Bishop A. Stirling in 1825 AD.

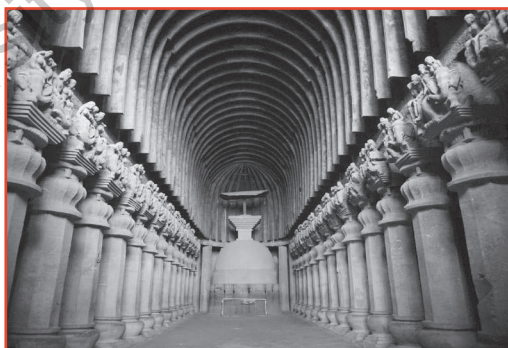
- Also called **Cuttack or Katak caves**, these are partly natural and partly artificial in nature. These caves **belong to Jainism** and were used by Jain monks for residential purposes. Height of these caves is quite low for a man to stand erect. It appears that these caves were used as dormitories by monks.
- The interiors of the caves are simple without much ornamentation but their facades are decorated with sculptures depicting sacred objects worshipped by Jains, scenes of court activities, royal processions, hunting scenes and scenes depicting daily life.
- The doorways of the caves have pilasters on both sides with crowning animal figures. The arches over these doorways are decorated with flowers, creepers and animal motifs. The sculptural and decorative art of the caves includes panels/friezes depicting popular legends, historical episodes, religious observances and dance performances. Besides, individual guards, bracket figures, vidyadharas, and floral and geometrical patterns are also very remarkable. The ornamentation patterns used in these caves display significant advancement over the work of Bharhut and Sanchi of central India.
- Ranigumpha, Ganeshgumpha, Swargapuri-Manchapuri and Hathigumpha are the most prominent caves in Udaygiri Hill. They enjoy great historical significance due to sculptures and reliefs found on their walls.
- **Ranigumpha and Swargapuri-Manchapuri Caves are double storied** and the largest in size among the four types mentioned above. Ranigumpha or the queen's palace is the **architectural marvel of the entire complex**. It is the most ornamented cave. It is a double storied cave/monastery. **Dwarapalas** (sentries), animals, a female dancer, female musicians, etc. are carved on the walls of this cave.
- **Hathigumpha** is not quite significant architecturally. Its historical importance lies in the famous **inscription of King Kharavela** engraved on its walls. This inscription describes achievements of Kharavela. It appears that it was composed by someone who knew Kharavela closely since his childhood. It informs that Kharavela destroyed the alliance of Tamil kings of south India and **brought back images of Jina (Mahavira Swami) from Magadha**. This image was carried away from Kalinga by Mahapadma Nanda in the 4th century BC.
- Ananta Gumpha, Ambika Gumpha, Tatowa Gumpha and Navamuni Gumpha are the most prominent caves in Khandagiri Hill. **Tatowa Gumpha is also known as Parrot Caves** because parrots are sculpted on its doorways.
- **Ananta Gumpha is also known as Snake Cave** as twin serpents are carved on its doorways. Reliefs depicting boys chasing animals such as lions and bulls, geese with spread wings, a royal elephant, a female figure piloting a chariot pulled by four horses and Goddess Lakshmi being bathed with water from pitchers held by two elephants in a lotus pool are also found in Ananta Gumpha.



- **Navamuni Gumpha** has **nine (nava) tirthankars** sculpted on its walls.
- These caves were declared centrally protected by government in the year 1912.

Cave Architecture in Western India

- A large number of Buddhist caves were cut out in western India during post-Mauryan age under the patronage of local rulers and merchants. Ports located on west coast of India were actively involved in Indo-Roman trade. Indian merchants from north India used to carry their goods to these ports which were in turn exported to the Roman world. During the course of their journey, these merchants used to halt in hills where these caves are located at present. They patronized craftsmen involved in cutting these caves for generations. **At some places such as Ajanta, cave-cutting activities continued for more than one thousand years.**
- These caves are in the form of Chaityas and Viharas.
- Ajanta, Karle, Bedsa, Bhaja, Nasik, Junnar, Kanheri, Pitalkhora and Kondana are the prominent centres of cave architecture in western India.
- **Karle** is located in Pune district of Maharashtra. There are four caves at Karle, out of which one is Chaitya and three are Viharas. These caves were cut out in Bhorphat Hill. Karle Chaitya is the most beautiful among all the caves. It was built under the patronage of **Bhootpal Shresthi of Vajjanti** in 2nd century AD during the reign of **Satavahana king Pulameyi II**.
- **Junnar is the largest cave complex in India.** There are 130 caves located here. At Nasik, there are 17 caves out of which one is Chaitya and 16 Viharas. This Chaitya was cut in 1st century AD. It is known as Pandulena. The term '**Lena**' or '**Layana**' was used in ancient Sanskrit literature for caves. **It has a gallery of music.**
- The caves located at **Bedsa and Kondana exhibit transition from wooden architecture to stone architecture.** Pillars carved out in these caves taper from bottom to top.
- **Pitalkhora Caves** are located in Khandesh district of Maharashtra. This place was referred as '**Petangalya**' in the Buddhist text **Mahamayuri**.

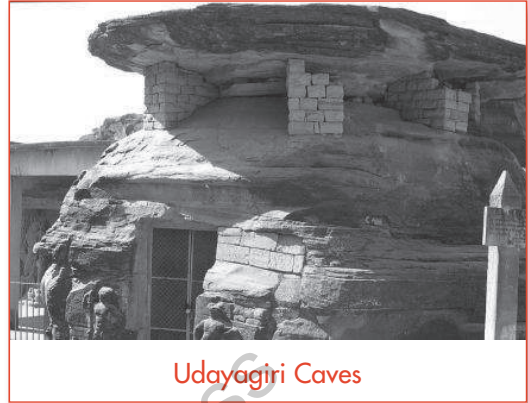


Karle Chaitya

CAVE ARCHITECTURE DURING GUPTA PERIOD

- The tradition of cave architecture continued during the Gupta age, though the level of progress was not as high as it was witnessed in post-Mauryan age. Some of the caves at Ajanta, Bagha, Mandargiri and Udayagiri were cut out during this age.

- **Bagha Caves** are located in Dhar district of Madhya Pradesh. There are 9 caves at this place. These caves belong to Buddhism. These caves were discovered by **F. Dangerfield** in 1818 AD.
- **Mandargiri Caves** are located in Bhagalpur district of Bihar. These caves belong to **Jainism**.
- **Udayagiri Caves** are located near Vidisha in Madhya Pradesh. These caves belong to **Vaishnavism and Shaivism**. A magnificent image of Vishnu in the form of a great boar (Varaha) is located at the entrance of these caves.
- Caves numbered 16, 17 and 19 at Ajanta were made during this age. Out of these caves, numbers 16 and 17 were built under the patronage of Varahadeva. He was a feudatory of Vakataka king Harisena (475 AD – 500 AD) as seen from inscriptions found on the walls of these caves.



Udayagiri Caves

CAVE ARCHITECTURE DURING POST-GUPTA AND EARLY MEDIEVAL PERIOD

- During the post-Gupta and early Medieval period, cave architecture continued to flourish in peninsular India. Ellora Caves, Elephanta Caves, Pallava Caves and some of the caves at Ajanta were cut during this age.
- Under the patronage of Chalukyas of Badami/Vatapi, three caves were carved out at Badami.
- Pallava rulers of Kanchipuram patronized cave-cutting activities. These **Pallava Caves** belong to **Hinduism** and they are known as **Mandapas**.
- **Mahendravishnugraha Mandapa** located at **Mahendravadi** and **Panchapandava Mandapa** located at **Pallavaram** are examples of the early phase of Pallava cave architecture. These caves were carved out during the reign of Pallava king **Mahendravarmana I**. He was a great builder and his title was '**Chaityakari**'.
- **Ramanuja Mandapa** and **Adivaraha Mandapa** located at Mahabalipuram represent the later stage of Pallava cave architecture. These caves were cut during the reign of Pallava king **Narasimhavarmana I**.



Pallava Caves

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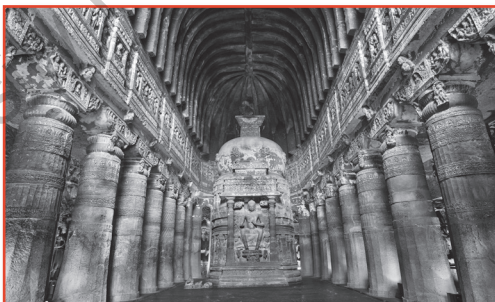


AJANTA CAVES

- These caves are located in Aurangabad district of Maharashtra. There are 30 caves at Ajanta, out of which 29 are in finished condition and 1 cave is in unfinished condition. Out of these 30 caves, 5 are Chaityas and 25 are Viharas. These caves are cut into a panoramic **horseshoe shaped or U-shaped cliff** overlooking River Waghora.
- These caves were discovered by **Captain John Smith in 1819**. He was an officer in Madras army. He came across these caves accidentally when he was on a hunting expedition.
- In 1824 **James Alexander** published details of these Caves in the *Journal of the Royal Asiatic Society*. This publication popularized Ajanta Caves all over the world.
- Cutting of these caves commenced in 2nd century BC and continued till 9th century AD. Cave No. 10 at Ajanta is the oldest and Cave No. 26 is the latest. **Early caves belong to Hinayana Buddhism and the later caves belong to Mahayana Buddhism.**
- Cave No. 16 at Ajanta is considered the most beautiful.
- These caves were included in UNESCO's list of World Heritage Sites in 1983.



Front Face of a Cave at Ajanta



Inside View of Ajanta Caves

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ELLORA CAVES

- The Ellora Caves were built during the period of 600 AD – 1000 AD under the patronage of merchants and local rulers.
- In ancient times this place was known as 'Ellapura' and 'Elloru'. At present this place is known as 'Verul'.
- There are 34 caves at Ellora. Out of these, **12 caves** (Cave No. 1 to 12) belong to **Buddhism**, **17 caves** (Cave No. 13 to 29) belong to **Brahmanical religion** and **5 caves** (Cave No. 30 to 34) belong to **Jainism**.
- These caves belonging to all the three prominent religions were cut simultaneously over the centuries. This indicates that **level of tolerance was high** among Indians during the ancient age. The followers of different religions did not harbour any ill feeling or hostility towards each other.



Ellora Caves

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- **Cave No. 16** at Ellora is also known as **Kailasha Temple**. It portrays Kailasha mountain, the abode of God Shiva. **It is the biggest monolithic structure in the whole world.** Its dimensions are 84.1 m (length) × 47 m (width) × 36.6 m (height). The cutting of this cave commenced in 760 AD under the patronage of Rashtrakuta king **Krishna I**. It was completed over a period of 100 years. In the cutting of this cave the craftsmen removed more than 2 lakh tons of material by using their most primitive tools.
- These caves were included in UNESCO's list of World Heritage Sites in 1983.

ELEPHANTA CAVES

- Elephanta is the name of an island located near Mumbai. The original name of this island was **Gharapuri**. It was renamed as Elephanta by the Portuguese. When the Portuguese came to this island, they found a massive image of an elephant overlooking the sea. This image attracted their attention towards the island and they named it Elephanta.
- This image of an elephant is at present placed in **Jijamata Udyaan (earlier known as Victoria gardens) of Bhau Daji Lad museum (earlier known as Victoria and Albert museum)** located at Byculla, Mumbai.
- There are 7 caves at Elephanta, out of which 5 belong to Brahmanical religion (Shaivism and Vaishnavism) and 2 belong to Buddhism.
- These caves were worshipped by locals till 1534 AD but when the Portuguese captured this place, they did not allow the locals to enter this island.
- The caves located at Elephanta are famous for massive images of God Shiva with Shiva being depicted in various forms such as **'Trimurti', 'Maheshmurti' and 'Ardhnarishwara'**.
- These caves were carved out during the period of 5th century AD to 8th century AD.
- These caves were included in UNESCO's list of World Heritage Sites in 1987.



Elephanta Caves

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PILLAR ARCHITECTURE IN INDIA

INTRODUCTION TO PILLAR ARCHITECTURE

Pillar architecture is one of the finest components of Indian heritage. Constructing pillars is an age-old tradition in India. People of the Harappan civilization were the first to use pillars in India as part of their houses. Their pillars were made of bricks and were simple in nature. Therefore, these pillars were not of much architectural significance. A stone pillar belonging to Harappan civilization has been found at **Dholavira**. This pillar was actually a measurement tool because it has measurement marks on it and it appears to have been used to ascertain level of water in a reservoir by the people of Dholavira.

Development in the field of pillar architecture in a proper way commenced during the Mauryan age. Mauryan pillars can be divided into two broad categories. The first category has pillars which were part of palaces and the second category is of those pillars which were erected by Ashoka independently. The pillars of the second category are of greater importance.

PALACE PILLARS OF MAURYAN PERIOD

- **Chandragupta Maurya**, the founder of Mauryan dynasty, built a massive **wooden palace** in his capital **Pataliputra**. Megasthenes left behind a detailed account of this palace.
- Wooden pillars were used in the palace of Chandragupta Maurya and monolithic stone pillars were used in the stone palace built by Ashoka.
- The stone pillars used in Ashokan palace were **12.5 metres in height**, out of which 2.75 metre portion was dug into ground. In terms of design, these pillars were quite simple. They tapered from bottom to top. They had a glossy polish on their surface.



- Pillars were also used in **wooden palisade (fence)** erected by Chandragupta Maurya around his capital city Pataliputra. A large number of these wooden pillars have been discovered during excavations at **Bulandibagh** and **Gosainkhanda**. Both these places are located in the modern city of Patna. These wooden pillars are 14 feet in height and 1 foot in width.
- Archaeologists like L.A. Waddell (1892–1899), P.C. Mukherji (1897–1898), D.B. Spooner (1912), J.A. Page and M. Ghosh (1926–1927) and K.P. Jayaswal (1951–1955) carried out excavations at **Kumrahar, Bulandibagh and Gosainkhanda** to discover remains of the Mauryan age. All these three sites are located in modern Patna.

INDEPENDENTLY ERECTED PILLARS OF ASHOKA

A large number of stone pillars were erected by Ashoka throughout the length and breadth of his extensive empire. So far 20 such pillars have been discovered beginning from Kandahar in Afghanistan in north-west to Amaravati in Andhra Pradesh in south.

These Ashokan pillars were carved out at Mathura and Chunar (near Varanasi). At Mathura locally available white-spotted red sandstone was used and at Chunar black-spotted buff-coloured stone was used. The height of Ashokan pillars was about 12 metres to 15 metres (40 to 50 feet) and their weight was about 50 tons. These massive pillars were transported over a distance of more than 1,000 km, which indicates that transportation system was well developed during the Mauryan age. These pillars were termed as **Dhamma Sthambha (pillars of the Dharma)** by emperor Ashoka.

Structure of Ashokan Pillars

- Ashokan pillars erected independently had 4 parts:
 1. Shaft
 2. Bell-shaped portion
 3. Abacus
 4. Capital
- The **shaft of Ashokan pillars was generally monolithic** but not always. The shaft of Vaishali, Lauriya–Araraj and Lauriya–Nandangarh pillars was made of several pieces of stone joined together. The shaft was round in shape. It tapered from bottom to top. This shaft was used to inscribe Ashokan edicts (royal orders). Contents of these edicts deal with **Dhamma or righteousness** and its spread among the masses.
- A bell-shaped portion was put over the shaft. It was the second component of Ashokan pillars. This portion is often termed as **‘inverted lotus’** by historians.
- The third component of Ashokan pillars was **Abacus**. Abacus was a platform on which the crowning animal was placed. It was square or rectangular in earlier pillars. In later pillars Abacus was circular in shape.
- The **capital or the crowning animal** was the topmost and fourth component of Ashokan pillars. The capital varied from place to place as indicated by the table given below:

Single lion capital	Vaishali, Sanchi, one of the two Rampurva pillars, Lauriya Nandangarh pillar
Four lions sitting back to back	Sanchi and Sarnath pillars

**Bull capital**

Second Rampurva pillar

Elephant capital

Sankisa pillar, Farrukhabad district (Uttar Pradesh)

- The **Four Lion Capital of Sarnath Pillar of Ashoka** was adopted as the **national emblem of India** by the Indian constituent assembly.
- All these four components (shaft, bell-shaped portion, Abacus and capital) were in two pieces because the upper three pieces were carved out of one single stone piece. They were joined together with each other by using socket and thick copper bolt. These pillars were erected by digging them in earth. They did not have any base.
- The sculptural motifs found on Ashokan pillars were chosen with great care. These symbols—lotus flower, wheel, elephant, horse and bull—have always had great significance in Indian culture.
- **Ashoka used inscriptions in his pillars** to attract people from far away. This mechanism was adopted by Ashoka deliberately to communicate with his subjects (people) directly. He was the first ruler in Indian history to do so. Ashoka spoke to his people directly in their language. He used Prakrit language, which was the most common language of the masses at that time. These Ashokan edicts also performed the role of modern constitution because they contained duties and responsibilities of state officers. By reading these edicts people could get to know what they could expect from state officials.

Mauryan Pillars: An Example of Alien Grafting or Adaptation from Others?

On the basis of similarities between Ashokan pillars and Persian or Achaemenian pillars (used in palaces built by Darius), a section of historians such as John Marshall and Stella Kramrisch have opined that Mauryan rulers adopted the tradition of erecting pillars from Persia. These historians emphasize the similarities between Ashokan pillars and Persian pillars to support their theory of foreign influence on Mauryan art.

Similarities between Ashokan Pillars and Persian Pillars

- Both pillars were **made of stone**.
- Both had **shaft**.
- Both pillars had the **bell-shaped portion**.
- **Abacus and capital** were used in both pillars.
- Both had **glossy polish** on their surface.

Persian pillars were far older than Ashokan pillars. Persian pillars were constructed in 6th century BC whereas Ashokan pillars were erected in 3rd century BC.



Sarnath Pillar Capital

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Critical Examination of Foreign Influence

A closure examination of the essential components and features of both Ashokan and Persian pillars makes it quite clear that Ashokan pillars were not a part of Persian tradition. The similarities between both the pillars are just superficial and there are deep-rooted fundamental differences between them. Some of these fundamental differences were

- The **shaft of Ashokan pillar was generally monolithic** but the **shaft of Persian pillars was made of stone pieces joined together**.
- The **shaft of Ashokan pillars tapered from bottom to top** whereas **that of Persian pillars was cylindrical**.
- The **shaft of Ashokan pillar was smooth** on its outer surface whereas **that of Persian pillars had grooves** on its outer surface.
- **In Ashokan pillars, the bell-shaped structure was used only at top**; they were erected by digging in the ground without any base. **In Persian pillars, bell-shaped structures were present at both top and bottom**. The pillars were erected on the bell-shaped bases.
- The purposes behind Ashokan and Persian pillars were also different. **Ashokan pillars were independent constructions whereas Persian pillars were part of palaces**.

Conclusion

Since the design and purposes behind Ashokan and Persian pillars were fundamentally different, they cannot be considered as part of the same tradition. That is why, Mauryan pillars were not an example of alien grafting. Since the Mauryan empire and Persia had close economic and cultural contact, some elements of cultural interaction would have taken place between them and their progress could have influenced each other.

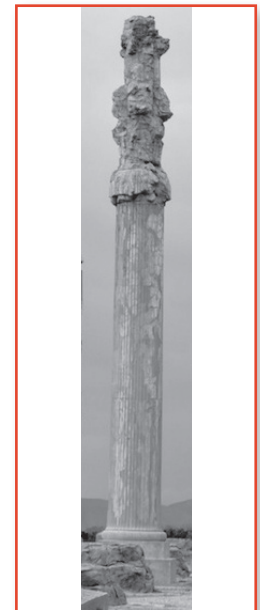
Connection of Ashokan Pillars with Other Indian Rulers

- Some of the Ashokan pillars have interesting account of their association with later Indian rulers.
- Two Ashokan pillars were shifted to Delhi from Topra (near Yamunanagar, Haryana) and from Meerut (Uttar Pradesh) by Sultan Firoz Shah Tughlaq. Topra Pillar was installed on a three-storied building in front of **Jam-e-Masjid** (main Friday mosque) located in Firoz Shah Kotla city. It came to be known as the **Minar-i-Zarin (Golden tower)**. Meerut Pillar was installed by Sultan in the hunting palace (Kushk-i-Shikar) located in Wazirabad Hills. **Tarikh-i-Firuz Shahi written by Shams-i-Siraj Afif** provides a detailed account of transfer of these pillars to Delhi. Three inscriptions of the Chauhan king **Vigraharaja IV** are also there on Delhi-Topra Pillar along with Ashokan inscriptions.



Ashokan Pillar

© Eagle9 / Shutterstock



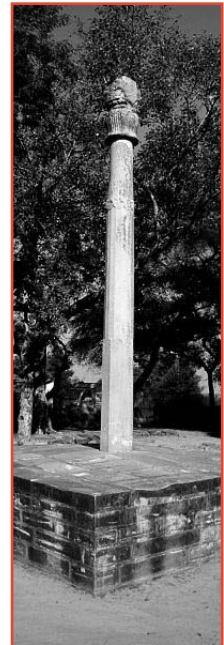
Persian Pillar



- These pillars were worshipped by locals at that time. They were referred as **Bhim-ki-lat (Mace of Bhima)** or **Bhim-ka-danda (Stick of Bhima)**. Since Sultan Firoz Shah Tughlaq preserved even these Hindu religious objects, this indicates that he was not a religious bigot (extremely orthodox ruler) as some western historians portrayed him in their writings.
- Allahabad-Kosam Pillar was originally located at Kaushambi. It was **shifted to Allahabad by Mughal emperor Akbar** who built a fort there. Apart from the schism edict of Ashoka, it has the famous Allahabad or **Prayag Prashasti of Samudragupta**. Inscription of the Mughal emperor Jahangir is also there on this pillar which records **12 royal orders** issued by him after he sat on the throne.

PILLAR ARCHITECTURE IN POST-MAURYAN PERIOD

During the post-Mauryan age, one stone pillar was erected by **Heleodorus at Vidisha/Bhilsa/Besnagar**. He was a **Greek ambassador in the court of Shunga king Khashiputra Bhagbhadr**. This pillar was made of red sandstone and has an inscription which informs that Heleodorus was a follower of Bhagvatism.



Besnagar Pillar

PILLAR ARCHITECTURE DURING GUPTA AGE

- The **Mehrauli Iron Pillar** is the only example of pillar architecture belonging to the Gupta period. It is about 7 metres (23 ft) in height. This kirti stambha (victory column) was originally erected by the Gupta ruler **Chandragupta II (Chandragupta Vikramaditya)** at **Udaygiri (Madhya Pradesh)**. It was dedicated to the Hindu deity Lord Vishnu.
- This pillar has an inscription which describes achievements of King Chandra identified with **Chandragupta II (Chandragupta Vikramaditya)**.
- This pillar was brought to Delhi by Sultan Iltutmish and was erected by him near Qutub Minar.



Mehrauli Iron Pillar

STUPA ARCHITECTURE IN INDIA

INTRODUCTION TO STUPA ARCHITECTURE

- The term **stupa** comes from Sanskrit and it means 'heap' in literal sense. In Pali language it is called 'Thupa'. The first reference of the term stupa is found in *Rigveda* where it was used for fire coming out



of an altar (**Yajna**). During the Vedic age stupa meant a structure built over the funeral place of important personalities by using bamboos and wood.

- Stupa architecture in its proper form was associated with Buddhism and it came into existence during 5th century BC. According to the Buddhist text **Mahaparinibbana Sutta**, 10 stupas were built by 10 important personalities of the age when Mahatma Buddha died. As Buddhism spread beyond Indian frontiers, stupa architecture also moved with it and assumed global character. A large number of stupas were built in Tibet, China, Korea, Japan and south-east Asian countries over the period of time. Stupas are known by different names in different parts of the world such as

Caitya Nepal

Chorten Tibet

Dagaba Sri Lanka

Zedi/Chedi Laos and Cambodia

Candy Indonesia

Pagoda Japan and Vietnam

- Since stupas were built after the death of Mahatma Buddha, they represent transience of life. Buddha's last words that 'every living thing decays and everyone should work for his salvation diligently' are symbolized by stupa architecture.

TEN ORIGINAL STUPAS

- As mentioned earlier, when Mahatma Buddha died, he was cremated and 10 stupas were built in his memory by 10 important personalities of the age. Out of these, 8 stupas were built on funeral remains of bones and ash. The 9th stupa was built on **embers** and the 10th stupa was built on the **urn** used for distributing Buddha's funeral remains among the important personalities who built the stupas.
- The details of these 10 original stupas are as follows:
 - Magadhan King Ajatashatru** built a stupa in his capital **Rajagriha**.
 - Lichchhavis** built a stupa in their capital **Vaishali**.
 - Shakyas** built a stupa in their capital **Kapilvastu**.
 - Buliyas** built a stupa in their capital **Allakappa** (located in Saran district of Bihar).
 - Koliyas** built a stupa in their capital **Ramagrama** (located in Nepal).
 - Mallas of Pava** built a stupa in their capital **Pavapuri** (identified with modern Fazilnagar in Uttar Pradesh). **Mallas of Kushinagar** built a stupa in their capital **Kushinagar** (It is the district headquarter in the state of Uttar Pradesh).
 - Brahmin of Vethadipa** built a stupa at **Vethadipa** (located in Bettiah district of Bihar).
 - Moriyas of Piplivana** built a stupa over the **embers** in their capital **Piplivana**.
 - Brahmin Drona** built a stupa over the **urn** used to distribute Buddha's remains of bones and ash at some unknown place.



CLASSIFICATION OF STUPAS

Buddhist stupas are classified into 5 main categories on the basis of the purpose or occasion associated with their construction. These are

- Relic Stupa
- Object Stupa
- Commemorative Stupa
- Symbolic Stupa
- Votive Stupa

Relic Stupas

Relic stupas were **constructed on bodily remains of Buddha, his disciples and Bodhisattvas**. These are the most sacred among all Buddhist stupas. Eight original stupas built after the death of Buddha were of this category. **Piprahwa Stupa** and **Sanchi Stupa** are of this type.

Piprahwa is located in Siddharthnagar district of Uttar Pradesh. This stupa was discovered in January **1898 by William Claxton Peppe**. He was a British colonial engineer. A casket containing pieces of charred bones and 5 small vases containing ashes along with jewels were found in this stupa.

Object Stupas

These stupas were built on **personal belongings or important items** used by Buddha, his disciples and Bodhisattvas. Begging bowl, sandals, robes and Buddhist scriptures were kept in these stupas.

Kesariya Stupa was built by emperor Ashoka over Buddha's begging bowl. Kesariya is located in east Champaran district of Bihar. It was the birth place of Buddha's teacher Alara Kalama. According to the Buddhist text *Kessaputtiya Sutta*, Buddha visited this place once and delivered an important lecture there. This stupa was discovered by the archaeologist **K.K. Muhammed in 1958**.

According to the Chinese traveller Hiuen Tsang, Kushana king Kanishka built a stupa at **Kapisa** (Afghanistan) on Buddhist scriptures. These scriptures were inscribed on copper plates after the completion of the 4th Buddhist council held at Kundalvana located near Srinagar in Kashmir.

Commemorative Stupas

These stupas were built in the memory of important events associated with the life of Buddha and Bodhisattvas. Emperor Ashoka built a number of such stupas at places like Lumbini, Bodhagaya and Sarnath. **Dharmarajika Stupa** built by Ashoka at Sarnath is the finest example of this category.

Symbolic Stupas

Stupas of this category were built to symbolize the invisible presence of Mahatma Buddha. Since Buddha was a God, he was believed to be present everywhere. Therefore, such stupas could be built anywhere. These stupas reminded people that Buddha and his Dharma were there with them always and everywhere. Relics or objects were not used in these stupas. **Amaravati Stupa built by Satavahanas** in the Deccan region is an example of this category.

Votive Stupas

These stupas were built by devotees at important Buddhist centres and monasteries near the main stupas when they went there for pilgrimage. These were very small in size and were erected in a few hours. The construction of these stupas was carried out to earn merit, that is, to get the grace of God. **A large number of such stupas can be seen at Sarnath, Bodhgaya, Lumbini and Kushinagar.**

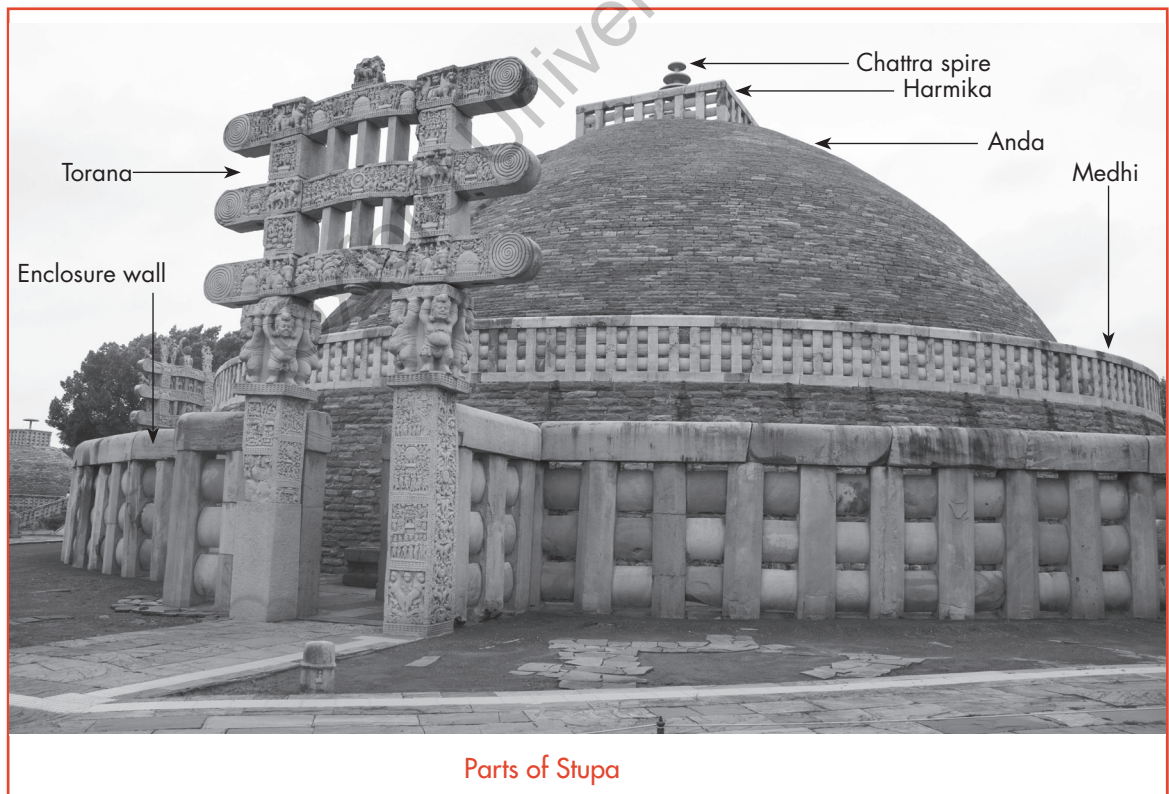
PARTS OF STUPA

Anda

It is the main part of a stupa in the shape of a **hemisphere or dome** or inverted bowl. It was a solid structure built by collecting earth and a brick or stone layer put over it.

Medhi

It was the **wider base** of a stupa.





Pradakshina Path

The English translation of the name is '**Circumbulatory Path**'. It was built over a *Medhi* for devotees to take rounds around the stupa to get the grace of Mahatma Buddha. Stairways were constructed to reach it from ground level.

Harmika

It is the **top portion** of a stupa. A casket containing relics or some object was buried at the top part of a stupa, which was slightly flattened. *Harmika* comprised this **flattened portion surrounded by a railing/Vedika**.

Yashti

It was a **part of Chhatra**. *Chhatra* is the staff or *Danda* erected at the top portion of a stupa. Three, five or seven round disks were attached to it.

Chhatra consisted of *Yashti* and disks. It symbolized all powerful and sovereign status of Mahatma Buddha.

Vedika

It refers to the **railing** built around a stupa. There used to be 3 railings at three different levels. The first railing was built on the ground around the *Anda*. The second railing was built at around the middle of *Anda* over *Medhi* to act as a peripheral wall around *Pradakshina Path* and the third railing was built at the top to surround the *Chhatra*. Crossbars used in the railings were known as *Suichi*.

Torana

Toranas were erected in all the four directions as **gateways**. These were highly ornamented in nature. Scenes from Jataka stories and day-to-day life of people were depicted on *Toranas*.

DEVELOPMENT OF STUPA ARCHITECTURE

Having emerged in 5th century BC, stupa architecture continued to flourish in India for more than a thousand years. Contribution of emperor Ashoka was utmost to the development of stupa architecture. According to the Buddhist text *Avadana Sutta*, the 10 original stupas were opened up by Ashoka and he distributed their relics among 84,000 stupas built by him. Some of the prominent Ashokan stupas are located at Sanchi, Sarnath, Bharhut, Amaravati and Lumbini. Amaravati Stupa was discovered by Colonel Collin Mackenzie in 1797 AD.

During the post-Mauryan age (200 BC – 300 AD), stupa architecture continued to flourish after some decline under Pushyamitra Sunga, the founder of Sunga dynasty. Pushyamitra Sunga was anti-Buddhist. He destroyed Buddhist stupas and monasteries and even announced a reward of 100 dinars on the head of each Buddhist monk.

Agnimitra, the son and successor of Pushyamitra Sunga, was a liberal and progressive ruler. He was the hero of *Malavikagnimitram*, a Sanskrit play written by the great poet Kalidasa. Agnimitra was favourably disposed towards Buddhism. He repaired Sanchi Stupa of Ashoka destroyed by his father and built two more new stupas at Sanchi. A large number of stupas were built by Satavahana, Ikshavaku and Vakataka rulers in the Deccan region during post-Mauryan age.

During the Gupta age (300 AD – 550 AD), stupa architecture was no longer very popular. This was the result of emergence of Nagara style of temple architecture. **Dhamekh Stupa of Sarnath** is the only available example of this period.

SANCHI STUPA

- Sanchi is located in Raisen district of Madhya Pradesh. The main Sanchi Stupa was originally built by Ashoka with **bricks** but it was destroyed by Pushyamitra Sunga. It is known as **Mahastupa**. This stupa was repaired and enlarged to twice of its original size by adding more layers of **stone** to its *anda* by Agnimitra, the son and successor of Pushyamitra Sunga. The railings of this stupa were **originally made of wood**. These were replaced with stone railings by Agnimitra. Beautifully ornamented gateways known as **toranas** were also added to it during the post-Mauryan age.
- Ashoka's Sanchi Stupa was constructed under the personal supervision of his queen Devi. She was born at Sanchi. Her father was a famous merchant of Vidisha. Ashoka married her when he was the governor of Ujjain before becoming king.
- This stupa was discovered by **General Herbert Taylor in 1818 AD**. In 1888 AD **Major Kol** cleared the nearby forests and erected its fallen *toranas*. General **Alexander Cunningham** and **Frederick Maisey** also carried out excavations at Sanchi. Proper restoration work was carried out at Sanchi under the supervision of **Sir John Marshall** during the period 1912 to 1919 AD.
- Alexander Cunningham and Frederick Maisey found bone relics along with other materials at Sanchi. They carried these finds to England as their personal trophies. These relics were later sold by their family members to Victoria and Albert Museum, London. These relics belong to Buddhist monks Sariputta and Mahamoggallana. Due to the efforts made by Mahabodhi society of Sri Lanka, these relics were brought back and Chaityagiri Vihara was constructed at Sanchi to house them in 1952.
- At present there are about 50 monuments at Sanchi. These monuments were included in UNESCO's list of World Heritage Sites in 1989.



Sanchi Stupa

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Significance of Sanchi Stupa

- Sanchi Stupa is the most well-preserved among all the stupas in India. It is a living piece of Indian heritage. It reflects not only the cultural life of the times but also a fine aesthetic sense.
- Sculptures and reliefs found on the *toranas* of Sanchi Stupa are extremely important source of information about life in India during the ancient age. **Life of Buddha described in Jataka stories** is portrayed along with scenes from day-to-day life. Stories like Sujata offering food to Buddha, **Bimbisara's visit to Buddha** and **animals moving in a procession to see Buddha** are depicted. Buddhist symbols such as elephant, wheel and horse are also found on Sanchi Stupa. Buddha was never depicted in human form on stupas; he was always portrayed through Buddhist symbols.
- Folk deities such as Yaksha and Yakshini are also depicted worshipping Buddha on Sanchi Stupa. This was a careful strategy to overawe common masses and to convince them of the greatness of Mahatma Buddha over their deities. By using these folk motifs and narratives and common cultural symbols, Buddhist stupa art succeeded in promoting Buddhist ideals among a vast majority of the common masses.

INDIAN TEMPLE ARCHITECTURE

INTRODUCTION TO INDIAN TEMPLE ARCHITECTURE

The great poet Muhammad Iqbal once commented that 'Saare Jahan se Achchha Hindostan Hamara'. The truth of this statement is aptly revealed by Indian temple architecture. India is the land of wonders and Indian temples are among the best creations of mankind. The tradition of constructing temples in India is age-old. It has been going on since more than two thousand years. The great Mauryan ruler Ashoka was the first to initiate this tradition and it reached its zenith under the patronage of Vijayanagar rulers in the 17th century.

A temple can be defined as an enclosed place of worship having a roof or a covered structure. The word 'temple' is derived from the Latin word *templum* which signifies any holy enclosure or structure that is screened from the eyes of the profane. Temple is the dwelling place of God and is used for worship by devotees.

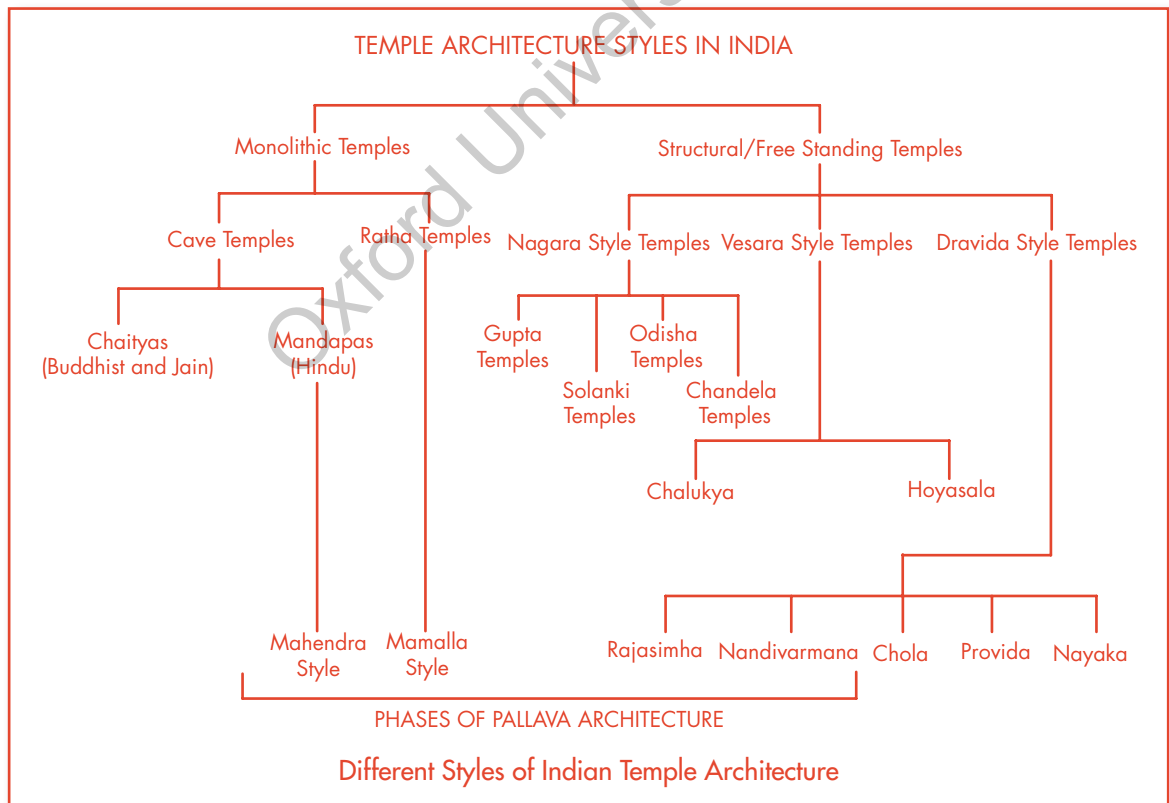
Indian temple architecture is one of the finest expressions of creativity of early Indians. Temple forms an important part of Indian heritage and they are unique symbols of Indian culture. Development in the field of temple architecture commenced during the Mauryan period when rulers like Ashoka and his grandson Dasaratha got caves carved in Barabar and Nagarjuni Hills for monks of Ajivaka sect. Over the period of time new forms and features became a part of temple architecture.



Literary references found in the works of ancient age such as *Manasara* and archaeological evidences gathered from various places located in the Indian subcontinent throw light on the progress in the field of temple architecture in India. Cave temples represented the early stage of temple architecture but later on structural temples were constructed on a large scale. A Zoroastrian temple located at **Jandial** is the oldest known structural temple discovered in the Indian subcontinent. This place is situated near Taxila in Pakistan. It was built by using stones and fire worship was practised in this temple. Its architecture exhibits deep influence of Greco-Roman or Hellenistic art. It appears that this temple was built during the period of **Scythian-Parthian period in 1st century BC**.

Elements of both court art and popular art were present in Indian temple architecture because both state and common people patronized temple-building activities. On the one hand Indian temples were the outcome of specific social, economic, political and cultural realities of the age in which they were constructed and on the other hand temples shaped life and thought processes of the people in a big way. Temples gradually evolved into massive institutions having control over every dimension of human life.

CLASSIFICATION OF INDIAN TEMPLE ARCHITECTURE





MONOLITHIC TEMPLES IN INDIA

CHAITYAS

A large number of Buddhist and Jain cave temples known as chaityas were cut in India during the ancient age. Buddhist chaityas had stupas inside them and Jain chaityas had images of Tirthankaras.

Ajanta, Karle, Pitalkhora, Kanheri, Junnar, Bhaja, Bedsa and Kondana located in Maharashtra are the prominent locations of Buddhist chaityas. Karle chaitya is the most beautiful among all of these. These cave temples were worshipped by Buddhists.

Jain cave temples are located in Udayagiri-Khandagiri Hills of Odisha. In ancient times these hills were known as Kumari Parvat. Udayagiri Hills have 18 caves and Khandagiri Hills have 15 caves. These caves were sculpted during the reign of the famous Kalinga ruler Kharavela (193 BC – 170 BC). He was a great patron of Jainism. **Ranigumpha Cave located in Udayagiri Hills is the most beautiful among these caves. It is a double-storeyed monument.**

MANDAPAS

A large number of Hindu cave temples known as mandapas were carved under the patronage of Pallava rulers of Kanchipuram in 7th century AD. King Mahendravarmana I started the tradition of cutting caves. He was famously known as 'Chaityakari' for his patronage to architecture. **Pancha-Pandava Mandapa** located at Pallavaram and **Mahendravisnugraha Mandapa** located at Mahendravadi are the examples of cave temples cut during the reign of Mahendravarmana I. These caves represent 'Mahendra style' of architecture. **Adivaraha Mandapa** and **Ramanuja Mandapa** located at Mahabalipuram are the finest examples of 'Mamalla style' of architecture. This emerged during the reign of Pallava king Narasimhavarmana I.

These Pallava mandapas are simple rectangular halls cut into caves. Rows of pillars were cut along the walls. The back wall has one or more rooms, which were used by monks for residential purposes. The mandapas belonging to Mamalla style are far more ornamented than those belonging to Mahendra style.

Ellora Caves located in Aurangabad district of Maharashtra have Buddhist, Jain as well as Hindu/Brahmanical cave temples. There are 34 caves at Ellora, out of which 12 (Cave No. 1–12) are Buddhist, 17 (Cave No. 13–29) are Brahmanical and 5 (Cave No. 30–34) belong to Jainism. These caves were cut simultaneously during the periods from 6th century AD to 11th century AD. Ellora Caves are the living example of Indian values of tolerance and peaceful coexistence. **Cave No. 16 located at Ellora is the world famous Kailash temple.** It is the biggest monolithic structure in the world. Its cutting commenced in 760 AD during the reign of Rashtrakuta king Krishna I and completed in around 100 years.

RATHA TEMPLES

Ratha temples are monolithic monuments cut out of live hills. The term *Ratha* does not mean a chariot but it refers to 'procession form' of the entire structure. It appears that these temples are mobile though they are not in reality.

Sapta Pagoda located at Mahabalipuram are examples of Ratha temples. These monuments were cut during the reign of Pallava king Narasimhavarman I in 7th century AD. Though the name is 'Sapta' Pagoda but in reality they are 8 in number.

The Sapta Pagoda of Mahabalipuram comprises

- Dharmaraja Ratha
- Draupadi Ratha
- Arjuna Ratha
- Bhima Ratha
- Nakula-Sahadeva Ratha
- Ganesh Ratha
- Pindari Ratha
- Valaiyan-kuttai Ratha

Ratha temples are ornamented with a large number of images of gods and goddesses. Sculptures which represent scenes from Hindu mythology have also been used. Bull, lion and elephant, the vehicle of Shiva, Durga and Indra have been used extensively. The influence of Amravati art can easily be seen here through the poses and gestures of the sculptures.

Arjuna Ratha is famous for beautiful images of Shiva and Draupadi Ratha for images of Goddess Durga.



Arjuna Ratha

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STRUCTURAL TEMPLES IN INDIA

Structural temples were built by using stones and bricks. They are also known as 'Free Standing Temples' because they could be built anywhere irrespective of geography. The oldest known structural temple discovered in the Indian subcontinent is a Zoroastrian temple located at Jandial (Pakistan). By 4th century AD different typical styles of structural temples started coming into existence. The Nagara style was the first in this category. Dravidian and Vesara styles followed later. Other variants emerged too out of these 3 main styles of temple architecture. These temples were built under the patronage of kings, nobles and merchants. They were mostly dedicated to Brahmanical deities such as Shiva, Vishnu and Parvati. Many Jain structural temples were also built in north India as well as peninsular India.



NAGARA STYLE OF TEMPLE ARCHITECTURE

The Nagara style of temple architecture came into existence during 4th century AD when imperial Guptas were ruling in north India. These temples are found all over north India from Punjab in the West to Bengal and Odisha in the East. Some of the prominent examples of temples of Nagara style are

- **Shiva temple of Bhumara** (Satna district of Madhya Pradesh)
- **Laxmana temple of Sirpur** (Mahasamund district of Chhattisgarh)
- **Parvati temple and Mahadeva temple of Nachna Kuthar** (Panna district of Madhya Pradesh)
- **Vishnu temple of Tighwa** (Katni district of Madhya Pradesh)
- **Dasavatara temple of Deogarh** (Lalitpur district of Uttar Pradesh)
- **Vishnu temple located at Eran** (Sagar district in Madhya Pradesh)

Temples of Nagara style were characterized by their essential components. The most prominent parts of temples belonging to Nagara style were

- The entire temple structure was built on a raised platform known as **Adhisthana** or **Jagati**.
- The main building of the temple complex was known as **Garbhagraha** or **Sanctum Sanctorum**. In this building images of chief deities are housed.
- The seats of deities in Garbhagraha were known as **Peetha**.
- A pillared veranda known as **Antarala** was built in front of Garbhagraha as a passageway for devotees.
- At the entrance of the temple, a structure known as **Mandapa** was built. It was quite similar to Garbhagraha in its shape but was comparatively smaller in height. Mandapa was used for the gathering of devotees.
- A **pond or well** was built on Adhisthana or near to it to provide sacred water to devotees for rituals.
- A spherical shape was made on the top of Garbhagraha which was known as **Amalaka**.
- A sacred pot known as **Kalasha** was placed over the Amalaka to collect cosmic energy or nectar.
- The Kalasha was surmounted by a flag known as **Jhanda** which symbolized the sovereignty of the temple deity.



Nagara Style of Temple



Temples of Nagara style were constructed by using **stones and bricks**. Metal was not used in construction. These temples were characterized by certain essential features which found expression in the construction of the buildings and their ornamentation.

In most of the temples of Nagara style the upper portion of the wall of Garbhagraha generally curve slightly inwards. This curvilinear portion is known as **Shikhara**. The shape of Shikhara differed at different times and there were two main varieties of it. The most common name for the simple Shikhara which is square at the base and whose walls curve or slope inward to a point on top is called the **Latina** or the **Rekha-Prasada** Shikhara.

The second major type of architectural form in the Nagara style of temples is the **Phamsana**. Phamsana buildings are broader and shorter than the Latina ones. Their roofs are composed of several slabs that gently rise to a single point over the centre of the building whereas the Latina buildings look like sharply rising tall towers. Phamsana roofs do not curve inward, instead they slope upwards on a straight incline. In many north Indian temples Phamsana design is used for Mandapas while the main Garbhagraha is housed in a Latina building.

No **Pradakshina Path** (circumbulatory path) was built in the temples of Nagara style. The walls of Garbhagraha were ornamented only from outside; the interiors of Garbhagraha were plain without any ornamentation. Images of **Dwarpalas** (doorkeepers) were carved out on both sides of the entrance to Garbhagraha. Generally, Goddess Ganga and Goddess Yamuna were used as Dwarpalas. No peripheral wall was built in the temples of Nagara style.

During the post-Gupta period (550 AD – 750 AD) little progress was witnessed in the field of art and architecture including temple architecture in north India due to rapid decline of secondary and tertiary economic activities. Factors like invasions of Hunas from north-western direction and decline of Gupta empire were responsible for it. Since economy was mainly based on agriculture and resources with people were limited, no significant progress could take place in the form of construction of monuments.

The Nagara style of temple architecture witnessed revival and remarkable progress during early medieval age (750 AD – 1200 AD) under the patronage of Chandelas of Bundelkhand, Solanki rulers of Gujarat-Rajasthan and Ganga rulers of Odisha.

Chandela rulers of Bundelkhand were great patrons of temple architecture. Temples located at Khajuraho are the finest examples of Chandela architecture. 25 temples are located at **Khajuraho**. These are built in granite and red sandstone. These temples belong to Shaivism, Vaishnavism and Jainism. **Kandariya Mahdev temple** dedicated to God Shiva is the finest monument at Khajuraho. This temple has one big and four small Shikharas. It is an example of **Panchayatna type** of temples in which five deities (Shiva, Parvati, Ganesh, Vishnu and Surya) were worshipped together. The **Chaturbhuj temple** dedicated to Lord Vishnu and the **Parshvanatha temple** belonging to Jainism are other prominent monuments at Khajuraho.

Dilwara temple located at **Mount Abu (Rajasthan)** is considered the most beautiful monument built under the patronage of Solanki rulers of Gujarat-Rajasthan. This temple belongs to Jainism. It is made of white marble and was built by the Solanki minister Vastupala. The **Karnameru temple** located at Anhilwara (modern city of Patan in Gujarat) and the **Rudra Mahalaya temple** located at Siddhpur are other prominent examples of Solanki temples.



The Nagara temples located in Odisha are most well preserved because eastern India did not bear much brunt of foreign invasions during medieval age. A number of magnificent temples such as **Lingaraj temple, Muktesvara temple, Jagannath temple and Konark Sun temple** were built under the patronage of local rulers. Lingaraj temple and Muktesvara temple located at Bhubaneswar were built by King Yayati Kesari in 11th century AD.

Lingaraja is the most remarkable example of Odisha architecture. Dedicated to God Harihara, one of the various forms of Shiva, this temple is about 55 metres high. It has four main structures known as *Garbhagraha* (Sanctum Sanctorum), *Bhoga-Mandapa* (hall of offerings to God), *Natamandira* (festival or celebration hall) and *Jagamohana* (assembly hall for devotees). This particular layout style is known as **Deula style** of temple architecture. It is a unique feature of Odisha temples.

The **Jagannath temple** was built by King Anantavarmana Chodagangadeva in 12th century AD. This is the only temple in India where Krishna, Balabhadra (Balarama) and their sister Shubhadra are worshipped together. It is also unique because of the fact that the images used in this temple are made of wood. These wooden images are replaced with new images after every 11 or 19 years in a highly secret ceremony known as **Navakalevara (literal meaning 'New Embodiment')**. It is famously referred as 'White Pagoda' because of the use of white coloured stones in its construction.

The **Sun temple** located in the coastal city of Konark was built by **King Narasimhadeva I** in 13th century AD. It is famously referred as **Black Pagoda** because of the use of black coloured stones in its construction. A larger number of beautiful female images in erotic forms have been used on the walls of this temple. Gurudev Rabindranath Tagore once commented on the beauty of Konark Sun temple thus: 'Here the language of stone surpasses the language of man.'

DRAVIDIAN STYLE OF TEMPLE ARCHITECTURE

This style of temple architecture emerged during the closing decades of 7th century AD in south India under the patronage of Pallava rulers of Kanchipuram. It evolved out of the tradition of monolithic temples built in Mahendra style and Mamalla style.

Rajasimha style (674 AD – 800 AD) represented the first phase of Dravidian style of temple architecture. It emerged under the patronage of Pallava king Narasimhavarmana II Rajasimha. The Kailashnath temple and the Vaikunthaperumal temple located at Kanchipuram are the finest examples of it. The Shore temple and the Ishwara temple located at Mahabalipuram also belong to this style.

Nandivarmana style (800 AD – 900 AD) represented the second phase in the process of evolution of Dravidian style of temple architecture. It emerged during the reign of Pallava king Nandivarmana II and continued throughout the 9th century. The temples belonging to this style are comparatively smaller in size. This change was a reflection of the declining power of Pallavas. **Mukteshwara temple** and **Matangeshwara temple** located at Kanchipuram are the finest examples.

Dravidian style of temple architecture is characterized by its typical features:

- The main difference between the temples of Dravidian style and those of Nagara style is that the temples of the former style were not built on any raised platform from the ground level, unlike those of the latter style of temple architecture.

- The walls of Garbhagraha were ornamented from inside as well as outside by using images and carvings.
- A covered circumbulatory path (*Pradakshina path*) was built around Garbhagraha for devotees.
- The roof of Dravidian temples is pyramidal in shape and is known as **Vimana**. It becomes narrower from bottom to top storey by storey.
- Other components of temple such as Amalaka, Kalasha, Jhanda (flag) and Antarala are also part of Dravidian temples just like the temples of Nagara style.
- Mandapa or Mantapam was also built at the entrance of the Dravidian temples for the gathering of devotees. Its roof is pyramidal in shape.

The Chola rulers of Tanjore were great patrons of art and architecture. More than 2,300 temples were built during the Chola period. The patronage of powerful Chola rulers carried Dravidian style of temple architecture to its climax. A number of new elements became part of the Dravidian style of temple architecture during this period and a typical **Chola style (900 AD – 1200 AD)** came into existence.

The height of Vimana increased enormously because it symbolized the power and prestige of the kings. Vimana of **Brihadeshwara temple** built by King Rajaraja I of Tanjore is about 66 metre high. A 6.44 kilometre long raised platform was used to lift big stone pieces to this height. A number of subsidiary or additional structures were also built near the main temple during the Chola period, as a result of which temples witnessed horizontal expansion. This **horizontal elaboration** transformed temples into a big complex and it **represented the territorial expansion of the empire** because these additional structures were constructed by kings when they used to return from successful military campaigns. The entire temple complex was surrounded by a peripheral wall and gateways known as **Gopura** were built in all the four directions. This was another change that was witnessed in Dravidian style of temple architecture during the Chola period.

The rulers of Vijayanagar empire carried forward the tradition of temple architecture developed by the Pallavas and Cholas. A number of new elements were introduced to the Dravidian style of temple architecture and this evolved form is referred as **Provida style**. In the temples of this style a separate structure known as **Amman shrine** was built for the chief goddess of the temple as she would not reside in the Garbhagraha along with the



Brihadeshwara Temple

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chief god, as was the tradition during that time. **Kalyanamandapa (Marriage hall)** was built for the ceremonial union of chief god and chief goddess of the temple. The images of both the deities were carried to this hall at the beginning of Mahanavami festival and they were transported back to their respective structures on the last day of the festival. Another structure known as **Vasanthamandapa** was built in the temple complex for the gathering of devotees. The Vitthala temple and the Hazara Rama temple located at Hampi are the finest examples of this style.

In the 17th century **Nayaka style** of temple architecture came into existence. The emergence of this style was the result of the decline of central authority of Vijayanagar after the Battle of Talikota fought in 1565 AD. Nayakas were the provincial governors in Vijayanagar empire and they transformed themselves into independent entities. The temples of Nayaka style are comparatively smaller in size but the level of ornamentation is very high. The **Meenakshi temple of Madurai** built by Kulashekara Pandya Nayaka is the finest example of this style.



Meenakshi Temple of Madurai

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VESARA STYLE OF TEMPLE ARCHITECTURE

- The term 'Vesara' has originated from the Sanskrit word *Visarana* which means movement. This style of temple architecture emerged in the Deccan region as a result of movement of elements of Nagara style of north India and Dravidian style of south India. The Chalukyan rulers of Vatapi (also known as Badami) were the patrons of this style. It evolved further under the patronage of the Hoyasalas of Dwarasamudra.
- In the **Vesara style**, features of both Nagara and Dravidian temples were integrated into one single style. At times temples of Nagara style and Dravidian style were built at the same place separately.
- **Chalukya temples represent the early stage of Vesara style.** The temples located at Aihole and Pattadakal are the finest examples of Chalukya style. At Aihole there are 70 temples. It is famously known as the city of temples. The **Durga temple** located at Aihole is built on a raised platform and has a circumbulatory path. At Pattadakal there are 10 temples, out of which 4 are of Nagara style and 6 are of Dravidian style. **Papanath temple** is the most beautiful among the temples of Nagara style and **Virupaksha temple** is the most beautiful among the temples of Dravidian style.

- The Hoyasala rulers of Karnataka (Dwarasamudra was their capital) built a large number of temples in Vesara style. Greater influence of Dravidian style was visible in Hoyasala temples and as a result, they are often termed as **Karnata-Dravida**. Star-shaped layout is a characteristic feature of Hoyasala temples. Instead of constructing 1 Garbhagraha, 2, 3, 4 or 5 identical Garbhagrahas were built around a pillared hall in these temples to give the appearance of a star. The **Channakesava temple located at Belur** and the **Hoyasaleshwara temple located at Dwarasamudra** are the best examples of this style.



Virupaksha Temple

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SIGNIFICANCE OF TEMPLES

Indian temples are not only a living example of progress in the field of architecture but also an integral part of Indian socio-cultural life. Temples in India have been an institution in themselves and have played a critical role in the life of the masses as well as classes throughout history. Some of the important roles and responsibilities performed by temples in the social, economic, religious, political and cultural life during the ancient age were as follows:

- Temples acted as agents of central authority at the local level. They helped in maintaining central control over an extensive territory.
- During the ancient age temples provided employment to a large number of people like priests, musicians, dancers, etc.
- Temples imparted learning to people. Educational institutions such as Shalabhogam, Palichchandam and Gathikas were attached to temples.
- Big temples used to have departments attached to them to look after irrigation facilities.
- Temples worked as the seat of justice at the local level. Disputes and differences were settled by temples.
- Temples were big landlords too. Thousands of peasants worked on temple lands, which were donated by rulers to temples for their maintenance.
- Sporting competitions were organized by temples for the entertainment of the common masses.
- Temples also acted as banking institutions in India. They extended loans to merchants and traders for various economic activities.



INDO-ISLAMIC ARCHITECTURE

INTRODUCTION

Indian history is full of records of great wars and battles fought by Indian rulers but there are very few examples of conflicts having significance similar to that of the **Second Battle of Tarain fought in 1192 AD**. The defeat of Prithviraj Chauhan in this battle at the hands of Muhammad Ghori changed the direction of Indian history. This change was not just politico-administrative in nature but was also socio-cultural and economic in nature.

The Turks brought new forms and features of art and architecture to India, which were quite different when compared with traditional Indian art and architecture. Over the period of time a number of Indian elements got assimilated with Islamic architecture.

COMPARATIVE ANALYSIS OF INDIAN ARCHITECTURE AND ISLAMIC ARCHITECTURE

The traditional Indian architecture was characterized by the use of columns and beams. Columns were used to support roof and beams were used to make the roof. This style of architecture is also known as **Trabeate style**. Flat roof was a typical feature of Indian traditional monuments. The size of monuments in traditional Indian style was moderate because it was practically impossible to have very big halls.

The Indian style of architecture manifested itself in the form of palaces, forts, temples, etc. In Indian style of architecture, ornamentation was carried out by using

- Images/Sculptures
- Geometrical designs
- Cornices
- Paintings
- Floral designs

The Islamic architecture brought to India by Turks was characterized by the **use of arches, domes and minarets**. Arches were used in construction of doors and windows. Dome was used in the construction of roof. Minarets were erected in all four corners of the buildings. These minarets were primarily for ornamentation purposes though some minarets were also used by **Muezzin** (in charge of mosque) to give a call for religious congregation for offering namaz (prayer).

The shapes and designs forming a part of Islamic architecture were not completely unknown in India before the establishment of Turkish rule because arches were being used in India since the days of Harappan civilization. **Corbelled arch** was used in the construction of **underground**



Corbelled Arch

drainage found at Mohenjodaro. Some houses excavated at **Kaushambi (Uttar Pradesh)** belonging to 1st and 2nd century BC had arches in their windows.

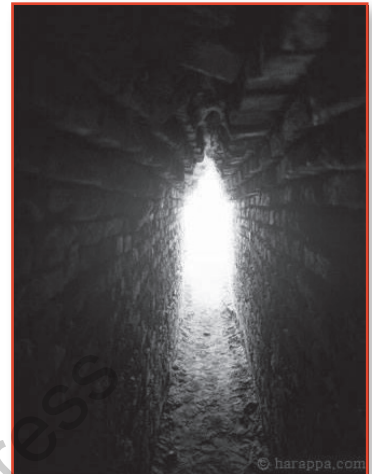
Domes as such were never used in India but their shape was inspired from the **Anda** (hemisphere of stupas). The minarets used in Islamic architecture were the adoption of Indian victory towers. These shapes and elements were carried by Arabs from India who used to come to India for trade and commerce. They became part of pre-Islamic Syrian architecture (Sasanid architecture) of Roman times when the Romans ruled over Syria and other parts of Arab world during the early centuries of Christian era. These elements can be seen in the remains of the Roman age monuments in the city of Palmira in Syria.

From Arabs, this particular style of architecture based on the use of arches, domes and minarets was adopted by Turks living in central Asia. The Turks brought this style back to India when Mohammad Ghorī established Turkish rule in 1192 AD.

This style of architecture is also known as **Arcuate style**.

In the monuments of this style **ornamentation** was carried out by using

1. Coloured **marble stone**
2. **Kufi** (Kufi was an angular Arabic script. It was used to inscribe verses of Quran on walls and roofs of monuments. This particular style itself came to be known as kufi over the period of time.)
3. **Arabesque** (It was the name of an ornamentation technique in which winding series of leapers and creepers were carved out)



**Corbelled Arch in
Drainage at Mohenjodaro**



Kufi and Arabesque

© Bill Perry / Shutterstock

ASSIMILATION OF INDIAN AND ISLAMIC ELEMENTS OF ARCHITECTURE OR EMERGENCE OF INDO-ISLAMIC ARCHITECTURE

After the establishment of Turkish rule in India, many elements of Indian architecture gradually became part of Islamic monuments, as a result of which an assimilatory Indo-Islamic architecture came into existence. This assimilation was the result of conscious as well as unconscious efforts.

During the initial phase of Turkish rule, the sultans of Delhi **had to employ Indian craftsmen** in the construction of Islamic monuments because Turks came to India as military conquerors. They did not bring with them Islamic craftsmen from central Asia. These Indian craftsmen were



habituated to constructing monuments of Indian style, which was why some Indian elements unconsciously became part of Islamic monuments.

Many early Islamic monuments were constructed by converting existing Indian monuments or by using their material. **Indian temples could be easily converted to mosques by replacing flat roof with dome and by adding arches to doors and windows.** In the construction of the Quwwat-ul-Islam mosque by Qutb-ud-din Aibak, material was procured from existing 27 Jain and Hindu temples.

Many Indian architectural elements were consciously adopted by liberal rulers such as the Mughals. Some of these elements were

1. **Chhajja** (Projection)
2. **Chattra** (Canopy)
3. **Jali** (Screen)
4. **Jharokha** (Balcony)

A *Chattra* is a sloping stone overhung at the roof level, used to deflect rain water away from the walls of a building and it was usually supported on heavy carved corbels. A *Jharokha* was a projecting balcony. It was supported on corbels with the help of a hood resting on columns.

Some Indian ornamentation techniques were also incorporated in Islamic monuments consciously because of their secular character such as

1. Geometrical designs
2. Cornices
3. Floral designs

EVOLUTION OF INDO-ISLAMIC ARCHITECTURE

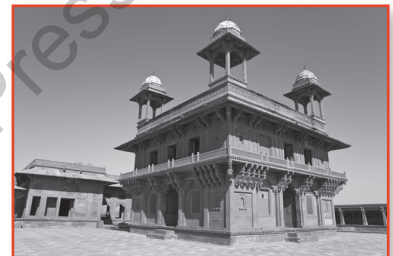
During their initial phase, Islamic monuments were constructed by using old material procured from existing Indian monuments but later on Islamic monuments began to be constructed with fresh material. **Jamat-i-Khana mosque built by Ala-ud-din Khilji** was the first monument in this category.

Corbelled arch was used in the construction of early Islamic monuments. But later on true arch/scientific arch was invented



Chhajja

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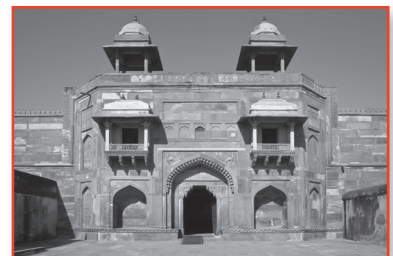
Chattra

© Nickolay Stanev / Shutterstock



Jali

© Don Mammoser / Shutterstock



Jharokha

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and it began to be used in monuments built by sultans of Delhi. **Balban's tomb was the first monument in which true arch** was used.

During the Khilji period, the technique of laying bricks as **headers and stretchers** in the construction of walls was invented. The use of this technique increased the strength and stability of monuments. It became a common feature gradually.

During the Tughlaq period, **pentagonal** (five sided) **and octagonal** (eight sided) layouts were used in the construction of buildings. **The tomb of Sultan Ghiyas-ud-din Tughlaq was the first pentagonal building and the tomb of Khan-i-Jahan Telangani (Wazir of Firoz Shah Tughlaq) was the first octagonal building.**

During the initial phase of Indo-Islamic architecture single dome was used in the construction of monuments. But during Lodi period, double dome began to be constructed. **The first double dome was used in the construction of tomb of Sultan Sikander Lodi located in Delhi.**

During the Mughal period double dome was a common feature of monuments. The finest double dome can be seen in Taj Mahal. This dome was designed by **Ismail Khan Rumi of Constantinople** (Istanbul, Turkey).

The use of double dome was beneficial in many ways:

- It enhanced the monumentality of the building by making it appear bigger.
- It helped in maintaining temperature stability inside the building.
- It improved acoustics (sound quality) inside the building.



True Arch

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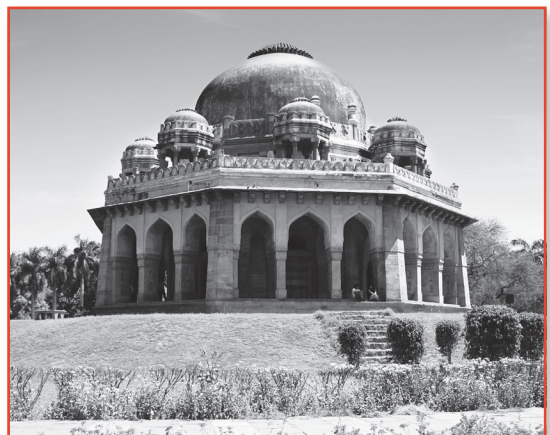


Headers and Stretchers



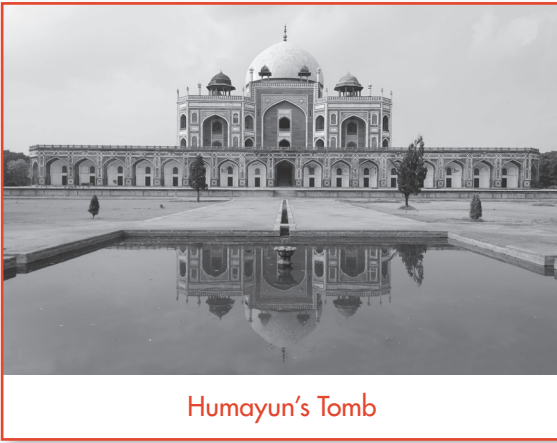
Tomb of Sultan Ghiyas-ud-din Tughlaq

© Don Mammoser / Shutterstock



Tomb of Khan-i-Jahan Telangani

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Humayun's Tomb

© Soon Wee hong / Shutterstock



Taj Mahal

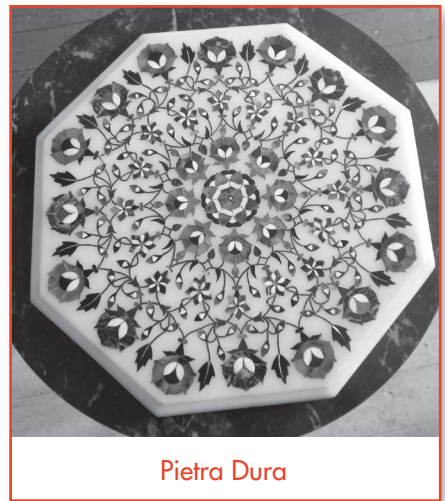
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The evolution of Indo-Islamic architecture can also be seen in the use of **white marble**:

- For the first time, white marble was used in small quantity in the construction of **Qutub Minar**.
- In **Alai Darwaza**, the quantity of white marble was far more.
- In the construction of **Humayun's Tomb**, white marble was used in large quantity for the first time.
- **Taj Mahal** was constructed entirely with white marble.

The evolution of Indo-Islamic architecture can also be seen in the form of ornamentation techniques:

- During the initial phase, ornamentation was carried out by using coloured marble stones, kufi and arabesque.
- Gradually, Indian techniques of ornamentation such as geometrical designs, floral designs and cornices were adopted.
- During the reign of Akbar paintings were also used for ornamentation.
- During the reign of Jahangir, Pietra Dura technique of ornamentation was **adopted from Persia**. In this technique, designs were carved out in marbles and these carvings were filled with semi-precious and precious stones. **For the first time this technique of ornamentation was used in the tomb of Itimad-ud-Daula. Taj Mahal is the finest example of Pietra Dura.**



Pietra Dura

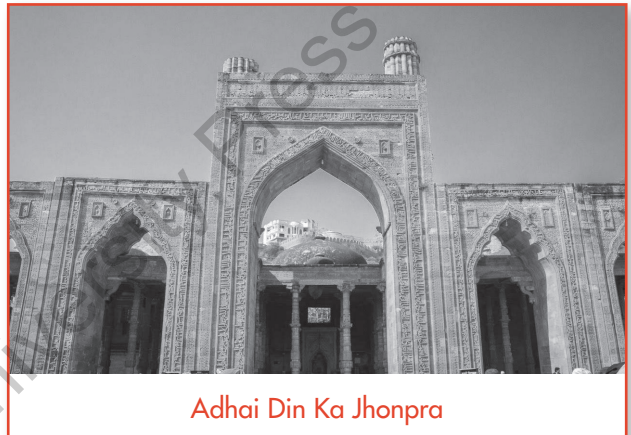
Babur brought **charbagh or chahar bagh style of architecture** to India. In this style monuments were constructed in the middle of a garden after dividing the garden into four equal parts. Flowing

water in narrow channels was used for ornamentation. Humayun's Tomb is the finest example of the early stage of charbagh style. During the reign of Shah Jahan, charbagh style was modified to some extent. He shifted the monument to one side of the park and constructed the monument on a raised platform. These changes enhanced the beauty of the monument immensely because it would make the building appear much higher and the entire park was now in front of it. Taj Mahal is the finest example of this modified form of charbagh style.

ARCHITECTURAL ACHIEVEMENTS OF DELHI SULTANS

Qutb-ud-din Aibak

Quwwat-ul-Islam Mosque was built by Qutb-ud-din Aibak in 1195 AD at Delhi. It was the first Islamic monument of the Sultanate period. This mosque was constructed on the base of a Hindu temple by demolishing it. The material for this mosque was procured by demolishing 27 Hindu and Jain temples. This mosque was enlarged later by Iltutmish and Ala-ud-din Khilji. Iltutmish beautified it by adding a screen. Aibak also constructed **Adhai din ka Jhonpra at Ajmer** in 1200 AD.



Adhai Din Ka Jhonpra

Aibak also began the construction of **Qutub Minar**. It was completed by Iltutmish. Iltutmish gave it the name Qutub Minar in the memory of the Sufi saint Qutb-ud-din Bakhtiyar Kaki. Originally, it had four stories (225 feet high). During the reign of Firoz Shah Tughlaq it was struck by lightning and its fourth storey was damaged. The fourth storey was replaced by two smaller stories as a result of which its height increased to 234 feet.

Iltutmish

Iltutmish constructed his **tomb near Quwwat-ul-Islam Mosque**. It is one of the most ornamented monuments constructed during Sultanate period. Iltutmish also built Hauz-i-Shamsi, Shamsi Idgah, Gandhak ki Bawali, Jami Masjid (at Badaun) and Antkaran ka Darwaja (at Nagaur). Gandhak ki Bawali is a step-well built by Iltutmish in Delhi. Sultan Ghari near Qutub Minar was also built by him in 1231–32. It is the mausoleum of his son Nasir-ud-din Mahmud. It stands in the middle of a square fortress-like enclosure with round towers/minarets at the four corners.



Tomb of Iltutmish

© Mukul Banerjee / Shutterstock



Balban

Sultan Balban constructed his **tomb at Delhi**. The true arch or scientific arch was used for the first time in Balban's tomb. The reign of Sultan Balban also witnessed beginning of the construction of *Sarais*. The first *Sarai* was built in 1266 with the largest number being built during the Tughlaq period.

Alauddin Khilji

Alauddin constructed **Jamat-i-Khana Mosque** at the Dargah of Sufi Saint Nizam-ud-din Auliya. This was the first monument built in accordance with Muslim ideas and with material specially quarried for the purpose. It is of red sandstone. Initially, it was a tomb and was converted into a mosque during the Tughlaq period.

Alauddin constructed **Alai Darwaja** in 1311 near Quwat-ul-Islam Mosque. It has a natural arch and Saljuki dome. It is one of the most treasured gems of Islamic architecture. Alauddin also constructed **Hauz-i-Khas or Hauz-i-Alai**. In 1303 he constructed the fort of Siri to protect the people of Delhi from external invasions such as from those of Mongols. Use of red sandstone is the characteristic feature of Khilji buildings.



Jamat-i-Khana Mosque

Tughlaq Sultans

During the Tughlaq period the lavish display of ornaments and richness of details were replaced by puritanical simplicity. Their buildings were massive but without much ornamentation. The change was partly due to the urgent need of economy and partly due to the attitude of Tughlaq sultans.

Ghiyas-ud-din Tughlaq built the **city of Tughlaqabad**. This city had an extensive fort and the tomb of Sultan Ghiyas-ud-din Tughlaq. This tomb is pentagonal in design. According to the Muslim Moroccan scholar Ibn Batuta, his palace was built of gold like shiny bricks. Muhammad-bin-Tughlaq built the **fortress of Adilabad** and the **city of Jahan Panah**.

Firoz Shah Tughlaq built **Kushk-i-Shikar** and **Kotla Firoz Shah**. He laid the foundation of several cities like **Firozabad, Fatehabad, Hisar-Firoza, Jaunpur and Firozpur**. A number of famous *bands* were built by Sultan Firoz Shah during his reign such as

- Band-i-Fath Khan
- Band-i-Malja
- Band-i-Mahipalpur
- Band-i-Shukr Khan



Tomb of Firoz Shah Tughlaq

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The city of Jahan Panah, the foundation of which was laid by Muhammad-bin-Tughlaq, was repaired by Firoz Shah. A number of water tanks called *Hauz* were built such as Hauz Khas in Delhi. Extensive repairs were also made to many tanks. Of them the most important were

- Hauz-i-Shamshi or tank of Sultan Iltutmish
- Hauz-i-Khudavand Khwaja
- Hauz-i-Muazzam of Mubarak Khan
- Hauz-i-Alai or tank of Alauddin

The **tomb of Sufi saint Kabir-ud-din Auliya** was constructed during the reign of Nasir-ud-din Mahmud Shah. This tomb is locally known as Lal Gumbad.

The Tughlaqs introduced sloping walls known as Salami. They also introduced the four-centred arch. This was used particularly in Firoz Shah Tughlaq's buildings. Grey stone and red sandstone were used largely in the construction of buildings during the Tughlaq period.

Octagonal tombs also began to be constructed during the Tughlaq period. The first octagonal tomb was the tomb of Khan-i-Jahan Telangani. The tomb of Mubarak Sayyid, tomb of Sikandar Lodi, Shershah's tomb at Sasaram and the tomb of Islam Sur are also octagonal in design.

ARCHITECTURAL ACHIEVEMENTS OF MUGHAL RULERS

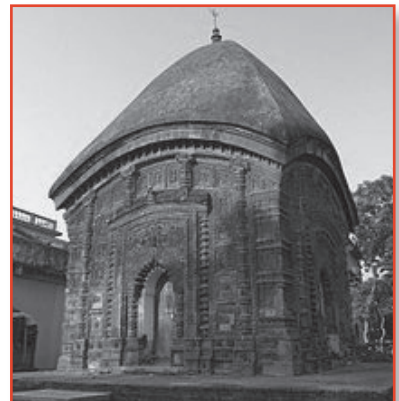
Mughal architecture represented a fine assimilation of native Indo-Islamic, Persian-Central Asian and Indian Hindu architecture. Mughal rulers deliberately incorporated many elements from local Hindu architecture, particularly from the monuments of Rajputs. Many distinctive Hindu features became an integral component of Mughal architecture over the period of time.

In addition to Hindu architectural features, some elements were derived from the pre-existing Islamic architecture of India. The best example is the curved **do-chala roof** derived from Bengali huts, which was first used in this stone form in the Sultanate architecture of Bengal. Another Indo-Islamic feature is the cusped arch which can be found in the pre-Mughal architecture of Delhi and Gujarat.

The materials used in Mughal architecture varies widely depending on the region and the type of construction. Many of the original buildings from this phase have not survived



Do-chala Roof



Char-chala Roof



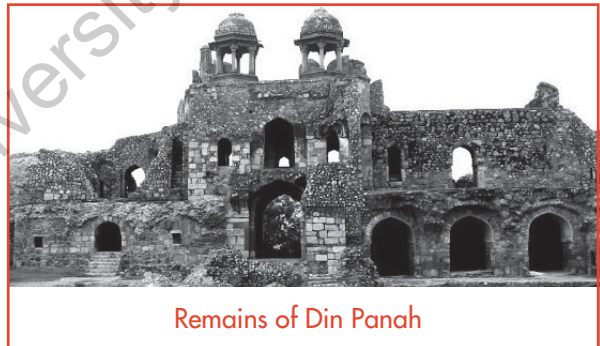
because they were made of less permanent materials such as wood or were deliberately subjected to destruction as a result of wars or rebuilding.

Babar

- Babur, the first Mughal emperor, only reigned for 4 years, during which he was too busy securing his empire. He did not have much time to spend on major building projects like palaces and instead governed mainly from tented encampments.
- Babur had very poor opinion about Indian architecture. He believed that Indian architecture was neither ornamented nor magnificent in size. He rated central Asian Turkish architecture much higher than Indian architecture. The **Kabuli Bagh mosque of Panipat** and **Jama Masjid of Sambhal** were built during his reign.
- He brought the **charbagh style** of architecture to India. This style was characterized by use of gardens and artificial canals.

Humayun

- Humayun constructed the city of **Din Panah** at Delhi in 1533.
- Din Panah is the earliest Mughal monument in Delhi. A fortified palace, it is surrounded by a 1.5 km long huge wall with 3 huge gateways. Each gateway consists of an arched opening flanked by 2 huge semi-circular bastion towers with battered walls, arrow slits and pointed crenellations.
- Very few original structures have survived inside the fort because it was destroyed by Sher Shah to erase the memories of Mughals from India. **Sher Shah built the Purana Qila** on the same spot where Din Panah of Humayun was located.
- **Humayun's Tomb** located in Delhi was built by his widow Haji Bega Begam. **Double dome in developed form** was used for the first time in Humayun's Tomb. This was the first monument in which white marble was used in a large scale for the first time.



Remains of Din Panah

Akbar

- The real progress in the field of Mughal architecture commenced during the reign of Akbar. **Akbar's fort located at Agra** is a very fine monument and it became the basic model for subsequent Mughal palaces. This palace was built next to the river Yamuna and is surrounded by huge walls fortified with semi-circular towers. There are two gates, an outer gate with a drawbridge and complex bent entrance leading to an inner gate called the **Hathai Pol** where visitors were required to dismount from their elephants.



Fatehpur Sikri

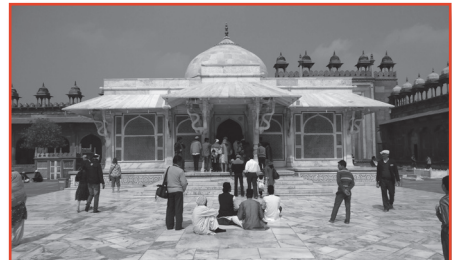
© Roop_Dey / Shutterstock



Buland Darwaja

© Arvind Balaraman / Shutterstock

- Akbar's architecture was characterized by use of red sandstone, massive size, Hindu and provincial-style influence and ideal synthesis between Hindu and Muslim art traditions. Construction of vastly improved arches, domes and portals are also visible in his buildings.
- Akbar designed his tomb located at **Sikandra** (near Agra) himself. Its construction began in 1605 but was completed by Jahangir.



Tomb of Salim Chisti

© mdsharma / Shutterstock

- **Forts built by Akbar**
 - (a) Agra Fort, Lahore Fort, Ajmer Fort and Allahabad Fort
 - (b) Agra Fort has two gateways called Delhi gate or Elephant gate (Hathai Pol) and Amar Singh gate.
 - (c) The principle of the construction of the forts of Agra and Lahore is based on the use of beam and bracket. Every effort has been made to avoid the use of arches.
 - (d) Lahore Fort has elephant and lion figures in the brackets and peacocks at the friezes.
- **Constructions at Fatehpur Sikri**
 - (a) Akbar laid the foundation of the new city of Fatehpur Sikri in the honour of Sheikh Salim Chisti in 1569 AD.
 - (b) Akbar lived there for 12 years. He left this place because of scarcity of water.
 - (c) According to Fergusson, **Fatehpur Sikri was the reflex of the mind of a great man.**
 - (d) According to V.A. Smith, **Fatehpur Sikri was the freak of an irresponsible autocrat.**

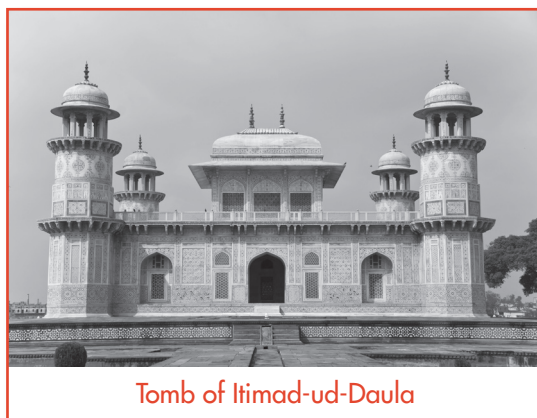


(e) Various monuments at Fatehpur Sikri:

Jami Masjid	This was built on the tomb of Salim Chisti in 1571. This is in Gujarat style.
Ibadat Khana	It was a meeting house built in 1575 AD by Akbar at Fatehpur Sikri to organize discussions on religious matters. These discussions were held in the period 1575–1578 AD during which Akbar got to know that truth was not limited to any particular religion but different religions were just different paths to reach the same destination.
Buland Darwaja	This was built in commemoration of victory over Gujarat. It reflects the influence of Deccani style.
Panch Mahal	This exhibits Buddhist influence in the form of diminishing size of building as its height increases. This pattern was followed in Buddhist stupas.
Birbal's Palace	This is famous for its double dome and influence of Hindu style.
Jodha Bai's Palace	This exhibits Jain influence in terms of use of open space and Jain images for ornamentation.
Mariam's Palace	This is famous for paintings on walls. It has paintings of Hanuman worshipping Ram. This is also known as Golden Palace .
Sultana Palace	This is famous for wood carvings and exhibits influence of Kashmiri style.

Jahangir

- Jahangir did not take much interest in architectural activities. He was more interested in the art of painting.
- The **tomb of Itimad-ud-Daula** was built by Nurjahan at Agra in the memory of her father. The Pietra Dura technique of decoration was used for the first time in this tomb.
- Nurjahan also built **Jahangir's mausoleum** at Shahdara near Lahore. This has no dome. This is famous for eight-angle minarets. Inside it lays the tomb of Nurjahan.



Tomb of Itimad-ud-Daula

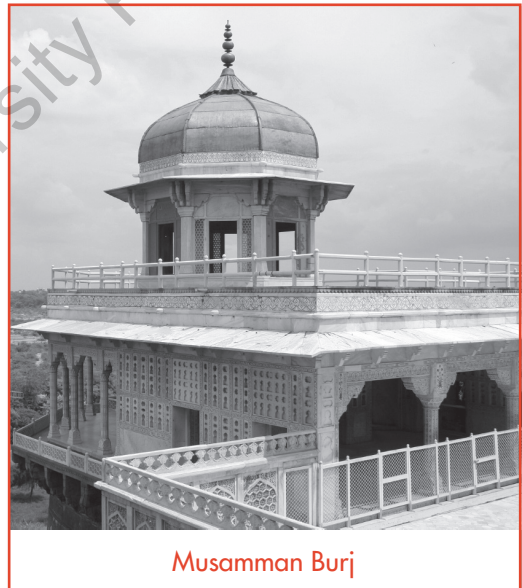
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Shah Jahan

- Shah Jahan was the greatest builder among the Mughal emperors. He constructed a **fort at Agra**. Shish Mahal (palace made of glass), Diwan-i-Aam and Diwan-i-Khas, Moti Masjid (Pearl Mosque), Nagina Masjid and Musamman Burj are located inside this fort.



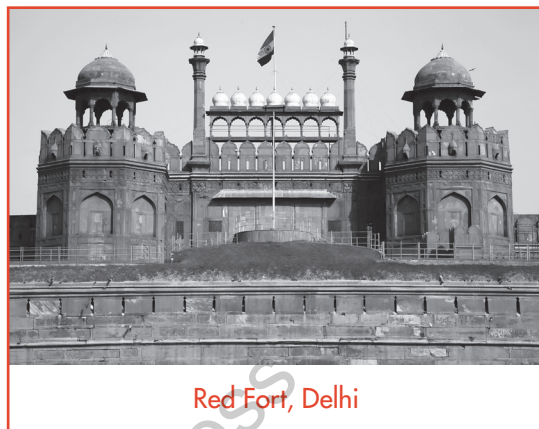
- The palaces of Shah Jahan, in contrast to the palaces of Akbar and Jahangir, have a more familiar Islamic appearance as can be seen in his modifications to Akbar's fort at Agra where he added several new courtyards, the most famous of which is the **Anguri Bagh** (grape garden). This is a square garden divided into 4 sections with a central rectangular pool with lobed sides which provides water for the garden. The garden is surrounded by various pavilions, the most prominent of which are the **Khas Mahal** (private audience hall) and the **Sheesh Mahal** (glass pavilion).
- Although the pavilions in the buildings of Shah Jahan have many of the same Hindu features seen in Akbar's architecture (i.e., domed Chattras and Chhajjas), they are less prominent and tempered with more Islamic forms like lobed arches and the curved Bengali do-chala roofs.
- **White marble** was used on a large scale in the construction of monuments during Shah Jahan's reign. White marble facing of the buildings produces a new lighter appearance which is not found in the earlier buildings of Akbar or in Hindu architecture.
- **Musamman Burj** is the most lavishly decorated building in Shah Jahan palace in Agra. It overlooks the river at the east side of the palace. The tower has an octagonal copper dome and its inside is lined with carved marble dadoes, pietra dura inlay, pierced screens above the doorways and decorative rows of niches. During the days of his captivity under Aurangzeb, Shah Jahan used to look at Taj Mahal from Musamman Burj because it provides an uninterrupted view of the Taj Mahal where his beloved wife Mumtaz Mahal was buried.
- **Jami Masjid** of Agra was built by **Jahanara** during Shah Jahan's reign.
- Shah Jahan also constructed the city of **Shahjahanabad** in Delhi. The work on its construction began in 1639 and was completed in 1648. The Red Fort of Delhi and Jama Masjid of Delhi, located inside the old city of Shahjahanabad, were also built by Shah Jahan.
- **Red Fort in Delhi** is also known as **Oila Mubarak or Oila-e-Mualla**. It has many gates in different directions: **Lahori Gate** in west, **Delhi Gate** in south, **Kashmiri Gate** in north and **Ajmeri Gate** in south-west. The fort has Rang Mahal, Diwan-i-Aam and Diwan-i-Khas and a canal called **Nahar-i-Bahisht**. Rang Mahal was the emperor's palace and is the most beautiful. The Peacock Throne is placed at Diwan-i-Aam. An inscription in Diwan-i-Khas says that 'If there is heaven anywhere on the earth, it is here.'



Musamman Burj



- **Diwan-i-Khas** or private audience hall of the emperor was lavishly decorated. Originally, it had a silver-clad ceiling inlaid with gold.
- Like the Agra Fort, Red Fort in Delhi has rectangular open pavilions with cusped arches, white marble dadoes (dado means decorated lower part of a wall) carved in relief and pietra dura work. However, the Red Fort has a more regular symmetrical design, reflecting the fact that it was planned and built mostly by one patron (with a few additions by Aurangzeb) unlike the Agra Fort which gradually developed under two emperors.



Red Fort, Delhi

© Mikadun / Shutterstock

- **Taj Mahal**
 - (a) The Taj Mahal was also constructed by Shah Jahan in 1647. The land for its construction was taken from **Raja Jai Singh**.
 - (b) Its chief architect was **Ustad Isa**. He was a resident of Agra. According to Father **Sebastian Manrique** of Spain, the chief architect of Taj Mahal was **Geronimo Veronio**, a Venetian jeweller and designer.
 - (c) The construction work was carried out under **Karim Khan** and **Mukarramat Khan**.
 - (d) **Amnat Khan Shiraji of Kandahar** wrote inscriptions on the walls and domes of Taj Mahal. These inscriptions were taken from the Tombs of Humayun and Abdur Rahim Khan-i-Khana.
 - (e) **Ismail Khan Rumi of Constantinople** constructed the domes of Taj Mahal.
 - (f) Taj Mahal is famous for its **massive double dome** and largescale use of **white marble**. For the construction of Taj Mahal, marble was procured from Makrana in Rajasthan.
 - (g) According to the French gem merchant and traveller Jean-Baptiste Tavernier, Taj Mahal was completed in 22 years at the cost of ₹3 crore. Tavernier visited India 6 times between the years 1630 and 1668.
 - (h) According to Abdul Hamid Lahori, Taj Mahal was completed in 12 years at the cost of ₹50 lakh.

Aurangzeb

- The **Moti Masjid or Pearl Mosque** located inside the Red Fort was built by Aurangzeb for his personal use.

- A mosque was built by Aurangzeb at Banaras on the ruins of the temple of Vishwanath in 1660.
- He also built the **Badshahi mosque** in Lahore in 1674.

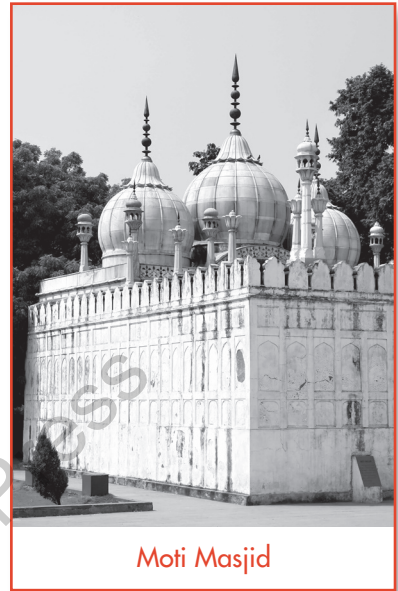
MUGHAL GARDENS

A large number of gardens were also laid out in India during the Mughal period. One of the most famous of them is **Shalimar Bagh** located in the city of Srinagar, Kashmir. It was laid out during the reign of Jahangir in 1619. The layout plan of the garden was similar to that of palace architecture. It consisted of a terraced system where the garden was divided into three parts: the lowest part was open to common public, the middle section was for the emperor and his friends, whilst the highest part (which was totally out of view) contained the 'zenana' or women's private area. In the centre of the women's area, in the middle of a formal pool, is the Black Pavilion built by Shah Jahan. The building has a 3-tiered tiled roof and is built in the style of local Kashmiri wooden mosques.

Like his ancestor Babur, Aurangzeb was more concerned with garden architecture than the construction of palaces. One of the most impressive of these gardens was that of Fatehabad near Agra, which although now largely derelict contains a central arcaded pavilion surrounded by a crenelated wall with a monumental entrance.

Other prominent Mughal gardens were

- **Hasht Bahisht** Laid out by Babar at Agra, now known as Ram Bagh
- **Nishat Bagh** Laid out by Asaf Khan at Srinagar
- **Shalimar Gardens** Laid out by Shah Jahan near Lahore



Moti Masjid

© Carlos Neto / Shutterstock



Nishat Bagh, Srinagar



Shalimar Bagh, Srinagar

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- Hayat Bakhsh Laid out by Shah Jahan inside the Red Fort in Delhi
- Shalimar Bagh Laid out by Shah Jahan in Delhi
- Wazir Bagh Laid out by Dara in Kashmir
- Chahar Burj Bagh Laid out by Zeb-un-nisa near Lahore

Roads built during Mughal period

Roads were one of the primary concerns of the Mughal administration and during the 1570s Akbar initiated a programme of road improvement including the provision of milestones, wells, reservoirs and caravan *sarais*. The best examples of this programme are the caravan *sarais* built at Chata near Mathura and Chaparghat. Public buildings of the Mughal period were usually of utilitarian design with very little embellishment.

These buildings have a fairly uniform design, consisting of a large rectangular enclosure with octagonal corner towers. There are 'iwans' inside leading on to cells along the side of the walls. The cells are usually arranged in pairs with a connecting door in between, thus forming units of 4 (2 iwans and 2 closed rooms). In addition to the standard rooms there are usually at least 2 larger sets of rooms for more important travellers. Most caravan *sarais* have 1 entrance; where there are 2, these are usually opposite to each other. Sometimes the central axis of the caravan *sarais* are built as bazars for the visiting merchants.

The only areas of architectural elaboration are the gates or mosques which were attached to the buildings. One of the most magnificently decorated gateways is that of the **Nur Mahal caravan sarai** by Nur Jahan between 1618 and 1620. Its design resembles funerary and mosque architecture of the period, with a central iwan flanked by 3 tiers of side iwans; however, the decoration, which consists of carved human, animal and mythical figures, is more reminiscent of palatial architecture of the period.

Milestones, known as *kos minar* (small towers), were used to mark the roads. These are usually very plain structures with an octagonal base and a tapering cylindrical shaft. One of the main routes which received attention during Akbar's reign was the **Agra to Ajmer pilgrimage route** which was provided with road markers and small rest houses. Under Jahangir, the improvement of roads continued with trees planted on the road from **Agra to Bengal**, the construction of wells and *kos minar* on the road from **Agra to Lahore** and the provision of small stations on the **Pir Panjal pass into Kashmir**.

During the reign of Aurangzeb, the roadside facilities were extended and improved, with particular attention paid to the roads between Agra and Aurangabad and Lahore to Kabul. Repairs carried out on bridges, caravan *sarais* and roadside mosques were paid for out of the emperor's private income.

MONUMENTS BUILT BY SHERSHAH SURI

- Shershah built **Purana Qila** at the site of Dinpanah. He also built the **Qila-i-Kunha Masjid** inside Purana Qila.



- Shershah built his **mausoleum at Sasaram/Sahasram** in Bihar. This represents harmonious combination of Hindu and Muslim architectural ideas. The mausoleum is situated on a 30-feet high terrace in the middle of a pond.

OCTAGONAL TOMBS OF MEDIEVAL PERIOD

Tomb	Builder	Place	Year
Tomb of Khan-i-Jahan	Jauna Shah	Delhi	1368–69 AD
Tomb of Mubarak Sayyad	Mohammad Sayyad	Delhi	1434 AD
Tomb of Mohammad Sayyad	Alauddin Alam Shah	Delhi	1444 AD
Tomb of Sikander Lodi	Ibrahim Lodi	Delhi	1517 AD
Tomb of Hasan Khan Suri	Shershah Suri	Sasaram	1540 AD
Tomb of Shershah Suri	Shershah Suri	Sasaram	1545 AD
Tomb of Islam Shah	Adil Shah Suri	Sasaram	1553 AD

REGIONAL ARCHITECTURE IN INDIA DURING MEDIEVAL AGE

JAUNPUR SCHOOL OF ARCHITECTURE

- This is also known as **Sharqi style**. This style does not employ minarets of usual type.
- **Atala Mosque** was completed in 1408 by Ibrahim Shah Sharqi. At the site of this mosque, a temple of Atala Devi was located earlier.
- The **Jhanjhari Mosque** was erected by Sultan Ibrahim Shah Sharqi in the honour of Hazrat Said Sadr Jahan Ajmali. Lal Darwaja Mosque is a small and pale edition of Atala Mosque.
- **Jami Masjid of Jaunpur** was built by Husain Shah.
- Many fine monuments of Jaunpur style were destroyed by the Lodhis after the annexation of Jaunpur by them.

BENGAL SCHOOL OF ARCHITECTURE

- This school of architecture was characterized by large-scale use of **bricks** and rare use of **stone**.
- **Adina Masjid at Pandua** was built by Sikandar Shah.



- The **Eklakhi Tomb at Pandua** is the tomb of Jalal-ud-din Muhammad Shah.
- The **Sath Gumbad Mosque** was constructed in 1459 AD by Nasir-ud-din Mahmud Shah and it is famous for corner turrets.
- **Qadam Rasul and Bara Sona Masjid** and **Chhota Sona Masjid** were built by Hussain Shah at Gaur.
- **Lotan Masjid** was built by Yusuf Shah at Gaur.
- **Dakhili Darwaja** was built by Barbak Shah at Gaur.

MALWA SCHOOL OF ARCHITECTURE

- Malwa architecture is notable for the excellent combination of arch and lintel, construction of stairs of flight, use of coloured tiles and lofty plinth for buildings.
- There are two mosques at Dhar, which was the original capital of Malwa. One mosque was originally a Sanskrit college (Bhojshala) attached to a temple.
- The **tomb of Dilawar Khan Ghuri** is famous for its pillars and carved ceilings.
- The **tomb of Hushang Shah** located at Mandu is the finest example of Malwa style. This was the first great tomb in the country built wholly out of white marble.
- **Baz Bahadur's Palace** and **Rupamati's Palace** are other examples of this style.
- **Hindola Mahal** at Mandu built by Hushang Shah is another addition to this style.
- **Jami Masjid of Mandu** was planned and began by Hushang Shah and completed by Mahmud Khalji.
- **Jahaj Mahal** at Mandu was built by Mahmud Khalji.

GUJARAT SCHOOL OF ARCHITECTURE

- The **city of Ahmadabad** was founded by Ahmed Shah at the site of Asawal in 1414 AD. Tin Darwaja was the entrance to the city.
- **Jami Masjid at Ahmedabad** was also built by Ahmed Shah.
- **Sultan Mahmud Begarha** built a city and a palace citadel at **Champaner**. He also built a Jama Masjid there.
- The **mosque of Rani Sipari Roza** was constructed in 1514 by Muzaffar II.

BAHMANI SCHOOL OF ARCHITECTURE

- The rulers of Bahmani encouraged the development of art and architecture in the form of cities and buildings, mosques and fortresses.
- Mahmud Gawan built a college at Bidar.



- The **city of Naurasapur** was founded by Ibrahim Adil Shah of Bijapur.
- The **city of Hyderabad** was founded by Md. Quli Qutb Shah.
- The **Charminar** was built by Md. Quli Qutb Shah of Golkunda.
- **Ibrahim Rouza** at Bijapur is the mausoleum of Ibrahim Adil Shah of Bijapur.
- **Gol Gumbaz** at Bijapur is the largest dome. It is the tomb of Md. Adil Shah of Bijapur.
- The **city of Ahmednagar** was founded by Ahmed Shah of Nizam Shahi Dynasty.

MEWAR SCHOOL OF ARCHITECTURE

- This school developed under the **Sisodias or Guhilots of Mewar**.
- Rana Kumbha built the **fort of Kumbalgarh**. He was responsible for the construction of 32 out of 48 fortresses built for the defence of Mewar.
- Rana Kumbha is also famous for his **Jaya Stambha or Kirtistambha or Tower of Fame** which he constructed after defeating Mahmud Khalji of Malwa.

MARWAR SCHOOL OF ARCHITECTURE

- This school developed under the Rathors of Marwar.
- The **city of Bikaner** was founded by Rao Bika and the **city of Jodhpur** by Rao Jodha.

AMBER SCHOOL OF ARCHITECTURE

- This school developed under the Kachhwahas of Amber.
- Raja Sawai Jai Singh established the **city of Jaipur**.

INDO-SARACENIC ARCHITECTURE

INTRODUCTION

The Indo-Saracenic style of architecture emerged in around the middle of the 18th century and continued to flourish throughout the period of British rule in India. It is also known as Mughal-Gothic and Indo-Gothic style of architecture.

ESSENTIAL FEATURES

The essential forms and features of the Indo-Saracenic style originated in Syria during pre-Islamic period; hence the name. A branch of the Syrian architecture moved into Europe and assumed the form of Gothic style. Another branch moved into central Asia and came to India along with



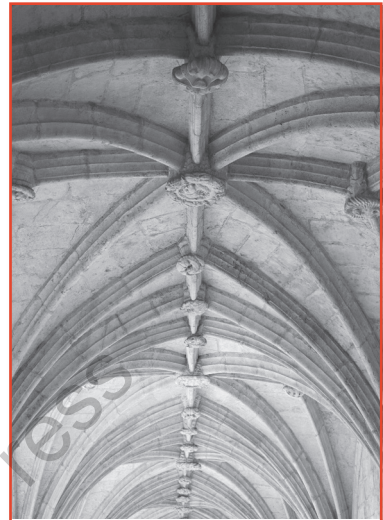
the Turkish conquerors. This second branch was continued in India by the Turks and the Mughals.

This style was characterized by

- Synthesis of Mughal designs, Indian material and modern European civil engineering techniques.
- In terms of forms and features, arches, domes and minarets were used just like in the Mughal period.
- Modern European civil engineering techniques, such as iron and steel structures and poured (pre-mixed) concrete, were used in construction.
- **Spires, stained glass, vaulted roofs, pinnacles, cusped arches, tracery, open arcade** and **open pavilions** were used in a playful manner in the monuments of this style.

Unlike the Mughal buildings, the British architecture was need oriented. This style of architecture manifested itself in the form of public buildings such as post office, railway stations, banks, insurance buildings, educational institutions, clubs, museums, etc.

Chepauk Palace designed by Paul Benfield (Chennai) was the first monument of Indo-Saracenic architecture. It was built in 1768 AD by Nawab of Arcot as his official residence. Gateway of India, India Gate, President House, Connaught Place, Victoria Memorial Hall, Writer's Building (Kolkata), Chhatrapati Shivaji Maharaj Terminus, Parliament Building, etc. are some of the prominent monuments of Indo-Saracenic style.

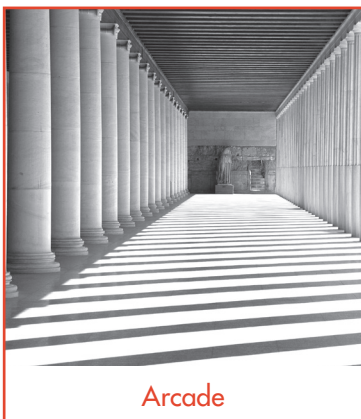


Vaulted Roof

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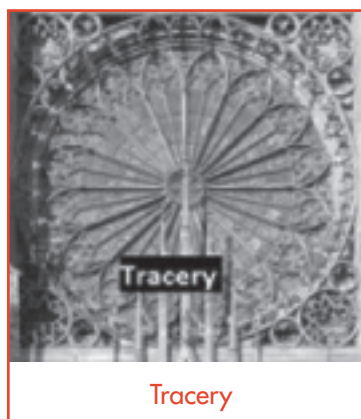


Spire & Pinnacle



Arcade

© Olena Tur / Shutterstock



Tracery



Cusped Arches

© Rafal Cichawa / Shutterstock

PROMINENT INDO-SARACENIC MONUMENTS

Rashtrapati Bhawan

- Location: New Delhi
- Originally known as Viceroy's House
- Located on the top of Raisina Hill
- Designed by Edwin Landseer Lutyens and Herbert Baker

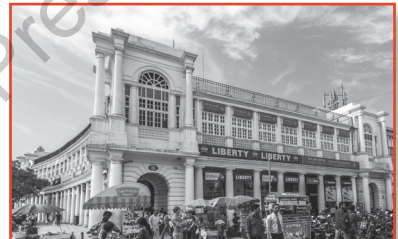


Rashtrapati Bhawan

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Connaught Place

- Location: New Delhi
- Designed by Robert Tor Russell, the chief architect in the Public Works Department (PWD) at that time
- Construction work started in 1929 and completed in 1933
- Named after the Duke of Connaught
- Regal Cinema, Connaught Place's first theatre, was designed by Walter Sykes George. It was built by Sir Sobha Singh.



Connaught Place

© Jorg Hackemann / Shutterstock

Central Secretariat

- Location: New Delhi
- Houses Cabinet Secretariat of the Government of India
- Designed by Herbert Baker
- Built in the 1910s



Central Secretariat

© Nickolay Stanev / Shutterstock

Parliament House

- Location: New Delhi
- Designed by Herbert Baker and Edwin Lutyens in 1912–1913
- Construction began in 1921
- Opened in 1927



Parliament House

© ARTEKI / Shutterstock

India Gate

- Location: New Delhi
- Designed by Edwin Landseer Lutyens



- Built in 1931
- Inspired by the Arc de Triomphe located in Paris, which was inspired by the Roman Arch of Titus
- Originally known as the All India War Memorial
- Commemorates 90,000 soldiers of the British Indian army who lost their lives in World War I and Third Anglo-Afghan War
- Composed of red and pale sandstone and granite
- After Indian independence, the India Gate became the site of the Indian Army's Tomb of the Unknown Soldier, known as Amar Jawan Jyoti (the flame of the immortal soldier)

Gateway of India

- Location: Mumbai on the waterfront in the Apollo Bunder area
- Designed by George Wittet
- Built in the memory of the visit of King George V and Queen Mary in 1911
- Height is 26 metres (85 feet)
- Often referred to as the Taj Mahal of Mumbai

Victoria Terminus

- Location: Mumbai
- Presently known as Chhatrapati Shivaji Terminus
- Designed by Frederick William Stevens
- Built in 1887 to commemorate Golden Jubilee of Queen Victoria
- A historic railway station
- A UNESCO World Heritage Site

Writers' Building

- Location: Kolkata
- Designed by Thomas Lyon in 1777
- St Anne's Church was located at its site earlier
- The first 3-storeyed building in Kolkata



India Gate

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Gateway of India

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Victoria Terminus

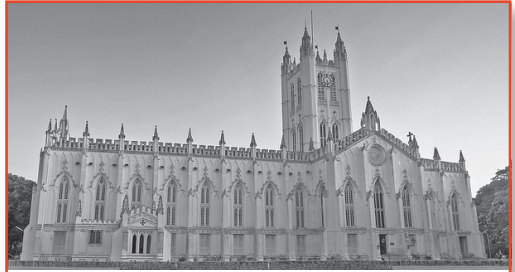
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Writers' Building

St. Paul's Cathedral

- Location: Kolkata
- Designed by Major William Nairn Forbes, assisted by C.K. Robinson
- Built by Bishop Daniel Wilson
- Construction commenced in 1839 and completed in 1847



St. Paul's Cathedral

Victoria Memorial Hall

- Location: Kolkata
- Presently a museum, it is an autonomous institution under Ministry of Culture (Government of India)
- Designed by Sir William Emerson
- Its gardens were designed by Lord Redesdale and Sir David Prain



Victoria Memorial Hall

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Esplanade Mansion

- Location: Mumbai
- Originally known as Watson's Hotel
- Named after its original owner, John Watson
- India's oldest surviving cast iron building
- Fabricated in England and constructed on site between 1860 and 1863
- Designed by the civil engineer Rowland Mason Ordish
- Resembles London's Crystal Palace



Esplanade Mansion

General Post Office

- Location: Kolkata
- Designed by Walter B. Grenville in 1864



General Post Office

Madras University Senate House

- Location: Chennai
- Designed by Robert Chisholm
- Built between 1874 and 1879



Madras University Senate House



Madras High Court

Madras High Court

- Location: Chennai
- Designed by J.W. Brasington
- Built in 1892
- Completed by Henry Irwin with the assistance of J.H. Stephens

MULTIPLE CHOICE QUESTIONS

1. The following question consists of two statements, Statement A and Statement B. You are required to examine them carefully and select the answer by using the codes given below:
Statement I: Lomas Rishi and Sudama caves in the Barabar Hills, modelled on wooden architectural prototypes, are examples of the earliest cave architecture in India.
Statement II: Barabar Hill caves were dedicated by Chandragupta Maurya to Ajivaka monks.
Codes:
 - (a) Both the statements are true and Statement II is the correct explanation of Statement I.
 - (b) Both the statements are true and Statement II is not the correct explanation of Statement I.
 - (c) I is true but II is false.
 - (d) II is false but I is true.
2. The earliest example of rock-cut architecture in India is evident from the times of
 - (a) Pre-Mauryan age
 - (b) Mauryan age
 - (c) Post-Mauryan age
 - (d) Gupta age
3. The image of Vishnu in the form of a great boar (Varaha) is seen at the entrance of which cave?
 - (a) Udayagiri in Malwa
 - (b) Udayagiri in Odisha
 - (c) Ratnagiri in Maharashtra
 - (d) Hathigumpha in Odisha
4. Some Buddhist rock-cut caves are called Chaityas, while others are called Viharas. What is the difference between the two?
 - (a) Vihara is a place of worship, while a chaitya is the dwelling place of the monks.
 - (b) Chaitya is a place of worship, while Vihara is the dwelling place of the monks.
 - (c) Chaitya is the stupa at the far end of the cave, while Vihara is the hall axial to it.
 - (d) There is no material difference between the two.



5. The stupa site which is not connected with any incident of Lord Buddha's life is
 (a) Sarnath (c) Bodh Gaya
 (b) Sanchi (d) Kushinagar
6. Who constructed the main Sanchi Stupa?
 (a) Chandragupta (c) Gautama Buddha
 (b) Kautilya (d) Ashoka
7. What does stupa signify?
 (a) Death (c) Knowledge
 (b) Birth (d) Parinirvana
8. Which of the following is not a part of stupa?
 (a) Anda (c) Gopuram
 (b) Chattra (d) All of the above
9. Which of the following materials were used in Indo-Saracenic architecture?
 (a) Iron (c) Poured concrete
 (b) Steel (d) All of the above
10. Amaravati Stupa was discovered by whom among the following archaeologists?
 (a) Alexander Cunningham
 (b) Collin Mackenzie
 (c) James Princep
 (d) Mohammad Rafiq Mughal
11. Which one of the following is not a feature of north Indian temple architecture?
 (a) Shikhara (c) Gopuram
 (b) Garbhagraha (d) Adisthana
12. Which of the following is a common trait of the Dashavatar temple at Deogarh, Mahadeva temple at Nachna Kuthar, temple at Bhitargaon and Mahabodhi temple at Bodh Gaya?
 (a) All of them belong to the post-Gupta period.
 (b) All of them have a tower or Shikhara capping the sanctum cella.
 (c) All of them are examples of Panchayatana composition.
 (d) All of them follow the injunctions of Varahamihira on architecture in style and form.
13. Who among the following was the architect to lay the foundations of Delhi?
 (a) Corbusier (c) Charles Correa
 (b) Lutyens (d) Laurie Baker
14. The Nagara style of architecture developed and flourished mainly in
 (a) South India (c) North-West India
 (b) North India (d) North-East India
15. Consider the following statements and choose the option which is correct?
Statement I: The temple architecture of South India reached the pinnacle of glory during the Chola period.
Statement II: Brihadeshwara temple at Tanjore was built by Rajendra I.
 Which of the statements given above is/are correct?
 (a) Only I (c) Both I and II
 (b) Only II (d) Neither I nor II
16. Aihole is called 'the cradle of Indian temple architecture'. Which among the following dynasty was related to the construction of magnificent temples in Aihole?
 (a) Chalukyas (c) Cholas
 (b) Chera (d) Pandya
17. Which is the correct statement about temples at Pattadakal?
 (a) They were built under the patronage of Chalukyas of Badami.
 (b) There are 10 temples of which 4 are in Southern style.
 (c) Virupaksha temple is in Northern style.
 (d) Papanatha temple is in the Southern style.
18. Consider the following statements:
Statement I: Malwa architecture is notable for the excellent combination of arch and lintel, construction of stairs of flight, use of coloured tiles and lofty plinth for buildings.
Statement II: Malwa boasts of Hussain Shah's Tomb, Jama Masjid, Jahaz Mahal and Hindola Mahal.



Which of the statement(s) given above is/are correct?

- (a) Only I (c) Both I and II
(b) Only II (d) Neither I nor II

19. Consider the following, with reference to new elements introduced by Mughals in architecture:

Statement I: Charbagh style by Babur

Statement II: Artificial canals and gardens

Which of the statement(s) given above is/are true?

- (a) Only I (c) Both I and II
(b) Only II (d) Neither I nor II

20. Which of the following buildings conceived by Akbar was/were inspired by Buddhist architecture?

- (a) Panch Mahal at Fatehpur Sikri
(b) Jodhabai's Palace
(c) Both 'a' and 'b'
(d) Ibadat Khana at Fatehpur Sikri

21. Which of the following is not a special feature of Tughlaq architecture?

- (a) Sloping walls (batter)
(b) Combining the principles of arch, lintel and beam
(c) Curvilinear cornices
(d) Use of cheaper grey stone instead of the costly red sandstone

22. Which of the following was not one of the distinguishing features of Indo-Islamic architecture?

- (a) Flat roof
(b) Topping of the arch with lintel

- (c) Corbelling of the towers of temples
(d) Decorative motifs like flowers and arabesque

23. Which of the following is/are not correct with regard to the architecture of the Turks?

Statement I: In the sphere of decoration, the Turks eschewed representation of human and animal figures in their buildings.

Statement II: The Turks used geometrical and floral designs, combining them with panels of inscriptions containing verses from the Quran.

Statement III: The Turks did not borrow from Hindu motifs.

Statement IV: The Turks did not add colour to their buildings, they used only white marble.

Which of the statement(s) given above is/are true?

- (a) I and II (c) II and IV
(b) III and IV (d) I and III

24. Consider the following statements:

Statement I: Indo-Saracenic architecture combines Indian and European elements.

Statement II: The Gateway of India and Chhapauk Palace are examples of the Indo-Saracenic style of architecture.

Which of the statement(s) given above is/are correct?

- (a) Only I (c) Both I and II
(b) Only II (d) Neither I nor II

25. Chhapauk Palace is located at which of the following places?

- (a) Chennai (c) Bengaluru
(b) Mumbai (d) Kolkata

Answers to Multiple Choice Questions

1. (c) 2. (b) 3. (a) 4. (b) 5. (b) 6. (d) 7. (a) 8. (c) 9. (d) 10. (b)
11. (c) 12. (b) 13. (b) 14. (b) 15. (a) 16. (a) 17. (a) 18. (c) 19. (c) 20. (a)
21. (c) 22. (a) 23. (b) 24. (c) 25. (a)