

LOST ENLIGHTENMENT

CENTRAL ASIA'S GOLDEN AGE FROM THE ARAB CONQUEST TO TAMERLANE



CHAPTER 8

A Flowering of Central Asia:
The Samanid Dynasty 225

CHAPTER 9

A Moment in the Desert: Gurganj under the Mamuns 267

CHAPTER 10

Turks Take the Stage: Mahmud of Kashgar and Yusuf of Balasagun 303

CHAPTER 11
Culture under a Turkic Marauder:
Mahmud's Ghazni 332

CHAPTER 12
Tremors under the Dome of Seljuk Rule 381

CHAPTER 13
The Mongol Century 436

CHAPTER 14
Tamerlane and His Successors 478

CHAPTER 15
Retrospective: The Sand and the Oyster 515

Notes 541 Index 611

Illustrations



MAPS

- 1. Central Asia xxxviii
- 2. Some principal cities and sites of Central Asia's golden age xxxix

PLATES

Following page 292

- 1. The walls of Balkh today
- 2. Tenth-century residence at Sayod, Tajkistan
- 3. Papermaking in Khwarazm
- 4. Fresco from sixth-century Afrasiab, now Samarkand
- 5. Fragment of a mural from a house at Balalyk-Tepe, Tajikistan
- 6. Page from a fifteenth-century Egyptian copy of an astrological treatise by Abu Mashar of Balkh
- 7. Painting of a woman, one of many from a bathhouse at Nishapur
- 8. Depiction of an early seventh-century siege of Aleppo in Syria from Ferdowsi's Shahnameh
- 9. Miniature Central Asian painting depicting a central moment of Ferdowsi's Shahnameh
- 10. Tenth-century Tomb of Ismail Samani at Bukhara
- 11. Contemporary miniature showing thinkers gathered at Gurganj in Khwarazm around AD 1000
- 12. Page from a manuscript, Kitab al-Tafhim, setting forth Biruni's process of using a lunar eclipse to calculate distance and time
- 13. The Prophet Muhammad preaching
- 14. Illustration from Ibn Sina's Canon depicting patients lining up to present their glass beakers for diagnosis
- 15. Mahmud of Kashgar's ethno-linguistic map of the Turkic peoples
- Minaret from 1108–1109 in Jarkurgan, Uzbekistan, designed by architect Ali bin Muhammad of Sarakhs

- A diminutive Mahmud of Ghazni receiving an honorific robe from the caliph
- Miniature painting showing the murder of Nizam al-Mulk on October 14, 1092, by Ismaili assassins
- 19. Sultan Sanjar giving alms
- 20. Sanjar's vast mausoleum at Merv
- 21. A Mongol siege in progress
- 22. Chinggis Khan as portrayed by a Chinese artist of his century
- Nasir al-Din al-Tusi at work with his multinational team of scientific colleagues
- 24. Timur, known in the West as Tamerlane, as depicted by later court painter Kamoliddin Bihzad (1450-1537) from Herat, Afghanistan
- 25. Timur covered the entire outer and inner walls of his buildings with brightly colored tiles, a practice that soon spread throughout the Muslim world
- 26. Sprawling mosque, named for Timur's Uyghur wife, Bibi Khanym, after it was reconstructed during the Soviet era
- 27. Contemporary painting of Timur driving the workmen at the Bibi Khanym mosque, Samarkand
- 28. Sketch by the artist Bihzad
- 29. Astronomers attempting to conduct research in the Ottoman empire

FIGURES

- 1.1. Graceful musicians from a Kushan-era limestone frieze, Airtam, Uzbekistan (first to third centuries) 23
- 2.1. Kyz Kala, a grandee's residence at Merv, sixth to seventh centuries 32
- 2.2. Reconstruction of Gonurdepe on the Merv oasis in Turkmenistan 34
- 2.3. Chinese earthenware sculpture from the Tang dynasty, circa AD 618-907 42
- 2.4. Diodotus I, who reigned in Afghanistan in the 240s BC as "ruler of Bactria's thousand cities," shown on a gold stater 51
- 2.5. Parthian warrior 52
- 2.6. Early wood sculpture by a nomad artist 55
- 3.1. Sculpture of a Greek horseman 78
- 3.2. Virtual reconstruction of the classical Greek theater and palace area at Ai Khanoum, founded by Alexander the Great in 327 BC 79

- 3.3. Capital of a Corinthian Greek column from the Bactrian palace at Ai Khanoum, northern Afghanistan 80
- 3.4. Terracotta Buddha from Hadda, Afghanistan, rediscovered in the presidential palace in Kabul in 2004 83
- 3.5. Statue of Buddha being excavated at Sahri Bahlol, Pakistan, in 1904 84
- 4.1. An epistle written in Bactrian, among Sogdian manuscripts discovered by a Tajik shepherd in 1933 116
- 4.2. Tashkent architect V. Nilsen's reconstruction of the palace at Varakhsha, home of the rulers of Bukhara before and after the Arab invasion 119
- 5.1. Erk Kala, the 2,500-year-old citadel at Merv and apparent model for Caliph Mansur's Round City of Baghdad, founded in 762 131
- 5.2. Clamshell device invented in the mid-ninth century by Ahmad, eldest of the Banu Musa brothers, for recovering valuables from the seabed 147
- 6.1. Eleventh-century astrolabe from Central Asia 160
- 6.2. Distilling apparatus designed by Tus native Abu Musa Jabir ibn Hayyan (721-815) 163
- 6.3. Map of the Nile, from Khwarazmi's Book of the Map of the World 173
- 6.4. Muhammad ibn Zakariya al-Razi (865–925), the first true medical experimentalist, examining a urine sample 182
- 7.1. Large glazed ceramic bowl from Nishapur 200
- 8.1. Gold dinars of the Samanid culture 232
- 8.2. Samani-era mausoleum in Tim, Uzbekistan (977-978) 238
- 8.3. Eleventh-century scientific glassware used by doctors and experimentalists 241
- 9.1. Restored walls of a protective bastion at Khiva in western Uzbekistan 268
- 9.2. Medieval European print depicting the alternative treatments for spinal disorders detailed by Ibn Sina in his Canon of Medicine 286
- 9.3. Eighteenth-century engraving by the German Georg Paul Busch depicting Avicenna (Ibn Sina) as a kindred Enlightenment spirit 290
- 10.1. Tash Rabat, an austere but durable Karakhanid-era caravanserai high on the mountain pass between Kyrgyzstan and Xinjiang 311
- 10.2. Three Karakhanid mausoleums, Uzgend, eleventh century 318
- 10.3. Kalyan minaret, Bukhara, 1127 321

- 10.4. The 65-meter-high minaret from the 1190s at Jam in central Afghanistan celebrating the Ghorid dynasty's victory over what remained of Mahmud's Ghazni 322
- 11.1. Ruins of Mahmud's capital at Ghazni, Afghanistan, as depicted in a mid-nineteenth-century steel engraving by Albert Henry Payne, possibly after a painting by Lt. James Rathway, Town and Citadel of Ghaznee, 1848 333
- 11.2. Dual-language coins issued by Mahmud of Ghazni for his Indian subjects, in Arabic and Sanskrit 334
- 11.3. Photograph from the 1930s of Mahmud's winter capital at Lashkari Bazar along the Helmand River in Afghanistan 347
- 11.4. Fourteenth-century copy of Biruni's Elements of Astrology 360
- 12.1. Caravanserai on the Nishapur-Merv road, erected by Seljuk rulers 392
- 12.2. Malan bridge near Herat, built by the Seljuks 393
- 12.3. Comprehensive balance designed by Abu al-Rahman al-Khazini at Merv 398
- 12.4. Fragment of inscription from the façade of Nizam al-Mulk's Nizamiyya madrasa at Khargird, Iran 406
- 13.1. The Gurganj mausoleums of Sufi divine Najmeddin Kubra and Sultan Ali at Gurganch 441
- 13.2. Miniature showing Chinggis Khan lecturing at Bukhara 446
- 13.3. Early manuscript describing Tusi's research 462
- 13.4. Mausoleum (1334) in Kyrgyzstan's Talas Valley, hailed by tradition as the tomb of the Kyrgyz epic hero Manas, but more likely the tomb of a local khan's daughter 471
- 14.1. Ruins of the main gate to Timur's palace, Aksarai, at Shakhrsabz, Uzbekistan 483
- 14.2. Looming mass of the never-completed Yasawi tomb in Turkistan, Kazakhstan 484
- 14.3. Page from the Quran illuminated by Prince Baisunghur, grandson of Timur 489
- 14.4. Ulughbeg's madrasa at Samarkand 495
- 14.5. Reconstructed model of Ulughbeg's observatory at Samarkand 497
- 14.6. Tomb of Ulughbeg at Ghazni in Afghanistan 499