

# PERSIAN CULTURAL HISTORY – Ancient Period

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## Part I : SCIENCE

**Overview** We have allowed ourselves to include medicine under *innovation*, in reviewing the ancient Persian achievement of ways to improve the human condition. Persian medicine, in the centuries B.C.E., was noteworthy especially for daring and techniques, though its achievement was at the same time a great contribution to the understanding of the human body, to *science*. More purely ‘scientific,’ in the ancient Persian achievement, were what we might call mechanical inventions, experience tested ways to improve daily life. Interestingly enough, all but one of our examples, here, revolve around the effective use of water power; no surprise, in a land marked by the extensive deserts of the central Mid East, and the urgent need for arable and irrigatable land.

**Quanats** A *quanat*, the Arabic word for ‘channel,’ is--for they are still in use--an upward sloping underground channel which transports water from an underground aquifer to the surface--for purposes of irrigation and clean drinking water, both of which purposes are still so served, throughout the world. The invention of these channel systems, early in the first millennium B.C.E. in Persia, was quickly understood to answer a serious problem raised by irrigation efforts in the central Persian desert; the evaporation of water, from irrigation channels, was extensive and pure loss.

**Construction of a quanat** The construction and engineering of these channels required advanced know-how and much manpower. While the water channel in question normally derived from a water source in the foothills of mountains, and thus flowed naturally downhill, it was necessary to construct vertical channels, in the water table, to redirect the main flow toward the surface, where it could (normally) serve its purpose of irrigation. Though most **quanats** were less than five km. in length, when one considers that upward inclining shafts were generally built only 20-35 meters apart, one sees what a heavy investment of man power (and money and time) had to be devoted to these structures. When we think of ancient Persia as a land of tulips and citrus fruit, we need to think **quanat** first of all.

**Collateral domestic uses** Worth noting: by the construction of a wind tower, in a private house, and by aligning the wind vectors picked up through the tower, and diverted to the house below, it was possible to use the **quanats** to water-cool the flow of air, and generate not only a kind of air-conditioning, or permanently freezable water, ice.

**Water and its uses** As early as 500 B.C.E. Persians were working with water clocks, which used a pot with a controlled water loss supply as a template for time measurement. (The last such water clock was still in use in Persia in 1965 C.E.}.

**Bagdad batteries** As early as 150 B.C.E., the Parthians (in their capital, Ctesiphon) were experimenting with a ‘simple device,’ whose use we are not sure of: the device consisted of three parts, a small pot (5” tall) and a tube and rod divided by a sheet of copper, all of which fitted snugly inside the pot. The best hypotheses, about the purpose of this device, are that by pouring an acidic juice--vinegar or lemon--into the pot with the tube and rod, a galvanic reaction could be set up which would be useable for electroplating.

## Readings

Lindberg, David, *The Beginnings of Western Science: The European Scientific Tradition in Philosophical, Religious, and Institutional Context, 600 BC-AD 1450*, Chicago, 1990.

Landels, J. G., *Engineering in the Ancient World*, Berkeley, 2000.

### Discussion questions

To what do you attribute the ancient Persian concern with water? Do we find that same kind of concern, in desert places throughout the world--Saudi Arabia, Mongolia, South West Texas?

Elsewhere--under Persian 'innovations' --we discuss medicine, a practical inquiry, as the above mechanical inventions are practical. Were the ancient Persians not interested in the 'purer' sciences of Astronomy or Math? (We know that by the Middle Ages the Persians contributed brilliantly to the sciences of mathematics.)

Can you reconstruct the thinking that went into **qanat** construction? How was the principle of evaporation discovered? Where did Persian engineers get their understanding of underground geology?

### Part II : ART

**Overview** The Persian Empire, in antiquity, consisted of four distinct dynasties, in total lasting a millennium: Achaemenid, 558-330 B.C.E.; Seleucid Empire 323-83 B.C.E.; Parthian, 247 B.C.E.--224 C.E.; Sassanid Empire, 224-651 C.E. (Alexander the Great's domination of Persia lasted from 336-323 B.C.E.) It is natural, then, that the development of artistic styles would vary greatly from one period of this Empire to another. In fact the duration and complexity of Persian artistic culture far exceeds even the succession of ancient Empires mentioned above, for Persian art was in fact already being created at a high level in the 7<sup>th</sup> millennium B.C.E. We can only comment briefly on a long enduring style development which rivals the Greek for energy and distinctiveness.

**Palaces** The Achaemenid dynasty, in which we place the great kings Cyrus (610-560 B.C.E.), Darius (522-486 B.C.E.), and Xerxes (486-465 B.C.E.), enjoyed luxurious lives alternating between high desert and citadel like palaces, where they commissioned residential complexes which were among other things showplaces for visual style. Especially noteworthy were the palace foundations at Pasargadae (Palace of Cyrus), the palace of Artaxerxes at Susa, and the remains of the complexes of Xerxes and Darius at Persepolis.

**Palace details** What we see in common, to all these vast structures, are huge halls surrounded by columns, and high terraces supporting massive towers. Like Greek temples, these palaces were living repositories of associated visual arts. Double flights of steps, converging at the top, typically addressed each palace; friezes of advancing warriors or Assyrian lions flank the stairs. The columns at Persepolis are narrower and have higher bases than the columns on Greek temples, whereas the Persian capitals are more 'robust' than the Greek, characteristically featuring figures of crouching bulls, set back to back.

**Sculpture** Nowhere is Persian sculpture more original or cunningly displayed than as ornament on and around palace architecture. Royal staircases, deftly structured porticos, formal hunting gardens for which the Persians were renowned; all these sites were natural display layouts for martial or tribute bearing friezes, or gigantic human-divine statues of sacred bulls. (Cf. especially the *Frieze of Archers* in the Louvre, formerly part of the palace of Darius I at Susa.)

**Bronze, gold, and silver arts** Pre-Achaemenid art shows us the brilliant pre-Imperial background from which the later Persian decorative arts derived. A treasure of mostly bronze objects, accoutrements of military and cavalry equipment, were found in the mountains of Luristan, in Western Iran, and stunned archeologists with their finesse and richness. A related trove of goldsmith and other arts, was found in Ziwiye; finely formed materials of gold, silver, and ivory. An early find, from the long and abundant millennium ahead, in the Persian sense of the intricate arts.

**Pottery** The earliest pottery from the Persian world shows a marked influence from Mesopotamia. Examples from Susa and Persepolis, dating to the mid 4<sup>th</sup> millennium B.C.E., feature geometrical designs, stylized animal forms-- ibex and water birds--and blow us away with their finesse. Many thousands of years later, in the Sassanid Dynasty, the imperial capital at Ctesiphon revealed bowls, ewers, and dishes of undiminished beauty, another testimony to the continuity of the Persian artistic genius.

### Readings

Allen, Lindsay, *The Persian Empire*, Chicago, 2005.

Curtis, John; Tallis, Nigel, *Forgotten Empires: The World of Ancient Persia*, Berkeley, 2005.

### Discussion questions

Do you see a style or tone continuity throughout the long duration of ancient Persian art? Would you recognize that art, without knowing what it was, as 'Persian'?

What kind of style interrelations do you see, between Persian art and that of its neighbors in Egypt or Mesopotamia?

Vast palace complexes were prioritized by many Persian Emperors. Who were the architects of these complexes? How did they qualify for such assignments? Where did their construction workers come from, and where did they live while working on these projects?

### Part III : RELIGION

**Overview** Several religions shared the salvational hopes of the Persians of the classical period: 600 B.C.E.-650 C.E. As Indo-Europeans, the Persians belonged in their earliest beliefs to the language and belief family of the Aryans of India. Between the fifth century B.C.E., however, and the middle of the 7<sup>th</sup> century C.E., at the time of the Islamic conquest, the principal religious force in Persia was Zoroastrianism. That religion predominated during the great Persian centuries, while passing on its own remarkable influence to Christianity, Islam, and Judaism. It is essential, in interpreting the religion of classical Persia, to understand Zoroastrianism, for it is the unique characterizing trait of the Persia of the classical period.

**Who was Zoroaster?** Zoroaster--we surmise through the shaky evidence--probably lived in the late 7<sup>th</sup> and early 6<sup>th</sup> centuries B.C.E. He seems to have come from an aristocratic family, and probably served as a priest in an already existent cult, which he found in need of reform. In any case he, a little like the Buddha, left his familiar religious setting, and home, and went wandering in search of wisdom. After some ten years of travel he came to a place in religious maturing, in which he began to see visions, and to make contact with his Supreme God, whom he called Ahura Mazda (Wise Lord.) His faith in this deity qualified him, in later interpreters' eyes, as perhaps the first monotheist, or, in the perspective of a noted scholar, 'in the full sense of the word, *the first theologian.*'

**What is Zoroastrianism?** The religion given to Zoroaster yielded his series of hymns of praise, and discussions of moral and theological issues, now largely lost, which were gathered together under the descriptive name of *gathas*, and ultimately compiled in a sacred scripture called the *Avesta*. The materials collected there contained the groundwork of a religious conception which will in many ways seem familiar to, say, the believer in the Abrahamic religions today: a strong belief in a single male god; a marked awareness of the struggle between good and evil; a belief in heaven and hell; a belief in the free will that permits us to choose life actions which lead us after death into either bliss or punishment; and, in the moral realm, much stress on care for 'God's world, the environment,' and a vivid respect for the good things in life--the 'pleasures of life' and prosperity--the enjoyment of which was a way of showing respect to God.

**The Place of Zoroastrianism in Ancient (and modern) Culture** By the end of the millennium in which it dominated four potent dynasties of ancient Persia, and riveted the adoration of great kings like Cyrus and Darius,

Zoroastrianism was by and large replaced by the Islam that was sweeping over Persia. While the Zoroastrian religion won great adherence in its millennium, and has survived continuously in pockets of the Middle East and India, to this day, at its best it served as a creative precursor movement in a world where monotheisms were about to become the dominant cultural triggers.

### Reading

Solomon, Alexander, *The Zoroastrian Faith*, Toronto, 1993.

West, Martin Litchfield, *The Hymns of Zoroaster: A New Translation*, New York, 2016.

### Discussion questions

Is Zoroastrianism, like the Abrahamic religions, a 'revealed' religion?

That is, does God speak directly with Zoroaster as though he is an inspired prophet who is capable of co-existing with Him on His level?

What was the administrative structure of the Zoroastrian religion? Who were the *magi*, and how did they function in this system? Was there a spiritual leader, a 'Pope'?

The Greek historian, Herodotus, remarked that the Persians were much more spiritual than the Greeks, because the Persians worshipped a God who was pure spirit, not an embodiment in mortal forms, like the gods of Greek polytheism. Was Herodotus right?

### Part IV : PHILOSOPHY

**Overview** Religion and philosophy are hard to separate in early Persian experience. Religion is the mother, philosophy the child, taking its topics from the categories of the 'belief system.' One might say, in an effort to characterize this state of affairs, that classical Greek philosophy is sharply different from classical Persian. The philosophies of Plato and Aristotle deal with creation, origins, even with the notion of God, but expend their vitality on the discursive problems raised on the ground, by trying to think out the human condition. Persian philosophy starts from the given of a theological setting, and goes on to lay out the discursive consequences of this God-created condition of man.

**Zoroastrianism** Zoroaster (late 7<sup>th</sup>, early 6<sup>th</sup> century B.C.E.), like the Buddha, began life as a privileged aristocrat who left home in search of the meaning of life. The visions he benefitted from, en route, gave him confident belief in a monotheistic world system, ruled by a father god. This conviction shored up a bevy of convictions which formed the core of Zoroastrian theology, while at the same time serving as the trigger for a variety of religious-philosophical conclusions. The struggle of good and evil was central to Zoroaster's world picture, a belief in heaven and hell, and in the free will that qualifies us for one or the other of those two venues; the belief issue was ample evidence to qualify these positions for dispute, thus for philosophical argumentation--which as it turned out was abundant. Respect for God's creation--an admiring pleasure in the goods of the earth--and care for his environment were among other salient belief-principles on which Zoroaster established the basis of a distinctive issue-based philosophy.

**Manichaeism** Mani (216-274 A.D.) was a Persian visionary and philosopher, born in Parthian Babylonia, of whom we know that he was a believer in the message of Jesus Christ, that he studied Hinduism in India, and that upon return from travels to the East he settled in Persia and devoted himself to establishing his religion-philosophy of Manichaeism. The governing idea of this philosophy bears unmistakable resemblance to Zoroastrianism: for Mani the cosmos is an inextricable entanglement of good with evil, light marking the good, darkness the evil. The mixture itself had been formed by a cosmic accident, and it was mankind's duty to bring light and goodness to being. The basis is there, though we have almost no supporting texts, for a metaphysic and an ethic.

**Zurvanism** The historical origins of Zurvanism are obscure, and to some degree depend on how you see the religion's relation to Zoroastrianism; for on most accounts Zurvanism must be viewed as an heretical brand of Zoroaster's thought. While there seem to be three distinct versions of Zurvanism, they have in common a single God, transcendent, without passion, and infinite in space and time. By one account this god engendered opposing halves--one of them the god of good and light, Ahura Mazda, which--as in each of the other religion-philosophies above-- were in continual struggle with one another, as part of the definition of mankind.

### **Readings**

Zaehner, Richard, *Zurvan, a Zoroastrian Dilemma*, Oxford, 1955.

Zaehner, Richard, *The Dawn and Twilight of Zoroastrianism*, reprint, New York, 2005.

### **Discussion questions**

Can you distinguish the philosophical from the theological elements in the views discussed above. Can you see the philosophical implications of the positions in cosmology, ethics, and logic implicit in Zoroastrianism and its fellow Persian religions?

How deeply have the above religious-philosophical movements penetrated into the thought of our day? How widely practiced is Zoroastrianism?

How would you account for the fierce emphasis on dualism--good versus evil--in the above philosophies? Is that emphasis equally strong in the Abrahamic religions of our day?