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Temple Architecture in the Iranian World before the Macedonian Conquest¹

Michael Shenkar

Hebrew University of Jerusalem

Abstract

The article offers a survey of temple architecture in the Iranian world before the Macedonian conquest.

Despite the observations that ancient Iranians worshipped in the open air, structures of cultic significance have been discovered in some areas of Eastern Iran. While the attribution of the earliest, second millennium temples to the Iranian tribes is still disputable, Iranians definitely had temples before the Achaemenids. The earliest temples found in the Iranian settlements are the ones from Tepe Nush-i Jan (for Western Iran) and Dahān-i Ghulāmān (for the Eastern). However, it seems that the majority of ancient Iranians, including the first Achaemenids, worshipped under the open sky.

Given the nomadic background of the ancient Iranians they probably became acquainted with temple architecture once they came into close contact with the highly developed civilisations, which preceded them in some areas of what was later to become the Iranian World. In general it is impossible to speak of one "Iranian culture" or a unified "Iranian cult" in the second and first millennia BCE; instead, temple architecture demonstrates a variety of different regional traditions. More temples have been discovered in Eastern Iran than in Western. The architectural evidence from Eastern Iran in this period also suggests a complex picture of heterogeneous local cults, at least some of which made use of closed temples. Another kind of cultic structure was the open air terraces. There is also some evidence for domestic cults.

Iranian cults also share a number of common, dominant features. Special significance was attributed to fire and ashes. Most temple altars (often stepped) were at the centre of the cult and rituals. Another important feature is the absence of cult

¹ In this paper the term *Iran* or *Iranian World/Region* reaches beyond the borders of the modern Islamic Republic and refers to the region from the Hindu-Kush mountains in the East to the Zagros ridge in the West and from Transoxania in the North to the Persian Gulf in the South, which in the first millennium BCE was inhabited by Iranian-speaking tribes. For a recent geographical survey of the Lands of Iran, see de Planhol 2006.

statues and images. It is remarkable that most of the temples were erected on the highest point of the site or on an artificial elevated platform.

Keywords

Ancient Iran, Temples, Fire Temples, Zoroastrianism, Architecture

It has often been observed that the ancient Iranians (and Indo-Iranians) did not worship in temples but performed their rituals in the open air (Boyce 1975a and 1985; Yamamoto 1979: 26; Grantovskij 1998: 115; and many others). This conclusion apparently reflects the Avesta and Rig Veda, the main sources for the Indo-Iranian religion, which do not speak of temples or cultic structures (on Indo-Iranian religion, see a recent survey with many references Gnoli 2006).

However, structures of cultic significance have been discovered in some areas of Eastern Iran. Probably the earliest is the temple of Jarkutan in Northern Bactria), 1400-1000 BCE (Askarov/Shirinov 1994: 17). The rectangular building (60 x 44,5 m.) occupied the most elevated point of the natural hill and was perfectly aligned with the cardinal points (Fig. 1). The excavators identified two functional parts of the temple: an eastern cultic area and a western administrative wing (Askarov/Shirinov 1994: 16). At the focus of the temple was a 400 m.² wide and 1,4-2,5 m. high platform on which an altar stood between four pillars. More pillars were found in the courtyard of the cultic area. Furthermore, one room (number 5) probably served as a depository for ashes mixed with burned bones (which apparently had some sacred significance). Basing themselves on these findings, the excavators called the cultic building at Jarkutan a "fire temple" (Askarov/Shirinov 1994: 23).²

Better known are the "temple" of Togolok-1, Togolok-21, and the "fire temple" of Gonur, which were excavated in Margiana in Turkmenistan and dated around 1000 BCE (the most comprehensive publication of the finds in English is Sarianidi 1998; see also Sarianidi 2002: 162-214) (Figs. 2-4). The excavator, V. Sarianidi, quite decisively declared that he

² It seems that it is methodologically wrong to apply this anachronistic term to the Iranian temples in antiquity. It is not firmly established how the evidence for the extensive use of fire for cultic purposes is related to the "classical" Zoroastrian fire-temples of the Sasanian period (see Boucharlat 1999; in reference to the fire-temples in the medieval period and in modern times, see Langer 2004; Choksy 2006; for fire-temples in the written Zoroastrian tradition, see Vitalone 2004).

had uncovered “a proto-Zoroastrian temple of the Indo-Iranian, Aryan tribes” (Sarianidi 1998: 102). This conjecture was based on traces of fire worship and a libation cult (interpreted by Sarianidi as *haoma*), which led him to believe that ancient Margiana was actually the long-sought homeland of the prophet Zoroaster (ibid.: 100).

This interpretation evoked a wave of criticism.³ Scholars have rejected the identification of the Togolok-1, Togolok-21, and Gonur buildings as “proto-Zoroastrian temples” and have justly recalled that the fire worship and rituals, which involved the *haoma* drink were a part of the common Indo-Iranian heritage and not specific to Zoroastrianism (Dandamaev 1989: 170; on fire and *haoma* in Indo-Iranian religion, see also Frye 1996: 68; Gnoli 2006: 97). The use of the term “proto-Zoroastrian” came under especial fire, since we do not know exactly when and where the great prophet of the ancient Iranian religion lived.⁴ However, J. Choksy has recently expressed a very positivist opinion that the ritual room at Togolok-21 may have been “a pre-Zoroastrian or even a very early Zoroastrian” fire temple (Choksy 2007: 261).

Most scholars agree that these structures had cultic significance (however, see Livšic/Stebelin-Kamenskij 1989: 174), but their connection to Iranians or Indo-Iranians remains questionable. It is also possible that the edifices belonged to the autochthonous population, which inhabited these lands before the migration of the Indo-Iranian tribes in the second millennium BCE (see also Frye 1996: 68).

Another interesting site of probable cultic significance was recently excavated in Kazakl'i-yatkan in Chorasmia (Fig. 5). According to the excavators, this was a religious centre for the entire region (see Helms *et al.* 2002: 4). One of the buildings discovered here, with a circular tower(s?) was dated to the 14th–13th century BCE and thought by the excavators to be a temple/palace (ibid.: 17–19). However, additional field seasons and research will be required to understand the exact nature and purpose of the structure.

³ It is worth noting that Sarianidi is much more cautious in one of his later works and did not try to link his finds in Margiana directly to Zoroaster and Zoroastrianism (Sarianidi 2002: 162–203).

⁴ The question of “Zoroaster’s time and homeland” has for a long time been one of the most debatable and controversial issues in Ancient Iranian Studies. Despite all their efforts, scholars have failed to reach a consensus. It seems that in our present state of knowledge it is simply impossible to date Zoroaster’s acts. However, most specialists lean towards the end of the second – beginning of the first millennium BCE and place him in Eastern Iran (for extensive discussion with references and bibliography, see Gnoli 1980; idem 2000; Kellens 2001; Shahbazi 2002).

The earliest temple, which could be more or less securely associated with the ancient Iranians is the edifice uncovered in Tepe Nush-i-Jan in Media and dated around 700 BCE. It was at first dated to 750 BCE (Roaf/Stronach 1973:138), but radiocarbon analysis has shown that a slightly later dating should be preferred (Curtis 2005: 237) (Fig. 6). The “Central Temple” was probably the first structure to be erected on the highest point of the hill (Roaf/Stronach 1978: 9) and it seems that it was also the *raison d’être* of the entire settlement (Roaf/Stronach 1973: 133).

The building has a cross-shaped layout and nearly perfect axial symmetry (for the restoration of the “hidden square form” in the layout of the temple, see Tourovets 2005) (Fig. 7). The plan consists of two principal parts: a rectangular antechamber with a tower-like staircase at the left end and a triangular main room decorated with blind windows. The left side of the main room was occupied by a stepped mud-brick altar protected by a plastered mud-brick wall. The altar is 85 cm. high and 1.41 m. wide at the square top; it has a small hemispherical fire bowl in the centre (Roaf/Stronach 1973: 134-135). This specific layout has no exact parallels, but its core reminds one of the Urartian “tower-temples” (Stronach 1967: 278f; Stronach 1984: 480) and it may well be that the Central Temple represents a local development of this architectonic tradition (Tourovets 2005: 370).

An additional temple uncovered at Tepe Nush-i-Jan, is the so-called “Old Western Building” or “The Western Temple” (Roaf/Stronach, 1978: 3-6). The layout is quite similar to that of the Central Temple, but it has a different orientation and height. However, clearly both structures functioned in a similar way (Roaf 1995: 64). The Western Temple was erected on a mud-brick platform and was divided into a rectangular antechamber and a main room. Like the Central Temple, the antechamber had a tower-like staircase on the left, and an altar of similar size was uncovered at the left end of the main room. The excavations demonstrated that the temples at Tepe Nush-i-Jan ceased to be used around 600 BCE (Stronach 1984: 489).

Apart from these two temples, the small central building uncovered in 2001 at Tepe-Ouzbaki could also probably have served as a shrine (Stronach 2003: 238). Although, the annals of Assyrian campaigns in Media do not mention the plunder and destruction of Median temples and the removal of statues of Median gods (Boyce 1982: 21; Radner 2003a: 64), it is probable that in Western Iran, in a place called Bīt Ištar, there was a sanctuary dedicated to the Babylonian goddess Ištar and associated with water worship (see Radner 2003b). Regrettably, the site has never been excavated.

Without additional evidence, it is nearly impossible to establish which gods were worshiped by the Medes in these temples and what was the nature of their cult. This empty space presents an inviting opportunity for speculation and it has been proposed that the religion of the ancient Medes could have been a kind of Mithraism (Bivar 2005; on the religion of the Medes, see also D'yakonov 1956: 371-382). Based on some parallels with a certain Sasanian temple, M. Azarnoush proposed that the temple at Tepe Nush-i-Jan was consecrated to the goddess Anahita (Azarnoush 1987: 401), while J. Choksy has recently claimed this building to be among the earliest Zoroastrian temples in Western Iran (Choksy 2007: 261). These interpretations, of course, can hardly be accepted. Certain parallels with Urartian architecture and the existence of a temple dedicated to Ištar could perhaps point to Urartian and Mesopotamian influences. It is now a well established fact that the Medes had temples (Dandamaev/Lukonin 1994: 346).

TEMPLES IN THE IRANIAN WORLD IN THE ACHAEMENID PERIOD

There are two references to cultic structures in the Achaemenid royal inscriptions. In the Behistun inscription, Darius the Great proudly proclaims that he has rebuilt the *āyadanā* ("places of worship") destroyed by a rebellious Gaumata (Boyce 1982: 88-89; Frye 1984: 173-174). In the Akkadian and Elamite versions of the inscription, this word is translated as "houses of gods", a standard term for temples in these languages (this interpretation is accepted by most scholars; however, see Leqoc 1995 who proposes that *āyadanā* might mean "rituals" rather than buildings). In Old Persian, *āyadanā* could refer also to open air sanctuaries (Boyce 1982: 89). From the context of the inscription it is entirely unclear what kind of temple or sanctuary is meant. Were these Iranian sanctuaries or Babylonian/Elamite temples? The answer is not evident (for a brief discussion of some hypotheses, see Frye 1984: 174 n 7).

The second source is the "*daiva* inscription" of Xerxes (for a basic presentation, see Boyce 1982: 173-177). In this important inscription, many copies of which have been found, the King of Kings tells that among the countries of his empire there was one where previously demons (*daiva*) were worshiped. Xerxes destroyed that place (*daivadanā*) and purified it with "proper rituals". However, as with *āyadanā* it is not known which country and what kind of structure Xerxes was referring to. The temple of Marduk in Babylon, Indo-Iranian temples in Eastern Iran or India, and even the Parthenon in Athens have been suggested. Among the more plausible possibilities is that the "*daiva* inscription"

might be evidence of the suppression of the Elamite cult (see Frye 1984: 174-175, fn. 8).

The Greek sources also remark that the Persians did not have temples (de Jong 1997: 345). Herodotus (I. 132) says: "I know that the Persians have these customs: it is not their custom to erect statues, temples and altars... But it is their custom to go up to the highest summits of the mountains and sacrifice to Zeus, calling the entire vault of the heaven Zeus" (for a commentary, see de Jong 1997: 76-121).

Further information regarding the religious atmosphere of the Achaemenid Empire might be obtained from the "Persepolis foundation tablets" (see Aperghis 1998; Stausberg 2002: 183-186 with references to previous studies). Despite the fact that they are administrative and not religious documents, the Persepolis tablets mention the worship of the Elamite gods along with the Iranian ones, name various kinds of priests and rituals (on the *Lan* ceremony, see Handley-Schachler 1998). However, this evidence is fragmentary and inconsistent.

In this context we must touch on the question of the religion of the Achaemenids. This issue has been the subject of exhaustive scholarly debates, which have failed to provide an answer to the question "were the Achaemenids Zoroastrians?" (to name the most important and recent studies: Herrenschmidt 1980; Frye 1984: 120-124; Boyce 1985; Schwartz 1985; Ahn 1992; Dandamaev/Lukonin 1994: 320-367; Wiesehöfer 1996: 94-101; Koch 2002; Kellens 2002; Stausberg 2002: 157-186; Razmjou, 2005; Jacobs, 2006). Opinions range from those who hold that "the Achaemenids were definitely not Zoroastrians" to scholars who believe that Zoroastrianism was the state religion of the Achaemenid Empire (for this last view, see recently Kreyenbroek 2006; for a brief review with references, see Stausberg 2002: 157). Despite some recent attempts to show that there are parallels between the Avesta and the Achaemenid royal inscriptions (which would mean, that the Achaemenids knew the Avesta and, therefore, were followers of Zoroaster, see Skjærvø 2005), the question remains open.

Inability to reach consensus has even caused some to regard this problem as "purely academic and misleading" (Kellens 1999: xiv). It is clear that, according to the royal inscriptions and other sources, the religion of the Achaemenid kings was an Iranian religion and as such, part of the same broad religious tradition as Zoroastrianism (Shaked 1994: 7, fn. 5; idem 2005: 184). Beginning with Darius I, Achaemenid kings recognised Ahuramazda as the supreme god (but not the only god), rejected the *daiva* and employed the Avestan terminology of *arta* and

drauga. However, anything beyond these observations would be pure speculation.

Nevertheless, there are temples within the Iranian world dated to the Achaemenid period. One of the most important was uncovered in Dahān-i-Ghulāmān in Sistan by a team of Italian archaeologists (Scerrato 1966; for a recent presentation, see Boucharlat 2005: 268–269) (Fig. 8). The temple was built at the end of the 6th–beginning of the 5th century BCE together with the whole settlement, probably a provincial capital. It was abandoned after a period of 100–150 years (Gnoli 1993: 582–583; Stronach 1985: 610 proposes a date of the first half of the 5th century BCE). The temple was excavated in the eastern part of the settlement, close to the residential area. It was built of mud-bricks—a technique typical for the region (Stronach 1985: 608). The layout is almost square (54,30 x 53,20 m.) and consists of four corner rooms and a central courtyard with four porticoes facing inwards. While this layout seems to have parallels in the royal architecture of Persepolis it also demonstrates some influences of a local Eastern Iranian tradition (Stronach 1985: 608; Gnoli 1993: 584).

In the centre of the courtyard, three monumental stepped altars were installed. The remains of ashes mixed with grease and burned bones were found scattered throughout the temple. Since burning sacrificial animals is absolutely unacceptable under the purity laws of contemporary Zoroastrianism, it has been suggested that the Dahān-i-Ghulāmān temple could be evidence of a pre-Iranian, autochthonous cult, and yet another indication of Achaemenid religious tolerance (Boyce 1982: 130).

At the same time, we can not be certain that all Iranians in this period knew and obeyed the purity laws, and it is not impossible that some variation of an Iranian or Indo-Iranian cult was actually practiced at Dahān-i-Ghulāmān. The presence of three altars might be an indication of the worship of a triad of gods (Gnoli 1993: 584), but this can not be firmly established.

The remains of another temple dated to the beginning of the 4th century BCE were excavated at Tash-K'irman-tepe in Chorasmia (Helms *et al.* 2002) (Figs. 9–10). The Karakalpak-Australian excavators claimed that what they found was “certainly a fire temple, which may date back to the early stages of Zoroastrian religion” (*ibid.*: 6–7). The complex consists of a high podium, a small courtyard and a labyrinthine system of rooms and corridors. Some of them contained thick layers of ashes. Several altars were also found attached to the walls. No exact parallels to the layout of this building are known, but it is very likely that some kind

of Iranian cult was practiced there in the Achaemenid period. Nevertheless, speculations about a “Zoroastrian fire temple” and its place in the history of the Zoroastrian faith are methodologically inappropriate and add little to the understanding of this site.

Another building in Chorasmia, which has been termed a temple was discovered in the citadel of Kalali-Gir 2 (Fig. 11). The excavators think that the entire site served as a ritual centre for the region from the middle of the 4th century until the beginning of the 2nd century BCE (Vainberg 1994: 75). The round temple was erected on a podium 2 m. high and had a diameter of 24 m. It was surrounded by some 40 passages and chambers. Finds of special interest include a small female figurine (goddess?) holding a baby, and the remains of wooden altar bases (Vainberg 1994: 76, 79). In a wider sense, the architecture of Kalali-Gir 2 has close similarities to the round temple at Giaur 3 (Vainberg 1994: 76) and resembles the mausoleum/ritual centre of Koj-Krylgan-Qala (see Tolstov/Vainberg 1967).

Examples of domestic cult are also known. A small cultic room (7,25 x 4 m.) was discovered in a monumental building at Djanbas-Kale, Chorasmia (Tolstov 1948: 96-98) (Fig. 12). In the centre of the room stood an oval base, probably of an altar, and benches ran along the walls. The floor was covered with a layer of ashes sealed under a thin layer of tin. Presumably, this was done in an attempt to preserve the ashes, which probably had some ritual significance (Košelenko 1985: 333). Similar in plan, but much larger (49,5 x 44 m.), a rectangular structure was excavated to the south of the Bazarkali settlement. Here, favissas filled with votive vessels were uncovered. A little podium showing traces of fire in a small space (6 x 5 m.) near the northern wall was found (Košelenko 1985: 334).

In the 6th century BCE, a room, which probably had some cultic significance, was built on the fortified estate of Kuchuk-tepe in Northern Bactria (Košelenko 1985: 189,191-192). A hearth was located in the centre of the room, and opposite it, a rectangular niche was installed in the southern wall. The excavators believe that at some point in the 5th century BCE, an additional chamber in the manor served as a cultic room, since a niche with traces of heavy burning was found in it.

Regarding the western heartland of the Achaemenid Empire, Persia and Media, it seems that, according to the latest archaeological research, no structure can be securely associated with a Persian cult (Boucharlat 2005: 281). In fact, the only certain cultic “structure” in Western Iran of that period is the *Sacred Precinct* at Pasargadae (Koch 2001: 78) (Fig. 13). Two monumental stone plinths were discovered at

the north-eastern end of the site, measuring more than 2 m. high (Stronach 1978: 138f) (Fig. 14). The southern plinth has a stepped base, which makes it very similar to the altar depicted on the tomb relief of Darius I (Stronach 1985: 606). Indeed, these plinths have parallels in the compositions of Achaemenid tomb reliefs, where a king is shown standing on a stepped podium in front of an altar (Lindsay 2005: 124). This *Sacred Precinct* might perhaps be the *āyadanā* of the Behistun inscription (Stronach 1985: 607–608; it is worth noting that the structure from Susa known as *āyadanā*, for a long time considered one of the earliest examples of an Iranian temple, should probably be dated to the Hellenistic-Parthian period (see Stronach 1985: 621; Boucharlat 2005: 242).

It has often been suggested that the Pasargadae monuments are associated with the worship of fire (e.g. Garrison 1999: 614) and represent the earliest examples of “fire altars” (Boyce 1982: 52). Like “fire temple”, “fire altar” is also a very problematic and anachronistic term when applied to altars of the Achaemenid period. Although, there is no doubt that fire occupied a position of prime importance in ancient Iranian religions, probably reflected in the presence of many altars, we do not know what cult was served by these structures and what was their precise role in it (on “fire altars”, see generally Yamamoto 1979; Houtkamp 1991; Garrison 1999).

Cultic precincts or terraces are known in Eastern Iran from the second millennium BCE (such as Nad-i Ali in Sistan; see Francfort 2005: 334). In the Achaemenid period they have been identified at Pachmak-tepe and Pshak-tepe in Bactria and Kok-tepa in Sogdiana (ibid.). The dating of these sites is not certain; however, it would seem that they were established at the end of the Achaemenid period and continued to exist in the Hellenistic period (similar terraces, which should be probably dated to the Parthian period are also known from Bard-e Neshande and Masjid-i Soleiman, Ghirshman 1976). These terraces may reflect nomadic Iranian traditions of worship in open air precincts.

Two additional monuments, which are sometimes referred to as “temples” or “fire temples” are the famous Ka’aba-i Zardusht at Naqsh-e Rostam and Zindan-i Suleyman at Pasargadae. The significance and intended use of these enigmatic structures are not known and there are alternative suggestions that these tower-like structures served for burial or coronation (Goldman 1965; Schippmann 1971: 185–199, 204–208; Sancisi-Weerdenburg 1983; for a recent evaluation of all the possibilities, see Potts 2007: 278–295). In any case, the Ka’aba and the Zindan appear to manifest influences of the architecture of Urartu (Tourovets

2005: 369) and it is worth noting that a very similar Achaemenid “tower temple” was discovered also at Samadlo in Georgia (Knauss 2005: 87 fig. 9).

CONCLUSIONS

The discussion has shown that the Iranians had temples before the Achaemenids (contra Yamamoto 1979: 37 and others). The earliest written sources do not mention temples, but they do not necessarily represent the culture of all ancient Iranian and Indo-Iranian peoples. The picture is far more complicated and it is impossible to speak of one “Iranian culture” or a unified “Iranian cult” in the second and first millennia BCE. It is quite probable that the second millennium temples uncovered in Central Asia belong to a number of Iranian cults, which are virtually unknown to us. However, it might make more sense to consider them in the context of autochthonous, pre-Iranian cultures.

Given the nomadic background of the ancient Iranians, they probably became acquainted with temple architecture once they came into close contact with the highly developed civilisations of Margiana, Elam and Mesopotamia. This was probably the case with the Median cult, which seems to demonstrate strong influences of the Mesopotamian tradition. It is in the Median period that the earliest securely dated Iranian temple Tepe Nush-i-Jan appears. Whereas the majority of Iranians worshipped under the open sky, closed temples, though they probably existed, were exceptional (Grantovskij 1998: 115).

It seems that the first Achaemenids, unlike the Medes, did not worship in closed temples (Stronach 1985: 622), but adhered to the original Iranian nomadic tradition; or perhaps they practiced another variety of an Iranian cult? However, temples, sacred terraces, “cultic rooms” in Eastern Iran in this period present a complex picture of heterogeneous local cults, at least some of which made use of closed temples.

Some concluding remarks:

- In ancient Iran before the Macedonian conquest two kinds of cultic structures existed: open air terraces and closed temples.
- Temples were much more common in Eastern Iran than in Western.
- One can not speak about a unified Iranian temple architecture, as it seems to reflect a variety of local traditions.
- Most of the temples were erected on the highest point of the site or on an artificial elevated platform.

- The most remarkable characteristic of Iranian cults is the prominent place of fire and the special sacral significance attributed in some cases to the ashes.
- In most temples altars (often stepped) were at the centre of the cult and rituals. Usually the altar was placed in the middle of the chamber/courtyard.
- Iranian cults seem to share the common feature of aniconism. No trace of the existence of cultic statues was found in any temple.

FIGURES

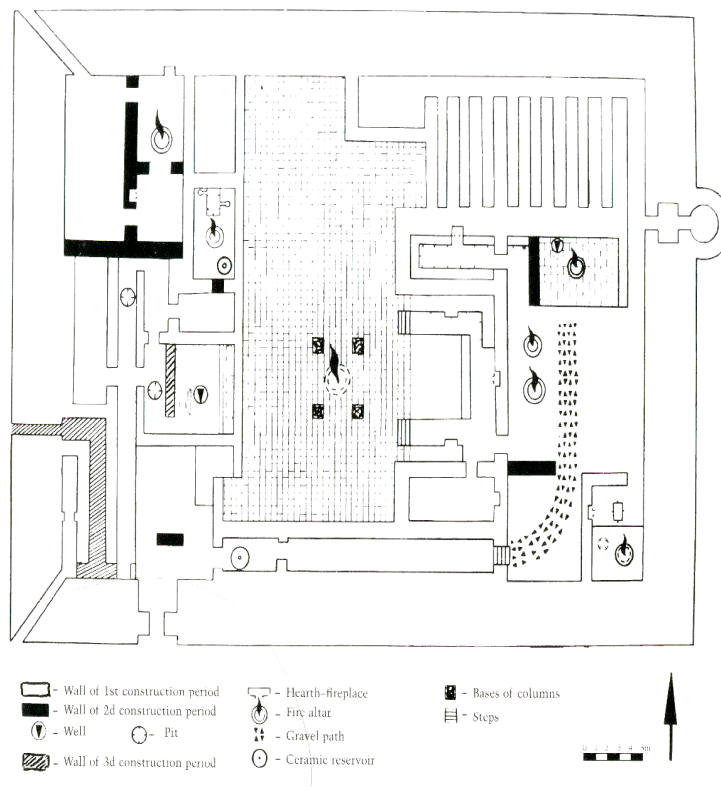


Fig 1. Temple at Jarkutan (Askarov/Shirinov 1994, fig. 5)



Fig. 2. Temple at Togolok-1 (Sarianidi 1998, fig. 53)

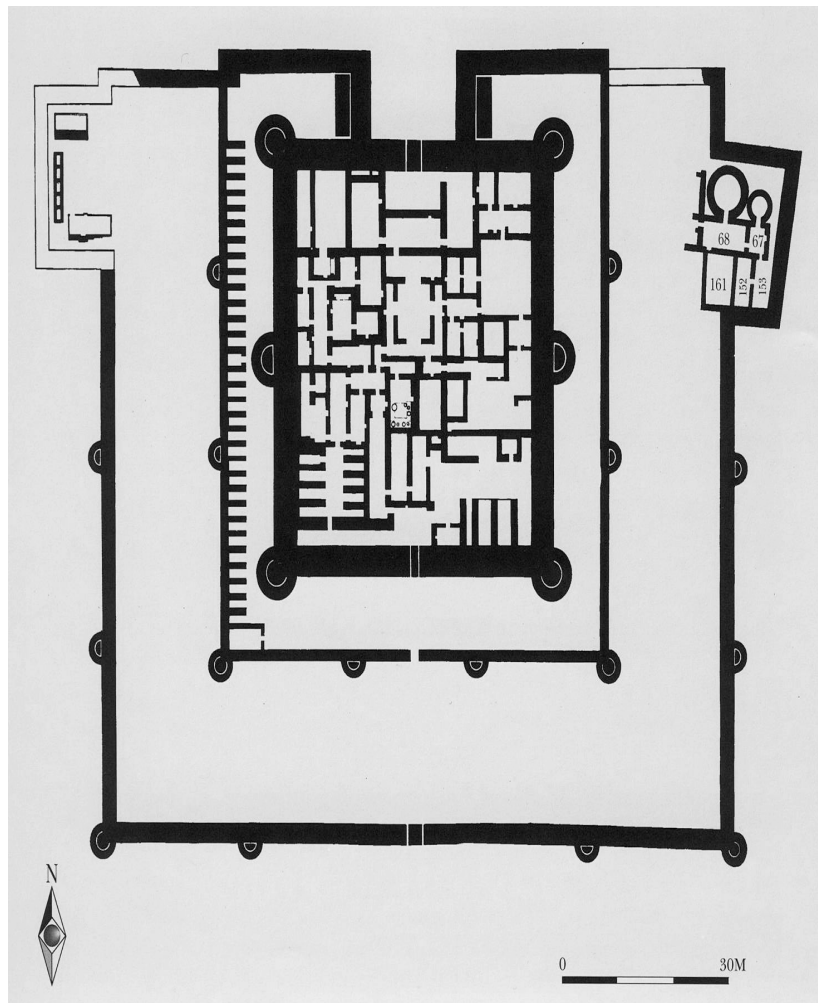


Fig. 3. Temple at Togolok-21 (Sarianidi 1998, fig. 42)

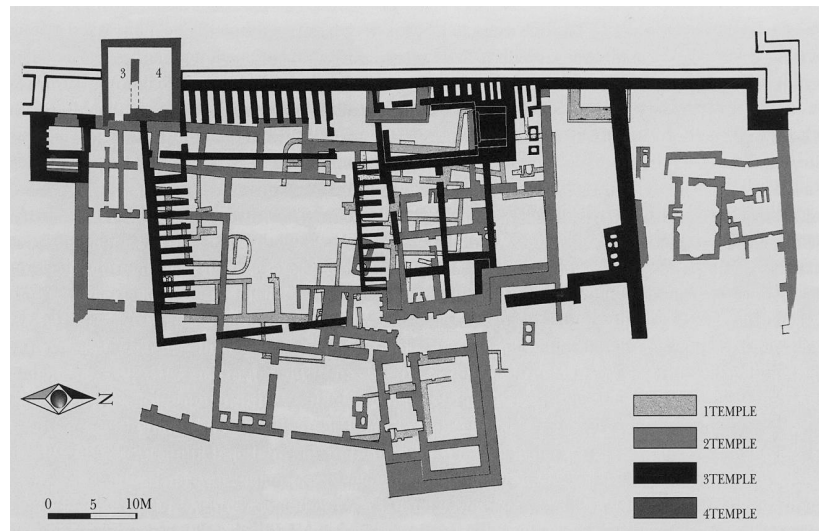


Fig. 4. Gonur "Fire-temple" (Sarianidi 1998, fig. 67)

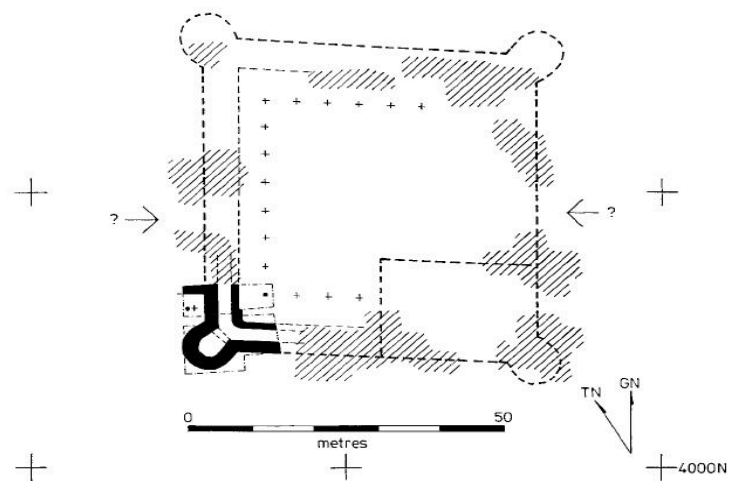


Fig. 5. Excavated Tower of the "Temple" at Kazakl'i-yatkan, (Helms *et al.* 2002, fig. 9)

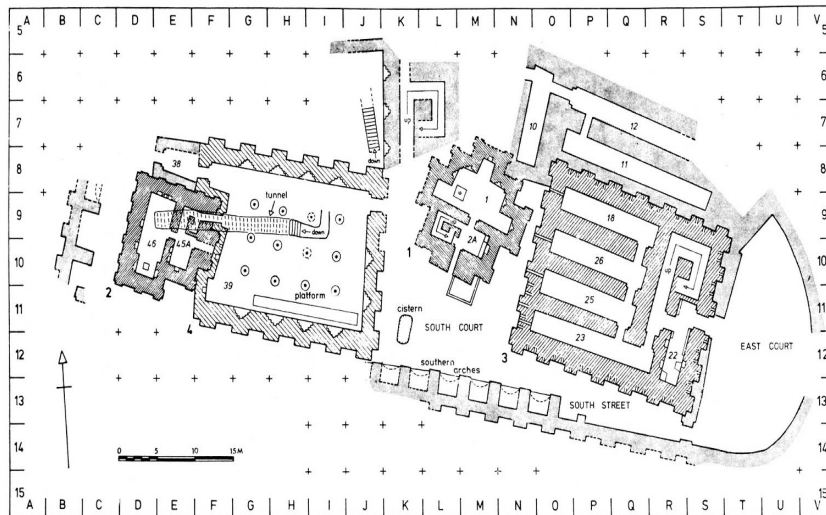


Fig. 6. Tepe Nush-i Jan including the "Central Temple" (1) and the "Western Temple" (2) (Boucharlat 1984, fig. 1)

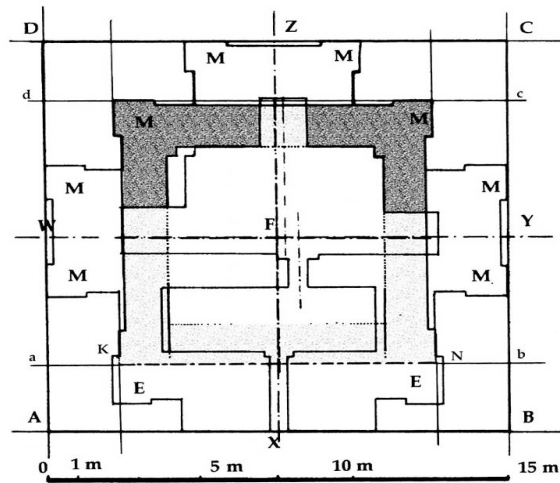
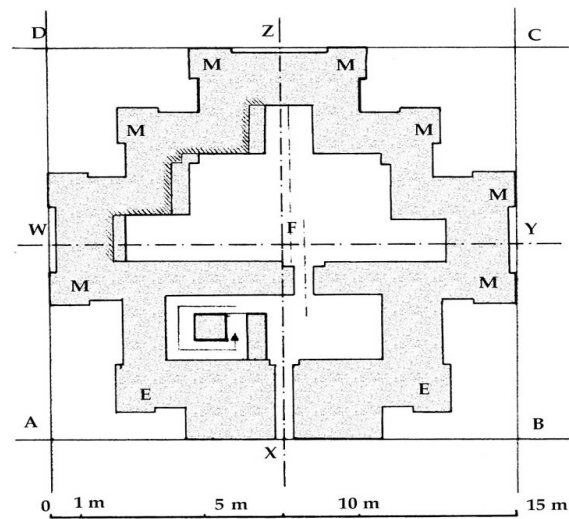


Fig 7. "Central Temple" at Tepe Nush-i Jan
with Restored Inner Symmetry
(Tourovets 2005, figs. 3-4)

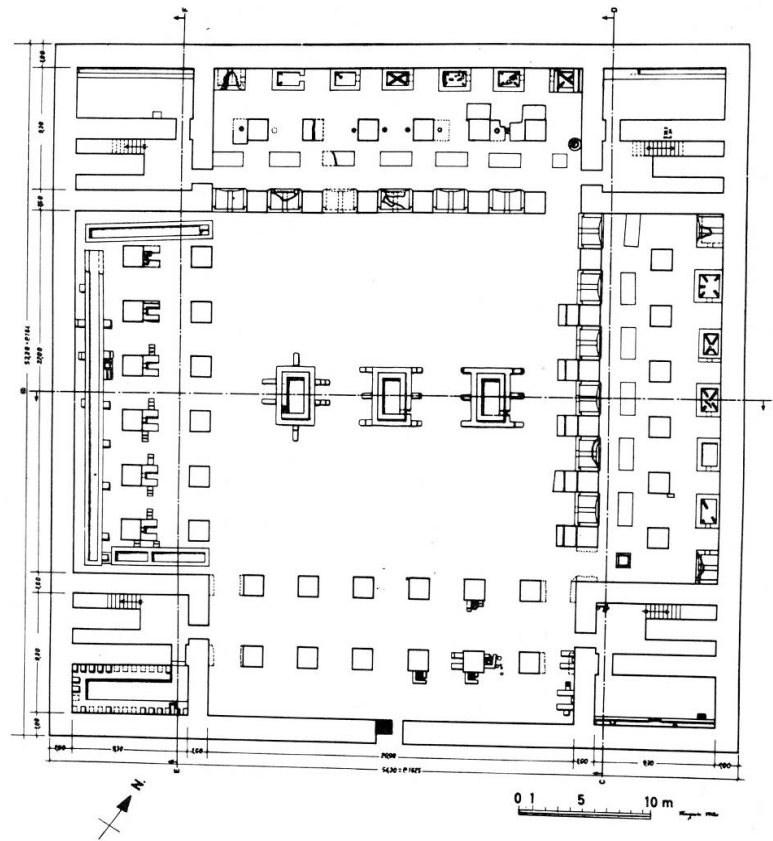


Fig. 8. Temple at Dahān-i Ghulāmān (Boucharlat 1984, fig. 11)

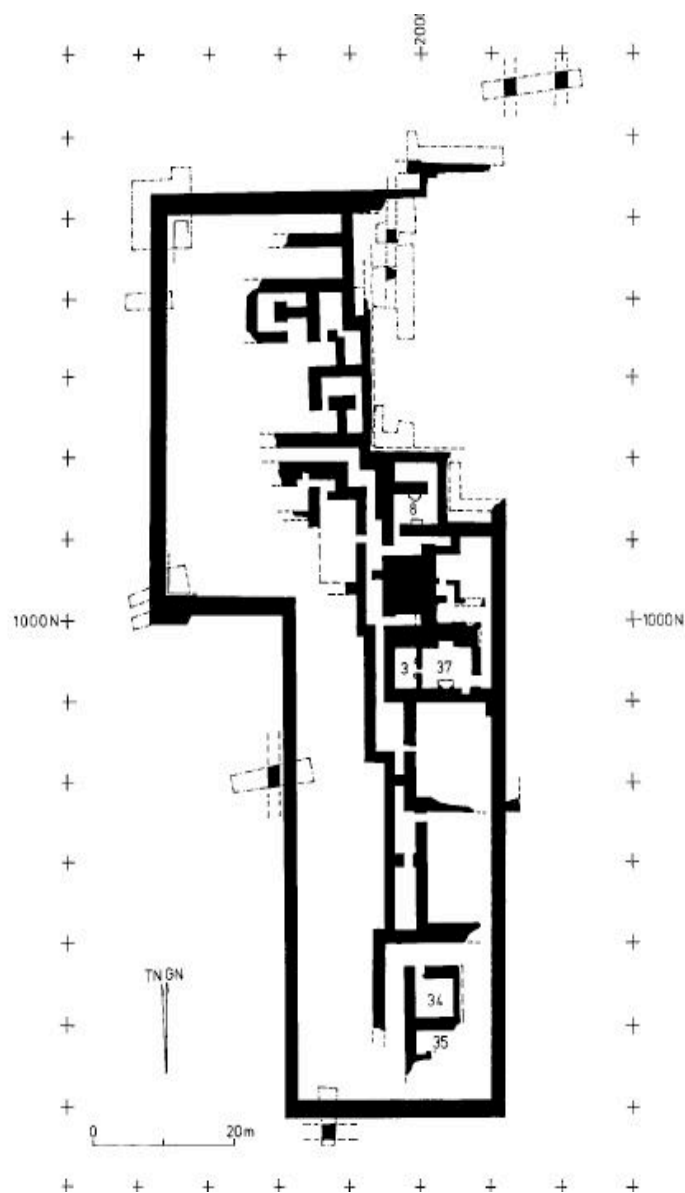


Fig. 9. The "Fire-temple" at Tash-K'irman-tepe (Helms *et al.* 2002, fig. 11)

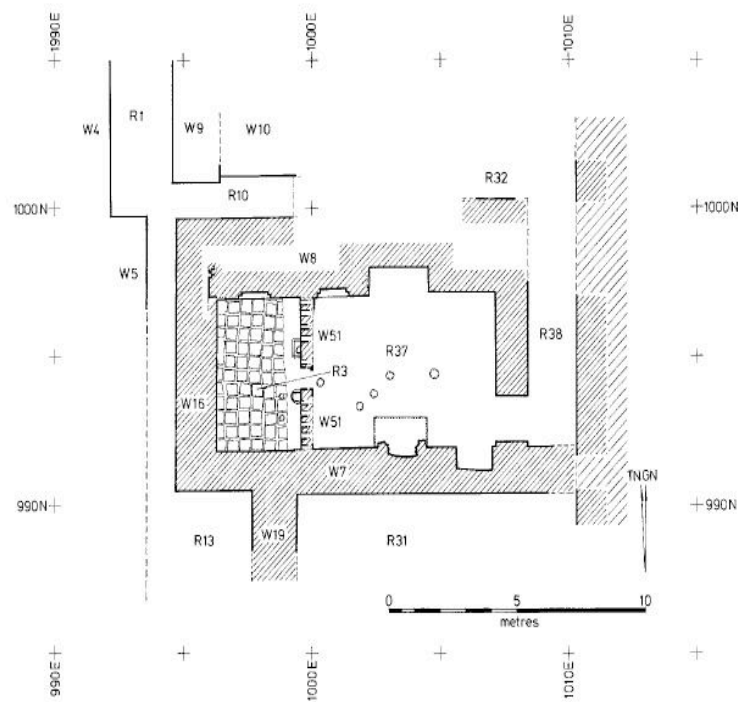


Fig. 10. The Central Room of the "Fire-temple" at Tash-K'irman-tepe (Helms *et al.* 2002, fig. 12)

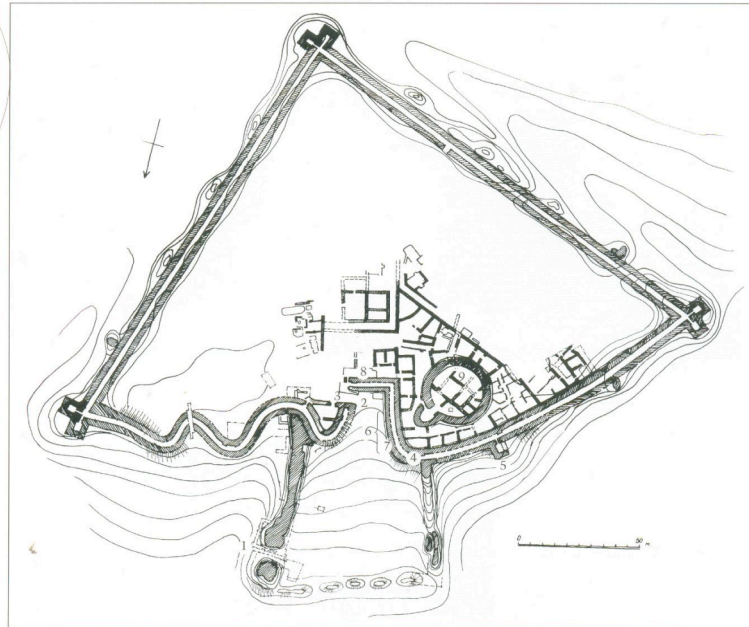


Fig. 2. Kalali-gir 2. Overall plan of the fortress after the excavations of 1990. 1. Gate to entrance complex; 2. Ramp up to a small square in front of fortress entrance; 3. Gate to fortress entrance; 4. Archers' gallery; 5. Well-preserved tower; 6. Wall with cult niches; 7. Cult niche with podium; 8. Ramp and platform above (main altar?); 9. Round building.

Fig. 11. The Plan of Kalali-Gir 2 with the "Round Temple" (9)
(Vainberg 1994, fig. 2)

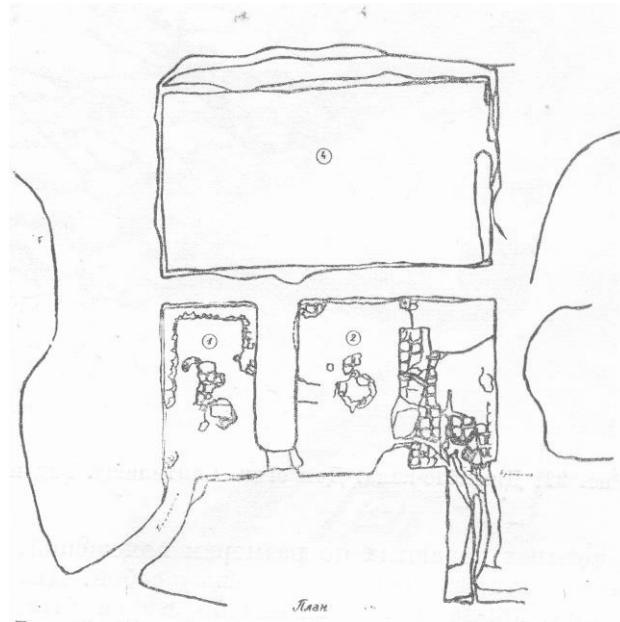


Fig. 12. The Cultic Room at Djanbas-Kale (Tolstov 1948, fig. 31)

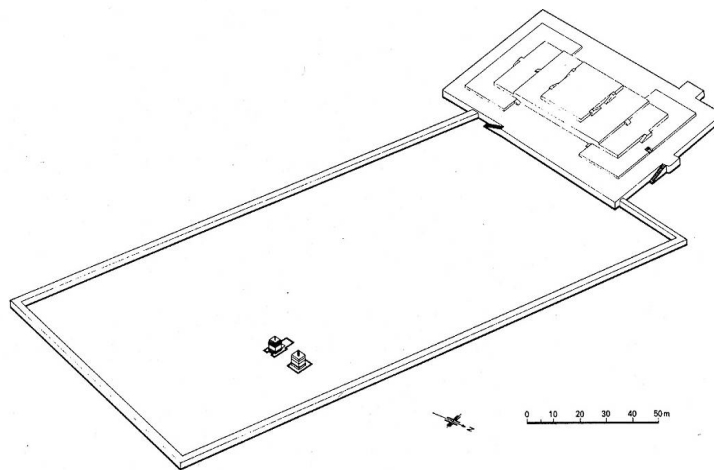


Fig. 13. The Sacred Precinct at Pasargadae (Stronach 1998, fig. 73)

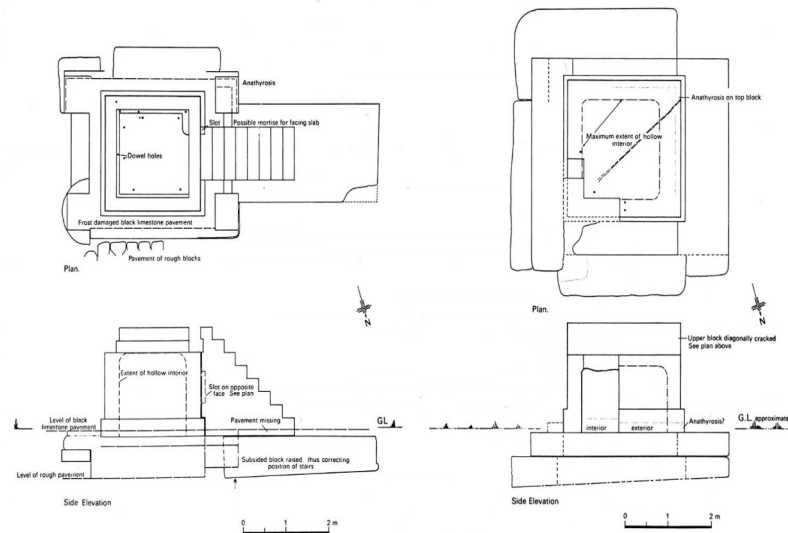


Fig. 14. The Monumental Plinths at Pasargadae (Stronach 1978, figs. 70-71)

BIBLIOGRAPHY

- Ahn G. (1992), "Religiöse Herrscherlegitimation im achämenidischen Iran", *Acta Iranica* 31.
- Aperghis G. (1998), "The Persepolis Fortification Tablets—Another Look", P. Briant, H. Sancisi-Weerdenburg, E. Kuhrt, M. C. Root, J. Wiesehöfer (eds.), *Achaemenid History XI*, Leiden: 35-65.
- Askarov A., Shirinov T. (1994), "The Palace, Temple and Necropolis of Jarkutan", *Bulletin of Asia Institute* 8: 13-26.
- Azarnoush M. (1987), "Fire Temple and Anahita Temple: A Discussion on Some Iranian Places of Worship", *Mesopotamia XXII*: 391-401.
- Bivar A. D. H. (2005), "Mithraism: A Religion for the Ancient Medes", *Iranica Antiqua XL*: 341-359.
- Boucharlat R. (1984), "Monuments religieux de la Perse achéménide, état des questions", in Roux, G. (ed.), *Temples et sanctuaires*, Lyon: 119-137.
- R. (1999), "Temples du feu sassanides", *Dossiers d'Archeologie* 243: 68-71.

- (2005), "Iran", R. Boucharlat, P. Briant (eds.), *L'Archéologie de l'empire achéménide: nouvelles recherches*, Paris: 221-283.
- Boyce M. (1975a), *A History of Zoroastrianism* I, Leiden.
- (1975b), "On the Zoroastrian Temple Cult of Fire", *Journal of the American Oriental Society* 95, No. 3: 454-465.
- (1982), *A History of Zoroastrianism* II, Leiden.
- (1985), "Achaemenid Religion", *Encyclopædia Iranica* I: 426-429.
- Brosius M. (2006), *The Persians*, London.
- Choksy J. K. (2006), "Altars, Precincts, and Temples in Medieval and Modern Zoroastrian Praxis", *Iran* 43: 1-20.
- (2007), "Reassessing the Material Contexts of Ritual Fires in Ancient Iran", *Iranica Antiqua* XLII: 229-271.
- Curtis J. (2005), "The Material Culture of Tepe Nush-i Jan and the End of the Iron Age III Period in Western Iran", *Iranica Antiqua* XL: 233-249.
- Dandamaev M. A. (1989), "Nekotorye zamečaniya k obsuždaemoj probleme", *Vestnik Drevnej Istorii* 2: 170.
- Dandamaev M. A., Lukonin V. G. (1994), *The Culture and Social Institutions of Ancient Iran*, Cambridge.
- de Jong A. (1997), *Traditions of the Magi: Zoroastrianism in Greek and Latin Literature*, Leiden.
- de Planhol X. (2006), "Iran I. Lands of Iran", *Encyclopædia Iranica* XIII: 205-212.
- D'yakonov I. M. (1956), *Istoriya Midii*, Moscow.
- Francfort H. P. (2005), "Asie centrale", R. Boucharlat, P. Briant (eds.), *L'Archéologie de l'empire achéménide: nouvelles recherches*, Paris: 313-344.
- Frye R. N. (1984), "Religion in Fars under the Achaemenids", *Acta Iranica* 23: 171-179.
- (1996), *The Heritage of Central Asia*, Princeton.
- Garrison M. (1999), "Fire Altars", *Encyclopædia Iranica* IX: 613-619.
- Ghirshman R. (1976), *Terrasses sacrées de Bard-é Néchandeh et Masjid-i Soleiman*, Paris.
- Gnoli G. (1980), *Zoroaster's Time and Homeland*, Naples.
- (1993), "Dahān-e Ġolāmān", *Encyclopædia Iranica* VI: 583-585.
- (2000), *Zoroaster in History*, New York.
- (2006), "Indo-Iranian Religion", *Encyclopædia Iranica* XIII: 97-100.
- Goldman B. (1965), "Persian Fire Temples or Tombs", *Journal of Near Eastern Studies* 24: 305-309.
- Grantovskij E. A. (1998), *Iran i irancy do Axemenidov*, Moscow.

- Handley-Schachler M. (1998), 'The Lan Ritual in the Persepolis Fortification Texts', P. Briant, H. Sancisi-Weerdenburg, E. Kuhrt, M.C Root, J. Wieshöfer, (eds.), *Achaemenid History XI*, Leiden: 195-204.
- Helms S. W., Yagodin V. N., Betts A. V. G., Khozhaniyazov G., Negus M., (2002), "The Karakalpak-Australian Excavation in Ancient Choras-mia: The Northern Frontier of the Civilised Ancient World", *Ancient Near Eastern Studies* 39: 3-44.
- Herrenschmidt C. (1980), "La religion des Achéménides: état de la question", *Studia Iranica* 9: 33-65.
- Houtkamp J. (1991), "Some Remarks on the Fire Altars of the Achaemenid Period", J. Kellens (ed.), *La religion iranienne à l'époque achéménide*, Gent: 23-49.
- Jacobs B. (2006), "Die Religion der Achämeniden", A. Koch, E. Rehm (eds.), *Das persische Weltreich*, Stuttgart.
- Kellens J. (1999), *Essays on Zarathustra and Zoroastrianism*, Costa Mesa.
- (2001), "Zoroastre dans l'histoire ou dans le mythe? À propos du dernier livre de Gherardo Gnoli", *Journal Asiatique* 289, 2: 171-184.
- (2002), "L'idéologie religieuse des inscriptions achéménides", *Journal Asiatique* 290: 417-464.
- Knauss F. S. (2005), "Caucasus", R. Boucharlat, P. Briant (eds.), *L'Archéologie de l'empire achéménide: nouvelles recherches*, Paris: 197-217.
- Koch H. (2001), *Persepolis. Glänzende Hauptstadt des Perserreichs*, Mainz.
- (2002), "Iranische Religion im achaimenidischen Zeitalter", G. Kratz (ed.), *Religion und Religionskontakte im Zeitalter der Achämeniden*, Gütersloh: 11-29.
- Košelenko G. A., et al. (1985), "Drevnejšie gosudarstva Kavkaza i Srednej Azii", *Arheologiya SSSR*, Moscow.
- Kreyenbroek P. G. (2006), "Iran IX. Religions in Iran (1.1.) An Overview", *Encyclopædia Iranica* XIII: 432-439.
- Langer R. (2004), "From Private Shrine to Pilgrim-Center: The Spectrum of Zoroastrian Shrines in Iran", M. Stausberg (ed.), *Zoroastrian Rituals in Context*, Leiden: 563-593.
- Lecoq P. (1995), "Un aspect de la politique religieuse de Gaumata le mage", R. Gyselen (ed.), *Au carrefour des religions: Mélanges offerts à Philippe Gignoux*, Leuven.
- Lindsay A. (2005), *The Persian Empire. A History*, London.
- Livšic V. A., Steblin-Kamenskij I. M. (1989), "Protozoroastrizm?", *Vestnik Drevnej Istorii* 1: 174-176.

- Potts D. T. (2007), "Foundation Houses, Fire Altars and the frataraka: Interpreting the Iconography of Some Post-Achaemenid Persian Coins", *Iranica Antiqua* XLII: 271-301.
- Radner K. (2003a), "An Assyrian view on the Medes", G. B. Lanfranchi, M. Roaf, R. Rollinger (eds.), *Continuity of Empire (?) Assyria, Media, Persia*, Padova: 37-65.
- (2003b), "A Median Sanctuary at Bīt Ištar", G. B. Lanfranchi, M. Roaf, R. Rollinger (eds.), *Continuity of Empire (?) Assyria, Media, Persia*, Padova: 119-131.
- Razmjou Sh. (2005), "Religion and Burial Customs", J. Curtis, N. Tallis (eds.), *Forgotten Empire: The World of Ancient Persia*, London: 150-181.
- Roaf M. (1995), "Media and Mesopotamia: History and Architecture", J. Curtis (ed.), *Later Mesopotamia and Iran: Tribes and Empires 1600-539 B.C.*, London: 54-66.
- Roaf M., Stronach D. (1973), "Tepe Nush-I Jan. 1970: Second Interim Report", *Iran* 11.
- (1978), "Excavations at Tepe Nush-i Jan. Part 1. A Third Interim Report", *Iran* 16: 1-11.
- Sancisi-Weerdenburg H. W. A. M. (1983), "The Zendan and the Ka'bah", H. Koch, D. N. Mackenzie (eds.), *Kunst, Kultur und Geschichte der Achämenidenzeit und ihr Fortleben*, Berlin: 145-153.
- Sarianidi V. (1998), *Margiana and Protozoroastrism*, Athens.
- (2002), *Margus*, Asgabad.
- Scerrato G. (1966), "Excavations at Dahan-i Ghulaman. First Preliminary Report (1962-1963)", *East and West* 16, Rome.
- Schippmann K. (1971), *Die iranischen Feuerheiligtümer*, Berlin-New York.
- Schwartz M. (1985), "The Religion of Achaemenian Iran", I. Gershevitch (ed.), *The Cambridge History of Iran*, vol. II: *The Median and Achaemenian Periods*, Cambridge: 664-667.
- Shahbazi A. S. (2002), "Recent Speculations on the Traditional Date of Zoroaster", *Studia Iranica* 31, 1: 7-45.
- Shaked S. (1994), *Dualism in Transformation: Varieties of Religion in Sasanian Iran*, London.
- (2005), "Zoroastrian Origins: Indian and Iranian Connections", J. P. Arnason, S. N. Eisenstadt, B. Wittrock (eds.), *Axial Civilizations and World History*, Leiden: 183-201.
- Skjærvø P. O. (2005), "The Achaemenids and the Avesta", V. S. Curtis, S. Stewart (eds.), *The Idea of Iran*, vol. I, *Birth of the Persian Empire*, London: 52-85.

- Stausberg M. (2002), *Die Religion Zarathushtras I*, Stuttgart.
- Stronach D. (1967), "Urartian and Achaemenian Tower Temples", *Journal of Near Eastern Studies* 26: 278-288.
- (1978), *Pasargadae. A Report on the Excavations Conducted by the British Institute of Persian Studies from 1961 to 1963*, Oxford.
- (1984), "Notes on the Religion in Iran in the 7th and 6th centuries B.C.", *Acta Iranica* 23: 479-491.
- (1985), "On the Evolution of the Early Iranian Fire Temple", *Papers in Honor of Prof. Mary Boyce*, *Acta Iranica* 25.
- (2003), "Independent Media: Archaeological Notes from the Homeland", G. B. Lanfranchi, M. Roaf, R. Rollinger (eds.), *Continuity of Empire (?) Assyria, Media, Persia*, Padova: 233-248.
- Tolstov S. P. (1948), *Drevnij Xorezm*, Moscow.
- Tolstov S. P., Vainberg B. I. (1967), *Koj-Krylgan-Kala*, Moscow.
- Tourovets A. (2005), "Some Reflexions about the Relation between the Architecture of the Northwestern Iran and Urartu. The Layout of the Central Temple of Nush-i Djan.", *Iranica Antiqua* XL: 359-371.
- Vainberg B. I. (1994), "The Kalali-Gir 2 Ritual Center in Ancient Khwarezm", *Bulletin of the Asia Institute* 8: 67-81.
- Vitalone M. (2004), "Fires and the Establishment of Ātaš Bahrāms in the Zoroastrian Tradition", M. Stausberg (ed.), *Zoroastrian Rituals in Context*, Leiden: 424-443.
- Wiesehöfer J. (1996), *Ancient Persia from 550 BC to 650 AD*, London-New York.
- Yamamoto Y. (1979), "The Zoroastrian Temple Cult of Fire in Archaeology and Literature", *Orient* 15: 19-53.