Fire and water: the Bronze Age of the Southern Urals and the Rigveda

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16 FIRE AND WATER: THE BRONZE AGE OF THE SOUTHERN URALS AND THE RIGVEDA

ANDREY EPIMAKHOV AND ALEXANDER LUBOTSKY

16.1 Introduction

It does not often happen that linguistic and archaeological sources allow the creation of a coherent narrative: they are usually separated from each other in time and space and do not meet the necessary prerequisites for a comparative analysis. The archaeological facts must form a clear pattern and demonstrate the existence of a cultural stereotype; the linguistic attribution of the population to which the analyzed archaeological sites belong must be uncontroversial; and, finally, the linguistic sources must provide sufficient information about that cultural stereotype.

In our view, the tradition of constructing wells in the Late Bronze Age, which is quite widespread in the steppe and forest-steppe of Eurasia, is one of those rare examples where a successful comparative analysis is indeed possible. From around the turn of the third to second millennium BC, the wells are consistently combined with furnaces in that area. There are different variants of this unity, but it is best documented in the Sintashta and Petrovka cultures of the Southern Trans-Urals. These combined objects are likely to precede similar ones elsewhere, and it is here that the sources of this tradition and its interpretation must be sought. The numerous attempts at a rational explanation can only partially answer the question of this system's function; even if there was some technological advantage (limited at most) to these "furnace-well" constructions, their builders in the Bronze Age must have justified the system by mythology. The Indo-Iranian linguistic identity of the Sintashta culture has been adopted by the overwhelming majority of specialists, and the rich Indo-Iranian linguistic sources clearly demonstrate the idea of a close relationship between water and fire.

16.2 Sintashta Materials in the System of Archaeological Cultures of the Eurasian Bronze Age

The group of archaeological sites discussed in these pages has been systematically studied for almost fifty years, starting with Gening 1977. At present, the Sintashna culture's chronology and spread have been reliably established (Epimakhov & Krause 2013, Molodin et al. 2014), a primary interpretation of the materials has been provided, and a number of themes have been extensively elaborated, e.g., the population's life support systems, health level, etc. The conclusions of the experts are mostly based not only on archaeological observations, but also on a wide range of analytical data. Since a significant part of the data has already been published (e.g., Gening et al. 1992, Zdanovich 2002, Vinogradov 2003, Epimakhov 2005, Tkachev 2007, Krause & Koryakova 2013, Logvin & Ševnina 2013, Vinogradov & Epimakhov 2013, Kupriyanova & Zdanovich 2015, Zdanovich et al. 2020), we shall limit ourselves to a brief description of the culture's main features.

Sintashta monuments were discovered on the territory of the steppe part of the Southern Urals, within the borders of modern Russia and Kazakhstan (Epimakhov & Chuev 2011, Koryakova & Epimakhov 2014). They are of two main types: fortified settlements and burial grounds (Fig. 16.1). Next to these, there are sporadic examples of open settlements and a few ancient mine workings for the extraction of copper ore. Fortified settlements with a complex layout have only been found in the Trans-Urals and occupy a relatively compact area (approximately 300 × 400 km); many of them are accompanied by burial grounds. The burial mounds have a much wider distribution area: part of the mounds and individual burials were excavated not only in the immediate vicinity of the traces of stationary habitat, but also at a distance of hundreds of kilometers to the west, south, and east of its conditional boundaries. The burial grounds have numerous vivid manifestations of social complexity (armament, a chariot complex, abundant sacrifices of domestic animals, etc.).

All the settlements are located at a low hypsometric level (a few meters above the floodplain) on the banks of the small rivers of the Ural and Tobol basins. The structure of the settlements is characterized by several important features. The external outline of the defense system varies, as does the internal layout (Zdanovich & Batanina 2002). Some of the sites have an oval or round shape (about 140–170 m in diameter). In such cases, the inner space is almost entirely occupied by radially

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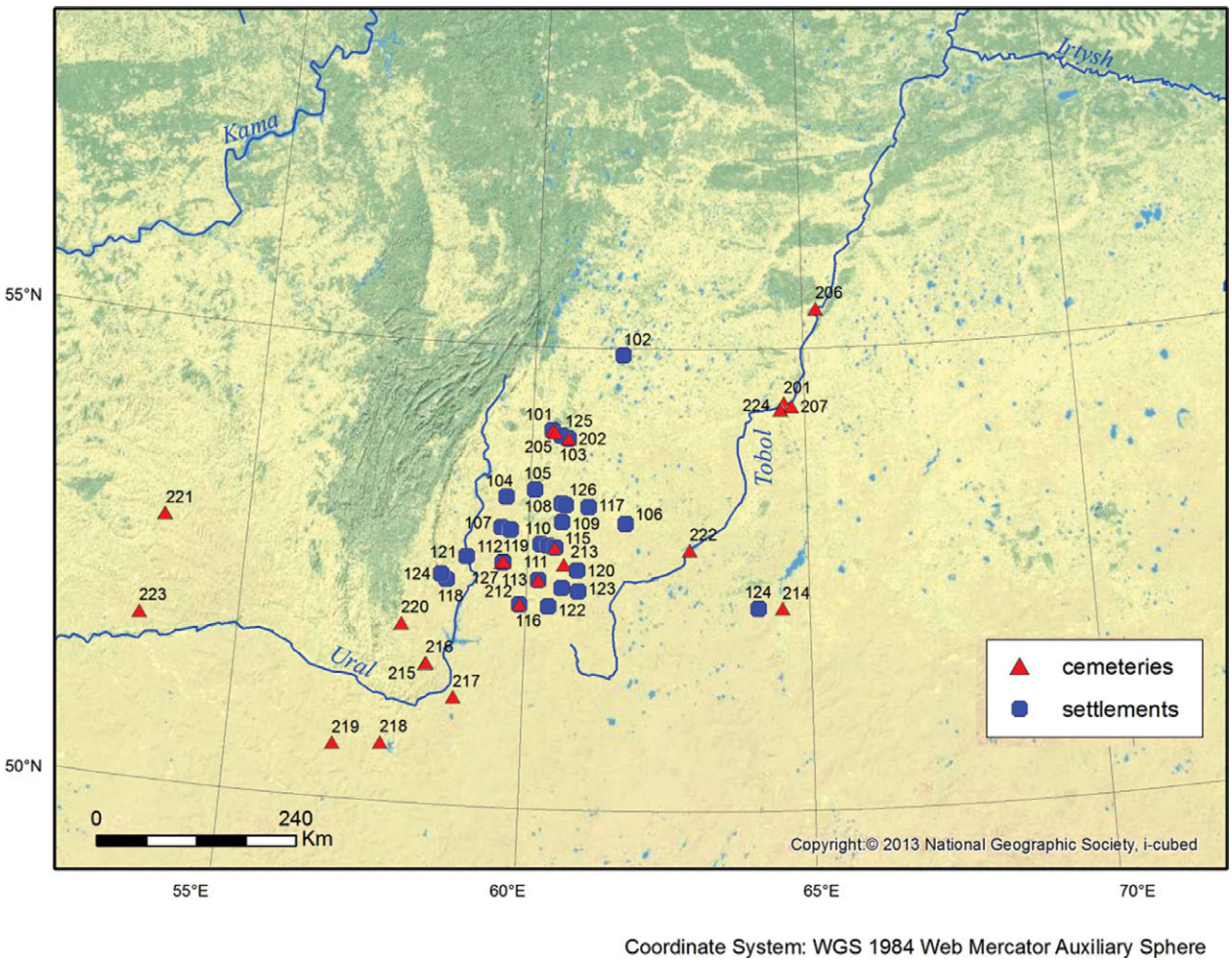

FIGURE 16.1. Sintashta sites. Map. Settlements: 101 – Stepnoe; 102 – Shibaevo I; 103 – Chernorech'e III; 104 – Bakhta; 105 – Parizh; 106 – Isenej; 107 – Kujsak; 108 – Ust'e; 109 – Rodniki; 110 – Konopljanka; 111 – Zhurumbaj; 112 – Arkaim; 113 – Sintashta; 114 – Sintashta II; 115 – Kamennyj Ambar; 116 – Alandskoe; 117 – Chekatai; 118 – Selek; 119 – Sarym-Sakly; 120 – Kamysty; 121 – Kizil'skoe; 122 – Bersuat; 123 – Andreevskoe; 124 – Ulak; 125 – Streletskoe; 126 – Zarechnoe IV; 127 – Kamennyj Brod; 124 – Semiozernoe II. Cemeteries: 201 – Ozernoe 1; 202 – Krivoe Ozero; 203 – Stepnoe M; 204 – Kamennyj Ambar-5; 205 – Stepnoe I; 206 – Carev kurgan; 207 – Ubagan I; 208 – Solnce II; 209 – Bol'shekaraganskij; 210 – Aleksandrovskij IV; 211 – Sintashta; 212 – Solonchanka Ia; 213 – Knjazhenskij; 214 – Bestamak; 215 – Ishkinovka I; 216 – Ishkinovka II; 217 – Novo-Kumakskij; 218 – Zhaman-Kargala I; 219 – Tanabergen II; 220 – Novo-Petrovka; 221 – Malojuldashevo; 222 – Halvaj 3, 5; 223 – Gerasimovskij 2; 224 – Kul'chukaj.

located buildings of rectangular or trapezoidal shape, with exits facing the inner area. The buildings form blocks with common walls, of which the outer wall is the most massive (4–5 m at the base). These sections of the walls together form the main element of the fortification. In other monuments, the results of excavations and geophysical research show a linear layout of the internal space with intermediate streets. Here, the outline of the outer wall is rectangular. The unifying element of the two variants is the similarity of their construction technology, with an absolute predominance of wooden and soil constructions (stone was rarely used, and only as an auxiliary material for covering the outer face of the defensive wall). In all cases, the settlements are surrounded by moats, the depth of which varies greatly (from 0.7–0.9 to 2.5 m). Apparently, this element mainly served for water drainage. In recent years, archaeological evidence of habitat, albeit without traces of buildings, has been found outside the fortifications, in their immediate vicinity (Chechushkov et al. 2018).

The cultural layer contains a complex of finds that is characteristic of settlements of the Bronze Age. The numerous bones of animals (almost exclusively domestic ones: cattle, small cattle, horses, and dogs) clearly illustrate the cattle-breeding specialization of the groups (Kosintzev et al. 2016). Targeted searches for traces of farming have been unsuccessful (Stobbe et al. 2016). The most abundant category of finds concerns fragments of ceramic vessels, whereas other traces of everyday activity are much less documented. However, there is evidence of local metallurgical production, processing of bone and wood, and weaving. In general, the complex of finds reflects the daily life of the settlement inhabitants. It is

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impossible to identify buildings or areas that deviate as far as their architecture or an unusual set of artifacts is concerned. Further, the size of the buildings within one single monument differs only slightly, the largest building reaching 180 to 200 square meters.

Important elements of the interior were the wells and heating devices of various types. The former have been found in all buildings without exception; the latter are not documented everywhere (because they are sometimes difficult to diagnose), but were probably also a universal part of the dwellings.[1]

16.3 Archaeological Manifestations of the Furnace-Well System

There is a rather extensive literature devoted to wells and furnaces, but a detailed and comprehensive study of these elements, in fact, has taken place only in the last decade (Koryakova et al. 2013, Rühl 2016, etc.). As already mentioned, wells have been found in each building. There is a fairly stable stereotype of their location: they are always located near the central axis of the building and close to the outer wall, in the one-third of the space that is farthest from the entrance.[2] Deviations from this "rule" are mainly limited to those cases where the number of wells reaches five to seven (Koryakova et al. 2013: 89, Koryakova & Kuzmina 2017). It is obvious that these numerous wells did not all function simultaneously within the same dwelling, since there are also examples of buildings with a single well. Most likely, the presence of multiple wells is due to long-term use of the building's space or to failure during construction.[3] The construction of the well is determined by its function and the technical capabilities of the builders.

The lower parts of the wells have been better investigated than the upper parts, which have been largely damaged by natural factors. In all well-documented examples, the bottom of the well was found 0.5–0.7 m below the groundwater level. The overall depth (up to 3.7 m) varied depending on the level of the aquifer. It has been reliably established that the lower part of the well (up to 1 m in diameter) had a casing of wattle or planks submerged in water. The space between the casing and the ground wall could be filled with clay mortar (or blocks), which improved the filtration of the water. A layer of coarse sand or pebbles may have served the same purpose. Thanks to the watering of the lower part, wooden details have been preserved, which are usually inaccessible for study in the conditions of the sharply continental climate of the steppe. The archaeological specifics of the upper part of the wells illustrate a variety of technical solutions. First, the form of the upper part is variable (round or subrectangular). Secondly, there are differences in the profile: along with cone-shaped stratigraphic sections, there are examples with an additional step. Finally, there is some difference in the size of well pits at the floor level of the dwelling (from 1.5 to 2.7 m). Unfortunately, there is practically no data at our disposal as to the original appearance of the wellhead, although it clearly existed, ensuring the safety of the inhabitants while also preventing littering.

It should be noted that in the filling of the wells, along with the remnants of everyday life, we find objects that were intentionally placed there.[4] The most obvious of these are traces of sacrifices. Thus, in the settlement of Kamennyi Ambar, numerous lower jaws of sheep have been extracted from the bottom of the well, some of which had been installed vertically along the walls. Interestingly, not all of them were paired. Similar examples can be cited for other settlements (Koryakova et al. 2013: 107). In addition, wooden and stone artifacts as well as pottery fragments have been found in the wells. All of this testifies to the variety of the wells' uses: along with their main function (provision of water), they could, for instance, serve as refrigerators. Given the harsh winter conditions, when ice can be more than one meter thick on small, slow-flowing rivers, and some rivers even freeze to the bottom, the problem of seasonal water supply must have been acute at times. Chemical and palynological data suggest the presence of domestic animals directly in dwellings (Rühl et al. 2016), which made the issue of water supply particularly serious.

Of course, such vital objects as wells were clearly included in mythological and ritual activity, and the same can be said of the various thermal engineering devices found in large numbers within the boundaries of the inhabited space (Grigoriev 2000: 456–470, Grigoriev 2015: 95–106). Despite significant losses due to the damage to these objects, several types stand out (Nikitin & Rusanov 2011).[5] The criteria for differentiation are the size, shape, design, and construction material of the objects (clay and stone). Another important detail is the object's location within the home. Ultimately, all these features are directly

[1] This is clearly seen not only in the excavated sites, but also in those sites for which a geomagnetic survey was performed (Fig. 16.2). Positive anomalies in the respective parts of the buildings are illustrated by calcined areas at the base of the furnaces and calcined material in the filling of the well.

[2] Most probably, this part was where the inhabitants lived most of the time, as this is where the significant finds are concentrated, and where we find the main architectural details, including internal partitions dividing the building space into zones (Fig. 16.3).

[3] This idea is inspired by the almost complete absence of organic residues in the water-filled near-bottom part of some wells. In our opinion, extraction of wooden parts from collapsing wells is hardly realistic in conditions of heavy soil and groundwater intake. Therefore, these wells were not put into operation.

[4] The distinction between these categories is not always possible and the number of deliberately placed artifacts could have been higher. Obviously, the semantics of the artifact depends heavily on the context in which it is found.

[5] Often, in the process of excavation, only areas of calcination of the soil without additional details are found. These are not necessarily traces of an open hearth (campfire). The buildings functioned for quite a long time (probably for several decades), as evidenced by signs of repairs, so part of the furnaces could break down and be transferred to new places.

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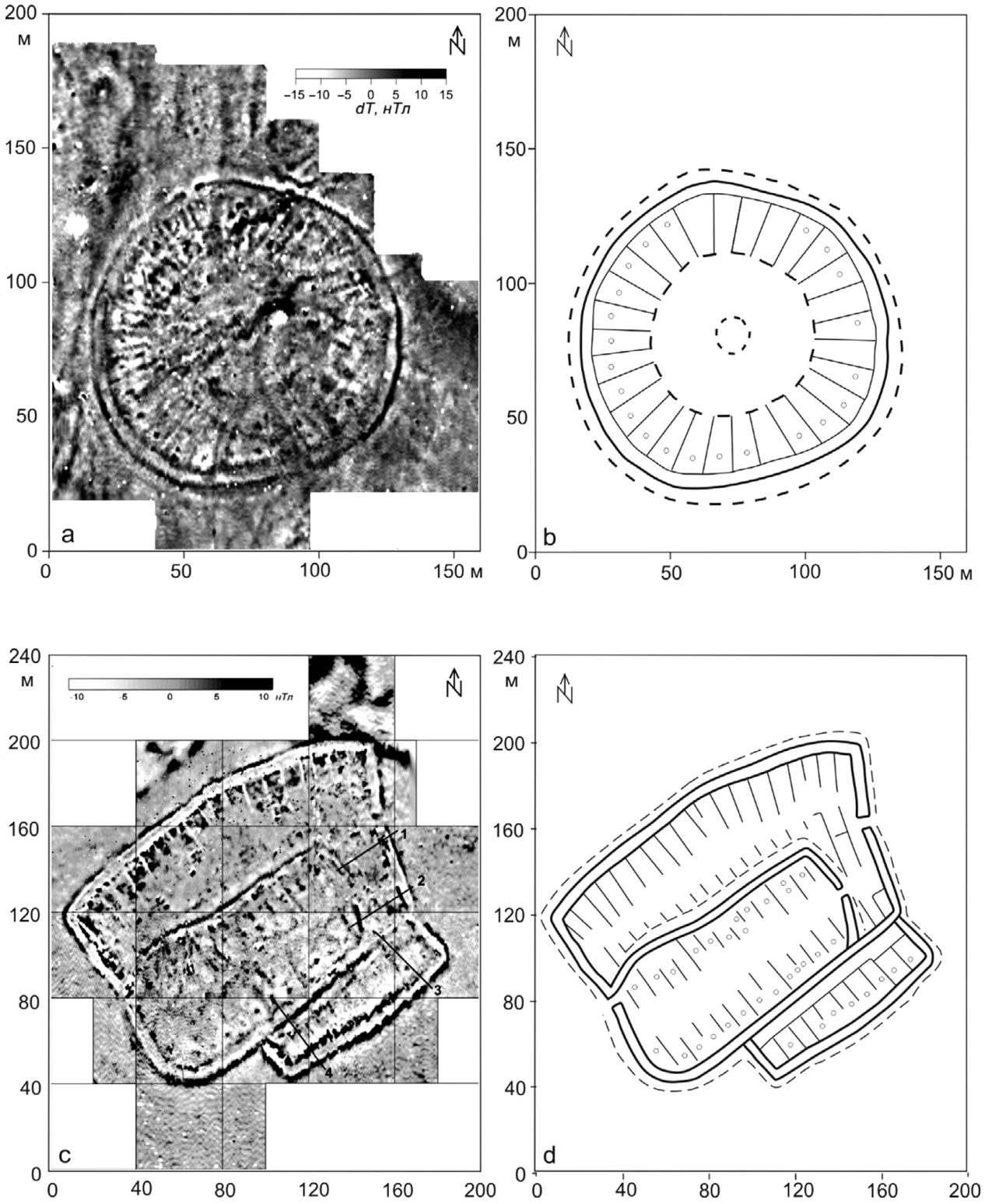

FIGURE 16.2. Sintashta fortified settlements on the basis of geomagnetic survey. Types of planning: a, b – Sarym-Sakly, c, d – Andreevskoe (after Fedorova et al. 2013; fig. 3; Noskevich et al. 2014; fig. 2).

or indirectly related to the structure's function (heating, cooking, smelting metal from ore, casting, and firing ceramics). Some of the elements cannot be unambiguously interpreted, e.g., the rectangular calcined stains with coal inclusions at the end wall, defined by the author of the excavation as a "fire-place" (Gening et al. 1992: 74–78) without any additional argumentation. Of the seven types, only two are associated with wells and will be now discussed in greater detail.

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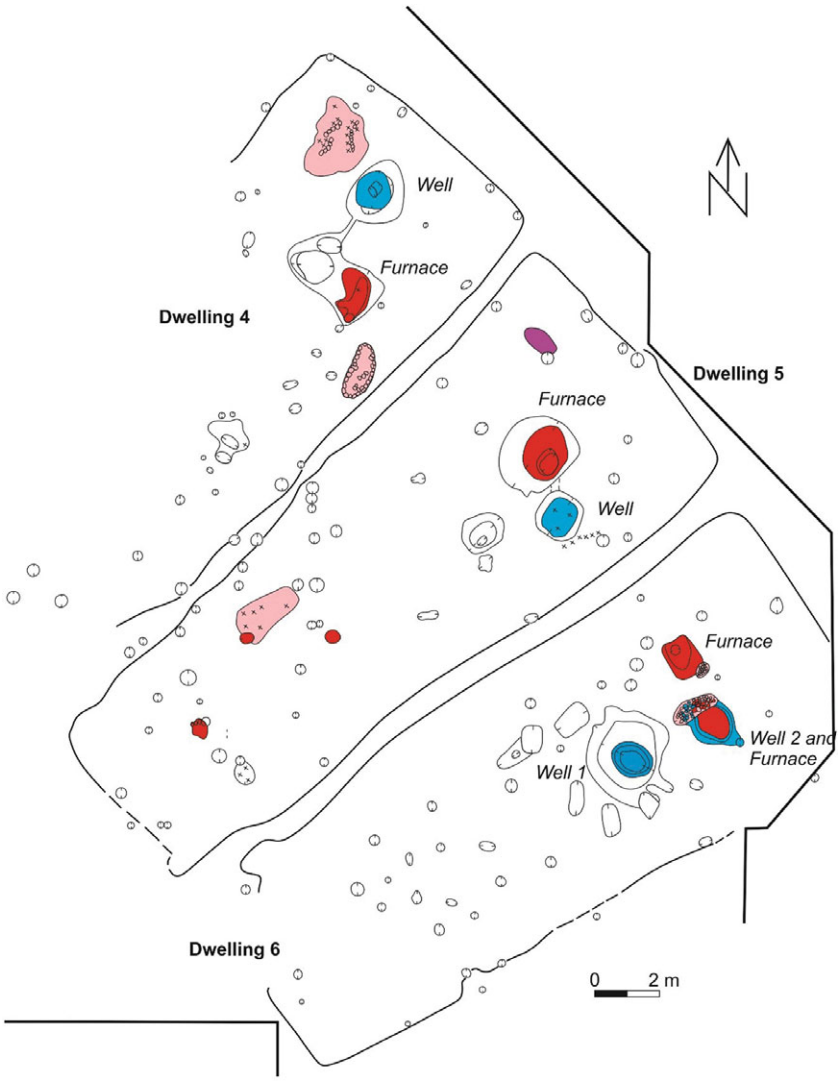

FIGURE 16.3. Sintashta settlement. Dwellings 4–6 (after Gening, Zdanovich, & Gening 1992: fig. 14).

Furnaces of the first type are connected to the well through the blower channel. As building materials, different types of clay solutions were used. For such furnaces, the diameter of the hearth can usually be determined (0.8–1 m); less often there are traces of the groove duct. The reason for this difference is the poor preservation of the floor surface near the well due to the subsidence of the soil. Experimental verification of the performance of this design has demonstrated its polyfunctionality. The inflow of air due to the temperature difference between the well and the furnace ensured that the fire in the hearth burned steadily. This technological detail made it possible to use the complex well kiln for heating, cooking food, and melting metal for pouring into molds. The latter, however, required additional air injection with the help of bellows.

The second type of furnace is also connected to the well; sometimes the duct between them is also preserved. The furnaces differ in their size and design. The diameter of the hearth is often about 30 cm, and the base is lined with small stones. On the basis of its small size (it is easier to reach and maintain the required temperature regime), it has been suggested that this type of furnace could be used in the process of smelting copper from ore (Nikitin & Rusanov 2011: 309). Traces of fire and ruined furnace constructions are often found not only near the wells, but also in their filling.

It is important to mention that the tradition of uniting wells and furnaces in the same space is also well known outside the Sintashta culture. Despite the changes in the building tradition and the abandonment of dense block construction in the subsequent period of the Late Bronze Age, a number of settlements show the relationship between wells and furnaces (Alaeva & Rassamakhin 2018). From the point of view of cultural attribution, the most famous examples come from the Alakul' and Alakul'-Fedorovka sites of the Andronovo culture. The tradition apparently survives up to the Final Bronze Age (Grigoriev 2013, Malyutina & Petrova 2018). The territory of its distribution is also impressive: the steppe and forest-steppe of Eastern Europe, the Urals, and Kazakhstan. There must have been powerful reasons for the stability and scale of the tradition. Specialists

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FIGURE 16.4. Kamennyi Ambar settlement. Dwelling 2. A decommissioned well 2 and the basement of a furnace above it.

have usually focused on rational explanations, searching first of all for evidence of the use of the furnace in the field of metal production; there are many arguments for this in the form of archaeological finds and experiments. Along with this, there has been an attempt to see in the combination of well and furnace the idea of combining the elements of water and fire (Zdanovich et al. 2018: 97). From this point of view, it is telling that heat engineering devices were often placed above wells that had already been decommissioned and covered with clay (Fig. 16.4). The experience of one of the authors during the excavation of the Kamennyi Ambar settlement and the observations of other specialists (Grigoriev 2013: 97–98, Koryakova & Kuz'mina 2017: 99) show that the full conservation of a well is not a simple task: the backfill soil – less dense than the enclosing one – takes up moisture according to the capillary principle, not to mention its gradual subsidence. Accordingly, kindling and maintaining fire on a wet base was clearly more difficult than on dry areas of the floor. However, the inhabitants of the settlements apparently were not guided by purely utilitarian considerations.

The stable combination of wells and furnaces that we are interested in must have had sacred reasons as well as rational ones. If the creation of such a system may be partly justified for the purpose of metal production (Grigoriev 2015), for domestic needs it is clearly redundant. There is even less reason to search for the rational roots of the tradition of placing heating devices directly above abandoned wells. The stability of the tradition (for almost the entire 2nd millennium BC) and its spread point to its ideological roots, as is also indirectly indicated by the fact that the large furnace near the well had no narrowly specialized function.[6] This was the most popular and versatile type, the main advantage in the design being the possibility of maintaining constant fire with minimal fuel consumption (Rusanov & Kupriyanov 2003: 232).

The archaeological considerations cannot bring us further than a very general idea about the sacred fire of the hearth. To specify these ideas, we have to closely analyze the Indo-Iranian linguistic sources.

16.4 The Indo-Iranian 'Grandson of the Waters'

There is a broadly shared consensus that the Sintashta–Petrovka culture was inhabited by speakers of Proto-Indo-Iranian (cf. Anthony 2007: 408ff.), so we will have to look at the oldest Indo-Iranian texts (the Avesta for Iranian and the Rigveda for Indo-Aryan) to identify elements of the mythology or religious belief that can help us understand the archaeological findings. Evidently, we have first and foremost to consider the enigmatic Indo-Iranian deity Apām Napāt (Sanskrit Apā́m Nápāt, Avestan Apąm Napāt), literally the 'Grandson of the Waters'. In the Vedas, this name most often refers to an aspect or form of Agni, the god of fire.[7] To call the god of fire the Grandson of the Waters "might seem singularly inappropriate" (Boyce 1986), which gave rise to a plethora of interpretations in the literature: Apām Napāt was taken as the sun sinking into the ocean, as lightning, as an aquatic deity, as Soma, as Varuṇa (see Findly 1979 for an overview of the older literature), or even as "oil flares on the Caspian shores" (Puhvel 1987: 279).

Because of the wildly differing approaches to this deity, it seems important to take a close look at the textual evidence to determine which aspect of fire is called the 'Grandson of the Waters' and why. Further, we must search for common features of this deity in both branches and to try to reconstruct the Indo-Iranian situation.

[6] As mentioned above, the low-volume furnaces with a floor diameter of up to 0.3–0.4 m were optimal for smelting metal from ore.

[7] He is also called *apā́m gárbha* 'embryo of the waters' in a few passages.

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16.5 Avestan Apąm Napāt

The Iranian evidence is relatively limited, so let us start with the Avestan deity Apąm Napāt. All we know about him has been conveniently presented by Mary Boyce in an article in *Encyclopædia Iranica*. As she indicates, "both the Avestan texts and Zoroastrian cult suggest that he is a great divinity, who has become partly overshadowed." He is mentioned in texts devoted to other divinities of water, but no hymn survives in his honor. In the Avesta, there is only one whole verse in honor of Apąm Napāt:

Yt 19.52 *bərəzaṇtəm ahurəm xšaθrīm xšaētəm*, *apąm napātəm auruuaṯ. aspəm yazamaide*, *aršānəm zauuanō.sum*, *yō nərəuš daδa yō nərəuš tataša*, *yō upāpō yazatō*, *sruṯ.gaošōtəmō asti yezimnō*

'We worship the lofty, powerful Lord, the bright Apąm Napāt, who has swift horses, the male who thrives through oblations,[8] who created men, who shaped men; [we worship] the aquatic deity who better than anybody lends a listening ear when being worshipped.'

Apąm Napāt is called here an 'aquatic deity' (*upāpō yazatō*), but this does not necessarily mean that he lives *in* the water, as the Avestan adjective *upāpa-* is also used for beavers and otters, among other animals. At the same time, the passage contains several important clues for identifying Apąm Napāt (next to being an aquatic deity) as fire/sun. The fact that Apąm Napāt is called *xšaēta-* 'bright' does not say much, as this is a reasonably standard epithet for various deities and heroes, but the epithet *auruuaṯ.aspa-* 'having swift horses' in the Avesta is used exclusively of Apąm Napāt and the sun.[9] Moreover, it makes more sense to call fire 'thriving through oblations' than any other divinity. The accessibility of Apąm Napāt with his listening ear may be an indication that he is always around.

The fiery nature of Apąm Napāt and its closeness to the worshipper can also be encountered in other stray mentions of this deity scattered throughout the Avesta.

Yt 8.4 says of Tištriia 'Sirius': *yahmāṯ haca bərəzāṯ haosrauuaŋhəm, apąm nafəδraṯ haca ciθrəm* 'from whose height [arises] (his) glory, from Apąm Napāt (his) [= Tištrya's] visible form' (translation by Panaino 1990: 30). This would mean that Apąm Napāt (as fire/sun) creates the shining form of the star Tištriia. Apąm Napāt was further a foremost helper of Tištriia and responsible for the production of pure waters (Panaino 1995: 124).

In the same text, it is said (Yt 8.34): *apąm napå̊sə.tå̊ āpō . . . aŋᵛhe astuuaite šōiθrō.baxtå̊ vī.baxšaiti* 'Apąm Napāt distributes to the material world those waters assigned to dwelling places.' Apąm Napāt is thus directly related to the abodes of the people.

We further learn from the Avesta that Apąm Napāt, together with Miθra (who is closely associated with the sun), furthers all supreme authorities of countries and pacifies those countries that are in turmoil (Yt 13.95),[10] and that Apąm Napāt, together with Miθra and fire, is involved in the protection of *xᵛarənah*, the symbol of sovereignty and kingship, against forces of evil.[11] In Yt 19.51, when *xᵛarənah* escapes into the mythical lake Vourukaša, Apąm Napāt says that he is going to get it "at the bottom of the unfathomable lake, at the bottom of the deep bays."

Finally, it is important that for the Zoroastrians, "in the divisions of the day . . . the morning is set under the protection of Mithra, the afternoon under that of Apąm Napāt" (Boyce 1986). Since the names of the months and divisions of the day are normally derived from the festivals or rituals held at those periods, it seems likely that the morning was called after a ritual for the rising sun (Miθra), and the afternoon after one for the setting sun (Apąm Napāt).

As far as the Iranian facts are concerned, we can conclude that Apąm Napāt combines the features of an aquatic deity and those of fire/sun, especially the setting sun. It is probably for this reason that Apąm Napāt says that he is going to get *xᵛarənah* at the bottom of lake Vourukaša. Further, he is close to the people, providing them with pure water and a listening ear.

16.6 The Hymn to Apāṃ Napāt in the Rigveda (2.35)

In the Rigveda, Apāṃ Napāt is mentioned ca. 30 times, but 2.35 is the only hymn that is dedicated to him. The hymn belongs to the most archaic layer of the RV and was often included in anthologies, even though much of it was considered enigmatic. On the one hand, Apāṃ Napāt is the sacrificial fire at the end of the hymn, but at the beginning, he is surrounded and nurtured by the waters, which was seen as a paradox. However, with the archaeological evidence for the Indo-Iranian "furnace-well" constructions in mind, we may try to read this hymn not as a paradox, but as a poetic description of the ritual ghee libation into the fire, an original form of the later *agnihotra* ritual, an oblation into the fire to help the sun, twice daily, at each sunset and sunrise. Within the Vedic system of beliefs, the sun is just another form of the god of fire, Agni, who at sunset sinks into the ocean that is situated beneath the earth.

Because of the importance of the hymn to our understanding of the nature of Apāṃ Napāt, we present it in its entirety with a few comments. The translation is mostly based on that of Jamison (Jamison & Brereton, 2014) and Geldner.

2.35.1

úpem asṛkṣi vājayúr vacasyā́ṃ, cáno dadhīta nādyó gíro me |
apā́ṃ nápād āśuhémā kuvít sá, supéśasas karati jóṣiṣad dhí ||

'I have released my eloquence in pursuit of prizes. The grandson of the rivers should take delight in my hymns. Isn't he, Apāṃ Napāt, of

[8] For the interpretation of *zauuanō.sum* as 'thriving through oblations', see Kellens 1974: 102.

[9] The phrase *bərəzaṇtəm ahurəm xšaθrīm xšaētəm apąm napātəm auruuaṯ.aspəm* is found at six different places in the Avesta, which shows that this is a standard titulature of Apąm Napāt. Sometimes it is shortened to *bərəzaṇt- ahura-*, and in the Zoroastrian literature, Apąm Napāt is usually called Burz (< *bərəzaṇt-*); see Panaino 1995.

[10] On this passage, see further Gershevitch 1959: 27–29, 59–60.

[11] As indicated by Sadovski (2018: 378), in the Avestan liturgies, Apąm Napāt occupies the place corresponding to the Vedic deity *Tanū-napāt-*, a form of Agni (fire), which again points to his fiery nature.

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swift impulse? He will make [the songs] well-appreciated, since he will enjoy them.'

āśuhéman-, lit. 'of swift impulse', a standing epithet of Apāṃ Napāt (also found in 2.1.5, 2.31.6, and 7.47.2), is often translated as 'impelling the swift ones', i.e., that Apāṃ Napāt is a charioteer, but in RV 1.116.2 this word characterizes a horse, so it most likely refers to a horse that quickly responds to steering. Cf. also the Avestan passage Yt 19.52, discussed above, where it is said of him: *sruṯ.gaošōtəmō asti yezimnō* 'who better than anybody lends a listening ear when being worshipped'.

supéśas-, lit. 'well-ornamented', here clearly expresses the desire of the poet to get good rewards for this hymn.

2.35.2

imáṃ sᵤv àsmai hṛdá ā́ sútaṣṭam, mántraṃ vocema kuvíd asya védat |
apā́ṃ nápād asurᵧàsya mahnā́, víśvānᵢy aryó bhúvanā jajāna ||

'This well-crafted thought we would speak to him from our heart. He will surely get knowledge of it? The noble Apāṃ Napāt created all living beings by the greatness of his lordly power.'

The last line of the stanza echoes 2.40.5a *víśvānᵢy anyó bhúvanā jajā́na* 'the one created all living beings . . .', where it refers to Soma. Since it is often said of various gods that they have created all beings, this message is not specific and presumably only used to propitiate Apāṃ Napāt, though see the Avestan passage Yt 19.52, cited above.

2.35.3

sám anyā́ yántᵢy úpa yantᵢy anyā́ḥ, samānám ūrvā́ṃ nadᵧàḥ pṛṇanti |
tám ū śúciṃ śúcayo dīdivā́ṃsam, apā́ṃ nápātam pári tasthur āpaḥ ||

'Some come together; others approach: (but) it is one and the same enclosure that the rivers fill. The pure waters have surrounded the pure, burning Apāṃ Napāt.'

ūrvā́ṃ. The word *ūrvá-* literally means 'enclosure', a common expression being *gávya- ūrvá-* 'cow pen'. The poet is referring to the myth of releasing the waters = cows from their enclosure when they were captured there by a demon. This image would be appropriate in the case of a well, too: the waters, wherever they are, are connected with each other and fill every enclosure.

dīdivā́ṃsam. As argued in Lubotsky 2011: 122f., the perfect *dīdā́ya* does not mean 'to shine', but 'to burn'. If we take the passage literally (and why shouldn't we?), the poet sees the burning fire in front of him surrounded by waters.

śúci- 'bright, shining' often has the connotation 'clean, pure'.[12] This may be important in view of the *aponaptrīya* ritual (see below).

2.35.4

tám ásmerā yuvatáyo yúvānam, marmṛjyámānāḥ pári yantᵢy ā́paḥ |
sá śukrébhiḥ śíkvabhī revád asmé, dīdā́yānidhmó ghṛtánirṇig apsú ||

'The youthful waters, without smiling, circle around the youth while they groom him. With his gleaming, dexterous (flames), he burns richly for us without fuel, with his garment of ghee, in the waters.'

ásmerāḥ 'not smiling'. It is not quite clear what exactly this epithet seeks to express. In the Rigveda, smiling is associated with the Dawn, with young women, with lightning (cf. recently Pinault 2013: 29ff.) and can have erotic connotations. Since, in stanza 9, a lightning flash will appear above the waters, it is likely that the image refers to water in a well, which is dark and gloomy and does not shine (= smile) until illuminated by fire (see below).

The image of Apāṃ Napāt burning (as if) without fuel among the waters is repeated in 10.30.4a *yó anidhmó dī́dayad apsv àntár* 'who burns without fuel within the waters'. It perfectly fits the archaeological findings that fire in an oven connected with a well steadily burns even without extensive fuel.

2.35.5

asmai tisró avyathᵢyā́ya nā́rīr, devā́ya devī́r didhiṣantᵢy ánnam |
kᵣ́tā ivópa hí prasarsré apsú, sá pīyū́ṣaṃ dhayati pūrvasū́nām ||

'Three women goddesses try to give food to this god so that he will not waver. He sucks the beestings of those who give birth before others, since he keeps stretching himself out into the waters like *kᵣ́tāḥ*.'

The identity of the three goddesses has always been considered unclear (see Jamison, Comm. ad loc.), but it seems attractive to assume that the poet is referring to three so-called *srúc-*, sacrificial ladles that were used for pouring ghee into the fire (Renou 1953: 171), i.e., *juhū́* ('tongue'), *upabhṛ́t* ('support'), and *dhruvā́* ('stable, stationary'). The *juhū́* is used to offer oblations; the *upabhṛ́t* supports the *juhū́* when it is lifted'; and the *dhruvā́* remains stationary as the oblations are scooped from it. The names of the ladles are all feminine, which explains why they are called goddesses. They form a stable triad; cf., for instance, Atharvaveda Śaunakīya 18.4.5 *juhū́r dādhāra dyā́m upabhṛ́d antárikṣaṃ dhruvā́ dādhāra pᵣthivī́ṃ pratiṣṭhā́m* 'The *juhū́* ladle sustains the sky, the *upabhṛ́t* ladle the atmosphere; the *dhruvā́* ladle sustains the earth, the support'.

The meaning of *kᵣ́tāḥ* is unknown, so the simile unfortunately remains obscure.

pūrvasū́- is usually translated 'who give birth for the first time', but *pūrva-* hardly ever means 'for the first time' in the Vedic compounds, rather 'before others, in front of others'; compare *pūrva-jā́-* 'first-born (before others)' (RV), *pūrva-pā́-* 'drinking before others' (RV), *pūrva-bhā́j-* 'receiving the share before others, privileged' (RV), etc. The three sacrificial ladles are said to give birth before others as this is the first oblation.

With beestings the poet is clearly referring to the clarified butter (ghee), which is quite similar in color and texture. The stanza describes a ghee oblation.

prasarsré apsú. We take *apsú* as a locative of direction: the fire keeps stretching toward the waters, because the ghee is flowing through the channel toward the well.

2.35.6

áśvasyₐátra jánimāsyá ca svàr[13]*, druhó riṣáḥ sampᵣ́caḥ pāhi sūrī́n |*
āmā́su pūrṣú paró apramᵣṣyáṃ, nā́rātayo ví naśan nā́nᵣtāni ||

'Here is the birth of the horse and of this sun. Protect the patrons from deceit, from harm, from contamination (with

[12] Geldner mostly translated *śúci-* with 'rein, lauter', while Jamison and Brereton usually opt for 'blazing, gleaming', which is less fitting in contexts where waters and Soma are the carriers of this epithet.

[13] For the monosyllabic *svàr*, see Klein 1985: I, 96. This seems to be a very archaic form, testifying also to an early date of the hymn.

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them)! Neither hostilities nor untruths will reach him who is not to be disregarded in the raw fortresses, (even) far away.'

As indicated by Jamison (Comm. ad loc.), the "horse" must be the sun and "this sun" Agni (fire).

āmā́su pūrṣú 'in the raw fortresses' can hardly refer to 'furnaces made of unbaked clay' or 'furnaces made of unfired brick', as understood in all modern translations. Furnaces made of fired brick are known only since Roman times. The raw fortresses may refer to the wells, where our fire is stretching to.

'not to be disregarded (even) far away', i.e., everybody will see the fire, even from afar, when it reaches the well. The poet is preparing the culmination, which is going to happen very soon.

2.35.7

svá ā́ dáme sudúghā yásya dhenúḥ, svadhā́m pīpāya subhᵤv ánnam atti |
só [a]pā́m nápād ūrjáyann apsᵤv àntár, vasudéyāya vidhaté ví bhāti ||

'He who has a good-milking milch cow in his own house, he swells with independence; he eats good food. So Apāṃ Napāt, being nourished within the waters, radiates widely to give goods to the one who honors him.'

We may interpret this stanza as referring to a well with waters providing nourishment for the fire. Thus, when a furnace (= fire's own house) is connected with a well, fire can burn independently.

All of a sudden, the fire 'radiates widely'. Something must have happened since we saw the young, timid fire. It seems likely that at this moment, the burning ghee is approaching the well through the channel, and the fire glow becomes visible.

2.35.8

yó apsᵤv ā́ śúcinā daivᵢyena, ṛtā́vājasra urviyā́ vibhā́ti |
vayā́ íd anyā́ bhúvanānᵢy asya, prá jāyante vīrúdhaś ca prajā́bhiḥ ||

'He who in the waters, truthful and inexhaustible, radiates far and wide with his pure heavenly power; the other beings [= fires] are just his twigs, and the plants propagate themselves through their progeny [like this].'

The fire is now in the waters and "radiates far and wide." Presumably, the ghee has reached the well and keeps burning on the surface of the water. This is the central part of the hymn (which often contains the most important information) and describes the culmination of the ritual.

'the other beings [= fires] are just his twigs', i.e., the other fires are mere twigs of Agni (Jamison, Comm.). Here, the poet wants to stress that the fire burning in the well is identical with the sun rising from the waters.

2.35.9

apā́m nápād ā́ hᵤy ásthād upásthaṃ, jihmā́nām ūrdhvó vidyútaṃ vásānaḥ | tásya jyéṣṭham mahimā́naṃ váhantīr, híraṇyavarṇāḥ pári yanti yahvī́ḥ ||

'Since Apāṃ Napāt, clothing himself in the lightning flash, has mounted the lap of those who are horizontal, (himself) erect, the golden-hued maidens circle around him, transporting his preeminent greatness.'

This stanza becomes understandable if we envisage burning ghee falling into the well. Presumably, when ghee hits the (lap of the) waters, a flame suddenly shoots up like a lightning flash. The waters turn a golden color by reflection, while the ghee keeps burning on the water.

In this way, the ritual creates a spectacular reenactment of the sun rising from the waters. A similar spectacular "lightning" is part of the so-called *pravargya* ritual, which has been described by Jan Houben in a 2000 article.

2.35.10

híraṇyarūpaḥ sá híraṇyasaṃdṛg, apā́m nápāt séd u híraṇyavarṇaḥ |
hiraṇyáyāt pári yóner niṣádyā, hiraṇyadā́ dadatᵢy ánnam asmai ||

'Golden-formed, he has a golden appearance; and Apāṃ Napāt is golden-hued, (coming) out of a golden womb after he has settled down. The givers of gold give food to him.'

After the explosion, burning ghee is still coming from the furnace and continues burning on the surface of the water. "The givers of gold" can simply be the sacrificial ladles again, providing Apāṃ Napāt with gold, i.e., ghee (see also the next stanza). The golden womb refers to the furnace.

2.35.11

tád asyā́nīkam utá cā́ru nā́ma-, -apīcᵢyàṃ vardhate náptur apā́m |
yám indháte yuvatáyaḥ sám itthā́, híraṇyavarṇaṃ ghṛtám ánnam asya ||

'That face of his and the dear, secret name of Apāṃ Napāt grow strong, whom the youthful women together kindle in this way: golden-hued ghee is food for him.'

This stanza identifies Apāṃ Napāt "as the secret name of Agni" (Jamison, Comm.).

2.35.12

asmaí bahūnā́m avamā́ya sákhye, yajñaír vidhema námasā havírbhiḥ |
sáṃ sā́nu mā́rjmi dídhiṣāmi bílmair, dádhāmᵢy ánnaiḥ pári vanda ṛgbhíḥ ||

'To him, the closest comrade of many, we would like to serve with sacrifices, with reverence, with oblations. I groom his back, I seek to provide (him) with wood shavings, I provide (him) with food, I extol (him) with verses.'

This is a domestic ritual, so the poet does everything himself, instead of several priests.

2.35.13

sá īṃ vṛ́ṣā janayat tā́su gárbhaṃ, sá īṃ śíśur dhayati táṃ rihanti |
só [a]pā́m nápād ánabhimlātavarṇo, 'ᵈnyásyevehá tanᵤvà viveṣa ||

'As bull, he begets the embryo in these (waters). As infant, he sucks them; they lick him. That Grandson of the Waters, whose color never fades, has toiled here as if with the body of another.'

The purposely enigmatic formulation of the first half of the stanza can be understood in the sense that the fire, when just kindled (= the infant), gets support of the draft of the waters, whereas the mature fire (= the bull) throws drops of burning ghee into the waters, which can be seen as his semen. This interpretation seems to be supported by the traces of ashes in the Sintashta–Petrovka wells.

'with the body of another'. The poet is again referring to the unity of various aspects of Agni (Fire), stressing the point that the fire he kindles is actually the sun.

2.35.14

asmín padé paramé tasthivā́ṃsam, adhvasmábhir viśváhā dīdivā́ṃsam |
ā́po náptre ghṛtám ánnaṃ váhantīḥ, svayám átkaiḥ pári dīyanti yahvī́ḥ ||

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'Him taking stand in this most distant place, constantly burning with not smoking (flames) – the waters bringing ghee as food to the Grandson (of the Waters), the maidens fly encircling (him) with themselves as his cloaks.'

padé paramé 'most distant place'. The interpretation of these words is controversial (Jamison & Brereton translate 'highest footprint'). If we take this expression literally, fire is now burning in the well, which was farthest from the entrance.

The first line is repeated almost verbatim in 1.72.4cd *vidán márto nemádhitā cikitvā́n, agním padé paramé tasthivā́ṃsam* || 'In the opposite position a mortal, perceiving him, found Agni standing on the highest track' (Jamison & Brereton).

Unlike in the beginning of the hymn, the waters now transport ghee because the fire is burning on the surface of the waters.

2.35.15

áyāṃsam agne sukṣitíṃ jánāya-, -áyāṃsam u maghávadbhyaḥ suvṛ́ktim | víśvaṃ tád bhadráṃ yád ávanti devā́, bṛ́had vadema vidáthe suvī́rāḥ ||

'I have proffered a good dwelling place to the people, o Agni, and I have proffered a well-twisted (hymn) to the bounteous ones. What the gods support, all that is fortunate. May we speak loftily at the ritual distribution, in possession of good heroes.'

In this final stanza, the poet states that by composing and performing his hymn to Apāṃ Napāt, he proffered a good dwelling to the people, which is an important indication that Apāṃ Napāt is directly related to dwellings. It is also evident that Apāṃ Napāt is equivalent to Agni, god of fire.

16.7 RV 2.35: Conclusions

The preceding analysis shows that the whole hymn can indeed be seen as a description of a ghee libation into the fire, which burns next to a well, thus bearing textual evidence of a "furnace-well" construction. This ghee libation has many correspondences with the later *agnihotra* ritual, performed twice daily. As argued by Bodewitz (1976: 3), "accompanying and magically maintaining the cosmic process of sunset and sunrise … are the central functions of the agnihotra. … The agnihotra must transport the sun, already weakened at the end of the day, through the dangerous darkness and coolness of the night. … Therefore, the evening agnihotra is primary. It is the real offering into Agni."

In several passages in the Rigveda (2.31.6, 6.50.13, 10.149.2), Apāṃ Napāt is mentioned next to Savitar, and in 1.22.6 is even identified with him (*apā́ṃ nápātam ávase, savitā́ram úpa stuhi* 'Praise Apāṃ Napāt, Savitar, for help'). Savitar is closely related to the setting sun and his main activity takes place in the evening (cf. most recently Oberlies 2012: 159–161), since he presumably is responsible for transporting the sun to the east during the night. All this may be seen as a parallel to the Iranian situation, where Apām Napāt is associated with the afternoon.

16.8 The Vedic *aponaptrīya* Ritual

In later Vedic texts, Apāṃ Napāt is especially connected with the *aponaptrīya* ritual, an oblation consisting of mixing the water drawn from a river on the day prior to the Soma pressing with the water drawn on the morning of the pressing itself. While drawing the water, the Hotar priest recites verses from the Rigveda (hymn 10.33), where stanza 3 reads:

10.30.3

ádhvaryavo 'ₐpá itā samudrám, apā́ṃ nápātaṃ havíṣā yajadhvam | sá vo dadad ūrmím adyā́ súpūtaṃ, tásmai sómam mádhumantaṃ sunota ||

'O Adhvaryus (= priests), go to the waters, to the sea. Worship Apāṃ Napāt with your oblation. He will give you the well-purified wave today. For him press the sweet Soma.'

Here, Apāṃ Napāt is specifically invoked to make the water pure, and this function of his may be rather ancient. Characteristically, the water in the *aponaptrīya* ritual must be drawn in the evening and then again in the morning, which must be a reminiscence of the evening *agnihotra* ritual to Apāṃ Napāt.

16.9 An Indo-Iranian Reconstruction

Based on textual evidence, we can reconstruct a number of features of Apām Napāt for the common Indo-Iranian period (see Table 16.1).

The idea that Apāṃ Napāt is the setting sun, which seems essentially correct, was already expressed by Max Müller in an 1856 lecture (in print, 1868: 82), which was one of the first attempts to understand Apāṃ Napāt's nature.

TABLE 16.1. Features of Apām Napāt reconstructed for the common Indo-Iranian period.

Proto-Indo-Iranian	Avesta	Rigveda
domestic fire, close to the people	"better than anybody lends a listening ear"	"the closest comrade of many," "of swift impulse"
connected to dwelling places	distributes water to dwelling places	provides good dwelling places to the people
creator of beings	virile, creator of men	created all living beings, begets the embryo in the waters
provides pure waters	responsible for pure waters	gives the "well-purified wave" for the Soma ritual
associated with the setting sun	dives into the lake Vourukaṣa; is responsible for the afternoon	associated with Savitar/the setting sun

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16.10 An Indo-European Myth?

Since the work of George Dumézil (1963, 1973), it has become customary in comparative Indo-European mythology (cf. recently Oettinger 2009) to connect Apām Napāt with some myths preserved in Old Irish and Roman sources. The idea is that Roman Neptūnus and the Old Irish deity Nechtan are etymologically related to Indo-Iranian Napāt (which is contestable) and that these two divinities preside over a well with some fiery essence hidden in the waters. To combine the stories into one myth, a lot of special pleading is necessary (for a criticism, see Mallory & Adams 1997: 203–4 and, in greater detail, Jendza 2013), but even if there was such a Proto-Indo-European myth, it was only in the Indo-Iranian period that the intertwining of water and fire had acquired such an important place in religious belief.

16.11 Conclusion

Due to their specificity, archaeological facts do not always lend themselves to unambiguous interpretation. Therefore, archaeology is constantly searching for outside sources to confirm or reject its hypotheses. In the past decade, ancient DNA analysis has become such a source. Yet another potential source of information is the study of the ancient texts. In our case, the study of the hymns of the Rigveda and Avesta has shown that the "furnace-well" system of the Sintashta culture was used for the ritual (consisting of an oblation of ghee into the domestic fire) to help the sun through the night: burning ghee from the furnace reached the well and thus reenacted the rising sun. On a more profane level, the persistence of this system may be explained by the Indo-Iranian belief that the domestic fire provides pure, clean water.

The synthesis of archaeological and linguistic information in our example demonstrates that the philological study of the old texts can also profit from this collaboration: archaeology may offer a key to explaining obscure passages in the written sources. The results of the excavations make it possible to interpret the complex hymn of the Rigveda more accurately and to vividly illustrate the Indo-Iranian origin of the idea of the "Grandson of the Waters."

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