



“ELEPHANT AYURVEDA” AT THE 18TH-CENTURY RUSSIAN COURT: MEDICAL PLURALISM, TECHNOLOGY TRANSFER, AND AVATARS OF POWER

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Abstract: The article analyses Russian documents of the eighteenth century related to the delivery of elephants to the Russian court, their provisioning and medical treatment. The study focuses on the political and technological aspects of the animals' life. The relocation of elephants from eastern realms to Moscow and St Petersburg took place within the regime of animal diplomacy and was conditioned by the status of the animals as avatars of power. The political charisma ascribed to elephants encouraged both parties — the donor and the recipient of living gifts — to put considerable effort into maintaining their well-being. For this purpose, the Russian Empire imported elephant keepers (mahouts), Eastern food and Indian medicines. The author proposes to consider them as components of a technological system, and the actual relocation of the elephants between different countries as a case of technology transfer, which follows the same logic as the better known and better researched scalable technologies. In this way, the therapeutic landscape of the Russian Empire was enriched with enclaves of Eastern medical knowledge that were conditioned by animal life. The results of the study not only complicate existing ideas of the possible historical configurations of medical pluralism, but also allow a new look at the grand narrative about the trajectories of knowledge importation in early modern Russia.

Keywords: technology transfer, animals, Russia, 18th century, medical pluralism, power.

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The article analyses Russian documents of the eighteenth century related to the delivery of elephants to the Russian court, their provisioning and medical treatment. The study focuses on the political and technological aspects of the animals' life. The relocation of elephants from eastern realms to Moscow and St Petersburg took place within the regime of *animal diplomacy* and was conditioned by the status of the animals as *avatars of power*. The political charisma ascribed to elephants encouraged both parties — the donor and the recipient of living gifts — to put considerable effort into maintaining their well-being. For this purpose, the Russian Empire imported elephant keepers (*mahouts*), Eastern food and Indian medicines. The author proposes to consider them as components of a technological system, and the actual relocation of the elephants between different countries as a case of technology transfer, which follows the same logic as the better known and better researched scalable technologies. In this way, the therapeutic landscape of the Russian Empire was enriched with enclaves of Eastern medical knowledge that were conditioned by animal life. The results of the study not only complicate existing ideas of the possible historical configurations of medical pluralism, but also allow a new look at the grand narrative about the trajectories of knowledge importation in early modern Russia.

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Introduction

In the autumn of 1736 Artemiy Volynskiy, a powerful courtier and the Empress Anna Ioannovna's *Oberjägermeister*, received from the imperial cabinet an order to prepare in good time for the arrival in St Petersburg of an elephant, which had been sent, among other rich gifts, by the ruler of Persia Nādir Shāh. Since elephants, like other inmates of the court menagerie, were an item in the treasury budget, the officials advised the *Oberjägermeister* to find out where supplies and medicaments for the previous elephant, which had lived in Petersburg from 1723 to 1727, had been obtained.¹ They hoped to make use of already existing lists of purchases and supply arrangements. However, when Nādir Shāh's elephant reached the capital (arriving by May 1737), it turned out that neither the fodder nor the medicines were suitable for him. The menagerie keepers Pavel Petrov and Aleksey Nazaryev, who had spent the winter of 1736–1737 with the new elephant

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¹ In the eighteenth century the court menageries and their inhabitants had first been served by the Court Chancery (founded in 1721 to administer court property), then by the *Oberjägermeister's* Office, a discrete entity from 1736, and after 1744 by a separate *Oberjägermeister's* Chancery.

in Moscow,¹ were called in for consultation. They declared that “to feed the present elephant with those stuffs that used to be given to the former elephant, and likewise to use medicines with which he has not been treated, is not safe, lest some malady befall him thereby. But he should without fail be given both the same fodder and the same medicines that are now provided for him, and to which he is accustomed” [RGIA, f. 466, op. 1, d. 41, l. 20]. In an attempt to absolve themselves from responsibility for the animal’s well-being, the keepers pointed out that “they had not been able to accustom themselves to all the elephant’s habits, and if some malady befall him, they cannot know the details of his treatment.” Therefore, they asked either that the Persians Āqā Ṣādiq and Gorgil bey should be retained with the elephant, or else “the Indians Gule and Didar, who are now in St Petersburg with the Persian ambassador. Because they have come with the elephant from India and know all his habits perfectly” [RGIA, f. 466, op. 1, d. 41, l. 20].² Certain kinds of food and medicine for the new elephant, as for the previous one, should be ordered through the Petersburg Excise Office or brought in kind through the Astrakhan Provincial Chancery, since it was impossible to buy them at the Main Pharmacy or at the markets of St Petersburg [RGIA, f. 466, op. 1, d. 41, ll. 19, 23, 25–26v]. Attached to the papers was an account for provisioning with a note of how much it should cost per annum.

The living diplomatic gifts that were sent to the capital of the Russian Empire did not arrive alone. With them came Indian and Persian specialists who knew both the habits of a particular animal, and the general rules of caring for it and treating it. The court officials relied on the knowledge and experience of the elephant keepers when ordering provisions and medicines in the markets of Astrakhan on the Russian-Persian border, where the trade routes to the Middle East and South Asia began.³ Thus, a foreign medicine was brought into a new milieu, where it occupied a place of knowledge that was taken for granted but at the same time evidently foreign: imported medicines were intended for elephants that had been brought from India, and were prescribed by Indian or Persian attendants. In other words, in order successfully to bring the animals to Russia and keep them in conditions to which they were not accustomed, Eastern knowledge had to be put into practice.

¹ The keepers had been sent from Petersburg to Moscow in advance, to study the details of looking after the animal with the senior elephant keeper Āqā Rabi’ (in Russian spelling Agarebi), who accompanied the elephant from Persia [RGADA, f. 1239, op. 3, d. 35865, ll. 26–27].

² In Russian documents we find the spelling Aga-Sadyk or Agasadakh [RGIA, f. 466, op. 1, d. 41, l. 33; Kutepov 1902: 199].

³ On the role of Astrakhan as a trading hub uniting Russia and Muslim Asia, ever since the Khanate of Astrakhan was annexed in 1556, see: [Fekhner 1956; Iukht 1957; Russko-indiiskie otnosheniya 1965; Kukanova 1977; Dale 2002: 86–127].

The episode cited from court bureaucratic correspondence does not only represent a rare opportunity to look into the understudied history of Russian ethno-veterinary medicine.¹ By following the elephants that had been presented and their medicines, we can ask wider questions about the circulation and status of medical knowledge in early modern Russia. Since at that time the treatment of human beings and the treatment of animals were similar in structure, based on similar principles and denoted by the same words, the question arises, how are our ideas of 18th-century medicine changed if we also consider patients who were not human? At the same time, by no means all animals became the objects of care and treatment, but only those with an economic, social or symbolic value, primarily domestic livestock, horses, and hunting dogs and birds of prey (see in particular: [Alexeevsky 2010]). There could be different approaches to their health: as their ability to perform useful functions, produce viable young or preserve an attractive appearance. In their discussion of the safety of medicines for the elephant, the Russian officials did not consider the question of breeding elephants, or of using them for war or as beasts of burden.² Why then did they engage Persian and Indian elephant keepers? How did their contemporaries imagine Eastern veterinary knowledge and on what basis did they consider it necessary? What were its limits, and how did the combination of the knowledge, its bearers and the material infrastructure necessary to put it into practice function? Can the calling in of foreign specialists be regarded as evidence of heterogeneity in Russian veterinary medicine, that is a manifestation of *medical pluralism*? Finally, what can the analysis of the chancery correspondence about providing for the elephant give to the relatively young Russian discipline of animal history and human-animal relations?³

To answer these questions, the article examines a corpus of eighteenth-century documents containing information about the elephants sent to Russia and the keepers who looked after them. Although many of these documents have been used by historians more than once, their medical aspects have remained almost

¹ The first works on the history of Russian veterinary medicine were published more than a hundred years ago [Popov 1901; Novombergskiy 1910; Vinogradov 1916]. However, the number of focused publications is still not great, and most of them deal largely with peasant practices (see the review in: [Ippolitova 2011]), while 18th-century materials are most used for research into the institutional history of animals (see, for example: [Kozhevnikov, Gurevich 1990; Osipov 2009; Tsarskiye okhoty i potekhi 2017; Razdorskiy 2019]).

² In the Mogul Empire the use of elephants in warfare had died out at the end of the sixteenth century as firearms became more widespread, and in the court life of Early Modern times they had an almost exclusively ceremonial significance [Speziale 2025].

³ Defining works for this tendency were those of historians and philosophers, in particular: [Ritvo 1987; Haraway 2003], while specifically Russian aspects are discussed in: [Rosenholm, Autio-Sarasma 2005; Costlow, Nelson 2010]; see also: [Korshunkov 2022].

unnoticed. The identification of the medicines mentioned in these documents with Ayurvedic remedies is the first step in the study of how foreign veterinary practices were transferred to the Russian Empire and why this transfer was organised as it was, and not otherwise. The article puts forward the hypothesis that there was a particular configuration of medical pluralism in Early Modern times which came about as a result of an interest in “foreign customs” and techniques. It is suggested that care for animals, their training and medical treatment, carried out by invited specialists and hardly practicable without the import of special medicinal raw materials and foodstuffs, should be regarded as a *technology*. Technology in turn is understood as an integrated set of skills and written and unwritten knowledge, forming a practically significant productive *trade* with its rules and patterns of attention, and not as the productive interaction of people and mechanisms of one or another degree of complexity [Frison 1998]. Approaching it this way, one might say that the ethno-veterinary knowledge, practices, specialists and material infrastructure form a *technological system* of which the product and embodiment is the animal.

Research on the transfer of knowledge to Russia in the Early Modern period has been mostly focused on Western European science and medicine as parts of the programme of that all-embracing Westernisation that took place during the Petrine period.¹ Both natural history and humoral medicine had indeed been actively imported into Russia from the West. However, the miniature history of the provisioning and treatment of elephants, which activated Persian and Indian veterinary expertise, somewhat complicates the grand narrative of Westernisation. The aim of this article is to show the social context of the other knowledge, from the East not West, and analyse the principles of its incorporation.

Medical pluralism and the transfer of technologies in Early Modern times

The therapeutic landscape of Early Modern Russia was quite diverse. On the one hand, ever since the beginning of the eighteenth century the state had been actively importing learned humoral medicine from the West and creating new institutional forms for it [Renner 2010], thereby distinguishing permitted treatments from unlicensed methods.² On the other hand, attempts to eradicate unofficial medicine entirely had been in vain. This was due to the distrust felt

¹ A survey of the extensive literature on these questions is outside the scope of the present work. We shall limit ourselves to indicating a few studies from various years: [Vucinich 1963; Gordin 2000; Ospovat 2007; Werrett 2010; Collis 2011; Iosad 2017].

² See, for example, the Senate decree of 14 August 1721: [Polnoe sobranie zakonov 1830–1885, VI: 412].

by certain sections of society towards foreign doctors. Doctors were more involved in fulfilling the needs of the state than in curing patients, and the official medical infrastructure was practically limited to the army, navy, court and a few pharmacies. This allowed the flourishing of medical/magical methods of treatment, bone-setting and folk healing, and also of hybrid forms, to which both peasants and merchants and representatives of the highest aristocracy had recourse [Pirogovskaya 2022]. But it was also the gaps between the state medical project and its realisation, between legislation and people's real needs, that laid the ground for conflicts [Pasichnyk 2023]. Besides, the spread of learned medicine was limited by the skills of literacy, the configuration of which did not coincide with the class hierarchy [Griffin 2015].

Would it be right to regard the situation just described as a manifestation of *medical pluralism*? As a rule, *medical pluralism* is understood as a multiplicity of medical systems, or, more broadly, available therapeutic approaches, which calls the dominion of European learned medicine into question [Kleinman 1978; Leslie 1980; Baer 2022]. Although the concept of *medical pluralism* was originally used by specialists in the modern societies of South Asia, its meaning gradually widened: now sociologists and mediaevalist historians also speak of medical pluralism. In their attempts at a revision of this concept researchers have questioned the asymmetry of doctor-patient relations implicit in it, the choice of biomedicine as a point of reference, and the blurring of political, economic and epistemological conflicts [Han 2002; Hsu 2008]. Moreover, the globalisation of medicine is giving the concept a new lease of life, stimulating researchers to speak of a modern "superdiversity" of means of treatment [Penkala-Gawęcka, Rajtar 2016].

In any case, the ideological, economic and social hegemony gained by Western learned medicine in the middle of the nineteenth century thanks to state support was never total: "historically and geographically speaking, pluralism has been the norm rather than the exception" [Cant, Sharma 1999: 4–9]. Considering the history of medical pluralism, Sarah Cant and Ursula Sharma identify criteria that enable it to be described in a more nuanced manner and avoid binary oppositions of the type *pre-modern/post-modern*, *traditional/industrial* and so on. What is important for them is the degree of structure in the medical field, state control and the role of science in creating legitimacy for a treatment. Other historians of medicine have identified such criteria as the existence of a medical market, patient agency and structural possibilities of its emancipation or suppression [Cant, Sharma 1999: 10, 59–60, 195–196; Ernst 2013]. In addition, one sign of Early Modern pluralism may be the diversity of therapeutic professional roles and the possibility for the patient to choose between them [Jütte 2013].

However, to make sense of the situation in Early Modern Russia, it appears useful to make a distinction between *medical pluralism* as structural tolerance to epistemologically diverse practices and *medical plurality* as a continuum of forms of treatment available to the patient. Firstly, such a distinction makes it possible to see the power inherent in medical institutions recognised by the state even when they are competing amongst themselves for clients, in questions of determining the effectiveness of treatments, etc. Secondly, in this way the link between medical pluralism and the biopolitical project of modernity and the control over the lives of subjects or the population that is achieved therein is made visible [Chakrabarty 2013; Ernst 2013: 18–19].¹

The eighteenth-century Russian state tried (with dubious success) to banish certain forms of alternative treatment to the grey zone, but it supported veterinary medicine, recognised as foreign, but distinct from the humoral therapies imported from the West. This medicine was welcomed to the extent that it helped to preserve valuable animals. Their life depended on the skills and attention of a specialist who knew their “habits” and shared their country of origin and habitat. Thus, the animals and their servants were envisaged as having a common nature, linked by their common origins and the institutional context of foreign court life.

The close link between the knowledge, the specialists, the raw materials for food and medicine, and the instruments and equipment that ensured Asian elephants’ survival in a new environment allows them to be seen as a *technological system* consisting of mutually dependent components. This approach firstly diversifies our understanding of Early Modern plurality, and secondly provides an unexpected viewpoint for Russian animal history. If in respect of some animals the boundary between medical practices (both acceptable in the legal sense and resulting from the animal’s nature) was conceived as a boundary between technologies, the medical diversity of the Russian eighteenth century may, at least in part, be represented as a multiplication of technologies, originating first of all with the skills of foreign specialists and the imported material infrastructure. Accordingly, the foundation for such a configuration of medical pluralism is not cooperation or rivalry between different kinds of specialists, nor the state-sanctioned possibility of choosing one treatment or another, but the import and reassembly of an isolated technological system in a new

¹ Shifting the stress to the plurality of methods of treatment allows any particular form of medicine to be seen as a constellation of practices, sometimes incompatible with one another, liable to be transferred, borrowed, vernacularised and combined. This makes the concept of a “medical system” problematic [Attewell 2007: 16, 21–29; Hardiman, Mukharji 2013: 25–27]. However, this question is outside the bounds of the present research.

place and in new conditions — in the interests of a new social group.

For a long time, the study of the *technological transfers* of the Early Modern period concentrated on scalable technologies. This focus on innovations, their introduction, cases of industrial espionage and the transfer of technologies into new milieux (using the examples of steel making, cloth production and sericulture) to a large extent resulted from a wider interest in the pre-history of the Industrial Revolution, economic development and capitalism [Harris 1992: 78–112 et passim; Mottu-Weber 1993; Molà 2000: 161–185]. Another set of questions connected with the transfer of technology is concerned with the kinds and configurations of knowledge that it sets in motion — explicit and implicit, written and oral, innate, existing “at my fingertips” and formalised, concrete and abstract [Polanyi 1966; Rosenberg 1970; Gorman 2002]. This means that researchers’ attention is focused on experts — artisans, technicians, doctors and naturalists. The spread of technical knowledge in the Early Modern period was conditioned by the individual and collective mobility of its bearers and the efforts of rulers to limit it or, on the contrary, activate it [Cipolla 1972; Molà 2000: 29–51; Belfanti 2004; Hilaire-Pérez 2007]. The success of a transfer of technology depended directly on the movement of its bearers, with whom came hidden, uncoded technical knowledge, and also on their ability to recreate “the technical and economic environment from which they had come” [Belfanti 2004: 583].

Technologies may include animals as desirable agents or as essential components, in accordance with a mechanistic view of animals, the logic of industrial capitalism or a scientific experiment [Novick 2023]. This requires the technicians or experts to have particular habits of attention and may create problems when such technologies are transferred to a new milieu, which is often the case in colonisation or domestication. For example, *kopi luwak*, a kind of Indonesian premium coffee, cannot be produced without the participation of Asian palm civet and the bacteria which inhabit its gut, which is a problem for people and a threat to the animals when the process of production is transferred from nature to the farm [Cahill 2020]. Another example might be the skills for breeding silkworms in the sericultures of Eurasia, which have their own ways of integrating the insects into the production cycle and solving the problems of technological transfer in new geographical and climatic conditions [Hills 1993; Molà 2000: 217–236; Hutková 2018].

However, besides being included in technologies in the form of components of the system, requiring calibration, animals may also be the central object of technological transfer in the sense of an embodied technology. In the present case, approaching the relocation

of elephants and the system of maintaining their lives as the transfer of a non-scalable technology appears heuristically fruitful. It reveals a logic common to Early Modern industrial transfers and to the one-off diplomatic and court technology aimed at creating a performance of power. On the one hand, there is a structural similarity between them. In the case of elephants, the skills of their keepers are put to use and the material environment that supports the animal's life is reproduced at least in part. For these ends, both local resources and the resources of the donor environment are used. To a certain extent the reproduction of this milieu is assisted by the networks of the global trade, and by the imperial bureaucracy, which built "paper" bridges between different milieux and, where necessary, supplied translators. On the other hand, as in the better studied cases of technological transfer, the non-scalable technology itself, integrated into the network of relationships, obligations and cultural myths, and its more or less successful relocation arises as a response to particular requirements and expectations [Hilaire-Pérez, Verna 2006].

Animal gifts and avatars of power

As colonial goods, trophies, diplomatic and patron-client gifts, animals have historically been objects of conspicuous consumption [Robbins 2002: 20–36; Gschwend 2018].¹ In particular, in the context of Eurasian *animal diplomacy*, both skins, furs and stuffed animals, and live animals, birds and reptiles could serve as gifts.² Ever since the Middle Ages the Muscovite court had also been part of the international chains of ceremonial exchanges, sending to the courts of Europe and Asia falcons, pedigree horses, polar and brown bears with their "leaders", and receiving reciprocal gifts [Kutepov 1902: 2–4, 18–20; Novombergskiy 1910: 170–172, 175; Zagorodnyaya 2003; Moiseyev 2010; Berezhnaya 2016]. The animals thus presented were kept in aristocratic gardens and menageries and used for court events and festivities.

Animals that were a visible representation of might, like bison, big cats, rhinoceroses and elephants, occupied a special place [Lach 1967; Bedini 1997; Robbins 2002; Rookmaker 2005; Fedotova 2018]. Merchants brought them to be sold or given to rulers, rulers gave them to each other, they were seized as war trophies and sent on as gestures of generosity and/or compulsion to reciprocity, services or pecuniary compensation, so that the animals became a stake of

¹ See also Rosemary-Claire Collard's thoughts on "animal fetishism" as a particular variant of commodification: in this case the living objects of market devices are endowed with materiality, but at the same time they originally had a life of their own, which is alienated or bracketed out [Collard 2020: 16–26].

² For examples of such diplomacy see in particular: [Cushing, Markwell 2009; Hartig 2013; Cristini 2021].

prestige or a long-term investment.¹ It made sense to give animals only to people who possessed a menagerie and could make an appropriate reciprocal gift. Additionally, the rarity of the animal raised the stakes in the exchange relationship [Heal 2017: 192–193].

Unlike European colonial powers, in the Early Modern period Muscovy, and thereafter the Russian Empire, received elephants exclusively as part of the *animal diplomacy* that accompanied political and economic contacts with the realms of the East — the Mogul Empire, Persia and the Emirate of Bukhara.² As relations intensified, the gifts became more extravagant, as was the case in Russo-Persian relations, which were established around the Caspian-Volga “wing” of the Silk Road (which avoided the Ottoman Empire), depending on the economic and political dynamics of that region [Matthee 1999: 27–32, 54–55, 218–223].

The first elephant, together with other rich gifts, was sent to Ivan the Terrible as a present from Shāh Tahmasp I. At first this elephant, together with the lions (also exotic beasts for Muscovy) presented by Queen Mary I of England, were exhibited to public gaze near the entrance to the Kremlin. Then the elephant fell out of favour (as one contemporary witness says, because of fears that the foreign animal might be the cause of an outbreak of plague), and together with its “Arab”³ keeper was exiled to the provinces, where they both died [Moiseyev 2010]. The next living gift, “two elephants and Arabs”, was sent to Tsar Mikhail Fedorovich, together with some Christian relics, by Shāh Abbas I. In this way the Shāh was attempting to put together an anti-Ottoman coalition [Polnoe sobranie russkikh letopisey 1978, XXXIV: 220].⁴

The vulnerability of the northern trade routes between Europe and Asia, which was what, essentially, the rulers of Russia and the countries of the East were interested in, was also evident in the delivery of animals. At the end of the seventeenth century the Mogul Emperor gave the Russian trade mission “a small elephant” for Peter I, but, judging by a statement made by one of the members of the mission, this gift never arrived in Russia [Zhurnal Petra Velikogo 1772, II: 347–348].⁵ From the first issue of the St Petersburg gazette *Vedo-*

¹ On the supply of animals in the Dutch East-India Company see: [Winters 2020]. On the political and ceremonial significance of sending and keeping elephants in Early Modern China, see: [Yu 2021].

² On the political context of the embassies see: [Pamyatniki 1892, II; Novoseltsev 1961]. This does not mean that diplomatic missions did not have economic interests [Fekhnner 1956; Matthee 1999: 77–78]. However, there is evidence that Tsar Aleksey Mikhaylovich attempted to acquire exotic living creatures, “elephants, tigers, leopards and other Indian and Qızılbaş animals and birds” by purely commercial means through Armenian merchants [Russko-indiyskie otnosheniya 1958: 159–160].

³ The general designation at that time for people from North Africa and the Middle East. [Transl.]

⁴ For more detail on the political background to this gift, see: [Tchentsova 2018].

⁵ It is supposed that the ship with the elephant was captured by pirates [Levi 2002: 233–234].

mosti and reports of the Jesuit mission at Şamaxı it is known that there was an elephant sent by “the Emperor of India” via Persia to “the Grand Prince of Muscovy” in 1702, but all trace of it is lost after Şamaxı [Pisma i doneseniya iezuitov 1904: 104, 294].¹

Neither did safe transport guarantee the success of a mission: living gifts were very fragile. For example, the 1711–1713 embassy from Sultān Huseyn Shāh did not manage to bring all the animals that it had taken with it as far as Moscow, or thence to St Petersburg [RGADA, f. 77, op. 1, l. 1–1v].² An elephant was, however, successfully brought to the capital and lived in the menagerie at the Summer Garden until May 1717. His death was felt as damaging to the prestige of the government, which could and should be compensated for, and Artemiy Volynskiy, then envoy extraordinary to Persia, charged with collecting information about local affairs and natural riches, asked the Shāh in July 1717 for various animals and a new elephant. Judging by the report of the head of the expedition, the elephant was accompanied to Russia by its keeper and a convoy of thirty soldiers. They brought the gift overland through the Eastern Caucasus, carrying out various reconnaissance operations on the way, since the usual trade caravans avoided that route. However, after a difficult crossing they managed to bring the elephant only as far as Astrakhan, where it died, evidently because of failures in provisioning and caring for it [Lopukhin 1958; Bushev 1978: 152–153, 240]. The delivery of animals undertaken by major embassies was more successful. Their scale and status, the presence of a guard and of professional keepers meant that they need not fear being attacked and could mobilise local officials, even if the political weight of a particular mission was not great.

The young Shāh Tahmasp II sent yet another elephant to Peter I on the occasion of the negotiations that had been initiated by Persia after the Russo-Persian War when faced with a new threat in the form of the Ottoman Empire. The elephant, smaller than the previous one, reached the capital in 1723 and lived there for four years [Bergholz 1785–1788, III: 343–344; Kutepov 1902: 194]. The next missions to Russia were sent by the new ruler of Persia, Nādir Shāh after civil unrest, several successful military campaigns and his seizure of power. A twenty-five-year-old elephant, together with pearls, brocade and “Arabs”, was among the gifts sent with the embassy of 1737 to Anna Ioannovna. In this way Nādir Shāh, once he had attained full power, informed the Empress of his status.³

¹ On the mission to Şamaxı see: [Matthee 2008: 636–637]. On trade routes in the Caspian and Transcaucasian region see: [Levi 2002: 226–227].

² See also: [Yukhimenko 2015a; 2015b].

³ The elephant’s age is known from the protocols of a conference of the Imperial Academy of Sciences on 3 June 1737, which discussed this question specially [Protokoly IAN 1897, I: 396].

In October 1741, as part of a mission of two thousand persons from Persia, a new present arrived in Petersburg: fourteen elephants with their keepers, and also thirty camels, precious items and emeralds that Nādir Shāh had captured in his campaign against the Mogul Empire. Both the jewels and the animals had been seized in Delhi: the elephant stables of the Great Mogul housed about five thousand elephants, so that Nādir Shāh could allow himself to send gifts to the neighbouring empires on a large scale; the Sublime Porte also received thirteen elephants and precious stones [Potts 2022: 375–391, 394, 512]. The size of the gift, which hardly could have envisaged a comparable reciprocal gift, and its public demonstration had a clear political meaning: the new ruler was proclaiming his military successes. The inclusion of an elephant among the gifts from the Emir of Bukhara, which came to Petersburg in the autumn of 1796, was also a means of asserting diplomatic status. Still, the embassy itself, which had these political claims, was not allowed to proceed further than Orenburg, on the frontier [Mikhaleva 1962: 55–59].¹

Along with other prestigious gifts which were recorded in the protocols and publicly demonstrated, the elephants that imperial courts sent to each other, served as a kind of *avatar* of the giver and recipient. Thereby they served as a reminder of the ties that bound the parties together and underlined their status on both sides — of the one who was capable of sending such a large-scale present, and of the one who might receive it.² Therefore, fluctuations in power relations, the interests of the giver and the recipient and the opportunities to extend power beyond the confines of any particular empire were immediately reflected in the impressiveness of the animals sent (their age, size, equipment and adornments, the state of their health), the number of people accompanying or meeting them, the security of their passage and the efforts put into ensuring their well-being. Thus, in 1740–1741 the route along which the elephants would be sent was confirmed only after prolonged Russo-Persian negotiations, since the Persian diplomats were concerned that if the wrong route was chosen the elephants would be exhausted and would fall ill, and so “the present would not be a present” [Vnutrenniy byt 1880–1886, I: 336; Vasilyeva 2019: 181].

All these variables were clear for the courtiers and bureaucrats. This, in particular, explains the scrupulous measurement of each elephant, and the description of the equipment and harness sent with it, and

¹ In turn, the rulers of Bukhara received elephants from the Mogul Empire as a sign of their peaceful relations [Nizamutdinov 1969: 97].

² In her article about the role of elephants in the Qing “palace machine”, Yu Hui-chun shows that the animals were literal “extensions” of the Empire, since they were sent to the court by vassal states [Yu 2021: 275–278].

the organisation of ceremonial public entrances into the capital.¹ Elephants, as living *avatars of power*, and definitely not as objects of commodification or animal fetishism, and the trajectories of their movements, which coincided with military reconnaissance and trade routes, traced the lines of the current political coalitions and economic interests. Involuntary participants in diplomacy, the animals acquired a certain agency, expressed in the political quality of their presence.

This agency was not immanent, but imputed. In captivity, animals' ability to act was limited: they could refuse food and water, break their chains and escape, or display aggression towards each other or towards people. Such behaviour is mentioned in the archival documents studied. For example, in the autumn of 1712, an elephant overwintering in Moscow one night broke his chain and injured a keeper [RGADA, f. 77, op. 1, d. 1, ll. 333, 339]. In 1737 the river stage of the route from Moscow to Petersburg was cancelled after the accompanying personnel reported that "if to avoid the rapids it will yet be needful to take [the elephant] on and off [the vessel], and he resists, it will by no means be possible to compel him by force, because they have seen his stubbornness (when he was taken from Astrakhan to Tsaritsyn by boat)" [RGADA, f. 1239, op. 3, d. 35865, l. 36]. At the same time, animals were endowed with the possibility of representing power. In April 1714 the elephant was put into action for the ceremonial Easter procession in Petersburg, which was recorded by a diplomat from Hanover [Weber 1729: 7]. In November 1724 an elephant came to the court "with greetings" to courtiers who had been promoted [Bergholz 1785–1787, IV: 502]. In 1740 an elephant took part in the Ice Wedding, a large-scale performance with the participation of "the whole realm of persons of various ranks and languages" [Nashchokin 1998: 258]. Taking account of animals' status, the Indian and Persian keepers considered it necessary to act in the animals' interests as they understood them. In particular, on the pretext of defending his charge, the elephant keeper Āqā Šādiq succeeded in May and June 1741 in obtaining the publication of a number of decrees and proclamations forbidding any offensive behaviour towards the elephant or the people accompanying it during its walks through the capital [Vnutrenniy byt 1880–1886, I: 329]. In this way, the elephant keepers not only articulated the needs of the animals, but also supported the performance of power, which manifested itself not as an act, but

¹ See, in particular, the indication of the dimensions "from eyes to tail" of the elephant Takhter Avan, sent in 1736–1737, in the report made by the people accompanying it to the College of Foreign Affairs [RGADA, f. 1239, op. 3, d. 35865, l. 8]. See also the engraving of "the ceremonial arrival of the Persian embassy to Moscow on 3 October 1712" by the Dutch artist Pieter Picart (1668/69–1737), who was employed at the Moscow printing house and who recorded objects and events that were significant to the authorities — military victories, plans of fortresses, and festivities.

a process [Foucault 1980: 109–133], obtained in particular thanks to the presence of elephants at the Russian court.

Foreign technologies: specialists and infrastructures

Once they had crossed the border of the Russian Empire, the animals, although still regarded as gifts, became chargeable to the Russian treasury. Their upkeep, like that of the ambassadors themselves and their suites, became the concern of the Russian side [Yukhimenko 2015a: 96–97, 101–103]. The organisation of their provisioning by no means always went smoothly. However, the receiving side held to a certain opinion about how elephants should be looked after and who was best capable of doing it. The foreign animal was supposed to have a special diet and medicines and keepers who had the same origin. Although in practice provisioning was organised *ad hoc*, as the animal passed from one jurisdiction to another, the Russian authorities tried to observe the demands of the specialists who accompanied the animals.

In Persia and Russia provision for elephants was more or less the same, which speaks to a deliberate transfer of a technological system between the empires. Unsuccessful expeditions or problems with local supply demonstrate the gaps between the links of the technological chain — an inadequate infrastructure “on the ground” (including the security infrastructure), a lack of coordination between departments or a delayed circulation of documents. They led to the animals losing their attractive appearance (or rather, damaged the charisma of power), to illness and death, and bureaucrats tried to prevent them.

The upkeep of the elephants sent to the court was a palpable expense to the treasury, about 60–80 roubles a month for each of them. Apart from food and medicine, money was spent on building and heating quarters for the elephants. In addition, the animals’ movement through Russia and dwelling there in cold weather required collars and chains, warm blankets, covers for their ears and trunks, and also calfskin boots [RGADA, f. 248, op. 1, kn. 13, ll. 311–315; Doklady i prigovory 1880–1901, III: 108; Kutepov 1902: 198–199]. Large parts of the elephants’ journeys were over land, which implied expenditure on the road infrastructure, such as building and repairing bridges along the route, constructing warm sheds in which they could spend the night, logistics, and also the guards who protected the expeditions from attack and plunder.¹

¹ Delivering elephants was just as difficult in the nineteenth century, when animals sent by the Emir of Bukhara were brought through Orenburg (in 1839, 1848 and 1859), and the organisation of their movements and winter quarters was undertaken by the Orenburg branch of the Asiatic Department of the Ministry of Foreign Affairs [Matvievskaya 2008].

The salaries of the Persian and Indian *mahouts* (elephant keepers), their assistants, junior keepers, the stokers, the bakers who baked bread for the elephants and the interpreters formed a separate item of expenditure. Judging by the staff lists, elephant keepers were for the most part foreign subjects in Russian service, Indians and Persians. As foreign specialists they occupied a higher position in the hierarchy of court servants and received a higher salary than local employees: from sixty to a hundred and eighty roubles per annum.¹ In some cases salary and expenses were even higher. In 1736 the elephant keeper Āqā Rabīʿ succeeded in having his salary of 365 roubles per annum, assigned to him in Astrakhan, raised in proportion to the cost of living in Moscow [RGADA, f. 1239, op. 3, d. 35865, ll. 24–24v, 31–31v]. Such a salary was comparable to that of Western specialists — that of the German farriers who worked at the Stables Department and looked after pedigree horses [Novombergskiy 1910: 408, 414–423]. At the end of the century a salary of a hundred roubles per annum was assigned to the “Asiatics” Khan Filbed and Ahmet Filbed, who were sent to Petersburg with the elephant by the Emir of Bukhara [RGIA, f. 478, op. 1 (1/1000), d. 3, 4, 15; op. 2, d. 10].² Part of the salary was paid in kind — firewood, victuals and clothing [RGADA, f. 1239, op. 43, d. 15, ll. 25–26; RGADA, f. 248, op. 7, d. 372, № 52, l. 216; Vnutrenniy byt 1880–1886, I: 335; Kutepov 1902: Kommentariy, 34, 86]. Less well qualified animal keepers were paid less, from thirty to sixty roubles per annum. This was the salary of the junior servants attached to the elephant in 1732, Mikhail Chernikov, Pavel Petrov and Aleksey Nazaryev [RGIA, f. 466, op. 1, d. 41, l. 27].³

Some elephant keepers came to Russia with the embassies accompanying the animals, stayed with them for a certain time and then went back to Persia or Bukhara. This was the plan for the stay in Russia of “the Persian elephant keeper Rajabullāh”, who arrived with the embassy of 1711, and by a decree of 12 July 1713 was retained for a further year, with the intention that he, by means of his example and through an interpreter, would teach two apprentices [RGADA, f. 77, op. 1, d. 2, l. 47–47v; Yukhimenko 2015a: 113].⁴ It was expected that the stay of the Indian mahouts with Nādir Shāh’s

¹ For comparison, in the staff of 1737, a *Kammerjunker* was paid 150 roubles per annum, and an assistant *Koffeeschenk* [the servant in charge of preparing tea, coffee and cocoa] 60 roubles [RGIA, f. 466, op. 1, d. 42, ll. 13–16].

² The chancery language of the court of Bukhara was Persian, in which *pīlbānd* (*filbed* is an Arabic corruption), “elephant master”, denoted a court official in the elephant department. Documents of the 1740s mention Asatiy, the “elephant trainer/elephant master”, which might also be a calque from Persian [Kutepov 1902: 198].

³ This staff also corresponds to Mogul practice, according to which each elephant should be attended by several servants of different ranks and specialities [Speziale 2025].

⁴ In Russian documents his name is spelled as Redjeboley. He may be the same person as the Rajab ‘Alī bek mentioned in the list of embassy servants of 1712 [RGADA, f. 77, op. 1, d. 1, l. 307].

elephants would also be temporary. The ambassador Muḥammad Ḥuseyn Khān planned to take the Indians back to Persia, and only after negotiations did he agree to leave "one of them for each elephant, until the people here learn how to look after elephants" [Arkhiv knyazya Vorontsova 1870, I: 163, 186]. The skills and knowledge of the elephant keepers, like technical knowledge in the case of scalable technologies, were important for the maintenance of court ceremonial, and therefore both states were highly interested in them. However, it was unnecessary to protect them from the dissemination of their know-how: on the contrary, the Persian envoys reckoned that the mahouts would teach their trade to some of the locals and thus the living gifts would no longer be in need of their services.

Some mahouts managed to remain. It appears from the papers of the Embassy Chancery and the Court Office that "the elephant keeper Arab 'Umar Sharīf" spent several decades in Russia and taught his local apprentices (Tatars from Kasimov) [RGADA, f. 77, op. 1, d. 1, l. 1; RGIA, f. 466, op. 1, d. 41, l. 27]. Sometimes foreign servants converted to Orthodoxy, which offered a rise in salary, but closed the way back to Muslim Persia, and petitioned to change their citizenship. Among these were, for example, the Indians who had been taken captive along with the animals they looked after by Nādir Shāh during his campaign against the Mogul Empire, and who evidently wanted to regain the status of free men. There is a report of the Oberjägermeister's Office about the appointment of the newly baptised Indian Pavel Pavlov to the Petersburg menagerie to look after the elephants. He had quite a thorny road to this job. The mahout had arrived in Russia with the Persian embassy, converted to Orthodoxy as soon as the embassy arrived in Moscow, then hid until the ambassador went back to Persia, and in October 1742 came to ask for a job at the menagerie [RGADA, f. Senat, kn. 1073, ll. 933–934v].¹ Persians living in St Petersburg were also recruited, evidently on the supposition that since they knew the language they would learn more quickly. Of forty-one employees under the Indian Dina (or Diniy) who were looking after the Empress's elephants in 1742, eighteen are referred to in the documents as Indians, and twenty-three as newly baptised Persians [RGADA, f. Senat, kn. 1073, ll. 933–934v]. In the list of people applying to look after the elephants compiled in 1742, there are Persians who had been in the service of the Prince of Georgia and of Artemiy Volynskiy, and free-born Armenians and Greeks [Vnutrenniy byt 1880–1886, I: 328–329, 339].

¹ See also the case of 1742–1743 on the petition of "the elephant keeper, the Indian Pir, a Mahometan, to convert to Orthodoxy": [RGIA, f. 796 (Synodal Chancery), op. 23, d. 717]. The attempts by the Persian ambassador to return fugitive Persian subjects are also known [Arkhiv knyazya Vorontsova 1870, I: 186].

The mahouts' and junior animal keepers' well-being depended on the well-being of the animals they looked after. They were an integral part of the technological system that not only assured the animal's existence, but was literally embodied in it. When a female elephant, the last of Nādir Shāh's living gifts, died in the autumn of 1765, the team of her servants, which had cost two and a half thousand roubles per annum, lost their jobs [Kutepov 1902: 146–147, note 106]. The Oberjägermeister Semen Kirillovich Naryshkin had to petition for a pension for the elephant keepers who had converted to Orthodoxy “from an Asiatic nation”, because they had nothing to count on but the Empress's favour. Their skills were acquired by caring for particular animals and were not transferable. In this sense they were serving a kind of *technological enclave*.

Nevertheless, conversion to Orthodoxy, and the change of citizenship that followed from it, was not imposed from above. Rather people had recourse to it on their own initiative in the hope of a better life.¹ On the whole, the elephant keepers' “foreignness” was recognised. This is shown by the fact that they were issued with rations that Orthodox subjects could not expect — rice, clarified butter and live sheep. This provisioning copied the payment in kind that had been issued to the mahouts when they were in the service of the Persian ambassador.² Their foreignness was also maintained in the way they were dressed. In the accounts of 1740 the elephant keeper Āqā Šādiq was allotted a uniform “in the Persian manner”. When winter clothing was ordered for the Indian elephant keepers in 1741 (kaftans and breeches of green drugget, with yellow shoes and cummerbunds, and also yellow beshmets), it was ordered “in their fashion”. It may be that this costume repeated the summer clothing in which the mahouts had come from Persia, and that green was chosen in accordance with the Islamic symbolism of that colour [Vnutrenniy byt 1880–1886, I: 328, 337–338; RGADA, f. Senat, kn. 1073, ll. 933–934v].³

The mahouts who came to Russia with the elephants were technicians who serviced the technology of power. Unlike other “animal” technologies that were to be borrowed, absorbed and scaled up, such as German horse-doctoring, their skills could not take root in the new soil for lack of any local or introduced animals. The mahouts' knowledge remained within the technological enclave. Their

¹ Similar manipulations of social boundaries have already been noted in works on Russian classes, see: [Smith 2014].

² The inclusion of mutton in the rations indicates that the Indian mahouts were Muslims: in the Mogul Empire Muslims had gradually been included in the traditional guilds, including elephant keeping, which, because of its significance for the court, was a very high status trade [Speziale 2025].

³ Foreignness was maintained in just the same way in the apartments provided for ambassadors from the East [Yukhimenko 2015a: 102].

knowledge and skills could be passed on to Tatar or Armenian apprentices, but its dissemination was limited to the court milieu and to animal diplomacy.

Foreign technologies: elephant Ayurveda

The same "foreignness" as the elephant keepers had was also recognised for their charges. When finding out what the elephant that had been sent had to be fed on, the Petersburg officials assumed that a special supply would be necessary, based on their ideas of the nature and "habits" of the animal.

A hierarchy of priorities may be observed in the accompanying documentation. The animal's needs, as expressed by the mahouts, are taken as given, and the officials' reactions are organised around them, forming a sort of "scaffolding" that would allow the elephant to exist in its new conditions according to its "habits". A request for the building of a new stove or for a regular issue of firewood was accompanied by the explanation that the elephant "cannot withstand the cold". Thus in 1712 expenses are recorded for the replacement of iron doors with warm wooden ones and the installation of double windows in the stables; in September 1737 the mahout ordered that the elephant's quarters should be heated every day [RGADA, f. 77, op. 1, d. 1, l. 333v; RGIA, f. 466, op. 1, d. 41, l. 33]. The requirement to strengthen the bridges along his route was explained by the fact that the elephant was so intelligent, that he would try the boards with his foot and refuse to go on if they bent. In the summer of 1741 plans for a new elephant house (with its kitchen, ice house, stables and shed) by the Petersburg architects Johann Jakob Schumacher and Mikhail Grigoryevich Zemtsov were changed after the elephant keeper informed them, that the pair of elephants, who "were used to being by themselves in one place" would need separate quarters [Vnutrenniy byt 1880–1886, I: 332–333]. Pigments "for blackening and colouring" were specially bought, again in accordance with Mogul usage: they are mentioned in documents about the elephants in 1732, 1737 and 1741.¹ The meaning of the painting can hardly have been transparent to the Russian officials who arranged the purchase of the colours. Most likely, from their point of view, this was simply "supposed to be done" when a specialist requested it. When necessary, that is, when the elephant keeper put in a request, the wire bands which are wound round elephants' tusks in India were also prepared. Thus in 1712, "for making crowns and

¹ Drawing patterns on elephants' heads is a common practice in modern Bengal and Sri Lanka; it probably also existed in the Mogul Empire [Kenoyer 1998: 166]. See also the watercolour of the Kishangargh school "A Portrait of the Elephant Aridalan" (c. 1770, <<https://www.mutualart.com/Artwork/A-PORTRAIT-OF-THE-ELEPHANT-ARIDALAN/88AD632DD98FB41D>>), on which patterns on the elephant's cheeks and trunk, and a darker (blackened?) head can be seen.

plates of copper wire for the two big teeth of the elephant and for gilding” the Embassy Chancery was to pay 6 roubles 29 altyns 4 dengas [RGADA, f. 77, op. 1, d. 1, l. 345v]. Finally, one request mentions morocco leather balls with handles, stuffed with deer hair, which were ordered from a harness maker. This was probably equipment for teaching the elephant tricks — in another later document there is mention of a Persian master who trained elephants [RGADA, f. 77, op. 1, d. 1, l. 350–351v; Vnutrenniy byt 1880–1886, I: 341].

The same approach was taken in organising supplies for the animals. In the interests of the elephants’ welfare, they were given food and drink of the highest quality and particular medicines, which could not be substituted and had to be obtained at any cost.

This is how the Russian envoy Semen Arapov described the elephants’ rations, when he observed their stop in Rasht, Persia in 1740: “In one day one elephant eats three and a quarter poods¹ of bread, seven pounds of sugar, seven pounds of butter, eight elephants in one day each two poods thirty pounds of bread, seven pounds of sugar, seven pounds of butter, six of them each two poods fifteen pounds of bread, seven pounds of sugar and seven of butter” [AVPRI, f. 77, op. 77/1, d. 9, part 1, ll. 177v–178; d. 15, l. 145–145v].² With some variations these rations were issued to elephants in Russia. When they confirmed the supply, officials oriented themselves on the registers that had been made in Astrakhan after the border crossing, or on questions put to the mahouts (see Appendix). For example, in 1739 Takhter Avan,³ the twenty-five-year-old bull elephant from Nādir Shāh, ate 136 poods 35 pounds of rice, 365 poods of wheaten flour, 45 poods 25 pounds of butter, the same amount of salt, 27 poods 14 pounds of cane sugar, almost 22 buckets⁴ of white wine, and also medicinal spices. His diet varied according to the season. For example, the white wine with which he was supplied in summer was replaced by vodka in winter. Besides what it bought from its suppliers, the Court Office issued grass, rushes and hay in kind, prepared by court peasants in the environs of Petersburg [RGADA, f. 1239, op. 43, d. 15, ll. 2–2v, 21–22; op. 3, part 69, d. 32517, l. 1; RGIA, f. 466, op. 1, d. 41, ll. 29–30].

These rations corresponded to the recommendations of Indian and Persian treatises on elephant keeping. In India the practical science

¹ A pood was 40 Russian pounds, or approximately 16.38 kg. [Transl.]

² Quoted in [Vasilyeva 2019: 181–182]. Cane sugar was imported into Russia from India via intermediaries; in the Mogul period expensive refined sugars were produced in Lahore and Delhi and were a major export commodity [Levi 2002: 50].

³ Evidently Takht-i ravān, but this is the word for the litter that can be carried on an elephant’s back. It presumably became the elephant’s name as the result of metonymy. [Transl.]

⁴ A bucket (*vedro*) as a measure of capacity was approximately 12.5 litres. [Transl.]

of elephants (*Hastyāyurveda*) had been developed with a view to keeping war and ceremonial elephants at court, and it was therefore a branch of the art of government (*Arthaśāstra*) [Edgerton 1931: 1–3; Olivelle 2016]. It relied on the key concepts of Indian natural philosophy and defined types of elephants according to the combination of their humours (*doṣa*) — wind (*vata*), bile (*pitta*) and mucus (*kapha*). Depending on their physical characteristics, manner of behaviour, bodily odour and temperament, the animals were assigned to one or another caste [Sanderson 1879: 83–85; Edgerton 1931: 6, 74–79]. The elephant's rations, daily timetable and prophylactic treatment depended on its age and type and on how tame it was, the time of the year and the time of day.¹ Such a classification was designed to produce unique cases and constellations.² In particular, it may explain why the diet and medicines of his younger and more delicate predecessor were not suitable for the twenty-five-year-old bull elephant brought to Russia in May 1737, which was reflected in the documents cited at the beginning of this article.

The science of elephant keeping identified several kinds of food: for chewing, for swallowing, for sucking and for drinking. According to the treatise *Mātanga-līlā*, an elephant should be given fresh grass, hay and leaves; grain — rice, barley and wheat — in both dry and boiled forms; legumes — chickpeas and mung beans; treacle and raw cane sugar; milk and *dahi* yoghurt; bread; ghee and sesame oil; salt; sweetened drinks; meat bouillon and meat in cases of weakness [Mukhopadhyaya 1922: 418–424; Edgerton 1931: 26, 92–104; Trautmann 2015: 161–164; Speziale 2018: 207–224].³ Flavours — cardamom, cumin, garlic etc. — were added to porridge and butter, as were the “three spices” — ginger, black pepper and long pepper. From time to time an elephant, especially a war elephant, was supposed to be given alcoholic drinks: writings about elephant keeping asserted that alcohol gives elephants courage and helps to restore their strength. The animals were also given an anthelmintic, “royal powder” (a mixture of assafoetida and camphor) and preparations to balance their humours. Clarified butter was also used to anoint their skin, tusks and eyelids. In cold weather the elephants were covered with blankets, kept in closed heated stalls, fed with

¹ Some researchers consider that a diet including processed food took into account the routine of an elephant that was kept in captivity and was being trained, and, consequently, could not spend the time and energy on obtaining food that it would in the jungle [Trautmann 2015: 54–55]. However, this utilitarian explanation does not take into account the epistemological foundations of the classification of the animals, nor the kinds of foods and illnesses in accordance with the three humours [Zimmer 1929: 148–166].

² On pre-modern Ayurveda as a “deliberately inexact” and flexible system see: [Mukharji 2016: 270–285].

³ In particular, liquids — water, honey, treacle, milk, whey, clarified butter — were in the *anupana* category, drinks that catalyse the properties of food or medicine (see the discussion of this concept and its practical application in: [Mukharji 2020: 237–238]).

spicy and hot food and given spirituous liquors to drink. In hot weather the elephant keepers' main concern was good-quality bathing water. In the rainy season the stalls were fumigated against insects [Bloomfield 1920: 336–339; Mukhopadhyaya 1922: 403; Edgerton 1931: 27, 100].

These recommendations explain the keepers' requests for firewood for the elephant house, orders for the making of warm blankets, issue of butter "for anointing the elephant", ginger and garlic every day and alcoholic drinks in season. In the winter of 1712–1713 the Embassy Chancery, at the mahout's request, issued two poods of salt and 1,600 heads of garlic for the elephant, and separately in December and January twenty buckets of vodka, from a calculation of a bucket a day, which is twice as much as in October and November, when it was warmer [RGADA, f. 77, op. 1, d. 1, ll. 312, 341v, 344, 347, 348v]. The elephant that was brought in 1736–1737 was prescribed different doses: "in the seven winter months a quarter of a bucket a day, and in the five summer months one bucket a week". The winter lasted longer in Russia than in India, and so the "warming" diet was adapted to the new circumstances.¹ The elephant keeper Āqā Šādiq kept track of the quality of the drink. On 27 October 1738 he submitted a complaint to the Court Office that the vodka was "not fit to satisfy the elephant, because it came with a burnt taste and was weak" [Vnutrenniy byt 1880–1886, I: 327]. In the cold season the animals were prescribed pork or beef [RGADA, f. 1239, op. 3, d. 35865, l. 23v]. Even the rice had to be of a particular quality and of a taste with which the animal was familiar. In 1736 the elephant keeper rejected rice that had been brought through German commercial networks, and demanded that the Persian sort with which the elephant was familiar should be bought. Only the impossibility of quickly finding the necessary quantity convinced the mahout to try making the substitution, while the Russian officials were looking for a supplier [RGADA, f. 1239, op. 3, d. 35865, ll. 53–59v].

Elephant keepers were equally attentive in their choice of bathing water. When in the spring of 1741 the Imperial Cabinet, the Senate, the Building Chancery and the Commission for Building in St Petersburg were organising a new elephant house for Nādir Shāh's elephants, the choice of the place for building it made by the architects Zemtsov and Schumacher was corrected after consultation with Asatiy the elephant keeper. He had not approved the quality of the water in the city canal and recommended building near the

¹ In the documents known at present there is no information about whether the elephant keepers encountered any unfamiliar diseases or symptoms caused by the new environment in which the elephant was living. Data of this sort would have let it be seen what interpretative resources the specialists used and how Ayurveda, as an explanatory model, worked in the new conditions.

Fontanka river. His opinion carried the greater weight [Vnutrenniy byt 1880–1886, I: 330].

The same Indian and Persian treatises regulated the use of particular medicines for prophylaxis and therapy [Speziale 2018]. Likewise the elephant keepers in Russian service relied on the ethno-veterinary knowledge, founded on Ayurvedic principles, that they were familiar with. In this respect, notwithstanding the “adaptation” to specific animals resulting from their Indian classification, one can see a continuity between the medical practices of the beginning and the end of the eighteenth century (see Appendix). The ingredients for the medicines included spices, herbs, nuts, resins and binding agents such as butter, fat, eggs or fish glue.¹ Some specifics, such as rhubarb and ginger, were already firmly fixed in the humoral medicine that was accessible to the Russian upper strata thanks to the global trade in *material medica* and therefore they were well known to the court officials and interpreters. The names of some others — *black physic*, *dār fil fil*, *neyan*, *bedenzhil* — were clearly written down from the elephant keepers’ words, with an attempt at translation or simply by ear, to be bought where those notes could be properly understood.² In this way both rare medicines specific to South Asia (*ral*, *amile*) could be noted down, and also medicines known to Graeco-European medicine, such as fenugreek and rue (in the archival records of medicines for the elephant they appear under their Persian names of *shanbalīla* and *sudāb*), but correlating them with the relevant terms in different languages was problematic.³ In the process of writing down and translating, the expertise of the elephant keepers was definitive. The knowledge of the interpreters and officials who drew up the registers of medicines, or the apothecaries who dispensed them, was supplementary.

However, the application of the Ayurvedic knowledge codified in the treatises on elephant keeping can hardly have been mechanical.

¹ From a note drawn up in 1806 after the death of a Bukhara elephant, we know how the medicines were used: the spices were mixed with fat, honey and fish glue into lumps the size of a goose’s egg [SPbF ARAN, f. 4, op. 2, d. 184, l. 392].

² Besides the Armenian merchants who served as intermediaries and interpreters in Russian contacts with the East, some officials and townsfolk living in Astrakhan also knew Arabic and Persian: they could learn the languages independently or at the Bukhara market [Savich 1978: 250]. Translators of Eastern languages served at various state departments in frontier towns (Astrakhan and Orenburg). Besides, there were Indian merchants trading in Russia, and they had their own caravanserai in Astrakhan [Levi 2002: 172–176].

³ In documents of the Apothecary Chancery from the second half of the seventeenth century an identical method of noting down ingredients from the words of the professionals (Western European physicians) can be traced. For example, one and the same Indian ingredient is transliterated as *mirobolyan* [RGADA, f. 143, op. 2, d. 965, ll. 38–39]; *mirobolanom* [RGADA, f. 143, op. 2, d. 737, l. 93]; *mirabalani chebuli* [RGADA, ff. 143, op. 2, d. 743, l. 3–4]; *mirobolyani gebuli* [RGADA, f. 143, op. 2, d. 1094, l. 41]. In that case transliteration from Latin is evidence of the European route of the transfer of pharmacological knowledge, but the inconsistency in the way it is written down shows that there was no attempt to “abstract” the ingredient.

Like doctors who rely a great deal on experience when making diagnoses [Patel et al. 1999], the mahout determined the elephant's needs from his own dealings with it. Therefore, it was only possible to become an apprentice to a Persian or Indian mahout if the elephant would "recognise" the new person, and it was not enough just to speak the same language as the mahout [Vnutrenniy byt 1880–1886, I: 327]. For this reason the Persian ambassador asked that mahouts who had been left without work should be sent to make the acquaintance of the newly arrived elephants, "that they may know the habits of the elephant and that he might be used to them" [RGADA, f. 1239, op. 3, d. 35865, l. 26]. Ayurveda only provided general guidance, but putting it into practice depended on the specialist's ability to "make a judgment" [Gorman 2002: 222–225, 228].

The elephant keepers' medical knowledge was specific and local, attached to the same territory that determined the kind of animal and its needs according to its age and to the season, and it depended on experience. Consequently, when it was transferred, the possibilities of removing one medical component or another from the system of local knowledge were limited. It was only well assimilated ingredients with recognisable characteristics, such as rhubarb, ginger and cloves, that were liable to delocalisation. It was easier to order those local materials that did not have such clear signs (such as dried herbs) under the name by which the foreign mahouts knew them, and acquire them via a long supply chain. In addition, it is quite possible that the very fact of the relocation of the technological system along with its specialists made attempts to identify medical ingredients superfluous. Those experts who could have been involved in it, such as the Western European naturalists employed by the Russian court, were not engaged in providing for elephants and had no direct contacts with their keepers.¹

This does not mean that the transferred knowledge was entirely closed and impermeable to borrowings and local influences. Speaking of the historical mutability of Ayurveda and its epistemological openness, P. B. Mukharji gives examples of adaptations of New World plants to the Ayurvedic categories: imported tastes not only found their place in the existing classification, but, through practice, had an active influence on its organisation [Mukharji 2020: 241–246]. The Russian instance of technological transfer also contains indications of the possibility of such adaptation. For example, plants from North-West Russia went into the "hay made from large rushes" that was prepared by court peasants on the shores

¹ A reverse example is the *Pharmacopœa Persica* by the French missionary Ange de Saint-Joseph, which is a translation with commentary of a Persian medical treatise: in it, the Persian names of medical formulae and ingredients are translated into Latin [St-Joseph 1681].

of the Gulf of Finland and Lake Ladoga. Unlike the German rice, it was evidently acknowledged by the elephant keepers as perfectly acceptable for their charges, as was the imitation of sugar cane using coarse grass stems, butter and treacle.

Finally, it was not necessary to rely only on words when ordering provisions and medical materials. The elephant keepers probably had access to existing stores and could compare them *de visu*. There is indirect evidence for this in orders for the Chinese preparation that figures in Russian documents as *tenzuy* (from the Chinese *tin-tsuei*, "tablet", possibly from *dingzi yao*, "formed medicine").¹

In December 1712 the elephant's medication required "a pig's carcass at 2½ roubles, 7 *chetveriks*² of barley meal at 11 altyns 4 dengas a *chetverik*, 8 buckets of good church [wine] at 4 roubles a bucket, in all 36 roubles, and for 43 drachms of *tenzuy* 19 roubles 31 altyns 4 dengas" [RGADA, f. 77, op. 1, d. 1, ll. 342v–343, 345v–346, 350; Doklady i prigovory 1880–1901, III: 13]. Such a high price was most likely the result of the difficulty in obtaining the medicine, which was brought to European Russia from China. The fact that *tenzuy* was issued more than once (see Appendix) speaks to the high status of the elephants in the court hierarchy, resulting both from their function as a diplomatic gift and from their exclusivity: the elephants' political charisma gave them access to a medicine which was considered especially valuable.

Tenzuy is first mentioned in the middle of the seventeenth century: it is to be found in the list of gifts from the Emperor of China and in the register of Chinese goods imported into Russia through the Siberian customs house at Tobolsk [RGADA, f. Sibirskiy Prikaz, stlb. 535, l. 89; Materialy po istorii 1932: 346–347, 358–361]. In the eighteenth century, via Europeans in Russian service, *tenzuy* came into the hands of European naturalists, who described it as medicinal earth (*terra sigillata*) or a compressed powder, yellow, red or black in colour, made of a vegetable, animal and mineral ingredients, smelling of ambergris and musk, for treating bruises and for sneezing.³ Red *tenzuy* most probably contained cinnabar (Chinese *zhusha*), yellow contained orpiment (Chinese *cihuang*), and black owed its colour to the soot into which the medical materials were mixed. That is, the word *tenzuy* could denote a variety of preparations: medical mixtures compressed into *dingzi yao* tablets and inksticks which also had a medical application.

¹ On the history of the Russian word see: [Anikin 2021: 201–202]. On the *dingzi yao* compressed medicines produced at the imperial pharmacy and used as amulets, prophylactic measures and diplomatic gifts, see: [Aricanlı 2013: 65–66; Guan 2021: 264–266].

² A *chetverik* was approximately three pecks. [Transl.]

³ See, in particular, the description of *tenzuy* in the registers of German *Kunstkammern*: [Commercium litterarium 1731, I: 162–163; Commercium litterarium 1740: 260, 409–410; Bruckmann 1756: 75–76].

However, whereas the various kinds of *tenzuy* reached Western Europe from Russia, the Persian and Indian mahouts could have become familiar with them through the trade links along the Silk Road.¹ In this case it could be enough for the mahout to know the colour and shape of the Chinese “tablet” to compare the required medicine with the assortment in the Moscow pharmacy. The accessible archival documents do not specify for what malady the elephant required *tenzuy*, nor what colour it was. But both Ayurveda and the Islamic Unani medicine practised in Persia used cinnabar for people, elephants and horses, and orpiment, according to the treatise *Mātanga-lilā*, was included in a recipe for ointment for rubbing on rods and goads [Edgerton 1931: 101; Wujastyk 2013; Preckel 2015]. At the beginning of the eighteenth century *tenzuy* was evidently still a rarity, which explains why it was issued only by special permission.²

The Persian mahouts’ requests for the issue of *tenzuy* from the stores of the Moscow pharmacy confirm yet again the scale of the global trade in medicines and Russia’s involvement in that process.³ Moreover, as we see, the importing of expensive medicines from distant countries and the compounding of complex recipes was intended to maintain the health not only of the imperial family and the aristocracy, but also of animals that had an equally exclusive social status.

The names of medicines in Persian, Urdu, Arabic and Russian, written in the Cyrillic alphabet, are traces of how the technological system functioned in the Early Modern empire. To order and buy medicines, and, in the end, to keep the system going, it was necessary for there to be contact between different kinds of *technicians*, interpreters and officials all the way from Petersburg to Astrakhan. The prevention and treatment of the elephant’s illnesses was carried on within a medical tradition “of the same nature” as his own, and put into effect foreign veterinary knowledge that was transferred to the Russian Empire from the East. Behind the variations in the medical formulae in all probability lay the differences in age, temperament and caste of

¹ On Bukhara merchants as trade intermediaries between India, Persia, Siberia, China and Russia see: [Ziyaev 1983; Burton 1997: 380–386, 391–410 et passim; Monahan 2016: 254–301]; see also the discussion of the significance of Central Asian trade networks for the West and the East in: [Levi 2002: 29–45]. Speaking of the import of spices and medicines, Burton cites mentions of *tenzuy* in barter between Bukhara and China in 1640, but mistakenly identifies it with tansy root, from the similarity of the sounds [Burton 1997: 386, 455, 459]. In addition, *tenzuy* is mentioned in 1724 alongside rhubarb and musk, in the report of a member of a diplomatic mission to Bukhara [Beneveni 1986: 84–85]. On Sino-Iranian medical exchanges see also: [Ming 2022: 475–492].

² A nineteenth-century study provides the information that *tenzuy* and china-root were exported from China in small quantities, because people only had confidence in rhubarb [Trusevich 1882: 180]. It may be that it was a matter of the connection between a medicine’s reputation and where it came from, since there is evidence as early as the seventeenth century of a demand for china-root [Khudin 2019]. In turn, *tenzuy* may have kept its status as a rarity, but not have had any particular medical significance.

³ See the exhaustive analysis of Russian imports of medicines in the seventeenth century: [Griffin 2022].

particular animals, and also seasonal requirements, but they were still determined by "elephant Ayurveda". The Asian science of elephants represented not merely authoritative knowledge, recognised and paid for by the Russian court, but also technological instructions that allowed the animal to be kept in captivity and in an alien habitat. This knowledge maintained its high status as long as it was included in a specific technological system, the boundaries of which were defined by the general concept of "foreignness".

Although looking after the animals was part of the official responsibilities of the mahouts, including feeding, keeping them clean, taking them for walks and treating their illnesses [Vnutrenniy byt 1880–1886, I: 329], the existing documents do not reveal whether any Russian official attempted to check the quality of the work. It does not appear that the occasions when elephants escaped their chains and broke down fences and buildings had any consequences for their keepers (in which they resembled the German farriers, who in most cases managed to explain away their failures, unlike their local apprentices, see: [Novombergskiy 1910]). The elephant, as an imported technological system, remained opaque to the local supervisory bodies.

Probably the only moment when different forms of expertise came into contact was when the animals died. Sometimes the Oberjägermeister's Office sent the carcasses to the Academy of Sciences to find out "from which malady this elephant died". There it came within the field of vision of Western European naturalists in Russian service, and thence began its road to the *Kunstkamera*. The Academy documents about the autopsies preserve the animals' names: in October 1742 Takhter Avan died, in January 1747 Alekbash, in the summer of 1749 Nastrat, in January 1753 Tchengbasch, in the autumn of 1756 Bakhni, and in May 1765 Sala [Materialy dlya istorii AN 1885–1900, V: 399–400; VIII: 365–367; X: 41; SpbF ARAN, f. 3, op. 1, d. 535, ll. 96v–97; d. 525, ll. 277v–278; d. 173, ll. 291–336].¹ Only in one of the cases known to us did the anatomist who carried out the post mortem give recommendations for the future, evidently because at that time there were still other animals at the court for which such recommendations might be vitally important. When the elephant Nastrat died in July 1749, the professor of anatomy and physiology Abraham Kaauw Boerhaave reported that his death had been the consequence of chronic constipation, and that the remaining animals should "be taken out of their stalls into the fresh air more often during summer time and exercised, and they should be given the best hay and clean, healthy water, not the sort that

¹ In the Mogul Empire all court elephants were given names emphasising their might, beauty and valour [Buckingham 2016: 96–104]. The mahouts probably still maintained this tradition after the animals had been moved to Russia. However, it only became visible to Russian record keeping when there were several of them and to keep account of them and organise their participation (in both life and death) in the activity of the court required nuances to tell them apart.

is usually stagnant in wells and other places” [Materialy dlya istorii AN 1885–1900, X: 41]. The question of whether, and how, these recommendations ever reached the Indian elephant keepers, and whether they had any effect on their care, requires further investigation.

Conclusion

The study of the living gifts exchanged between empires in the Early Modern period provides new material for the history of medicine and the history of technology. From the example of the elephants which the Russian rulers received from Persia and Bukhara one may trace the principles whereby the system of caring for and treating animals was transferred from one empire to another. The animals were accompanied to their new home by bearers of the “elephant science” and the material infrastructure necessary to ensure their well-being and the fulfillment of their representative functions.

The capacity ascribed to elephants of embodying political charisma transformed their life at the court into a performance of power. This performance proved possible thanks to the relatively smooth working of both specialists and bureaucrats. At the functional level the mahouts, the medicines, the food and the equipment were components of the technological system that the elephants embodied. This approach allows the animal gifts to be described as a case of the transfer of technology. Unlike scalable technologies, it remained a single item and represented more a foreign technological enclave, maintained solely by the political ambitions of the empire. Elephants in Russia were used only for ceremonial and entertainment. Their social functions came down to a demonstration of the status of their owner — the Russian court — and its relations with neighbouring states. They served as living avatars of power.

The boundaries of this technological enclave were penetrable. New technicians — apprentices from among the Tatars, Armenians and Persians trained in Russia and without any previous experience of elephant keeping — could join in its work. Some components were liable to substitution, and the bearers of Ayurvedic knowledge could convert to Orthodoxy. On the other hand, since the state saw no need to scale up this technology, Ayurvedic knowledge about treating elephants had an extremely limited application. It created diversity within the structure of state medicine, but did not extend beyond the boundaries of the enclave. When the animal died the enclave itself disappeared. This was not, however, the end of the process of enacting power: in the form of skeletons and stuffed animals the elephants entered the St Petersburg Kunstkamera and continued to be displayed to courtiers and diplomats.

Appendix

Provisioning of the elephants sent to the Russian Imperial Court
in the eighteenth century¹

№	Year	From whom	Provisions
1	1702–1703	<i>From India or Persia</i>	<i>The elephant was lost near Şamaxı, there are no data</i>
2	1711 ²	Sultān Huseyn Shāh of Persia	“Saracen millet”, i.e. rice raisins honey treacle butter cakes vodka salt garlic hay straw candles firewood <i>medicine</i> pork barley meal church wine <i>tenzuy</i> spices cloves anise cardamom
3	1717 ³	Sultān Huseyn Shāh of Persia	<i>The elephant died at Astrakhan after crossing through Dagestan; there are no data</i>
4	1723 ⁴	Tahmasp II Shāh of Persia	Saracen millet cakes butter honey garlic

¹ The lists given here are probably not exhaustive. Firstly, there is always the probability of discovering new materials on the subject in the archives. Secondly, the known documents do not always specify what kinds of provisions and medicines they mean, using instead general expressions (“for the elephant’s medicine”, “for medical preparations”, “spices for the elephant”, “herbs”, etc.). Nevertheless, the provisioning registers discovered to date are sufficiently representative for the purposes of this research.

² See: [RGADA, f. 77, op. 1, d. 1, ll. 312, 342–343, 34v, 348v, 352–352v, 356v; f. 248, op. 7, d. 372, № 52, l. 216; Weber 1729: 7].

³ See: [Lopukhin 1958].

⁴ See: [RGIA, f. 466, op. 1, d. 41, ll. 25–26v].

№	Year	From whom	Provisions
			vodka hay made from large rushes oatmeal yellow ginger ¹ tallow candles firewood salt butter “for anointing the elephant” ² firewood “when it snows” double vodka pork medicine white ginger ³ bandir ⁴ cloves pepper chilibukha ⁵ yellow ginger goldsmiths’ borax medicines from Astrakhan zin’yan ⁶ black medicine ⁷ alil’ ⁸ agir ⁹ Indian kat ¹⁰ bakan pich’ ¹¹

¹ Probably turmeric, *Curcuma longa* L. Yellow and white ginger, together with other spices, are mentioned in the statement of the Indian merchant Marwari about “natural” Indian goods imported into Russia, given 15 February 1735 [RGADA, f. Senat, kn. 1131, ll. 191–192]. Marwari’s name comes from Marwar, a region of north India; members of the merchant caste from there traded in Central Asia and Russia [Dmitriev 1972: 235; Levi 2002: 108–112].

² On care for the elephant’s skin see: [Mukhopadhyaya 1922, II: 403].

³ Probably *Zingiber officinale* Roscoe.

⁴ Probably Urdu *bandhur*, *Pentapetes phoenicea* L. [Platts 1884: 170].

⁵ *Nux vomica*, *Strychnos nux-vomica* L.

⁶ Ajwain, Persian *zinyān*, *Trachyspermum ammi* (L.) Sprague = *Carum copticum* Benth. & Hook. f., or else caraway, *Carum carvi* L. [Steingass 1892: 218, 635; Hooper, Field 1937: 95].

⁷ Possibly from the Arabic *marham aswad*, “black ointment”.

⁸ From Persian *halīleh*, *halīla*, the black myrobalan, *Terminalia chebula* Retz. [Hooper, Field 1937: 177].

⁹ Probably Arabic *āqir qarḥā*, Persian *agirgarhā*, Spanish chamomile, *Anacyclus pyrethrum* L. [Hooper, Field 1937: 85; Károly 2015: 348]

¹⁰ Probably *qātt*, lucerne, *Medicago sativa* L. [Steingass 1892: 954; Hooper, Field 1937: 139].

¹¹ Possibly Persian *bahman-i pīch*, *Helicteres isora* L. [Hooper, Field 1937: 124–125].

№	Year	From whom	Provisions
			dar fil' fil'¹ mun fil' fil'² badyreng³ anguzey⁴ kafil'⁵ shambalele⁶ "for the cold weather" black zir'⁷ "against sickness, when anything is needed" tenzuy turpentine vodka "for blackening the elephant" Indian amile⁸ fresh eggs butter cobblers' copperas soap
5	1736 ⁹	Nādir Shāh of Persia	Saracen millet mung beans ("used to be bought for the previous elephants in Astrakhan") wheat flour cane sugar butter salt pepper ginger cinnamon cardamom cloves nutmeg

¹ From Persian *dār filfil*, long pepper, *Piper longum* L. [Steingass 1892: 496].

² From Persian *filfil-mūn*, wild mint, or Arabic *fulfulmūn*, the root of long pepper [Steingass 1892: 938].

³ Probably Persian *bād-rang*, cucumber, or a kind of citrus; or Arabic *bāḍarūg*, basil, *Ocimum basilicum* L. [Steingass 1892: 139; Károly 2015: 232].

⁴ From Persian *anguza*, *anguzha*, assafoetida, *Ferula assa-foetida* L. [Steingass 1892: 114–115].

⁵ Probably Persian *kāfūr*, the camphor tree, *Cinnamomum camphora* L. [Steingass 1892: 1007].

⁶ From Persian *shanbalīla*, *shambalīla*, fenugreek, *Trigonella foenum-graecum* L. [Steingass 1892: 762].

⁷ Probably Urdu *kaala zirah*, black zira, *Elwendia persica* (Boiss.) Pimenov & Kljuykov or *Carum bulbocastanum* Koch = *Bunium bulbocastanum* L. [Hooper, Field 1937: 95].

⁸ From Persian *amīla*, Arabic *amlaḡ*, Indian gooseberry, *Phyllanthus emblica* L. [Steingass 1892: 102].

⁹ See: [RGIA, f. 466, op. 1, d. 41, ll. 21–24; RGADA, f. 1239, op. 43, d. 15, ll. 2–2v, 21–22; op. 3, part 69, d. 32517, l. 1; d. 35865, ll. 46–56, 60v].

№	Year	From whom	Provisions
			saffron zardach' ¹ tallow candles firewood also wheat peas beef sbiten' from oatmeal every year white wine (from May to November) vodka (from November to May) grass (in summer) raw rushes hay from rushes (in winter) fine hay milk goat fat sheep fat eggs medicine tatulya ² baladar/baladur ³ ral ⁴ neyan ⁵ kaladan ⁶ anguze ⁷ slant (?) bekenfil (?) ⁸

¹ From Persian, Urdu *zardak*, carrots, *Daucus carota* L., but also turmeric, *Curcuma longa* L. [Platts 1884: 616; Steingass 1892: 614].

² From Persian *tātūla*, thorn apple, *Datura stramonium* L. [Steingass 1892: 272].

³ From Persian *balādur*, marking nut tree, *Semecarpus anacardium* L. fil. [Platts 1884: 163; Steingass 1892: 196; Hooper, Field 1937: 170].

⁴ Probably Urdu *rāl*, the juice of *Shorea robusta* Gaertn.; also Persian *raāl*, the juice of *Vateria indica* L. [Platts 1884: 583; Khare 2007].

⁵ From Persian *nayam*, Hindi *nīm*; “a tree, the leaves of which are used for healing wounds”, *Azadirachta indica* A. Juss. [Steingass 1892: 1444]. Sanderson, in his description of how elephants were healed by their mahouts in India in the nineteenth century, mentions bandaging their wounds with material soaked in oil from the seeds of the neem tree [Sanderson 1879: 98].

⁶ From Hindi *kaladanah*, “black seed”, *Ipomoea nil* (L.) Roth [Hooper, Field 1937: 130].

⁷ See note 4, p. 159.

⁸ Possibly from Arabic *baqlat al-fil*, “elephant grass”.

№	Year	From whom	Provisions
			ravan ¹ zinion ² bank ³ sedav ⁴ bedenzhil ⁵ rhubarb paints “ <i>for painting the elephant</i> ”
6-20	1741 ⁶	Nādir Shāh of Persia	wheat flour sugar butter Saracen millet vodka hay salt garlic candles firewood <i>medicine</i> chilibukha ⁷ “ <i>for painting the elephant</i> ” minium ochre whitewash verdigris copperas cinnabar
21	1796 ⁸	Shāh Murād Ibn-i Dānyāl bey, Emir of Bukhara	hay wheat flour milk <i>medicine</i> ground black pepper nutmeg white ginger yellow ginger

¹ From Arabic *rāwand*, Persian *rīwand*, rhubarb.

² See note 6, p. 158.

³ From Persian *bang*, hemp, *Cannabis sativa* L. [Steingass 1892: 203].

⁴ From Persian *sodāb*, *sadāb*, rue, *Ruta graveolens* L. [Steingass 1892: 663].

⁵ From Persian *bedanjir*, *bīd-anjir*, *bīd-danjir*, castor oil, *Ricinus communis* L. [Steingass 1892: 218, 289; Hooper, Field 1937: 164–165; Károly 2014: 238, 349].

⁶ See: [AVPRI, f. 77, op. 77/1, d. 16, vol. 1, ll. 25v, 30, 44, 47 (quoted in [Vasilyeva 2019]); Vnutrenniy byt 1880–1886, I: 327, 336–337].

⁷ See note 5, p. 158.

⁸ See: [SPbF ARAN, f. 4, op. 2, d. 184, l. 392]. On the fate of this elephant, including its posthumous fate, see: [Fedotova 2023].

№	Year	From whom	Provisions
			cardamom cloves cinnamon chilibukha develdrek ¹ butter white fish glue red honey

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Abbreviations

AVPRI — Arkhiv vneshney politiki Rossiyskoy imperii MID RF
RGADA — Rossiyskiy gosudarstvennyy arkhiv drevnikh aktov
RGIA — Rossiyskiy gosudarstvennyy istoricheskiy arkhiv
SPbF ARAN — Sankt-Peterburgskiy filial arkhiva Rossiyskoy Akademii nauk

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