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Abstract

A variety of wormwood, *Artemisia Cina*, once grew abundantly in the Syr-Darya province of Russian Turkestan. Santonin, a drug derived from it, was in high demand. Flowers harvested by Kazakhs were handed over to intermediaries to be processed in Europe, but from the 1880s entrepreneurs from different parts of the Russian empire established their own chemical plants in Chimkent and Tashkent. They pressured the Russian imperial government to restrict the rights of the Kazakhs on land where *Artemisia Cina* grew, and grant them the exclusive right to exploit this resource. These entrepreneurs used conservationist arguments and advocated a 'cultured' approach to the management of natural resources located on supposedly 'State land'. These attempts collided with the usage rights of the Kazakhs, as defined by Turkestan's governing Statute. By shifting the argument to the political, rather than legal, level, the industrialists eventually gained a monopoly to the exclusion of local entrepreneurs and even assumed State-like functions. This paper reconstructs this controversy and allows a glimpse into the evolving claims to natural resources in the 'periphery' by both Tsarist colonial power and the Kazakhs themselves. The paper also explores the features of autochthonous and Russian entrepreneurship and situates Turkestan in a web of trade connections to the global pharmaceutical industry.

Keywords: Turkestan; Kazakhs; wormwood; capitalism; common-pool resources.

Introduction

In 1907 Active State counsellor N. A. Kriukov intervened at the inter-institutional meeting which minister of Internal Affairs A. I. Lykoshin had convened in Saint-Petersburg to discuss

the question of the land organization (*zemleustroistvo*) of the Central Asian ‘Kirgiz’ (*scil.* Kazakhs and Kyrgyz). Kriukov was the director of the Agricultural Department of the Main Administration for Land Organization and Agriculture (GUZiZ), but on this occasion he did not endorse the official line of the GUZiZ.¹ The latter was a three-pronged approach which favoured the colonization of Russia’s Central Asian colonies – the Kazakh Steppe to the north and the Turkestan general-governorship to the south- by Slavic settlers through the definition of ‘excess land’ (*izlishki*), the simplification of rules on renting land from the Kazakhs, and the land organization of those nomads who had already adopted settled agriculture. Kriukov argued against such moderation, and favoured instead the establishment of ‘reservations’ on the model of those established for Native Americans in the USA. His argument appeared in a virulent ‘minority report’ (*osoboe mnenie*) which embodies some of the most extreme views of Russian imperial officialdom on nomadic lifestyle and ‘Asian barbarism’. Here, however, Kriukov’s ‘minority report’ interests us because among the natural riches which the Kazakhs were supposedly squandering, it mentions a wild plant, a kind of wormwood, whose botanical name is *Artemisia Cina* (*tsitvarnaia polyn*’ in Russian). Though this is one of the last and most generic sources where this plant is mentioned, it is worth citing the passage *in extenso*, as it reveals the wider implications of such an apparently small issue:

¹ On the ideology of the GUZiZ: Peter Holquist, “‘In Accord with State Interests and the People’s Wishes’: The Technocratic Ideology of Imperial Russia’s Settlement Administration,” *Slavic Review* 69, no. 1 (2010), 151-79. A biography of the head of GUZiZ, Aleksandr V. Krivoshein, is: K. A. Krivoshein, *Aleksandr Vasil’evich Krivoshein: Sud’ba rossiiskogo reformatora* (Moscow: Moskovskii rabochii, 1993). The GUZiZ’s views on the development of Turkestan were summed up in: A. V. Krivoshein, *Zapiska glavnoupravliaiushchago Zemleustroistvom i Zemledeliem o poezdke v Turkestanskii kraj* (Sankt-Petersburg: Gosudarstvennaia Tipografiia, 1912); also published in: *Voprosy kolonizatsii* 12 (1913), 297-369.

In our Syr-Darya province there are tufts of wormwood, a wonderful plant, which is used in medicine. This is the only small piece of land on the globe, where wormwood grows in abundance [*proizrastaet*]. The question of the conservation of this wormwood at all costs has emerged long ago, but nobody decides to do so, because we are told that that area is used by Kirgiz nomads. They come around, as their whim dictates, with their yurts, trample down the precious plant, cut it for firewood, and our officers are incapable of defending this wondrous plant from final extinction.²

In a polemical tone, these words summarise the controversy that surrounded the usage of wormwood in the vicinity of Chimkent under Russian colonial rule, from the 1860s to the revolutionary period. The kind of wormwood that grew spontaneously in the area was quite rare, its natural spread being limited to parts of Central Asia.³ This wormwood was a valuable medicinal plant with an international market because it carried a higher concentration of active principle than other, more common varieties of wormwood,⁴ *Artemisia cina* was the

² N. A. Kriukov, 'minority report' on the land organization of the Kirgiz, 26 November 1907, published in: M. *Sibirskie pereseleniia*, ed. V. Shilovskii, vol. 3 (=Osvoenie Verkhnego Priirtysya vo vtoroi polovine XVIII-nachale XX vv. Sbornik dokumentov) (Novosibirsk: Institut Istorii SO RAN, 2010), 147-54, here 151; originally in: *Zhurnal soveshchaniia o zemleustroistve Kirgiz* (St. Petersburg 1907), 35-6, 113-21.

³ Estimates of the spread of *Artemisia cina* oscillate between 'the steppe-areas East of the Caspic Sea, ... Afghanistan and ... the Southern Ural region' and the regions of Zhambyl and South Kazakhstan alone. Compare: H. J. Woerdenbag, W. Van Uden, and N. Pras, "Artemisia Cina," in *Adverse Effects of Herbal Drugs*, ed. Peter A. G. M. De Smet *et alii* (Berlin and Heidelberg: Springer, 1997): 15-22, here 15; Zh. K. Asanova *et alii*, "1.8-tsineol iz polyni tsitvarnoi i ego biologicheskaiia aktivnost'," *Khimiko-farmavtsevticheskii zhurnal* 37, no. 1 (2003): 30-2, here 30.

⁴ Woerdenbag, Van Uden, and Pras, "Artemisia Cina", 15-6.

essential raw material for the production of santonin, the standard anthelmintic (worming) drug at the time. It was also a source of energy for the Kazakhs, who had pasture rights on the land where it grew. By the end of the nineteenth century, many observers (though not all) were persuaded that overuse by the Kazakhs would destroy this resource, and that the State should intervene to protect it. The clear subtext to these statements was the common idea that 'Asians' (and in particular nomads) were not able to use natural resources in an efficient and rational way, while it was the responsibility of the imperial administration, in particular the GUiZ, to impose best practices that would increase and maintain, in a scientifically sound manner, the productivity of land, forests, and other natural resources – including Central Asian wormwood.

In this sense, the question of wormwood in the Syr-Darya province did not only concern its conservation, as Kriukov liked to put it: it was about balancing the interests of different stakeholders in a way that could not only deliver the expected results, but could also be justified in culturally acceptable terms in the eyes of those who had power on the spot (*i.e.* the Turkestani administration) and in the metropole (*i.e.* the GUiZ and other ministries). These two groups did not have identical views on issues such as resettlement, forestry, and land management in general. The preferences of the Kazakh 'natives' were not homogenous either, because they did not only uproot the wormwood to use it as fuel, but also collected it for the chemical industry and its intermediaries. Finally, the field of those who had invested in the transformation of wormwood was also divided along national cleavages: there were Russian, local, and foreign (German) entrepreneurs. A further distinction existed between those who produced a semi-refined powder, and those who wished to move the entire production cycle to Central Asia and obtain the santonin crystals that were used as a medication. Last but not least, Tatar and Kazakh actors were deeply involved in the

procurement of this resource, as well as in the surveillance regime that underpinned both the exploitation and the preservation of the latter.

This article explores the history of the interaction and tensions between all these stakeholders around *Artemisia Cina*. It attempts at reconstructing the history of Central Asian wormwood, both in its material use (as industrial raw material and as fuel), and in its symbolic life (as a threatened natural resource and as the embodiment of Kazakh pasture rights), across the whole period of its exploitation. By so doing, this article significantly expands and deepens the brief discussion of *Artemisia cina* recently offered by Jennifer Keating. Keating persuasively considers this as a case-study of the expansion of Russia's 'resource frontier' in Central Asia, as well as an example of how 'bioprospecting' in the region had become entangled in global capitalist networks by the late nineteenth century. She acknowledges the existence of multiple claims over this resource and demonstrates how these claims can hardly be reduced to the 'colonizer vs. colonized' dichotomy. In her book, though, she does not account for the period after 1895.⁵ Contrary to what she asserts, the *darmina* issue *was* resolved, as we will see, in the sense of a monopoly – yet even the latter did not signify the full alignment of the interests of the colonial State with those of the industrialists, let alone the marginalization of local agents.

Artemisia Cina in the vicinity of Chimkent was a typical 'common-pool resource' according to Elinor Ostrom's definition.⁶ By cross-checking a variety of official and

⁵ Jennifer Keating, *On Arid Ground: Political Ecologies of Empire in Russian Central Asia* (Oxford: University Press, 2022), 175–7.

⁶ 'The term "common-pool resource" refers to a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use.': Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge: Cambridge University Press, 1990), 30.

unofficial sources produced by different governance levels and by some of the private actors involved, this article seeks to reconstruct the social and economic relations that surrounded and shaped this CPR. How did the Kazakhs use the land under wormwood in the last quarter of the nineteenth century? How did industrial exploitation complicate this picture? Which social relations underpinned the harvesting of wormwood? How did Kazakhs and, more generally, non-European actors profit from -or resist- the new *darmina* business? How did industrialists, colonial authorities, and Kazakh spokespersons represent the usage they made of this resource, and what ideology did their representations derive from? Through the narration of the history of wormwood and its usage, this article is going to cast some light on the more general issue of the management of CPRs at a crucial juncture in late Tsarist history, when the growing inflow of settlers, the birth of industrial activities, and the development of intensive cattle-breeding led to increasing conflicts around them.

In a broader perspective, the way the presence of *Artemisia Cina* mobilized merchant and industrial interests represents important evidence for the solution of two well-known historical controversies among Russianists: the first is the famous Gerschenkron vs. Crisp argument on the role of the State in fostering industrial development in the Tsarist empire;⁷ the second concerns the monopolistic nature of capitalism in the late Tsarist period, and the role of the imperial State in supporting it, as is commonly held in Soviet publications inspired

⁷ Olga Crisp, "The pattern of industrialisation in Russia, 1700-1914," in *Studies in the Russian Economy before 1914*, ed. O. Crisp (London: Macmillan, 1976): 5-54; O. Crisp, "Russia," in *Patterns of European Industrialization. The Nineteenth Century*, eds Richard Sylla and Gianni Toniolo (London: Routledge, 1991): 248-68, here 257. Crisp's target is in particular A. Gerschenkron, *Economic backwardness in historical perspective* (Cambridge, Mass.: Harvard University Press, 1970).

by Lenin's views.⁸ In the case of the chemical industry that processed wormwood in Chimkent, the position of the imperial government varied rather wildly between the 1880s and the beginning of the twentieth century, whilst the views of Russian authorities in the metropole and in the colony were often opposed.

On a more specific level, the history of *Artemisia Cina* in Chimkent intersects with three other themes that are worth further exploration in scholarship beyond the field of Russian imperial history: first, the topic of conservation and its ideology in colonial Turkestan, which stands open to comparisons with other colonial contexts and with the other regions of the Russian empire, too. Was the conservation of wormwood around Chimkent an example of 'Green Imperialism' *à la* Grove?⁹ Second, because of the extensive involvement of local intermediaries and legal pluralism, the history of *Artemisia Cina* was also a history of advance agreements and contract failure in a colonial context: an issue which is well-known to economic historians and has important implications for other economic sectors.¹⁰ Finally, the transnational history of *Artemisia Cina* reminds us that, before and after the Russian

⁸ Such emphasis on monopolistic capital is crucial for the idea of imperialism as 'supreme phase of capitalism' which Lenin, on the basis of Hobson, opposed to Karl Kautsky's views in 1916: Vladimir I. Lenin, "Imperialism, the Highest Stage of Capitalism," in *Selected Works*, vol. 1 (Moscow, Progress Publishers, 1963): 667-776. While this view has shaped most Soviet historiography, nobody has really examined it for Central Asia. In particular, many still refer to: M. I. Veksel'man, *Rossiiskii monopolisticheskii i inostrannyi kapital v Srednei Azii (konets XIX-nachalo XX v.)* (Tashkent, Izdatel'stvo "Fan" Uzbekskoi SSR, 1987).

⁹ Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860* (Cambridge: Cambridge University Press, 1996); see also: G. A. Barton, *Empire Forestry and the Origins of Environmentalism* (Cambridge: Cambridge University Press, 2002); W. Beinart and L. Hughes, *Environment and Empire* (Oxford: Oxford University Press, 2007).

¹⁰ E.g. Tirthankar Roy, "Indigo and law in colonial India," *Economic History Review* 64, s1 (2011): 60-75.

conquest, Turkestan was an essential provider of medications to the dwellers of Europe in their ever-lasting struggle against intestinal parasites: a state of things that the establishment of a chemical plant in Chimkent emphasized further, at least for some decades. All in all, this article cautions against an exclusive focus on cotton and new irrigation in the study of the environmental and economic history of Central Asia in the modern period. While nobody can deny their importance, it is sometimes by examining big questions (the impact of Russian colonial rule on the rural landscape) from a peripheral angle (wormwood) that one can more easily discern their ideological and political underpinnings.

This paper is organized thematically and chronologically. The next section sketches out the nature of *Artemisia Cina* and the technology for its exploitation in the second half of the nineteenth c. It also explains how the Kazakhs used the land where this plant grew, and how this usage changed with the inclusion of the Syr-Darya valley in trade networks that made Central Asian wormwood a truly global commodity. The following sections narrate the three main phases in the history of the industrial production of santonin in Russian Turkestan. A boom in the 1880s was followed by a crisis in the first half of the 1890s, which fostered a first round of discussions between industrialists, officials, and experts between 1896 and the early 1900s. After the turn of the century, three circumstances led to the conflation of the issue of wormwood with that of the land settlement of the Kazakhs in general: first, the discovery of more land where *Artemisia Cina* grew in another district; second, the growing involvement of non-Russian and non-Tatar entrepreneurs and the increased agency of local Kazakh spokespersons; third, the greater engagement of the GUiZ in land organization, in the name of a technocratic and productivist ideology. In turn, this led to a sharp change in the way the issue of conservation was handled by the colonial administration and the metropolitan government. Toward the end, the reader will find a detailed excursus of what the monopoly at its maturity meant in practice for the Kazakhs, Russian settlers, Tatar

intermediaries, and various level of the colonial administration. Finally, the last section teases out some conclusions and hints at the wider significance of this episode for the political and economic history of the Russian empire, comparative colonial history, and the environmental history of Central Asia.

Artemisia Cina, semen contra, or darmina

The perennial herbaceous plant *Artemisia Cina* is a variety of wormwood. As the common name indicates, wormwood has been long known in Europe for its anthelmintic properties: this is why this specific variety of wormwood is sometimes called *Artemisia contra*, an abbreviation of *Artemisia contra vermes* ('artemisia against worms') or, more precisely, a contraction of the name of the plant family (*Artemisia*) and of *semen contra* (*scil. vermes*). The latter was the name given to its dried inflorescences (mistakenly thought to be 'grains') in European medieval and early modern pharmacopeias. More precisely, a dissertation in pharmacy defended in Paris in 1874 explained how three distinct types of *semen contra* were known and traded in Europe: a '*semen contra de Russie*', believed to come from Saratov 'in the Volga steppe'; a '*semen contra de Barbarie*' (*i.e.* the Maghreb), which had a lighter specific weight; and a '*semen contra du Levant*', which was purchased on the markets of Aleppo and Alexandria of Egypt and was believed to originate from Persia, Tibet, or Bukhara. It is quite possible that '*semen contra de Russie*' et '*du Levant*' were indeed the 'grains' of the same plant, *Artemisia Cina*, which were exported by caravans either towards the south into the Middle and Near East, or from Central Asia to the Volga basin. The '*semen contra de Barbarie*', or 'African', on the other hand, was already identified by others as a

different species, *Artemisia Sieberi* Besser.¹¹ It was on the basis of the drug called ‘*semen contra du Levant*’, without having seen the plant itself, that a German scholar, O. Berg, identified *Artemisia Cina* and give it its name: from the very moment when it entered European herbaria and botanical treatises, *Artemisia Cina* was viewed pre-eminently as a medicinal plant and, more exactly, as the plant that gave the vermifuge *semen contra*.¹² It is equally interesting to note that, in the period that followed the Russian conquest of Central Asia, *Artemisia Cina* stopped being associated with the Middle and Near East (as the traditional name of its ‘grains’ indicated) and, because it was predominantly traded at the Nizhnii Novgorod fair, it took the place of the (supposedly different) ‘*semen contra de Russie*’. This reflected the fact that in the nineteenth century, probably already before the Russian conquest, the trade routes of *semen contra* (i.e. *Artemisia Cina* ‘grains’) had shifted northwards: this Central Asian commodity was exported more and more along the Syr-Darya valley, and less and less through Iran.¹³

Artemisia Cina was known as *tsitvarnaia polyn*’ in Russian, although many Russian publications use the word *darmina* (or *darmine*) to designate it, claiming this was its local name. Indeed, nowadays *dermaneh* is the most common Persian name for *Artemisia Sieberi* Besser – the other variety from which *semen contra vermes* was obtained in the nineteenth

¹¹ J. M. Klewer, *Veterinair-Pharmacopoe, oder: die in der Veterinairmedizin Anwendung findenden Arzneimittel* (Dorpat: Schönmanns Wittwe und C. Mattiesen, 1862), 293. Confusingly, *Artemisia Sieberi* Besser also grew (and grows) in the Near and Middle East.

¹² Louis de Saint-Martin, *Recherches sur la santonine*, thesis presented at the École supérieure de pharmacie de Paris (Corbeil : Imprimerie de Crété fils, 1874), 7-8.

¹³ The growth of the volume of trade along the Syr-Darya route has been related to the ascent of the khanate of Kokand in: Scott C. Levi, “The Ferghana Valley at the crossroads of world history: the rise of Khoqand, 1709-1822,” *Journal of Global History* 2, no. 2 (2007): 213-32.

century.¹⁴ Muhammad Salih's chronicle, the *Ta'rikh-e Jadide-ye Tashkand*, written between the 1860s and 1880s, relates that a plant called *darmana* grew 'in the vicinity of Chimkent', although in his times 'people call[ed] this plant *qara asman*', and the Kazakh version of this word, *Qaraspan*, was the name of one of the cantons where this plant was growing.¹⁵

Artemisia Cina was not the only variety of wormwood that grew (or indeed grows) in the Kazakh steppe: for instance wormwood in general (Qaz. *zhusan*), for which sometimes the same Russian name *tsitvarnaia polyn*' is used, is a common sight in present-day Eastern Kazakhstan, too. In the early twentieth century, though, Fedchenko's catalogue of Central Asia's flora clearly distinguished between *Artemisia cina* or *Artemisia contra*, on the one hand, and other *Artemisia* species (*maritima* or *fragrans*), locally known as *arkar dzhusan* or *tumar dzhusan*. Unlike the latter, *Artemisia cina* was characteristic of the Syr-Darya valley around Chimkent, although occasionally to be found also in the Jizzakh and Tashkent

¹⁴ For this identification, see: Mohaddese Mahboubi, "Artemisia Sieberi Besser Essential Oil and Treatment of Fungal Infections," *Biomedicine & Pharmacotherapy* 89 (1 May 2017): 1422-30, here 1422. For *dermaneh* as biennial or perennial wormwood in general (but excluding *Artemisia absinthium*), and *dermaneh dashti* for *Artemisia Sieberi* Besser, see: Seyed Ahmad Emami *et al.*, "Inhibitory Activity of Eleven *Artemisia* Species from Iran against Leishmania Major Parasites," *Iranian Journal of Basic Medical Sciences* 15, no. 2 (2012): 807-11.

¹⁵ I cite from Zh. M. Tulibaeva's Russian translation of the chronicle (hereafter: *TJT*), excerpted and published in: M. Kh. Abuseitova, ed., *Istoriia Kazakhstana v persidskikh istochnikakh*, tom 5 (Almaty: Dayk-Press, 2007): 390-392, here 391 [corresponding to: Institute of Oriental Studies, Uzbek Academy of Sciences, ms. 11073, ff. 534-538, here ff. 535-536]. On *Qaraspan* as a locality: A. Shakhnazarov, *Izsledovanie zaroslei tsitvarnoi polyni* (St Petersburg: Tip. SPb. Gradonachal'stva, 1899), 21. *Qaraspan* is now the alternative name for the Obruchevka, or Obruchego, mentioned below in this article.

districts.¹⁶ Reportedly bundles of *zhusan* were hung on the walls of felt tents and used to sweep their floors for anti-septic purposes. Wormwood is still present in Kazakh traditional pharmacopoeia. The more common *Artemisia absinthium* -known as *polyn' gorkaia* in Russian, and *asshy zhusan* ('bitter wormwood') or simply *zhusan* in Kazakh- is still used as an anthelmintic, by steeping it in hot water, off the fire, for up to two hours. *Artemisia cina* is less commonly used: because of feared toxicity, it is occasionally combined with the standard *zhusan* for the concoction above. Its use orally though, is less common than in poultices, which are smeared on gauze or cheesecloth to treat phlebitis and varicose veins. Although there is some confusion as to the boundaries of the term *zhusan* for different species, these days *darmina* remains more sparingly and more cautiously used.¹⁷

As mentioned above, the most valuable parts of the plant were its inflorescences (*semen contra*, Rus. *semia darminy*), which were collected before complete bloom. They contained ethereal oil, the intense smell of which was reportedly almost unbearable during the summer nights of the harvesting season. In those days, most animals, too, avoided grazing on *darmina* plants.¹⁸ The word 'santonin' (*santonina* or, less often, *santonica*) refers to the extract that

¹⁶ O. A. Fedchenko and B. A. Fedchenko, *Conspectus florae turkestanicae: Perechen' rastenii diko rastushchikh v Russkom Turkestane*. (= *Izvestia Turkestanskogo Otdela IRGO*, Prilozhenie k tomu VI.), chast' 6a (Yur'ev: Tipografiia K. Mattisena, 1911), 194.

¹⁷ Information from Gulnaz Kazmukhambetova, based on the testimony of the owner of a specialised medicinal herbs bazaar stall. Private email to author, 20 July 2017. I have observed that in Kyrgyzstan sweet artemisia (*Artemisia annua*; Kyrgyz *shybak*) is now used in anti-eczema soap.

¹⁸ See: Shakhnazarov, *Izledovanie zaroslei*, 23-4. N. A. Durnovo reported that he woke up when he reached the area where *darmina* grew, so strong was the smell, and added that 'in the night, when the barometer is on the low side, especially after the rain, it is literally hard to breathe': Head of indirect taxes in Turkestan and Semirechie (Durnovo), report, [1896-1897], forwarded from: Department of indirect taxes for Turkestan and

was finally obtained from these inflorescences (or, less precisely, ‘grains’), and was coined to echo the Greek name of wormwood (*santonikon*).¹⁹ In 1830, at the same time (but apparently independently) the German chemist Kahler in Düsseldorf and his colleague Alms in Mecklenburg isolated the alkaloid substance called ‘santonin’ in the *semen contra* and other *Artemisia* inflorescences through distillation of their ethereal oil, and first discussed its anthelmintic properties. Industrial production started eight years later. Hermann Trommsdorff in 1834 and Justus Liebig dedicated some of their research to this new substance, but it was Merck in Darmstadt who greatly contributed to the development of the fame of santonin as an anthelmintic drug.²⁰ In particular, in 1833 Merck presented in Paris a method to extract santonin ‘with hydrated lime and alcohol’ and provided a first estimate of the necessary dose.²¹ In the 1840s a French chemist, Fabien Calloud of Chambéry (then Annecy), devised and popularized an ‘economical way’ to extract santonin with the help of alcohol, which was similar to Merck’s but probably cheaper. Calloud’s method was adopted in France and, then,

Semirechie to Ministry of Finance (hereafter: MF), Main Administration of indirect taxes and state monopolies on drinks, 31 August 1899, RGIA, f. 22, op. 4, d. 522, ll. 115-145, here l. 122.

¹⁹ N. A. Qazilbash, “Santonin—Its Detection and Estimation,” *Journal of Pharmacy and Pharmacology* 3, no. 1 (1951): 105–111, here 106.

²⁰ See Victor Adolf Riecke, *Nachträge zu ersten Auflage der neuen Arzneimittel* (Stuttgart: Hoffmann’sche Verlag-Buchhandlung, 1840), 79-80; Alphonse Chevallier, *Dictionnaire des altérations et falsifications des substances alimentaires, médicamenteuses et commerciales*, vol. 2 (Paris: Béchét, 1852), 279-80; Casimir Joseph Davaine, *Traité des entozoaires et des maladies vermineuses de l’homme et des animaux domestiques* (Paris: J.-B. Baillière, 1860), 803-4. The present reconstruction of the process that led from Kahler’s and Alm’s labs to the industrial production of santonin in Germany is very fragmentary; a fuller account would require a separate study using Merck’s own archive among others.

²¹ M. Merck, “Sur la santonine, produit découvert dans l’extrait éthéré de la *semencine*,” in *Archive des découvertes et des inventions nouvelles*, ed. Philippe Werner Loos (Paris: Treuttel & Würtz, 1834), 145-6.

imitated in Chimkent with minor changes. The centre of the santonin trade was in Europe, particularly Germany, which hosted a few chemical plants that could produce santonin and were initially relying on European sources of wormwood.²²

Before the invention of santonin, varieties of *Artemisia* had been known and used, either in concoctions, distillations, or infused in alcohol, for medical and recreational purposes, for instance in vermouth fortified wines or, more famously, in absinthe. The grains of *Artemisia Cina*, though, were recognised as more effective. In the nineteenth century, *semen contra* was a standard treatment, together with laxatives, for those whose intestines were infested by parasites. In early nineteenth-century France and Italy, *semen contra* was reduced to a powder and administered as such, infused in milk, concocted, or reduced to a pulp with syrup or honey (*électuaire*); only rarely was it administered as enema – a circumstance that was not

²² Obituary for Fabien Calloud (1781-1855), in *Mémoires de l'Académie Impériale de Savoie*, 2^e série, t. IV, (Chambéry, 1861), XXIII-XXIV. Calloud presented samples of his santonin crystals (*paillettes*) in Paris and London in 1851. His method was included in the French standard handbook for pharmaceutical preparations in 1850; it was soon 'patented' in the official French *Codex*, with some modifications in 1866. In 1850, another Frenchman, a Gaffard from Aurillac, tried without success to 'patent' his own process for the production of 'brown santonin', which improved on Calloud's by making the substance easier to administer with sugar. Others (e.g. the 'Pinel biscuits') tried to 'patent' the combination of santonin with excipients, in order to protect their booming trade. See: François-Laurent-Marie Dorvault, *L'Officine, ou Répertoire général de pharmacie pratique* (Paris: Labé, 1844), 412 (compare subsequent editions: (1850), 546; (1855), 533; (1866), 800; (1872), 814; (1875), 814; and (1898), 822-3, where the toxicity of santonin is first mentioned; the publisher of *L'Officine* became Asselin, then Asselin & Houzeau, after 1866). Also: de Saint-Martin, *Recherches sur la santonine*, 8; *Bulletin de l'Académie nationale de médecine*, année 14, t. 15 (1849-1850), 940, 1102; *Journal du Palais* (1857): 449-56, here 455 (decision of the Metz court, 11 February 1857).

anodyne in the explanation of santonin's commercial success.²³ *Semen contra* and, later, santonin were known as very effective against nematodes (roundworms), namely giant roundworms (*Ascaris Lumbricoides*) and small roundworms or pinworms (*Enterobius*), while they were ineffective against cestodes or tapeworms (*Taenia*), for which a plant from Abyssinia, *kouso* (*Brayera anthelmintica*), was in use around the middle of the century.²⁴ Other anthelmintics at the time were the male fern, Corsican moss (*Alsidium Helminthocorton*), camphor, turpentine, and calomel or kamela (mercurous chloride, Hg₂Cl₂).²⁵ Calomel, which was properly speaking a powerful laxative, was often contained in anti-worm lozenges, and was rightly suspected of provoking saturnism or mercury poisoning, especially when administered to children: hence, an alternative active principle for the fabrication of anti-worm lozenges was commercially highly desirable.²⁶ From another

²³ Valeriano Luigi Brera, *Traité des maladies vermineuses* (Paris: Delaplace, 1804), 243 (French translation). Brera was a professor at the Italian university of Pavia.

²⁴ W. Budd, "On the virtues of kouso," *Provincial medical and Surgical Journal* (hereafter: *PMSJ*) 16, no. 6 (17 March 1852): 131-134; Thomas H. Silvester, "Remarks on the effects of iodine on the glandular system, and on the properties of kouso," *PMSJ* 16, no. 18 (1 September 1852): 446-8, here 447-8.

²⁵ Alphonse Laveran and Joseph Teissier, *Nouveaux éléments de pathologie et de clinique médicales*, t. 2 (Paris: J.-B. Baillière et fils, 1879), 1113.

²⁶ 'Ching's vermifuge lozenges' were the main calomel-based vermifuge product on both sides of the Atlantic in the first half of the nineteenth century; by the middle of the century, American consumers became aware of mercury poisoning risks and other producers insisted on the fact that they lozenges were free from mercury – and opium: advertising card for 'Dr. Wieland's celebrated sugar worm lozenges', Philadelphia, c1856 (<http://www.loc.gov/item/91720053/>, accessed 6 July 2015). On 'Ching's lozenges': James Hamilton, *Observations on the use and abuse of mercurial medicines in various diseases* (Edinburgh: Constable, 1819), 145; Richard W. Swiderski, *Calomel in America: Mercurial Panacea, War, Song and Ghosts* (Boca Raton: BrownWalker Press, 2008), 33-7.

viewpoint, *semen contra* preparations, however diluted, were bitter and made the patient choke on them: pharmacists tried in vain to concoct ways to disguise its taste and overcome the patients' disgust.²⁷ Odourless and tasteless santonin crystals removed this unpleasantness, while containing the same active principle. When santonin first entered the official British pharmacopoeia (which happened after some years of unofficial prescriptions), a lecturer at the British Royal College of Physicians in 1864 saw in this the superiority of santonin over *semen contra*: 'Its bulk is the principal objection to its usage, but this is overcome by the employment of santonine, of which from two to six grains are sufficient'.²⁸

In sum, the invention of the process to obtain alkaloid crystals (santonin) from *semen contra* and its adoption for mass production was a major breakthrough, because it transformed the latter into something that did not smell, was not bitter, was easy to swallow, and could be combined in creative ways with other ingredients to obtain not only anti-worm lozenges, but also anti-worm chocolate, and even anti-worm biscuits and gingerbread. As a Parisian pharmacy advertised a Parisian pharmacy in *Le Nouvelliste* in 1855, between the announcement of a ballet and that of a concert: '*Dragées vermifuges de santonine; c'est le plus sûr et le plus agréable des vermifuges*',²⁹ while the popular journal *L'ami des sciences* commented in awe on the invention of santonin lozenges: 'Who doesn't remember the

²⁷ M. Bouillon-Lagrange, "Observations sur l'emploi en médecine de l'huile extraite du *Semen-Contra*," *Journal de Pharmacie et des sciences accessoires* 7, no. 1-12 (1921): 542-8.

²⁸ "Dr Garrod's Lectures on the British Pharmacopoeia," *British Medical Journal* (hereafter: *BMJ*) 1, no 164 (20 February 1864): 206-208, quot. 207b.

²⁹ Advertisement for the pharmacy 'Garnier, Lamoureux & co.' in rue St. Honoré, *le Nouvelliste* (24 October 1855), last page. Lamoureux vermifuge 'sweets' were commercialized throughout provincial France: Guy Thuiller, "Pour une histoire du médicament en Nivernais au XIX^e siècle," *Revue d'histoire économique et sociale* 53, no. 1 (1975): 73-98, here 86.

repugnance he felt, as a child, at the mere sight of preparations of rhubarb, fern, aloe, Corsican moss, or semen contra?³⁰

The process that allowed the production of santonin, as devised by Merck and Calloud, consisted of two phases: the first employed lime, and led to a sort of powder; the second led to the production of crystals, in combination with alcohol. In the 1870s four industrial plants produced the totality of the santonin consumed worldwide: three of them were in Germany, and one in the United Kingdom. The main stock exchange for both the raw material (dried *Artemisia* plants) and for the ready santonin was Hamburg. The most important market for santonin was allegedly Japan, followed by Italy, various Latin American countries, and the southern shore of the Mediterranean: demand came from people who worked in fishing, although this connection is not fully clear.³¹

If this was the way Western industry used *Artemisia Cina* in the middle of the nineteenth century, this plant also played a role in the economy of Kazakh households who lived close to Chimkent: as other nomads before them,³² they dug up its roots to use as fuel during the

³⁰ “Dragées pharmaceutiques,” in: Victor Meunier, *L’ami des sciences*, année 1, t. 1 (1855): 498b-499b, quot. 498b (emphasis in original). The article also highlighted how convenient the lozenges were for country doctors, who needed to carry their own pharmacy around.

³¹ “Santoninnaia istoriia,” *Sredneaziatskaia Zhizn’* no. 183 (1907), in: *Turkestanskii Sbornik* (hereafter: *TS*), vol. 434, pp. 187-190, here 188.

³² The Franciscan William of Rubruck reported about his meeting with the Mongol Great Khan Möngke that the fire was made of dried ‘cattle dung’ and ‘roots of wormwood (*absinthii*)’. *Contra* Pelliot and Rockhill, who believe Rubruck referred to saksaul (*Anabasis ammodendron*), use of wormwood roots as fuel by Kazakhs suggests that by *absinthium* Rubruck really meant ‘wormwood’. Cf. William of Rubruck, *The Mission of Friar William of Rubruck: his journey to the court of the Great Khan Mongke, 1253-1254*. Transl. Peter Jackson; introduction, notes and appendices by P. Jackson with David Morgan (London: Hakluyt Society, 1990), 177, 178 fn. 1.

winter months, while in other seasons they burnt the dried stalks as firewood. In addition, their livestock grazed on the grass (*rang*) that grew around and together with the *darmina*. Finally, some sources report that the local Kazakhs engaged in periodical controlled fires in order to regenerate pastures – a practice that amounted to the immediate ‘consumption’ of the *darmina* plants that existed on the land concerned, though in view of higher returns.³³ As for *darmina* as a medicinal plant, it is tempting to project backwards current ethnographic evidence, as evoked above. Yet sources of the time are silent about its use to heal humans; on the other hand, there is some evidence that by World War I santonin was in demand in Turkestan itself, so one can surmise that, whatever medicinal use existed locally for *darmina* in the nineteenth century, it was quickly displaced by its alkaloid derivate, as had been the case worldwide.³⁴ Meanwhile, *darmina* was still part of the Turkestani veterinary pharmacopoeia, and it was sold in several Central Asian cities.³⁵

The Kazakhs who lived for at least part of the year in the area where *Artemisia Cina* grew belonged to the Middle Horde (Qongyrat tribe) and Senior Horde (Sergeli tribe). Livestock breeding was not their only means of subsistence: by the end of the nineteenth century they were reportedly combining pastoralism with agriculture. They possessed sheep herds, which were easier to feed on meagre pasture, while larger livestock could only be supported by the ‘fatter’ grazing land closer to the stream of the Syr-Darya. On average, each household possessed 7.5 ‘livestock units’, with sheep counting as a fraction of an adult horse or ox.

³³ Shakhnazarov, *Izsledovanie zaroslei tsitvarnoi polyni*, 33.

³⁴ See the order from: Ahmed-Agha Dzhavadov (from the *Persidskaia Apteka*, Askhabad, to “Santonin”, 10 September 1917, Central State Archive of the Republic of Kazakhstan (TsGARKaz), f. 439, op. 1, d. 55, l. 178; on santonin exports to Persia itself: Goldberg to “Santonin”, 17 October 1916, TsGARKaz, f. 439, op. 1, d. 61, l. 33.

³⁵ Elistratov (Arys police station), *protokol*, 22 December 1914, TsGARKaz, f. 439, op. 1, d. 58, l. 36.

Overall in the Chimkent district, draught livestock was more important for the Kazakh household economy than other animals. To support such livestock, in addition to pasture, Kazakhs in the area had also been ascribed hay fields (*senokosy*).³⁶ The land closer to the river, however, was also the best for agriculture: the Kazakhs cultivated cereals on the soil that was periodically flooded by the river and engaged in irrigated agriculture on the majority of their land. Depending on precipitation and, consequently, on the level of water in other minor streams, they also engaged in rain-fed or irrigated agriculture, by sowing ‘dry’ cereals, such as winter grain, millet, and soft millet. This form of agriculture, however, was not possible every year.³⁷

Even though they had relinquished their nomadic lifestyle and derived a part of their income from agriculture, the Kazakhs who lived in the areas where *darmina* grew were considered ‘nomads’ from the legal viewpoint. This was an important distinction: it was on its basis that the Turkestan Statute of 1886 defined the land rights of the ‘native’ population. This law, which represented the legal basis for the colonial administration of tsarist Central Asia up until the Bolshevik revolution, clearly defined the land which the nomads used as State property (*sobstvennost’*). The nomads were given *usage* rights only (art. 270) and such usage was regarded as communal (*obshchee*). Only a small handful of villages along the river Arys east of the railway station of the same name were recorded as enjoying ‘individual’

³⁶ Data collected in 1906 from: *Podsobnye materialy k delam: Estestvenno-istoricheskoe opisanie Chimkentskogo uezda*, TsGARKaz, f. i-33, op. 1, d. 1, here ll. 1-3, 7.

³⁷ On Kazakh land usage in the areas where *darmina* grew: Shakhnazarov, *Izsledovanie zaroslei*, 7-9, 31-7; B. Penati, “Swamps, sorghum and saksauls: marginal lands and the fate of Russian Turkestan,” *Central Asian Survey* 29, no. 1 (2010): 61-78.

(*obosoblennoe*) use.³⁸ This was different from the provision that concerned the Muslim *settled* rural population: art. 255 of the Statute stated that their rural communities would be ascribed the land that was in their possession, usage, and disposition according to their customary law.³⁹ This situation had consequences for the way each category paid taxes: while the Muslim settled rural communities paid a land-tax calculated on the basis of the estimated harvest value, the nomads paid a poll tax (*kibitochnaia podat'*). If some of the land they used as pasture had been defined as 'State land property' in a more restrictive sense (*gosudarstvennye zemel'nye imushchestva*), for instance because it had been designated as 'spontaneous forest' (a very loose category at the time), the nomads had to pay for 'tickets' (*bilety*) to access it on the basis of the number of heads of livestock they owned. It appears, however, that widespread violations of this rule existed, both in the form of Kazakhs escaping due payments, and of officers who embezzled them.⁴⁰ The fact that nomads in the process of sedentarising had not had their land ascribed to them was regarded by the colonial administration of Turkestan as a problem, because such ascription would have brought in additional land-tax. In contrast, from the end of the nineteenth century the Resettlement Administration of the GUiZiZ regarded with favour the fact that more land fell under the

³⁸ Map published as Annex in: GUiZiZ, *Materialy po kirgizskomu zemlepol'zovaniuu. Syr-Dar'inskaiia oblast'. Chimkentskii uezd*, tom II, vypusk I (=Tekst) (Tashkent: Tipolitografiia Il'ina, 1910).

³⁹ B. Penati, "Beyond technicalities: on land assessment and land-tax in Russian Turkestan, 1886-1915," *Jahrbücher für Geschichte Osteuropas* 59, no. 1 (2011): 1-27; Penati, "Swamps," 61-2. Compare: Paolo Sartori, "Colonial legislation meets *sharī'a*: Muslims' land rights in Russian Turkestan," *Central Asian Survey* 29, no. 1 (2010): 43-60.

⁴⁰ A discussion of the category of "spontaneous forest" and of its implication for resettlement is in: B. Penati, "Managing Rural Landscapes in Colonial Turkestan: A View from the Margins," in *Explorations into the Social History of Modern Central Asia*, ed. P. Sartori (Leiden: Brill, 2013): 65-109.

provision of art. 270 (rather than art. 255) of the Statute, because this made it easier to earmark it for the settlers. As for the Kazakhs themselves, customary law disciplined their transactions: but when the pressure on *Artemisia Cina* became stronger, the way in which they and their land were classified became a contested terrain.

By contrast, the juridical situation of the three Russian settler villages to the east of Arys (Mamaevka, Ermolaevka, and Obruchevka) was less controversial. Local settlers arrived in the first waves of immigration into Turkestan – they were classified as *starozhil'tsy* in 1916. Their rights on the land were similar to those of the indigenous population that was classified as 'sedentary'. On one point, however, did the Russian villagers find themselves in a similar position to the Kazakh majority of the population: it was not their agricultural pursuits that threatened the *darmina* business, as we will see, but their livestock-breeding. As documented in some detail by Keating, the main point of contention in subsequent years was the extent to which the settlers' valuable merino sheep could represent a danger for *Artemisia Cina* plants on the communally-held pastureland (*vygony*) ascribed to their villages. As for the land the settlers rented from the Kazakhs, it fell under the purview of art. 270, as explained above.⁴¹

The first chemical plant in Central Asia

Since the invention of the process to obtain alkaloid santonin in the 1830s, a potential market for Central Asian *Artemisia Cina* had emerged in Europe. The *Ta'rikh-e Jadide-ye Tashkand*, which was compiled in the third quarter of the century, mentioned the fact that such plant was

⁴¹ Keating, *On Arid Ground*, 177. See also: Ministry of Agriculture (hereafter: MZ), head of resettlement in Cherniaev district to head of resettlement in Syr-Darya, 27 June 1916, National Archive of Uzbekistan (O'MA), f. i-7, op. 1, d. 4605, n.p.; MZ, Upravlenie ZD to head of resettlement in Syr-Darya, 1 March 1916, *ibid.*, n.p.; Syr-Darya director of State Land Properties to Upravlenie ZD, 15 February 1917, *ibid.*, n.p..

‘exported to many countries’.⁴² Other sources indicate that at least until 1882 Tatar intermediaries traded Chimkent *darmina* every year at the Nizhnii Novgorod fair. Their clients were German merchants, but it seems that very few of them tried to undercut the Tatars and travel to where this plant was harvested in the Syr-Darya valley. The export amounted to tens of thousands of *puds*, which grew to some 133,000 *puds* in 1880.⁴³ The fact that this raw material was transported along caravan routes, with the high costs and risks they entailed, made sense because of its high intrinsic value at the time. Conversely though, because the final product – the santonin crystals – corresponded to only two per cent of the weight of the raw material,⁴⁴ the advantages of investing in its transformation on the spot became evident.

A new element in this setup appeared at the very beginning of the 1880s. In the space of a couple of years, two entrepreneurs from very different backgrounds petitioned the Turkestan governor-general in Tashkent and some institutions in the metropole to obtain the exclusive right to process *darmina* derivatives in Chimkent. Russian rule on the area where *darmina* grew had not been established for more than two decades and industrial activity in the region was very limited at the time: investments like those being proposed were thus of great import, especially so as they concerned the capital-intensive and technically sophisticated chemical sector. The first petitioner was a Russian subject of German origin, Robert Keller. He specialized in the trade of pharmaceuticals and was based in Moscow.⁴⁵ Besides the

⁴² *TJT*, 391 [corresponding to f. 535 of the ms.].

⁴³ Turkestan GG (Cherniaev) to MF, 27 November 1882, Russian State Historical Archive (RGIA), f. 22, op. 4, d. 522, ll. 12-14, here l. 13ob. One *pud* corresponds to 16.38 kg, so the export in 1880 was *ca.* 2,178 tons.

⁴⁴ Ministry of Internal Affairs (MVD), Departament Meditsinskii, to MF, 18 February 1882, RGIA, f. 22, op. 4, d. 522, ll. 4-5, here l. 4ob.

⁴⁵ Kolpakovskii to MF, 15 July 1881, RGIA, f. 22, op. 4, d. 522, ll. 1-1ob.

governor-general, he also wrote to the Imperial Medical Council, which was an organ of the Ministry of Internal Affairs. He did not, however, petition the Ministry of Finance or any of its offices (for instance, the Trade and Manufacturing Department), which would have been a more obvious choice: it is possible that Keller guessed that the latter would not have received his request with sympathy. In the summer of 1881 Turkestan did not have a properly appointed governor-general: G. A. Kolpakovskii, who received Keller's petition, was merely acting as one. When he read Keller's request for the exclusive rights to process *Artemisia Cina* and its derivatives for 15 years, he hesitated and forwarded the request to the Ministry of Finance. The latter answered negatively, because 'the opening of industrial plants in Russia is authorized on bases that are common to the whole empire'; it also noted, however, that the amount Keller was prepared to invest would have been enough to exclude potential competitors in the short term.⁴⁶

The second request for special conditions for the establishment of a santonin plant came from Nikolai N. Ivanov, a Russian merchant who owned some vodka distilleries and could therefore provide the necessary alcohol.⁴⁷ Ivanov was not based in the metropole but in

⁴⁶ MF, Departament Torgovli i Manufactory (hereafter: DTiM), to Kolpakovskii, 31 August 1881, RGIA, f. 22, op. 4, d. 522, ll. 2-3, cit. l. 2ob. The Ministry of Finance gave a negative reply when the same request was forwarded by the Medical Council, despite the fact that the latter was 'sympathetic' to Keller's request and invited the former to approve his petition. The Medical Council itself could have conceded the exclusive right to produce santonin (although for a maximum of six years only), if this had been a completely new preparation: because it already existed on the market, though, it could only recommend it to the other ministry: MVD, Departament Meditsinskii, to MF, 18 February 1882, RGIA, f. 22, op. 4, d. 522, ll. 4-5; MF, DTiM, to MVD, 9 March 1882, *ibid.*, l. 6.

⁴⁷ The only source mentioning Ivanov's involvement in vodka production is: Shakhnazarov, *Izsledovanie zaroslei*, 25.

Kazalinsk, a Russian military fortress on the Syr-Darya line which had by then evolved into a market for the caravan trade and for supplies to the local garrison.⁴⁸ Ivanov himself had built his fortune through the provision of supplies to the military during and after the conquest of Central Asia. By the beginning of the 1880s he had already established a trading and industrial empire in Turkestan, which included the above-mentioned vodka distilleries, several wineries and breweries, a glass factory in Khojent, and much more. In 1881, with three associates Ivanov founded the Central Asian Commercial Bank. Around the same time, Ivanov also dabbled in the running of the postal road between Tashkent and Terekli and between Chimkent and Aulie-Ata. When he petitioned the governor-general, thus, Ivanov was already a key economic player in the colony, with his finger in many different pies, and close personal relations with the representatives of Russian imperial power.⁴⁹

In sum, not only was Ivanov's profile very different from Keller's: so was the degree of endorsement which he received from the newly appointed governor-general, Mikhail G. Cherniaev, if compared to Kolpakovskii's lukewarm support. Unlike his predecessor, Cherniaev did not limit himself to forwarding Ivanov's requests to St. Petersburg, but 'used' them to support his own agenda for the industrial development of Turkestan. Cherniaev was not only personally in contact with Ivanov: he was generally interested in the development of local industry as a way to absorb excess labour force and thus prevent social unrest, given the structural limits to the expansion of agriculture. In this respect, his views differed from the later technocratic discourse of the GUiZ which dominated from the 1890s onwards:

⁴⁸ Photographs of Kazalinsk's bazaar stalls in the late 1860s or early 1870s are in the *Turkestan Album*: "Syr-dar'inskaia oblast'. G. Kazalinsk. Torgovye riady (bazar)," in: *Turkestanskii al'bom, chast' étnograficheskaiia* (1871-1872), part 2, vol. 1, 47 (<http://www.loc.gov/pictures/resource/ppmsca.14349/>, accessed 3 July 2015).

⁴⁹ Bakhtiër Alimdzhanov, "Vzlët i padenie turkestanskogo kuptsa Nikolaia Ivanova," *Vostok Syvshe* 46, no. 1 (2018): 51-58, here 52.

Here agriculture, because of the natural conditions, as it depends on artificial irrigation, is limited by the boundaries of what is possible. Almost all that could have been devised and implemented in this respect, has already been done. In addition, the settled population is growing; the nomadic population, little by little, but noticeably, is sedentarising, and the number of hands freed from agriculture is undoubtedly on the rise [and] is looking for employment.⁵⁰

In addition, by raising the question of the santonin factory in conjunction with a similar petition in support of a sugar-beet refinery, Cherniaev explained how the expulsion of foreign goods (*e.g.* sugar) from the Turkestani and Bukharan markets should be considered a top priority. To achieve this, one needed to offer the same goods at competitive prices, in particular by producing them locally.⁵¹ This first argument was not very pertinent to santonin, which was meant for export rather than for local consumption: yet, Ivanov's plans could still be viewed as one aspect of the effort to transform Central Asian raw materials on the spot.

Cherniaev had argued that 'without the collaboration of the government the construction of this [Ivanov's] plant is not possible', given the high initial investment needed,⁵² but the government, in the person of the Finance minister Nikolai Kh. Bunge, did not think so. In his reply (which had a semi-private character), Bunge used the word 'monopoly' to refer to what Ivanov's demands amounted to – while Cherniaev had been careful to avoid this term and had talked instead of 'privileges' or 'discounts'. The minister agreed on the opportunity to develop the local production of santonin, but stated that special conditions should apply to all

⁵⁰ Turkestan GG (Cherniaev) to Bunge (MF), 30 November 1882, RGIA, f. 22, op. 4, d. 522, ll. 8-11, quot. l. 10ob.

⁵¹ *Ibid.*, ll. 8ob-9.

⁵² Turkestan GG (Cherniaev) to MF, 27 November 1882, RGIA, f. 22, op. 4, d. 522, ll. 12-14, quot. l. 13ob.

those who intended to invest in this business, rather than to one entrepreneur only. Such *de facto* monopoly would have resulted in the risk of ‘impeding the free development of this production in the region’, but also of ‘a damage to the producers of dry *darmina* flowers [*tsitvarnoe semia*]’.⁵³ In other words, Bunge was worried about the perspectives of other investors and, at the same time, he intelligently guessed what a monopoly would have meant for those, mostly Kazakhs, who harvested the raw material for the plant.⁵⁴

Ivanov, however, decided to establish his own plant before Bunge’s answer arrived. He worked together with an associate, Nikifor Savinkov, who had already been among the founders of the above-mentioned Central Asian Commercial Bank. Savinkov was Ivanov’s main partner in the Chimkent santonin plant at least until the turn of the century. Following Ivanov’s death and, as we will see, Savinkov’s *rapprochement* to some competitors, the latter took the lead. Ivanov’s company, inherited by his successors, remained however linked to the santonin business by providing the plant with the necessary grain alcohol, up to the eve of the Bolshevik revolution.⁵⁵ When they established the santonin plant, the steps Savinkov and Ivanov embarked upon are telling of the type and extension of networks they were emmeshed in. First, the businessmen had to get hold of the necessary technology. This they did by approaching a German chemist, Johannes Diedrich Bieber, based in Hamburg, who in turn

⁵³ MF, DTiM (signed: Bunge) to Cherniaev (Turkestan GG), 9 March 1883, RGIA, f. 22, op. 522, ll. 17-20, quot. l. 18ob.

⁵⁴ Not everybody, in the ministry, shared Bunge’s preoccupations. For instance, the *marginalia* that someone added to the copy of Bunge’s letter kept in the archive explained that the (possibly Tatar) traders would have suffered from the monopoly more than the (Kazakh) harvesters. The author might have been Pavel N. Nikolaev, from Bunge’s own cabinet, with whom Cherniaev entertained a parallel correspondence.

⁵⁵ Successors of N. N. Ivanov to “Santonin”, 1 May 1915, TsGARKaz, f. 439, op. 1, d. 55, l. 39; heirs of Ivanov to “Santonin”, 21 September 1917, *ibid.*, l. 184.

delegated a Gustav Zebel (*Tsebel'* in Russian), to instruct Ivanov's and Savinkov's own chemist, the Prussian subject Wilhelm (Vil'gelm) Pfaff, in the method which Bieber had devised. Bieber's secret, so to say, was purchased not only by paying upfront: Bieber, whose clients included Boehringer, also became the exclusive seller of Chimkent's santonin for five years, with a 5 per cent share of turnover and profit. The same contract specified other generous conditions: within a limit of 100,000 imperial Marks, Bieber would pay only one half of the Hamburg price when he received the santonin, leaving the rest for the moment when his sales had been completed.⁵⁶ In other words, Savinkov and Ivanov were willing to dance to the tune of this Hamburg *drogist* to obtain the necessary technical knowledge and gain access to the lucrative market represented by the booming German pharmaceutical industry. Bieber's key preoccupation, meanwhile, was to retain quasi-exclusive control on that knowledge. Next, Savinkov and Ivanov had to acquire the machinery – a daunting task, given the skills and the physical distances involved. The machines were purchased from Burgdorf, a company based in Altona, and had to be shipped via Lubeck and Reval.⁵⁷ If the above-mentioned Zebel, from Moscow, provided the engineering expertise, the commercial part was in the hands of a Tashkent-based merchant, Mikhail N. Kolesnikov, and of one F. K. Ebert, an engineer who ran a business selling industrial and agricultural machinery in Orenburg. Ebert, Kolesnikov, and two further associates, Nikitin and Knapp, all travelled to

⁵⁶ Contract between Ivanov, Savinkov, Bieber, and Tsebel', dated Moscow, September 1882, TsGARKaz, f. 439, op. 1, d. 107, ll. 9-10; copy with translation, notarised by Ascher (Hamburg), 28 September 1882 [15 October 1882], *ibid.*, ll. 121-2. For Bieber's relations with Boehringer, see: Bieber to Knapp, 9 April 1887, *ibid.*, d. 20, l. 6.

⁵⁷ Contract between Burgdorf and Kolesnikov, Ivanov, and Nikitin, 1[13] December 1882, TsGARKaz, f. 439, op. 1, d. 107, l. 30; Burgdorf Brothers to Savinkov, Altona, 20 February 1883, *ibid.*, ll. 61ob-62.

Germany at some point.⁵⁸ This complex chain of transactions also included a German Moscow-based shipping agent and caretakers for the international payments.⁵⁹ Not only is all this indicative of the relative complexity of the operation, it is a sign of the novelty and exclusivity of the technology involved, and of the fact that such technology was unavailable in the Russian empire. Ivanov and Savinkov were importing to Chimkent foreign know-how that was cutting edge for its time: only someone initiated to its 'secrets', Zebel, could order and assemble the right equipment, with the correct specifications. Non-specialists (including Russian soldiers) were only employed as generic carpenters, although command of Russian seems to have been a criterion for hiring.⁶⁰ The consequent high risk implicit in this entrepreneurial decision explains why the new company accepted onerous terms *vis-à-vis* Bieber. Whatever Savinkov and Ivanov would claim later, at its foundation the Chimkent chemical plant looked more like a partnership with a German *drogist*, than an explicit attempt to undercut foreign santonin dealers. This is an aspect we will come back to later.

The new company, called *Chemical plant 'Ivanov and Savinkov'*, could count on an initial capital of 400,000 roubles, although apparently only 250,000 roubles were conferred upfront, with the rest due in 1889. The two partners held equal shares, but the statute - published in July 1883 - clearly stipulated different roles for them until 1889: one (Savinkov) would run the factory, whilst the other (Ivanov) would only participate as an investor. The first enjoyed a larger share of the income, and would not incur any liability in case the business run into debt. Savinkov, in this framework, appeared to receive a favourable deal, although he had to

⁵⁸ F. K. Ebert to Savinkov, Altona, 4 February 1883, TsGARKaz, f. 439, op. 1, d. 107, ll. 63ob-64; draft telegram, 7 April 1883, *ibid.*, l. 77; Burgdorf Brothers to Savinkov, telegram, 9 April 1883, *ibid.*, l. 82.

⁵⁹ V. N. Zernov to Savinkov, Moscow, 13 April 1883, TsGARKaz, f. 439, op. 1, d. 107, l. 93; Jung to Savinkov, 29 April 1883, *ibid.*, l. 107.

⁶⁰ Contracts for carpenters, April 1884, TsGARKaz, f. 439, op. 1, d. 105, ll. 54-55.

reimburse his partner if he quit before 1889 or ended up damaging the business.⁶¹ The business model of the company at these dates did not yet include the direct mobilization of labour for the collection of the necessary darmina: as reflected in the stashes of contracts preserved in the plant's own archive, the darmina was purchased by the camel-load from Muslim merchants, who struck deals with either Savinkov or, more often, Ivanov. Those merchants were either 'Sart', that is, Turkestan Muslims, or Tatar. The former were typically based in various parts of the city of Tashkent, but sometimes owned warehouses in the area where the darmina grew, for instance Kara-Kempir.⁶² As for the latter, they all seem to have come from the Tambov *gubernia* and thus the territory of the former Kasimov Khanate. Some of them appeared as partners for deals with the Sart merchants, too. Multiple individuals with the family name Burnashev appear in the documents, although it is impossible to identify family relations; a Burnashev worked with Ivanov in the trade of Indian tea and Bukharan pistachios even before the purchases of darmina had started.⁶³ In general, these intermediaries stipulated advance contracts for entire caravans transporting darmina, ranging between 85 and 1000 camels each, with a small penalty (around six per

⁶¹ Versions of the statute, [Spring 1883], TsGARKaz, f. 439, op. 1, d. 107, ll. 144-164; *postanovlenie* no. 1, [before October 1883], *ibid.*, ll. 202-7. In 1889, the clock would be reset: capital goods and everything else owned by the company, evaluated at current prices, would become the property of the two founders.

⁶² Contracts with a Gatiatullin, Khabibullin, Babadzhanov, Makhmutbaev, and Khalykbek, dated between 10 January 1884 to 20 June 1884, TsGARKaz, f. 439, op. 1, d. 5, ll. 5-8, 11-14, 23-24, 76-77, 80-83, 91-92. All these individuals but the last recur more than once and were based in Tashkent. The first two names *sound* Tatar, but they are unambiguously attributed to 'Sarts' in the documents.

⁶³ Contracts with several Burnashevs (esp. Khusain Shamakhmetov [or Shayakhmetovich] Burnashev), Kaipov, Divlet-Gil'diev, dated between 23 December 1883 to 7 June 1884, TsGARKaz, f. 439, op. 1, d. 5, ll. 3-8, 74-75, 78-79, 86-87. On previous relations: Zhansuvar Burnashev to Ivanov and Mal'kin, Bukhara, 3 July 1883, *ibid.*, d. 107, ll. 170-171.

cent) in case of failed delivery. It would be wrong to think, though, that Ivanov and Savinkov had no direct contact with the Kazakh population in the same areas: indeed, the plant purchased dried plant stalks -including, possibly, of *Artemisia*- from Kazakh villages, who obliged themselves collectively to deliver between 2,000 and 9,000 bales (*snopy*), paid by the bale or by weight. These Kazakhs ‘signed’ the related paperwork with crosses, or by tracing their ‘seal’ (*tamgha*); only occasionally does one find the name of a literate Kazakh intermediary, in the contracts from different localities.⁶⁴ At the beginning, thus, the Chimkent chemical plant did not aim at undercutting local darmina merchants, including Tatars, possibly because the latter provided useful guarantees of quality and security – guarantees that were superfluous for the procurement of low-value fuel. As it will be clear from the following, this feature of the plant’s business would later change dramatically. It is also worth stressing how in its early years of activity the plant did use plant stalks as fuel – a practice they would later denigrate among the Kazakh population.

As hinted at above, despite multiple attempts, the Ivanov-Savinkov partnership only obtained a small fraction of the privileges it had been petitioning the government for. The Finance Ministry only allowed the company to acquire a plot of land for the construction of the plant and, in 1884, exempted it from the payment of duties on the alcohol they needed for the production of santonin crystals.⁶⁵ The other request both Ivanov and Keller had

⁶⁴ Contracts for the provision of dried stalks as fuel, dated September-October 1884, TsGARKaz, f. 439, op. 1, d. 5, ll. 96-107. For the first year, only one local *volostnoi upravitel'*, Mulla Tiliau Dzharasov from Bayrakum, promised a miserly 100 camel-loads of darmina: contract, 31 May 1884, *ibid.*, ll. 84-5.

⁶⁵ This privilege was meant as a temporary three-year measure, but it was still in place in 1896: MF, Main Administration of indirect taxes and state monopolies on drinks, to MF, DTiM, 20 December 1896, RGIA, f. 22, op. 4, d. 522, ll. 25-25ob. It seems that the exemption, though, only concerned *grain* alcohol, not *fruit* alcohol, although the matter remained unclear to those concerned until at least 1895. This is reflected in the

formulated – the monopoly on the production of santonin – was not approved, and neither was Ivanov’s petition that santonin be traded duty-free in the empire and beyond.⁶⁶ The explicit refusal of exclusivity on santonin production would later become, by analogy, the cornerstone argument of those who opposed the exclusivity of concessions on *darmina* harvests, even when the general orientation of the Ministry of Finance changed, as did the way the metropolitan government imagined the place of Turkestan in the economy of the empire.

All in all, the way the Keller’s and Ivanov’s requests were handled in the early 1880s reflects Bunge’s strong personal stance against monopolies, as well as his moderate support for private investments in the industrialization of Turkestan. While this does not come as a surprise to the student of imperial Russia, Cherniaev’s views on the limits to the expansion of irrigated land and on the consequent need for factories to absorb the local excess workforce deserve highlighting, as they run against the common assumption that Turkestan, since the conquest and even before it, was meant to become a reservoir of raw materials without any capacity for their transformation on the spot, or a market that would absorb Russian industrial goods without being allowed to produce its own. The Chimkent chemical plant, thus, was established under the aegis of moderate, liberal developmentalism, although no doubt the

correspondence with Amin Abramov, a Bukharan Jew from Samarkand; the Abramovs were leaders in the production of wine and cognac: Amin Abramov to P. I. Shikhov (Savinkov’s delegate), 3 August 1895, TsGARKaz, f. 439, op. 1, d. 29, l. 1; Kriukov (Savinkov’s intermediary in Samarkand) to Shikhov, 10 August 1895, *ibid.*, ll. 8-9; *idem* to same, 8 November 1895, *ibid.*, l. 40.

⁶⁶ Compare: Turkestan GG (Cherniaev) to MF, 27 November 1882, RGIA, f. 22, op. 4, d. 522, ll. 12-14, here l. 12ob; MF, DTiM, to Ministry of Agriculture and State Land Properties (MZiGI), 3 February 1897, *ibid.*, ll. 26-30, here ll. 26-27. The Ivanov-Savinkov plant absorbed a large part of the alcohol produced in Turkestan: Turkestan GG to MF, 17 October 1897, *ibid.*, ll. 31-34, here l. 31.

entrepreneurs involved were keen on wrangling special conditions for themselves, in the light of the implicit risk and novelty of their business. They hoped to obtain those special conditions because they already enjoyed a dominant position in the local economy, given Ivanov's interests in a variety of sectors, as well as their links to indigenous and Russian merchant networks.

Global oversupply crisis

In the early 1880s, the demand for santonin was very high and entrepreneurs in this sector could reasonably expect to recover their investments quickly, and then make substantial profits. Ivanov, in particular, intended his plant to process 150 to 200 thousands of *pud* of *darmina*, which he reckoned amounted to satisfying the world demand for santonin, hence undercutting European suppliers (other than Bieber, presumably.)⁶⁷ This projection, however, turned out to be over-optimistic and very soon the Chimkent santonin plant started to experience troubles.

The first obvious reason for such an error of judgment resided in the fact that Ivanov was counting on receiving the right of monopoly from the government, which did not happen. In particular, he could not imagine that in Tashkent new chemical plants would open in the next fifteen years. These plants limited themselves to the first phase of the production of santonin, that is the transformation of the dry inflorescences to a powder with the addition of lime, while the Ivanov-Savinkov plant also transformed this powder into crystals, by means of a slightly modified 'Calloud process'.⁶⁸ The origin of the first of these Tashkent establishments

⁶⁷ Turkestan GG (Cherniaev) to MF, 27 November 1882, RGIA, f. 22, op. 4, d. 522, ll. 12-14, here l. 12ob.

⁶⁸ In Chimkent, the hydrochloric acid of the original recipe was replaced by sulfuric acid: Gustave Planchon, *Les drogues simples d'origine végétale*, t. 2 (Paris: O. Doin, 1895-1896), 78.

was related to the fact that the Chimkent plant, as mentioned above, had itself employed German technicians when it started working. One of them, Knapp, served as a consultant in the acquisition of the necessary machinery from Altona, then directed the plant at least until 1888; the other, Wilhelm (Vil'gelm) Pfaff, a former pharmaceutical chemist of the German *Apotheke-Verein*, had been entrusted with the 'secret' of Bieber's production method. Yet Pfaff behaved in a way that Savinkov deeply resented:

As soon as he came to Chimkent, the chemist Pfaff betrayed me, joined the field of the Hamburg drug merchants [*drogisty*] and, with their material help, opened a small plant in the city of Tashkent. From that moment on, the competition of foreigners became more serious. Pfaff produced raw santonin [*i.e.* the powder] and sent it to Hamburg, where he purified it with German alcohol. In order to produce raw santonin the owner of the Tashkent plant didn't need to expend money on expensive buildings and machinery, or on the salary of his own chemist, or on the training of workers: he stole the latter ready-made from my plant, he was a chemist himself, and to obtain the raw product one can use an inexpensive mud hut.⁶⁹

Two more plants, directed this time by two Russians (Bychkov and Nikitin) but, according to Savinkov, based on capital provided by the German drug merchants, opened their doors shortly afterwards.⁷⁰ By limiting themselves to the less capital-intensive phase of the process and by doing the rest in Germany, where alcohol was less expensive and externalities (qualified workers, etc.) were greater, the owners of the three Tashkent plants (and perhaps

⁶⁹ Savinkov to MZiGI, copy, [1898], RGIA, f. 22, op. 4, d. 522, ll. 38-41, cit. l. 39.

⁷⁰ Ibid., and: Turkestan GG to MF, 17 October 1897, RGIA, f. 22, op. 4, d. 522, ll. 31-34, here ll. 32ob, 34. Compare: Shakhnazarov, *Izsledovanie zaroslei*, 30.

others)⁷¹ seemed to have found the perfect fix and were undercutting Chimkent. While in his correspondence with the Russian authorities Savinkov conveniently emphasised the dishonesty of his former employee and attributed all this to the conspiracy of hostile German *drogisty*, the company's own papers show how far it was built upon collaboration with the very same *drogisty*. It is more likely that Pfaff, Bychkov, Nikitin (and their creditors) had simply calculated costs better than their Chimkent competitors, had chosen a nimbler technological solution, and had not relied on the imperial government to provide them with privileges of any sort. It was in this situation that Savinkov and the top manager of his plant, Knapp, started asking for a duty on the export of unprocessed *darmina* and semi-refined santonin. Such a duty would have ruined their rivals in Tashkent, to the advantage of Chimkent's own pure santonin crystals. The Turkestan governor-general in 1888, Rozenbakh, raised their hopes, but events occurred so quickly that such design was not pursued further.⁷²

The other problem santonin producers in Chimkent had to face was that the price of santonin on the Hamburg stock exchange and worldwide dropped quite dramatically between 1882 and 1889. The scale of this fall in prices is not fully clear: from 250 to 85 rubles per *pud* in 1889 according to one source; according to another, from 680-960 rubles before the construction of the plant in Chimkent, to 150 rubles in 1888.⁷³ What matters is that this situation proved unsustainable for the chemical plant, which failed to recover the initial

⁷¹ In 1897 one Yakub Fatikh Biktashev (probably Tatar or Bashkir) asked for permission to open a plant for santonin production, likely limited to the first phase, in the vicinity of Chimkent, with unclear results: Y. F. Biktashev to Syr-Darya provincial administration, 8 October 1897, and answer, 13 November 1897, O'MA, f. i-17, op. 1, d. 20539, ll. 1-2.

⁷² Turkestan GG to MF, 17 October 1897, RGIA, f. 22, op. 4, d. 522, ll. 31-34, here l. 34.

⁷³ Compare: *ibid.*, l. 32; MF, DTiM, to MZiGI, 3 February 1897, RGIA, f. 22, op. 4, d. 522, ll. 26-30, here l. 28.

investment at the expected rate and was therefore closed for six years between 1889 and 1895.⁷⁴ During this period, Savinkov was also obliged to associate himself with other local industrialists in a newly constituted ‘Chimkent Industrial Society’.⁷⁵ The causes for this fall in prices were diverse, and those involved were not always ready to acknowledge some of them. As one would expect, Savinkov accused the Hamburg traders of having constituted a cartel in order to boycott them as suppliers and force them into bankruptcy. By evoking this supposed plot, Savinkov was diminishing his own responsibility as an entrepreneur, and was trying to extort privileges from the imperial government when his plant re-opened its doors in 1896.⁷⁶ Other observers, on the contrary, noted how the cause of the fall in santonin prices was Savinkov himself, because it was the Chimkent plant that had flooded the European market for this drug.⁷⁷ The emergence of the competing plants in Tashkent, although they only produced semi-refined santonin, was also a likely reason for this slump in prices – which affected them, too. It is true that ostensibly the German *drogisty* had cumulated an excess stock of santonin in the first half of the 1880s, which they then released gradually, therefore diminishing the European demand for the santonin produced in Chimkent: but it is hard to agree that this was done with the wilful purpose of driving Ivanov and Savinkov out of business.⁷⁸

⁷⁴ By 1888 only 5 per cent of the initial investment had been recovered: Turkestan GG to MF, 17 October 1897, RGIA, f. 22, op. 4, d. 522, ll. 31-34, here ll. 32ob-33.

⁷⁵ *Ustav Chimkenstskogo Promyshlennogo Obshchestva* (St. Petersburg: Tipografiia Mendelevicha, 1893). The other members were a noble, Aleksandr R. von Bennigsen, and a court counsellor, Evgenii F. Rafalovich. The Society exploited the chemical plant, some coal mines, and was meant to build a sugar-beet refinery.

⁷⁶ MF, DTiM, to MZiGI, 3 February 1897, RGIA, f. 22, op. 4, d. 522, ll. 26-30, here l. 28.

⁷⁷ Nikitin to MF, DTiM, 9 February 1899, RGIA, f. 22, op. 4, d. 522, ll. 100-101, here l. 101ob.

⁷⁸ Turkestan GG to MF, 17 October 1897, RGIA, f. 22, op. 4, d. 522, ll. 31-34, here l. 32.

To explain the fall in the demand of santonin in the late 1880s and early 1890s, the industrialists also plausibly mentioned the invention of other anthelmintic medicines. The German *drogisty*, who were trading in an array of products besides santonin, may have themselves advertised them, therefore fuelling accusations of boycott by the Russian side.⁷⁹ A survey of the French and British medical specialist press and of similar publications (for instance, the national pharmacopeias), though, does not confirm their statement: *koussou* was the only new anthelmintic that had appeared on the market parallel to santonin and had become popular because of cheap imports from Abyssinia, but it soon became clear that it was only effective against tapeworms, rather than roundworms.⁸⁰ Experiments were underway into the anthelmintic properties of thymol and potassium hydrofluorosylcate, but neither of them acquired a commercial value as competitors of santonin in the years in question.⁸¹ Instead, it was santonin as such that was regarded more and more suspiciously both by the medical profession and in ‘lay’ medical knowledge. Since the early 1880s, some doctors had started noticing how santonin *per os* was not always the best treatment against roundworms: if the latter were already big, the santonin would ‘excite’ them without killing

⁷⁹ Savinkov to MZiGI, copy, [1898], RGIA, f. 22, op. 4, d. 522, ll. 38-41, here l. 40.

⁸⁰ Budd, “Koussou”; Silvester, “On the properties of koussou”.

⁸¹ On potassium hydrofluorosylcate : Laveran and Teissier, *Nouveaux éléments*, 1113. Thymol had been synthesised by Oskar Widman in 1882: Prospero Sonsino, “Thymol as anthelmintic,” *The Lancet*, no. 144 (3718) (1896): 1273-4. In 1901 santonin was still preferred against ascarides, while thymol could be used against other worms: J. Girard, “Rôle des trichocéphales dans l’infection de l’appendice iléo-coecal,” *Annales de l’Institut Pasteur*, t. 15, no. 6 (1901): 440-4.

them, which resulted in pain for the patient.⁸² If the worms were in the lower part of the intestine (as in oxyuriasis), then santonin should be administered as an enema rather than orally, but this offset the comparative advantage of santonin over other medicines.⁸³

Furthermore, santonin had some side effects. The first to be discovered was a phenomenon known as xanthopsia: after having ingested santonin, many patients' perception of the violet colour spectrum was excluded, so that they reportedly saw everything either yellow or greenish.⁸⁴ While xanthopsia provoked some alarm at the beginning, it was soon written off as a temporary side effect and did not really damage the reputation of this medicine. More serious were a few cases of poisoning, which the specialized press reported and gradually trickled into non-specialist publications, for instance illustrated magazines and self-help handbooks for mothers.

Cases of poisoning belonged to at least three different categories. Some of them were due to the fact that the santonin had dissolved in the stomach rather than in the intestine. In principle, this should not have been possible (the main advantage of santonin was that, as an alkaloid, it was not soluble in gastric acid and could therefore 'operate' where it was needed, *i.e.* in the upper part of the intestine). But in practice it occurred: this was why it was

⁸² François-Jules-Octave Guermontprez, *Étude sur les indications thérapeutiques dans le traitement des Ascarides lombricoïdes* (Paris : A. Delahaye, 1882) ; study presented at the Medical Sciences Society of Lille, 15 November 1881.

⁸³ H. Nothnagel, *Nouveaux éléments de matière médicale et thérapeutique* (Paris : J.-B. Baillièrè, 1889), 591. In 1899, the standard treatment for oxyuriasis in Great Britain involved a combination of *per os* prescriptions and enemata, but santonin was distinctively only employed in the former, which reduced its effectiveness: E. Hawkins, "An adult infested by oxyurides for over twelve years," *BMJ* 2, no. 2034 (23 December 1899): 1732b-1733a.

⁸⁴ Davaine, *Traité des entozoaires*, 1803-804.

recommended to swallow santonin together with butter, cream, or lactose.⁸⁵ Other cases, more frequent in France but reported in the medical literature of other countries, were a consequence of the similarity in name (in French) between *strychnine* and *santonine*. In some cases, pharmacists or even doctors had sold or administered the former instead of the latter, with the obvious tragic consequences.⁸⁶ As a consequence, it was soon recommended to rename *santonine* as *acide santoninique* in the Francophone repertoires,⁸⁷ and many years later the French medical authority decided to change the classification of santonin in its official pharmacopeia, so that it would be stored in a different cupboard and with labels of a different colour from strychnine.⁸⁸ These were, properly speaking, episodes of accidental strychnine poisoning, but they added to the santonin ‘scare’ nonetheless. Third, poisoning

⁸⁵ William Anderson, “On santonine,” *BMJ* 1, no. 173 (23 April 1864): 443b-445b.

Gustave Grégoire, *Dédié aux mères de famille: Les vers et les vermifuges* (Paris : Impr. De Boullay, 1894), 34.

⁸⁶ Cases of accidental strychnine poisoning because of the confusion between the latter and santonin, either as such or in the preparation of ‘sweets’, were reported in France (Strasbourg) as early as in 1850: Joseph Briand and Ernest Chaudé, *Manuel complet de médecine légale* (Paris: J.-B. Baillière et fils, 1874), 56. Other cases appeared in the *BMJ*, for instance: “Strychnia lozenges,” *BMJ* 1, no. 842 (17 February 1877): 211.

⁸⁷ In 1881, after the death of three children: Jules Lefort, “De la substitution accidentelle de la strychnine à la santonine dans la pharmacie,” *Bulletin de l’Académie nationale de médecine*, année 45, série 2^e, t. 10 (1881) : 460-2

⁸⁸ In 1908 santonin was not considered as poisonous but needed to be kept separate from both ‘standard’ medicines and poisons: *Codex Medicamentarius Gallicus. Pharmacopée Française* (Paris: Masson & Cie, 1908), 809. In 1916, santonin was re-classified as a poison next to strychnine, which led to further accidents;

could be the result of an over-dose: the doctors cautioned against the latter from the very beginning, also because of the relative novelty of this medicine.⁸⁹

But some cases of over-dose reported in the press were particularly bloodcurdling from the viewpoint of many European parents. Because one of the advantages of santonin over *semen contra* was that it could be combined with sweets to obtain tasty anti-worm products, it was sometimes difficult for parents to understand exactly the dose their children needed and limit themselves to it. Even more distressing was the fact that several children poisoned themselves because they sneaked behind their parents' back and ate more anti-worm chocolate or biscuits than was good for them. The bitterness, nauseous smell, and unpleasant texture of *semen contra*, as well as the very low percentage of active substance it contained relative to its weight, had so far prevented anybody from ingesting an over-dose of it. Cases of this kind started being reported in medical literature in several countries in the 1870s,⁹⁰ it took many more years for the practitioners' doubts to trickle into self-help books for mothers and lay medical knowledge, where the fear of adulterated santonin was progressively replaced by the fear of santonin overall, but little by little they surely contributed to the erosion of the primacy of santonin 'sweets' in the market for 'over the counter' vermifuges.⁹¹

the two substances were separated again in 1937: *Bulletin de l'Académie de Médecine*, année 101, 3e série, t. 117, (1937), 364-5.

⁸⁹ Émile Decaisne and Ladislas-Xavier Gorecki, *Dictionnaire élémentaire de médecine* (Paris: Lauwereyns, 1877), 797b.

⁹⁰ See for instance: "Anthelmintic chocolate," *BMJ*, vol. 1, no. 946, 15 January 1879, p. 241b.

⁹¹ This process is clear but not fully linear, and is furtherly complicated by the fact that some of these 'popular' publications served as advertising venues for specific products or shops, too. See for instance : Félix Dehaut, *Manuel de médecine, d'hygiène, de chirurgie et de pharmacie domestiques*, Paris, Dehaut, 1863, pp. 731-732 (warning against adulterations) ; F. Roche, *Hygiène du premier âge, conseils aux mères*, Rochefort, de Triaud

In sum, the explanation for the depression in the market for santonin in the late 1880s and early 1890s which the Chimkent industrialists put forward was only half true: there is no evidence that alternative anthelmintic preparations became available and popular in Europe to the point of offsetting santonin; yet, it is possible that the great enthusiasm that santonin had elicited in the 1870s and early 1880s had led to the accumulation of massive stocks, which in turn depressed the demand in the decade that followed. It is unlikely (but still possible) that the German merchants built up their stocks in order to crowd out the Chimkent plant. On the contrary, it is very plausible that the establishment of the Chimkent plant itself led to over-production and that the merchants profited from the slump in prices to build up their reserves. One observer even saw the reason for the medium-term decline of prices in the inclusion of Turkestan in the Russian empire, which had significantly cut the costs of transportation and the risk prime which had been hitherto incorporated in the European price of santonin.⁹²

The parable of the medical and commercial fortune of santonin might have played a role, too, although its timing is more difficult to reconstruct. The heyday of santonin had lasted for the two central decades of the century. The first producers of ‘sweets’ (for instance the ‘Pinel

& Guy, 1878, p. 48 (santonin as “le vermifuge le plus sûr et le plus inoffensif”); Casimir Degoix, *Hygiène de la première enfance : catéchisme maternel*, Paris, Société d’éditions scientifiques, 1894, p. 79 (santonin on medical prescription only); André Narod Narodetski, *La médecine végétale : traité théorique et pratique indispensable dans toutes les familles*, Paris, Pharmacie Vivienne, 38^e éd., 19XX (early twentieth c.; defines santonin as dangerous). Compare for the late period: Adolphe Burggraeve, *Guide pratique de médecine dosimétrique*, Paris, Carré & Chanteaud, 1895 (kouso as superior to santonin for small children); François-Laurent-Marie Dorvault, *L’Officine*, 14^e éd., Paris, Asselin & Houzeau, 1898, pp. 822-823, here p. 823 (santonin is “toxic, especially for young children) but also: J. Girard, “Rôle des trichocéphales”, (recommends santonin; this report was illustrated in popular venues, too: *Annales Catholiques*, no. 1612, 27 April 1901, p. 92; and: *L’Instantané* (supplement of *La Revue Hebdomadaire*), a. 10, t. 5, no. 22, 27 April 1901, p. 553.

⁹² Planchon, *Les drogues simples*, p. 78.

biscuits' in France) were trying to protect themselves against competitors who combined santonin with different ingredients in their recipes.⁹³ In the 1850s and up to the 1870s, the popularity of vermifuge 'sweets' that contained it tempted some in Italy, France, and elsewhere to adulterate santonin with the dreaded calomel (which contained mercury), mica, cream of tartar, boric acid, or various resins. In the early 1860s, some started commenting on the need to regulate the production and sale of santonin-based products: all these were signs that demand was buoyant across Europe.⁹⁴ In 1880, santonin was still used to treat the famous parasitical epidemics that afflicted Italian and Swiss workers in the St. Gotthard Tunnel.⁹⁵ From the 1880s to the 1900s, though, a sort of santonin 'scare' emerged in popular and scientific publications, for the reasons illustrated above. Already in 1900, a medical textbook labeled santonin as an 'old school' vermifuge.⁹⁶ By the beginning of WWI, the star of santonin had declined – not only relative to other anthelmintics, but also relative to the old *semen contra*, which was ultimately considered by some as less dangerous and more economical.⁹⁷

⁹³ Decision of the Metz tribunal, 11 February 1857, reported (with comments by Grand) in: *Journal du Palais*, 1857, pp. 449-456, here p. 455.

⁹⁴ Alphonse Chevallier, *Dictionnaire des altérations*, pp. 279-280 ; Félix Dehaut, *Manuel de médecine, d'hygiène, de chirurgie et de pharmacie domestiques*, Paris, Dehaut, 1863, pp. 731-732 ; report, *BMJ* 2, no. 568, 18 November 1871, p. 587.

⁹⁵ E. Bugnion, "On the epidemic caused by Ankylostomum among the workmen in the St. Gotthard Tunnel", *British Medical Journal*, vol. 1, no. 1054, 12 March 1881, p. 382.

⁹⁶ John Henry Clarke, *A dictionary of practical materia medica*, vol. 3 (1900), 1103-4 (reprint: Delhi: B. Jain Publishers, 1996).

⁹⁷ See: Joseph Hérial, *Traité de pharmacologie et de matière médicale* (Paris : J.-B. Baillière & fils, 1900-1901), 491; G. de G., "Le Semen Contra, origine et propriétés," *Revue des sciences naturelles appliquées* [published by the French national acclimatation society], a. 38, vol. 12 (1891): 655-6; Ernest Monin, *Les*

Paradoxically, what made the success of santonin and marked its superiority over *semen contra* was also what led to the ‘scare’ among practitioners and consumers alike: that santonin crystals were similar to other preparations allowed confusion with strychnine, while their versatility in combining with excipients led to accidental over-dose. Furthermore, it was the superiority of santonin as a *per os* medicine that nullified the interest of prescribing it in other forms (e.g. enemas), which would have generalized its usage against all roundworms (including pinworms). More generally, the commercial fortune of santonin in the form of lozenges, sweets, and so on, led to the trivialization of its consumption, which in turn led to interesting debates in various venues on the opportunity of its sale ‘over the counter’ in drugstores, rather than by ‘proper’ pharmacies, and on the medical doctors’ duty to warn against too sporty a resort to these products.⁹⁸

In other words, by the beginning of the 1890s the European demand for santonin hit a ceiling. To a large extent, this was due to the nature of santonin itself and to its ability to satisfy the preferences of European consumers (both medical practitioners and households). While they justly admitted that a decline in demand might have derived from the over-production of the mid-1880s, the Chimkent industrialists did not acknowledge any of these

remèdes qui guérissent: cures rationnelles des maladies (Paris: O. Doin, 1894), 186-8. Some even argued that the concentration of active principle was higher in the *semen contra* powder than in santonin: Paul Loiseau, *Formulaire thérapeutique*, 2e éd. (Paris: Masson, 1903), 395.

⁹⁸ In principle, in France santonin ‘sweets’ could only be sold by pharmacies, therefore excluding sweets- and drugstores (*confiseurs et droguistes*). However, reports of fines demonstrate that the latter sometimes eluded this prohibition: e.g. a case in Rennes in 1873: Briand and Chaudé, *Manuel complet*, 56. This situation continued as long as santonin ‘sweets’ remained popular: Gaston, “Des dangers de la vente de la santonine,” *Revue de médecine légale* (1896): 140-1; “Les bonbons à la santonine,” *La médecine internationale*, a. 1, no. 1 (1897), 18.

reasons, probably because they would have dented the image of santonin they were conjuring in front of the imperial government. It was crucial for them to demonstrate that investments of political and ‘material’ capital in this industry would be profitable on the medium term, and that only the hostility of malevolent -primarily foreign- actors was an obstacle to the success of their enterprise. Alas, this was already not the case when the Chimkent plant re-opened its doors in the mid-1890s.

Protecting *darmina*, or protecting santonin production?

This crisis continued until the autumn of 1895, when the price of santonin in Hamburg temporarily recovered. This could have been because doctors, having found the alternatives to santonin unsatisfactory, started to prescribe it again; or it could have been the effect of the exhaustion of the European stocks of santonin.⁹⁹ The recovery led to the re-opening of the Chimkent plant in early 1896. But when Savinkov started again purchasing *darmina* in 1895, he claimed to have received only 30,000 pud, which amounted to one third of what he needed. He claimed that the reason for this was that the surface under *Artemisia Cina* had diminished: this explanation, in turn, underpinned further requests for privileges and public backing. In April 1896, he petitioned the military governor of Syr-Darya province, Korol’kov, to hire guards and set up a vigilance system (*okhrana*), which would be loosely subject to the district administration, but in practice obey him. These private guards would prevent the establishment of Kazakh winter quarters (*zimovki*) on the land where *darmina* grew in the Chimkent and Aulie-Ata districts, and it would also intervene against the Kazakh practice of controlled fires and the use of roots as fuel. It would also invigilate the way *Artemisia Cina* inflorescences were harvested, by forcing the Kazakhs to use cutting tools,

⁹⁹ Savinkov to MZiGI, copy, [1898], RGIA, f. 22, op. 4, d. 522, ll. 38-41, here ll. 39ob-40.

rather than their hands, therefore supposedly preventing the harvesters from uprooting the plant as a whole.¹⁰⁰

This resulted in a first inquiry by Nil A. Durnovo, who was at the time the responsible officer for the collection of indirect taxes in Turkestan and Semirechie. Durnovo was tasked with the appraisal of the more general question of some form of protection for the santonin industry in Turkestan.¹⁰¹ He visited the Chimkent chemical plant between three times between May and July 1896, when it had already stopped working again after a brief resumption of activity in the winter months. His focus, however, was not on the plant, but on the *Artemisia*. His report included many botanical details (and even a herbarium), although he possessed little specialist qualification in this respect. Possibly because of this, Durnovo generally agreed with Savinkov about the over-exploitation of *Artemisia Cina*, which he attributed to the greediness and ineptitude of the Kazakhs. However, Durnovo omitted to say that in 1896 Savinkov's plant had managed to procure 100,000 *puds*, which undermined the credibility of allegations of over-use.¹⁰²

Durnovo's report, however, did not limit itself to assessing the fate of a botanical species: it sketched out the socio-economic and inter-ethnic relations which were supposedly at the origin of over-exploitation. Here, too, Durnovo followed the industrialists' own account. In this portrait, the nomads were incited by Tatar intermediaries and agents of the German drug merchants to harvest as much *darmina* as possible. At the same time, the supposed inadequacy of the legislation on nomadic land rights (*i.e.* the Turkestan Statute) created a

¹⁰⁰ N. P. Savinkov, petition to the military governor of the Syr-Darya province, [late 1895-early 1896], RGIA, f. 22, op. 4, d. 522, ll. 146-153, here p. 150.

¹⁰¹ Savinkov to MZiGI, copy, [1898], RGIA, f. 22, op. 4, d. 522, ll. 38-41, here l. 40.

¹⁰² V. Masal'skii (kniiaz'), "O santoninnoi promyshlennosti v Turkestane," *Izvestiia RGO*, vol. XXXIII (1897): 68-75 (*TS*, vol. 487, pp. 403-410).

situation in which the usage of the land under *Artemisia Cina* took place ‘for free, without controls, and almost unconditionally’. In a manner that echoed tropes that were not uncommon in metropolitan official *milieus* in the second half of the 1890s, the author argued that the State had virtually given up its pretensions to what was its own.¹⁰³ Durnovo used harsh words to qualify the Kazakhs, for instance when he claimed that ‘in proper terms, the *de facto* owner of the *darmina*, the nomad, little deserved to dispose of this world-unique treasure, given the conditions in which he lives and because of the stage of his cultural development’, and remarked how over-exploitation was not detectable close to the villages where Russian settlers lived.¹⁰⁴ He also reproduced the standard discourse, which was shared by the colonial official mind and by some Kazakh intellectuals, on the Tatar merchants as vehicles of Islamic fanaticism (he reckoned that the Kazakhs ‘had always been bad Muslims’), on their role in preventing social change among the Kazakhs, and on their shrewd exploitation of those more vulnerable:

The development of trade relations brought into the nomadic district these Tatars, who take advantage from deluding the nomads about [*i.e.* by denying] those reasons why the life of the nomad needs to change, whether he wants it or not. It is profitable for them to maintain their influence among the nomads, because the simple-minded savage [*dobrodushnyi dikar*] pays very nicely for this situation. To maintain such influence, the Tatars choose the most anti-State way: to fanaticize the population and to agitate the native population against the Russian newcomer,

¹⁰³ Head of indirect taxes in Turkestan and Semirechie (Durnovo), report, [1896-1897], forwarded from: Department of indirect taxes for Turkestan and Semirechie to MF, Main Administration of indirect taxes and state monopolies on drinks, 31 August 1899, RGIA, f. 22, op. 4, d. 522, ll. 115-145, here l. 126.

¹⁰⁴ Durnovo, report, [1896-1897], RGIA, f. 22, op. 4, d. 522, ll. 115-145, here ll. 122ob, quot. l. 127ob, highlighted in the original.

especially the settlers. The self-government of the Kirgiz [*i.e.* Kazakhs], their living scattered across the enormous territory of the [Chimkent] district and in isolation [from the external world], strongly facilitate Islamic propaganda and paralyse almost all undertakings and patrolling by the administration. [...] Any measure that tends to the expulsion of the Tatars from the district, to the diminution of their influence, to the destruction of that web of exploitation and usury by which they have captured the Kirgiz part of the population, must be considered as welcome, [even] if one cannot hope to clear out completely these two evils – the Tatars and the Bukharan Jews – from the district.¹⁰⁵

In this context of supposed struggle between Russian and Tatar influence of the Kazakhs, Durnovo tried to portray the satisfaction of Savinkov's request (*i.e.*, the *de facto* monopoly on the *darmina* harvest) as a way of freeing the Kazakhs from the hands of his exploiters and, in this way, to integrate the nomads into imperial citizenship (*grazhdanstvennost'*): 'A nomad starts turning into a Russian citizen (*grazhdanin*), only when one isolates (*uedinit'*) him from Tatar influence'.¹⁰⁶

At the very beginning, thus, both Nikifor P. Savinkov and the officers he dealt with framed the question of the defence of *Artemisia Cina* as a way to preserve the interests of entrepreneurs. That the supposed over-exploitation of this plant was diminishing the diversity of the local flora, or was detrimental to the soil, was a very minor argument.¹⁰⁷ Both in his

¹⁰⁵ Ibid., l. 128. On this trope in Kazakh intellectual history, see: Tomohiko Uyama, "A Strategic Alliance between Kazakh Intellectuals and Russian Administrators: Imagined Communities in *Dala Walayatining Gazeti* (1888-1902)," in *The Construction and Deconstruction of National Histories in Slavic Eurasia*, ed. Hayashi Tadayuki (Sapporo: SRC, 2002): 237-259.

¹⁰⁶ Durnovo, report, [1896-1897], RGIA, f. 22, op. 4, d. 522, ll. 115-145, quot. l. 133ob.

¹⁰⁷ Shakhnazarov, *Izsledovanie zaroslei*, 39.

petition and in the correspondence that ensued, Savinkov insisted on the fact that the issue of the *darmina* was ‘a purely economic question’ [*vopros chisto ekonomicheskii*], one that concerned ‘the interests of the fatherland’s industry and of its struggle against foreign capital’, and criticized instead those who, in his own words, did not recognize this and accused him of ‘partiality and bias’ in his advocacy of the conservation of natural resources.¹⁰⁸ Savinkov might have conflated or confused the empire’s goals and his own, and he nurtured a paranoid obsession for foreign conspiracies: but what matters the most here, is that he did not present the conservation of the local flora as a task worth pursuing *per se*. In this perspective, if *Artemisia Cina* needed protection, it was as a supposedly strategic raw material for national industry. Hence, measures for limiting its over-use were considered in a bundle with other possible forms of protection of santonin production, such as a duty on the export of dry *darmina* inflorescences and on the intermediate products of the santonin industry. This explains the choice of Durnovo, from the department of indirect taxes, as the first ‘expert’ on the *darmina* issue.

Besides spurring Durnovo’s inquiry, the first petition of the Chimkent industrialist received a keen hearing by the Syr-Darya provincial administration, which almost immediately passed an order to prohibit the uprooting of *Artemisia Cina* and, more generally, its usage as fuel. This order also temporarily allowed Savinkov to pay for his own private guards to protect the areas under *darmina* from over-exploitation (although Savinkov himself understood that this was scarcely effective). The decision of the military governor of Syr-Darya, though, was not endorsed by his superiors. According to Savinkov, this was the result of the intervention of his competitors in Tashkent and of foreign merchants behind them, who

¹⁰⁸ Savinkov to MZiGI, copy, [1898], RGIA, f. 22, op. 4, d. 522, ll. 38-41, here l. 40.

were allegedly less interested in the sustainability of *darmina* harvesting.¹⁰⁹ One such competitor, Nikitin, argued on the contrary that opposition to the claims of the Chimkent plant did not come from the Tashkent entrepreneurs, but from the Kazakhs and Russian settlers who harvested the *darmina* and were worried about the effect the proposed restrictions would have on their income.¹¹⁰ The latter is obviously a much more plausible explanation than Savinkov's conspiracy theories, although it is hard to verify.

When the Turkestan governor-general and the metropolitan government examined the question, they were less convinced by Savinkov's version than either Durnovo or the Syr-Daria provincial administration, although they might have had different reasons for this. For most metropolitan organs the protection of *Artemisia Cina* was synonymous with protecting the production of santonin in Turkestan. Such was the agenda of a meeting that took place in December 1898. The chair of the meeting was Vladimir A. Kovalevskii, director of the Department of Trade and Manufactures in the Ministry of Finance, while Nil A. Durnovo, who had drafted the first report on the issue a couple of years before, was invited to participate, despite the fact that, since then, he had already left Turkestan and served first in Bashkiria and then in Lublin. A representative of the Ministry of Agriculture and State Land Properties was also present. The agenda of the meeting conflated once again the worries about extinction with the possibility of new duties, and of the import of duty-free alcohol for the Pfaff plant in Tashkent. Here the Ministry of Finance committed itself to the concession of duty-free alcohol to Pfaff, because Savinkov already enjoyed this privilege, and because this would have stimulated the production of refined (crystallised) santonin in Turkestan, as opposed to the export of the semi-refined (powder) product Pfaff had specialized in until

¹⁰⁹ Shakhnazarov, *Izsledovanie zaroslei*, 41.

¹¹⁰ Nikitin to MF, DTiM, 9 February 1899, RGIA, f. 22, op. 4, d. 522, ll. 100-101, here l. 101ob.

then. He did not, however, take a decision on the duties on the export of unprocessed grains¹¹¹. Though spurred by Savinkov's claims, the meeting was not meant to serve the interests of a single entrepreneur, but those of the santonin industry in Turkestan as a whole. Whether *Artemisia Cina* was disappearing or not was one of the factors the commissioners intended to consider to find out whether duties were indispensable, not unlike the costs and prices on the local and European markets

At the same time, the Ministry of Agriculture and State Land Properties sent to Turkestan two experts: first, prince Vladislav I. Masal'skii, and then, in July 1897, commanded by the Agricultural Department, the botanist and agronomist, A. Shakhnazarov, who was at work when the above-mentioned meeting took place.¹¹² Parallel to this, in October 1897 the same ministry established a Directorate for Agriculture and State Land Properties in Turkestan, chaired by S. Yu. Rauner. As Durnovo's report, the documentation produced by these inquiries still used the language of the management of economic resources. Unlike Durnovo's report (and unlike Savinkov's petitions), though, they conceptualized the possible extinction of *Artemisia Cina* and its need for conservation as an issue pertaining to land organization and rational management of natural riches, rather than as a question of fiscal support for national industry. Masal'skii and, even more, Shakhnazarov, were slightly distancing themselves from the kind of conservationist rhetoric that Savinkov himself had used, and introduced instead scientific considerations in their discussion of the *darmina* question. Both

¹¹¹ MF, DTiM to MZiGI, 14 January 1899, RGIA, f. 22, op. 4, d. 522, l. 51; *Zhurnal soveshchaniia*, *ibid.*, ll. 61-63.

¹¹² Timaev, "Artemisia contra," [in Latin in the text] *Tashkentskii Kur'er*, nos. 189, 190, 192, 194, 195 (1908) (*TS*, vol. 476, pp. 164-171, here p. 164).

reports ended up being somewhat different, in their tone and conclusions, from the intentions of those who had ordered them.

Masal'skii compiled a relatively short report, which he presented at the Imperial Geographical Society already at the beginning of December 1897. He followed Savinkov's version in that he stated that the area under *Artemisia Cina* had diminished while the chemical plant had not been working, because of the sedentarization of many Kazakhs in the proximity of villages, but also because of the steady consumption of *darmina* roots in the post stations and in the city of Chimkent. However, Masal'skii was prudent in estimating the extent of such over-exploitation. He also offered a more balanced version of the supposed conspiracy of German *drogisty*: according to him, it was Savinkov that had invested an anomalously large amount in the plant, and the Germans, by imposing low prices, were simply profiting from his need to recover such an imprudent investment.¹¹³

Shakhnazarov's report was much more detailed and was published two years later, in 1899. In it, he concluded that 'we do not possess a single fact that supports the idea that *Artemisia [cina]* is a dying plant'. He argued that, while the latter could be exploited industrially only where it grew in high concentration, nobody knew for certain whether or not somewhere else in Turkestan or in the Steppe the same density of *darmina* existed as in the Chimkent district.¹¹⁴ Unlike the other experts who had written on the issue, Shakhnazarov was considering the '*darmina* question' (*i.e.* whether the latter was disappearing) as an autonomous object of study, rather than as a variant of the 'santonin problem' (*i.e.* whether the santonin industry required or deserved protection). He still spoke in terms of natural resources management, but – because of his intellectual profile and formation – he considered

¹¹³ Masal'skii, "O santoninnoi promyshelnosti".

¹¹⁴ Shakhnazarov, *Izsledovanie zaroslei*, 39.

this as a scientific problem, rather than as a question of economic policy. In Shakhnazarov's report, *darmina* and its destiny became a matter for botanists to discuss: this was a first element of novelty. The second was the inclusion of ethnographic considerations on the role of *darmina* in the material culture and economy of the local Kazakh population. By considering *Artemisia cina* and the Kazakhs who used it as part of the same environment, Shakhnazarov ended up discussing the crucial issue of the land rights of the nomadic population, which had until then been overshadowed by the discussion of the destiny of the local industry.

Private claims, State interests, and Kazakhs' rights

Shakhnazarov firmly upheld Kazakh rights on *darmina* land. The income they derived from this activity was not only legally justified on the basis of the Turkestan Statute, but was also very necessary to Kazakh households, whose economic situation was, in his opinion, extremely fragile:

This is why, both in the interests of the conservation of artemisia, and in the interests of the population that lives on this plant and uses it, I must acknowledge any intrusion as detrimental to the interests of the majority. Even without this, the nomadic Kirgiz [*i.e.* Kazakh] population finds itself in debt towards various traders [*kommercheskie liudi*], who have squeezed millions out of [their] trade in the steppe. This is why to subject this insolvent debtor to the will of the *de facto* economic masters of the steppe in a so-to-say legal way, means to ruin the livelihood of the Kirgiz of the Syr-Darya steppe (which is [already] ruined even without this).¹¹⁵

¹¹⁵ Shakhnazarov, *Izsledovanie zaroslei*, 42.

Shakhnazarov was observing the same situation as Durnovo and was possibly sharing some of the latter's patronizing tone, but was deriving diametrically opposed conclusions. He remarked how the Kazakhs were being exploited by intermediaries and agents, but, unlike Durnovo, he saw the main culprits in the santonin industrialists, rather than in the Tatars who bought the dry *Artemisia Cina*. This might be a consequence of the fact that Durnovo had relied too much on Savinkov's version on the story. Both Durnovo and Shakhnazarov mentioned the economic subalternity of the nomads: yet, for the former the solution was to confer exclusive rights on the *darmina* harvest to Savinkov, who would have benevolently taken care of their needs; for the latter, such an outcome would have strengthened the oppression of the Kazakhs by giving it a 'legal' cover, while the only possible solution was to re-assert the nomads' land rights and allow them to continue integrating their income through the harvesting of *Artemisia Cina* in the summer.

Shakhnazarov's report refuted the thesis of those he did not hesitate to call 'monopolists' on the basis of two distinct arguments. First, he referred to their historical rights on the land they were using, as confirmed by the 1886 Turkestan Statute (art. 270): even though their activities had put the survival of *Artemisia Cina* in danger, he was in no doubt that the Kazakh had a legal right to use that land, which could not be infringed upon.¹¹⁶ Second, he was persuaded that the usage which the Kazakhs made of the land where the *Artemisia Cina* grew was not detrimental to its conservation: the way their livestock grazed on it, the amount of roots consumed as fuel and the manner in which they were dug up, and the prudence with which the Kazakhs renovated pastureland by fire assured him that such usage did not lead to the depletion of *darmina* in the Chimkent district. Quite the contrary, Shakhnazarov insisted

¹¹⁶ Shakhnazarov, *Izsledovanie zaroslei*, 37.

on the fact that Kazakh traditional usage of *darmina* land stimulated the rejuvenation of this resource year after year, thanks to the fertilizing action of sheep, horse, and camel dung.

More generally, and more significantly, the Russian botanist contended that the Kazakhs had a very strong interest in the preservation not only of *darmina* (from the harvest of which they derived an income), but of steppe pastureland as a whole. Shakhnazarov was absolutely confident that this interest, combined with the traditional knowledge the Kazakhs had of the steppe environment, ruled out the possibility of over-exploitation of vegetal resources. If in the future the Kazakh population would increase, then one should try to sow *Artemisia Cina* artificially: in this respect, Shakhnazarov was convinced that, even in the case of demographic expansion, the Kazakhs would not use the *darmina* land for agriculture, where no irrigation existed.¹¹⁷ He assumed, in other words, both a ‘civilisational’ and an environmental limit to the consumption of *Artemisia Cina* by the Kazakh nomads: the latter would not over-exploit it because of their old knowledge of the steppe and prudence in managing pastureland – and they could not use the same land in other ways, for instance for agriculture, because of the limited availability of water.

Shakhnazarov’s report was discussed both at the local level, in Tashkent, and in St. Petersburg. In the colony, it was read parallel to the results which the head of the Turkestan Directorate for Agriculture and State Land Properties, Rauner, had obtained himself with the help of I. I. Geier and the blessing of the Syr-Darya military governor, Korol’kov, who personally accompanied him to the area where the *darmina* grew. Rauner confronted Shakhnazarov at a meeting in the winter of 1897-1898, declaring himself unconvinced by the latter’s report, including the attached set of photographs. Rauner did not believe Shakhnazarov’s evidence about the ability of *darmina* to spontaneously propagate by seed on

¹¹⁷ Shakhnazarov, *Izsledovanie zaroslei*, 31-7

pastureland. He also condemned the Kazakh practice of digging up *darmina* roots with hoes (*ketmen*), emphasised the huge consumption of this sort of fuel in the stations of the Syr-Darya line, and generally considered Shakhnazarov's findings as inconclusive. Having listened to Rauner, the majority of colonial officers present at the meeting agreed that prudence should prevail in the exploitation of *darmina*. Furthermore, they explicitly exonerated Savinkov from any criticism, saluting him as a 'pioneer ... who ha[d] provided significant gain not only to the natives, but also to the Russian element of the population'.¹¹⁸ Given the general orientation of the Directorate Rauner headed and the fact that Korol'kov was interested in defending his choice of having fulfilled Savinkov's requests in 1896, this hostility to Shakhnazarov's views is hardly surprising.

In the imperial capital, Shakhnazarov's work, together with the debate that had ensued, formed the basis of a meeting which took place in February 1899 at the Agriculture Department of the Ministry of Agriculture and State Land Properties. Among the participants, there were the head of the chancellery of Turkestan governor-general Brodovskii, while Savinkov and Shakhnazarov themselves were invited. Unlike what had happened until then, this meeting was not co-ordinated by the Ministry of Finance: from this point onwards, the issue of the supposed over-exploitation of *Artemisia Cina* fell within the purview of the Ministry of Agriculture and State Land Properties. The question of imposing duties on the export of semi-refined santonin was being considered separately by the Ministry of Finance, which nonetheless abstained from all decisions until it could know for certain whether the crisis of the Chimkent plant was due to the unavailability of raw material.

¹¹⁸ Rauner to MZiGI, Agriculture Department, 9 January 1898, O'MA, f. i-7, op. 1, d. 2222, ll. 6-9, quot. l. 8.

A summary of Rauner's conclusions is in: Timaev, "Artemisia contra," 165.

The ministerial commission endorsed Shakhnazarov's conclusions about the fact that the acreage of the land under *darmina* was not diminishing, and that the Kazakhs' traditional usage of that land did not represent an *immediate* threat. Hence, it decided to rule out Savinkov's main request, namely the inclusion of all the *darmina* land in one single plot (*obrochnaia stat'ia*), which Savinkov only would then rent, because this would have been detrimental to the interests of the nomads (including harvesting *darmina*). The commission was clearly more worried about the virtual monopoly on *Artemisia Cina* which would have resulted from approving Savinkov's requests: a possibility that they considered 'extremely undesirable'.¹¹⁹ Thus, the commission recommended the establishment of a number of smaller plots (*obrochnye kazennye stat'i*), which not only Savinkov, but other entrepreneurs could rent, too. At the same time, the Ministry planned to continue monitoring the density of *Artemisia Cina*.¹²⁰ This solution would not have made sense if the problem the commissioners wanted to prevent or solve had been the violation of the usage rights on that land: the constitution of a number of smaller (but still quite big)¹²¹ plots of State land property (*kazennye stat'i*) for rent would have encroached on those rights to a possibly slightly smaller extent, but substantially in the same way as one big plot would have done.

¹¹⁹ MZiGI, Agriculture Department, to MF, 30 March 1899, RGIA, f. 22, op. 4, d. 522, ll. 103-4; see also: copy of the minutes of the meeting at the Agriculture Department, 15 February 1899, *ibid.*, ll. 105-6 (also in O'MA, f. i-7, op. 1, d. 2222, ll. 15-6).

¹²⁰ *Ibid.*; compare: MZiGI to War Ministry (hereafter: WM), 31 October 1900, RGIA, f. 22, op. 3, d. 16, ll. 1-5, here ll. 3-3ob. See also: Timaev, "Artemisia Contra," 166.

¹²¹ According to the commission, in this way Savinkov would have obtained 100,000 pud of dry *darmina*, but could not harvest more than 10 pud per *desiatina*: his plot, thus, should have had a surface of at least 10,000 *desiatiny*! MZiGI, Agriculture Department, to MF, 30 March 1899, RGIA, f. 22, op. 4, d. 522, ll. 103-4; copy of the minutes, 15 February 1899, *ibid.*, ll. 105-6.

Neither was the choice of multiple smaller concessions over a single large one a way to assuage discontent on the Kazakhs' side, as from the latter's perspective there was no practical difference between the two solutions. In this respect, in practice the commission that met at the Agriculture Department was mainly interested in the prevention of monopoly; despite paying lip service to Shakhnazarov's recommendation not to affect the rights of the local Kazakhs, its practical decisions contradicted this.

Between February 1899 and the end of the following year, nonetheless, the idea of constituting a number of plots for rent met the opposition of various organs, both in Turkestan and in the metropole, to the point that the Ministry of Agriculture and State Land Properties itself had to reconsider its positions. While it is very difficult to reconstruct the precise reasons for this change, one knows what was going on at the same time around the other question raised by Savinkov's petition: the possibility of a duty on the exports of unprocessed *darmina* inflorescences and/or semi-refined santonin, on which the Ministry of Finance had not yet pronounced.¹²² Starting from the end of 1898 (before the Agriculture Department had convened the meeting on Shakhnazarov's report, but after the latter had conducted his own fieldwork), the Ministry of Finance, through the Turkestan Treasury Chamber, asked for detailed information about the production costs of the Chimkent chemical plant, which produced santonin crystals, and of the Tashkent plants of Nikitin and Pfaff, which only produced santonin powder (although Pfaff had expressed his intention to specialize in the full cycle of production of santonin in the near future).¹²³ On the top of this, the Tax Inspector for the city of Tashkent consulted an engineer called Gofman who had

¹²² MF, DTiM to MZiGI, 14 January 1899, RGIA, f. 22, op. 4, d. 522, l. 51.

¹²³ MF, DTiP to Turkestan Treasury Chamber, 18 January 1899, RGIA, f. 22, op. 4, d. 522, l. 52; MF, DTiP to Pfaff, 18 January 1899, *ibid.*, l. 53; MF, DTiP to Nikitin, 18 January 1899, *ibid.*, l. 55.

worked in Savinkov's plant, but who in 1899 was employed as the Tashkent 'city architect' and could therefore provide an unbiased estimate of production costs.¹²⁴

While the data they reported are heterogeneous (for instance, because some prices of *darmina* were recorded in Chimkent and others in Tashkent), the conclusions one can derive from them (and the Ministry of Finance derived, too), were threefold: first, the price of pure and, possibly, semi-refined santonin had plummeted on the international market as a consequence of the increase in competition and production in Turkestan. Second, according to the producers themselves (Nikitin, Pfaff, and Savinkov), production costs were so high that they were just breaking even or, in the case of the Chimkent plant, the capital had started being eroded to cover for debts; yet, according to Gofman, Savinkov at least was inflating costs. Third, the price that the industrialists had to pay for *darmina* followed an erratic path: Pfaff argued that competition had forced it upwards for the past fifteen years, but his own data showed a more complicated picture, which changed through the course of each season (over-supply might cause the price to plummet), and where the relation between Kazakh harvesters and intermediaries needs to be taken into account.¹²⁵

The context in which these actors were operating made it possible for the Tatar intermediaries to reap generous markups on the price they paid to the Kazakhs (and, increasingly, the European settlers) who harvested the *darmina*. These margins must have been extremely high at the very beginning (up to 900 per cent according to one source),¹²⁶ but the value of santonin on the European market allowed the Chimkent plant to gain substantial

¹²⁴ MF, Tax Inspector for the city of Tashkent to Turkestan Treasury Chamber, 22 May 1899, RGIA, f. 522, op. 4, d. 522, ll. 112-113.

¹²⁵ Pfaff to MF, DTiM, February 1899, RGIA, f. 522, op. 4, d. 522, l. 102.

¹²⁶ GG Turkestan (Cherniaev) to MF, 27 November 1889, d. 522, ll. 12-14, here l. 12.

profits nonetheless. When, on the other hand, the price of santonin diminished, the amount which the intermediaries pocketed started attracting the industrialists' attention. According to Durnovo's and Shakhnazarov's reports, this margin was very high: the Kazakhs were paid 10-15 kopeks per *pud*, while the chemical plants had to pay between 30 and 40 kopeks.¹²⁷ Tatar intermediaries were indispensable as cultural brokers and because of their knowledge of the Syr-Darya steppe and its inhabitants; in the case of the Tashkent plants, they could organize the transportation of the raw material.¹²⁸ While Durnovo's statement that the Kazakh 'native administration' (the *aul* elders and heads of cantons - *volostnye upraviteli*)¹²⁹ was eating out of the Tatars' hand might have been an exaggeration, it is not unlikely that local power structures had developed a privileged connection with the Tatars as providers of credit and commodities. (Later on, as illustrated below, the 'native administration' would be involved in procuring *darmina* for the Chimkent plant itself.)

It appears, however, that the Tatar cartel (or 'spiderweb', as Durnovo called it) managed to stymie all attempts to enrol Kazakh and Russian harvesters with better compensation. For instance, when a 'newcomer' tried to carve out his own share in the harvest of *darmina*, someone else proposed a marginally higher sum, which would deprive the former of any result and leave him in debt towards the plant which had anticipated him the money. Similarly, as soon as rumours of an increase in the demand for *darmina* started circulating (for instance, because the Chimkent plant had re-opened), the 'cartel' of intermediaries, who

¹²⁷ Durnovo, report, [1896-1897], RGIA, f. 22, op. 4, d. 522, ll. 115-145, ll. 133-134; Shakhnazarov, *Izsledovanie zaroslei*, 20.

¹²⁸ Shakhnazarov, *Izsledovanie zaroslei*, 20

¹²⁹ The *aul* was the basic administrative unit for nomads, roughly corresponding to the village among the settled population; the canton (*volost*) included several *auls*. Both *auls* and *volosts* were governed by 'native administrators'.

were always well informed, were ready to impose their own price.¹³⁰ It appears, though, that the Pfaff and Nikitin plants in Tashkent managed to obtain better deals with the purveyors of raw material, as reflected by the lower prices they were paying in 1899. According to Durnovo, in 1895-1896 the two Tashkent-based industrialists were also involved in the shipping of unprocessed *Artemisia Cina* inflorescences to Europe, which might in turn reflect the shorter supply chain they were enjoying in the district.¹³¹

While Durnovo and Savinkov tended, as explained above, to see all this as the product of the malevolence of Tatar merchants, the reason why the Chimkent plant became the prey of the latter, who dictated prices and were not accountable for quality, resided in a more structural feature of the local juridical system. The controversies that arose between the plant and the Tatar merchants could not be settled in a judicial way; more exactly, a set of practical and legal circumstances made it impossible or extremely inconvenient for Savinkov to address himself to a court in case the *darmina* supplied were insufficient or of substandard quality. The first limit to his possibilities resided in the very long time a court procedure would take: because during the latter the *darmina* inflorescences (*i.e.* the object of the controversy) were put under seal, by the time the trial was concluded they would have lost their ethereal oil and, consequently, what made them industrially valuable. The second limit was a direct consequence of the regulation of property in Russian Turkestan: according to the Statute, Tatars could not acquire real estate (immovable properties) in Turkestan. Hence, ‘in case of successful settlement of the controversy, the Tatar disappears, and his property volatilizes’. Nothing could be seized from him: especially if, as sometimes happened, the Tatar intermediary had already re-invested the advances from the plant as advances on the

¹³⁰ Durnovo, report, [1896-1897], RGIA, f. 22, op. 4, d. 522, ll. 115-145, ll. 129ob-130.

¹³¹ *Ibid.*, l. 132.

cotton harvest, and the latter turned out to be unsuccessful.¹³² This is what reportedly happened when the Chimkent plant resumed its production in the winter of 1895-1896: Savinkov had anticipated money to the Tatar intermediaries for some 83 thousand *puds*, but only one third of this amount was actually delivered to the plant. At best, some Tatar intermediaries were delivering only the amount that corresponded to what they had received in advance, rather than the full quantity they had agreed upon. Moreover, the supply of *darmina* that was delivered at the Savinkov plant contained more impurities than usual, which reduced by one-fourth the final product that could be obtained from each unit of weight of dry inflorescences.¹³³

This situation of ‘contract failure’ led to the degradation of the already tense relations between the local industry and the Tatar intermediaries, on whom Ivanov and Savinkov had systematically relied in their first years of activity. The rhetoric of a ‘Tatar conspiracy’ for control over the economy of Turkestan had served as an argument for the exclusion of this group from the acquisition of real estate. In fact the opposite was true: if the Tatars had been allowed to acquire unmovable properties according to the Russian imperial law, it would have been far easier for Savinkov and others to draw up contracts with them that could actually be enforced. Instead – Durnovo noted – the ‘contracts’ with Tatars and Central Asians (‘Sarts’) which the Chimkent plant kept served for accounting purposes only.¹³⁴

This situation was part of a much wider issue: in Russian Turkestan, the existence of two parallel juridical systems and, above all, the fact that notions of property on land and real

¹³² Ibid., I. 130.

¹³³ Ibid., II. 132-132ob.

¹³⁴ Ibid., I. 130. It is true that such ‘contract failure’ also existed the other way round: Shakhnazarov reported that Savinkov tended not to pay some Russian settlers the full price he had promised, if in the meantime oversupply of *darmina* had pulled down prices: Shakhnazarov, *Izsledovanie zaroslei*, 38.

estate in general were hardly 'translatable' from the Muslim system into the Russian imperial one, this problem affected the way the local economy ended up being integrated in wider imperial networks. The fact that Muslim property rights were not immediately recognizable by Russian civil courts made credit for the Muslims more expensive, because of the greater risk assumed by (Russian) creditors (companies, banks, or physical persons) who could not seize such property in case of default. Parallel to this, those Muslims who had access to immediately recognizable movable (cotton or other commodities) or, less often, immovable capital or indeed political influence were the only ones whom Russian creditors recognised as solvent: they became then the intermediaries through which the peasantry could obtain credit, in a regime of oligopoly.¹³⁵

From another perspective, even if the owner of the Chimkent santonin plant had had the intellectual qualities (*e.g.* knowledge of the language) and social networks that would have allowed him to stipulate contracts directly with the Kazakhs who harvested the *darmina*, for instance by advancing them part or the whole of the value of the harvest (calculated to incorporate interests and insurance), he would still have enjoyed no guarantee, because the Kazakhs could not present anything as collateral. This problem also affected other intermediaries. The Tatars were in a better position to advance credit to the Kazakhs, with whom they already entertained trade relations. Yet, their very high markups were not only the result of their oligopoly: they also incorporated the risk of insolvency of the harvesters and, more significantly, the risk of a fall in the price of *darmina* throughout the season. The

¹³⁵ On this problem, see for instance: summary of the tsar's comments on the 1897 *vsepodanneishie otchety* for the Samarkand, Semirechie, and Turgay provinces, RGIA, f. 560, op. 26, d. 152, ll. 6-10, here ll. 6-6ob. On 'contract failure' in another colonial context, see: Roy, "Indigo and law".

relations between Savinkov and the Tatars as portrayed by Durnovo's report show how the former was willing to accept the firm's dependence on the latter insofar as he believed that, by acquiring *darmina* at the prices fixed by the Tatars, he could transfer onto them the risk of inadequate or unreliable supplies. The troubles happened when the contract failed, that is, when the inability to act against the Tatars in court made Savinkov understand that the price he was paying was greater than the value of the risk he could shift onto his immediate suppliers.

A makeshift solution: yearly concessions

If 'contract failure' and the bottlenecks of the market for credit in Turkestan were at the origin of some of the grievances which the Chimkent chemical plant had presented since its re-opening, these issues were never explicitly conceptualised by those concerned, including the administration. Instead, as highlighted above, the problems the Savinkov plant was facing were looked into from the viewpoint of production costs and of the availability of raw materials (rather than flora protection as such). Nonetheless, both the option of duties on competing exports and that of a single concession on all the land under *Artemisia Cina* were excluded in the end. The Ministry of Finance was persuaded that costs were not exceedingly high and that the situation did not justify additional protective duties, while in February 1899 the Agriculture Department, as we know, proposed the constitution of several concessions, in the form of land plots to be rented out on the basis of an open competition, in order to exclude the risk of monopoly. The idea of these plots found some support in Tashkent, too – not from the governor-general, but, as had happened before, from the provincial administration of Syr-Darya. The latter was favourably sensitive to the will to collaborate (*i.e.* to act as a cartel) that the three industrialists involved (Savinkov, Nikitin, and Pfaff) were displaying, as they were now united by the possibility of getting hold of such concessions,

hopefully for up to 12 years, and by the continued request for a duty on the export of unrefined and semi-refined santonin. It was thus the provincial military governor who, in the name of the Ministry of Agriculture and State Land Properties, approved the generous conditions for the rent of the land under *darmina* in mid-July 1900.¹³⁶

The Turkestan governor-general, though, had a very different stance on it: a situation that made him oppose both the views of the Ministry of Agriculture and those of the Ministry of Finance, although for different reasons. When the Ministry of Agriculture and State Land Properties wrote to him about the constitution of plots to be rented out to the santonin industrialists, the latter replied that this was not legally possible, ‘because such expropriation would deprive the nomads of the winter quarters that have been granted them long ago’; instead, he resumed again the proposal of protective duties on exports (which the Ministry of Finance denied).¹³⁷ The Turkestan general-governor was technically right and was following the same line as his predecessors. True, the Turkestan Statute made clear that all the nomads’ land was ‘State land’, but the latter retained on it a well-recognised right of usage. Unlike what happened in the neighbouring Steppe provinces and in Semirechie, in Turkestan this

¹³⁶ Syr-Darya military governor, *deloproizvodstvo po vedomstvu MZDiGI*, to Turkestan GG, 5 May 1900, O⁴MA, f. i-7, op. 1, d. 2222, ll. 45-8; Timaev, “Artemisia Contra,” 167. Timaev argued that Gofman’s expertise might have persuaded the Syr-Daria military governor of the justness of this measure, but, in the light of Gofman’s report (see above), this seems hardly plausible: Timaev might have had personal reasons to attack Gofman.

¹³⁷ MZiGI to VM, 31 October 1900, RGIA, f. 22, op. 13, d. 16, ll. 1-5, here l. 4. According to this document, the governor-general was Ivanov. Yet, we know that N.A. Ivanov took this position in January 1901: in October 1900, the governor-general was still S.M. Dukhovskoi. The date of the document can be considered as exact on the basis of the enchainment of documents in the same archival file. See also: MF, Institution for trade and industry, 31 January 1901, *ibid.*, ll. 8-8ob.

right was not limited by what the authorities considered the ‘land standard’ (*norma*) that was putatively necessary for each Kazakh household to survive. The governor-general was correct in qualifying the constitution of such plots as ‘expropriation’, because on such land the Russian State enjoyed a weaker form of property (*sobstvennost’*), while by definition the *obrochnye stat’i* needed to be ‘State properties’ (*kazennye* or *gosudarstvennye imushchestva*) in the fullest sense of the term.

At the end of 1900 the Ministry of Agriculture apparently endorsed Tashkent’s position,¹³⁸ but very soon found a way around it, probably with the support of the new Turkestan governor-general, Nikolai A. Ivanov, who started his service in January 1901. Ivanov resurrected something that Durnovo had included in his report and the industrialists advocated: the concessions should not concern the land as such, but only the right to harvest the *Artemisia Cina* that grew on it, thus eluding the question of the nomads’ rights on the ground. There existed some precedents for a similar solution elsewhere in Turkestan, for instance for the collection of wild apples and walnuts in forested areas. In these cases, the nomads retained the right to use the land as pasture, according to the corresponding norms of the Statute (arts. 270-279).¹³⁹ In principle, this solution was also meant to favour the Kazakh *darmina* harvesters (and make sure they had enough to pay taxes): a generous price of 30 kopeks per *pud* was guaranteed, the three industrialists engaged themselves to buy the whole harvest, and intermediation was prohibited.¹⁴⁰ This had been a personal initiative of the new Turkestan governor-general, Ivanov.

¹³⁸ MZiGI to MF, 22 December 1900, RGIA, f. 22, op. 3, d. 16, ll. 6-7.

¹³⁹ Durnovo, report, [1896-1897], RGIA, f. 22, op. 4, d. 522, l. 141ob; compare: Turkestan GG to GUZiZ, forwarded to MF, 31 January 1906 [date of forwarding], RGIA, f. 22, op. 3, d. 16, ll. 20-26, here l. 20ob.

¹⁴⁰ MZiGI to MF, 8 May 1903, RGIA, f. 22, op. 3, d. 16, ll. 9-15, here ll. 9-11ob.

This *escamotage*, however, did not solve the problem. The four concessions were indeed sold to Savinkov, Nikitin, and Pfaff in the course of the year. The contracts, though, could not be confirmed because of supposed procedural irregularities. The industrialists then appealed to the Ministry of Agriculture so that acceptable conditions for medium-term (12 years) rent contracts could finally be drafted; at the same time, the military governor of Syr-Darya chaired the work of a commission to the same goal. In June 1901 the Council of Ministers called on the organs involved (Ministry of Agriculture, Turkestan governor-general, etc.) to join forces and conflate their draft rules.¹⁴¹ But when a joint proposal was finally produced and presented to the metropolitan government, the Ministry of Justice was quick in spotting two elements that made this operation illegal: first, it ruled that the harvesting rights had been conferred without a real public competition; second, the State had no right to alienate *any component* of the usage rights that the Kazakhs enjoyed, and so could not dispose of such land to an extent that allowed the concessions on the harvest. To do so, one would have needed to transform the plots into ‘State Land Properties’ *stricto sensu*.¹⁴² This could be done, for instance, by labelling them as ‘spontaneous forest’, as happened elsewhere in Turkestan.¹⁴³ Or one could have amended the Statute to introduce an *addendum* to art. 270 that would allow the definition of ‘excess land’ (*izlishki*), as had already happened in the Steppe: this was a solution that many started advocating in the metropole from the first

¹⁴¹ Turkestan GG to GUZiZ, forwarded to MF, 31 January 1906 [date of forwarding], RGIA, f. 22, op. 3, d. 16, ll. 20-26, here l. 21.

¹⁴² MZiGI to MF, 8 May 1903, RGIA, f. 22, op. 3, d. 16, ll. 9-15, here ll. 12-13ob.

¹⁴³ On the flexibility of the category of “spontaneous wood” (*dikorastushchii les*) to create *kazennye zemli* and allow concessions or resettlement in Turkestan: B. Penati, “Managing Rural Landscapes in Colonial Turkestan: A View from the Margins”, in: P. Sartori (ed), *Explorations into the Social History of Modern Central Asia*, Leiden-Boston, Brill, 2013 (coll. *Brill Inner Asian Library*, 29), p. 65-109.

decade of the twentieth century.¹⁴⁴ Instead, in the meantime, the industrialists had to deal directly with the Kazakhs.

However, contrary to what some officials in the metropole – and maybe the newly appointed governor-general Ivanov – thought, it was not possible for Savinkov, Pfaff, Nikitin, or any Russian entrepreneur to conclude land rent agreements directly with the Kazakhs according to the Russian imperial law. This was another of the many consequences of Turkestan's legal pluralism. By comparison, the Steppe Statute included a provision (art. 126) according to which the Kazakhs could rent out, on some conditions, the land of their winter quarters (*zimovki*) to Russian settlers.¹⁴⁵ Someone at the ministries of Finance and of Justice seemed to believe that either a similar norm existed in the Turkestan Statute, or that

¹⁴⁴ MZiGI to MF, 8 May 1903, RGIA, f. 22, op. 3, d. 16, ll. 9-15, here ll. 14ob-15. Preliminary measures towards the adoption of this *addendum* to art. 270 commenced in the mid-1900s, in particular with a statistical expedition of the Resettlement Administration to the Chimkent and Aulie-Ata districts of the Syr-Darya province (*Voprosy Kolonizatsii*, no. 6, 1910, pp. 421-429). The *addendum* was introduced by a law passed on 19 December 1910 (*Sobranie Uzakonenia 1911g.*, otd. 1, st. 4; also in *Polnoe Sobranie Zakonov*, *Sobranie tret'e*, vol. 30 (1910), no. 34501 (p. 535ss). At the beginning, though, the Turkestan colonial administration blocked the implementation of this *addendum* by refusing to vote the necessary instructions: abstract from the *Zhurnal*, council of the Turkestan governor-general, no. 15, 17 May [1911], O'MA, f. I-1, op. 12, d. 1416, l. 206. [The date is unclear: it may be May 17th, 1912. Nevertheless, the discussion refers to a draft submitted on May 3rd, 1911: hence my reasonable guess.]

¹⁴⁵ Some years later, Krivoshein and Stolypin would consider even the provisions of art. 126 of the Steppe Statute as too restrictive, and would recommended its amendment to make it easier for Russian settlers to rent

the Syr-Darya province was part of the Steppe:¹⁴⁶ a circumstance that gives alone the measure of the distance between the reality on the spot and the fragmentary knowledge and understanding that ministerial offices in Saint Petersburg had of it.

Because agreements with the nomads were impossible and the negative opinion of the Ministry of Justice prevented the continuation and the further conclusion of medium-term renting agreements, between 1900 and 1906 the industrialists had to negotiate the same rights of harvesting, on more or less the same conditions, one season after another. Yearly concessions were attributed by the Turkestan governor-general, whom the Ministry of Agriculture allowed to proceed each time.¹⁴⁷ This situation was bordering on illegality, because there was no substantial difference between allowing a concession for multiple years or for one year. From another viewpoint, the fact that temporary renting agreements were renewed yearly greatly contributed to the emergence of a form of solidarity between Savinkov, Nikitin, and Pfaff. The three industrialists were favoured in the bids, although the latter were theoretically open to anybody. Relinquishing the harsh competition that had poisoned their relations in the 1890s, and giving a legal shape to a cooperation that had been in the air since 1900, the three industrialists struck an alliance: by 1902 Pfaff and Nikitin constituted a *Tovarishchestvo 'Santonin' Tashkent*; at the same time, their company

land from the Kazakhs. Even then, however, no provision of this kind existed in Turkestan. See: P.A. Stolypin and A.V. Krivoshein, *Poezdka v Sibir' i Povolzh'e: Zapiska*, SPb, 1911, as partly published in: M.V. Shilovskii (ed), *Sibirskie pereseleniia*, (vol. 3: *Osvoenie Verkhnego Priirtysha vo vtoroi polovine XVII-nachale XX vv. Sbornik dokumentov*), Novosibirsk, Institut Istorii SO RAN, 2010, doc. 44, pp. 154-159.

¹⁴⁶ MF, Industry Section, to MZiGI, 5 June 1903, RGIA, f. 22, op. 3, d. 16, ll. 16-17; compare: MZiGI to MF, 8 May 1903, RGIA, f. 22, op. 3, d. 16, ll. 9-15, here l. 14.

¹⁴⁷ Turkestan GG to GUZiZ, forwarded to MF, 31 January 1906 [date of forwarding], RGIA, f. 22, op. 3, d. 16, ll. 20-26, here ll. 21ob.

corresponded regularly with Savinkov in Chimkent, coordinating supplies and even the attitude to be taken toward key Tatar intermediaries, particularly the emerging figure of Akhmetdzhhan Bekmetov.¹⁴⁸ In 1905, it seems that the three entrepreneurs formed a new society for the exploitation of *darmina*, which amounted to the establishment of a (tripartite) monopoly on the harvest of *Artemisia Cina* in the Chimkent district.¹⁴⁹

It is also probable that at the origin of this convergence of interests between former bitter enemies there was also the emergence of new competitors. One of them was M.I. Bruschi, a German who was already working at the Chimkent plant. To avoid what had happened in Pfaff's case, in 1906 Nikitin and Savinkov bought at a handsome price his silence as to the chemical process involved, and the guarantee that he would not engage in the trade of *darmina* or the production of santonin in any way until 1911.¹⁵⁰ Much more serious, however, was the potential competition by established Turkestanian entrepreneurs. In 1905 new land covered by *Artemisia Cina* was discovered in the neighbouring district of Jizzakh, which belonged to Samarkand province. Two entrepreneurs who started exploiting this new resource by organizing the harvest - one Kazym Aleskerov and Dzhemshid Babaev - were neither Tatar nor Russian (still less German): they were from Persia or Transcaucasia, although one of them was recorded as residing in the city of Samarkand. A 'Seid Azimbaev',

¹⁴⁸ E.g. *Tovarishchestvo "Santonin" Tashkent* to Bruzh [Brusch; employee of Savinkov's plant in Chimkent], 27 March 1902, TsGARKaz, f. 439, op. 1, d. 38, l. 25; idem to direction of the Chimkent plant, 26 March 1902, *ibid.*, l. 26; on Bikmetov's behaviour: 10 June 1902, ll. 86ob-87. Initially written partly in German, this correspondence quickly turned completely Russophone.

¹⁴⁹ Turkestan GG to GUZiZ, forwarded to MF, 31 January 1906 [date of forwarding], RGIA, f. 22, op. 3, d. 16, ll. 20-26, here l. 22.

¹⁵⁰ Excerpt from contract between Savinkov, Nikitin, and Bruzh, Chimkent, 17 August 1906, TsGARKaz, f. 439, op. 1, d. 13, l. 29.

also mentioned in the documents, is almost certainly the famous and powerful Tashkent merchant Seid-Karim Seid Azimbaev.¹⁵¹ These three intended to participate in the competition in 1906,¹⁵² but already in 1905 Savinkov, Pfaff, and Nikitin tried to prevent them from getting hold of the *Artemisia Cina* that grew in the Jizzakh district. One of their arguments was a simple extension of Savinkov's old anti-Tatar tropes: Persians and Armenians would not serve the interests of the Russian empire, but those of the foreign merchants (*drogisty*). Moreover, the plants in the Jizzakh district came from seeds that the wind had transported from Chimkent, so they 'belonged' to those who had the right to harvest in the latter: this argument treated *darmina* as if it were a cultivated plant – an analogy which Savinkov had hitherto always rejected. The third argument was apparently weaker, but the colonial authorities accepted it: the boundaries between the two districts were ill-defined, so potentially the three industrialists had already acquired rights on *darmina* that was in Samarkand province.¹⁵³

The way the authorities handled competition around the *darmina* in Jizzakh is telling. As one would expect, Savinkov and his associates enjoyed once again the support of the Directorate of Agriculture and State Land Properties of Turkestan, which presented the governor-general with a set of possible solutions, from the mobilization of the forestry officers for the definition of the boundary between the two districts, to the contestation of the legality of the harvesting permit that the provincial administration in Samarkand had given to

¹⁵¹ See for his early career and his role in the 1905 revolution: Jeff Sahadeo, *Russian Colonial Society in Tashkent, 1865-1923* (Bloomington, Ind.: Indiana University Press, 2007), 20–1, 141–2.

¹⁵² Turkestan GG to GUZiZ, forwarded to MF, 31 January 1906 [date of forwarding], RGIA, f. 22, op. 3, d. 16, ll. 20-26, here ll. 22, 25.

¹⁵³ Turkestan GG to GUZiZ, forwarded to MF, 31 January 1906 [date of forwarding], RGIA, f. 22, op. 3, d. 16, ll. 20-26, here ll. 22-22ob.

Babaev, to the creation of new concessions (*obrochnye stat'i*) in the Jizzakh district, which only Savinkov's society would be able to acquire.¹⁵⁴ The Turkestan governor-generals who handled this case, D. I. Subotich and then N. I. Grodekov, did not oppose the proposals of the Directorate: their chancellery argued that the conditions to which the industrialists were engaging themselves were strict enough to protect the interests of the Kazakhs, for instance by guaranteeing a reasonable price and by purchasing the whole of the harvest, while allowing them to use the same land as pasture out of the harvesting season. They were, in other words, more sensitive to the legitimate claims of the Kazakhs, as defined by the corresponding articles of the Statute, than to the equally legitimate desire of Samarkand-based Persian and Transcaucasian entrepreneurs to carve out a place for themselves in the *de facto* monopoly of Savinkov and his associates.¹⁵⁵ Although their motivations in this phase diverged, thus, both the Turkestani Directorate for Agriculture and State Land Properties and the colonial military administration objectively favoured the interests of the established triad of industrialists. The well-meaning goal of protecting the Kazakhs, in particular, served to exclude new non-European competitors, so that the authorities' reaction to the emergence of the latter further cemented the alliance of Savinkov, Pfaff, and Nikitin.

¹⁵⁴ Ibid., ll. 22ob-23.

¹⁵⁵ The chancellery of the governor-general, though, made a mistake in its proposal to the central GUZiZ that, if left uncorrected, would have made Savinkov and his associate pay far more than would have been reasonable. The chancellery managed to have this changed, but it is interesting to note that the industrialists would have been ready to pay ten times more (the uncorrected value) what they were paying per unit of surface in Chimkent, just to be sure to secure for themselves the exclusive right to harvest *darmina* in Jizzakh: Turkestan GG to GUZiZ, forwarded to MF, 31 January 1906 [date of forwarding], RGIA, f. 22, op. 3, d. 16, ll. 20-26, here ll. 23-23ob.

The *de facto* monopoly established by the yearly concessions in place between 1900 and 1906 greatly affected other parties involved, namely the Kazakhs and the Muslim merchants who acted as intermediaries. As noted above, many of the conditions of the rental agreements were in principle meant to serve the interests of the Kazakh harvesters, but even observers sympathetic to the industry reported that widespread abuses led to the accumulation of controversies in front of the local courts and administrative organs.¹⁵⁶ The price the industrialists engaged themselves to pay at this stage (30 kopeks per *pud* of inflorescences) was not always respected: Kazakh harvesters only received 20 kopeks, whilst the industrialists used the markup to cover their transport costs between the steppe and the plants. Despite this, however, these costs were sometimes so high that Savinkov, Nikitin, and Pfaff resigned themselves to sending off for export to Europe the unprocessed inflorescences. More than pricing, though, the most striking aspect of the system which the santonin producers set up in the years of their monopoly was the simultaneous credit and vigilance they extended to *darmina* land, at a cost of some 20,000 rubles per year. To capture the whole harvest, already at these dates their ‘inspectors’ (*ob’ezdchiki*)¹⁵⁷ distributed advances on the harvest (one-tenth of the expected value) and controlled the deliveries. During the harvesting season, one could see them ‘on all roads, on bridges, in the train stations’. Out of 60 ‘inspectors’, at this stage Russians and Tatars taken together were no more than half a dozen: all the others were Kazakh. The industrialists could then boast that they had extirpated Tatar merchant intermediaries from the business, but this was not completely true. One third of their supplies still came from one single Tatar merchant, the above-mentioned Bekmetov, who distributed

¹⁵⁶ Timaev, “Artemisia Contra,” 170.

¹⁵⁷ This term was also used for forestry inspectors who were employed by the Turkestan Directorate for Agriculture and State Land Properties.

credit both as cash and as textile goods.¹⁵⁸ At most, what had changed was the identity of these Tatar merchants: first, because some of them had simply been co-opted as *ob'ezdchiki*; second, whilst before the turn of the century several of those most frequently named in documents had been from Tambov, the Bekmetovs were assigned the *soslovie* of 'peasants of the Tobol'sk *gubernia*'.¹⁵⁹

Thus from the beginning of the century the three main entrepreneurs involved in the santonin sector acted as a cartel and did their best to consolidate their own dominant position *vis-à-vis* a series of new and old threats. They were also on their way to establishing comprehensive surveillance and procurement networks, although the latter were still at least partly manned by local intermediaries. The only advantage Savinkov, Pfaff, and Nikitin were not yet able to gain were *permanent* (or, at least, medium-term) formal rights on the land where the *darmina* grew, or at least on the *darmina* itself.

Beyond the law: exclusionary monopoly

The situation changed abruptly in 1907, when governor-general Grodekov refused to renew the concession to Savinkov's company for four more years, against the opinion of the central and local organs for Agriculture and State Land Properties. This led to a dramatic clash between Grodekov himself and the GUZiZ about the monopoly of santonin (or, more exactly,

¹⁵⁸ N. N. Aleksandrov, "Monopoliiia i santoninnaia promyshlennost'," *Turkestanskoe sel'skoe khoziaistvo* no. 8 (1907) (*TS*, vol. 455, pp. 1-13, here p. 3).

¹⁵⁹ Most sources give the name of Akhmedzhan Bekmetov (or Bikmetov), but occasionally the latter is accompanied by his brother, Khafiz Mukhamed-Rakhimovich Bekmetov. See *e.g.* contract between the Bekmetovs and Savinkov's delegate, Gorshenin, 10 August 1909, TsGARKaz, f. 439, op. 1, d. 13, ll. 9-10; compare: contract between Akhmedzhan Bekmetov and Nikitin, 13 May 1910, *ibid.*, ll. 21-22. Identifying Hafiz as Akhmedzhan's brother: Akhmedzhant Bekmetov, *podpiska*, 27 January 1910, *ibid.*, l. 16.

of the harvesting of *Artemisia Cina*), which found a wide echo in the regional and metropolitan press. The clash around access to *Artemisia Cina* was part of a more general build-up of tensions between the Turkestan colonial administration and the GUiZ and its agencies (e.g. for forestry or resettlement), after the latter had switched to a more energetic approach to the colonization of Central Asia under A.V. Krivoshein's new leadership. It would nonetheless be incorrect to dismiss the clash that took place around the rights of the Kazakh population on *Artemisia Cina* as a mere episode in this more general political controversy, which ultimately led to Grodekov's dismissal: rather the 'darmina problem' was one of its primary catalysts, together with the struggle around marginal lands and 'spontaneous forest', the possibility of an *addendum* to art. 270, and so on.¹⁶⁰

It is likely that the administration of the Turkestan *krai* in Tashkent and the Ministry of Justice in the metropole reaffirmed their doubts about the legitimacy of renting out *darmina* plots already towards the end of 1906.¹⁶¹ While it is impossible to state with certainty what triggered Grodekov's decision not to renew the concessions, the sources show that a new element emerged in the round of negotiations for the concessions that took place in 1906, when governor-general Subotich was still in place. On this occasion, not only did non-Russian merchants such as Kazym Aleskerov and Seid Azimbaev participate (unsuccessfully) in the bid: one Osman Vapishev presented himself as fiduciary agent of the Kazakhs of the cantons of Dzhaisugum (or Dzhusugum) in the Tashkent district and of Char-Darya in the Jizzakh district. Vapishev stated that the usage of *darmina* plants should be conferred on

¹⁶⁰ On this controversy, Pahlen's role in it, and Grodekov's dismissal: Alexander Morrison, "'Sowing the Seed of National Strife in this Alien Region': the Pahlen Report and *pereselenie* in Turkestan," *Acta Slavica Iaponica* 31 (2012):1-29. On the 'forestry' side of the controversy: Penati, "Managing Rural Landscapes".

¹⁶¹ P. G-a, "Novyi fazis ekspluatatsii darminy," *Turkestanskije vedomosti*, no. 88 (1907) (*TS*, vol. 506, pp. 183-185, here l. 183).

nobody but the Kazakhs. His argument reproduced some of the legal doubts that the colonial administration and the Ministry of Justice had already faced, but with an important new twist:

Considering that, first, the plants of *Artemisia Cina* are not located on State land property [kazennaia zemlia], but on land that from antiquity constitutes the property [sobstvennost'] of my principals; and, second, that a similar deplorable bid may deprive my principals of a source of subsistence which nature had granted them, in the name of justice, I demand very humbly to Your Excellency to order to confer the concession [v arendnoe pol'zovanie] to collect dry *darmina* seeds [i.e. inflorescences] to my principals, as [their] owners [kak sobstvennikami]. And if it is appropriate to extract something for the Treasury out of the harvesting of the above-mentioned seeds, then collect an established legal and not too heavy tax for the Treasury from the inhabitants of the above-mentioned cantons, who devote themselves to the harvesting of *darmina*.¹⁶²

Vapishev did not specify the conditions under which he wanted to participate in the bid and his petition was therefore rejected. Yet, he did not stop there: he wrote again to Subotich to claim that he had not received any answer, then he addressed himself to the chair of the State Duma, to protest vehemently against what he called the 'arbitrariness' of the Turkestan Directorate for Agriculture and State Land Properties. Finally, he argued that his principals had found a new area under *Artemisia Cina*, and asked (in vain) that at least that could be reserved to them. The governor-general agreed on the principle that 'in general, the further exploitation of *Artemisia* in Turkestan in the way it is done now cannot be considered as corresponding to the demands of justice towards the nomadic population', and insisted on the

¹⁶² Turkestan GG to GUZiZ, forwarded to MF, 31 January 1906 [date of forwarding], RGIA, f. 22, op. 3, d. 16, ll. 20-26, here l. 25.

need to satisfy the ‘national industry’ by allowing a higher duty on the export of unrefined santonin.¹⁶³

An observer of the economic life of Turkestan, S. Poniatovskii, insinuated two years later that Vapishev (‘the famous altruist, one of the Kazakh *bays*’)¹⁶⁴ might not have acted on his own initiative, but was instead supported by two German drug merchants, who were interested in reaping profits out of the removal of the monopoly and the consequent resumption of free exports of unprocessed *darmina*.¹⁶⁵ Poniatovskii’s allegation might have been well-founded or, more likely, there existed an objective convergence of interests between Vapishev’s Kazakhs and those who wanted the end of the monopoly of Savinkov and his associates. What is more interesting, though, is the *language* of Vapishev’s intervention. Vapishev articulated the idea that there existed different categories of ‘land property’ even within the realm of Russian imperial law (*e.g. kazennye zemli* were not simply ‘State land’). More interestingly, he saw the right of the Kazakhs on such land as ‘property’ (*sobstvennost’*), rather than just ‘usage’. If all those who, in the Russian administration, had championed the cause of the Kazakhs had referred to their right to ‘use’ the land (as possibly distinct from what grew on it), here Vapishev took a further step and went even beyond what was written in art. 270 of the Turkestan Statute. He was not successful in 1906, but this turn in the discussion was not without consequences: it persuaded some of the need to correct the idea that the Kazakhs could treat the land they used as ‘property’, and others of the need to suspend the monopoly. More precisely, while we do not know how this was personally received by Subotich and, immediately after his departure, Grodekov, it holds true that the

¹⁶³ Ibid., ll. 25-26.

¹⁶⁴ A *bay* is a rich man and a local notable.

¹⁶⁵ S. Poniatovskii, “Darmina,” *Tashkentskii Kur'er*, no. 187 (1908)(in *TS*, vol. 476, pp. 159-160).

practice of renting out *darmina* land to the industrialists came to a halt just after the petition of the Kazakhs of the cantons of Dzhaisugum and Char-Darya, led by Osman Vapishev.

The reaction of Krivoshein's GUZiZ and of the Council of Ministers to Grodekov's doubts was swift already in the winter between 1906 and 1907. The Council discussed the situation and, with the Tsar's approval, ordered the re-establishment of the concessions, which could only go to Russian entrepreneurs. This spurred a wide and harsh discussion in the Turkestanian press, where both the supporters of Krivoshein's line and those who endorsed Grodekov's views intervened.¹⁶⁶ This debate was not purely academic, as at the same time a commission was formed to discuss the conditions for such a restoration of the monopoly. The draft which they started from was quite generous towards the entrepreneurs: it is true that the term for rent was lowered to three years and those who won the bid had the obligation to produce maps of their plots. Yet, the private guards they hired to ensure their monopoly on the *darmina* were considered almost as forestry inspectors of the Turkestan Directorate for Agriculture: for instance, in case of contraventions they could establish protocols without having to report the incident to the administration, whose place they took in practice in the more remote localities.¹⁶⁷ (In a sense, this change would have solved the ambiguity whereby both the plant's inspectors and those of the forestry authority were called *ob'ezdchiki*.)

Among the arguments of those who advocated the resumption and consolidation of the monopoly, the need to salvage the remaining *Artemisia Cina* from extinction, which had been so prominent in the 1890s, lost its importance. Kriukov's 'minority report', cited in the introduction, did indeed mention the over-exploitation of the *darmina* by the Kazakhs: it was

¹⁶⁶ Ibid.; see also: "Santoninnaia istoriia"; P. G-a, "Novyi fazis"; Aleksandrov, "Monopoliia"; Timaev, "Artemisia Contra".

¹⁶⁷ G-a, "Novyi fazis", 184.

however more an exception than the rule, and it must be read in the context of Kriukov's general attack against the supposed inferiority of nomadic lifestyle and 'Asianness'.¹⁶⁸ Instead, authors close to the positions of the GUiZ, for instance the resettlement expert N.N. Aleksandrov, contended that the State (or, more exactly, the Treasury) should be the 'owner' (*khoziain*) of the *darmina*, as of any other natural resource. The usage of this term, which implied an idea of wise management much more than a juridical notion of property or possession, was a way to de-juridicize and, vice versa, politicize the discussion. Grodekov's doubts were about the relative strength of different notions of land property which the State enjoyed (which was *sobstvennost'* according to the Statute, while *imushchestvo* was required to constitute plots for rent): by shifting the terms of the debate to the political concept of *khoziaistvo* ('stewardship'), Aleksandrov, the GUiZ, and its local directorate were simply excluding the relevance of such doubts for the matter under discussion.¹⁶⁹ Similarly, Aleksandrov and others did not argue openly in favour of 'monopolization': instead, from the notion of the Treasury as *khoziain*, they derived the idea that the exploitation of *Artemisia Cina* should be 'nationalized', 'to derive [from it] a greater income both for itself, and for the greater circle of its subjects'. Yet, because it would have been too difficult for the State to manage it, a private monopoly could act as a proxy: there should be a bid, but the preference for Savinkov's company (which was in place in the first part of the decade) should not be abandoned.¹⁷⁰ The monopoly was considered necessary to the pursuit of the State's new

¹⁶⁸ Kriukov, 'minority report', 26 November 1907, in: Shilovskii (ed), *Sibirskie pereseleniia*, 151.

¹⁶⁹ Aleksandrov, "Monopoliiia", 13.

¹⁷⁰ M. Bruzh., "Santoninnoe proizvodstvo i arenda darminy," *Turkestanskii vedomosti*, nos. 182, 183 (1908) (*TS*, vol. 477, pp. 32-38, quot. p. 32). This latter article was contested point by point by the editors of *Turkestanskii vedomosti*. Compare: Aleksandrov, "Monopoliiia", 8.

developmentalist agenda as expressed by the GUZiZ, which in turn sidelined legal concerns in favour of policy considerations.

While experts and self-appointed economists debated the question of monopoly and ‘nationalization’ in the papers, in practice the Chimkent chemical plant was suddenly brought back to the situation that had existed in the 1890s: having been deprived of the (exclusive) right to collect *darmina*, it needed now to purchase it from the Kazakhs whose winter pastures included the precious plant, or from their intermediaries. The Kazakhs found themselves temporarily in control and sold their harvest to agents of international drug companies. The suspension of the monopoly also encouraged those who hoped to open new *santonin* plants in competition with Savinkov’s.¹⁷¹ Some of Grodekov’s critics saw this state of things as a resumption of the ‘shark-like appetites’ that had dominated in the area before the establishment of concessions, and noted how low the prices foreign merchants were paying were, and how big the stock they were piling up in order to depress demand the following year was.¹⁷²

Savinkov, in this situation, decided to close his plant and play the card of politics, as he had done in 1889. In the name of the need to support Russian industrial interests and to

¹⁷¹ In early 1908 one Karl I. Fel’dman tried to vain permission to open a new *santonin* plant in Arys. The request was rejected on possibly spurious public hygiene grounds. See: Fel’dman to Syr-Darya military governor, 2 January 1908, O‘MA, f. i-17, op. 1, d. 16386, l. 6; Chimkent district commandant to Syr-Darya military governor, 29 January 1908, *ibid.*, l. 7; Syr-Darya military governor to [Chimkent] head of police, 19 May 1908, *ibid.*, l. 14ob.

¹⁷² “*Santoninnaia istoriia*”, 189. The anonymous author of this article victimised the Russian industrialists and portrayed them as victims of an injustice. He reminded them of the evangelical command: ‘Blessed are the meek’, and perhaps assumed that they would complete the sentence (‘... because they shall inherit the earth’) and interpret it in a literal sense.

preserve *Artemisia Cina* from the greedy plans of non-Russian traders, in 1908 he bypassed the governor-general of Turkestan and addressed himself straight to the GUZiZ in the metropole, not only by letter but by visiting St. Petersburg himself. His targets were not the German *drogisty* or the Tatar intermediaries any more: they were ‘Jews, Armenians, and Persians’, the newcomers from the Jizzakh district. The Kazakhs, Savinkov argued, had no use for the inflorescences of *Artemisia Cina*, while industry had – from this alone derived the superiority of one claim on the other. He also argued, as he had done in 1889, that the Kazakhs would soon have destroyed all the available *darmina*. If in the 1880s they used the roots themselves, as documented by Shakhnazarov, in 1908 they were selling as fuel to Chimkent and Tashkent, the consumption of energy of which had dramatically increased.¹⁷³

Savinkov knew that the GUZiZ and the colonial administration had very different views on a variety of land management questions, and he ably underscored, in his letters, how Grodekov had virtually disobeyed what had been ordered before. He was also well aware of the ways the GUZiZ had already ‘shrunk’ the meaning of ‘usage’ as referred to Kazakh land rights in art. 270 of the Statute: such a right was limited to either pasture or agriculture, while many other activities were not ‘traditional’ and could not be included. ‘The State already exploits saxaul bushes, deposits of limestone, chalk, salt from lakes and other natural riches. The same right belongs to the State also in the case of *Artemisia* plants’, he wrote.¹⁷⁴ He clearly struck the right chord here: the Council of Ministers, in January 1909, repeated Savinkov’s ideas very closely, both when he had argued that Grodekov’s decision had brought him back to the hard years before 1900, and when he had distinguished between the ‘traditional’ (*obychnoe*) usage the nomads made of the land, and other ways of deriving

¹⁷³ Savinkov, petition, 3 February 1908, RGIA, f. 22, op. 3, d. 16, ll. 30-33, here ll. 31-31ob.

¹⁷⁴ *Ibid.*, quot. l. 32ob.

income from it. Already in the debates that took place in the press in 1907 and 1908, the supporters of the monopoly had argued that the law protected only activities that corresponded to ‘customs that existed [at the time] among the natives’ and to ‘what they demanded for their livelihood’ (*ikh chisto-khoziaistvennye potrebnosti*): ‘all the rest, even if it were a customary use of the land by the natives, but with a commercial-industrial (*torgovo-promyshlennaia*) finality, constitutes a right of the Treasury’ and could therefore be ‘rented out’ to anybody – including the Kazakhs, as happened in the case of intensive cattle-breeding.¹⁷⁵ Even a staunch opponent of GUiZ such as senator K.K. von Pahlen voted in favour of the constitution of plots to be rented by Savinkov, not because it denied the right of usage of the nomads, but because he feared that they would otherwise start confusing such mere ‘usage’ with ‘property’, as Vapishev had boldly done in his petitions.¹⁷⁶

To some extent, thus, the limitation of the Kazakhs’ usage rights that was under way here was a reaction of fear to the increased economic initiative, diversification of economic activities, and political awareness in a Turkestani Kazakh society that did not correspond any more to the image of the ‘simple-minded savage’ that was still current in the 1880s. By the first decade of the twentieth century, many Turkestani and Steppe Kazakhs were active participants in local, regional, and even national and international capitalism, thus challenging tenets of the hierarchical colonial order they lived in not only in cultural and

¹⁷⁵ Aleksandrov, “Monopoliiia”, 11.

¹⁷⁶ Project, special minutes of the Council of Ministers, 9 January 1909, RGIA, f. 22, op. 3, d. 16, ll. 34-36, here l. 36. Pahlen’s support to the monopoly is as surprising as the negative attitude to it of one of Pahlen’s own opponents, Timaev, who was advocating free competition – very ardently in 1908, more prudently in 1909: Timaev, “Artemisia contra”, 171; compare: K. Timaev, “Santonin i liutserna,” *Tashkentskii kur’er*, no. 181 (1909)(*TS*, vol. 510, pp. 114-116).

political terms (which has been abundantly documented),¹⁷⁷ but also by dint of their daily business. In the light of this, the restrictive interpretation of ‘customs’ in art. 270 of the Turkestan Statute which the GUiZ successfully promoted was intentionally anachronistic, and indeed steeped in what one may term ‘*faux-primitivism*’.

The discussion on the need to protect *Artemisia Cina* led to a complete reversal of the interpretation of art. 270 of the Turkestan Statute, in a way that apparently strengthened the rights of the public against those of private subjects (the Kazakhs), and against the ‘shark-like appetites’ of foreigners.¹⁷⁸ At the Council of Ministers, the powerful head of GUiZ, A.V. Krivoshein, wiped away the doubts that the Ministry of Justice had expressed years before, and the colonial administration was still referring to. Had the legislative framework changed? Not at all: what had changed was the political balance of power between the GUiZ (which had replaced the Ministry of Agriculture and State Land Properties) and the other ministries, including the War Ministry which retained control on the civil-military administration of Turkestan. The Turkestan Statute was left untouched (amendments were under discussion at the time at any rate). Krivoshein himself instructed the GUiZ and the Turkestan governor-general the task to harmonize the decision to allow five-year concessions on *darmina* land with the text of articles 270-279, which did not restrict the Kazakhs’ right of usage to what was characteristic of a pre-modern economy. It was the colonial State with its new interest in colonization and its new productivist ideology that allowed Krivoshein to explain that, as

¹⁷⁷ See e.g. Tomohiko Uyama, “The Geography of Civilizations: A Spatial Analysis of the Kazakh Intelligentsia’s Activities, from the Mid-Nineteenth to the Early Twentieth Century,” in *Regions: A Prism to View the Slavic-Eurasian World*, ed. Kimitaka Matsuzato (Sapporo: SRC – Hokkaido University, 2000): 70–99; Peter Rottier, “Legitimizing the Ata Meken: The Kazakh Intelligentsia Write a History of Their Homeland,” *Ab Imperio* no. 1 (2004): 467–86.

¹⁷⁸ “Santoninnaia istoriia”, 189.

long as a general land organization (*zemel'noe ustroistvo*) of the Kazakhs had not been completed, the State retained a right to establish concessions. (The only limit to this was the presence of Kazakhs' agricultural land, as the sedentarization of the nomads was perceived as a superior political goal even to the protection of Savinkov's interests.)¹⁷⁹ Combined with the above-mentioned introduction of the idea of 'stewardship', the arguments deployed by Krivoshein on this occasion marked a shift in the conceptualization of *darmina* as a resource for which competing claims existed.

Contrary to what a superficial reading of Krivoshein's words might suggest, in reality to transfer such right from the 'native' population to the State did not mean to subtract it from private property and to constitute it as a common good. Whatever tendency was underway in the empire to turn some goods into some kind of 'public property' to the advantage of all, as documented by Ekaterina Pravilova,¹⁸⁰ on this occasion the majority of the local 'public' was excluded from enjoying such good (*i.e.* the collection of *darmina*), to the advantage of State-sponsored industrialists. As in the case of water in Turkestan, the presence of a clear 'hierarchy of users' meant that the right, through the bias of the (colonial) State, was handed over from the local Muslim population to a private Russian or European physical or juridical person.¹⁸¹ The latter, however, was supposed to act in line with the State's own interests, and

¹⁷⁹ Project, special minutes of the Council of Ministers, 9 January 1909, RGIA, f. 22, op. 3, d. 16, ll. 34-36, here ll. 35ob-36.

¹⁸⁰ Ekaterina Pravilova, *A Public Empire: property and the Quest for the Common Good in Imperial Russia* (Princeton: Princeton University Press, 2014).

¹⁸¹ On the 'hierarchy of users, see: Muriel Joffe, "Autocracy, Capitalism, Empire: The Politics of Irrigation," *Russian Review* 54, no. 3 (1995): 365-88. Pravilova does not consider Ioffe's thesis: in her first articles on this topic (Pravilova, "Les *res publicae* russes. Discours sur la propriété publique à la fin de l'empire," *Annales (Histoire, Sciences Sociales)* 64-3 (2009): 579-609; "The Property of Empire: Islamic Law and Russian

even supply State-like functions, for instance cadastral mapping.¹⁸² This was, in a nutshell, the reasoning that underpinned the concessions handed out in 1909, which concerned the right to collect *darmina* on five large plots, including the Jizzakh *uezd*. Two of these were assigned to Pfaff, and three to Nikitin.

The monopoly, the State, and *aul* life

The way in which *darmina* was collected after the establishment of these concessions in the late summer of 1909 is clearly reflected in the firm's own documents. It is very likely that the processes outlined in the latter existed already before 1909, as they could hardly have sprung

Agrarian Policy in Transcaucasia and Turkestan,” *Kritika* 12, no. 2 (2011): 353-386) she fails to see how the definition of water as ‘common good’ to protect it from wastage, and the consequent prohibition of its private property and trade *de facto* meant the subordination of the claims of the local Muslim population to the priorities of the State (resettlement) and of private entrepreneurs, who sat higher in the ‘hierarchy’. (That the private entrepreneurs opposed such a water law, but for their own reasons, is immaterial here.) In the corresponding passage of her more recent book, the historian acknowledges that the proposed water law aimed at supporting resettlement (p. 124), but is confused (if not overtly mistaken) when she sees this as a way to ‘preserve a specific form of economy in the region: peasant economy based on small individual households organised through the state-led policy of resettlement’: the peasant economy of Turkestan was indeed “based on small individual households’, but these were the households of the rural Muslim population, which the promoters of the water law saw as inefficient and had no wish to “preserve” at all. Conversely, Pravilova could not mean by this that the State intended to ‘preserve’ the economy of settlers’ households, because she herself insists on the government’s will to expand resettlement (in particular on new lands), rather than protecting what was already in place.

¹⁸² The standards for the maps were those of the land assessment works in Turkestan, *i.e.* 2 *versty* per inch: *Konditsii na otzachu v arendu...*, [after August 1909], TsGARKaz, f. 439, op. 1, d. 48, ll. 6-7. The cost of the mapping was estimated at 4,200 roubles for Savinkov’s plots: Baususov to V.F. Gorshenin, *ibid.*, d. 47, ll. 85-6.

into existence in the space of a summer. To begin with, the harvests of the following years happened in the framework of a clear monopolistic regime, because Savinkov had joined forces with Nikitin and Pfaff, the harvests of the years after 1909 reflected a situation of monopoly or oligopoly – the situation which, in the eyes of some, should have prevented the over-exploitation of this resource. The complete merge of the interests of all three entrepreneurs was formalized when, in September 1909, the three registered a new firm, *Tovarishchestvo 'Santonin'*, before a Tashkent notary, with Savinkov as senior partner.¹⁸³ Furthermore, from 1910, it appears that the concession on some of the land rented by Pfaff in the Jizzakh *uezd* was ceded to Savinkov, reinforcing the latter's position.¹⁸⁴ There would thus be no reason for either of them to ask the other to demarcate the boundaries of their plots if another renter asked for it, although this right was mentioned in the contracts. The monopoly was maintained even after the death of two of the partners: Nikifor P. Savinkov died at the beginning of 1910; although his widow, Ol'ga Nikolaevna, continued his business in coal mining, Savinkov's share of *'Santonin'* was sold to Petr O. Osipov, a mechanic from Tiflis who already worked at the plant.¹⁸⁵ Both Vasilii N. Nikitin and his son Petr passed away between April and December 1910, with Vasilii's widow, Maria Nikolaevna, managing the

¹⁸³ Notary act, Tashkent, 9 September 1909, TsGARKaz, f. 439, op. 1, d. 13, l. 14. The share of Savinkov, at 50,000 roubles, was double that of each of the other two partners.

¹⁸⁴ Samarkand military governor, 22-24 January 1911, TsGARKaz, f. 439, op. 1, d. 48, l. 40.

¹⁸⁵ Contract with Osipov, copy, 5 April 1910, TsGARKaz, f. 439, op. 1, d. 13, ll. 18-19; *ukaz* to Savinkov's widow, 8 February 1910, *ibid.*, l. 17; notary documents on Savinkov's legacy, incl. his will, 22 July 1909, *ibid.*, ll. 24-25. On Ol'ga Nikolaevna's mining business, see: rental contract for a coal mine, to I. S. Fadeev, [February 1913], *ibid.*, ll. 38-39; head of provisions for the troops of the Turkestan *voennyi okrug* to O. N. Savinskaia, 1 April 1917, *ibid.*, d. 55, l. 162 (defining her as *gornopromyshlennitsa*). In 1917 Osipov was directing the plant: *protokol*, 2 October 1917, *ibid.*, l. 186.

heir's property thereafter. The Prussian subject Pfaff, in the meantime, had moved in Hanover.¹⁸⁶ Whilst it is hard to ascertain the actual consequences of this new organisational set-up for the biodiversity of the areas concerned, nonetheless one can appreciate its impact on the economic and even political life of Kazakhs and Russian settlers alike. What emerges is a picture in which those who rented the *obrochnye stat'i* acquired some State-like function, in the name of reasonably limiting *darmina* collection.

From a formal viewpoint, the renters' rights were clearly limited to the 'collection of *Artemisia Cina* inflorescences'. They could not 'prevent the nomadic population from using land assigned to them *ex art.* 270-279 of the Turkestan Statute', but the contracts exclusively referred to *darmina* precisely on the land assigned to the Kazakhs by virtue of the same law. (This was why the renters *opposed* the extension of 'State land' (*kazennaia zemlia*) to accommodate the growing town of Arys.)¹⁸⁷ The contract contained other provisions that, on paper, served to protect the Kazakhs. For instance, the renters had to communicate annually to the nomads, through their local administrators, how much the harvest should amount to; then, when recruiting harvesters, they should first approach the nomads, and propose minimum payments of 40 *kopeks per pud* for *darmina* delivered to Chimkent, or 25 *kopeks* for that delivered at collection points in the steppe. Only if the nomads refused those terms (which should be certified in written form), did the renters have the right to turn to the Russian population.¹⁸⁸

¹⁸⁶ Notary act, Tashkent, 9 September 1909, TsGARKaz, f. 439, op. 1, d. 13, l. 14.

¹⁸⁷ Renters (Savinkov, Nikitin) to Syr-Darya provincial administration, [January 1910], TsGARKaz, f. 439, op. 1, d. 47, l. 88.

¹⁸⁸ Temporary contract for N.P. Savinkov, 15 August 1909, TsGARKaz, f. 439, op. 1, d. 48, ll. 1-2; temporary contract for V.F. Pfaff, 15 August 1909, *ibid.*, ll. 3-4.

It appears that Russian daily labourers - the vast majority of them women, but including minors, too - were recruited to harvest *darmina* from the villages of Mamaevka and Obruchego. These were, however, Russian settler villages, with land ascribed to them. In other words, they were not concerned by either the discipline of land rights expressed in art. 270 of the Turkestan Statute, or the renting contracts stipulated for the collection of *darmina*, although it appears that the monopoly on the latter applied to them, too. The payment these Russian labourers received (35 to 50 kopeks per day in 1909) was not generous by the standards of the time, even taking into account their sex and age profile.¹⁸⁹ Savinkov also appears to have resisted the Obruchego elder's lachrymose pleas to support the village by providing the necessary deposit to build a church: after all, despite the elder's claim to the contrary, he owed them nothing.¹⁹⁰ It remained true that Savinkov was a major economic mover in these few villages on the southern bank of the Arys – a provider of extra income for many households with spare female and child labour.

Overall, the vast majority of the *darmina* was still harvested by Kazakhs on land ascribed to them. In relation to them, the mechanism outlined above was convenient insofar the minimum sums established in 1909 remained plausible: supposing that the renters wanted to pay as little as possible, the nomads were left with the choice between complying, or handing over the task to Russian seasonal workers, who would receive access to their pastureland. Under this regime, the Kazakhs lost the option of collecting the *darmina* on their land and

¹⁸⁹ *Spisok podennykh rabochikh*, 24-28 August 1909, TsGARKaz, f. 439, op. 1, d. 47, ll. 8-10. In 1910, the daily salary in the Tashkent countryside was 80-120 kopeks *plus food* (*na khoziaiskikh charkakh*); at the same dates, the price of one pound (*funt*) of mutton was 12 kopeks: *Turkestanskii Vedomosti*, no. 128, 11 June 1910, *Pribavlenie*; *Turkestanskii Vedomosti*, no. 123 (4 June 1910), *Pribavlenie*.

¹⁹⁰ Kolpachenkov [?], elder of Obruchego, to Savinkov and Nikitin, 14 September 1909, TsGARKaz, f. 439, op. 1, d. 47, l. 22.

selling it to those who offered the best conditions, although in the first years of this new predicament they still enjoyed some wriggle room, as explained below. Vice versa, the renters could be allowed by the Directorate for Agriculture and State Land Properties to export raw *darmina* grains – a measure that implicitly protected their industrial production. The same measure hampered those who, anywhere in the empire, held grains from previous harvests, who now needed special paperwork.¹⁹¹ Exceptions were not made even for the traditional use of *darmina* for the treatment of livestock.¹⁹² Because of the surveillance the *obrochnye stat'i* underwent, the Kazakhs also lost the option of freely using their land in ways that potentially encroached upon *Artemisia Cina*.

This does not mean, however, that the Kazakhs were left without opportunities to turn things to their advantage during harvesting, storage, and haulage. Although it remained difficult to sell to anybody but the Chimkent firm, they could still try and hide sacks of *darmina*. The numerous reports of this practice sent in by the ‘guards’ are a testimony to the fact that this practice was, if not widespread, at least common enough to raise the monopolists’ alarm. Sometimes the ‘guards’ had to retreat, confronted with very realistic threats of violence, although assaults by an angry mob are not attested. For instance, in October 1914 one Turdali Baybusynov confronted the *ob'ezdchik* Timofei Zav'yalov and three more guards. Zav'yalov reported how Baybusynov had ‘gathered some Kazakhs, at the head of whom he threatened me with sticks, [saying] that if I do not leave and drop all queries about the *darmina* he and the Kazakhs will kill me and my witnesses’. Zav'yalov

¹⁹¹ Upravlenie ZD i GI to Pfaff, 7 September 1909, TsGARKaz, f. 439, op. 1, d. 48, l. 8; idem to Savinkov, 7 September 1909, *ibid.*, l. 9; aid to the Syr-Darya military governor to Head of Police, Gomel', copy, [Autumn 1909], *ibid.*, l. 36.

¹⁹² Elistratov (Arys police station), *protokol*, 22 December 1914, TsGARKaz, f. 439, op. 1, d. 58, l. 36.

thought better to leave, which gave Baybusynov and his accomplices time to move the *darmina* in their possession, hiding it in a ditch under some vegetation. Following a tip-off, Zav'yalov gathered a larger contingent, which included the leader of all the firm's guards, Pavel M. Postylin. When he reached the ditch, however, one of Baybusynov's accomplices, Dzhanzak Bekbutaev, advanced towards him, shouting that he owned the place and 'he will not give the *darmina* to anybody, not even if the police chief [*pristav*] himself showed up'. To reiterate the message, at that point a small group of Kazakh men and women approached 'with sticks in their hands'. As Zav'yalov and his companions reported later, Bekbutaev 'started offending me and my witnesses and swearing and shaking their sticks he and the unknown Kazakh women [*kirgizki*] he had called upon, threatening that, if we do not quit immediately he will kill us all, then he hit with a stick the horse of the plant employee Maksim Baranin on the back and on the head, [and] to avoid further scandal [*skandal*] from Bekbutaev's side I was obliged to retreat quickly from *aul* no. 4.'¹⁹³ The fright they had must have been quite effective, because there is no sign that this matter was pursued further.

Yet not all forms of resistance involved physical opposition. One subtle way to circumvent limitations was by delivering the *darmina* in home-made sacks that were heavier than the standard. The precision of scales was also a terrain of conflict.¹⁹⁴ Others feigned ignorance about the terms of the rental contract, even after half a decade, or tried in vain to assure the firm's inspectors that the *darmina* in their possession was, if not for private consumption, 'for feeding to the sheep' (*dliia kormlenia baranov*) to heal their ailments.¹⁹⁵ Finally, there was the

¹⁹³ Zav'yalov, *akt*, 20 October 1914, TsGARKaz, f. 439, op. 1, d. 58, ll. 29-30. The translation tries to reproduce Zav'yalov's broken prose.

¹⁹⁴ For a latter that denounced a man-and-wife team practiced these tricks at the Kabul station: n.d., TsGARKaz, f. 439, op. 1, d. 47, l. 112.

¹⁹⁵ Elistratov (Arys police station), *protokol*, 22 December 1914, TsGARKaz, f. 439, op. 1, d. 58, l. 36.

possibility of sheer fraud: in an emblematic case, at the end of the 1914 season, a few Kazakhs in the company of sixteen camels were stopped on their way to the station of Karakungur, where attempts at subverting the *darmina* regime were more common than at the more central station of Arys. The *darmina* they were about to send to ‘the Jew Shvartsman’ was stored in 78 sacks; more than half of them were of the same type as those used by the renters, and carried the latter’s seal, which had been stolen or counterfeited. The ‘guard’ managed to seize the *darmina* and send it to the Chimkent plant, but while he raised the alarm, the fraudsters had vanished.¹⁹⁶

This surveillance was almost entirely in the renters’ hands: on top of the rental fee and beside paying their own guards, they contributed money to the Turkestani Directorate for Agriculture and State Land Properties to hire one inspector (*polevoi ob’ezdchik*) for each of the five plots which had been defined.¹⁹⁷ The inspectors in particular wielded considerable power. They did not only supervise the harvest, but made sure that all *darmina* collected in the entire area was conferred to the renters; to achieve this goal, inspectors could actively seize the *darmina* they found and file a notice to this effect, as in previous rental contracts. In this respect, they worked in ways identical to the police authorities (*uchastkovye pristavy*).¹⁹⁸ Although it is formally unclear that the inspectors possessed rights equivalent to police search warrants, in practice they *did* check private and public premises alike, from village huts to caravanserais, and from railway stations to hideaways. For instance, one inspector in September 1909 got tipped off by a resident of Arys, Karamulla Abdulla Abduraimov, about

¹⁹⁶ Timofei Zav’yalov, *ob’ezdchik, akt*, 22 September 1914, TsGARKaz, f. 439, op. 1, d. 58, l. 6; for another case involving imitation sacks, see: Zav’yalov, *akt*, 20 October 1914, *ibid.*, ll. 29-30.

¹⁹⁷ *Konditsii na otдахu v arendu...*, [after August 1909], TsGARKaz, f. 439, op. 1, d. 48, ll. 6-7.

¹⁹⁸ *E.g.* on the latter’s seizing *darmina* from previous harvests in the city of Turkestan: *protokol*, copy, [Autumn 1909], TsGARKaz, f. 439, op. 1, d. 48, l. 30.

the fact that a substantial amount of *darmina* was being kept in the vicinity of the town's bazaar. More than three *pud* were found in a shed, although it was unclear who they belonged to. The inspector duly seized the *darmina* with the collaboration of the (Russian) elder of Arys, and two months later the Chimkent plant received it. The plot thickened when a few months later rumours reached the police that the same Karamulla was the owner of the *darmina*, who had ostensibly tipped off the inspector to deflect attention from himself. Although a quick inquiry ruled out this possibility, the involvement of the local police and of the town elder reflects how pervasive the enforcement of Savinkov's monopoly was.¹⁹⁹

This type of evidence also suggests that this new layer of control could potentially be weaponized for social and political conflict, by reporting rivals to the renters' agents and even pitting them against each other. In the winter of 1910, for instance, one Gali Seifulmaliukov, resident in the city of Turkestan and a collaborator of one of Savinkov's Muslim clerks, Hajji Ibragim Manzelin, wrote to the technical director of the Chimkent plant, the Orenburg *meshchanin* Vladimir F. Gorshenin, to expose supposed inadequacies in the vigilance exerted by one of the plant's inspectors, Duman Mambetov. While the latter had looked for illegally held *darmina*, he had failed to find it; on the contrary, the writer knew that the *darmina* of an Anarbay was kept, under lock and key, in someone else's courtyard.²⁰⁰ Seifulmaliukov insisted in all his messages that he would certainly hear of any *darmina* brought into the city from the steppe – a knowledge he could use both to discredit and to clear the name of his neighbours, for instance by assuring that they had already sold all the

¹⁹⁹ Belousov (inspector), *protokol*, 6 September 1909, TsGARKaz, f. 439, op. 1, d. 47, ll. 18-19; see also: Upravlenie ZD i GI to Director, Orenburg-Tashkent Railway, copy, TSGARKaz, f. 439, op. 1, d. 48, l. 12

²⁰⁰ Saifulmamokov [sic] to Gorshenin, [January 1910], TsGARKaz, f. 439, op. 1, d. 47, ll. 90-91. For Gorshenin's full name and *soslovie*: contract between the Bekmetovs and Gorshenin, 10 August 1909, TsGARKaz, f. 439, op. 1, d. 13, ll. 9-10.

darmina in their possession. In one of these cases, Seifulmaliukov's words had greater clout than those of a local *volost*' administrator.²⁰¹

Who the inspectors answered to was not fully clear – not even to themselves. A few months after having started their work, the two inspectors on Savinkov's plots, Grigorii Belousov and Dmitri Statsenko, wrote a perplexed letter to the Turkestani forestry administration (which depended on the Directorate for Agriculture and State Land Properties), asking whom they should ultimately obey: the forestry administration itself, or the renter, who was indeed paying for them and had appointed someone to supervise their work. The forestry administration, whose insignia Belousov and Statsenko wore, confirmed that the inspectors were accountable to them only – but curiously did so only after consulting with the Syr-Darya military governorship.²⁰² In the light of this, one can surmise that the population of the areas concerned and even their local administrators could not really distinguish between the authority of the imperial State and that of the renters. The situation became even more muddled as the word *ob'ezdchik* started being used in a looser sense, to indicate not only the few inspectors 'shared' with the forestry authority, but anybody else who was paid by Savinkov to monitor the harvest. This was, for instance, the case of the Duman Mambetov which we encountered above, accused of faulty vigilance over *darmina* hidden in Turkestan.²⁰³ As we will soon see, these 'guards' were entitled to conduct searches to uncover any *darmina* that had not been sent to the plant, including full sacks which Kazakh villagers were hiding under haystacks.²⁰⁴ There were around one hundred guards in

²⁰¹ Gali Seifulmaliukov to Gorshenin, 17 January 1910, TsGARKaz, f. 439, op. 1, d. 47, ll. 92-93.

²⁰² Belousov and Statsenko to Lesnyi Konduktor, copy, 8 November 1909, TsGARKaz, f. 439, op. 1, d. 48, l. 38; aid to the Syr-Darya military governor to Lesnyi Konduktor, copy, [n.d.], *ibid.*, l. 38ob.

²⁰³ Saifulmamokov [sic] to Gorshenin, [January 1910], TsGARKaz, f. 439, op. 1, d. 47, ll. 90-91.

²⁰⁴ Letter to Gorshenin, 6 November 1913, TsGARKaz, f. 439, op. 1, d. 53, ll. 106ob-107.

1913, all of them with Muslim names. More than one-fourth of them doubled up their vigilance tasks with a commercial role in the procurement of the *darmina* harvest, acting on behalf of the ‘*Santonin*’ firm.²⁰⁵ Each of these individuals distributed and kept accounts of monies disbursed, and recorded how much *darmina* was handed over by how many people – all this on pre-printed forms provided by the plant. A close look at these forms for the 1911 season, reflecting the procurement system at its maturity, shows that each collector received between 100 and up to 1,800 *puds* of *darmina*. Despite variability in all other respects, the majority of collectors stuck to the minimum price of 25 kopeks per *pud*, or marginally exceeded it.²⁰⁶

Whilst most of these guards (or agents) remain elusive figures, the company’s archive shows how at least some of them had to re-apply for the same job year after year, whilst the plant continued to receive letters from prospective candidates, sometimes supported by their fellow villagers.²⁰⁷ Those sent in by a Khakimdzhan Devletgel’diev for the 1913 season cast some lights on the qualities sought: in uncertain Russian, he assured Gorshenin that he ‘[did] not drink anything but water and [would] serve accurately and execute your orders exactly’. Beside mentioning his knowledge of ‘arithmetic’, Devletgel’diev showed his eagerness by writing again, only two days later, to denounce the presence of five Armenian merchants who were illegally buying *darmina* in the village of Mamaevka at prices ten times higher than the

²⁰⁵ *Spisok ob’edzchikov ... v sezone 1913 g.*, TsGARKaz, f. 439, op. 1, d. 53, ll. 1-2.

²⁰⁶ Forms for the collection of the 1911 harvest, TsGARKaz, f. 439, op. 1, d. 50, ll. 1-49 s ob.

²⁰⁷ See e.g. Nurmakhamet Taibenov, to Gorshenin, [Spring 1913], TsGARKaz, f. 439, op. 1, d. 53, l. 10; Nasrulla Bii Mukhamedov to Gorshenin, 2 May 1913, *ibid.*, l. 17; Ungar Bekmakametov [sic] to Gorshenin, 14 May 1913, *ibid.*, l. 20.

minimum 25 kopeks mentioned in the rules.²⁰⁸ Devletgel'diev ultimately landed the job: one month later, we find him handing out advance payments for the *darmina* in several localities of the Arys *volost'*, managing more than 4,000 roubles; by the autumn, he no doubt was employing a scribe who could write in Russian far better than himself.²⁰⁹ In 1915, he had moved to a job of greater responsibility at the Chimkent plant itself, and signed many of the letters the firm exchanged with all sorts of suppliers and business partners.²¹⁰ The case of Devletgel'diev shows not only how quickly some of the firm's employees could advance in their career by embracing the firm's tactics, but also that the boundaries between 'guard' and agent of the Chimkent plant were very blurred. The same persons who distributed money for the *darmina*, partly in advance of the harvest to village representatives, were in charge of stamping out illegal trade and invigilating roads, bridges, and railway stations for this purpose.

At first sight, it also appears that one of the goals of these 'guards' was to limit the pernicious influence of intermediaries and merchants (Tatar, Russian, and 'Sart'), which had been decried by the plant's owners to justify their monopoly. One such merchant, the Siberian Tatar Bikmetov (or Bekmetov), whom we have already encountered, was routinely mentioned in the guards' reports. Together with his brother, he not only bought *darmina*, but also exchanged it against consumer goods, which Kazakh villagers received as an advance on the harvest. The prices at which Bekmetov's agents sold a whole range of textiles were not

²⁰⁸ Devletgel'diev to Gorshenin, 6 June 1913, TsGARKaz, f. 439, op. 1, d. 53, l. 22; idem to Gorshenin, 8 June 1913, *ibid.*, l. 29.

²⁰⁹ *Svedenie*, 19 July 1913, TsGARKaz, f. 439, op. 1, d. 53, ll. 42-3; Devletgel'diev to Gorshenin, 4 November 1913, *ibid.*, l. 97.

²¹⁰ See e.g. successors of N. N. Ivanov to "Santonin", 1 May 1915, TsGARKaz, f. 439, op. 1, d. 55, l. 39.

outrageous, and he offered for the *darmina* 30 kopeks instead of the minimum 25.²¹¹ He thus represented, on paper, a dangerous rival. The plant's management, though, seem to have adopted a very pragmatic line in handling Bekmetov's business: they bought *darmina* from him, as they did from a variety of other 'private' intermediaries, including their own employee Manzelin.²¹² At the beginning of the new renting regime the Bekmetovs were able to impose their own conditions. In August 1909, through their delegate (a 'Sart' from Chimkent, Mulla II'in Baybabaev, who also traded in *darmina*), the Bekmetovs engaged themselves to sell all the grains in their possession and deliver them to the Chimkent plant at 60 kopeks per *pud*, or 45 kopeks for *darmina* delivered in the steppe collection points – so, far above the minimal prices of 40 and 25 kopeks respectively.²¹³ In 1910, Akhmedzhan Bekmetov signed a contract with another partner of the same firm, Nikitin, to deliver at least 25,000 *puds* in the steppe at 45 kopeks each, although he had to pay back Nikitin (at a high interest rate) if this promise were not fulfilled. He also promised to hand in all the available *darmina* he came across.²¹⁴ The details of the contract reveal Bekmetov's influence: what was contracted amounted to the harvest from more than 1,650 *desiatinas*, for which he had to

²¹¹ Aman Sagalov to Pfaff and Gorshenin, 11 April 1913, TsGARKaz, f. 439, op. 1, d. 53, l. 4; for the prices: Duman Mambetov to Gorshenin, 12 April 1913, *ibid.*, l. 5; Manzelin to "Santonin", 11 May 1913, *ibid.*, l. 18 (mentioning both Bekmetov and the 'Sart' Ilypay.)

²¹² Manzelin had even purchased machinery to speed up the harvest on up to 500 *desiatiny*: Manzelin to "Santonin", 11 May 1913, TsGARKaz, f. 439, op. 1, d. 53, l. 18

²¹³ Bekmetovs' contract with Gorshenin, 20 August 1909, TsGARKaz, f. 439, op. 1, d. 13, ll. 9-10.

²¹⁴ Contract between Akhmedzhan Bikmetov and Nikitin, 13 May 1910, TsGARKaz, f. 439, op. 1, d. 13, ll. 21-22.

list localities and quantities.²¹⁵ In 1911, ‘Bekmetov’s debtors’ were included among the numbers of those who handed over *darmina* to the firm’s many collectors, as reflected in the filled pre-printed forms mentioned above.²¹⁶ In other words, the renters managed to wangle a quasi-monopoly very quickly, but the Bekmetovs still managed to cream off a decent margin and act as a useful commercial partner. Gradually, though, the plant owners managed to exert more control on Bekmetov’s own conditions and even co-opt him as a supplier of *darmina* from the steppe. In the following years, for instance, Bekmetov accepted to purchase *darmina* at no more than the minimum 25 kopeks on behalf of Savinkov. It would be wrong, however, to think that Bekmetov’s interests were badly damaged by his working with the firm: in 1912 and 1913, he no doubt had the opportunity to gain money since the spring by handing out his own advances in goods; moreover, the firm was still paying him much more than he paid the Kazakhs who did the harvesting – whilst his grasp now extended to 4,000 *desiatiny*.²¹⁷ Other circumstances suggest that Bekmetov was not a reliable partner for either the Kazakhs or for the Chimkent industrialists, and yet his services were continually sought.²¹⁸

In sum, the monopoly exerted by the renters found an insurmountable obstacle in the need to organize the harvest and payments over a huge extent of territory. Although they attempted

²¹⁵ Masal’skii estimated the yield at 15 *pud* of *darmina* per *desiatina*: Masal’skii, “O santoninnoi promyshlennosti”, 70. One *desiatina* corresponds to 1.09 *ha*.

²¹⁶ Forms for the collection of the 1911 harvest, f. 439, op. 1, d. 50, ll. 1-49 s ob, here esp. ll. 28-9, 38.

²¹⁷ *Svedenia* on the harvest, 28 May to 5 June 1913, TsGARKaz, f. 439, op. 1, d. 53, ll. 24-28; Pfaff to Gorshenin, 19 October 1913, *ibid.*, l. 85; contract between Akhmedzhan Bikmetov with *Tovarishchestvo “Santonin”*, 17 August 1913, *ibid.*, d. 13, l. 50.

²¹⁸ A hard to decipher note by Manzelin suggests that, because Bekmetov was lagging behind with payments, the *darmina* set aside for him was being deliberately exposed to heavy rain: Manzelin (from Bugun) to Gorshenin, 3 November 1913, TsGARKaz, f. 439, op. 1, d. 53, ll. 104-105.

to deal with the Kazakh population directly, they still needed to rely on powerful intermediaries (such as Bekmetov) or to empower their own ‘guards’ to act as purchasers. In all their dealings, the Chimkent industrialists were consistently concerned more by the *exclusivity* of their rights, than by the setting of prices. And by and large they *did* manage to exert such control: Bekmetov’s contracts might have covered 4,000 *desiatiny*, but this amounted to less than 1/60 of the area that supplied the factory on the eve of World War I.²¹⁹ There were also very obvious reasons why they were not much worried by prices: paying Bekmetov 40 kopeks per *pud* instead of the 25 kopeks paid directly to the Kazakhs meant a risible additional cost, when the price of the same raw *darmina* was 19 *roubles* in Moscow, and 18 *roubles* at the Kabul-Say station, practically in the steppe itself! In other words, Bekmetov (and perhaps a few others, among the ‘larger’ collectors who supplied the Chimkent chemical plant) absorbed just a small amount of the huge extra-profits enjoyed by the *Tovarishchestvo* ‘Santonin’ thanks to its monopoly. The only barrier to the latter was the world (Hamburg) price of *darmina*, which was basically aligned with Moscow’s; as to the cost of the production of *santonin*, Chimkent enjoyed a huge advantage over its German competitors because of its ability to access the main raw material at a price that was quite literally ten times lower.²²⁰

The renters could count on the force of the State to protect their interests and prosecute those who abusively collected *darmina* on ‘their’ plots. Whilst the local administration was reluctant, Pfaff and Savinkov were actively supported by the Turkestan Directorate for

²¹⁹ MZ, Departament Zemledelia, *Sovremennoe polozhenie v Rossii promysla sbora, kul'tury i obrabotki lekarstvennykh rastenii* (Petrograd: Tipografia Bt. V. i I. Linnik, 1916), 305.

²²⁰ Prices in Hamburg, Moscow, and Kabul-Say are in: additional conditions for the purchasing of the 1913 harvest, 28 November 1913, TsGARKaz, f. 439, op. 1, d. 13, l. 52.

Agriculture and State Land Properties: its chief forestry officer (*Turkestanskii lesnichii*) set himself in motion even before tribunals were involved, and encouraged the latter to intervene. For instance, in October 1909 it was the latter that incited the former to report to a local court a Russian inhabitant of Arys who had been found in the illegal possession of *darmina* grains. His activity was regarded as a criminal act against the State, represented by the Directorate, whilst the renter (in this case Savinkov) was a civil party.²²¹ The Directorate also exerted pressure on other public and semi-public agencies, to protect the interests of the renters, especially their monopoly on the harvesting and sale of *darmina*. In the case of pressures on railway staff to prevent the transport of *darmina*, the Directorate was consciously acting in excess of what the law allowed them to do.²²² It appears indeed that railway staff resented the interference of the plant's 'guards' and even their presence, which at times was quite boisterous. For instance, in November 1914 the direction of the Tashkent railway lamented that in the vicinity of the station of Kara-Kungur some Kazakhs and Tatars had erected a tent (*kibitka*), where they sat all day in idleness but at night roamed the steppe on horseback. As they noted, this behaviour was a nuisance and hardly compatible with wartime civic discipline.²²³

Even when railway staff closed one eye, the renters could nonetheless rely on the collaboration of the gendarmes who were stationed on the railway: in September 1914, for instance, a gendarme at the same station of Kara-Kungur seized a shipment of almost 100 *puds* of *darmina* in the name of an Abdyasy Saurbaev, who had duly signed the

²²¹ Upravlenie ZD i GI to aid to the Syr-Darya military governor, copy, 10 October 1909, TsGARKaz, f. 439, op. 1, d. 48, l. 11; also: Upravlenie ZD i GI to *Turkestanskii lesnichii*, [November 1909], *ibid.*, l. 35.

²²² Upravlenie ZD i GI to Director, Orenburg-Tashkent Railway, copy, TSGARKaz, f. 439, op. 1, d. 48, l. 12; *idem* [Pil'ts] to aid to the Syr-Darya military governor, copia, 29 October 1909, *ibid.*, l. 15.

²²³ Upravlenie Tashkentskogo zh/d, 12 November 1914, TsGARKaz, f. 439, op. 1, d. 58, ll. 33-34.

accompanying documents but had not included the authorization from the Directorate for Agriculture and State Land Property. The gendarme acted on the basis of the criminal code and a circular telegram from the technical director and plenipotentiary of the Chimkent firm, Vladimir F. Gorshenin, whilst the director of the station - who followed the railway code - had refused to act.²²⁴ Who was right, whether the gendarme could take such measure, and above all whether Gorshenin could recover the seized *darmina* without going to court was not fully clear: what was certain, was that Gorshenin was zealous in escalating the matter to the commandant of the gendarmerie for the whole of Turkestan. He could count on the unconditional support of the Directorate for Agriculture and State Land Properties to foster his cause, and - as mentioned above - had a direct line of communication with the local police, whom he reminded of the duty to second the firm's own guards.²²⁵

The relation with the so-called Kazakh 'native administration' was complex. The police authorities and sometimes Gorshenin himself kept a close eye on the 'native' administration, particularly the *volost'* commandants. They wrote to remind them of their obligation to confer all the *darmina*, both old and new, that was present in the villages under their authority – and they asked for a formal declaration that no *darmina* was left in their possession.²²⁶ When

²²⁴ *Protokol*, 26 September 1914, TsGARKaz, f. 439, op. 1, d. 59, ll. 14-5; *protokol*, 4 October 1914, *ibid.*, ll. 21-22.

²²⁵ Gorshenin to commandant, *Turkestanskoe zhandarmskoe otdelenie*, 12 January 1914, TsGARKaz, f. 439, op. 1, d. 58, ll. 38ob-39; *idem* to same, 5 February 1915, *ibid.*, ll. 41ob-42; Gorshenin to Temirlanovka *uchastkovyi pristav*, Arys, 16 October 1914, *ibid.*, l. 28.

²²⁶ Tamerlanskii *uchastkovyi pristav* to Birdusar *volostnoi upravitel'*, copy, 20 October 1909, TsGARKaz, f. 439, op. 1, d. 48, l. 13; Turkestanskii *uchastkovyi pristav* to the *volost'* commandants of Chelek, 17 November 1909, *ibid.*, l. 16; responses from the commandants of Chelek and several other *volosti*, dated November 1909

Gorshenin or Savinkov felt dissatisfied with the answer, they asked the Russian district commandants to intervene on their behalf.²²⁷ It is quite extraordinary that all these authorities sent copies of the correspondence on these matters to the directors of the Chimkent *santonin* plant: despite formally acting in their capacity as colonial administrators, they behaved as if, in these matters, they were accountable to the renters of the plots where *darmina* was found. Gradually, however, it was the plant's own salaried 'guards' who received the task of assuring that all *darmina* had been handed in.²²⁸ Meanwhile, it was the local judges (*narodnye sud'ia*) who found a new role: at least from 1913 they stamped and countersigned the contracts each Kazakh *aul* stipulated for the delivery of *darmina* directly to the firm, specifying how much each household had conferred and had received.²²⁹

This sketch of the relations between State institutions and the '*Santonin*' firm in the years when its monopoly had consolidated highlights the symbiotic relation between the firm's own agents and the lower ranks of the colonial administration, particularly the police (*pristavstvo*), the gendarmerie, and the Kazakh 'native administration'. It also shows how decisive was the support of the GUiZ's local office, the Turkestan Directorate for Agriculture and State Land Properties, not only in securing the concessions, but also in the day-by-day business of the

to March 1910, *ibid.*, ll. 18-20, 25-29; response from the Khojent *uezd* commandant to Upravlenie ZD i GI, copy, 3 September 1910, *ibid.*, l. 39.

²²⁷ Gorshenin to Jizzakh *uezd* commandant, 29 January 1910, TsGARKaz, f. 439, op. 1, d. 48, l. 22; Savinkov to Tashkent *uezd* commandant, 21 June 1910, *ibid.*, l. 33.

²²⁸ *Svedenie*, Arys, 5 November 1913, TsGARKaz, f. 439, op. 1, d. 53, ll. 100-103; declaration of the Arys *ob'ezdchiki*, 30 November 1913, *ibid.*, l. 121; same, from Bugun, n.d., *ibid.*, l. 122.

²²⁹ E.g. contract for *uchastok* Asabay Idigiev, stamped by the *Narodnyi sud no. 2*, Korgandzhar *volost'*, Chimkent *uezd*, [July 1913], TsGARKaz, f. 439, op. 1, d. 13, ll. 49-51; other contract, 11 July 1913, *ibid.*, ll. 46-7; also: *ibid.*, ll. 44-45.

firm, for instance in case of conflicts with the local military administration. Last but not least, while there is no doubt that, in many respects, the firm's agents took upon themselves functions usually associated with State power, this could happen because State agencies on the territory concerned were sparse and relatively weak because of the overlapping of hierarchies and rules, as demonstrated by the reluctance of railway officers to seize illegally transported stocks of *darmina*. This represents at first sight a paradox: the concessions could be secured because the Russian imperial State, via the GUiZ, was expanding its claims on resources by positing itself as their owner (*khoziain*), to the exclusion of other stakeholders, but on the spot State presence remained scant. Yet the paradox is only superficial: as observed above already, the establishment of a private monopoly was explicitly regarded by the GUiZ as a second-best solution, where the renters could *de facto* play the role of the State not only in the latter's mission to unfold the region's potential, but also take upon themselves the task of policing the execution of contractual obligations, and more.

Epilogue and conclusion

Just before World War I, the Chimkent santonin industry processed around 1.5 million *puds* of grains of *Artemisia Cina*. Some 2,600 square *verst* (almost 3,000 square km, or 300,000 *ha*) under *darmina* supplied the plant, either through direct deliveries or through a network of 'purchasing points'.²³⁰ Most of the santonin was exported worldwide from Russia, although the war brought about a re-orientation of the export routes: rather than *via* Germany, Chimkent's santonin was now traded westwards through Arkhangel'sk and eastwards through Vladivostok, with the Indian subcontinent and the US market being reached from either

²³⁰ MZ, Agriculture Department, *Sovremennoe polozhenie*, 305.

side.²³¹ Russian subjects with a German (or Jewish-German) background, based in Vilna, Odessa, and Petrograd, remained the key partners of the ‘Santonin’ firm in the course of the conflict. Beside internal demand (santonin was bought in particular by local governments through the *zemskii soyuz*),²³² the war against Germany meant that Russian santonin enjoyed an advantage on several markets, particularly in Japan.²³³ Although troubles with grain supplies in Turkestan meant scarcity of both alcohol and bread for the workers, ‘Santonin’ could still profit from its unrivalled position.²³⁴

The monopoly had not faded away, but was even reinforced, in line with the overall strengthening of monopolies in the war economy overall. It did, however, undergo significant transformations. In 1915 the five-year concessions came to an end. In late 1914 the contract was first offered under favourable conditions to Savinkov’s widow, Ol’ga Nikolaevna, who nonetheless declined.²³⁵ several rounds of auctions were thus held to identify new renters. Among the candidates there was Ol’ga E. Ivanova, widow of one of the founders of the initial santonin plant Nikolai N. Ivanov, who acted through her son Ivan Nikolaevich. These ‘Ivanov heirs’ were already supplying ‘Santonin’ with a key raw material, alcohol. They

²³¹ I. L. Gol’dberg to “Santonin”, 7 February 1916, TsGARKaz, f. 439, op. 1, d. 61, l. 2; idem to same, 6 March 1916, *ibid.*, l. 6; idem to same, 4 April 1916, *ibid.*, l. 14.

²³² Gol’dberg to Ivan Nikolaevich [?], “Santonin”, 4 April 1916, TsGARKaz, f. 439, op. 1, d. 61, l. 16; idem to same, 7 June 1916, *ibid.*, l. 23.

²³³ On the Japanese market: “Santonin” to unidentified, 9 June 1916, TsGARKaz, f. 439, op. 1, d. 61, l. 21; also on Sweden: Gol’dberg to “Santonin”, 2 May 1916, *ibid.*, ll. 17-18.

²³⁴ On alcohol: “N.N. Ivanov heirs” to “Santonin”, 1 May 1915, TsGARKaz, f. 439, op. 1, d. 55, l. 39; on bread for the workers, *e.g.*: Syr-Darya Food Supplies Committee to “Santonin”, 13 November 1917, *ibid.*, l. 215.

²³⁵ Director of State Land Properties in Syr-Darya to Turkestan Upravlenie ZD, 31 August 1917, O’MA, f. i-7, op. 1, d. 4605, n.p. [missing pagination].

participated in the first auction, which was annulled for procedural reasons.²³⁶ Although some details in the rules favoured the existing owners of the ‘Santonin’ plant, the 1915 concession was ultimately secured by a newcomer to the business, retired General-Lieutenant Viktor Mikhailovich Ivanov, a military engineer involved in many industrial enterprises.²³⁷ The 1915 concession set up a monopoly on the exploitation of *darmina*, getting rid of any residual ambiguity in the matter: first, the fictional four separate plots were merged into a single large one; second, the concession lasted for a full decade, rather than one or five years; third, the contract explicitly linked the purchase of *darmina* to its industrial processing, as the renter was obliged to set up or to rent a santonin-producing plant within two years. Other conditions remained the same as before, such as the payments due to Kazakh harvesters and the renter’s responsibility to pay for surveillance.²³⁸ On the top of this, General-Lieutenant Viktor M. Ivanov tried to expand the remit of his monopoly on *darmina*, to include the land ascribed to the European settlers and that of the town of Arys, which belonged to legal typologies other than that outlined in art. 270 of the Turkestan Statute.²³⁹ All his manoeuvring was in vain, though: as one would expect, in the circumstances of the war Ivanov found himself unable to

²³⁶ Upravlenie ZD to Turkestan GG, 17 April 1915, O‘MA, f. i-7, op. 1, d. 4605, l. 4; chancellery of the Turkestan GG to GUZiZ, 10 June 1915, *ibid.*, l. 62; telegram, I.N. Ivanov to GUZiZ, n.d., *ibid.*, l. 66.

²³⁷ *Ibid.*

²³⁸ Copy of the concession contract, 7 July 1915, O‘MA, f. i-7, op. 1, d. 4605, ll. 81-81 *ter* [missing pagination].

²³⁹ On Mamaevka, Ermolaevka, and Obruchevka V.M. Ivanov elicited some support from the authorities; not so for Arys. See respectively: MZ, head of resettlement in Cherniaev district to head of resettlement in Syr-Darya, 27 June 1916, O‘MA, f. i-7, op. 1, d. 4605, n.p.; Syr-Darya director of State Land Properties to Upravlenie ZD, 15 February 1917, *ibid.*, n.p.; and: Ignat’ev [V. M. Ivanov’s agent] to Upravlenie ZD, 27 June 1916, *ibid.*, l. 197; reply, l. 198.

import the machinery for his new plant.²⁴⁰ He also started delaying and then defaulting on the payment of his rent,²⁴¹ raising the alarm of Tsarist and revolutionary authorities alike.

Because he had accumulated significant arrears, in January 1918 all his properties in Turkestan were sequestered and the issue transferred to Petrograd, where its traces are lost.²⁴²

More significant, though, is the fact that Viktor M. Ivanov did not manage to erode the advantage the ‘Santonin’ plant enjoyed both in ‘capturing’ and in processing the wormwood. In principle the former renters could collect and export *darmina* grains only ‘in insignificant amounts and by permission of the [Turkestan] Agriculture Administration’. In practice, though, no newcomer could have set up quickly the network of intermediaries which ‘Santonin’ had become dependent upon. The ‘surreptitious purchase’ of *darmina* was widespread in the 1915 season, as Ivanov lamented in a personal letter to the GUiZiZ.²⁴³ Neither did the situation improve much the following year, when Ivanov recruited the services of the Tatar Manzelin, formerly in the pay of ‘Santonin’: together with his agent, the Kazakh Duman Mambetov, also mentioned above, Manzelin pocketed generous margins out of the money he received to distribute advances to the Kazakh harvesters, thus fleecing both the latter and Ivanov. Petitions by *aul* elders denouncing Manzelin’s abuses added themselves

²⁴⁰ Upravlenie ZD to Turkestan GG, 13 February 1916, O‘MA, f. i-7, op. 1, d. 4605, l. 147; V.M. Ivanov to Ministry of Agriculture, 3 December 1916, *ibid.*, n.p.

²⁴¹ Upravlenie ZD to Turkestan GG, 26 August 1916, O‘MA, f. i-7, op. 1, d. 4605, l. 204; Ministry of Agriculture, Departament GZI, to Upravlenie ZD, 25 January 1917, *ibid.*, n.p.

²⁴² Jurisconsult section of the Turkestan administration to Upravlenie ZD, 2 January 1918, O‘MA, f. i-7, op. 1, d. 4605, n.p.; inter-institutional meeting at the Turkestan administration, minutes, 19 January 1918, *ibid.*, n.p.

²⁴³ V. M. Ivanov to GUiZiZ, copy, 3 October 1915, O‘MA, f. i-7, op. 1, d. 4605, ll. 128-128 *bis*; Vl. Ignat’ev to Upravlenie ZD, 29 September 1915, *ibid.*, l. 115.

to Ivanov's delays in paying the rent: it is hardly surprising, thus, that in the immediate aftermaths of the February revolution the competent authorities considered the option of cancelling the concession and taking the *darmina* business into the State's own hands.²⁴⁴

On a first level, this epilogue highlights the reliance of Russian capitalists on Tatar and Kazakh intermediaries for the procurement of raw materials, which remained a consistent feature of their activity whatever the juridical frame for their claims on the *darmina* itself. As discussed before, non-Russian (particularly Muslim) investors in this business were no doubt penalised by the establishment of a State-sanctioned oligopoly or monopoly: indeed, concessions were first introduced at least in part to exclude those entrepreneurs. Yet others, who already boasted local networks, became so indispensable that they did themselves enjoy a sort of oligopoly in the distribution of financial means, very much at the expenses of cash-strapped nomads and villagers. Whilst in principle sensitive to the latter's plight, Tsarist authorities ended up strengthening these intermediaries, particularly among the Kazakh population, because of the outsourcing of surveillance tasks and the ambiguous boundaries between administrative positions and business functions. Overall, these circumstances expose the fault lines which emerged *within* Kazakh society as a consequence of the industrial exploitation of wormwood, as well as the powerful role of Tatar merchants, thereby considerably complicating the basic opposition between colonisers and colonised in Tsarist Turkestan.²⁴⁵ These themes await careful scholarly consideration.

²⁴⁴ Cherniaev district, director of State Land properties, to Syr-Darya director of State Land Properties, 30 March 1917, O'MA, f. i-7, op. 1, d. 4506, n.p. Elders' petitions, dated June-August 1916, are *ibid.*, ll. 8-11 and 20-21 of a separate bundle with distinct pagination.

²⁴⁵ On Tatar interests in Central Asian trade, see: Danielle Ross, *Tatar Empire: Kazan's Muslims and the Making of Imperial Russia* (Bloomington, IN: Indiana University Press, 2020).

A further set of reflections concerns the transformation, over several decades, of official discourses (in the plural) on the management of *darmina* as a specific natural resource. The main turning point in these discussions happened in 1909, when Grodekov's intervention against the creeping claims of Savinkov's company on the Kazakhs' land was flatly dismissed by Krivoshein's increasingly influential GUiZ. Crucially, the arrangement on land rights that underpinned the monopoly destined to remain in place for the rest of the colonial era had not been achieved by changing the legislation, but by expanding the notion of 'State property' on the nomads' land in Turkestan to the point of limiting the latter's usage rights to 'traditional' pastoralism only, to the exclusion of all market-oriented activities: for instance, 'commercial' cattle-breeding – and obviously, the harvesting of *darmina*. Up until the end of the first decade of the twentieth century the question was under what conditions land could be considered as 'State land property' (*imushchestvo*), for instance because of the presence of 'spontaneous forest', or because it could be labelled as 'excess land'. This explained why, around 1909, tensions aroused around the definition of 'spontaneous forest' and around the opportunity of new instructions that would lead to the implementation of an amended art. 270 of the Turkestan Statute. In the last years before the war, instead, this was not necessary any more: the case of the *darmina* question shows that the rights of the nomads could be 'compressed' even in the presence of simple 'State property' (*sobstvennost'*), without the need to legally define such land as *imushchestvo*.²⁴⁶ Even less was such a legal definition necessary in the light of the wartime reorganization of the economy, which made it possible in March 1917 to air the option that the Treasury manage the *darmina* directly. The mobilization of the meta-juridical category of 'stewardship' (*khoziaistvo*) represented a major turning point in the history of the ideas on the basis of which the Tsarist administration

²⁴⁶ See for instance: "Santoninnoe proizvodstvo v Turkestane," *Voprosy kolonizatsii*, no. 12 (1913): 422-4.

operated in the periphery, and might have influenced the way State rights on the land were conceptualized in the early Soviet period.²⁴⁷ Apparently magnanimous, *khoziaistvo* meant instead the further restriction of indigenous usage rights.

In Elinor Ostrom's terms, the process summarised above can be viewed as the competition between different management models for common-pool resources. Although the Kazakhs' right to use the land where *Artemisia Cina* grew as pasture was not encroached upon, it was the conceptualization of the way different claims could (and should) be composed that changed around 1910. To use Ostrom's terminology, such a composition was now thought to be possible in a centralized ('Leviathan') model only:²⁴⁸ to ensure the survival of the common-pool resource that the land under *darmina* represented, the State should take charge of the distribution of rights among stakeholders and of the enforcement of punishments for those who violated such distribution – a task in which Savinkov's private guards also collaborated, in the light of weak State capacity in Tsarist Turkestan. In the view that became predominant at the time and was embodied first and foremost by the GUZiZ, the pretensions of the Kazakhs (as, elsewhere, those of the settled Turkestani population) to the resource made sense only insofar they were embedded in such centrally-defined regulation – which was, incidentally, deeply hierarchical and skewed in favour of some of the stakeholders.

²⁴⁷ The idea that the rights of the State should be defined first (while those of other stakeholders were defined by default) and there existed a "hierarchy of users" is very visible in the 1928 project bill on "wholesale land- and water organization" of the Uzbek SSR: draft bill *O sploshnom zemleustroistve i vodoustroistve UzSSR*, 13 February 1927, O'MA, f. r-88, op. 1, d. 1832, ll. 56-63. See also: L. V. Uspenskii, "K voprosu o iuridicheskoi prirode zemleustroistva i vodoustroistva," *Narodnoe Khoziaistvo Srednei Azii*, no. 8-9 (1926): 9-17, which cites the pre-revolutionary experts F. G. Nekrasov and O. Khauke.

²⁴⁸ Ostrom, *Governing the Commons*, 8-11.

This observation, however, is not the most interesting outcome which a (simple) attempt to use Ostrom's basic models can produce. It is far more intriguing to observe that, parallel to the final consecration of GUiZiZ's 'Leviathan'-style approach, the spokespersons of the Kazakhs did *not* formulate their ideas on how the common-pool resources should be used in terms of internal self-regulation (of the kind Ostrom describes throughout her book as the 'alternative way' in various forms).²⁴⁹ Such self-regulation might have been the initial scenario: Kazakh society had, after all, elaborated forms of self-regulation for the exploitation of pastureland, although scholarship on their long-term ecological and economic sustainability is still insufficient to evaluate them. This self-regulation was implicitly acknowledged by the reference to 'customs' in the relevant article of the Turkestan Statute. Rather than referring to this, Kazakhs stakeholders increasingly talked about their private property (*sobstvennost'*) on the land: the language Vapishev was using was that of Ostrom's 'privatization' model.²⁵⁰ From another viewpoint, it was the language of private property that Russian authorities thought the Kazakhs would use more and more: this is precisely what persuaded Pahlen – otherwise a strenuous opponent of the GUiZiZ – to side with the latter on the specific matter of the Chimkent *darmina* land. Pahlen might have sympathized with claims made in the name of the wisdom of Kazakh self-regulatory mechanisms in the access to common-pool resources (as Shakhnazarov did in his report), but he could not stand that the same claims could rely on property (*sobstvennost'*) rights. It is unlikely that he positioned himself in such way because he was afraid of a 'tragedy of the commons',²⁵¹ though: Pahlen

²⁴⁹ Ostrom, *Governing the Commons*, 15-21 and *passim*.

²⁵⁰ Ostrom, *Governing the Commons*, 12-3.

²⁵¹ The reference is obviously here to: G. Hardin, "The Tragedy of the Commons," *Science*, 162 (1968): 1243-8.

was more worried by the breach this expansion of the (hitherto ambiguous) domain of ‘property’ would have opened in the overall juridical and governance framework of Turkestan, by introducing an undesirable spill-over from the Islamic juridical system (where ‘property’ among the ‘natives’ had been confined) to the Russian imperial one.

One can now turn to the broader implications of the State’s adoption of a ‘Leviathan’ approach to the governance of Turkestan’s *Artemisia Cina*, namely the contemporary shift one observes in the respective positioning of the metropolitan and colonial authorities *vis à vis* the opportunity of a *de facto* monopoly on santonin production. As hinted at in the introduction, works that are still cited as reference for the economic history of Central Asia lack nuancing in their treatment of ‘monopolization’ as a characteristic feature of the colonial period.²⁵² The reader will remember that, in the 1880s, it was the Turkestan governor-general, Cherniaev, who had most strongly supported the claims for exclusivity of those who intended to invest in the industrial transformation of *darmina* in Chimkent, against the central government – and, in particular, of the minister of Finance of that time, Nikolai Kh. Bunge. By the first decade of the twentieth century, on the contrary, the overall position of the Turkestan governor-generalship had evolved and was now opposing the exclusive privileges which the Ivanov-Savinkov plant had been enjoying. In this way, Tashkent held views that were diametrically opposed to those of the ‘centre’. Yet, it would be excessive to see in Tashkent’s attitude an opposition to monopolies *as such*: the actors that needed protection were not other industrialists, but those who had claims on the same resource (the land where *Artemisia Cina* grew), but intended to use it in different ways. The crucial point was less the number of those who could encroach upon them by renting the right to harvest *darmina*, than the protection of the Kazakhs’ usage rights, although it is not clear whether the colonial

²⁵² Veksel’man, *Rossiiskii monopolisticheskii i inostrannyi kapital*.

authorities acted out of humanitarian concern, fear of unrest, or the defence of their administrative and fiscal prerogatives. In other words, for both sides of the debate the question of industrial monopoly underpinned other pressing issues, namely resource conservation and their efficient use on one hand, and the nomads' land rights on the other. This suggests the need for a reappraisal of the subjective reasons for the expansion of monopolist capitalism in Russia's Central Asian colonies.

From another perspective, the history of the transformation of *Artemisia Cina* in Turkestan provides counter-evidence to the commonplace idea that Russian imperial policies aimed at nipping in the bud any form of industrialization in the colony. Ivanov and Savinkov were surely confronted by problems, ranging from logistics and transportation, to their scarce knowledge of the terrain (hence the need for Tatar intermediaries). They also found an important obstacle in the lack of financial infrastructure and, in particular, in the bottlenecks that Turkestani juridical pluralism imposed on their relations with local providers of raw materials and services. In the end, this resulted in extra costs related to the risk of contract failure, against which the industrialists tried to fight with the help of the (metropolitan) administration, for instance by trying to exclude intermediaries in the procurement of raw *darmina*. Simultaneously, a comparison between the Ivanov-Savinkov plant and those established in Tashkent by Pfaff and others shows how the lack of network externalities (*e.g.* qualified workers, cheap alcohol from other industries), logistical constraints, and the expensiveness of industrial capital (relative to merchant capital) in the colony justified the choice to limit oneself to the first part of the santonin extraction process and, occasionally, to trade in raw *darmina* for export; investing in the whole production cycle, as the Chimkent industrialists had done, was far less viable in the absence of State protection, as the crisis of the early 1890s (and subsequent difficulties) clearly demonstrated. None of these difficulties derived from an explicit will of the imperial government to stymie the industrialization of

Turkestan. Even less was this the intention of the Turkestan governor-generals, who – from Cherniaev onwards – were worried about social upheavals caused by unemployment and poverty, rather than by the need to guarantee a market for Russian industrial goods.

Going back to the question of conservation, the colonial administration on one hand, and the industrialists and their bureaucratic sponsors on the other, were more convinced of the need of fostering the material interests of some stakeholders, than of protecting *Artemisia Cina* as such. The urge for conservation measures (as a disguise for monopolization and exclusion of the Kazakhs) or, conversely but to a lesser extent, the denial of the need for such conservation were almost always framed in economic terms: what required sheltering was a budding branch of the ‘national industry’ or, vice versa, the survival strategies of an already impoverished Kazakh population that depended on that land for pasture, fuel, and moonlighting in the harvesting season. Shakhnazarov’s report constitutes a deviation from this pattern, in that it tried to demonstrate that conservation was unnecessary on the basis of botanical and statistical evidence; yet, Shakhnazarov too, by including the Kazakhs (rather than Savinkov!) in the local *biota*, ultimately argued against the industrialists’ claims in the name of the welfare of local dwellers.

These circumstances, as well as the ambiguous position of policy-makers at different levels, make the inclusion of this episode in the framework of any sort of ‘green imperialism’ à la Grove somewhat problematic, as no coalescence between colonial policy-making and push towards environmental protection is clearly discernible. Quite on the contrary, the need for conservation was voiced by private actors, while the metropolitan administration and a small minority of colonial officers endorsed it because it was worth protecting the latter’s investments, rather than the environmental resources they relied upon. This is where the notion of ‘stewardship’ (*khoziaistvo*), as employed in particular by the GUiZ, differed from the way the same concept of ‘stewardship’ underpinned attempts at ordering, ‘civilising’, and

preserving the usage of other natural resources -particularly forests- in other colonial contexts.²⁵³ In the case explored in this article, the connotation of *khoziaistvo*, which the State ended up asserting through monopolist entrepreneurs, was less about wisdom and more about supremacy, whilst the cause of conservation was inextricably wedded to that of private exploitation. These circumstances might perhaps help explain the ambiguous place of scientific and technical knowledge in the decision-making process about the exploitation of *darmina*.

Last but not least, alongside other recent research, the history of the industrial exploitation of *Artemisia Cina* in Tsarist Turkestan upends commonly held notions about ‘centre’ and ‘periphery’ in the unfolding of nineteenth-century global capitalism. The initial founders of the Chimkent plant had to reckon with the local natural and social landscape – although they found it convenient to blame Hamburg-based drug merchants for their woes. Even the last monopolist, Viktor M. Ivanov, despite the protection he enjoyed at the hands of the State, found local practical conditions -including the economic initiative of non-Russians- to be overwhelmingly important. Even though Chimkent-produced santonin was sold worldwide and the very existence of the Chimkent plant supposed international trade in capital goods and technical-scientific knowledge, ultimately much depended on the materiality of *Artemisia Cina* itself, its embeddedness in the *biota* of local Kazakh nomads, and the social and economic structures necessary to its procurement.

Acknowledgements

²⁵³ See e.g. S. Ravi Rajan, *Modernizing Nature: Forestry and Imperial Eco-Development 1800-1950* (Oxford: Oxford University Press, 2006).

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The author declares none.

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