Travniki, Travniki, and Travniki:

Herbals, Herbalists and Herbaria in Seventeenth-Century and Eighteenth-Century Russia¹

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Abstract:

This essay provides a sustained investigation of the term travnik, a capacious word that came to mean herbalist, herbal and herbarium over the course of the seventeenth and eighteenth centuries. Though different in physical form, all three were united during this period by the body of knowledge they contained about the botanical world. Taken together they reveal the ways in which knowledge of plants, from folk collecting traditions, to medical botany, to binomial nomenclature, was generated in the productive tension between foreign expertise and local knowledge. The focus here on translation highlights the diverse array of influences that contributed to the early modern Russian conception of the natural world. The travnik as herbal is explored through two centuries of secondary sources, while the travnik as herbalist relies heavily on published primary documents. The third section on the travnik as herbarium focuses on eighteenth century herbaria and the transposition of new scientific methods onto older forms of knowledge making.

Keywords:

Plants, Russian Orthodox Church, Apothecary chancellery, St. Petersburg Academy of Sciences, herbalists, herbarium, magic, witchcraft, botany, science, translation, knowledge production.

Introduction

The word *travnik* was a capacious one in Muscovy, and indeed it needed to be. Meaning at one and the same time herbal, herbalist and somewhat later, herbarium, the shifting boundaries of the *travnik*'s various definitions reveal how the early modern Russian understanding of nature, health, and disease was characterized by the repeated conceptual slippage between magic, medicine, and poison in the botanical world. This essay begins with what might be considered the coincidence of a series of ambiguous translations. It then takes those translations and follows them through the secondary and published archival literature to demonstrate how meaningful this particular ambiguity could be. By exploring the term *travnik* in most if not all of its early modern manifestations, this essay attempts to answer the question of how Muscovites came to know, differentiate, and use the plants that surrounded them. How did they make that knowledge both legible and durable?

¹ I would like to thank The Lichtenberg-Kolleg at the University of Göttingen for support in researching and drafting this piece. I am also deeply grateful to the anonymous reviewers at *Vivliofika* for their thoughtful and challenging suggestions.

And how, ultimately, did that knowledge fit into other knowledge systems, the most conspicuous being western science and medicine, then streaming into Russia?

As this essay will show, Russians in the early modern period relied on a number of tools familiar to historians to generate, record, and transfer knowledge about the natural world. This included institution building, manuscript production, and keeping gardens. Key to this infrastructure of knowledge production were the relationships forged between foreign experts and their Russian informants. When it came to plants, there was no shortage of local information. Officials in the Apothecary chancellery (*Aptekarskii prikaz*) and high-ranking members of the Orthodox Church had long been interested in plants as possible *materia medica*, though they also feared some plants as possible *materia magica*. In attempting to generate a reliable body of knowledge about plants in the Russian domain, the chancellery and the church brought together foreign experts with local peoples, often peasants, linking them indirectly with itinerant Russian-speaking gobetweens and more stationary, polyglot Russian secretaries.

"Knowledge making" as a concept has recently provided an important historiographical intervention for early modern studies of science and medicine. A focus on knowledge making over and above more narrow definitions of "science" or even "scientific practice" significantly expands the field of the history of science by centering nature and the study of it. Doing so allows historians of science to move well beyond the old chronological and geographical parameters set by the concept of the Scientific Revolution and the primacy that concept gives to Western Europe as the birthplace of scientific practice. Reappraising the concept of the Scientific Revolution and expanding the definition of scientific practice has been an element of the constructivist approach to the history of science in general since the early 1990s.² Shifting the focus away from a post-war definition of "science" towards knowledge making in the natural world helps us move away from the deeply iterative notion of "revolution" and toward a more "relational" approach to the history of science, one that seeks comparisons across cultural and chronological boundaries. This relational approach has what Kapil Raj calls "cascading implications" for the discipline, including an embrace of the "wider social, cultural and economic dynamics of societies in interaction."³ A focus on knowledge making, as a part of this expansion of method in the history of science, has allowed for the inclusion of multiple practices, from the alchemical to the artistic to the artisanal, in the definition of "science," and has led to the inclusion of the work of women and indigenous peoples in the narrative history of that practice.⁴ With its emphasis on

² Jan Golinski, *Making Natural Knowledge: Constructivism and the History of Science* (Cambridge: Cambridge University Press, 1998); David C. Lindberg and Robert S. Westman, eds., *Reappraisals of the Scientific Revolution* (Cambridge: Cambridge University Press, 1990).

³ Kapil Raj, "Thinking Without the Scientific Revolution: Global Interactions and the Construction of Knowledge," *Journal of Early Modern History* 21 (2017): 9.

⁴ Margaret J. Osler, ed., *Rethinking Scientific Revolution* (Cambridge: Cambridge University Press, 2000); Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago: University of Chicago Press, 2004); Pamela H. Smith and Benjamin Schmidt, eds., *Making*

making, this body of literature privileges the process over the product, drawing out the techniques by which the natural world came to be known in different historical and cultural contexts.⁵

In early modern Russian studies the concept of knowledge making has been no less useful. Valerie Kivelson's work on Muscovite cartography engages deeply with the idea that the practices by which maps were made locally contributed to the larger sense of Russia as a distinctly spatial empire in the seventeenth century.⁶ What these local cartographic practices revealed was not just what the Russian Empire knew of the shape of its own territory, but importantly how it came to that knowledge. In Kivelson's case it was through the systematic exploitation of local informants working in combination with surveyors, cartographers, and Russian officials. More recently Nikolaos Chrissidis has offered a new interpretation of how religious and secular knowledge was conceived of, organized, and then taught to students in the seventeenth-century Slavo-Greco-Latin Academy in Moscow.⁷ Much like Kivelson, Chrissidis is interested in the practices by which knowledge was accumulated and translated across early modern Russian space. Tracing the paths by which Jesuit texts and pedagogical practices made their way into Muscovy, Chrissidis focuses on scholarly knowledge-making practices and their influence within Russia. What both these authors demonstrate is not just that knowledge was made in Muscovy, that goes without saying, but that answering the question of how it was made constitutes a new direction in early modern Russian history.

Much of this recent work focusing on knowledge making, both in the history of science and Russian history, hinges on issues of translation. The physical translation of knowledge from the provinces to Moscow and the distillation of local knowledge about property lines into Muscovite maps is crucial to Kivelson's claim that Muscovy understood itself in spatial terms. Meanwhile, Chrissidis shows how the enlightenment project of the Slavo-Greco-Latin Academy established in Moscow in the 1680s was fundamentally undergirded by the need to produce translators and

Knowledge in Early Modern Europe: Practices, Objects, and Texts, 1400-1800 (Chicago: University of Chicago Press, 2008).

⁵ The literature here is too great to cite fully, however the foundational text for this mode of thinking is Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton: Princeton University Press, 1985). Influential for the inclusion of early modern life sciences is N. Jardine, J. A. Secord, and E. C. Spary, eds., *Cultures of Natural History* (Cambridge: Cambridge University Press, 1996). More recently this literature has turned towards globalizing the history of scientific practice, making profound contributions in the process. See Jorge Cañizares-Esguerra, *Nature, Empire, and Nation: Explorations of the History of Science in the Iberian World* (Stanford: Stanford University Press, 2006); Alan Mikhail, *Nature and Empire in Ottoman Egypt: an environmental history* (Cambridge: Cambridge University Press, 2011); Kapil Raj, *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650-1900* (New York: Palgrave Macmillan, 2007); Dagmar Schäfer, *The Crafting of the 10,000 Things: Knowledge and Technology in Seventeenth-Century China* (Chicago: University of Chicago Press, 2011).

⁶ Valerie Kivelson, *Cartographies of Tsardom: The Land and its Meaning in Seventeenth-Century Russia* (Ithaca: Cornell University Press, 2006).

⁷ Nikolaos Chrissidis, *An Academy at the Court of the Tsars: Greek Scholars and Jesuit Education in Early Modern Russia* (DeKalb: Northern Illinois Press, 2016).

scribes for Muscovy's expanding chancellery infrastructure. Of the few informal schools that existed before the establishment of the Slavo-Greco-Latin Academy, Chrissidis writes that that they were specifically oriented toward "the preparation of translators, correctors, and proofreaders of liturgical books, as well as the acquisition of chancellery clerks of skills in foreign languages."⁸ Though the Academy Chrissidis studies sought to go beyond these "narrowly utilitarian" goals with a much broader humanistic program the need for such useful individuals had been clear well before the early modern period.⁹ Before the creation of formal schools, many chancelleries trained their own secretaries and translators.¹⁰ Long a crucial endeavor within the Orthodox Church, translation and the training of translators, expanded over the course of the seventeenth century into a state-sponsored project helping to usher in the kinds of secular reform that set the stage for institutions like the Apothecary chancellery and, more than a century later, the Academy of Sciences.

"Knowledge making" and "translation" therefore are at the heart of this essay. In exploring how one word, *travnik*, could be translated either as an individual person, as a text, or as a technique, this essay points equally to the act of translation and to the body of knowledge each term ostensibly shared as revealing of the Muscovite conception of the natural world. Fundamental to this conception is the deep concern with housing a specific corpus of knowledge in the body of the *travnik* regardless of the form that body took.

The difference between a herbal, herbalist, and herbarium could be and probably was indicated by context, but Russian was a rich language at this time with a number of different terms for each of these things. A herbal for instance could be called a *zel'nik*, a *lechebnik* or a *vertograd*, just as easily as it could be called a *travnik*. All three would have been defined by their focus on plants and the manufacture of medicine, as their root words "zel'e" (greens), "lech'ba" (medicine) and "trava" (herbs, grasses) all indicate. But they would also have included sections on minerals like sulfur and mercury, as well as naturally occurring compounds like camphor.ⁿ V. F. Gruzdev, an influential Soviet historian of Russian herbals, suggested in the 1940s that there were specific and meaningful differences between the names derived from these words, arguing

Lechebniki are without a doubt of Russian origin, the primary example being the *travniki*: on the other hand, the *vertogrady* appear to consist of translations of medical texts imported from western Europe [...] many of

⁸ Chrissidis, Academy at the Court, 85.

⁹ Simon Franklin, *Writing, Society and Culture in Early Rus, c. 950-1300* (Cambridge: Cambridge University Press, 2002).

¹⁰ Natal'ia Demidova, "Prikaznye shkoly nachal'nogo obrazovaniia v Moskve XVII v.," in *Torgovlia i predprinimatel'stvo v feodal'noi Rossii*, eds. L. A. Timoshina et al. (Moscow: Arkheograficheskii tsentr, 1994).

^u L. F. Zmeev, *Russkie Vrachebniki: issledovanie v oblasti nashei drevnei vrachebnoi pis'mennosti* (St. Petersburg: Tipografiia V. F. Demakova, 1895), 258.

which contain foreign terms and references to authorities such as Hippocrates, Avicenna and other scholars unfamiliar to Russian medicine.¹²

And while there may well be tonal differences between the words *travnik*, *lechebnik*, and *zel'nik* themselves, Gruzdev's attempt to define those differences according to histories of translation has not been taken up by more recent scholars. Meanwhile, even if *travnik* was the preferred term for a traveling herbalist, the *pomias* who was often employed in the tsar's kitchens (*kormovyi dvor*) appeared in the same role almost as often. ¹³ *Pomiasy* were dispatched by the Apothecary chancellery along with *travniki* as herbalists for the collection and preparation of medicinal plants in the field. In one instance recorded in the summer of 1645 several *pomiasy* were ordered to go from the kitchens to the Apothecary chancellery to "become herbalists" (*na peremenu travnikam*). ¹⁴ The relation between *travnik*, herbal, and herbalist was probably never one-to-one. This essay therefore focuses not on teasing apart and pinning down differences, but on recognizing the similarities between the acts of translation and bodies of knowledge that *travniki* in all of their varied forms were meant to contain.

Herbalists: The travnik as individual

The evidence for herbals in Russian history predates the evidence for herbalists by at least a century.¹⁵ Herbals are rich texts that often combine vastly different medical, religious, and philosophical traditions.¹⁶ Scholars like A. S. Lavrov emphasize that the herbal opened up a certain kind of medical knowledge to whomever was literate, writing "a *travnik* could be used by anyone – from the slave to the nobleman."¹⁷ They did however require some initiation. They were illustrated, for instance, but in a highly stylized manner.¹⁸ What they included by way of

¹² V. F. Gruzdev, *Russkie Rukopisnye Lechebniki* (Leningrad: Voenno-morskaia meditsinskaia Akademiia, 1946), 16.

¹³ A *pomias* is defined as a person responsible for keeping watch over stores of meat. *Slovar' tserkovno-slavianskogo i russkogo iazyka*, vol. 3 (St. Petersburg: Imperatorskaia Akademiia Nauk, 1847), 331.

¹⁴ N. E. Mamonov, *Materialy dlia istorii meditsiny v Rossii*, 4 vols. (St. Petersburg: B. G. Ianpol'skago, 1881-85), vol. 3, 578.

¹⁵ The earliest herbal I have encountered (in digitized form) dates to 1534 while the earliest archival documents mentioning herbalists date to the 1630s.

¹⁶ Agnes Arber, *Herbals: Their Origin and Evolution. A Chapter in the History of Botany, 1470-1670* (Cambridge: Cambridge University Press, 1953); Karen Meier Reeds and Tomomi Kinukawa, "Medieval Natural History," in *The Cambridge History of Science. Volume 2: Medieval Science*, eds. David C. Lindberg and Michael H. Shank (Cambridge: Cambridge University Press, 2013); Jerry Stannard, *Herbs and Herbalism in the Middle Ages and Renaissance* (Aldershot: Ashgate Variorum, 1999).

 ¹⁷ A. S. Lavrov, *Kholdovstvo i religiia v Rossii, 1700-1740 gg.* (Moscow: Drevlekhranilishche, 2000), 89.
¹⁸ On the illustration of Russian manuscript herbals, see A. B. Ippolitova's contribution to this volume. On Russian botanical illustration in the early eighteenth century, see A. K. Sytin, "Osobennosti russkoi botanicheskoi illiustratsii pervoi poloviny XVIII veka," *Herba* (2009), <u>http://herba.msu.ru/journalsplus/Herba/icones/sytin2.html</u> (accessed October 24, 2018). For a

description was usually just enough identifying information that a knowledgeable individual could reasonably guess what plant might be under discussion given both experience and the opportunity for immediate comparison. Herbals therefore relied on a certain depth of knowledge already assumed of the reader. While there is a great deal of evidence to support the existence of the sixteenth-century herbal, there is less to suggest there was such as person as a sixteenth-century herbalist. The herbal itself, however, in how it structures information implies the existence of the knowledgeable herbalist, for whom documentary evidence starts only in the seventeenth century.

A great deal less is known about the *travnik* as herbalist than is known about the *travnik* as herbal. The two are connected more or less exclusively by the root word *trava* and by the Apothecary chancellery they both served. They rarely cross paths in the published archival documents examined here. Herbalists for example do not seem to have been the authors of any herbals. Herbalists however were, by and large, literate as they traveled with and generated their own lists (*rospisi*) of plants.¹⁹ They met not physically but in a very real sense in the chancellery, at the desk of the chancellery secretary if only as paperwork. A treatise on valerian root by Samuel Collins, for instance, was translated into Russian by a Russian-speaking secretary as part of the normal course of chancellery business. It was the secretary who apparently took the opportunity to insert excerpts from a Russian herbal into Collins' western medical treatise on the desk of the chancellery secretary who prepared and sent the combined document on to his superiors.

The Apothecary Chancellery, in which Samuel Collins was employed, had been established in the first half of the seventeenth century. In its previous sixteenth-century incarnations, as an "*izba*," as "*dvor*" and as a "*palata*", it functioned as a branch of the tsar's household and was responsible for producing, among other things, horse feed, the herbal components of holy miro (*miro*), and potent herb-infused liquors among other things. ²¹ Which is to say, it was responsible for procuring fresh plants and producing distillates ritually important and intimately a part the tsar's and the Patriarch's households. ²² Yet over the course of the seventeenth century, the chancellery grew more independent of the tsar's household,

broader treatment of the historical development of botanical illustration see W. Blunt and William T. Stearn, *The Art of Botanical Illustration* (London: Antique Collectors Club, 1994).

¹⁹ Mamonov, *Materialy*, vol. 2, 458, 461-464, 468. Antoshka Ivanov, who is referred to in one document as a "*pomias*" but who refers to himself as a "*travnik*," refers several times to the lists (*rospisi*) of plants that he generated over the course of his time collecting in the village of Chashnikovo in the summer of 1672.

²⁰ I thank Clare Griffin for pointing out this instance to me. Mamonov, *Materialy*, vol. 3, 791-4.

²¹ Mikhail Sokolovskii, "Kharakter i znacheniie deiatel'nosti Aptekarskago Prikaza," *Vestnik Arkheologii i Istorii* 16 (1904), 61.

²² Rachel Koroloff, "The Patriarch and the Apothecary: Planting Gardens and Making *Miro* in Seventeenth-Century Moscow," in *Sound and Scent in the Garden*, ed. D. Fairchild Ruggles (Washington DC: Dumbarton Oaks Research Library and Collection, 2017).

becoming its own *prikaz* with its own funding by the 1660s.²³ By this time it was staffed by foreign doctors who rarely spoke Russian and relied on the labor of Russian secretaries, copyists, and translators all of whom reported to the head of the chancellery, a Russian nobleman or *boyar* who was directly responsible to the tsar for the purity and effectiveness of the pharmacy's medicines.²⁴ Historian W. M. Richter reports that as early as 1678 the chancellery (Apothekerbehörde) had in addition to doctors, surgeons, and pharmacists: pharmacy students (aptekarskoi nauki ucheniki), secretaries (pod'iachii), student surgeons (lekarskago dela ucheniki), bone setters (kostopravy), surgeons specializing in venereal disease (chepuchinnago dela lekari), surgeons specializing in the throat (gortannago dela lekari), herbalists (travniki), distillers (destillator), interpreters (tolmachi) and guards (storozha).²⁵ The foreign doctors and pharmacists of the chancellery likely knew the herbs that were necessary for their medicinal recipes by their Latin or Greek names. To secure, therefore, a certain amount of fresh Artemisia abrotanum required someone or something that could translate that name into the more common Bozh'e derevo. The travnik as herbal, listing Greek, Latin and Russian common names satisfied this function. From there, the *travnik* as herbalist took over locating these herbs in Russia's fields and forests.

The archival trail for the existence of the Russian *travnik* as herbalist begins in the 1630s when the Apothecary chancellery began generating documents ordering local individuals called *travniki* to travel outside of Moscow to collect plants for its pharmacies and gardens. The *travniki* themselves were usually urban people (*posadskie liudy*) or attached to the tsar's household (*dvorskie liudy*). Apothecary chancellery documents ranging from 1630s through the 1670s show that *travniki* were routinely dispatched to perform a variety of duties. Generally small groups of four to six *travniki* were gathered by the chancellery in the spring, which then named a single individual as the head of the group. Specific destinations were often mentioned in the decrees as were specific plants. *Travniki* were sent, for instance, to places like Tomsk, Tobol'sk and greater "Siberia" for *zveroboi* (possibly St. John's Wort),²⁶ while they were sent to Kazan many times over for the plant known as *chechuinye*.²⁷ In Saratov and Voronezh and Korotiak on the Don, they were asked to collect the roots of the *solodka* plant, known for its slight sweet, edible root.²⁸ They were sent to Smolensk and Polotsk to collect *konsolida* root, while in the village of

²³ K. S. Khudin, "Stanovlenie mozhzhevelovoi povinnosti v Rossii v XVII v. (po materialam fonda Aptekarskogo prikaza RGADA)," *Vestnik RGGU* 21 (2012), 121.

²⁴ Clare Griffin, "In Search of an Audience: Popular Pharmacies and the Limits of Literate Medicine in Late Seventeenth- and Early Eighteenth-Century Russia," *Bulletin of the History of Medicine* 89 (2015): 705-732.

²⁵ W. M. Richter, *Geschichte der Medicin in Rußland*, vol. 2 (Moscow: Wsewolojsky, 1815), 5 n.1.

²⁶ For zveroboi see Mamonov, Materialy vol. 3, 607; N. Novombergskii, Materialy po Istorii Meditsiny v Rossii, 5 vols. (St. Petersburg: M. M. Stasiulevicha, 1905-10), vol. 1, 181-182; Annenkov, Botanicheskii Slovar' (St. Petersburg: Tipografiia Imperatorskoi Akademii Nauk, 1878), 172-3.

²⁷ For *chechuinye* see Mamonov, *Materialy*, vol. 2, 266-7; Mamonov, *Materialy*, vol. 3, 714-719; Novombergskii, *Materialy*, vol. 1, 97; Annenkov, *Botanicheskii Slovar*', 265.

²⁸ For solodka see Mamonov, Materialy, vol. 3, 738; Annenkov, Botanicheskii Slovar', 159.

Dmitrova, it was various kinds of berry bushes they were asked to uproot and bring back to the tsar's garden.²⁹ In Kolomna they collected a great deal of the plant black *chemeritsa* (possibly the same as False Hellebore or Corn Lilly).³⁰

Each one of these destinations is the subject of a different chancellery decree, usually with named *travniki* attached. Sometimes the directions given to the *travniki* by the chancellery were vaguer. Groups were sent both to Nizhnii Novgorod, which is rather far from Moscow, and to the village of Chashnikovo, which is quite close, simply to collect "herbs, roots and flowers" (*travy, koren', tsvety*) and "the plants that they know."³¹ In other decrees it is the destination that is vague, asking the *travniki* to travel "to the forest," "into the field" or "around Moscow" for their collections. In addition to this, the fact that the chancellery documents considered here all refer to the necessary plants using Russian common names, the knowledge and expertise of the individual herbalist is assumed rather than prescribed by the chancellery. *Travniki* were expected to be able to perform with little or no supervision and in one instance the decree announcing the arrival of the travelling group of herbalists to local officials included an admonition to the local governor to let them work more or less in peace.³²

Travniki tended to work independently within the locale to which they were sent but when local people could be useful they were readily brought into the herbalist's work on the authority of the chancellery in Moscow. *Travniki* were indeed often expected to organize local peasants to help with particularly large orders. Written into one directive penned at the chancellery, a local governor was instructed to provide the visiting herbalists with "the children of peasants," which seems likely to have been asking for actual children, albeit appropriately aged and relatively unoccupied.³³ Peasants were expected to help with collection and preparation as well as with transporting the collected herbs, roots and berries back to the chancellery in Moscow.

Some groups of peasants complained about these added responsibilities of aiding the collection events, labor not otherwise included in their official obligations to the state. Some Cossack communities on the Don River, for instance, refused to fulfill orders for *solodka* root saying it did not grow that year and further, it was not their responsibility to collect it.³⁴ In this case, at least, the *travniki* dispatched by the

²⁹ For *konsolida* see Novombergskii, *Materialy*, vol. 1, 92. For the berry bushes of Dmitrova, see Mamonov, *Materialy*, vol. 3, 773.

³⁰ For *chemeritsa* see Novombergskii, *Materialy*, vol. 1, 98; Novembergskii, *Materialy*, vol. 3, 797; Annenkov, *Botanicheskii Slovar*', 373.

³¹ For Nizhnii Novgorod, see Mamonov, *Materialy*, vol. 2, 246, 254-5; for Chashnikovo see Mamonov, *Materialy*, vol. 2, 458-469.

³² The exact injunction to governor Nepostavov is: "велеть травником Великого Государя на обиход травы и ягоды збирать и подрячиков с ягоды выслать, и над травниками смотрет не оплошно; а будет ты над травникми смотреть не учнешь, а травники трав збирать не станут и время спустят." Mamonov, *Materialy*, vol. 2, 458.

³³ N. Novombergskii, *Vrachebnoe stroenie v do-Petrovskoi Rusi* (Tomsk: Parovaia tipolitografiia Sibirsk, 1907), 124-5.

³⁴ Mamonov, *Materialy*, vol. 2, 247-8.

chancellery collected what they could, while the local governor filed a report making excuses for the small turnout.

Other groups of peasants were entirely familiar with these collection decrees because they had become a seasonal obligation. One particularly well-documented obligation was born by the peasants of Iaroslavl', Rostov, and Pereslavl'-Zalesskii. The juniper obligation (*mozhzhevelovaia povinnost*') that fell to these communities brought yearly decrees to their governors and village elders to secure great quantities of juniper berries and branches for the Apothecary chancellery.³⁵ Though it is entirely likely that *travniki* collected, among other things, juniper berries, in the case of the juniper obligation, the plant was so well known that the expertise of the travelling herbalist was not necessary. The point of connection, therefore, between the *travnik* and the peasant occurred primarily in seizing the peasant's time and labor during unique collection events. In one case, for instance, having come to town and finished a collection, the chancellery's *travniki* arranged for a village elder to escort everything back to Moscow, where he was to give a report (orally, we might suppose) as to what exactly had been collected and from where.³⁶ While *travniki* themselves may not have been of the peasant soslovie, they nevertheless constitute a significant (if obscured) point of access to peasant knowledge within the chancellery system.

It has been suggested that Russian herbalists constitute an entirely "original system" of plant collection and preparation in Russia, that is, a system which arose of its own accord without overriding influence from the outside.³⁷ Whether it was "original" or not, this kind of herbalism occupied an important middle ground between local Russian cultures of bodily care and foreign influences for *travniki* at once combined local knowledge of Russian plants with increasing access to foreign medical practice through the Apothecary chancellery, actively helping to translate (in both senses of the word) Russian flora into a western pharmacopoeia.

Herbals: the travnik as text

The evidence for a tradition of identifying, collecting, and cultivating medicinally useful plants dates back in Russia to the medieval period.³⁸ One of the earliest examples of a Russian manuscript herbal is the *Blagoprokhladnyi Vertograd*, or *Travnik* of 1534, produced in Moscow by the physician Nicolaus Bülow at the behest

³⁵ Khudin, "Stanovlenie mozhzhevelovoi povinnosti"; I. Ia. Gurliand, *Mozhzhevelovaia povinnost*': *Materialy po istorii administratsii Moskovskogo gosudarstva vtoroi poloviny XVII veka* (Iaroslavl': Gubernskoe Pravlenie, 1903).

³⁶ Mamonov, *Materialy*, vol. 2, 459.

³⁷ A. V. Artsikhovskii, *Ocherki russkoi kul'tury XVII v.*, vol. 2 (Moscow: Izdatel'stvo Moskovskogo Universiteta, 1979), 69.

³⁸ V. D. Chernyi, *Russkie srednevekovye sady: opyt klassifikatsii* (Moscow: Rukopisnye pamiatniki drevnei rusi, 2010).

of Metropolitan Daniil for the ailing prince Vasilii Ivanovich III.³⁹ The *Hortus Sanitatus* by Johann von Cube (1492) from which the *Travnik* of 1534 was likely translated brought together more than 400 individual plants from across Europe, the Mediterranean and the Levant. It provided Greek, Latin and Arabic as well as common German names for each plant along with a brief description and somewhat longer discussion of its medicinal uses. The *Hortus* was itself a compilation of other texts and thus the Russian translation in which the Slavic names appear either within the text or in the margins is well in keeping with the nature of herbals more broadly as a dense accumulation of many bodies of knowledge.⁴⁰

Several copies of the 1534 *Travnik* still exist in Russia today, and the text held by the library of the V. N. Kazarin Kharkiv National University in Kharkiv, Ukraine has been digitized and significant portions of the work have been made available online (See Figure 1).⁴¹ An additional 1616 manuscript edition of the *Travnik* detailed by L. F. Zmeev provides a useful published compliment to the portions provided by Kharkiv National University.⁴² A combination of resources, from authoritative reproductions, to archival digitization projects, to sustained historiographical interest dating back to the nineteenth century allow for the reinvigorated investigation of Russian herbals in the context of knowledge making at the turn of the seventeenth century.

Figure 1 features the plant "Abrotanus" or "Bozh'e derevo." It is typical of the entries in this *Travnik* from 1534 and demonstrates a format that seems to have been preserved for many of the translated herbals in the seventeenth and eighteenth centuries. The entry begins with a rubric of sorts, where the many names of the plant, including Latin, Greek, German and Arabic, are given in red. If the Russian name is not included in the initial line, it is often (but not always) written in the margins or next to the illustration, as has been done here.

Another herbal popular in the early modern period, Dioscorides' *De Materia medica*, follows a similar pattern. Originally written by the Greek physician Pedanius Dioscorides in the first century CE, it was edited and revised most famously by Pietro

³⁹ T. A. Isachenko, *Perevodnaia moskovskaia knizhnost': Mitropolichii i patriarshii skriptorii XV–XVII vv.* (Moscow: Rossiiskaia gosudarstvennaia biblioteka, 2009), 128-29.

⁴⁰ The *Hortus Sanitatus* of Jacob Meydenbach first published in Mainz in 1491 while the *Hortus Sanitatus* of Johann von Cube first appeared in print in Lubeck 1492. Von Cube's edition borrowed somewhat from Meydenbach's, as was common practice in the era of early printing, and likely provided the original text from which Bülow completed his translation. See Arber, *Herbals*, 18-33 for discussion of these two editions of the Hortus. See David B. Miller, "The Lübeckers Bartholomäus Ghotan and Nicolaus Bülow in Novgorod and Moscow and the Problem of Early Western Influences on Russian Culture," *Viator* 9 (1978): 385-412 for discussion of Bülow and his translation of the *Hortus*. ⁴¹ Isachenko bases her discussion on two copies of the *Travnik*, one located at The Russian State Archives of Ancient Acts, Moscow (RGADA) with the shelf mark RGADA, F. 188, No. 649 (originally in the Uvarov collection) and the other at the V. N. Kazarin Kharkiv National University in Kharkiv, Ukraine with the shelf mark TsNB (Central Scientific Library) 121 – p. 159/c. The discussion here is based entirely on secondary source descriptions and the digitized portions of the text (TsNB 121 – p. 159/c) provided by the V. N. Kazarin Kharkiv National University:

http://escriptorium.univer.kharkov.ua/handle/1237075002/1975.

⁴² Zmeev, *Russkie vrachebniki*, 5-20.

Andrea Mattioli in 1544 and ran into many editions in a number of languages.⁴³ Mattioli's work, like von Cube's, was essentially a concordance, seeking to identify equivalents of Dioscorides largely Mediterranean plants with those in northern Europe. A copy of Mattioli's text was kept in the library of the Apothecary chancellery and, following the description of it offered by E. A. Savel'eva, it appears to feature Russian common names penned in chancellery script in the margins.⁴⁴ These herbals, including the translation of von Cube's work and Mattioli's commentary on Dioscorides, were both concerned with the act of concordance and the inclusion of a variety of different names because standardized botanical nomenclature had yet to take hold. It was precisely because this was a period of nomenclatural profusion that Russian common names appeared side by side with their Latin, Greek, German and Arabic equivalents.

Both of these herbals were both popular and authoritative texts from Western Europe, which contained an amalgamation of Greek, Roman, and Arabic medical knowledge, that had been continuously recompiled and retranslated throughout the medieval and early modern periods.⁴⁵ Like the rest of Europe, Russia had its own herbal traditions that relied heavily on borrowing, translation, and recombination of other texts.⁴⁶ Recently, however, A. B. Ippolitova has analyzed the structure and function of specifically Russian manuscript herbals, that is herbals that show no sign of translation. She does this through the lens of folklore, teasing out categories of power among different plants while describing how, for instance, rituals of collection were thought to affect those powers. She describes these folk (*narodnyi*) herbals in the following manner:

[They] are exceptionally diverse (*neodnorodny*), they are characterized by a syncretism, by innumerable manifestations of daily, utilitarian and symbolic characteristics. They concern not just real plants and their domestic and medicinal uses, but also imagined plants, and the even magical properties of real plants which had supernatural powers.⁴⁷

Ippolitova's work is part of a broader trend among recent historians to recover Russian cultural traditions concerning the natural world. In this vein A. V. Chasovnikova has produced a close reading of several plants described extensively in a handful of Russian herbals as indications of the inclusion of distinctly Orthodox belief systems into the creation of plant names and categories. Because her focus is specifically on Orthodox readings of the botanical world, she focuses on plants that are purported to have decidedly Christian meaning and divine power, as well as on

⁴³ Arber, *Herbals,* 81-85; Dioscorides Pedanius and Tess Anne Osbaldeston, *Dioscorides de Materia Medica* (Johannesburg: Ibidis Press, 2000), xxxii-xxxiii.

 ⁴⁴ E. A. Savel'eva, *Katalog knig iz sobraniia Aptekarskogo prikaza* (St. Petersburg: BAN, 2006), 113-117.
⁴⁵ See note 16.

⁴⁶ Gruzdev, Russkie Rukopisnye Lechebniki; A. B. Ippolitova, Russkie rukopisnye travniki XVII–XVIII vekov: Issledovanie fol'klora i etnobotaniki (Moscow: Indrik, 2008).

⁴⁷ Ippolitova, Russkie rukopisnye travniki, 9.

herbals generated within the Orthodox Church.⁴⁸ What these authors have helped to demonstrate is just how much local knowledge Russian herbals, and the traditions of plant knowledge they were based on, had to offer elite institutions like the chancellery and church, and their foreign servitors in Moscow.

Given Ippolitova and Chasovnikova's pioneering work, it would seem that Russia's early "folk herbals" (prostonarodnye travniki) were primarily concerned with what might be called preternaturally powerful plants.⁴⁹ The preternatural or spiritual power of these plants was either imbued in them by processes of collection and preparation, or was simply inherent in the plant itself. Take for example the plant Adamova golova. According to a seventeenth-century travnik transcribed and published by V. M. Florinskii one is supposed to collect this plant by cutting it with a holy cross while saying "Our father, bless me God." Moreover, though this plant is useful for a number of ailments and is often recommended for the complaints of pregnant women, it is particularly potent "for seeing Devils and heretics." To coax this power out of the plant, one is supposed to place the root in holy water and leave it under the alter at church for 40 days. After this, carrying this infusion around allows one to see demons "in the water and in the air."⁵⁰ A shorter entry taken from the same folk herbal details the plant "Akhtomos, which grows like an arrow, it is dark like a raven and its color begins at the tips; this plant is quite good for shchemot. Drink it under a new moon either in vinegar or in milk. If one suffers from a collapsed navel, [take] this herb – and may God help you."⁵¹ Both of these plants, Akhtomos and Adamova golova, show how heresy and evil, like sickness and disease, were understood as real, physical threats. Treating a collapsed naval was not fundamentally different therefore than avoiding devils and identifying heretics. As Eve Levin has argued, it is "exceedingly difficult to disentangle the 'physical' from the 'magical' in the treatment of illness."⁵² Indeed it was the same for the plants as for the medicines derived from them. Plants had both physical and spiritual power. This power, extensively detailed in the *travniki* herbals went to the heart of why outside the walls of sanctioned medical institutions like the Apothecary chancellery

⁴⁸ A. B. Chasovnikova, *Khristianskie obrazy rastitel'nogo mira v narodnoi kul'ture: petrov krest, adamova golova, sviataia verba* (Moscow: Indrik, 2003).

⁴⁹ I follow Lorraine Daston and Katherine Park's use of the term "preternatural" to mean a force, object, or event that registered between the natural and the supernatural, an intermediate ontological category "made up of unusual occurrences that nonetheless depended on secondary causes alone and required no suspension of God's ordinary providence." Lorraine Daston and Katherine Park, *Wonders and the Order of Nature*, *1150-1750* (New York: Zone Books, 1998), 121. While their analysis of preternatural philosophy involves the empiricist rejection of Aristotelian syllogisms and therefore became a tool of the 'new science,' here I use the word so as to maintain the sense that even the very strange in the world of early modern Russian nature was nevertheless entirely natural. ⁵⁰ V. M. Florinskii, *Russkie prostonarodnye travniki i lechebniki. Sobranie meditsinskikh rukopisei XVI i XVII stoletiia* (Kazan: Universitetskaia tipografiia, 1880), 4.

⁵¹ Florinskii, Russkie prostonarodnye travniki, 3.

⁵² Eve Levin, "Healers and Witches in Early Modern Russia," in *Saluting Aron Gurevich: Essays in History, Literature and Other Related Subjects*, eds. Yelena Mazour-Matusevich and Alexandra Korros (Leiden: Brill, 2010), 113.

popular medico-herbal practice was often interpreted as witchcraft and prosecuted as such.

The study of witchcraft has provided several key insights into the Muscovite conception of the natural world and specifically the world of plants. It is difficult to read trial records without noticing the sheer number of plants and plant parts involved. The deep suspicion with which roots, leaves, and sticks are treated by Muscovite officials, and the presence of chancellery doctors in trial proceedings indicate how important policing the boundary between the magical and the medical was in Muscovy. Valerie Kivelson's work on witchcraft has especially informed the discussion, but so too has the work of Eve Levin and Christine Worobec.⁵³ All three scholars analyze witchcraft using trial records, focusing respectively on issues of state power, health and disease, and gender. In each case they turn up a great deal of information on how plants surfaced in the courts as evidence of magical practice and how claiming they were in fact medicinal was no sure defense. W. F. Ryan in his work, *The Bathhouse at Midnight*, draws the connection even more clearly between plants as *materia medica* and plants as *materia magica* when he writes:

The word *zel'e* in Old Russian may mean "herb; medicine; magic potion; poison"; the word *potvor* may mean "magic and witchcraft, poisoning, poison, potion, herb." It is found as a translation of Greek *mageia*, *goeteia*, *pharmakeia* and *pharmakon*). In this semantic grouping the Greek *pharmakon* is perhaps the most significant, since the Greek word is used regularly to mean "poison", "medicine" or "magic" and is probably the source of the association of ideas in the Roman and the various Christian traditions.⁵⁴

It is the threat that many plants pose of crossing the boundary between medicine, magic and poison that led to at least one direct injunction against the use of herbal cures among early modern Orthodox Russians, not that it was very effective. The *Domostroi*, a sixteenth-century domestic manual for relatively elite households suggested that if a person tries to "defeat death with sorcery, herbs, roots or grasses," they will be "condemned to perdition" ignoring God's missive, illness itself.⁵⁵ The anxiety over the use of herbs, roots and grasses in treating physical ailments was linked both to the fear that their power to cure came through occult means, but also, importantly, to the very real threat of poisoning, which abound in the trial records. But, as Kivelson, Worobec and Levin all maintain, the real fear that brought state

⁵³ Valerie Kivelson, *Desperate Magic: The Moral Economy of Witchcraft in Seventeenth-Century Russia* (Ithaca: Cornell University Press, 2013); Levin, "Healers and Witches"; Christine D. Worobec, *Possessed: Women, Witches, and Demons in Imperial Russia* (DeKalb: Northern Illinois University Press, 2001).

⁵⁴ W. F. Ryan, *The Bathhouse at Midnight: a historical survey of magic and divination in Russia* (University Park: Pennsylvania State University Press, 1999), 269.

⁵⁵ Carolyn Johnston Pouncy, *The Domostroi: Rules for Russian Households in the Time of Ivan the Terrible* (Ithaca: Cornell University Press 1994), 113.

and church authorities down on itinerant healers and Moscow's herb stalls was the threat of a kind of disobedience that would undermine the foundations of Muscovite authority – a disobedience that was glimpsed in popular medico-herbal practice. It was the use of plants in unfamiliar ways (dried past the point of recognition, pulverized and carried in a sack, sewn into one's clothing) that alerted the authorities, not necessarily the plants themselves.

There were many accepted forms of popular medico-herbalism that were firmly rooted in Orthodox belief.⁵⁶ If Afanasii of Kholmogory's medico-herbal volume, *Reestr' iz dokhturskikh nauk* (1696) is any indication, higher Church officials not only condoned the use of herbs to cure illness, they themselves worked closely with foreign physicians to translate and compile foreign herbals as well as to craft their own.⁵⁷ Irrespective of official Church attitudes towards herbal medicine, there is enough evidence within the common names of plants themselves to indicate that indeed plants were well known, described, and used as medicinal agents within popular Orthodox belief.⁵⁸

In terms of knowledge making early Russian herbals demonstrate the culturally varied and essentially syncretic nature of their work: popular belief mixing with Orthodox doctrine, the fear of witchcraft mixing with the hope of recovery from illness. However, one of their most characteristic features, little explored in the Russian context, is their sheer mobility. Russian herbals circulated both within the Apothecary chancellery and outside of it, as far as the tsar's suburban estates, including the village of Preobrazhenkoe. In the summer of 1673, for instance, the chancellery notes in a report to the tsar that a number of travniki in "the Russian tongue" (*na slovenskom iazyk*) had been collected and sent from the Apothecary chancellery to the village of Preobrazhenskoe. The herbals, which varied in size from one to over 40 chapters or gatherings (tetrady) in length, were sent in batches of five to ten and were categorized according to the paper they were written on (those written on Aleksandriskii paper were listed first) and whether they were loose or bound.⁵⁹ As the tsar's personal resources the chancellery's herbals and medicines, along with the expertise of its staff, followed him as he travelled to his estates, to military encampments, and to distant monasteries. Travniki as herbals therefore were, in addition to being capacious and diverse, syncretic collections of tradition also relatively mobile packages of botanical and medical knowledge that circulated widely and routinely beyond the bounds of Moscow.

Herbaria: the travnik as technique

By the beginning of the eighteenth century the word *travnik* had become increasingly less relevant to urban, secular life in Russia. Herbals had become

⁵⁶ Chernyi, *Russkie srednevekovye sady*.

⁵⁷ Florinskii, Russkie prostonarodnye travniki, 213-229.

⁵⁸ Chasovnikova, *Khristianskie obrazy*.

⁵⁹ Mamonov, *Materialy*, vol. 3, 839; ibid., vol. 4, 898-9.

"pharmacopeia" just as the Apothecary chancellery had been renamed the Medical chancellery.⁶⁰ Doctors and botanists led the collecting expeditions and medicinal plants were increasingly obtained from the chancellery's sizeable gardens.⁶¹ The word *travnik* occurs, however, in a few crucial instances, always it would seem at the behest of a Russian translator seeking to make the diverse collections of the Russia's primarily German-speaking doctors and botanists legible to an increasingly literate Russian elite.

With the establishment of an Academy of Sciences in the new capital of St. Petersburg in 1724, Russian officials tasked their foreign professors with the production of scientific work that could be widely shared in order to boost the reputation and new capital and its Academy. Thus, the academy began publishing a new journal, the Commentarii Academii Nauk, which featured articles describing new plant species, laboratory experiments, dissections, along with new maps that visualized the empire in a distinctly European iconographic idiom.⁶² In line with this the Academy also began collecting and keeping herbaria, dried and pressed collections of once-living plants affixed to paper and either sewn into books or loosely bound and stacked in cabinets. The technique itself had been developed much earlier in the sixteenth century by doctors as an aid to the teaching of medical botany, providing a *hortus siccus* for consultation when an actual medical garden could not be accessed.⁶³ Over the course of the eighteenth century herbaria leaves became an important kind of informal publication. Each individual page, usually containing a single pressed and dried plant ideally in flower, could be circulated among botanists through the post or other networks, and if the plant had been clearly identified it could be easily copied and reproduced.

One of the earliest herbariums in Russia was probably that of Robert Areskine, the first "Archeator" of the Medical chancellery.⁶⁴ Areskine either brought with him or produced shortly after his arrival a modest herbarium primarily containing plants from the Moscow region, now kept in the Kunstkamera of the Academy of Sciences

⁶⁰ For a concise and illuminating summation of the impact of Peter I's "bureaucratic revolution" on medicine in Russia, see Griffin, "In Search," 709.

⁶¹ Russia's first major scientific expeditions, including those led by Gottlob Schober along the Volga River and into the Caucasus (1717-20), Daniel Messerschmidt (1720-27), and by Johann Buxbaum to Asia Minor (1724-26), and were all organized by the Medical chancellery and were given the task of finding and collecting medicinal plants. See V. F. Gnucheva, *Materialy dlia istorii ekspeditsii Akademii Nauk v XVIII-XIX vekakh* (Moscow: Akademii Nauk SSSR, 1940), 23, 25, 30-1.

⁶² Gary Marker, *Publishing, Printing, and the Origins of Intellectual Life in Russia, 1700-1800* (Princeton: Princeton University Press, 1985); Steven Seegel, *Mapping Europe's Borderlands: Russian Cartography in the Age of Empire* (Chicago: The University of Chicago Press, 2012).

⁶³ Davina Benkert, "The 'Hortus Siccus' as a Focal Point: Knowledge, Environment, and Image in Felix Platter's and Caspar Bauhin's Herbaria," in *Sites of Mediation: Connected Histories of Places, Processes, and Objects in Europe and Beyond, 1450-1650*, eds. Susanna Burghartz and Christine Göttler (Leiden: Brill, 2016).

⁶⁴ On Areskine, see Robert Collis, *The Petrine Instauration: Religion, Esotericism and Science at the Court of Peter the Great, 1689-1725* (Leiden: Brill, 2012), 121-207.

in St. Petersburg.⁶⁵ Areskine was dedicated to continuing the practice of making herbaria of Russian flora as evidenced by the Dutch traveller and merchant, Cornelius de Bruyn, who visited Areskine in 1707. De Bruyn noted that in addition to a sumptuous pharmacy, Areskine had under his command a library "wherein extraordinary plants and animals are preserved." De Bruyn continues, writing that Areskine was at the time of his visit "employed in collecting from all quarters, and disposing with the utmost elegancy on paper, all the principal herbs and flowers, which are useful in medicine, and of which he has already filled a book."⁶⁶

Herbaria arrived in the Russian Empire with the libraries and collections of the doctors and botanists of the Academy of Sciences and Medical Chancellery. The word *travnik* appeared in official documents referencing these collections in a few telling instances. One of the earliest examples of the use of the word *travnik* to mean herbaria occurred as academy translators struggled to describe the collections of their second chair of botany, Johann Amman. The relatively sudden death in 1741 of Amman resulted in a profusion of Academy documents dispersing Amman's possessions and collections. Among them was a sizeable herbarium that Amman had been collecting since his time as an assistant to Sir Hans Sloane in London. A short list valuing these items notes Amman's herbarium (gerbaria) consisted of over 5,000 individual plants. And that, moreover, "the *travnik* that he Amman obtained in England and the Netherlands at great cost to himself has been valued by Amman himself at 500 rubles."⁶⁷ The translator tallying Amman's assets uses both terms, travnik and gerbaria, it would seem interchangeably. This particular example is not enough to suggest that any of the Academy's herbaria would also be called *travniki*, but it does suggest that at this time they could be and that the meaning would not be lost. Somewhat later the same influence of the translator appears again in the work of Johann Bacmeister who catalogued the Academy of Science's impressive collections, including the "travniki" of such notable figures as Frederick Ruysch, Johann Amman, Johann Georg Gmelin, Georg Wilhelm Steller, and Sir Hans Sloane.⁶⁸ Again, as Bacmeister's original French text refers to "les Herbiers", that is herbaria, the choice made by the Russian translator of the volume suggested the continued resonance of the *travnik* in the Academy setting.

By the end of the eighteenth century no less a personage than P. S. Pallas, perhaps the single most important individual in imperial Russian natural history, spent a month in the spring of 1781 the Moscow garden of Prokofii Akinfievich Demidov

⁶⁵ Several leaves from Areskine's personal herbarium have been made available online. See "Guide to the Collections of the LE Herbarium" of the Komarov Botanical Institute in St. Petersburg, <u>http://www.mobot.org/MOBOT/Research/LEguide/pers/287.html</u> (accessed September 15, 2018).

⁶⁶ Cornelius de Bruyn, *Travels into Muscovy*, vol. 2 (London: A. Bettesworth, 1737), 179. Cited by J. H. Appleby, "Robert Erskine – Scottish pioneer of Russian Natural History," *Archives of Natural History* 10 (1982), 379.

⁶⁷ Archives of the Russian Academy of Sciences, St. Petersburg (ARAN SPB), F. 3, op. 1, No. 81, pg. 163.

⁶⁸ Iogann Bakmeister, *Opyt o Biblioteke i Kabinete redkostei i Istorii Natural'noi Santkpeterburgskoi Imperatorskoi Akademii Nauk* (St. Petersburg: Tipografii morskago shliakhetnago kadetskago korpusa, 1779), 164.

organizing the rich nobleman's botanical collection and drawing up a catalogue.⁶⁹ Pallas, a German botanist and zoologist, had been invited to Russia by Catherine II in 1767 to take the chair of Natural History in the St. Petersburg Academy of Sciences. Over the following decade he would lead expeditions east into Siberia and south along the Volga River to the Caspian Sea, and would later seal his reputation as a naturalist with several publications, including a flora of the Russian Empire and a "zoography" or description of the animals of Russia and Asia.⁷⁰ The catalog that Pallas created for Demidov was written in both Latin and Russian and included an extensive introduction and a detailed map of Demidov's gardens on the banks of the river Moskva. The bulk of the volume lists Demidov's plants according to Linnaean classification, a system which hinged on the double name of genus and species (hence the phrase "binomial nomenclature") to differentiate and organize individual plants.⁷¹ In the introduction to the catalogue Pallas describes the Demidov estate, stating that in the course of his work he was able to dry and preserve a great number of Demidov's plants, not only for his own herbarium (*travnik*), but for the herbarium (*travnik*) of that ardent amateur botanist, Demidov himself.⁷² Pallas's original Latin "herbario" appears side by side with the Russian translation, leaving no doubt he was engaged in preserving Demidov's collection in both herbarium and published form.

Far from disappearing with the advent of the Academy, with its chairs of botany and their allegiance to binomial nomenclature, the term *travnik* took on a new meaning in eighteenth-century Russian botany especially for literate Russian speakers, from Academy officials to the Demidov family. No longer serving primarily as a reference to textual compendia of folk knowledge, or to itinerant healers gathering herbs under the direction of a chancellery order, but now a term referring to the technological innovation which made modern botany possible. And as a "technique" of knowledge making, the herbarium continues to be exceptional. As Lorraine Daston has shown, the foundation of modern botany rests on the concept of the type specimen, usually a herbarium sheet containing a single individual plant designated as the ultimate representative not of the species but of the *name* and to which all nomenclatural debate must refer.⁷³ It is a tangential connection, the echo of a useful sixteenth-century word in an eighteenth-century context. Nonetheless it is telling that it was conceivable to some that the term *travnik* could apply to the herbarium as easily as to the herbal. By the eighteenth century the form of the

⁶⁹ A. K. Sytin, *Petrus Simon Pallas, botanius. Peter Simon Pallas: Botanik* (Moscow: KMK Scientific Publications, 1997), 165.

⁷⁰ P. S. Pallas, *Flora Rossica, seu stirpium imperii rossici per europam et asiam*, 2 vols. (St. Petersburg: Typographia Imperialis, 1784-88); Pallas, *Zoographia Rosso-Asiatica, sistens omnium animalium in extenso imperio rossico*, 3 vols. (St. Petersburg: Academiae Scientarum Impress, 1831).

⁷¹ On the development of binomial nomenclature up to and including Linnaeus, see William T. Stearn, "Development of Botanical Latin Terminology," in *Botanical Latin: History, Grammar, Syntax, Terminology and Vocabulary* (London: David & Charles, 1983), 14-50.

 ⁷² P. S. Pallas, Enumeratio Plantarum quae in Horto viri illustris atque excell Dni. Procopii a Demidof (St. Petersburg: Pri Imperatorskoi Akademii Nauk, 1781), XXVII.

⁷³ Lorraine Daston, "Type specimens and scientific memory," *Critical Inquiry* 31 (2004): 153-182.

travnik had almost come full circle, to shape of the plant itself, pressed, dried, and fixed to the page.

Conclusion

From the point of view of the Apothecary chancellery and the Academy of Sciences, the institutional archives from which spring the intertwined histories of the *travnik* as individual, as text, and as technique, the three practices were more similar than different. They were all undeniably joined by the knowledge they contained, shared, and translated from one language to another, from one place to another, from one time to another. The knowledge that the *travnik* contained was of the world of plants and it was as experiential and practical as it was symbolic and meaningful. This knowledge of plants was not limited to their identification, preparation, and use but included their occult powers, their imagined abilities, and their (popular) Orthodox lineages.

The *travnik* as individual, as herbalist, identified and collected medicinally useful plants in the regions around Moscow and transported those plants back to the center to be processed and redistributed by the Apothecary (later Medical) chancellery. The *travnik* as text, as herbal, codified that knowledge of medicinally useful plants, combining it with other knowledge systems, primarily western European ones, in a durable and legible form. In addition to the doctor and the healer, it was the chancellery secretary and academy translator that helped to guide these specific transformations. The *travnik* as technique, as herbarium, marked an attempt to index these long chains of knowledge-making practices by presenting the plant itself, along with a unique two-part name, as the ultimate representative of each plant kind. Again, it was the academy translator who equated travnik with gerbaria cementing the link between what was perceived to be new in botanical discourse (the emergence of the Linnaean system of binomial nomenclature and the reliance on herbaria leaves for type specimens) with what was well established in medical and herbal practice (the identification, preparation, and use of medicinally useful plants).

In all of these cases knowledge of plants from folk collecting to medical botany to binomial nomenclature was generated in productive tension between foreign expertise and local knowledge. By focusing on the word *travnik* this essay underscores the productive possibilities of translation in the history of knowledge making about the natural world. What at first glance appears to be a coincidence of ambiguous translation reveals itself in this study to be a meaningful flexibility in early modern Russian conceptions of the natural world. A flexibility that allowed for knowledge of plants to be contained in several bodies, human, textual, and plant, all deserving the same title. Ultimately the word *travnik* gestures toward the almost impossible capaciousness of the study of the natural world and the inventiveness of early modern Russians and their intellectual allies to house at least some small part of it within a single word.



Figure 1. "Bozh'oe derevo" from *Blagoprokhladnyi vertograd ili Travnik* (1534). Copyright V. N. Kazarin Kharkiv National University, Ukraine. Image courtesy of eScriptorium <u>http://escriptorium.univer.kharkov.ua/handle/1237075002/1975</u>.