Conceptualising the Natural Environment: Critical reflections from Russia

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The workshop *Conceptualising the natural environment: Critical reflections from Russia, 18th–20th Centuries* (22–23 March 2013) was co-organised by Jonathan Oldfield (University of Glasgow, UK) and Julia Lajus (European University at St. Petersburg). It was funded by grants from the UK's Arts and Humanities Research Council (AHRC) and Economic and Social Research Council (ESRC)[1]. Additional funds were provided by the Centre for Russian, Central and East European Studies (CRCEES), which is based at the University of Glasgow, UK. The workshop brought together 16 papers delivered by scholars from Russia, the European Union and North America. It was hosted by the European University at St. Petersburg.

At its root, the workshop was interested in exploring the various ways in which science, the state, as well as society more generally have conceptualised and managed the considerable resources of the Russian landmass since the 18th Century. Recent scholarship has provided an insight into the considerable range and complexity of resource management activity evident within Russian society during the course of the last 200–300 years. For example, this includes work concerning forest resources and management practices (e.g. Brain, 2011; Loskutova, 2012a), conceptualisations of the European steppe (e.g. Fedotova, 2010; Moon, 2013) and animal resources (e.g. Bruno, 2010), as well as critical reflections on the development of applied research (Loskutova, 2012b). Additional work has reflected on the way in which natural resources have been surveyed and inventorised at the regional and local scales with concomitant efforts by local government to recruit science in order to value natural resources for taxation purposes. V.V. Dokuchaev's involvement in the Nizhnii Novgorod cadastral mapping initiative during the 1880s is a case in point (see Evtuhov, 2011).

Motivations for comprehending and measuring the natural resource endowment of the Russian landmass have varied over time; however, the twin concerns of economic development and military security have been consistent underpinning factors. Intellectual curiosity and an associated desire to explore the far corners of the empire have also played a prominent role. At the same time, the country's often harsh natural environment has helped to shape aspects of Russian culture and inspired meditations on the functioning of natural physical systems and the links between the wider environment and Russian society. The papers by **Eric Johnson** (UBC, Canada) and **Nikolai Dronin** (MGU) explored aspects of this concern, the former with respect to the interplay between climate and famine during the 1891 drought in the European steppe region, and the latter in terms of the linkages between climate, state policy and cereal production in the second half of the 20th Century. **Julia Herzberg**'s paper (LMU, Munich) developed the socio-cultural perspective with her examination of the cultural significance of the ice palace built on the river Neva in 1739–1740 as part of the festivities staged by Tsarina Anna Ivanovna to celebrate victory over the Turks and the peace treaty with the Ottoman Empire.

The process of conceptualising Russia's natural resource endowment has been propelled through the centuries by a significant array of actors and interests. The various papers delivered

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Participants. Photo by Olga Malkina

as part of the workshop helped to highlight a number of pertinent themes. The links between the state and the broader scientific community formed a backdrop to a number of papers. The early expeditions of the Russian Academy of Sciences from the mid-18th Century exploring Russia's natural wealth received considerable state assistance and helped to open up vast areas of the Russian empire for economic assimilation. These expeditions were both a key means for generating insight into the character of Russia's natural resource endowment and a mechanism for establishing conceptualisations of broader natural systems and associated processes. **Alexandra Bekasova**'s paper (European University at St. Peterburg) drew attention to the associated practice of academic travel, which provided a more informal and intimate means for developing insight into Russia's natural landscapes as well as its peoples. In contrast, **Greg Afinogenov** (Harvard, USA) explored the value of formal diplomatic and trade links, in this case with China, in helping to facilitate deeper understanding of the natural resources of Russia's far-flung territories and neighbouring countries. The underlying experiential element common to these activities was also a theme of **Andy Bruno**'s paper (Northern Illinois University, USA), which focussed on the work of the influential Soviet geologist Alexander Fersman (1882–1945). More specifically, he reflected on the way in which the regions encountered by Fersman during his fieldwork in the early 20th Century helped to shape his ideas concerning the wider environment. The analysis of Fersman's work in the Russian north and other remote parts of the Soviet Union connects with a further area of interest which has received increased scholarly attention in recent years focussing on particular types of natural resources in the provinces and peripheral regions of Russia. For example, **Alexei Kraikovsky**'s paper (European University at St Petersburg) reflected on the transfer of Dutch marine harvesting expertise to Russia during the 18th Century whereas **David Moon** (University of York, UK) examined the ways in which the steppe region and associated scientific debates over its origin shaped understandings about the connections between society and nature.

Jonathan Oldfield & Denis Shaw. Photo by Olga Malkina

Exploratory activities were therefore augmented by the emergence of various 'knowledge' networks incorporating a range of different actors and extending across the extent of the empire and beyond. Such networks were typically underpinned by the economic needs of the state, as highlighted in the paper by **Afinogenov**, although **Rachel Koroloff** (University of Illinois, Urbana-Champaign, USA) demonstrated that they were also driven forward by the pursuit of knowledge, in this case centered on the emergence of a network of corresponding garden spaces prior to the establishment of the Academy of Sciences in 1724. During the course of the 19th Century, such activities were further augmented via the financial and organisational assistance of a range of civic associations such as the Free Economic Society. The Russian state would also draw on scientific expertise in order to address specific natural resource concerns such as the recurrent droughts in the southern steppe region of European Russia during the mid-late 19th Century.

The work of both **Marina Loskutova** and **Anastasia Fedotova** (both St. Petersburg Branch of the Institute for the History of Science and Technology) brought together a number of the above themes as part of their work on 19th Century Russian natural science. Loskutova provided deeper insight into the actions of the state via an analysis of the role of 'institutional science' (vedomstvennaya nauka) in researching Russia's natural resources during the period 1830s–1850s. The paper also highlighted the interconnections between 'enlightened bureaucrats' from the Ministry of State Domains and existing work underway in the provinces. Fedotova reflected on the growing interest in the use and value of forest resources and associated management processes in the light of increased levels of deforestation during the second half of the 19th Century. She contrasted the earlier efforts of the Ministry of State Domains to undertake large-scale inventorising work with the Forest Experimental Station initiatives of the 1870s; the latter placing a greater emphasis on the work of professional scientists.

The 20th Century witnessed the emergence of large-scale initiatives to determine the country's reserves of strategic natural resources most notably in the form of the Commission for the Study of the Natural Productive Forces of Russia (KEPS), which was driven forward by the activities of natural scientists such as Vladimir Ivanovich Vernadskii (1863–1945). With a specific focus on fish resources, the paper by **Julia Lajus** drew attention to the fact that the work of initiatives such as KEPS was instrumental in helping to reshape attitudes towards natural resources and prefaced the emergence of a more centralised state approach to management issues during the Soviet period, which simultaneously undermined localised approaches to natural resource management. The paper by **Erki Tammiksaar** (University of Tartu, Estonia) examined a related theme, focussing on the development of oil shale resources, which emerged as a key natural resource for Estonia during the 20th Century and yet was an industry linked intimately to the Russian empire. In particular, he demonstrated the way in which the demands of WWI increased the strategic importance of oil shale for the Russian empire with resultant activities providing the foundations for the development of oil shale by an independent Estonia during the inter-war period.

The emergence of the Soviet Union with its associated shift in ideology and societal restructuring precipitated a marked change in the relationship between society and natural resources and aspects of this were explored in the papers by **Alla Bolotova** (University of Lapland, Finland) and **Denis Shaw** (University of Birmingham). More specifically, Bolotova's work focussed on the opening up of natural resources in the Soviet north and associated planning, construction and greening activities, whereas Shaw examined scientific underpinnings of the Great Stalin Plan for the Transformation of Nature during the late 1940s and early 1950s. The Plan is typically mobilised as an example of Soviet prometheanism and also attracts attention due to the malign influence of Lysenko. However, Shaw's paper highlighted the extensive scientific efforts underpinning the activities of the Plan which drew from long-standing insight into the workings of natural physical systems.

The 20th Century also witnessed the growing importance of international initiatives aimed at conceptualising and understanding natural resources and associated physical systems at both regional and global levels. Furthermore, Russian/Soviet science played a key role in many initiatives. Indeed, the conceptual and applied work of Russian scientists such as V.A. Kovda (1904–1991), M.I. Budyko (1920–2001) and the aforementioned V.I. Vernadskii during the Soviet period helped to place a range of natural resource issues within a global framework, thus advancing the global environmental agenda of the late 20th Century (see Oldfield and Shaw, 2013). In this vein, **Marc Elie**'s paper (CERCEC CNRS-EHESS, Paris) examined Soviet conceptualisations of the process of desertification, which were grounded on extensive natural science work and became influential via organisations such as UNESCO.

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Выставка «Братья по разуму?»

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20 апреля 2013 г. в Государственном Дарвиновском музее открылась выставка «Братья по разуму?», посвящённая экспериментальному изучению интеллекта животных и приуроченная к 90-летию со дня рождения К.Э. Фабри.

Изучение интеллекта животных имеет солидную историю. Одним из тех, кто заложил краеугольный камень в современные представления о мышлении животных, была супруга основателя Дарвиновского музея Надежда Николаевна Ладыгина-Котс (1889–1963). Идеи Ладыгиной-Котс развил её ученик и единомышленник Курт Эрнестович Фабри (1923–1990).

К.Э. Фабри родился 1 мая 1923 г. в семье австрийского писателя и журналиста. В 1932 г. семья эмигрировала в СССР. В 1940 г. К.Э. Фабри начал учиться на биологическом факультете МГУ, но война прервала учёбу. После окончания войны ему удалось вернуться на биофак и продолжить обучение. Будучи студентом, К.Э. Фабри принял участие в акции протеста против преследования преподавателей со стороны Т.Д. Лысенко. В результате его, отличника, закончившего сразу две кафедры — зоологии позвоночных и антропологии, мечтавшего заниматься поведением приматов, — распределили на противочумную станцию в Поволжье, а когда он отказался от распределения, лишили диплома. По иронии судьбы, восстановить диплом помог И.И. Презент.

Гонения на зоопсихологию в 1950-е гг. вынудили К.Э. Фабри работать то в уголке Дурова, то в библиотеке иностранной литературы, то в институте дошкольного воспитания. Только в 1977 г. на психологическом факультете МГУ была создана лаборатория зоопсихологии, которую Курт Эрнестович и возглавил. За годы работы К.Э. Фабри в МГУ тысячи студентов прослушали его курс «Основы зоопсихологии и сравнительной психологии», а его учебник «Основы зоопсихологии» стал настольной книгой для целого