

# Alexander von Humboldt, Excerpts from Letters from his Voyage to Siberia, *In the Ural and Altai Mountains* (1829)

## Abstract

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The scientist and geographer [Alexander von Humboldt](#) (1769–1859) is most famous for his explorations in South and Central America between 1799 and 1804, but later in his career he also took advantage of an opportunity to engage in scientific travel to Siberia and Central Asia under the patronage of the Russian Tsar Nicholas I, hence, for the advantage of the Russian Empire as well as for general scientific knowledge. In Latin America he had traveled with the French botanist Aimé Bonpland; on his Siberian expedition he was accompanied by two Prussian university professors, the mineralogist Gustav Rose and the noted naturalist Christian Gottfried Ehrenberg. Humboldt's correspondent in the letters excerpted here, Russian Finance Minister and Director of Mines Count Georg von Cancrin (1774–1845), was himself an exemplar of transnational German-European biography from the period as he descended from a noble German family in Hesse but went on to make his career in the service of the Russian imperial government. Their exchange raises interesting questions from the perspective of science and politics: what knowledge did Humboldt and the Russian government aim to acquire? How far would Humboldt be permitted to go in offering critical social commentary of Russian social conditions? The interpersonal dynamic at play in the letters is equally fascinating: Humboldt acknowledges the position and patronage of the Count and Countess of Cancrin, while they in turn respect the celebrity of the famed traveler. Humboldt and Cancrin corresponded between 1827 and 1832; the featured letters are from 1829. Their correspondence was eventually compiled and published in 1869, ten years after Humboldt's death and twenty-five years after Cancrin's.

## Source

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### I. Humboldt to Cancrin

#### Yekaterinburg, July 5/17, 1829

Your Excellency,

I obediently hasten to send you news of our departure tomorrow from Yekaterinburg to Tobolsk and of our successfully concluded investigation of the northern part of the Urals.—A full month has passed since we were in those beautiful mountains, and I can assure you that we were richly compensated for all the hardships that cannot altogether be avoided in these often rough, marshy woodlands by the sight of the industrious trades and the great variety of mountainous terrain. Since we spend all day in the open air, and indeed sometimes only arrive in the mines at 9 o'clock in the evening, to save time, we believe that we have made quite a comprehensive study of all the important points of the mines, stone quarries, gold and platinum washery plants and the somewhat monotonous works. There are some precise points of contact between scientific geognosis and the rational search for and use of minerals, that is the actual practice of mining. Especially important here are general views on the formation, stratification and the analogy with many other much-studied mountain regions. I intend to gather a few such views in an essay next winter (immediately following my return to Berlin) with a renewed inspection of the collected mountain types and to submit it to Your Excellency. I know that you (who are also devoted to the pure sciences) give without taking; but since I receive daily, I am seriously considering giving something in return for so much kindness and honor.—The not yet completely published account of my travels to the tropical regions of the new continent, a new edition of my work on the layering and stratification of mountain types, for which the Urals will provide much material, the publication of my lecture series on

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the physical description of the world, compel me to condense only the general, containing the broader views, but at the same time, since a special characterization and analysis of the fossils will doubtless be agreeable to a man of Your Excellency's splendid reputation, I shall ask Prof. Rose to elaborate in a separate work upon the individual aspects of local conditions and the chemical analysis of the mined and washed gold and other metals.—It goes without saying that both of us limit ourselves to inanimate nature alone and avoid anything relating to human institutions, conditions, or the lower classes: That which foreigners unfamiliar with the language publish about them is always reckless, incorrect and, in the case of such a complicated machine as the circumstances and acquired rights of the higher estates and the duties of the lower ones, provocative without being in any way useful! I scarcely need to mention the scientific yield of barometric measurements, observations of the magnetic inclination and astronomical forces, [and] astronomical localizations, since Your Excellency knows my predilection for these tasks. Poor industrious Prof. Ehrenberg is still complaining of the Berlin vegetation, which we cannot root out. Among 300 plants, barely 40 are Siberian. We have hopes for the upper Irtysh River if I get as far as Semipalatna and Bukforma. We have been more fortunate with the freshwater mollusks. After the excursion to the Turchaninov possessions by Goumechevsky (a source of splendid malachite, but a hopeless mine!) and Polevskoy, where we found in Herr Solomirsky a very industrious and well-informed man whom we commend to Your Excellency, we traveled on the 13<sup>th</sup> of June via the rich gold washery plants of Verchneturinsk, Nevyansk, Nishni Taglisk (we spent 3 days in the platinum alluviums, which, without an admixture of gold sand, all lie exposed on the European western slope of the Urals towards the Utkha River!), Kushva with the magnetic mountain of Blagodatskaya (a crown works, whose orderly and clean operation cannot be praised highly enough) to Bogoslovsk. Near N. Taglisk we rode through a dense forest, with thousands of felled, half-burnt tree trunks, to the Belaya Gora, which we ascended. It is some 400 *toises* high. The intendant of Bogoslovsk, a very intelligent, efficient and practical miner, mining administrator Völkener in Beresov, who accompanied us much into the mountains and Assessor Helm from here, are among the most excellent men we have seen here. Bogoslovsk will be of eminent importance for gold sand. The most important discoveries of gold are being made everywhere near Pavdinski and Petropavlovski and also farther north near Saoferski. In perhaps two years, Bogoslovsk may yield 18–25 poods of gold.<sup>[1]</sup> Overall, it seems to me that the gold yields in the Urals are secure for a long time to come. To be sure, hands are lacking, but this lack is caused by the poor distribution and application of manpower, in the case of the private works in the conditions of the *krepostnoe* and *masterovoy*... One does not need so many thousands of men to produce 150,000 poods of iron in one year in England or Germany. But half a century would likely not suffice to alleviate such ills, which are grounded in the situation of the lower classes [and] the absent division of labor (since one man makes castings, chops down trees and washes gold). Everything having to do with silviculture is similarly complicated. How true I have found everything that Your Excellency said about the pervasive shortage of wood to be. How rare are large trunks and what devastations are caused by fire! Iron production is endangered and all of the coal I was shown in the Urals (with the exception of that east of Solikamsk) was lignite with pyrolusite. We made our return journey from Bogoslovsk, accompanied by constant rainstorms, via Merchoturye, Alopayevsk, and the beryll, topaz and amethyst mines of Mursinsk and Scheitansk. The plague of mosquitoes followed us from here into the mineshafts! The local mints, especially the fine gold melting under Mund and Maitz (who has quite a lively and talented brother in the chancellery), are in excellent order; the machinery may be quite old-fashioned, but it does what is demanded of it. I still conferred with the mining inspector about the sick (of the flooded mine in Beresov).

With the deepest admiration,  
Your Excellency's most obedient servant Al. Humboldt.

My most amicable respect to Your Excellency's gentle wife! How can I thank you enough for the Berlin newspapers sent after us with such care all the way to Bogoslovsk! The emperor spoke most graciously to my family in Berlin about me and my journey to Siberia. (My father, as Your Excellency wished to know,

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was called Georg Alexander.) Whilst here we made use of your kind permission and gave the intendant our collections to send to Petersburg (before the 10<sup>th</sup> of October). I assume Your Excellency will give these boxes to the legation. Of all the types of rocks we collected (not of ores and hand samples, of which your cabinet possesses many splendid examples), we have destined half for Your Excellency. Prof. Rose has packed this collection in 1 crate (there are 252 specimens carefully labeled by us), which, to differentiate them from ours, bear their own tin labels. Among these rocks are the volcanic porphyry discovered by Prof. Rose in Bogoslovsk, which the granular limestone transformed upon contact into a jasper-like mass.

## **II. Cancrin to Humboldt**

**St. Petersburg, July 19/31, 1829.**

I received Your Excellency's precious letter of July 5/17, and offer my heartfelt thanks.

In the meantime, you will have long since heard of the crossing of the Balkans and the advance beyond Kirnabat, and to the east, the capture of Erzurum, not far from the important copper and silver mines of Gumisch-Chane (in the vicinity of Trebizond). Our public is naturally fascinated by this positive news, and rightly so. Overall, destruction always makes a far more powerful impression upon people. We know who destroyed the Temple of Delphi, but not, if my recollection serves me right, the person who built it.

I anticipated the inevitable difficulties of which you write, and fear that the autumn will descend with still greater ones.

I hope for something very useful from Your Excellency's views. I expected no criticism of individual details. Professor Rose's work will be most welcome to me. I commend myself to him and to Professor Ehrenberg, whom I wish quite anti-Berlin flora.

We received word here of a curious piece of serpentine disseminated with gold that was recently found, and which is said to be the first of its kind.

I agree completely with your wish to have little to do with the political conditions of the inhabitants of the Urals, not merely because of the difficulty of studying the positive and negative sides of such ancient relations, but also because of the misery of human affairs, where the masses are always under the spell of violence, cunning or money. Loud complaints thus lead to nothing. We must work in silence, as much as we can, to improve the human condition. But I must respectfully reserve the right to have Your Excellency inform me occasionally of everything concerning this important matter.

[...]

I am very pleased by your idea about the continuation of gold mining. According to the most recent news, gold sands have been discovered in Bogoslovsk in masses containing 8 zolotniks in 100 poods of sand.

I will keep an eye on the persons recommended by Your Excellency.

The poor prospects of forestry have convinced me to undertake an expansion of the forestry school in order to send trained foresters to the mines. Alas, the good proceeds at a snail's pace whereas evil flies.

A suggestion is already in the works to build a new mint at Yekaterinburg.

My wife sends you a thousand good wishes.

The crates with minerals will be dealt with immediately following their arrival. Many thanks in advance.

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I wish you, my most venerable friend, a fortunate and successful continuation of your journey and remain, with unwavering esteem,

Your Excellency's most humble and obedient servant,  
C.

## NOTES

[1] Poods [*Pud*] = Unit of measure in Tsarist Russia for a mass weighing 16.38 kilograms.

Source: *Im Ural und Altei. Briefwechsel zwischen Alexander von Humboldt und Graf Georg von Cancrin aus den Jahren 1827–1832*. Leipzig: F. U. Brockhaus, 1869, pp. 73–80. Available online at <http://mdz-nbn-resolving.de/urn:nbn:de:bvb:12-bsb10467085-1>

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