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Arctic Science and Fiction

A Novel by a Soviet Geologist

ABSTRACT The article analyses the popular novel Sannikov's land (published in 1926) by the famous Russian and Soviet geologist Vladimir A. Obruchev (1863– 1956) and asks how scientific discourse on the one hand and literary, fictional discourse on the other interact in this text that tells the story of the discovery of an Arctic island that a Russian merchant had asserted to have seen, but the existence of which never could be affirmed. Basing his novel exclusively on wellfounded scientific (geological as well as anthropological) hypotheses, Obruchev polemizes with a whole range of pretexts from J. Verne to K. Hloucha. Unfolding the story of the Russian expedition, Obruchev pursues the aim (1) to deconstruct the utopian myth of a paradise on earth beyond the Arctic ice in its countless varieties; (2) to show that ancient myths—like the myth of the existence of warm islands in the Arctic-are a form of protoscientific insight that should be taken seriously by modern science and transformed into scientific knowledge; and (3) to suggest that the Arctic islands—really existing, supposed to exist or be doomed—from a geological point of view belong to the Siberian mainland and therefore to Russian/Soviet territory.

KEYWORDS Arctic science fiction, visions of Arctic warming, utopian mythopoetics of the Arctic, Soviet conquest of the Arctic, Arctic geology, geographic conceptualization of the Arctic, Vladimir A. Obruchev, Jules Verne

Today, in the context of global warming, the vision of a warm Arctic seems to be a threat to us. In the past it circulated in European literature as a utopian myth that justified numerous expeditions and geological research.

In this article I will elaborate on an example of literary work on that myth, a Soviet geo-science fiction novel from 1926, and demonstrate the interaction, interweaving and divergences between geological and literary discourse.

The novel is called Zemlya Sannikova ['Sannikov's Land'] (1926), and

the specific trait of its author, Vladimir Obruchev, was that he was a geologist and a writer at the same time.

My thesis will be that the fictionalization of geological hypotheses in this novel not only pursues the popularization of scientific expertise, but also—by fictionally establishing an evolutionist worldview—negates mythical imaginings of the Arctic as a kind of netherworld and thereby clears the way for symbolic integration of this outermost northern periphery into Soviet space.

Vladimir Obruchev and the Cultural and Political Dimensions of Literature and Geology in the Soviet Union in the 1920s

Vladimir A. Obruchev, who lived from 1863 to 1956, was one of the most reputable Russian geologists. He had gained fame before the October Revolution and—nevertheless—became a highly decorated Soviet scientist afterwards. He conducted fundamental research on the geology of Siberia, on permafrost, on Siberian gold deposits and other topics of importance beyond the field of mere scientific interest. During his life he held leading positions at central research institutions. Obruchev, who in his younger years in the late nineteenth century dabbled in creative writing with his mother, began to write popular science fiction at the age of approximately 50. Two novels were published in the 1920s in the context of the young Soviet Union at a time when literary politics focused on science fiction as a veritable instrument for the promotion of social development. As Matthias Schwartz has recently argued (Schwartz 2008: 418 ff.), during the debates of the following years three programmatic aspects came to the fore: to popularize scientific insights and thereby to fulfil the serious task of popular enlightenment; to complement scientific research by means of the creative imagination (science fiction should not only teach ordinary people but also inspire scientists themselves); and, thirdly, to give an idea of how the Soviet Union could look after the total communist transformation of the land. In a sense Obruchey, along with other authors such as Aleksandr Beljaey, became a pioneer of this development until at the end of the 1920s the official directives for "scientific fantasticism"-as it was then called-changed and fiction was replaced first by factographical modes of writing, and then by the doctrine of Socialist Realism, which was announced in 1934. Through this programme science fiction became more moderate, its fantastic moment more tamed and more tied back to the experience of the already existing world, than it ever had been since its emergence.¹

Obruchev's own statements, although fitting the political directives very well, stylize his concern as an author of fiction in a rather personal way, avoiding any association with literary politics by accentuating the role of pre-revolutionary experiences. Science—that is, geology—and literature, Obruchev states, were for him closely connected to each other from the beginning. Obruchev, who had a German mother and spoke more French and German than Russian at home, gained his first motivation to become a geologist from the founding father of European science fiction, Jules Verne. Verne's novel, *Voyages et aventures du Capitaine Hatteras*, which envisions the scenario of a volcano at the top of the world, the North Pole, was one of his favourites, along with Verne's *Voyage au centre de la terre*, both of which he read in the original French version.

And, conversely, science later on became the most exigent motivation for Obruchev to write science fiction novels himself: the deficient scientific plausibility, in particular some science fiction on the topic of the polar region, presented—again in his own words—a challenge to him to make it better, to write some thoroughly probable and scientifically well-grounded Arctic science fiction. Being here in complete agreement with the official concept of "scientific fantasticism," Obruchev declared Karel Hloucha's Zakletá země ['Enchanted land'] to be the immediate inducement to write Sannikov's Land as a scientifically well-grounded counter piece. I will return to this point below.

As a geologist who wrote science fiction, using geological knowledge and theories, Obruchev was a pioneer² in this early post-revolutionary period. What are the main geological hypotheses upon which the fanciful tale of the warm polar region is based? In geological science the hypothesis of tropics in the Arctic was inferred from fossil records first discovered by the Arctic explorer William Edward Parry on his voyage in the Arctic in 1819–1820, fossils of animals and plants that were obviously tropical. These findings supported a physicist's concept of a gradually cooling earth, formulated some years earlier by Jean-Baptist Joseph Fourier,³ a hypothesis that subsequently became a matter of consensus among geologists. 4 Obruchev's research as well as his novel is obviously based on this hypothesis. But for him (as for other Russian texts, c.f. below) a second hypothesis—a hypothesis that emerged in the context of what was known as the "diluvial theory" of a great deluge that had covered the better part of the earth's surface (cf. Rudwick 2008: 173 ff.)—was also essential to provide an additional explanation of how animals and plants got to the Arctic islands far away from the mainland: the hypothesis of the Arctic or rather of the islands in the Arctic as relics of a formerly larger Siberian or Eurasian continent, which extended much farther northwards.

Let us take a look at an excerpt from Obruchev's well-known book *Geologie von Sibirien*:

This amounts to the following scheme of quaternary epirogenetical movements of Northern Siberia: 1. Elevation: glaciation of the North and the mountains; 2. Lowering: deglaciation of the glaciers; transgression; 3. Elevation: second diminished glaciation of the North and the mountains; 4. Lowering: deglaciation; second diminished transgression; 5. Elevation ... still ongoing.

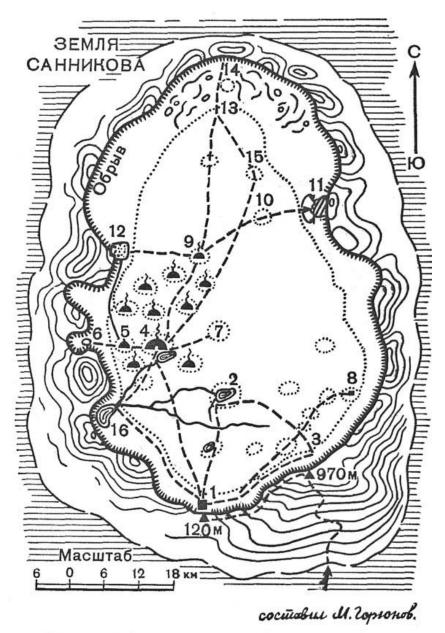
After the glaciation, the neo-Siberian islands were connected to Asia and the first lowering only put the Northern part under water, since in the Southern part there was a lake at that time and a considerable mammoth fauna, because a rich flora could after deglaciation expand from the continent, i.e. Siberia. The land's fragmentation through disruption and lowering of great parts under sea level might have taken place after the second glaciation, because at that time, the endangered mammoth fauna was replaced first by a bison and horse fauna, which could only have expanded from the continent (Obruchev 1926: 398).

In my opinion, this hypothesis on geological history provides us with an indication of a potential geopolitical dimension of geological arguments. By the way: was this not the same hypothesis that reappeared in summer 2007 to justify Russian territorial pretensions in the Arctic, when a team of geologists declared the sea floor of the North Pole to be part of the so-called *Lomonosov Ridge*, which from a geological point of view belongs to the Siberian mainland?

Geology as a science has had a double agenda ever since its emergence: scientific cognition and material exploitation. Furthermore, as a discourse it may serve as an instrument to pursue political strategies of laying claim to the right of territorial property, as the recent case of the Russian geologists hoisting the Russian colours on the Arctic sea floor in 2007 once more clearly demonstrates. As authors of scientific descriptions of land that, incidentally, is considered the territorial property of states which are divided into parts, geologists themselves are agents, engineers of geological units as integrative and differentiated political and cultural space. In this respect, I would argue, geologists and authors of fiction compare well. They are both engaged with constructing geocultural and geopolitical entities, each in their specific discourse.

Narrative Strategies. 'Scientific Fiction'

But let us return to Obruchev the writer. What is the fictional approach of *Sannikov's Land*, one of the most popular novels of Soviet popular (youth) literature throughout the last century?⁵ It seems to be significant that Obruchev chooses for the title and the setting a toponym that refers to something concrete but not yet verified, in the existence of which he himself believed. Obruchev pursues a mimetic strategy of probability, using nu-



I - база у сугробов;
2 - первое пузырящееся озеро;
3 - пещера с костями;
4 - главное стойбище онкилонов;
5 - жилище шамана;
6 - священный камень;
7 - поляна носорогов;
8 - стойбище вампу;
9 - северное стойбище онкилонов;
10 - поляна засады;
11 - пещера вампу (место битвы);
12 - кладбище онкилонов;
13 - окраина леса;
14 - долина Тысячи Дымов;
15 - поляна мамонтов;
16 - священное озеро

Fig. 1. Drawn map of Sannikov's Island. From http://ru.wikipedia.org/wiki/Земля_Санникова_(роман)

merous effets de réel. Some of these refer directly to literary pretexts, that is to other pseudo-factographic fiction such as the attached drawn map of the island, which will remind every reader of Stevenson's Treasure Island (Fig. 1), while others refer to historical and geographical facts. Sannikov's Land is named after the real merchant Jakov Sannikov, who traded in polar animals and allegedly discovered an "island with high stone mountains" north of the Bennett Island, one of the De Long Islands, named after George W. De-Long who discovered them in 1881 north-east of the New Siberian Islands or Anzhu Islands, as they are called today (Fig. 2). Given that Sannikov had already discovered two truly existing islands, his presumption provided the impetus for several expeditions during the nineteenth and early twentieth centuries: most famous among these were the 1886 and 1893 expeditions headed by Baron Toll, who affirmed Sannikov's presumption, but himself never returned from the final leg of the journey. Up to Obruchev's days, then, the existence of the island could not be confirmed. In the mid-1930s, Obruchev himself proposed a new search with the help of Soviet aviators, who were famous at that time for their polar flights, and published a scientific essay on the probability of the island's existence. But when in 1937 the crew of the icebreaker Sadko claimed to have seen only icebergs in the region, further expeditions in this matter were stopped (cf. Andreev et al. 2008).

Briefly on the plot of the novel: Obruchev—significantly for his science fiction novels of sorts—places the plot in the past rather than in the future. Around the year 1904, an expedition team is established with the help of Schenk, a leading member of the Imperial Geographical Society under the leadership of a former student, who has been banished for political reasons, in order to search for Sannikov's island north of the recently discovered Bennett Island, following Baron Toll's example. The fictitious team of the novel consists of three banished former students (Matvey Goryunov, Semen Ordin, Pavel Kostyakov), the assimilated native Yakut (Nikita Gorokhov), who is described as a brother of a member of Toll's crew (an additional effet de réel), and a Cossack (Kapitan Nikiforov). The last two, scouts familiar with the language and place, were to help to ensure success. What the team find exceeds all their expectations: a fertile and almost tropical microcosm where people and animals have survived that elsewhere long ago had become extinct, such as mammoths. Although peaceful contacts can be established, happiness does not last for long. What at first seemed to the expedition participants to be only an abstract possibility becomes a fatal reality. The scientifically educated Russians discover the cause of the microcosm's existence, which also brings about its destruction: volcanism, manifest, for example, in geysers, a common phenomenon in many Arctic regions (Iceland, Kamchatka). In their presence, the whole island is destroyed step-by-step by earthquakes, volcanic eruptions and floods, sweeping away not only all inhabitants but also the expedition's entire research material.

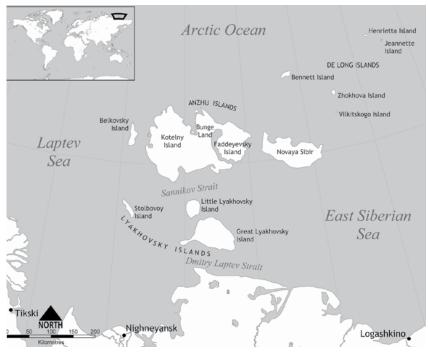


Fig. 2. Map over actual islands in the East Siberian Sea. From http://ru.wikipedia.org/wiki/Файл:New_Siberian_Islands_map.png

Mythology of the Arctic Paradise and its Literary Transformations

From the perspective of the history of literary mythopoetics, Obruchev's novel is situated in the context of a particular group of texts on an Arctic topic, which re-enact the old utopian myth of an ideal place or island of friendly climatic conditions inaccessibly hidden behind the awful, lifethreatening ice.

It is the myth of the Hyperboreans, first recorded by Herodotus and Pindar: the myth of an artistically highly gifted people, beloved by the gods, living inaccessibly beyond the "North Wind" (boreas), the existence of whom is indicated to normal people only by the annual flight of migratory birds northwards to a place where everybody would expect only frost and ice but not comfortable conditions to get through the winter. Part of this myth is also the story of Apollo riding on a swan in order to visit his favour-

ite Hyperboreans, who live in a place where the sun is supposed to rise and set only once a year, where people live in peace to the age of one thousand and enjoy lives of complete happiness. Since the Middle Ages the myth of the earthly paradise has from time to time become interwoven with the myth of the Hyperboreans. Whereas in written texts two locations of paradise dominate, "to the east" (India, Ethiopia) or on the top of a very high mountain, cartography brings out an interesting continuity in cultural imaginations and visual representation: in most cases paradise is located at the top of the map/earth (cf. Delumeau 1995: 39 ff.), a fact that superimposes different references to the 'top,' the difference in cartographical orientation between maps of the Middle Ages, which were oriented towards the East, and modern maps, which are oriented northwards. Furthermore, remoteness and inaccessibility are also parallels to the myth of the Hyperboreans.

European adaptations of the modern period historicize the Hyperborean myth by combining it with the utopian myth of Atlantis conveyed in Plato's "Kritias" and "Timaios," and thereby narratively overcome the simple spatial two-world dichotomy.

Furthermore, the Hyperborean myth has been charged with national significance since the seventeenth century in northern European countries, among them Russia: it appeared at the same time as a historical or, rather, transhistorical point of departure and as the endpoint, the goal of human history. Parallel national acquisitions can be observed in Scandinavian countries and in Russia. Authors of the so-called "Gothic tradition" such as the Swede Olof Rudbeck laid claim to the North by imagining it as the cradle of Swedish, but also of all human civilization. Consequently, Rudbeck envisaged the North as an equivalent of Paradise, where the "Blessed and Elysium" dwell and where in the end Paradise is to be restored (Sörlin 2002: 87 f.). Similarly the Russian Vasiliy Kapnist, under the influence of the Russian victory over Napoleon in 1812, wrote a pseudo-historiographic essay "Kratkoe izyskanie o giperboreanakh" ['A short investigation of the Hyperboreans'], in which he identified the Russians with Apollo's favourite people and, like Rudbeck and others, renewed in a national context the topography of the ideal, warm place beyond the ice (cf. Boele 1996: 41 ff.). In both countries the Hyperborean tradition continued during national romanticism and beyond, as in Germany too in the context of Nietzsche it experienced a revival in the early twentieth century.8

Obruchev, however, was not interested in a renewal of the Hyperborean myth, neither as such nor in a nationalizing context. As a Soviet writer and scientist and therefore as an advocate of scientific enlightenment, Obruchev in his novel performatively re-enacts the myth of the Hyperboreans with all its connotations and the myth of Atlantis, and at the same

time unmasks and thereby deconstructs it. This is my proposition, which will be demonstrated in the following.

Literary Precursors of Sannikov's Land

At least four prose texts, all in a sense belonging to the genre of science fiction, seem to be important as precursors of Obruchev's novel and help to understand the specificity of Obruchev's own handling of the myths. Jules Verne's novel *Voyages et aventures du Capitaine Hatteras* (1864),⁹ which Obruchev had known in the French original since his youth, took from the myth of the Hyperborean only the motif of the warm island beyond the ice. At the North Pole the expedition of Captain Hatteras discovers a volcano. Its crater coincides exactly with the geographical North Pole. People do not live there. The captain behaves in a way quite typical of conquerors of the Pole: with his last bit of strength he climbs the volcano up to the crater and, threatened by death, fixes the Union Jack at the Pole, in the midst of the crater. As we can see, Verne here combines several mythological narrative patterns into a whole cluster: the warm island at the Pole is at the same time the top of the world (thereby corresponding to ancient cartographical representations of the world) and the entry point to the hollow earth. 10 Obruchev was inspired by Verne's fictional adaptations of the theory of the hollow earth when writing his first science fiction novel, Plutonia, in the early 1920s. In Sannikov's Land only the topos of Arctic volcanism and the warmth caused by it remain important.

The plot of the 1875 book *Egész az északi polusig! Vagy. Mi lett tovább a Tegetthoffal?*, ¹¹ a short novel by the patriotic Hungarian novelist Mór Jókai, is based on the famous Austro-Hungarian expedition of Payer and Weyprecht, who gave Franz Joseph Land its name and left behind the expedition vessel *Admiral Tegethoff* frozen in the ice. At the beginning of the novel, the multiethnic Austro-Hungarian crew accidentally leaves behind its Hungarian member sleeping in his cabin. For the young Hungarian this circumstance becomes the chance of his life. Alone in the Arctic he discovers a paradisiacal island, which appears in his dreams as an ideal Hungary freed from the imperial yoke. Representing quite a funny example of Hungarian patriotic fantasies under the rule of the Habsburgs, the novel pictures the possibilities of a temporal warming of an Arctic island and its consequences in a much more 'unrealistic' way than Obruchev does (besides the emergence of a paradisiacal autonomous Hungary and the reanimation of paleontological fauna as well as biblical heroes take place).

The novel *Zakletá země* (1910, in Russian 1923), by which the author, Karel Hloucha, achieved his reputation as the founder of Czech science fiction, served Obruchev—as has already been said—as a foil, to which

Obruchev intended to respond. In a sense, Obruchev took the plot from Hloucha, who had envisioned a warm oasis amidst Greenlandian ice, where mammoths and Stone Age people had survived, transposed it onto another—scientifically more probable—setting, and added a catastrophic climax that made it more realistic and more phantasmagorical at the same time.¹²

Historically not the nearest but semantically probably the most important subtext for Obruchev is Osip Senkovskiy's "Erudite Trip to Bear Island," which belongs to the fantasticist literature of romanticism. Both Senkovskiy and Obruchev use fresh scholarly insights with regard to the Arctic, but each of them thereby pursues a very specific strategy of relating science and fiction. Senkovskiy's text, a piece of which is known as the "Works of Baron Brambeus"—a mystification typical of romanticist prose writing—gives the account of a joint trip by the baron and a geologist to the Arctic. In this narrative the myth of the warm Arctic is historicized in another specific way. It unfolds in an imbedded narrative: the travellers find an inscription at the entry to a huge cave on the top of a high mountain. Considering the surface structure of the stone to be hieroglyphs, Baron Brambeus—thereby parodying the trend for fascination with decryption after Champollion—is able without any problems to decipher what is assumed to be the carved journal of the last antediluvian man. This carved journal reports first the story of a life under paradisiacal circumstances and then the approaching deluge, evoked by earthquakes and volcanism. As the water level mounts higher and higher, people try to escape, and finally the last creatures retreat to that very same highest mountain. Food becomes scarce and the few left start to eat each other. When there is only one human being left-that is, the author of the fictitious journal-the temperature starts sinking, all the surrounding water freezes, and the last man freezes to death.

The fantasy of this text is obviously not the trip itself or its destination (the utopian island) but the story—the text assumed to have been found and deciphered by the baron, which afterwards emerges simply as the surface structure of a rare stone (a stalagmite). In narrative terms, this story is motivated as a symptom of "illness with theory:" the baron says about himself that the doctor has infected him with theory. Within the paradigm of romanticism Senkovskiy thus turns the tables and by means of fiction lampoons science's fancy. In Obruchev's novel, in contrast, science seems to be taken quite seriously, as is the fantasy of ancient times: the story makes it clear that by means of science every fantasy can become a rational insight.

In the following, I want to answer three further questions concerning Obruchev's literary strategies: (1) How does Obruchev work on the utopian mythology of the warm Arctic? Is there any mythopoetics in his novel? (2)

Is there any added value generated by literary discourse? And (3) are there any political strategies in his staging of geological hypotheses? And if so, of what kind are they?

Obruchev's Work on the Utopian Mythology of the Warm Arctic

How does Obruchev proceed in handling mythology along with geological hypotheses? Compared to Senkovskiy's fanciful account, Obruchev's novel is lacking any temporal or ironic alienation. The expedition and the discovery of the island are presented immediately as incidents of a near, albeit pre-revolutionary past. Therefore, it seems at a first glance to be of a higher degree of fantasy. But at a second glance it is easy to detect that the whole narrative is configured as the verification of a scientific hypothesis that is based on perception and findings conveyed by oral tradition. Considering the immediate Soviet context, Obruchev's text represents a very particular form of "science fiction" that differs from the more common type, in which scientific or technical cognitions are pushed forward to the utmost imaginable extreme. Obruchev's fiction instead illustrates with the aim of not inspiring the imagination by detaching it from reality but of justifying seemingly fantastical imaginings by demonstrating their reality.

But what about mythopoetics? Obruchev uses central elements of ancient mythology: the warm island beyond the Arctic ice and the happy people living there in peace are elements of the Hyperboreans' story, and the biblical tradition of utopian discourse is explicitly quoted in a chapter title: "На пороге обетованной земли" ['At the edge of the promised land']. The catastrophic perishing of the blessed fortunate island is the final event of the Atlantis myth. But the focalization of the narrative foregrounds personages who do not trust in myths but rather in empirical knowledge and sensory perception. The head of the fictitious expedition trusts in recent reports on the unknown, not yet located, island in the Arctic, and in the scientific theories of the movement of the old Siberian tribe called Onkilon from the far eastern peninsula where the Chukchee lived northwards to the remote Arctic shore. Accordingly, all reported incidents originate from scientifically plausible causes. The fact that the Onkilon tribe now live on an island in the middle of the Arctic Sea where species long extinct elsewhere such as the mammoth survived can be explained through geologic arguments:

В этой уединенной Земле Санникова, отрезанной льдами от остального мира, уцелели благодаря этому как животные, вымершие ... так и первобытный человек, остановившийся в своем развитии на низкой ступени вследствие оторванности от остальной земли (Obruchev 1955: 146).

['On this lonesome island that had been separated by ice from all the rest of the world, [supposedly] extinct animals as well as human tribes, which due to isolation stopped their evolution on a primitive level, survived due to just this circumstance.']¹³

In contrast to the utopian conditions ascribed to Hyperborea, the agreeable climatic conditions and fertile soil on Sannikov's island are the result of subterranean volcanic activity and therefore unstable and illusive. In the view of the Russian travellers the perishing of the island is no singular event, but a natural catastrophe quite typical of the region, the causes of which can be explained scientifically without any problem. Despite all its mythological motifs, the specific focalization of the narrative prevents the reader from ascribing any mythological meaning to events or protagonists. Accordingly, the Onkilon, although described as happy and living more or less in peace, are neither idealized nor marked out by quasi-divine talents reminding one of the Hyperboreans. They are, rather, shown as a people determined and handicapped by their low level of civilization. Adhering to shamanism, empowering the shaman as their all-knowing godlike leader, they are characterized by a state of "mythic consciousness" (to cite a cultural philosophy term contemporary to Obruchev, used by L. Lévy-Bruhl, E. Cassirer, O. Frejdenberg) that misleads them and makes them unable to understand what really happens around them. Instead of diagnosing the events as symptoms of a geological process, as the Russians do, "the Onkilon believe now more than ever that under the soil there live evil ghosts" (Ru. онкилоны теперь ... были убеждены более чем когда-либо, что здесь, под землею, обитают элые духи) (Obruchev 1955: 164). With the intention of appeasing the ghosts, they perform rituals of immolation.¹⁴

Comparing the story in Obruchev's novel with the typical plot of a fairy tale—which as a mythological genre is also based on a two-world dichotomy—we can see that this genre pattern also serves as a foil for Obruchev: the hero of the fairy tale, upon returning from his trip to the "other" world, has to forget about it. Obruchev's novel borrows this structure, but relativizes it: as the catastrophe comes about, the island disappears and all collected materials are lost. So, on the one hand, the existence of the island once again cannot be verified and therefore retains the status of a fairyland. On the other hand, through the successful completion of the characters' journey, through their return, and, last but not least, through the novel itself, the two-world dichotomy as a basis for myth and utopia as well is definitely annulled.

Altogether Obruchev's narrative strategy seems clear: by deconstructing the cited myths, by annihilating their utopian elements (two-world

dichotomy, idealization), Obruchev integrates the island into the space of everyman's experience, makes of it a place that can be described within the same paradigm as part of Russia (the Soviet Union) and as part of the empirical world in general.

The Added Value of the Literary Text

The literary narrative of the novel—I would argue—allows the author, firstly, to experiment with reality, to take speculations as given and, secondly, to combine and integrate different scientific hypotheses into a narrative that outranges scientific discourse on a semantic level, because it provides an allembracing perspective.

Obruchev, who loved to popularize his scientific insights in public lectures, essays and popular fiction, combines a geological perspective with an anthropological one in his novel. My hypothesis is that he narratively instrumentalizes geological events to demonstrate an anthropological proposition. Let me explain this in a few sentences.

Obruchev explicitly cites and fictionally unfolds several geological propositions: (1) that islands in the Arctic appear and perish through volcanism; (2) that warm places in the Arctic are possible in principle because of the same volcanism; ¹⁵ and (3) that islands in the Arctic initially emerged through geological catastrophes that brought about a disruption of the northern part of the Siberian mainland. ¹⁶

The semantic consequence of these presuppositions for the narrative is that the border between Russia and the located island is conceptualized not as an absolute border between two worlds, but as a geohistorically contingent border, which, all the more, is put into perspective as it is only an effect of geological events of a quite near geohistorical past. As a consequence, the setting of the whole narrative appears as one spatial unity and the categorical difference between two spaces (worlds) presumed by the utopian myths is annulled.

Accordingly, the anthropological correlation between Siberian peoples and the indigenous Onkilon is narratively conceptualized not as a principal difference of different races but as a relative difference on the scale of evolutionary development: the evolutionary gap is explained and thereby bridged through the fictionally illustrated hypothesis of the Siberian descent of this people, through their affinity to existing Siberian peoples such as the Chukchee, through comparison with them and through the description of them as an "ordinary" Siberian people.¹⁷ Therefore no principal distinction between the mainland and island populations can be drawn.

The same applies to the relation between Russian travellers and the Onkilon: any categorical distinction comparable to the myth of the Hyper-

boreans is excluded. Likewise, the islanders are not idealized as the Hyperboreans or the Atlanteans were, but rather gradually subordinated to the Russian travellers. All the characters in Obruchev's narrative belong to one world, to one anthropological totality because they are anthropologically perceived as representatives of different evolutionary levels. ¹⁸ Obruchev's strategy of setting a scientific worldview against the two-world concept of myth should now be ultimately clear.

Now, as for the way Obruchev correlates geological and anthropological concepts: on the level of narrative logic the geological catastrophe that is the cause of the Onkilons' doom, as well as an expedition member's killing the shaman in self-defence at the end of the story, ¹⁹ turns out to be a kind of execution of evolutionary law. On the level of fiction it comes across as an illustration of this law.

But there are at least three interesting points in this narrative illustration of anthropological evolutionism which at a first glance contradict the suggested reading: the head of the expedition, Goryunov, has—as indicated by the name—a double, Gorokhov, a native-born but completely assimilated Yakut. According to anthropological stratification both are situated at the top level of civilizational development, but in other respects they are opposed. They are distinguished by contrary attitudes towards (1) myth and reality and (2) native people adhering to shamanism. While Goryunov notices only the blindness and ignorance of the indigenous Onkilon, Gorokhov treats them with respect and empathy. This attitude is, of course, inherently motivated by Gorokhov's descent, and determines Gorokhov to be ranked on a somewhat lower civilizational level. But while still approaching the unknown island, Gorokhov seems to exceed Goryunov in enlightened scepticism: while it is Goryunov who-like Obruchev in real life—believes in the existence of the island because he trusts that there is a grain of truth in the myth, Gorokhov does not even believe his eyes when the island appears on the horizon. He states: "It seemed to me that this is no island at all, but a mirage" (И подумалось мне, что это не земля, а марево) (Obruchev 1955: 24), and: "[...] tomorrow, you will see, we will wake up and there won't be anything but snow" (Вот увидите, завтра проснемся, ничего, кроме снега, не будет) (Obruchev 1955: 27). According to the narrative logic of the novel this point of view is refuted quite soon. Here one could detect a myth that Obruchev himself creates, a myth concerning science, suggesting that scientific research is able to prove myth—the existence of a fairyland beyond the ice—to be reality. But this myth in its turn comes out as no myth at all, because the fairyland turns out to be no fairyland but simply part of the well-known mainland.

But is there not yet another level on which Gorokhov's assumption

bears up? In my opinion there is such a level, namely the metafictional level: Gorokhov's statement may be read as a statement about the novel, which really is a mirage because it has no reference outside fiction; it is a mirage aroused in the reader, who will awaken after reading is completed.

Before concluding the interpretation of this passage I want to draw attention to two other details: although the Onkilon cannot escape their doom because they do not understand what is really happening, the prophecy of their shaman is not confuted by the sequence of events; the prophecy that the disaster of the Onkilon will start with the arrival of "white people" ultimately turns out to be true. Although it misses the causal connection, this vision proves itself true. And the other detail: despite the accidental death of one expedition member, one can observe that the group remains numerically constant because the place of the dead Russian is taken by an Onkilon woman, whom Gorokhov takes along as his new wife. How can we interpret this? I would propose that the narrative deals with the plot elements in a ritualistic way. The story performs a ritual exchange: the perished Onkilon people are symbolically (and not only symbolically) saved by submerging themselves to become Russian people.

Taken together, all three details make it possible, in my opinion, to reconstruct quite a specific hypothesis of anthropological evolutionism, which is narratively displayed in Obruchev's novel: what is old, outdated, is overcome and replaced, but only on one level (cognitive, scientific). It does not totally disappear, but is integrated and gains a new function on the new level of the civilizational process. Therefore, Gorokhov's metafictional statement may be understood to hint at a model that functionally differentiates between scientific and literary discourse, in which literature becomes important not only as a residue of mythological thinking, but also as the discourse through which the modern, scientific world view can benefit from ancient mythology, as the discourse in which scientific cognition can be pushed forwards by mirages.

Political Strategies of Fictional Staging of Geological Hypotheses

But does this integrative anthropo-geological vision not have political implications as well? This last point brings us back to the beginning: as we stated, geology is a science of great political and economical significance, because it promotes mining and may serve as an instrument of quite effective territorial appropriation. On a symbolical level it may provide a tool for justifying territorial claims.

Therefore, no one should be amazed by the high social status that So-

viet geologists enjoyed. Even Obruchev's seamless career, which really is a rare case in Soviet history—he started under the tsarist regime and as a highly decorated dignitary outlived even Stalin—does not need any further explanation.

But is Obruchev's reputation simply based on the practical exploitation of his explorations? Or does he rather pursue a political strategy on the symbolic level of literary discourse as well? Yes, he does: by fictionally enacting the hypothesis that the Arctic islands geologically belong to the Eurasian—that is, from his point of view, Russian or Soviet—mainland and combining it with a harmonizing anthropological thesis into an all-embracing concept of a unitary (temporalized) geocultural space, Obruchev pursues, firstly, a strategy of disenchantment of the Arctic and, secondly, a strategy of dissolving the boundary between Siberia and the North, of pushing Siberia forwards into the Arctic.

But taking a comparative look to what happened afterwards in the 1930s helps us to understand what Obruchev did not do.

The myth of the warm Arctic did not disappear after Obruchev. On the contrary, it experienced a significant revaluation during the 1930s. At this time—in the context of world-famous expeditions that led to the final "conquest" of the North Pole—Stalinist fiction symbolically incorporated the Arctic into a new conceptualization of Soviet space and made of it a symbolically crucial place of Soviet space. Thereby, this new Arctic was envisioned as transformable by Soviet heroes into a warm country, into an (almost) ideal place for Soviet living.²⁰

This is what Obruchev did not do. He contented himself with transforming an Arctic that formerly was conceptualized as a kind of hereafter into a geologically, geographically and symbolically "normal" part of the globe and thereby opening it up for further exploration. To this extent, Obruchev's novel has much in common with other Soviet texts of the 1920s that—as E. Widdis (2003) put it—wanted to explore, but not yet to conquer.

NOTES

¹ Cf. Renate Lachmann, who defines science fiction as a specific kind of moderated, tamed literary fantasticism, because it experiments with the possible, the thinkable but not yet realized, which (presumably) can be derived from new scientific findings and technical expertise (Lachmann 2002: 111 f.).

² Seen in the context of the late 1920s, Obruchev could be regarded as a prototype of the writer envisaged by the late futurist concept of factography, e.g. by Viktor Shklovskij in his article "O pisatele i proizvodstve" ['On the writer and production'], in which creative writing (focused on reality) is expected to be based on the professional knowledge and professional experience of the writer. The writer has to be an expert in the field he is

- "factographically" describing (Shklovskiy 2000 [1929]).
- ³ It was not Fourier but the French mathematical astronomer Pierre Simon de Laplace who first formulated a "nebular hypothesis" concerning the origin of the whole solar system and explaining its development through a process of incessant cooling (cf. Rudwick 2008: 124 f.).
- ⁴ Cf. Adolphe Brongniart's stratigraphical investigations of plant life on a cooling earth (Rudwick 2008: 167–175). Since the 1930s the theory of the cooling earth has been replaced by the theory of global warming—whose pioneers are Svante Arrhenius and Hans Ahlmann (cf. Sörlin 2002: 101 ff.)—which is causing quite a stir in our times.
- ⁵ Obruchev's novel, from its first appearance in print, was edited nearly every year in Soviet times and afterwards. Based on the novel, a movie was released in 1973 (A. Mkrtchyan/L. Popov), which in Russia remains popular to this day. Since the end of the USSR the number and variety of editions apparently has even increased.
- ⁶ During the 1930s the Arctic and the Pole were the most prestigious objects of conquest for Soviet aviators. When in 1934 a squadron of aviators rescued the crew of the Chelyuskin expedition, who after the catastrophic accident of their vessel had held out on an iceflow for more than two months, they were honoured as "heroes of the Soviet Union." Together with Otto J. Schmidt, leader of this and several other well-known expeditions into the Arctic, M. Babushkin, Vodop'yanov and others were called "conquerors of the Arctic," especially when in 1937 they landed directly on the polar ice over the North Pole for the first time, and when in the same year a Soviet aviator for the first time performed a long-distance flight from Russia to the USA, traversing the Arctic and the North Pole. On the symbolic significance of Soviet Arctic heroes in the 1930s cf. McCannon 1998, Günther 1993.
- ⁷ This configuration of the crew exemplarily demonstrates the most important protagonists of Russian colonization of Siberia, the Far North and the Far East. A pretty good part of the field investigation of the Imperial Geographical Society was made by banished scientists (cf. Weiss 2007: 37 ff.). That exiles were engaged with field investigation in remote regions is not untypical for Soviet circumstances either.
- Today the Hyperborean myth lives on in the northern parts of Europe as an important part of the imagology of the political ultra-right. For the Russian context cf. the influential book of the leader of the so-called "Eurasianists" (sic!), Aleksandr Dugin, Znaki velikogo norda. Giperboreyskaya teoriya ['Signs of the great nord. A Hyperborean theory'] (2008).
- ⁹ Jules Verne picked up the two myths, Atlantis and the Hyperboreans, separately in two novels (Hyperboreans in *Voyages et aventures du capitaine Hatteras*, 1866, Atlantis in *Vingt mille lieues sous les mers*, the novel about the underwater world of Captain Nemo). Obruchev too, aside from *Sannikov's Land*, took a great interest in the myth of Atlantis and dedicated some fiction and an essay to this topic (cf. Murzaev 1986).
- The astronomer Edmond Halley, as a deduction from Newton's theory of gravitation, mapped out the theory of the hollow earth. Among many other science fiction texts, Verne's novel *Voyage au centre de la terre* is obviously inspired by the theory of the hollow earth too. At the end of the nineteenth century and in the early decades of the twentieth century this theory experienced a revival and in some esoteric and/or neo-Nazi associations remains popular to this day.
- ¹¹ This novel first appeared in print in 25 issues of the journal *Az Üstökös* between 2 January and 19 June 1875. The German translation appeared in print simultaneously in 26 issues of the journal *Pester Lloyd* between 3 January and 22 July 1875. Afterwards, the

- short novel underwent many reprints. For the reference to the novel by Mór Jókai I am indebted to Johan Schimanski.
- ¹² Concerning Greenland, the idea of a warm centre of the Arctic island was not new at all. The toponym itself hints at it or at least at a warmer past. I am grateful to one of my anonymous reviewers, who advised me of the fact that the idea of a warm inner part of the island guided Sibiriakoff in his sponsorship of Nordenskiold's Greenland expedition.
- Although an English translation of the novel exists (three editions—from 1969, 1988, and 2002—seem to be available at the moment), the translations from Sannikov's Island in this article are mine, S.F.
- E.g.: "... онкилоны бросили несколько кусков мяса в озеро и три раза поклонились ему. —Воины благодарят подземных духов за то, что они ночью только попугали, но не причинили зла, пояснила Аннуир" ['... the Onkilon threw some peaces of meat into the lake and then three times took a bow. —The warriors thank the subterranean ghosts for only spooking at night but not doing any harm, Annuir explained'] (Obruchev 1955: 166).
- 15 Сf. e.g. a dialogue between the protagonists: "Но разве могут быть вулканы среди полярных льдов? спросил Костяков. —Почему же нет! В южной полярной области есть даже действующие вулканы Эребус и Террор [...] А в Ледовитом океане мы находим вулканические породы разного рода" ['But is volcanism actually possible amidst the Arctic ice? Kostyakov asked. —Why not! In the southern Arctic region even active volcanoes occur [...] And in the Arctic Ocean we can find many different kinds of volcanism'] (Obruchev 1955: 61).
- ¹⁶ "Почему же Большой Ляховский остров стал излюбленным приютом различных млекопитающих послеледникового времени? Это можно объяснить тем, что в начале четвертичного периода суша Сибири простиралась значительно дальше на север, чем в настоящее время, и Новосибирские острова входили в состав этой суши" ['Why did the Great Lyakhovskiy Island become a popular home of several mammals of the postglacial era? This can only be explained by the mainland of Siberia reaching much farther northward than today at the beginning of the Quarternary, and the Novosibirsk Islands being part of that mainland then'] (Obruchev 1955: 31).
- ¹⁷ The parallel is repeated several times. Cf. e.g.: "Подобно другим народам Севера" ['Like the other Northern tribes'] (Obruchev 1955: 151).
- The civilizational stratification of the one evolutionary space becomes even more differentiated by introducing a second tribe, the Vampu, who in comparison to the Onkilon are situated on an even lower civilizational level. These tribes are held in opposition in terms of world view, religion, and social structure, and are assigned to the great periods of the history of mankind: the beginning of the Stone Age and the transition to the Iron Age.
- ¹⁹ An episode that in a way anticipates the Soviet campaign of the late 1920s against Siberian shamanism (cf. Slezkine 1994: 226ff.).
- ²⁰ On the history of Soviet concrete and symbolic "conquest" of the Arctic cf. McCannon's book *Red Arctic* (McCannon 1998). On the concept of the "warm Arctic," or rather of "warming the Soviet Arctic," cf. my article (Frank 2010).

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