Screenplay for the film "1938 — Trofim Lysenko and Nikolai Vavilov. Historical Chronicles with Nikolai Svanidze" written by Marina Zhukova, translated by AI, and preceded by a summary also written by AI. Screenplay Summary:

The text tells, through the intertwined lives of Trofim Lysenko and Nikolai Vavilov, the story of Soviet agricultural science under Stalin, set against the backdrop of the Great Terror of the 1930s. It begins in January 1938 at the Grand Kremlin Palace, where the newly created Supreme Soviet of the USSR convenes. At the symbolic top of the new hall, in the place once occupied by the tsarist throne, sits Trofim Lysenko: academician, president of the All-Union Academy of Agricultural Sciences (VASKhNIL), deputy of the Supreme Soviet, and deputy chairman of its upper chamber. He is not even a party member, yet is presented as the living embodiment of unity between Party and people.

Around him, figures who will soon be purged still hold their posts: Marshal Blücher, later arrested and tortured to death; leading journalist Mikhail Koltsov, who will be shot; senior officials in agriculture accused of "sabotage." The Great Terror hits agriculture and the Academy especially hard. Two successive presidents of VASKhNIL, including the brilliant plant breeder Georgy Meister, are arrested and die in prison. Their real "crime" is scientific opposition to Lysenko. The official press calls for "merciless uprooting" of enemies from scientific institutions, preparing the ground for the destruction of genetics.

Opposite Lysenko stands Nikolai Vavilov, a towering scientist and gifted administrator. He builds a whole network of agricultural institutes, gathers a unique global seed collection of immense value, and is hailed as "the pride of Soviet science." From a prosperous but originally peasant family, he is a convinced Soviet patriot, not an enemy of the regime. He rises quickly after the revolution, has powerful patrons in government, and initially participates in the official line: he signs letters supporting collectivization and endorsing some of the show trials.

It is Vavilov who originally backs Lysenko, recommending him for prizes and positions, intrigued by the idea (already known in Western science) of cold treatment of seeds. But Lysenko is a poor scientist and a ruthless careerist. He grasps the logic of the Stalinist system better than the genuine scholars: he gives the regime a class-based narrative against "bourgeois scientists" and "formal geneticists," and promises miraculous increases in yields. His projects — jarovization of crops, mass castration of wheat ears by kolkhoz peasants with tweezers and scissors, claims that one species can easily be turned into another — are pseudoscientific and chaotic, yet they receive full state backing. They destroy valuable varieties in a country already ravaged by famine, but fit the political hunger for miracles.

Stalin likes what Lysenko represents: an ideological weapon against "Western" science and a convenient scapegoat for failures in the fields. At a Kremlin meeting, he publicly applauds Lysenko, whose speech attacks "kulak wreckers" in science, praises uneducated peasants guided by Stalin's "only scientific methodology," and scorns the idea that one needs higher education to do genetics. Lysenko's anti-intellectual, anti-expert tone and his open contempt for formal education and scientific literature become perfectly aligned with the climate of terror.

As time passes, Vavilov realizes how destructive Lysenko's pseudo-science is. He tries to shield his institute's staff from arrest while quietly criticizing Lysenko in letters to the authorities, warning of "highly dubious ideas" being imposed by administrative force. He ultimately chooses to stand by

scientific truth, famously declaring in 1939, "We will go to the stake, but we will not renounce our convictions." That choice seals his fate. After a cold and humiliating interview with Stalin, he is arrested, tortured, forced to confess to imaginary "sabotage," and pressured to incriminate colleagues. Sentenced to death and then reprieved to a long prison term, he dies of exhaustion in 1943 in a Saratov prison, his body dumped in a mass grave.

Lysenko, by contrast, survives every political turn and dies in 1976, scarcely losing his privileged position, even though his own brother collaborated with the Nazis during the war. The text ends with Lysenko's own boast that in the Soviet Union "organisms are born, and people are made — I am one of those made people." That line encapsulates the core theme of the narrative: how a totalitarian system can "manufacture" and glorify a destructive pseudo-science while sacrificing its greatest genuine scientists.

1938 – Trofim Lysenko and Nikolai Vavilov

On 12 January 1938, in Moscow, in the Grand Kremlin Palace, the 1st Session of the Supreme Soviet of the USSR opens. The hall where the meetings now take place has been built on the site of the demolished Alexander and Andreyev Halls. Before the revolution, the Andreyev Hall was the throne room.

In 1938, on the spot where the throne used to stand, there is now a statue of Lenin. Below the statue, in the new meeting hall of the Supreme Soviet, three levels of tribunes have been constructed. The two lower side tribunes are reserved for the leaders of the Party and the government. Stalin also sits on the lower tribune. Above that is the tribune for speakers. And higher still, at the very top, above the hall and even above Stalin, is the tribune for the chairmen of the chambers of the Soviet parliament and their deputies.

It is on this tribune, practically in the former throne's place, that in January 1938 sits Trofim Denisovich Lysenko. He is an academician of the All-Union Lenin Academy of Agricultural Sciences, VASKhNIL. He is a deputy of the Supreme Soviet, deputy chairman of the upper house of parliament — the Soviet of the Union. He is non-party, but no one is bothered by that. Trofim Denisovich Lysenko is the living embodiment of the unity of Party and people.

Together with Lysenko among the deputies of the Supreme Soviet is Marshal Blücher. They register together. It is 12 January 1938. And on 31 August 1938, Vasily Blücher will be removed from his post and then arrested. He will die in prison on 9 November after the most brutal torture. His sentence will be handed down four months later — to a dead man. He will be charged with espionage in favor of Japan.

Blücher's arrest follows the events at Lake Khasan and the fighting at the Zaozyornaya and Bezymyannaya hills. The local military clash with the Japanese in August 1938 ends in heavy losses for the USSR. The ratio of losses with the Japanese is three to one. The Khasan events show the USSR is not ready for war. According to Stalin's favorite pattern, someone must be made the scapegoat. Blücher is the third marshal to perish, after the executed Tukhachevsky and Yegorov.

In the press after Khasan, the general tone is boasting, full of hat-throwing bravado.

At the 1st Session of the Supreme Soviet in 1938, among the guests is the most famous Soviet journalist, Mikhail Koltsov. He will be arrested on 13 December 1938. The day before, on 12 December, he speaks at the Writers' Club, giving a lecture on the *Short Course on the History of the VKP(b)*. He explains how the country will move from socialism to communism. After that, Koltsov hosts a friendly party. He is cheerful. Everyone walks him to his car. That night he is arrested. He will be shot in 1940.

The textbook *Short Course on the History of the VKP(b)*, which Koltsov spoke about, was developed with Stalin's personal participation. Stalin removed from the text the most odious panegyrics in his honor, which could provoke distrust or smirks, and deleted the paragraph "The Beginning of Stalin's Revolutionary Activity". He personally wrote the second paragraph of Chapter 4, "On Dialectical and Historical Materialism."

From now on, this will be the official exposition of Marxist philosophy. In 15 years, the *Short Course* will be printed in 42 million copies in 67 languages. This book is the Soviet party Bible.

The day before the opening of the 1st Session of the Supreme Soviet, on 11 January 1938, the newspaper *Socialist Agriculture* publishes an editorial titled: "Clean Up the Academy of Agricultural Sciences. Mercilessly Uproot Enemies and Their Tail from Scientific Institutions." By this time, two presidents of VASKhNIL have already been arrested in succession. The first is Alexander Muralov, formerly People's Commissar for Agriculture of the RSFSR. He has been shot. After Muralov, the acting president of VASKhNIL, Georgy Meister, is arrested. He held the post for two months.

Meister is an outstanding plant breeder. The varieties of spring wheat he developed are sown on an area twice the wheat acreage of France. Meister literally feeds the country. He is arrested as an enemy of the people. In prison he will go insane and die. The real reason for Meister's arrest is his criticism of Lysenko's scientific approaches.

It is the second year of the Great Terror. Almost all top state officials who led agriculture have been arrested and shot. Until the spring of 1938, VASKhNIL is run by Academician Nikolai Ivanovich Vavilov, in the capacity of vice president. Thus, the January article in *Socialist Agriculture*, calling for enemies in the Agricultural Academy to be uprooted, is aimed directly at Academician Vavilov. In late February 1938, Lysenko is appointed president of VASKhNIL.

In April, a month after Lysenko's appointment, *Pravda* writes: "The consequences of sabotage are still far from being eliminated. Enemy roots are far from uprooted in the Academy." Soon after this, Vavilov is removed from the post of vice president. In essence, from that moment on, both of them, Lysenko and Vavilov, will be waiting for an arrest: Academician Vavilov for his own, Academician Lysenko for the arrest of Vavilov.

The name of the Alexander Hall, destroyed along with the Andreyev Hall in the Grand Kremlin Palace, is linked to the Order of St. Alexander Nevsky, one of the highest Russian orders. The hall was adorned with six paintings from the life of Prince Alexander Nevsky, and on the ceiling were the initials "SA" — *Sanctus Alexander*, Saint Alexander. None of this exists anymore in 1938. But Stalin uses, in his own way, the entire aura of the prince, canonized as a saint, exploiting his name in line with the foreign policy tasks of 1938.

All through 1938, Sergei Eisenstein is shooting the film *Alexander Nevsky*. The famous scene of the Battle on the Ice between Alexander Nevsky and the "dog-knights" is filmed in summer, in

Moscow, in 30-degree heat. Near Mosfilm, at Potylikha, a field is asphalted, covered in sawdust, naphthalene and salt, then flooded with liquid chalk and glass. This is how Lake Peipus, frozen over, is created. In the original version of the film, Alexander Nevsky dies, poisoned by men from his closest circle. Stalin orders the ending to be changed.

The premiere of the film takes place on 23 November 1938 at the Bolshoi Theatre. The choice of the Bolshoi for this premiere seems natural: the music is by Sergei Prokofiev.

A year later, in autumn 1939, after the signing of the Molotov–Ribbentrop Pact, which establishes friendship with Hitler's Germany, *Alexander Nevsky* will be withdrawn from distribution.

The film will return to the screens during the war, in the autumn of 1941. In the autumn of 1941, during the evacuation from Moscow's Butyrka prison to Saratov Prison No. 1, the prisoner, Academician Vavilov, is transported in a convoy. He has already been in prison for more than a year. He is charged with treason, espionage, counter-revolutionary activity, and sabotage in the VASKhNIL system. In June 1941, Vavilov is sentenced to the highest measure of punishment — execution by shooting. He writes a petition for clemency. The People's Commissar of Internal Affairs, Lavrenty Beria, submits a request to the Presidium of the Supreme Soviet of the USSR to commute the death sentence to a long prison term. Beria's request is granted.

Beria knows Vavilov personally. They have met more than once in family settings, both in Georgia and in Moscow. But this means absolutely nothing. It is Beria who, back in July 1939, requested from Chairman of the Council of People's Commissars Molotov authorization to arrest Vavilov. Beria justified the request as follows: "Vavilov and the bourgeois school of so-called 'formal geneticists' he heads are organizing a systematic campaign aimed at discrediting Academician Lysenko as a scientist." In 1939, Beria does not get the authorization. Vavilov will be arrested a year later.

Shortly before the arrest, a meeting between the two academicians, Vavilov and Lysenko, takes place at the All-Union Agricultural Exhibition (VSKhV), later renamed by Khrushchev into VDNKh. A fierce argument flares up between Vavilov and Lysenko. At some point, Vavilov grabs Lysenko by the lapels of his jacket. "Don't touch me!" shouts Lysenko. "You have no right. I am a deputy of the Supreme Soviet of the USSR. This will end badly for you!"

Soon after this scene, Vavilov is sent on assignment to Transcarpathia. Transcarpathian Ukraine, like the Baltic states, has just been absorbed by the USSR under the Molotov–Ribbentrop Pact. Vavilov is sent to study the new Soviet lands.

Two days before departure, Vavilov goes to the VASKhNIL Presidium building to see Lysenko. Lysenko is president of VASKhNIL. The Presidium is in that same house in Kharitonyevsky Lane where Pushkin brings his Tatyana in *Eugene Onegin*. After a short conversation with Lysenko, Vavilov, red with anger, comes out of the office saying: "Because of your activities, the Western countries have overtaken our country on many issues."

Lysenko's activity as a whole, and especially his destruction of Soviet genetics, is indeed of a sabotaging nature. As a pretext for crushing an entire scientific field, Lysenko has a very weighty motive: he is a careerist. In Stalin's era, careerism means a tendency to survive and advance by sacrificing other people's lives. Lysenko's main rival is Vavilov. One of Lysenko's admirers, a graduate student named Donskoy, said this naively at a meeting: "Lysenko stated directly: either

me, or Vavilov, clearly, definitely and very intelligently. He says: maybe I'm wrong, but one of us must not exist."

From this thesis follows the entire destruction of genetics and all of Lysenko's wordy demagoguery. Hence the slogans: genetics is a pseudo-science; genetics is a handmaid of Goebbels' ministry; genetics is a bought-and-paid-for whore of imperialism.

Stalin likes this. It is a way to put pressure on the natural sciences. The humanities have long since been under control. Genetics is now simply killed. Lysenko pronounces the verdict: "Some scientists were quick to make fun of us. But now, I suppose, those who laughed aren't much in the mood for laughing."

The geneticists Nikolai Tulaykov and Georgy Karpechenko are shot. Elena Emme hangs herself in her cell. Grigory Levitsky, Konstantin Flaksberger and Leonid Govorov die in prison.

Academician Nikolai Koltsov will be summoned for interrogations after Vavilov's arrest. He will remain firm and honest, trying to ease Vavilov's fate. Soon he will die of a heart rupture. His wife will commit suicide.

Lysenko's rise was lightning-fast. In 1925, Trofim Lysenko leaves his native Ukraine for Azerbaijan. In Bila Tserkva in Ukraine, where he worked at a breeding station, he had been courting a married woman. The husband intervened. That is when Lysenko left for Azerbaijan, to the Central Experimental Station named after Comrade Ordzhonikidze. Lysenko began to sow peas. He managed to sow them only once, obtained a decent one-time result — and then a *Pravda* correspondent arrived.

An article appears in *Pravda* whose hero is a peasant agronomist, Trofim Lysenko. We read: "He has not been through universities, has not studied the hairy little legs of flies, but has looked into the root of things." Then comes a purely human description of Lysenko: "If one judges a person by the first impression, then from this Lysenko there remains the sensation of a toothache. One only remembers his sullen eye crawling along the ground as if he were at least about to bump someone off." And the finale of the article is radiant and baseless: "The barefoot professor now has followers and pupils, and the luminaries of agronomy come to see him and gratefully shake his hand."

Lysenko never sows peas again. He refuses. But he is not fired. On the contrary, he is given assistants. Lysenko begins to study the influence of temperature on plant development. He does not observe for long — from autumn to spring. He publishes a pamphlet.

Already a year later, Lysenko speaks in Leningrad at a huge All-Union Congress on genetics, breeding, seed production and animal husbandry. The congress is chaired by Vavilov. Kirov delivers the opening speech. In this distinguished audience, Lysenko declares that he has arrived at a revolutionary idea that will bring about a complete upheaval in agriculture. Its essence: if seeds of winter wheat are kept in the cold, they can be sown in spring as if they were spring wheat. Lysenko claims: everything is proven, we can move to practice.

In *Leningradskaya Pravda*, in the report on the congress, Lysenko's name is not mentioned. But three months later, the central press writes: "The kolkhoz member of the 'Bolshevik Labor' artel in the Poltava region, Denis Nikanorovich Lysenko (the father of Trofim Lysenko), sowed in spring two sacks of winter wheat that had been buried in the snow all winter, and supposedly harvested a yield never seen before."

People whispered that Denis Nikanorovich buried the grain not as an experiment but in the hope of hiding it during dekulakization. But that seems no longer to matter. In the summer, on 21 July 1929, even before the harvest, *Pravda* writes about the kolkhoznik's success. Then come articles in *Ekonomicheskaya Zhizn* (*Economic Life*). Two months later, *Pravda* returns to the subject with an article by the Ukrainian People's Commissar for Agriculture, Shlikhger. The commissar writes:

"The neighbors, when they learned that old Lysenko had sown winter wheat in May, decided he had gone mad — 'zaduriv staryy' (the old man's gone crazy). But talk of the 'miracle crop' grew as the winter wheat grew." In addition, the articles suggested that perhaps the special grain had been brought to his father by his son Trofim, on the way to the geneticists' congress in Leningrad. Or the learned son had instructed his father to chill the grain. And they wrote that old Lysenko had gone to the People's Commissariat for Agriculture with a sheaf of wheat grown thanks to his son. The commissar writes plainly: "The discovery of agronomist Lysenko turns winter crops into spring crops."

The word "discovery" in scientific language presupposes long-term confirmation by experiment. But the haste of the Ukrainian commissar for agriculture in 1929 is understandable. After the start of collectivization, Ukraine is completely deprived of bread. The commissar longs for a miracle. And here comes old Lysenko with his son and fantastic yield figures.

The scientists treat talk of Lysenko's "discovery" with respect but caution. They say that cold treatment of grain was known before, but to introduce it widely is premature. A discussion begins in *The Agricultural Newspaper*. It is brought to an end by an article on 19 November 1929 with the catchy title: "Jarovization of Winter Crops — A New Gain in the Struggle for Yield. Lysenko's Experiments Bring Us Close to Solving the Grain Problem." Clearly, this is the official position.

The fact that Lysenko's "discovery" brings no results does not bother anyone.

At the end of 1929, a large laboratory is created for Lysenko at the Odessa Institute of Breeding and Genetics. It is here that Lysenko declares: the new village needs a new science, and he will create it. The year is 1930 — the very height of collectivization. The complete destruction of everything that existed in the village, total confusion. In this chaos, Lysenko calls for sowing winter wheat in spring.

He drafts a simple questionnaire and sends it to kolkhozes so that the unfortunate peasants can monitor their own work. Dekulakization is in full swing, people are being driven into kolkhozes, and on top of that, these questionnaires. They are filled in with random numbers. The figures reflect nothing. Party organs exert pressure. Slogans appear in the newspapers: "We'll strike at the hands of the anti-jarovizers. The enemy stands at the barn door." In every kolkhoz questionnaire, the figures are "slightly" inflated. The combined fraud is gigantic.

The People's Commissar for Agriculture of the USSR, Yakovlev, pays Lysenko benevolent attention.

In 1937, in an article titled "My Path into Science" in *Pravda*, Lysenko candidly writes: "If you have ability and desire, it is easy to become a scientist in our country. Soviet life itself forces one to become, to one degree or another, a scientist. With us, it is very difficult, even impossible, to draw a sharp, impassable line between scientists and non-scientists."

Lysenko's key principle is to put forward some fantastic idea and, without waiting for its realization, to replace it in time with another, even more fantastic and mind-boggling. For example,

yield of all varieties without exception can be increased if we mix the hereditary traits of plants. This is very simple. All that is needed is for all kolkhoz members to take tweezers, tear off the small scales of the flowers, remove the anthers — that is, castrate the plants — and let them be fertilized by pollen carried in the air.

Kolhoz workers are trained. They do not know whether their actions spoil or renew the seeds. But they are credited with workdays for this, and they crawl on their knees across the fields. Lysenko launches his own journal, *Jarovization*. He publishes letters-reports from kolkhoz members: “Recently we had four-day courses on selection. When I returned home, I prepared five women. We castrated 3,400 ears of grain and marked each one with a ribbon and a little flag bearing a surname. The kolkhoz chairman brought a photographer who took pictures of us at work.” Signature: Anna Mikhailovna Tkach, head of the “house-laboratory”.

The chairman of the Krivoy Rog city council, Chebukin, sends a telegram to Lysenko: “129,000 ears of spring wheat castrated.” Lysenko reports to the Central Committee and the Commissariat of Agriculture, promising enormous efficiency. A year later, there are no results. Lysenko writes: “The bottleneck is the availability of tweezers. Demand for tweezers in the USSR has multiplied dozens of times. Industry must satisfy the demand for tweezers.”

Meanwhile, until there are enough tweezers, they decide to use scissors. At the 1936 VASKhNIL session, Lysenko says: “We will need 500,000 scissors for this work, and we must train 500,000 kolkhoz members.” But there are not enough scissors either. They return to tweezers. Newspapers publish advice to kolkhoz blacksmiths on how to make tweezers themselves. Lysenko now declares: “We will need 800,000 tweezers and 800,000 kolkhoz members.”

Besides, wheat can easily be turned into oats, oats into wild oats, hornbeam into hazel, pine into spruce, spruce into pine, and from a warbler’s egg a cuckoo may hatch.

This adventurous, untested practice of “oseef pasivykh” (pardon, the sowing of winter crops), just like planting potatoes in mid-summer, is introduced everywhere by government decrees. The main varieties of grain crops are spoiled, which lowers their yield for many years to come. And this while after dekulakization there is almost no high-quality seed left in the country.

This bacchanal in the countryside would have been impossible without dekulakization. Experienced, practical peasants responsible for their own farms would have stopped the madness. But they are gone. They have been exiled along with their children, and there is no one left to defend the land.

There was a second factor that ensured demand for Lysenko. The famine of 1931–1933, ration cards in 1934, and a new wave of hunger in 1936 make Lysenko’s promises of bread and potatoes a kind of psychotherapy for the population. The authorities, in the interests of self-preservation, promote this “people’s academician.”

Trofim Lysenko will retain throughout his life a contempt for education and books. He never takes any of the examinations required for an academic degree and on principle never writes either a candidate’s or a doctoral dissertation.

At the end of the 1950s, he will boast that a large staff of translators works for him and will add: “There’s no use eyeing the works of those infidels. One must reach everything with one’s own wits and rely less on authorities, especially Western ones, or else, who knows, they’ll lead you

somewhere you shouldn't go." But Lysenko's lack of education never prevents him from understanding and sensing the logic of the Soviet system.

In 1935, Lysenko steps up to the tribune in the Kremlin at a meeting between Stalin and shock-worker peasants. "Comrades," says Lysenko, "kulak saboteurs are encountered not only in your kolkhoz life. They are no less sworn enemies for science. A lot of little blood had to be let in various disputes with the so-called 'scientists'. Both in the scholarly world and outside it, the class enemy is always the enemy."

The hall bursts into applause, although Lysenko is publicly denouncing his colleagues. He continues: "Many scholars said that kolkhoz members cannot engage in genetics, because one has to finish an institute for that. But that is not so. On the basis of the only scientific methodology, the only scientific guidance that Comrade Stalin gives us every day, this work is pulled through by the kolkhozes." Lysenko concludes: "I am sure I have explained the questions of genetics badly. I am not an orator, I am only a jarovizer."

Stalin rises and shouts: "Bravo, Comrade Lysenko, bravo!"

Trofim Lysenko is the heir of Grigori Rasputin — in his wildness, irresponsibility and scope. Like Rasputin, he exploits his simple peasant background. And like Rasputin, he exerts a hypnotic effect on power. The difference is that Russian society rejected Rasputin. Soviet society greets Lysenko with delight.

Lysenko could hardly have deceived Stalin personally. Stalin's theatrical "bravo" is an assessment of Lysenko as an actor, a "people's artist." Lysenko promises miracles. In a country of militant atheism, people believe in these miracles. That suits the regime: the expectation of miracles replaces food.

At the same meeting of Stalin with the kolkhoz members, Vavilov also speaks. When he steps up to the tribune, Stalin leaves the hall. In Stalin's absence, Vavilov says: "I must mention the brilliant work carried out under the guidance of Academician Lysenko." Lysenko's whole rise takes place against a background of support from Vavilov.

Vavilov was not under the spell of Lysenko's personality. He fell for the idea Lysenko had stolen from the biologists Gassner and Zaitsev and was crudely trampling. Over 110 expeditions around the world, Vavilov had collected a unique collection of plants and seeds. Today, a quarter of the plants in the Vavilov collection are considered extinct. Modern Western estimates of the collection's value reach 8 trillion dollars.

Vavilov's dream is to use this collection to obtain new, high-quality varieties. Work with this collection, even now, could ensure the survival of all humanity.

In Lysenko's crude attempts to freeze seeds haphazardly, the scientist Vavilov catches a rational kernel for his own future experiments. Moreover, he is terribly eager to do experimental work and escape from his enormous administrative load.

In 1932, Vavilov recommends Lysenko for a trip to the geneticists' congress in the USA. Lysenko does not go, but Vavilov speaks about him at the congress. In 1933, Vavilov nominates Lysenko for the Lenin Prize. He writes: "We would consider Comrade Lysenko one of the foremost candidates for the prize." The prize is not awarded. In February 1934, Vavilov recommends Lysenko for corresponding membership of the Academy of Sciences of the USSR. He is not elected. In 1938,

Lysenko is nominated directly as a full academician. He will be elected full member of the Academy in January 1939, together with the USSR Prosecutor Vyshinsky.

The support Vavilov long gave Lysenko may have another explanation, of quite a different kind. Lysenko is a Stalinist star. Meanwhile, the social composition of Vavilov's institute is extremely dubious for those times. Among the senior specialists, a quarter are nobles. Among junior staff, about 15 percent. There are also sons of industrialists and former large landowners. As early as February 1930, *Pravda* had come out with an article under the sinister headline "The Institute of Noble Botanists."

It is likely that Vavilov believed that by supporting Lysenko, he could more effectively secure the release of arrested staff members. A wave of arrests hits the institute already in 1932. From 1932 to 1937, Vavilov appeals to the Commissar for Agriculture, Yakovlev, for the release of 44 scientists. This is a matter of Vavilov's personal courage. Yakovlev, unlike many other commissars, often responds positively to Vavilov's requests.

Perhaps Vavilov's long infatuation with Lysenko is also explained by Vavilov's own origins.

Nikolai Ivanovich Vavilov and Trofim Denisovich Lysenko started from different positions. Lysenko is from a peasant family. Vavilov, on both his father's and mother's sides, is separated from the peasantry by one generation. This difference of a single peasant generation, combined with completely different political circumstances in which these two young men come of age, will determine the fate of each of them, their relations with one another and with the authorities.

For Lysenko, his "peasantness" will be his main trump card. For the son of a former serf, Vavilov, everything will be much more complex.

Nikolai Vavilov's father, Ivan Ilyich, after the abolition of serfdom, went to Moscow, where he found work with the owners of the Prokhorov textile mill, today "Trekhgorka". The son of a former serf showed a talent for commerce and industry. He became co-director of the Prokhorov mill and opened his own business. He had a row of shops in the most famous Moscow store — the Petrovsky Passage.

He was a bold businessman. He became a millionaire. After 1917, he abruptly left for abroad. The family stayed in Russia.

Back in the 1905 revolution, the 17-year-old Nikolai Vavilov and his younger brother Sergey took part in street events on Krasnaya Presnya. This could be dismissed as youthful, student radicalism. But Vavilov's later biography shows it was not just a matter of age.

Nikolai Vavilov, it seems, did not escape a specific domestic version of guilt towards the people. In him this feeling was doubly strong: firstly, as a Russian intellectual toward an illiterate people; secondly, as the son of a successful businessman who himself came from humble origins. This attitude will show itself in his relations with Lysenko. Vavilov sees all of Lysenko's lack of education, but attributes it to Russia's historical circumstances and thus feels obliged to help and patronize him.

The millionaire's son, Nikolai Vavilov, receives his agronomy degree in 1911. He has obvious research interests. He is active, looking for opportunities for scientific work. He asks to be taken on as a trainee by the leading Russian botanist Regel at the Bureau of Applied Botany in Petrograd,

which conducts independent scientific work, manages a network of experimental stations and advises the Ministry of Agriculture of Russia. Vavilov is accepted as a trainee.

In six pre-revolutionary years, Vavilov manages to complete a 14-month internship in Cambridge, work in Germany and France, teach in Petrograd and Saratov, go on an expedition to Persia and receive an invitation to take the post of deputy head of the Department of Applied Botany in the Ministry of Agriculture of Russia.

In the recommendation for the post, Vavilov is rated extremely highly: “In the person of Vavilov we are attracting a young scientist of whom Russian science will yet be proud.” His immediate superior, Professor Regel, writes to him: “I regret that this joyful event cannot be reinforced by appropriate toasts with the suitable liquid at a communal table or small table.” The impossibility of sitting at a table is easily explained: the letter is dated 25 October 1917 — the very day of the October coup.

Vavilov fits into the new political situation.

In 1921, he already heads a department in the People’s Commissariat for Agriculture. From 1918 to 1921, Vavilov travels to the USA; while in Europe, he meets his father in Berlin. And most importantly, in 1920, at a congress of breeders, he delivers a paper titled “The Law of Homologous Series in Hereditary Variation.” The audience’s reaction is clear: “Vavilov is our Mendeleev.”

If Mendeleev’s periodic law makes it possible to determine the properties of elements not yet discovered, Vavilov’s law allows one to predict the existence of plant forms not yet known but to be found in the future.

In the Commissariat of Agriculture, he is called “the pride of Soviet science” and appointed director of the State Institute of Experimental Agronomy, the country’s main agricultural research institution. Vavilov, evidently taking after his father, proves to be an excellent administrator.

In 1924, a new institute is created especially for him: first the Institute of Applied Botany and New Crops, then the All-Union Institute of Plant Industry, simply VIR. The institute is based in Leningrad, but it is opened in Moscow, in the Kremlin.

The institute’s task is to increase the yield of all agricultural lands in the USSR. The institute has a representative office in New York. For chairman of its scientific council, Vavilov proposes Nikolai Gorbunov. He is an old Bolshevik and Lenin’s personal secretary. In 1924 this still carries weight. But that is not the main thing.

Nikolai Gorbunov is also the manager of the affairs of the Council of People’s Commissars of the USSR. Vavilov’s friendship with Gorbunov solves many organizational and financial problems. This move means that Vavilov understands the Soviet economic system perfectly and knows its shortest and most effective routes. His institute is directly subordinate to the government.

Friendship with Gorbunov, many other connections at the highest level, and the rapid development of the career of the very capable scientist Vavilov all shape his positive attitude toward Soviet reality. He is in no way an oppositionist. Vavilov is constantly traveling around the world and could easily have stayed abroad. He is so far from opposition that in 1927 he persuades his father to return and brings him back to the USSR. The father dies in his homeland two months later.

In 1926, Vavilov receives the Lenin Prize; he is a member of the Central Executive Committee of the USSR. In 1929, he is elected an academician. His candidacy is included in a list approved by the Politburo.

This list had three categories. Under number one were members of the VKP(b). Under number two, “candidates closer to us”. Under number three, “acceptable candidates”. Vavilov was “acceptable”, which is very good for 1929 for the son of a millionaire émigré. In 1930, he also receives the Institute of Genetics in Moscow. By 1930, more than 1,000 employees are working at the Leningrad VIR; by 1935, 1,700. At Ioffe’s Phys-Tech, there are only about a hundred.

Vavilov lectures, presents papers, reads a mass of foreign literature. He attends theater premieres, is friends with writers and actors, and women like him. He sleeps four to five hours a night.

Together with Vavilov, Bukharin is also elected an academician in 1929. He belongs to the first category, as a member of the VKP(b) since 1906.

In March 1938, the trial of Nikolai Bukharin, in the case of the so-called “Anti-Soviet Right-Trotskyist Bloc”, completes the series of Stalinist show trials against “anti-party” elements.

Bukharin, “the favorite of the Party” in Lenin’s phrase, Stalin has kept for dessert. Bukharin is shot in the night of 14 March 1938. In May 1938, Nikolai Vavilov signs an appeal to Stalin, approving the repressions and expressing the wish “to help cleanse our country of the remnants of Trotskyist and other counter-revolutionary scum.” Before that, in 1937, together with several academicians, Vavilov had signed a telegram to the newspaper approving Tukhachevsky’s execution. In his time, Vavilov had welcomed collectivization.

At the VASKhNIL plenum in May 1930, he said: “Comrades! From tens of millions of scattered individual farms, built on egoistic principles and millennial routine, we are moving in giant strides to enlarged farming, built on the data of science. We observe an unprecedented expansion of agriculture.”

Undoubtedly, Vavilov’s public profile — he is a public figure — contributes to the success of his institutes. But he is an unquestionable Soviet patriot, despite everything. In 1930, during a trip to the States, he meets the scholar Dobzhansky, who has not returned to the USSR. Their conversation takes place in a national sequoia park. No one hears them. Dobzhansky later recalls: “Vavilov says that nowhere in the world is the work of a scientist valued so highly as in the USSR. For that alone, one can forgive the harshness of the regime.”

That same summer of 1930, when the conversation in the sequoia park is taking place, in the USSR outstanding agrarian economists Chayanov and Kondratiev are arrested, men whom Vavilov knows well from the Commissariat of Agriculture.

Chayanov and Kondratiev are charged in the case of the never-existing Labor Peasant Party. We do not know Vavilov’s reaction to their arrest. Chayanov, Vavilov’s fellow student, will be shot in 1937, Kondratiev in 1938.

The case against Vavilov himself, based on false denunciations, starts to build from 1930. Stalin doesn’t move it forward for a long time, though he encourages Lysenko’s public attacks on Vavilov. On 8 May 1938, Lysenko is invited to the Council of People’s Commissars, that is, to the government, to a meeting with a very small circle of scientists. Following this meeting, the country’s leadership notes: “In some institutes, pseudo-science finds refuge.” On 17 May 1938, at a

Kremlin banquet with scientists and higher-education teachers, Stalin calls for a struggle “against the old authorities, the priests of science, closed up in their shell.”

Shortly after, the Presidium of the Academy of Sciences declares: “In some institutes, the servility toward reactionary ideas of Western science is far from eradicated. A prime example is the Institute of Genetics.”

For some time after this powerful pressure, the experienced administrator Vavilov maneuvers, publicly admits mistakes, and says: “Comrade Stalin’s speech must become the starting point of a fruitful rise of Soviet genetics.”

Immediately afterwards, the scientist Vavilov gets the upper hand over Vavilov the administrator, with his years of Soviet habits and instinct for self-preservation. Nikolai Vavilov writes to the Commissar for Agriculture: “Taking advantage of his position, Lysenko has begun to settle scores with his ideological opponents. His administrative position and low level of culture are leading to the implementation of his highly dubious ideas.”

And in March 1939, Nikolai Vavilov publicly declares: “We will go to the stake, but we will not renounce our convictions.”

In November 1939, Vavilov is summoned to see Stalin. Two hours of waiting in the anteroom. He is admitted to Stalin at midnight. Stalin does not respond to his greeting. Vavilov reports on the work of the institute. Stalin cuts him off: “Well then, citizen Vavilov, are you going to keep on dealing with flowers, petals and other nonsense? And who is going to deal with crop yields?” Vavilov tries to explain the substance. Stalin abruptly ends the meeting: “Is that all, citizen Vavilov? Come. You are free.”

Vavilov remains “free” for another six months.

In November 1938, Yezhov is removed from his post as People’s Commissar of Internal Affairs. While heading the NKVD, Yezhov also headed the People’s Commissariat of Water Transport. After his removal from the NKVD, he remains in Water Transport and as Secretary of the Central Committee. On 10 April 1939, Yezhov is arrested for unsatisfactory work in water transport, as well as for “excesses” during the 1937–1938 operation known to history as the Great Terror. Later, the indictment will include espionage in favor of Poland, Germany, England and Japan, and conspiracy against the Party and government. Yezhov will be shot in 1940.

In his place at the NKVD comes Lavrenty Beria.

On 17 November 1938, a decree of the Council of People’s Commissars and the Politburo is issued: “On the Limitation of Repressions.” This document ends the Great Terror, but not terror itself. The repressive apparatus gropes for new methods of work. One of them will soon be the organization of the famous *sharashkas* — special zones for people with outstanding intellectual abilities, where they will be exploited for strategic purposes in a prison-like regime.

In a sharashka it is easier to survive. Later, Aleksandr Solzhenitsyn will describe the work of such sharashkas in detail in his novel *The First Circle*. The aircraft designer Sergei Korolev will work in a sharashka. He was arrested on 28 June 1938. Vavilov will not be destined to end up in a sharashka.

A cellmate of Vavilov, named Lobov, will write a statement to the investigation department: “Vavilov N. I. is filled with a special hostility toward the leaders and chiefs of the Party and

government, above all toward I. V. Stalin and V. M. Molotov. He considers them ‘mere mortals like everyone else, and not the gods they have been made into by the grovellers.’ He calls the political regime in the country ‘usurper’s rule’.”

At the NKVD, Vavilov was tortured and driven to the edge of insanity. He agrees to the charge of sabotage. Then they extract testimony from him against his colleagues.

From the Saratov prison, during the war, Vavilov writes to Beria. He asks to be sent to the front. He will die in prison in 1943 from exhaustion, and his body will be thrown into a mass grave.

Trofim Lysenko will live until 1976. Luck will practically never abandon him, even though his own brother collaborated with the Germans during the war.

Lysenko said about himself: “In our Soviet Union, comrades, people are not born, organisms are born; and people are made. And I am one of these made people. I was not born a human being, I became one. That is more than being happy.”