

ESTONIAN STATE COMMISSION ON EXAMINATION OF THE POLICIES OF REPRESSION

The WHITE BOOK

LOSSES INFLICTED ON THE ESTONIAN NATION BY OCCUPATION REGIMES

1940–1991

This work has been completed as a result of the work of the Estonian State Commission on Examination of the Policies of Repression and with the support of the Riigikogu, the Government of the Republic of Estonia and Ministry of Justice.

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FOREWORD

In 1992, the Riigikogu of the Republic of Estonia established the Estonian State Commission on Examination of the Policies of Repression (ESCEPR) and set it „the final goal to publish a scientific investigation into all the losses and damages suffered by the Estonian nation during the occupation regimes”.¹

Only now, after twelve years of investigation work, the ESCEPR is able to publish a survey, which sums up the present state of our knowledge, in the form of eight original papers dedicated to the following fields: population, cultural life, environment and economy. The papers are based on archival materials preserved in Estonia, because till the present day it has not been possible to use the materials in the archives of occupation regimes. However, in the present analysis all published source materials have been taken into account.²

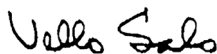
Therefore, the following papers contain data of two types:

- 1) Scientifically documented losses and damages;
- 2) Estimates based on the latter.

The papers in *The White Book* are similar in structure: they start with a short summary that is followed by the text, in which a more detailed overview of the losses, of their significance and investigation is given. Details can be found in references; sources and monographs are given in the bibliography section.

The Commission wants to thank everybody who has contributed to the compilation of this survey.

Vello Salo
Chairman of the Commission



¹ Riigi Teataja no. 40/1993, art. 591; see § 20.

² The ESCEPR has published 20 scientific papers in 1994–2002. Because of that, only estimates of the number of citizens of the Republic of Estonia who died while fighting in the army of the Soviet Union can be given now.

SURVEY OF OCCUPATION REGIMES

Enn Sarv and Peep Varju

In 1939 the heavy pressure of great powers preparing for the world war and direct aggression and occupation followed struck the independent and neutral state of Estonia. Three consecutive occupation regimes lasted for more than 50 years.

The Republic of Estonia had signed non-aggression pacts with both the Soviet Union and Germany. The Soviet Union, like Estonia, had joined international legal acts banning aggression. These agreements, together with the Tartu Peace Treaty, formed a system that regulated all mutual relations of the two countries¹.

On 17 September 1939 when the Soviet Union attacked Poland which was on the brink of collapsing under the blows of the German army, it became clear that with the Stalin-Hitler agreement signed on 23 August 1939 (known as Molotov-Ribbentrop Pact) the two great powers had divided Eastern Europe between themselves into their spheres of influence. Soon the Soviet Union presented ultimatums to the three Baltic states: Estonia, Latvia and Lithuania. About a month and a half later, Finland received a similar ultimatum, which was then followed by the Winter War. Accompanied by direct threats, the Soviet Union demanded establishing of military bases for the Red Army on the territory of Estonia and signing of a so-called mutual aid agreement for legalising this military operation. The signing of the agreement was preceded by brutal demonstrations of power: the Red Navy blocked the sea border of Estonia, Soviet aeroplanes violated its air space, large divisions of the Red Army were concentrated on the Estonian border and a Soviet submarine sunk, for provocation purposes, the Soviet ship *Metallist* in Narva Bay.

The Republic of Estonia declared its neutrality in World War II, which had broken out on 1 September 1939, but this step did not hinder the Soviet Union from submitting aggressive demands. Estonia remained in isolation. None of the neighbouring states wished to be the first to offer

any support to Estonia, which had fallen victim to aggression. In this situation the Government and the Parliament (Riigikogu) of Estonia were forced to accept the treaty on military bases to avoid bloodshed and extermination of the people of Estonia. The treaty was signed in Moscow on 28 September 1939 and foreign troops, which exceeded the regular forces of the Republic of Estonia several times, were brought to the bases in October 1939. After the arrival of the Red Army to the bases and of the military fleet to the ports of Paldiski and Tallinn, Estonia was no longer an independent state.

Trying to avoid any conflicts and misunderstandings between the two parties to the treaty, the Government of Estonia fastidiously observed all obligations arising from the treaty. On 12 October 1939 a new Government was formed, headed by the Prime Minister Jüri Uluots. Even some limitation of the fundamental civil rights was applied to avoid possible cases of provocation. At the same time the Soviet Union had no intention to respect the treaty and they provoked a number of conflicts. Russian military personnel working in joint committees submitted new demands, which did not meet the conditions of the signed treaty, tried to enlarge the number of armed personnel arriving at the bases (the Soviet Union actually did this on a unilateral basis) and demanded additional territories for their troops.

During the Winter War with Finland, the Red Army bombers set off from the airports of neutral Estonia to bomb Finnish towns. This was a gross violation of the treaty, the text of which solemnly declared respect for the sovereignty of Estonia. The war that the Soviet Union had started against the Republic of Finland was justly condemned by the League of Nations as an act of aggression. On 14 December 1939 the Soviet Union was expelled from that international organisation. The Soviet aircraft that took part in the Winter War operations cast bombs also on the Estonian territory, attacked an Estonian aircraft flying above Tallinn and committed other crimes, like sinking the Estonian merchant ship *Kassari* on the Baltic Sea on 10 December 1939, which should have provoked an immediate counter-attack from the defence forces of a sovereign state. Nothing of the sort happened and our defence forces showed their discipline and infinite patience by obeying the orders of the commander-in-chief.

At the same time the Soviet General Staff were working out a secret military operation for occupying the Baltic states. With the directive No 02622 of 9 June 1940 the plan was put into action². While Paris fell to the German troops on 14 June 1940, the Soviet Union started to carry out the plan of occupying the Baltic states. Estonia was blocked from all directions — land, sea and air. The Estonian aeroplane *Kalev* that made regular flights between Tallinn and Helsinki was shot down, without warning, over the Gulf of Finland on 15 June 1940 and all merchant ships of Estonia were seized.

On 14 June 1940 the Soviet Union presented an ultimatum to the Republic of Lithuania and the occupation forces invaded the country, cutting through the last land connection of Estonia and Latvia with the West. On 16 June at 15.20 a similar ultimatum with an 8-hour deadline was presented to the Republic of Estonia, accusing it of violating the mutual aid pact, demanding the permission to enter the country for the Red Army troops waiting at the Estonian border, consisting of about 100,000 men, ostensibly sent to protect the troops in the military bases from the alleged danger, and requesting the formation of a new Government of the Republic under the dictate of Moscow. At the same time the troops at the bases were prepared to march towards the capital. The troops started to move even before the very short deadline had expired that had been established by the ultimatum.

The Government of the Republic agreed to all the conditions during the time given to them and Moscow was also informed of it in time. But when the Commander-in-Chief of the armed forces General Johan Laidoner met with the Army General Meretskov in the morning of 17 June 1940 in Narva to sign the agreement on the deployment of additional Soviet forces, the mass of foreign troops had already invaded deep into the territory of Estonia and the troops moving from the bases towards Tallinn had nearly arrived to our capital.

From 17 June 1940 the Republic of Estonia was completely occupied and had factually lost all characteristics of an independent state. All the political, economic and other rearrangements that followed were carried out under the dictate of the Soviet Union, pursuant to the orders of the Embassy of the USSR, the Soviet military leadership or Andrei Zhdanov, the special commissioner of the Soviet Government, who arrived in Tallinn on 19 June 1940. On the same day, Zhdanov met the President of the Republic and informed the President of his plans. According to these plans, the writer Johannes Vares-Barbarus, who had been recruited by the Soviet intelligence and who had agreed to form a new Government, was appointed as Prime Minister. In the secret report on Vares' agreement, the candidates to his Government suggested by him were also named³. All the candidates proposed by the President of the Republic Konstantin Päts were brusquely rejected. J. Vares repeatedly conferred with the Soviet Embassy to co-ordinate the text of the Government declaration and the composition of the Government before informing the people over the radio late at night on 21 June about the entry of the new Government into office.

On 21 June 1940, Member of the 4th, 5th and 6th Riigikogu Maksim Unt, another agent of Soviet intelligence, organised, obeying the instructions of A. Zhdanov, so-called *workers' demonstrations* in Tallinn, i.e. staged a coup. Accompanied by Soviet armoured vehicles and armed Red Army soldiers, the demonstrators went to the Government building at Toompea

and then to the President's residence in Kadriorg, demanding the formation of new Government. Among the demonstrators a large number of migrant workers from Russian military bases stood out because of their special style of clothing and their songs that were unknown to the local people. With the help of the Soviet armoured vehicles, the so-called political prisoners (in fact, common criminals) were freed from the Patarei prison. The most infamous of them was Captain Nikolai Trankmann, a traitor who had sold the plans of military objects at Narva to the Russians. At that time there were only a few political prisoners in Estonia and they were mostly people with criminal background, because after the adoption of the new Constitution, the political prisoners, both communists and the War of Independence veterans accused of attempting a coup, had been set free by amnesty on 5 May 1938.

According to A. Zhdanov's instructions, the so-called elections of the Chamber of Deputies (Riigivolikogu) were staged on 14 and 15 July 1940 under the supervision of the occupation army. Elections were carried out; violating the Constitution and the Elections Act of 1937, pursuant to hastily imposed illegal governmental regulations. The elections were officially declared on 5 July 1940. On the same day, the text of the so-called Appeal to the People was sent from the Embassy of the Soviet Union in Tallinn to Stalin's secretary Poskrebyshev for approval. The same text, which had actually been drafted by the Embassy, was published in the newspapers on 6 July as the election platform of the Estonian Working People's Union.⁴ The national-minded organisations tried to take part in the elections, put up 78 candidates of the opposition for 80 seats and collected 6000 signatures in support of them in few days. The occupation forces had not expected that and by command of Zhdanov, Vares' government adopted a decision on 9 July to remove all candidates opposing the communist block Estonian Working People's Union from the electoral lists. It was done on 10 July. As the only exception, Mr. Jüri Rajur-Liivak, a farm-owner from Raasiku, remained on the list as an opposition candidate. He managed to avoid being arrested before the elections, but later he was arrested just like all other candidates who had been removed from the list. The illegally removed candidates submitted a protest, but the General Committee of Elections looked it through only after the elections on 17 July 1940 and rejected all protests.⁵

After the so-called elections, Riigivolikogu adopted decisions to establish soviet power in Estonia and join the Soviet Union. These decisions had not been mentioned in the electoral platform of the Working People's Union and they were dictated at Zhdanov's initiative only on 17 July when the faked election results were proclaimed. In the three Baltic states the events followed exactly the same scenario, led by three emissaries Andrei Zhdanov, Andrei Vyshinskii and Vladimir Dekanozov.

On 17 July 1940 these three special commissioners, the quenchers of independence of the Baltic states met in Tallinn to plan the next steps jointly.

The best evidence about the results of the elections being faked is the fact that in London newspapers the results were printed several hours before they were officially declared in Estonia. As some members of Riigivolikogu (Paul Rummo, Lembit Lüüs and others, called June Communists because they only declared themselves communists in June 1940) later admitted, they were threatened into voting in favour of the decision to join the Soviet Union that had unexpectedly been taken on the agenda of Riigivolikogu session. In the same way the President K. Päts, who was a prisoner of the foreign power and totally isolated in his Kadriorg residence, was forced to sign all illegal documents.

On 6 August 1940, the Supreme Soviet of the Soviet Union legalized the annexation of Estonia by the Soviet Union. For that, a government delegation headed by J. Vares was brought to Moscow to submit the relevant application and so Estonia became the Estonian Soviet Socialist Republic and a member of the great communist empire. According to the legislation of the Republic of Estonia, all members of the Vares' Government, members of the illegally elected Riigivolikogu and other June Communists, and everybody else who in collaboration with the occupants from the Soviet Union carried out the destruction of the democratic state of Estonia, should be regarded as traitors.

On 12 November 1989 the then Supreme Soviet of the ESSR declared all Riigivolikogu resolutions of 1940 null and void on the basis of the report by A. Kõörna's committee.

The puppet government of J. Vares had the task to demolish the democratic republic and to gradually isolate and physically destroy the more educated and enterprising part of the Estonian nation. During the ensuing mass terror, many people were arrested and executed. In six months of 1940 at least 1082 persons were arrested. Among the first to be arrested were the Commander-in-Chief of the armed forces General Johan Laidoner and President of the Republic Konstantin Päts. Both were deported to Russia in July 1940. M. Unt, who had been appointed Minister of Internal Affairs by Zhdanov, was one of the investigators of this crime, as well as of the demolition of the democratic state of Estonia during the first year of occupation. In reward of the services performed, the NKVD arrested him a year later, on 21 May 1941, and he was sentenced to death for the second time by the communists, having already been sentenced to death in absentia for a crime in Russia during the Civil War in 1919. The sentence was carried out on 30 July 1941.

The genocide crimes of the first year of Soviet occupation caused great human losses to the Estonian people. The political and national elite was the first to be destroyed. All members of the last Government including

the President and the Commander-in-Chief were arrested, except for the Prime Minister Jüri Uluots who managed to go into hiding. On 12 March 1941, the Tartu branch of the KGB decreed to prosecute J. Uluots. The order for sending his family to Siberia was issued on 10 June 1941.

Among the perished are 10 Heads of the State and 68 members of the last Riigikogu of Estonia, 36 of them were shot. One Head of the State and 28 members of the last Riigikogu escaped by fleeing to the West. Of the former Ministers, 65 remained in the clutches of occupation and only three escaped repressive measures. The culmination of this period came on 14 June 1941 with the first operation of mass deportation. Thousands of Estonian families, including babies, very old people and pregnant women were sent from their homes to die in inhuman conditions in Kirov and Novosibirsk Regions. The operation was carried out according to the model worked out in the Soviet Union in the beginning of the 1930s. In 1939, such top-secret orders had been approved for the Baltic states, eastern regions of Poland, and Bessarabia, which had been part of Romania. Although the so-called Serov Document on the Baltic states has a wrong date, this does not change the fact. All these territories were occupied one after another, after the Red Army invaded Poland on 17 September 1939. In Poland the deportations started in February 1940. In Estonia the preparations for mass deportations of the so-called dangerous element started with the decree of the NKVD No 288, on 28 November 1940.⁶

The Soviet Government and Communist Party Central Committee approved the mass deportation decree on Estonia, Latvia and Lithuania on 14 May 1941. The planned target number for Estonia was 14,471 people, but the actual number of victims of the 14 June operation, according to the most up-to-date information, was 9267.⁷ Most of the repressed were destined to perish in the prisons of Russia, prison camps of Siberia or inhuman conditions in exile. The arrested heads of families were separated from their families already in the railway stations and were sent to the prisoners' camps in Siberia. A number of them were murdered: non-judicial councils consisting of three members or 'troikas' issued *post factum* death sentences to thousands of innocent people. There were 1622 registered death sentences in 1941 and 787, in April and May of 1942 alone. Among the murdered were the Elder of the State (President) Jüri Jaakson, several Ministers, members of Riigikogu, leaders of local governments, higher officers, more than 10 women from the Board of the Women's Home Defence (Naiskodukaitse), and others. The mass deportation carried out on 14 June 1941 is a timeless genocide crime of the Soviet government with the aim of destroying the Estonian nation. According to the data of the ZEV committee (German *Zentralstelle zur Erfassung der Verschleppten*; the Centre for Searching and Returning the Deported Persons), 14,890 people suffered repression in Estonia in

June 1941. By the end of July the number of victims of repression reached 30,429 and in August 8146 people were added.

In Eastern Europe the deportation carried out on the week before the war covered the territory stretching from the Baltic Sea to the Black Sea (Estonia, Latvia, Lithuania, territories of Poland and Bessarabia). In one week, 95,000 people were deported from these areas to Russia⁸. According to the ZEV committee estimate of 1943, Estonia lost at least 59,967 citizens during the first year of occupation. This number is further increased by the more than 26,000 people, who either fled or were evacuated to Russia after the outbreak of the war.

The war between two aggressive world powers that broke out on 22 June 1941 claimed new victims among the people of Estonia and also brought along the rapid breakdown of the Soviet occupation regime in Estonia. Attacks of the German army forced the Red Army to leave the continental Estonia already in August 1941, but on the islands battles were waged even in September—October. In the so-called forced mobilisation that took place in violation of the international law, at least 33,304 (or 36,972) men were taken from Estonia to Russia⁹. This act of violence should also be seen as a grave breach and war crime, because the mobilised men were treated as arrestants from the very beginning. They were under the constant surveillance of armed Russian soldiers, since the moment of their arriving at mobilisation centres. In comparison with the general mobilisation proclaimed in the Soviet Union, the age range of the mobilised was extended by 9 years in Estonia; all reserve officers were also taken. The aim was to deport all men capable to fight to Russia, where they were sent to convict camps. In these inhuman conditions at least 10,440 men perished because of hunger and diseases, and also due to the repressive measures of the NKVD. The Geneva Convention calls such violent displacement of a group of humans an act of genocide and a war crime. Among the so-called evacuees, there were 1858 former public servants: sailors, railway workers, factory workers, many of whom also fell victim to violence; these people were under the constant surveillance of the NKVD in Russia.

In the beginning of the war, the communist Government of Estonia formed so-called destroyer battalions, which under the orders of Jossif Stalin and in co-operation with the NKVD special units launched mass terror and used tactics of burnt land, which raged on until the battalions were forced to leave Estonia. The arrestants who could not be taken to Russia during the hurried retreat were executed without trial. Mass murders took place in Tartu prison in the night of 8 July, with 192 victims, and in Kuressaare Castle in September, with at least 90 victims. Altogether there is information about 2,446 murder victims from the first year of Soviet occupation¹⁰. The crimes against humanity committed by the communists in the war summer of 1941 caused massive resistance

movement, which turned thousands of Estonian men into guerrillas hiding in forests. Extensive guerrilla war started and the fighters were called *forest brothers* by the people. After the dissolution of the Defence League (Kaitseliit), the men were left without weapons and thus had to acquire them from the enemy in battles. Tens of thousands of men joined the units of Self Defence Force (Omakaitse) that were spontaneously formed in the beginning of the German occupation. On 1 January 1942, 43,757 men belonged to the Self Defence Force of Estonia.¹¹ Their main task was to secure order. Tens of thousands of Red Army soldiers and remains of the destroyer battalions who had failed to leave Estonia together with the Red Army were still hiding in Estonian forests. It took many months to disarm them; the fight lasted until the end of 1941.

The human losses of Estonia caused by the repressive measures of the first Soviet occupation total 48,000, according to the latest information.

With the German occupation the expectations of the people of Estonia to regain their independence started to diminish. On 29 July 1941, Prime Minister Jüri Uluots, who had survived the Soviet occupation, presented a diplomatic-political memorandum requesting the sovereignty of Estonia to General von Küchler, Commander of the 18th German Army. This was the start of activities aimed at achieving national independence, which soon transformed into a resistance fight uniting nationally minded forces, because new occupation authorities had no intention of allowing Estonia to become independent, although the Self Government of Estonia was formed. In the beginning of war in 1941, many people believed that the state of Estonia would be restored and many resistance fighters who had taken part in the summer battles went to the Eastern Front as volunteers in the German Army to help to defeat the communist state that had mercilessly butchered Estonian people and to free the Estonian citizens who had been deported to Russia. The historians have calculated that the total number of Estonian men who fought as volunteers in the German Army during the German occupation was about 20,000. In February 1942, 20,867 men were in military duty.¹²

During the German occupation the terror continued, but for the people of Estonia it was not as extensive as during the time of the communist rule. Mostly communists and their supporters, destroyer battalion members, Jews and Roma were arrested. During the first year of the war, at least 18,893 persons were arrested, about 45 % of them were freed after short investigation, 5634 were executed and the rest were sent to concentration camps with sentences ranging from a few months to 5 years. So far there is information about 7798 victims during the three years of German occupation, citizens of Estonia who were executed or who perished in prison camps. Among them there are 929 Jews and 243 Roma. It is believed that the number of those perished as prisoners

in German camps was around 1000. In Estonian archives there is no data about their fate.¹³

The notorious report sent to Berlin by one of the influential officials of the occupation power, Martin Sandberger, Chief of the Security Police and SD in occupied Estonia, in which he stated that Estonia was *Judenfrei*, can in no way be connected with the people of Estonia. This report concerns the crimes of the Nazi regime that were committed by the occupants themselves and via the activities of their special groups (*Einsatzkommando 1a*). In occupied Estonia, the whole nation was under pressure one way or the other, many fell victim to unjustified violence, no matter what their nationality, and the archive documents prove that, unlike in some other countries, the Nazis did not succeed in urging Estonians to destroy people of other nationalities. In the pre-war Estonia there was no hostility between different ethnic groups. There are several known cases when Estonian citizens of Jewish origin were hidden and saved from the Nazis. The widely spread falsifications of the Soviet propaganda about the Estonian officers in the German army who were responsible for shooting civilians are also groundless. For example, during the investigation that the KGB started after the war about Colonel Alfons Rebane and his army unit, no facts confirming the fabricated accusation were found in the archives of the Leningrad Region or the archives of the Ministry of Defence of the Soviet Union in 1965.¹⁴ Similarly, no documents have been found to prove that the 36th Front Battalion that had been formed in Estonia took part in the execution of prisoners in Belarus on 7 August 1942 on their way to the front. The 36th Battalion has not been mentioned in any archive document, which lists army units that took part in executions on that territory. After the war, the communist regime worked hard to find and punish persons who had participated in Nazi crimes — and moreover, innocent people were arrested on the basis of frame-ups.

In the beginning of the German occupation, Estonian democratic forces started to consolidate with the aim of fighting for the restoration of independence of Estonia with all means. People had faith in the Atlantic Charter of 14 August 1941, which provided for the restoration of independence of all occupied countries after the war. In this extremely complicated situation of an occupied country, Estonian politicians who had escaped repressive measures were able to come to an agreement and keep to it. Observing the Constitution of 1938 formally still in force, they formed the underground **National Committee of the Republic of Estonia**, which convened on 14 February 1944. The central figure among the democratic forces was the former Prime Minister Jüri Uluots who was pursuant to the Constitution the Acting Head of State instead of the President who was in prison in Russia. In February 1944, when the Soviet troops reached Narva and a new Soviet occupation became a reality, Jüri Uluots' radio interview was the first statement by a national-minded Estonian politician

in support of the mobilisation proclaimed by the Germany-appointed Estonian Self Government. He called upon the men of Estonia to enlist in the army and defend their fatherland against the danger coming from the East. The call was received with enthusiasm and the mobilisation brought together more men than previously expected. Three Estonian battalions — the 1st Battalion of the 45th Regiment, the Tallinn Regiment formed of the mobilised, and the Nord Army Group — were hastily brought to Narva where they stopped the invaded enemy in the battles held in February. On 6 March 1944, the last enemy foothold on the front line between Narva and Narva-Jõesuu was taken. The front remained under Narva for five months and the plan of the Soviet Army General Staff to conquer the whole territory of Estonia in February 1944 failed.

This was followed by a revenge action of terror attacks on Estonian towns. On the same night of 6 March, the Soviet Air Force carried out such massive bombing attack on the town of Narva, that the town was razed to the ground. The civilian population had been almost entirely evacuated from the town by that moment. The artillery of the Estonian Corps also took part in the destruction. Factory buildings were left untouched during the bombing. On 8 March, Russian aircraft attacked the towns of Jõhvi and Tapa. On 9/10 March 1944, Tallinn was bombed in an attack, which lasted from the evening to the next morning, and in which more than 750 people were killed, 5073 buildings were destroyed, 1540 of them completely. More than 20,000 people were left without shelter. The Estonia Theatre, one of the symbols of the Estonian nation, was destroyed; St. Nicholas Church and the valuable medieval documents of the Tallinn City Archives were burned.¹⁵ This attack was also clearly aimed against the civilian population because the Port of Tallinn and industrial buildings were not attacked. On the night of 26 March, the town of Tartu was bombed with disastrous results and 67 of its inhabitants were killed. Altogether, at least 130 people are registered in Tartu Family Archive as victims of bombings who perished in the terrorist attacks of red pilots during the war.¹⁶ According to the Death Register, 2409 people perished in Estonia as a result of bombings during the period 1941 — 1945.

By the end of April 1944 the German SD found out about the underground national committee and mass arrests began. Fortunately, those who were arrested first succeeded to warn their co-fighters who managed to flee. Because of lack of evidence, some of the arrested persons were freed by August 1944. The National Committee of the Republic of Estonia continued its activities and on **1 August 1944 published the Manifest to the People of Estonia**, in which it proclaimed itself the executor of the state power until the constitutional organs of power resume their functions. On the initiative of the National Committee, an agreement was reached on bringing the Infantry Regiment No 200 that consisted

of Estonians, home from the front in Finland. Before the collapse of the German front, 1752 soldiers voluntarily returned from Finland to continue fighting in Estonia. They arrived on 19 August 1944. One battalion was immediately taken to the Tartu front, where their counter-attack in the Pupastvere battle stopped the enemy's breakthrough and stabilised the front for three more weeks. Their desperate resistance at the front gave tens of thousands of Estonians the time to flee to the West. About 80,000 citizens of Estonia who otherwise would have become victims of Soviet terror took this opportunity. The archive documents have revealed that by 1 March 1945, 12,231 refugees were repatriated to Estonia.¹⁷

In the beginning of September, when it became known that Finland would make armistice with the Soviet Union and step out of the war, it became clear that the German occupation in Estonia was about to end.

According to estimations, the permanent human losses during the German occupation in 1941–1944 amount to 32,000. This number includes all those who perished while fighting in the Red Army, Finnish army, German army and the units.

The second Soviet occupation became a reality on 17 September 1944, when the commanders of the German forces announced their plans to leave the continental Estonia. On the same day, the Soviet Army, superior in number, broke through on the Tartu front. The German army had previously withdrawn their heavy artillery and several units from the front, and the defence of the Tartu front had been left mostly to the scantily armed Estonian border defence regiments, the Estonian battalion of the Finnish army (the so-called Boys from Finland), the 46th Regiment of Alfons Rebane and some German army units. In the Sinimäed Hills on the Narva front, the Estonian 20th Division was also insufficiently equipped with heavy weapons, because armaments had been withdrawn from the front along with the German units. The forces that had so far stood their ground on the front in defence battles were forced to retreat. In September, several fratricidal battles were fought on the territory of Estonia, in which Estonian Rifle Corps units of the Red Army, formed in the Soviet Union, fought against the Estonian units of the German army. The battle of Avinurme was particularly sanguinary. In that battle, the Red Army tanks were driven over the train of wounded of the retreating army and Colonel Nikolai Trankmann ordered that the seriously wounded Estonian soldiers who had been brought to Avinurme church be executed. Altogether 25–30 Estonian soldiers fell victim to this war crime and were buried in a gravel pit by the local people.¹⁸ Colonel N. Trankmann, the same person who had betrayed the Republic of Estonia and who had been freed from the Patarei prison on 21 June 1941, was directly responsible for this timeless war crime.

After the Germans' plan to leave Estonia had been promulgated, Jüri Luuots ordered Otto Tief to form the Government and the corresponding

Order of 18 September 1944 was published in State Gazette (*Riigi Teataja*) No 1, issued on 20 September 1944. Out of the 10 ministers appointed to the Government, 2 were in Sweden (August Rei and Rudolf Penno) and the Minister of Justice Johannes Klesment was on his way there with the fatally ill Acting President. All other members of the Government, except Kaarel Liidak, were arrested during the first months of the new occupation. Two of them were executed (Commander-in-Chief Jaan Maide and Head of Internal Defence Juhan Reigo). K. Liidak was in hiding under a false name and died on 16 January 1945.¹⁹

The second Soviet occupation started with mass terror immediately after the arrival of the Red Army: there were arrests by the army intelligence units, by the NKVD special groups, kidnappings and shootings by firing squads. Minister of Internal Affairs Aleksander Resev got a command from Moscow to submit detailed reports every month.²⁰ According to the October report, the number of arrested was 1200 and there were records about 8000 persons who were considered public enemies. The next wave of mass arrests was about a year later, in the end of 1945 and in the beginning of 1946, when the KGB departments in all counties had compiled lists of former police officers, of men who had been mobilised to the German army, members of the Self Defence Force and other groups of people who were on the black list compiled according to Moscow's instructions. (NKVD-NKGB Directive No 193/118 of 29 October 1945).

On 25 March 1949 the second mass deportation from the Baltic states was carried out. According to the Soviet Government secret Regulation No 390—138 of 29 January 1949, 20,072 persons from Estonia were permanently deported to Siberia; most of them were women and children and grandparents of farmers' families whose menfolk had already been repressed.²¹ The main aim was to destruct farms and force the farmers to join collective farms. After the genocide crime of March, almost all Estonian farms were incorporated in collective farms or kolkhozes in a few weeks of April 1949. On those farmers who did not join a kolkhoz, such high taxes (the so-called kulak taxes) were imposed that they had to either choose to become collective farmers, or go bankrupt in a year or two and live on as beggars. Ca 2500 of these farm-owners who allegedly owned tax arrears, were sentenced to prison for two years and after having served their punishment were banished to their families to Siberia.

The total number of victims of the March deportation is 32,536 persons, including 10,331 non-deported outlaws who lost their homes and lived under the constant persecution of the KGB. Studies into the fate of those more than 32,000 victims of genocide crime have revealed that the birth rate in this group was eight times lower than average. The outcome of the Siberian exile of 1949—1958 was that 2896 people died and about 5000 Estonian babies were not born.²²

The 8th Communist Party Plenary Session in March 1950 was a blow to the Estonian intelligentsia. Most of the educated Estonians of the older generation were declared to be bourgeois nationalists, they were dismissed from work *en masse* and arrested, and the prisons and convict camps were filled with doctors, writers, composers, teachers, university professors, pastors, engineers and representatives of other professions who had remained faithful to the national spirit and had not conformed to the alien ideology. Among the arrested there were also the June Communists who had not been repressed before (N. Andresen, H. Kruus), and also old communists H. Allik and A. Veimer. They had done their duty by betraying the Republic of Estonia, and the communist regime did not need them any more. The dismissed persons were replaced everywhere with incompetent Estonians from Russia or specialists who could not speak Estonian. The doors of institutions of higher education were closed to the children of those who were arrested or in disgrace.

The last wave of mass arrests in Estonia took place in 1950–1951, some years before the death of the dictator Jossif Stalin. Besides educated people, also many of those were arrested, who had been included in the KGB lists of socially dangerous persons already in 1945, but who had so far been only under surveillance. There is information about at least 4555 arrests during those two years, but this might not be the final number. The result of all these massive acts of violence was that the people of Estonia lived under constant terror. The leaders of the Party and security organisations, enjoying their unlimited power, could declare anybody a public enemy for any reason and send him/her to a convict camp.²³

After the death of J. Stalin the number of repressive acts gradually decreased and in 1956 the so-called „period of thaw“ began when political prisoners were set free. But the freedom did not mean that people would be allowed to return to homeland and their civil rights would be restored. For the whole period of the Soviet power, the victims of communist repression remained under secret supervision; secret restrictions regarding their choice of place of living, work and study and also other matters were applied to them. They stayed under suspicion until the end of the Soviet occupation period.

Repressive measures against the Estonian nation continued during the whole Soviet occupation period, only taking on other forms. One of these forms was the colonisation of the territory of Estonia with the migrant workers for new industrial objects recruited from Russia. When in 1944 Estonians made up 88–90 % of the population, then according to the data of the 1989 census, their percentage had dropped to 61.5 %. In 45 years the number of foreigners had increased to 495,000 via immigration and while the total number of population was 1,566,000, the number of Russian-speaking inhabitants in Estonia was 577,000²⁴.

Another indirect form of repression was Russification, which culminated in the beginning of the 1980s. In 1980 several public protest actions against Russification took place. Repressive measures against the so-called dissidents ranged from arrests and convictions performed under the pretext of the article of criminal hooliganism up to coercive treatment in psychiatric hospitals. In those closed „medical establishments“, the treatment of the detainees in many cases led to irreversible health damage.

The total number of human losses according to the latest data is about 111,000. The number of people who fled to West during the last month of German occupation, fearing Communist terror, are included here as well.

Three occupation regimes in more than 50 years brought immense economic loss to the people of Estonia, it is difficult to give a scientific estimation about such a long period. Scientists estimate the economic loss of the last Soviet occupation period to exceed 100 billion US dollars. According to the information of the Ministry of Defence, the damages caused to the natural environment of Estonia by the Army of the Soviet Union and of its legal successor, the Russian Federation, are about 4 billion US dollars.²⁵

In the chapter of the White Book describing economic losses, the author Kalev Kukk has made calculations to estimate the long-time economical harm of the occupation periods. The losses reach hundreds of billions of dollars. For instance in the interval from 1969 to 1987 the unreceived GDP was 153 billion dollars in the accounting value.²⁶

A thorough assessment of the economic damage of the first Soviet occupation was carried out during the German occupation. Estonia was greatly damaged by the war in the summer of 1941 as a result of J. Stalin's tactics of burnt land, applied by the destroyer battalions, NKVD units and the Red Army. Heavy damage was caused by evacuation of assets and treasures to the Soviet Union and taking over Estonian property in foreign states. Demolition of a developed economic system, in order to be replaced with the uneconomic soviet system, caused serious economic damage already during the first year. These losses are recorded in the collection „Eesti rahva kannatuste aasta“ (*The Year of Suffering for the Estonian Nation*).

A committee formed by the State Special Committee assessed the damages caused by the German occupation in 1941—1944. The results were published in 1947 in a book „Saksa fašistlik okupatsioon Eestis aastail 1941—1944“ (*German Fascist Occupation in Estonia in 1941—1944*). Study of archive documents has proved that the information of the Special Committee is to a great extent a falsification and that the Soviet Government has accused the Nazi regime of many of its own crimes and destructive acts. Thus the Red Army Air Force bombed Narva, Tallinn

and Tartu, which led to destruction of 3326, 1885 and 2432 houses, respectively. However, the committee reported these to be crimes of the German occupants. All the abovementioned destruction was presented to the International Court of Nuremberg as damage done by Nazi Germany. Additional research work is necessary to assess the war damage.

On 31 August 1994 the last armed forces of Russia, the legal successor of the Soviet Union, left the territory of Estonia. For the people of Estonia, this concluded the gloomy period of three successive occupation regimes that had lasted for 54 years and 75 days. The World War II has come to an end.

¹ Sarv, Enn. *Õiguse vastu ei saa ükski. Eesti taotlused ja rahvusvaheline õigus*. Tartu, 1997, p. 33.

² State Central Archives of the Soviet Navy, c. R-92, i. 2, u. 671, p. 1, 2.

³ РЦХИДНИ, c. 77, i. 3, u. 124.

⁴ РЦХИДНИ, c. 17, i. 121, u. 57, p. 1, 2.

⁵ ERA, c. R-3, i. 1, u. 104, p. 52, 53.

⁶ Rahi-Tamm, Aigi. See the chapter „Human Losses”.

⁷ ГАРФ, c. 9479, i. 1, u. 87, p. 189.

⁸ ГАРФ, c. 9479, i. 1, u. 641, p. 316.

⁹ ERA, c. R-358, i. 1, u. 1, p. 10, 11.

¹⁰ Laar, Mart, Tross, Jaan. *Punane terror*. Stockholm, 1996. // Deemant, Kaupo. *Repressioonidest Tallinnas 1941. a. sõjasuvel // Tallinna Linnamuuseumi aastaraamat 1996/97*. Lindmäe, Herbert. *Suvesõda Tartumaal 1941*. Tartu, 1999. *Suvesõda Virumaal 1941*. ORURK 20. Tartu, 2002. *Suvesõda Viljandimaal 1941*, ORURK, 21. Tartu 2004. Manuscript, ORURK.

¹¹ ERA, c. R-358, i. 1, u. 32, p. 21.

¹² ERA, c. R-358, i. 2, u. 1, p. 10.

¹³ Paavle, Indrek. *Eesti rahvastikukaotused II/I. Saksa okupatsioon 1941–1944*. ORURK 17, Tartu, 2002.

¹⁴ ERAF, c. 130, u. 6789.

¹⁵ Kivimäe, Jüri, Kõiv, Lea. *Tallinn tules. Dokumente ja materjale Tallinna pommitamisest 9/10. märtsil 1944*. Tallinn, 1997.

¹⁶ Lindmäe, Herbert. *Punalendurite terrorirünnakud Tartule*. Manuscript, ORURK.

¹⁷ ЦХСД, c. 89, i. 40, u. 5, p. 1–9.

¹⁸ Kallion, Valdo. *Avinurme lahing*. Tartu, 1998.

¹⁹ Sarv, Enn. *Eesti Vabariigi kontinuiteet 1940–45. Töötan ustavaks jääda*. Koguteos. Tartu, 2005.

²⁰ ERAF, c. 131, i. 1, u. 1, p. 1.

²¹ ГАРФ, c. 9401, i. 2, u. 10, p. 11–16.

²² Õispuu, Leo. *Küüditamine Eestist Venemaale 1949*. RIR 4, p. 340–347, Tallinn, 2003.

²³ Tiit, Ene. *Eesti rahvastik ja selle probleemid*. Akadeemia 10, 1993.

²⁴ Noor, Heino. See the chapter „Permanent Health Damages”.

²⁵ Raukas, Anto. *Endise Nõukogude Liidu sõjaväe jääkreostus ja selle likvideerimine*. Tallinn, 1999.

²⁶ Kukk, Kalev. See the chapter „Economic Damage”.

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POPULATION



HUMAN LOSSES

Aigi Rahi-Tamm

In 1940–53 Estonia bore heavy population losses. It is not yet possible to give the exact figures of the losses because the compilation of databases reflecting large groups of people is still in progress. That is why many of the numbers published are only estimations. During the whole period (1940–1991) nearly 90,000 citizens of the Republic of Estonia perished, and about the same number of people left their homeland forever. The human losses of WW II and the repressive measures following it are estimated to be 17.5 % of the number of Estonians, in addition to which the ethnic minorities of Estonia (except Russians) were almost totally destroyed. Estonians and Latvians are the only independent nations in Europe whose number is smaller today than in the beginning of the 20th century (that of Estonians is smaller by ca 10 %).¹

2.1. RESEARCH WORK ON HUMAN LOSSES

Human losses are among the worst damages inflicted on Estonia, because these are irreplaceable damages. As the estimation of human losses is still in the stage of data collection, only a few authors have dared to present a general overview.² As data are fragmentary, balance calculations made on the balance method are deemed to be the trustworthiest.³ Attempts have been made to calculate, among other things, the number of Estonians lost in 1939–59, with the result of approximately 170,000.⁴

In our population data there is a gap in the years 1934–59, when no census was taken;⁵ however, in 1945 there was an administrative change in the territory and the population of the Republic of Estonia.⁶ Because of that, the demographic analysis of the post-war period (1944–59) is rather scanty. Many of the numbers used are mere estimations⁷, because there are no overall data about those who were executed, perished in places of detention, died in deportation, fell in war, fled abroad, perished

during the transportation to the Soviet rear etc. It is also not known how many imprisoned or deported people returned to Estonia. Only in 1989 did the repressed get the opportunity to establish their own organisations and access to archive materials became possible for everyone only in 1993.⁸ During the last ten years, much important research into repression has been carried out, but this is not sufficient for detailed estimation of the human losses caused by occupation regimes.

There are also difficulties with defining the population losses: there are **irreversible human losses**, which include those who were murdered, executed, fell in war, died or went missing, and those who left Estonia forever. There are **temporary human losses**, consisting of those who were deported, evacuated or exiled, that is, were forced to leave Estonia for a shorter or a longer period. Many of those who returned from prison camps and forced exile died soon after release. But to which category do the children belong who were born and grew up abroad, and these thousands of children who were not born at all? And finally: human losses cannot be measured in numbers alone. Although the author has tried to use the figures that have been confirmed, one must not forget that the severity of repressive measures cannot be judged by the suffering of the victims alone. „No one was safe, everybody could be subjected to repression.“⁹

2.2. RESETTLEMENT TO GERMANY (1939–1941)

Estonia's population suffered losses caused by occupation regimes already before the occupants had actually arrived. Immediately after the signing of the Molotov-Ribbentrop Pact (MRP) on 23 August 1939 Berlin invited Baltic Germans back to their historical homeland. The first to follow the invitation left Estonia on 18 October, i.e. 57 days after the signing of the MRP.

According to the census of 1934, there were 16,346 ethnic Germans in Estonia. In the course of the *Umsiedlung* (October 1939 — May 1940), probably 12,660 of them left.¹⁰ By 1941, a remarkable number of Germans had remained in the Baltic states, which caused the need for follow-up resettlement (*Nachumsiedlung*). During it, ca 7000 more people left Estonia.¹¹ Altogether there could have been ca 20,000 re-settlers.

2.3. THE FIRST SOVIET OCCUPATION (1940–1941)

Mass arrests began in June 1940, that is, before Estonia formally joined the Soviet Union. During the last week of June, 28 people were arrested; in July, 121 people and from then on, their number grew. On 28 November 1940 the People's Commissar of Internal Affairs of the Soviet Union

signed the Order No 288, according to which in Estonia, like in Ukraine, Belorussia, Moldavia, Karelia, Latvia and Lithuania, files had to be compiled on the so-called counter-revolutionary and anti-Soviet persons. In the beginning, these included former members of the Government, people who had served in the court, prosecution or administrative systems, members of political parties, policemen, officers, but in years the circle widened. In order to discover enemies of the Soviet society, all archive funds of interest had to be worked through systematically. From January to May 1941, 37,794 persons were included in the so-called political leanings file and queries about 27,597 persons were answered.¹²

During the first Soviet occupation, ca 8000 persons were arrested,¹³ at least 1950 of who were executed in Estonia. As the number of the arrested persons grew, the number of those who died as a result of torture increased as well. Several statesmen of the Republic of Estonia committed suicide in the danger of being arrested. Of the 11 Heads of the State of Estonia, four were shot, four died in prison, one committed suicide and one died in a mental hospital in Russia. Only one Head of State, August Rei, managed to escape to Sweden.¹⁴ Most of those who were sent to Russian prison camps, perished in the years 1942—44.¹⁵ Conspiracy accusations were fabricated and pinned on many prisoners (e.g. in the camp of Urallag in 1941, of Uzollag in 1942) and the accused were mostly executed „in punishment“. From those arrested in 1940—41, only 200—600, i.e. 2—8 %, survived.¹⁶

The next larger category consists of those deported in June 1941. Different information about their number has been published.¹⁷ Information about 10,861 persons has been entered into the list compiled by the Bureau of the Register of the Repressed of Estonia. This list includes the arrested heads of families and their family members who were deported, children born in exile, and the persons who were to be deported but managed to escape.¹⁸ The deportation was carried out simultaneously on the whole territory that had been taken over by the Soviet Union on the basis of the MRP and concerned 143,416 persons according to Soviet data. Between 10 and 17 June, at least 9267 persons were deported from Estonia, of who 4264 returned.¹⁹ About half of the deported persons perished.²⁰

The Summer War broke out as a reaction to the Soviet occupation policy already before the arrival of the German forces. On 24 June 1941 the first so-called destroyer battalions were formed in Estonia, which received the right to carry out punitive operations, including looting and killing, based on the tactics of burnt land proclaimed by Stalin. Mass violence and lynch law legalised by the state prevailed in the country. The most large-scale mass murders were carried out in Tartu and Kuressaare, where prisoners were shot. Lists of 179 executed and 2199 murdered without court, most of whom were civilians, have been published in

print.²¹ The Summer War of 1941 in some regions has been described rather thoroughly.²²

When the war broke out, more than 30,000 men were mobilised in Estonia and taken to Russia.²³ Besides them, 5573 men served in the 22nd Territorial Corps in summer 1941.²⁴ Many officers in the active service of the Republic of Estonia had been arrested, shot or deported by then.²⁵ In August 1941 Estonians were sent from the front to the rear, to the work battalions commanded by the NKVD, as persons who „did not deserve to be trusted” both because of their ethnic and social origin.²⁶ Before that, in July 1941, ca 4500 men had deserted to the German Army in the Porkhov Region.²⁷ Part of those sent to the work battalions, like older men (born in 1896—1906) and the „more loyal element” (members of destroyer battalions, militia workers etc.) were sent to collective farms and enterprises. The statement that ca 12,000 men died in work battalions has not been confirmed by archival data. Only sending to the front could save men from the misery of work battalions.²⁸ Part of the men sent to the front met their death at Velikie Luki (9 December 1942 — 26 January 1943). Ca 2000 Estonian soldiers perished there.²⁹ There are different estimations about the losses of the Red Army, reaching from 9785 men to 20,000.³⁰

In the beginning of the war, several enterprises with their workers included and thousands of civilians were evacuated to the Soviet rear together with the retreating troops. Most of those who had arrived from the Soviet Union before the war (and about whom there is no detailed information) rushed to leave Estonia. The number of evacuated civilians was ca 25,000.³¹ 20 % of them perished en route or in the rear.³² The confusion around the people sent to the Soviet rear, those who left Estonia voluntarily and those who returned, will probably remain unclear for years.

There are ca 1600 persons who do not belong to any of the mentioned categories, but should also be counted among population losses.³³

On 1 January 1939 there were 1,133,917 people living in Estonia. In 1939—41 Estonia lost ca 100,000 inhabitants, ca 55 % of them permanently. The most thoroughly researched categories concern the deported and arrested persons.

2.4. GERMAN OCCUPATION (1941—1944)

During the first months of the war between the Soviet Union and Germany, one occupation replaced the other in Estonia. In the hope of fighting for Estonia’s freedom, thousands of men joined the Self Defence Force as volunteers. Because of the losses at the front and the impossibility to restore independence, serving in the German army became less popular by the summer of 1942, which is also reflected by recruits’ escaping mobilisation by fleeing to Finland. From the beginning of 1943

until February 1944, about 4000 refugees left Estonia for Finland, a little more than 400 of them went on to Sweden. Most of the refugees were men, half of them younger than 24. From autumn 1943 onwards, their family members followed them. The number of people who escaped to Finland is 5000—6000.³⁴ In August 1944, 1752 volunteers returned from Finland to Estonia.³⁵

Because of the scarcity and varied accuracy of archive materials, it is hard to ascertain the exact number of Estonians who fought on the German side.³⁶ There is still no detailed research on those who fell in the war. Most probably the number of Estonian citizens who fell on the German side is around 10,000,³⁷ although some sources mention up to 20,000 men.³⁸ A preliminary overall list of 6666 names has been published in print.³⁹ There is more exact numerical data only about a few troops (e.g. Narva battalion, the so-called Boys from Finland). The data about those who fell during the last months of the war is the most fragmentary.⁴⁰ Additional information can first of all be obtained from German archives, but also from the Estonian War Graves League, which has been searching for and registering the graves of Estonian soldiers since 1993.

The number of persons arrested during this period is known only partially. According to the annual report of the 4th Department of the Security Police (July 1941 — June 1942), 18,893 persons were arrested in one year (7485 of them were freed, 5634 executed, 5627 sent to concentration camp).⁴¹ Their sentences varied from some weeks to 5 years.

According to the research published in 2002, 7800 citizens of the Republic of Estonia perished or were executed between July 1941 and November 1944. It is not likely that the number of those who perished in Estonia could be larger, although the number of those who were taken to Germany and perished there still has to be ascertained. Most of the perished were executed in 1941—42. Besides representatives of certain ethnic groups (Jews, Roma), persons were also executed on charges of having collaborated with Soviet organs, or having committed crimes against humanity. In the database, the prevailing majority are Estonians (70 %); Russians make up 15 %, Jews 12 % of the total number.⁴² The published list may contain a certain number of persons not connected with Estonia, but on the other hand, those who were lynched and whose deaths were not documented, and some civilians who were caught in the war in 1941 and 1944, might be omitted. According to L. Talve, around 800 persons were sent to labour service in Germany and 4000 persons to prison camps, where 1040 of them perished.⁴³

The number of civilians who perished in the Soviet air raids could have been 800.⁴⁴

2.4.1. FLEEING TO THE WEST

The year 1944 turned out to be a year of mass fleeing, especially after the news came that German occupation powers would give up Estonia in September. The neighbouring countries were the preferred destinations for fleeing; ca 25,000 fled to neutral Sweden and ca 6000, to Finland,⁴⁵ but those who left Estonia on the last minute had to go to Germany (ca 40,000).⁴⁶ Many refugee boats and ships sunk in the Baltic Sea;⁴⁷ the number of those who reached their destination is estimated to be 70,000.

Estonia's ethnic Swedes started emigrating to Sweden already in 1939 when the inhabitants of Riguldi, Pakri, Osmussaar and Naissaar were forced to leave their homes so that the Soviet military bases could be founded. In 1943–44, ca 2800 persons fled over the sea in their own boats, in the summer of 1944, 3700 Estonia's ethnic Swedes (incl. 2000 Estonians) were officially evacuated.⁴⁸ According to V. Aman's survey, 7920 Estonia's ethnic Swedes reached Sweden.⁴⁹ On 1 April 1945 there were about 25,000 citizens of the Republic of Estonia in Sweden.⁵⁰

Those who arrived in Finland were forced to leave the country after the armistice (19 September 1944) because those who stayed were in the danger of being handed over to the Soviet Union.

By October 1944, 15,000 men had been concentrated in the Neuhammer training camp in Silesia and the 20th Estonian SS-Division was formed of them.⁵¹ After the capitulation, Germany was divided into four zones, but from the viewpoint of the treatment of prisoners there were basically only two: Eastern Germany (Soviet zone) and Western Germany (US, British and French zones). There were Estonian prisoners of war in each zone: according to different sources, up to 6000 Estonians were imprisoned by Western allies in Germany and the Czech Republic and up to 5500 Estonians by the Red Army.⁵² Those who were caught by the Soviet Union were either repatriated⁵³ or imprisoned. In the territories that fell to the Western allies, the refugees were concentrated in displaced persons (DP) camps after the end of the war, under the supervision of a special organisation founded for that purpose (the United Nation Relief and Rehabilitation Administration, *abb.* UNRRA), with the centre in Washington. According to the data published on 1 October 1946, there were 32,219 Estonians in the DP camps of Germany.⁵⁴ After the so-called DP-years, 27,096 of them emigrated with the help of the International Refugee Organisation IRO, 4000 persons stayed in Germany.⁵⁵ It is virtually impossible to get information about the refugees dispersed in many countries.

2.5. THE SECOND SOVIET OCCUPATION (1944–1991)

2.5.1. THE YEARS AFTER THE WAR (1944–1953)

In the autumn of 1944 a new wave of arrests started on the basis of lists brought along by the security organs.⁵⁶ In 1945, 45,376 persons were entered in the lists on the basis of archive documentation; the data about 13,830 of them were forwarded to operative organs.⁵⁷ By 2003, more than 53,000 political arrests had been documented and information about 34,620 arrested persons had been published.⁵⁸

On 28 August 1944, that is, before the whole Estonia had been conquered, ca 2500 men were mobilised, about 10 % of whom perished in battles.⁵⁹ The order to arrest those who had avoided mobilisation was in force for years, it is not known how many men were arrested on this charge after the end of the war.

In the years 1944–45, ca 10,000 men were imprisoned, half of whom died during the first two years. According to different estimations, in 1944–53, 25 000–30 000 persons were sent to prison and convict camps and ca 11,000 of them did not return.⁶⁰

In the years 1945–50, ca 70,000 persons returned voluntarily or were returned to homeland: those who had been evacuated to the Soviet Union in 1941, persons who were caught by the Soviet authorities in Eastern Germany, and also few who repatriated from the West.⁶¹

After the war, mass deportations continued. On 15 August 1945, 407 persons were deported because of their ethnical origin (Germans).⁶² During the March deportation of 1949, which is the largest operation carried out simultaneously in all the Baltic states, 20,702 persons, ca 70 % of who were women, children, old people, were deported from Estonia. The deportation of those who had escaped during this operation lasted until 1956. According to existing data, 3000 persons died en route or in exile, their names are still to be ascertained. This deportation was meant to deliver a blow to the Estonian villages and farms, crush any resistance to the formation of collective farms and deprive *forest brothers* of support.

The last large-scale operation (the so-called deportation of Jehovah's witnesses) took place in 1951, when the members of forbidden religious sects were deported from the Baltic states, Moldavia, West-Ukraine and Belorussia. Estonia lost 259 persons.⁶³ Smaller-scale resettlements of population took place all the time.⁶⁴

Enemies were hunted everywhere, even in schools. By applying several punishment methods and ideological-political training, young people were supposed to be reconciled with the Soviet regime. Court proceedings against school students lasted until the mid-1950s (the last known case took place in 1962).⁶⁵

The 1950 March Plenary Session of the Central Committee of the Estonian Communist Party launched again the fight against „bourgeois nationalism“, during which a cleanout was carried out among the Estonian intelligentsia. Because of that, ca 200 lecturers were repressed in, and about 100 students expelled from the University of Tartu.⁶⁶ For further information, see Chapter „Research Work and Higher Education“.

2.5.2. ARMED RESISTANCE MOVEMENT (1944–1953, SO-CALLED FOREST BROTHERS)

The estimations about the number of persons involved in active fight vary between 16,000 and 30,000.⁶⁷ Regular and NKVD troops, militia and Soviet activists of the occupants fought against the forest brothers. During the first year of fighting (November 1944 — November 1947), 8468 guerrillas perished or were imprisoned, while ca 1000 Soviet activists were killed in their attacks.⁶⁸ The losses of those who fought the guerrillas have not been studied in detail. Of the 8000 arrested forest brothers, up to 4000 died.⁶⁹ According to the data of the security organs 1495 persons were killed, and 9870 arrested, while 5255 persons gave themselves up to the authorities in the course of the resistance movement of 1944–53.⁷⁰

2.5.3. YEARS 1954–1991

The death of Stalin and the overthrowing of Beria (1953) did not change the nature of the Soviet system, but acts of mass repression were replaced by individual acts. In 1954–89 at least 350 persons were arrested for political reasons.⁷¹

Large-scale returning from camps and forced exile began in 1956 (minors were allowed to return home in 1954). According to the security forces, 10,537 political prisoners had returned by 1 January 1957.⁷² In 1954–60, 60 27,835 persons returned from camps and places of deportation.⁷³ Returning was regulated by categories, and in a number of cases returning was allowed only in the 1960s. On 1 January 1960, at least 377 persons deported from Estonia were still in special exile.⁷⁴

From 1944 to the second half of the 1950s, ca 30,000 persons were arrested, ca 10,000 of them perished.⁷⁵ On the basis of the sources used in this research, it is possible to say that the number of the repressed during the second Soviet occupation period is ca 56,500, of whom 16,000 perished.⁷⁶ This does not include prisoners of war, repatriates and the population losses that resulted from the annexation of the territories of Pechory and behind Narva River by Russia.⁷⁷

- ¹ Katus, Kalev (Lävel, 2000, 20).
- ² E.g. Tiit, Ene 1988; Tiit, E. 1993; Talve, L. 1991; Sarv, E. 1997.
- ³ Sarv, 2001.
- ⁴ Tepp, Leo 1993, 10; the basis of calculations is the national gender/age distribution of population fixed by the 1934 census and the smooth dynamics of age coefficients of birth and death rates until 1958/59, also the immigration of ca 45,000 of so-called Soviet Union Estonians. The loss of ethnic Estonians in 1939–59 would thus be 171,400.
- ⁵ During that period, two population estimations were made. The one carried out by the German occupation powers (1 December 1941) stated a decrease in population by 116,106 (10.2 %) (since January 1939), the Soviet estimation (30 November 1944) established 885,414 inhabitants (see Varju, P. 1997, 30).
- ⁶ In 1944, 1986 km² of the territory of the Republic of Estonia with 39,000 inhabitants was annexed to the Russian Federation (see Report, 1991, 39); also EE 11, p. 315 (but p. 246 gives up to 90,000 inhabitants). — In September 1944 there were 67,500 inhabitants in the communities of Pechory and behind Narva, including the town of Jaanilinn (67,500 inhabitants) (Tepp, L. 1994b, 20).
- ⁷ Including those in the Estonian Encyclopaedia, e.g. „The population losses of Estonia in the World War including the fallen, executed, deported and exiles, and in connection with the reduction of the administrative territory of Estonia were around 300,000 people” (EE 11, p. 312).
- ⁸ In 1996 the publication of a general list of political prisoners was launched (Registers of Repressed Persons, 1, 1996, abb. RIR) RIR 1 gives information about 20,164 arrested persons (under § 58 of the Criminal Code of the Russian Federation; 1685 were sentenced to death, 5324 died in prison). RIR 2 (1998) adds the names of 15,001 persons. RIR 3 has not been published yet, but it will list at least 14,533 more persons; in that series there is documented information about more than 50,000 persons arrested for political reasons.
- ⁹ EE 11, p. 315.
- ¹⁰ Kivimäe, Jüri, 1989, 1243; Kivimäe, J., 1995, 505. List of persons who had given up Estonian citizenship, which was published in the supplements to the 1940 „Riigi Teataja” contains, according to Kivimäe, 12,142 names (including 500–1000 Estonians).
- ¹¹ Weiss, Helmut, 1956, 221–222. More than half of those were ethnic Estonians. According to S. Kivimäe, proceeding from the materials of the Bank of Estonia and transport lists, the number of those who left during *Nachumsiedlung* may reach 5500. According to the summary of the Soviet Union Territorial Commissioner of Resettlement in Estonia Jakov Monahtin, 7813 persons left during the second wave of resettlement (ERA, c. R-2, i. 1, u. 412, p. 100).
- ¹² The lists were in 3 copies, one of them, the so-called list for operative-chekist work, was sent to the archive of People’s Commisariat of the SU. The work plan of the special collections of the Estonian SSR State Archives for 1941 prescribed that the materials of the Defence League, Ministries of Justice and Foreign Affairs, Prosecution, Military Court, Political Police, Patriotic League and War of Independence veterans’ societies should be studied in the first order. See Rahi-Tamm, A. 2004.
- ¹³ The first list — 7926 persons — was published by ZEV, see Losses, 1989, 208. The ERRB estimated the number of arrested persons to be 8000, of whom 98 % or 7840 persons perished, see Talve, L. 1991; cf. Report, 1991, 34.
- ¹⁴ Varju, Peep, 1994.
- ¹⁵ About H. Ligi’s database „Estonia’s losses of population in the prisons and convict camps of the Soviet Union” see Rahi, Aigi, Must, Aadu, 1993.
- ¹⁶ According to L. Talve, the number of survivors could be 200 (Talve, L. 19. X 1991), according to A. Kuddo, 500–600 (Report, 1991, 34–35).
- ¹⁷ E.g. EE, 1990, entry *küüditamine*; Report, 1991, 33.
- ¹⁸ RIR 6, 2001, 333.

- ¹⁹ According to the ORURK files (including 231 military taken from Väraska); according to KGB 1988 report, 9156 persons were deported (see *Записка*, 1996, 138). In 1943 ZEV published 7553 names (13–15 VI, see *Losses* 1989, 211).
- ²⁰ According to A. Kuddo, the number of those perished could be 5700 (Report, 1991, 35); according to L. Talve, 6010 (Talve, L. 19. X 1991); according to the ERRB 2333 (33.10 %) of deported persons, 2841 (84.95 %) of arrested persons, altogether 5174 persons perished (RIR 6, 2001, 348).
- ²¹ Laar, Mart. *Red Terror*, 1996. Known victims of destroyer battalions are also included.
- ²² Lindmäe, H. (1992, supplements) gives the names of 832 persons who perished in Tartumaa, 545 in Virumaa (2002, supplements), 274 in Viljandimaa (2004, supplements). The names of 4891 repressed persons in Saaremaa have been published (Vessik, Juta / Varju, Peep, ORURK 6, 1997); the information about Viljandimaa (8842 persons, see Piir, Enno, 2001, 6) covers the whole occupation period.
- ²³ ZEV published 33,304 names; L. Talve gives the number 32,100 (Talve, 19. X 1991); P. Keskküla, 35,000 (of whom 32,000 reached the Soviet rear, see Keskküla, P. 1991); P. Larin, 50,000 (Usai, U. I, 1993, 6).
- ²⁴ ZEV published their names; cf. Report, 1991, 36; Laasi, E. 1989a, 75.
- ²⁵ On the fate of 1641 officers, see Salo, V. 1996.
- ²⁶ With the order of the Deputy People's Commissar of Defence of the SU (September 1941), Estonians sent from the active troops of the Red Army to the work battalions were handed over to the NKVD GULag system. During the first winter of the war ca 8000 of them perished. Pursuant to the 28 September 1941 Order of the Head of the Political Headquarters of the Red Army, the citizens of the territories occupied by the Soviet Union in 1939–40 were to be withdrawn from active service. See Usai, U. I, 8.
- ²⁷ Laasi, Evald, 1987.
- ²⁸ Report, 1991, 36.
- ²⁹ The list of the fighters of the 8th Estonian Rifle Corps who fell, died of wounds or went missing (6474 names, including less than 2400 born in Estonia) is published in the book „Velikije Luki in memoriam”. Those who were shot by the decision of the tribunal for deliberately wounding themselves or spreading hostility are also listed among the fallen. Those who were imprisoned or deserted to the German army are listed among the missing; according to T. Nõmm there were 1800 of them (Nõmm, 1990b, 116).
- ³⁰ 9785: E. Laasi, see Report, 1991, 41; 20,000: Talve, 19. X 1991.
- ³¹ Report, 1991, 35.
- ³² Mati Õun's research into the sunken ships helps to ascertain the total number of the perished (June 1941–1942). Unfortunately, it is difficult to divide the perished into categories. See Õun, M. 1996; Õun, M. 1997 (supplements). 1858 persons were deported while serving in labour duty (ZEV data, see *Losses*, 1989, 208).
- ³³ E.g., 1101 missing (ZEV data, see *Losses*, 1989, 208); in addition, ca 500 persons escaped abroad (mostly to Finland) (see Talve, L. 19. X 1991).
- ³⁴ World War II. P. 37.
- ³⁵ Ca 3500 Estonian volunteers joined the Finnish army and the Infantry Regiment No 200 was formed of them. The book „Vabaduse eest. Soomepoiste lühielulood” (1997, „For Freedom. Short Biographies of Boys from Finland”) gives detailed information about 3333 men. 319 of them fell (183 in Finland, 110 in Estonia, 26 elsewhere). Most probably, there were some more Estonians serving in the defence forces of Finland, but not many more. The number given in the Estonian Encyclopaedia (EE) entry *Talvesõda* 1000 is unfounded because only one Estonian on the front is known by name.
- ³⁶ According to the calculations of A. Tinitis, the total number of armed men was 60,000 (see Tinitis, A. 1983, 43), according to T. Nõmm, around 70,000 men served in the German army, 20,000 of them were volunteers and 50,000 mobilised (see Nõmm, T. 1990b, 116).

- ³⁷ In recent years, the most efficient research into the German occupation period has been carried out by the Estonian International Commission for the Investigation into Crimes against Humanity; according to its Executive Secretary Toomas Hiio, more than 10,000 Estonian citizens fell in the German forces, or died of wounds. See Hiio, T. 2001, 178.
- ³⁸ According to T. Nõmm, 20,000 perished (including also prisoners of war, those who perished during escape attempts, or went missing), see Nõmm, T. 1990b, 116 and EE 11, p. 313; in Talve's opinion (19. X 1993), the number of the perished could be 14,500.
- ³⁹ The fighters who fell, perished, died of wounds or diseases during WW II. See Pro Patria I, 1998. According to the compiler H. Lindmäe, the number of the perished could be ca 8000.
- ⁴⁰ Just two examples out of many: after the 21 September 1944 battle in the Loksa-Porkuni-Sauevälja triangle, where Estonians fought on both sides, 273 unidentified soldiers were buried in three mass graves (see Kärp, P. 1989, 22). Also in the battles fought in the end of November for the Sõrve peninsula, Estonian fighters fell on both sides but there is no survey of them.
- ⁴¹ Paavle, Indrek 2002, 25.
- ⁴² Paavle, Indrek 2002, 17–25.
- ⁴³ Talve, Leo, 19. X 1991.
- ⁴⁴ The names of 554 civilians who perished when Tallinn was bombed on 9 March 1944 have been published. See Tallinn tules, 1997.
- ⁴⁵ See Report, 1991, 37.
- ⁴⁶ For detailed survey see Kool, 1999 (pp. 8–11, information about Estonians in the Third Reich 1944/45).
- ⁴⁷ In the air raids in Germany ca 1000 Estonians were killed (see Horm, Arvo, 1995, 179). — Up to 1200 of those who tried to reach Germany by sea in autumn 1944 might have drowned (see Ernits, 1995, 107). It has been claimed that up to 7000 persons might have perished during fleeing.
- ⁴⁸ Raag, Raimo, 1989.
- ⁴⁹ Horm, Arvo, 1995, 177; Aman, Viktor, 1961.
- ⁵⁰ According to the Statistical Yearbook of Sweden 1946, the number of Estonians in Sweden on 1 April 1945 was 22,092; it does not include children under 16 who were registered in their parents' passports. (see Terras, A. 1995, 115; cf. Aman, V. 1961).
- ⁵¹ It is claimed that 2000 men might have perished in Silesia, 500 were killed in the „Czech Hell” (see Report, 1993, 40).
- ⁵² In the British zone up to 4000, in the US zone up to 800, in French camps ca 300. Ca 5500 men remained in the Soviet zone. Gailit, 1993. A small number of Estonian men were imprisoned also in Austria, Italy, France, Norway. Nõmm, 1990b, 134.
- ⁵³ Already in 15 April — 31 December 1945, 5434 persons were brought back to Estonia, 3867 of them from Germany, 784 from Poland, 307 from Sweden, 157 from Czechoslovakia, 78 from France etc. All of them were put in special filtration camps where they were thoroughly checked, as a result of which most of them were deported for 6 years to Norilsk, Ukhta, Pechory coal mines and forest work in Molotov Region. Unfortunately the information is not complete. See Kaup, E. 1995, 34–35.
- ⁵⁴ 16,688 of them in the US zone (incl. Berlin), 13,698 in the British and French zones, 998 in Austria. See Pruuli, 1988, 16.
- ⁵⁵ 10,992 of them to the USA, 4118 to Canada, 5958 to Australia, 3418 to England, 1089 to Sweden. See Horm, 1995, 179.
- ⁵⁶ By 22 October 1944 more than 8000 anti-Soviet persons were registered. N. Karotamm's report to B. Kumm, see Kaup, 1994.
- ⁵⁷ The 15 January 1946 report of Comrade M. Organov, Head of the Archives Department of the ESSR Ministry of Security. Rahi-Tamm, A. 2002.
- ⁵⁸ RIR 1 (1996) has published data about 20,164, RIR 2 (1998) about 15,001 arrested

- persons. RIR 3 will add 14 533 names. The whole series will document the data about more than 53,000 persons arrested for political reasons.
- ⁵⁹ Repressioonidest ja nende tagajärgedest. Memento. 1996, 2.
- ⁶⁰ Report, 1991, 40.
- ⁶¹ Kala, 1992, 511.
- ⁶² The so-called deportation of Germans; there were 261 ethnic German citizens among the deported. See Kaup, 1995b.
- ⁶³ Rahi, A. 2003, 19–22. Lists of deported persons have been published (RIR 5 & 6). — On 1951, see Silliksaar, S. 2000.
- ⁶⁴ For example, in 1948, persons who had been deported earlier (mostly in 1941) but freed in 1945, were deported again. In 1947–50, the repressed Ingrian Finns who had settled in Estonia were deported (Reinvelt, 2002, 10). Since 1952, all those who had been convicted for political reasons were sent to their deported families when their term of punishment ended. (ERAF, c. 17, i. 3, u. 112) — The „kulaks” who had been in prison for not paying taxes and had been freed (before 1949) were also deported.
- ⁶⁵ Eesti koolinoored vabadusvõitluses, 1993.
- ⁶⁶ Martis, Ela; Ant, Jüri; Raid, Lembit, 1991; Merila-Lattik, Helbe, 1995. After the Plenum, the leadership of the Party and state apparatus of the ESSR was changed, but concrete numerical data about arrested persons has not been published. Tamme, 1989.
- ⁶⁷ According to Estonian Encyclopedia (1992, p. 312 ff.), in 1944–53 up to 15,000 forest brothers took part in armed fight. Between November 1944 and November 1947, 8468 forest brothers were killed or arrested. According to M. Laar (1994, 5), the total number of those who after the war for a longer or shorter period hid from the powers, exceeds 30,000.
- ⁶⁸ EE 6, 1992, p. 312 ff.
- ⁶⁹ Cf. Talve, Leo, 20. X 1991. — According to E. Kross (1998) the number of the perished may total up to 7000; until now more than 2000 names have been entered in his database.
- ⁷⁰ Tannberg, Tõnu, 1999, 25.
- ⁷¹ RIR 2, D 5ff.
- ⁷² Jürjo, Indrek, 1996, 181.
- ⁷³ Rubin, 1991, 40.
- ⁷⁴ Rahi, A. 1998, 124.
- ⁷⁵ Report, 1991, 40.
- ⁷⁶ According to E. Sarv the number of victims who died might be ca 22,000 (see Sarv, 1997, 75).
- ⁷⁷ September 1940 (Tepp, 1994b, 20). — In May 1950, the former territories of Estonia and Latvia that had been joined to Pskov Region were „cleansed of ethnically foreign element”. 1563 Estonians and Latvians were deported (ГАРФ, c. 9401, i. 1, u. 12).

Table 1

Changes in population in the Baltic countries in 1939–1945.
 Estimated by Romuald J. Misiunas, Rein Taagepera. *Baltic Years of Dependence 1940–1990*. Tallinn, 1997, p. 329

	Estonia	Latvia	Lithuania
Number of population in October 1939	1 130 000	2 000 000	2 950 000
Emigration and territorial changes 1939–41	-20 000	-70 000	+50 000
Repressed by the Soviets 1940–41	-15 000	-35 000	-35 000
Forced mobilisation to the Red Army	-35 000	-20 000	-60 000
Evacuation to the Soviet Union 1941	-30 000	-40 000	-20 000
Repressed by the Nazis	-10 000	-90 000	-200 000
Forced mobilisation to the German Army 1941–45	-70 000	-150 000	-50 000
Forced mobilisation to the German labour service 1941–44	-15 000	-35 000	-75 000
Fleeing to the West 1942–45	-60 000	-100 000	-50 000
Repressed by the Soviets 1944–45	-30 000	-70 000	-50 000
Territorial changes in 1945	-70 000	-50 000	+25 000
Emigration to Poland	0	0	-150 000
Children remained unborn	-15 000	-30 000	-35 000
Returned from Germany	+60 000	+80 000	+50 000
Returned from the Soviet Union	+20 000	+20 000	+50 000
Number of population in the end of 1945	850 000	1 400 000	2 400 000
Loss in per cent 1939–45	25 %	30 %	15 %

Table 2.
Estonia's losses of population (estimated)

No.	Category	Total	Survived	Irreversible losses
1.	Re-settlers to Germany	20 000		20 000
1st Soviet occupation 1940–41				
2.	Arrested:	8 000	200	7 800
2.a	• murdered in Estonia			2 400
2.b	• perished in the Soviet Union			5 400
3.	Deported	10 000	4 000	6 000
4.	Forced mobilisation by the Soviet Union	34 000	10 000	24 000
4.a	• perished en route			2 000
4.b	• perished in the Red Army			10 000
4.c	• perished in the work battalions			12 000
5.	Evacuated to the Soviet Union	25 000	20 000	5 000
6.	Went missing	1 100		1 100
7.	Fled abroad	500		500
German occupation 1941–44				
8.	Fell in the army	10 000		10 000
9.	Executed civilians	7 800		7 800
10.	Sent to labour service	800		200
11.	Sent to prison camps	4 000		1 040
12.	Fled to Finland:	6 000		4 000
12.a	• returned to Estonia as „Boys from Finland“	1 800		
13.	Evacuated coastal ethnic Swedes	7 900		7 900
14.	Fled to the West	70 000		70 000
15.	Civilians perished in the Soviet air raids	800		800
16.	Soldiers executed by the Soviet Army in Czechoslovakia and Germany	1 000		1 000

No.	Category	Total	Survived	Irreversible losses
2nd Soviet occupation 1944 – 89				
17.	Arrested	30 000	20 000	10 000
18.	Deported	23 000	20 000	3 000
19.	Perished during the guerrilla war	3 000		3 000
20.	Arrested for political reasons 1953–88	500		

The Department of History of the University of Tartu, the Bureau of the Register of the Repressed of Estonia, and the Estonian International Commission for the Investigation of the Crimes against Humanity continue their work in ascertaining the population losses of Estonia.

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HEALTH CARE

Virve Kask

As there are no special studies about the years 1940–91, the following can only be a tentative survey on the basis of the existing information. The 50-year occupation period can be divided in three: 1940–41, 1941–44 and 1944–91. The first and second time periods are characterised by wartime losses, the third by the hard repressive measures of the Stalinist era until 1953, and only after that, the more peaceful restoration of the health care system began.

In 1939–53 Estonia lost at least 735 doctors¹ (ca 79 % of their total in 1939), including 25 lecturers of the Faculty of Medicine of the University of Tartu.² In the beginning of the second Soviet occupation period, quantitative increase was considered important, and only gradually the attention turned to the quality and content of medical care. Issues of social care also often remained to be solved by the health care system. In this survey, characteristic health care problems and the dynamics of important numerical indicators are analysed, development of health care network is described, and some demographic data during three different occupation periods are presented. Life expectancy in Estonia in 1940 was 58.4 years (in Finland 57.3),³ and in 1991, 70 years (in Finland 75.5).⁴

1. SOME DIFFICULTIES IN USING NUMERICAL DATA⁵

First of all, comparing numerical data is complicated due to the fact that statistical tables are composed on different bases. Because of that, it is hard to determine even the number of doctors in Estonia in the beginning of the observed period. The last list of the Chamber of Doctors, compiled in spring 1940 consists of 848 doctors⁶; before that, on 10 March 1940, 150 Baltic German doctors who had left Estonia were removed from the list. According to a table published in the Statistical Yearbook of 1992,

the number of doctors still was 1056. Pursuant to the latter, the number of doctors had increased a little more than six times (up to 6527 in 1991), the number of mid-level medical staff had increased more than nine times and the number of hospital institutions had doubled. But all these indicators need detailed comments, especially if we want to compare our data with the respective data of Finland.

According to the table of 1992, in 1940 there were 10 doctors, 14.1 medical workers and 47.7 hospital beds per 10,000 inhabitants in Estonia, in 1991 the corresponding numbers were 41.6, 84.1 and 112.2 respectively. In Finland life expectancy increased by 18.2 years (1940–91), in Estonia, the corresponding number was 11.6.

However, numerical data only describe the quantitative side of the health care system. It is important to keep in mind that the 20 years period of independence in Estonia was too short a time to develop the health care system to the full extent, but adequate medical aid was guaranteed to the population. The first blow came when 195 Baltic German doctors re-settled to Germany. The doctors were also mobilised by the armies of both occupation forces, during the war the whole health care system was subjected to the needs of the army etc. After the war, the building up of the system was hindered by heavy repressive measures, the results of which were also obvious when the new generation of doctors with „politically clean past” graduated from the Faculty of Medicine of University of Tartu.

The major health problems of the population cannot be solved overnight. Alcoholism and tuberculosis, for example, were serious problems in Estonia before gaining the independence and they still are. The problems that emerged during the occupation period will not disappear soon either (e.g. numerous abortions, drug addiction).

2. THE FIRST SOVIET OCCUPATION (1940–41)

The health care system was nationalised, but there was no time for doing more than drawing up new objectives at the Ministry of Social Affairs. Action plans were compiled for adopting new Acts and regulations that could be implemented with no special costs and immediately (e.g. changing the occupational safety requirements, fighting against harassment at work and implementing occupational safety Acts for white-collar workers who did not have them before).

Another plan provided for innovations that would have required larger resources, like organising free health care, introducing general old age insurance, founding rest homes.⁷

Private medical institutions, laboratories, larger pharmacies, drug and paint stores, workshops and stores of medical and optical equipment were nationalised. The health care network in Tallinn was reorganised

and enlarged. 12 hospitals (all former private hospitals) were given into general use in addition to the former 3 general hospitals.⁸ The health care network of Tartu was also enlarged.⁹ The first step of reorganisation was to freeze medicine prices. No new medicines were imported from the West. By the end of the period, the number of doctors in Estonia had decreased by 229.¹⁰ 57 doctors fell victim to repressive measures, 89 fled to the Soviet Union when the Germans came, and 17 were taken away under the guise of mobilisation. The greatest harm to the Estonian health care system was caused by the loss of doctors during the red terror regime. Among the first Estonian doctors to fall victim to the NKVD were the State Elder and Minister of Foreign Affairs, the well-known eye-specialist Dr. Friedrich Akel, who was arrested on 17 October 1940 and shot on 3 July 1941. The occupation authorities established a total investigation and denunciation system in Estonia, a phenomenon that was unknown to citizens who had lived in a democratic society. The decades of violence damaged the mental health of the population and the influence of this may last for generations.

3. GERMAN OCCUPATION (1941–44)

Unlike the Soviet occupation periods, the German period was that of wartime from the beginning to the end. Because of that, the whole health care organisation (including hospitals) of Estonia was subjected to the rules established for conquered territories. Medical aid to civilian population came second, this also applied to the availability of medicines. The health of civilian population was endangered in many ways, especially by malnutrition. The Faculty of Medicine of the University of Tartu was also subjected to catering for military needs.¹¹

The town population was particularly threatened by the lack of medicines, by malnutrition and poor hygiene conditions. Diphtheria was the most widespread among dangerous infectious diseases (up to 25 cases a week). There were 7 cases of typhus per week and isolated cases of spotted fever. Venereal diseases became more frequent, especially among women; the sources of infection were soldiers, prostitutes and respectable women.

The German occupation authorities continued repressive measures, but with lesser fervour than the Soviet Union. Estonian doctors who were suspected of having communist views were executed (Dr. Meerits), as were the Jewish doctors who had stayed here. In all, 19 doctors were executed. Three Jewish doctors were saved by their Estonian colleagues, who sheltered them. In the University of Tartu, professors of medicine Rudolf Bernakoff and Valter Hiie, who were suspected of Anglophile views, were imprisoned. With the general mobilisation in 1944, 39 Estonian doctors were conscripted into the German army and 6 of them

fell at the front. Three Estonian doctors were killed when the Red Army bombed Estonian towns in 1943–44.

When the German occupation was replaced by the Soviet one, 312 doctors left Estonia together with the tens of thousands of people who went into exile. The massive repression measures of the first Soviet year caused such terror that people were forced to flee their homeland. According to official data, 389 doctors had remained in Estonia.¹² Among the refugees, about 155 students of the University of Tartu are known to have finished their studies in exile and received a doctor's diploma. 12 professors of the Faculty of Medicine of the University of Tartu fled Estonia. At least 8 doctors perished while attempting to flee.

4. SECOND SOVIET OCCUPATION (1944–91)

4.1. PREPARATIONS FOR RESTORING THE HEALTH CARE SYSTEM OF THE ESTONIAN SSR (1943–44)

Education of medical workers was started in 1943, after the ESSR Soviet of People's Commissars had declared (on 31 December 1942) it necessary to establish a school for medical assistants and midwives with Estonian as the language of instruction on the territory of the Russian SFSR. As a result of the work of Soviet Estonian committees, training courses for heads of health care departments and their deputies (15 persons), planners (15), epidemiologists (10), bacteriologists (5) and leading doctors of medical establishments (12) were organised in Moscow (with the agreement of the USSR People's Commissariat of Health Care). Courses for assistants of sanitary doctors were also planned.

On 11 January 1944 the project of the operative plan for the restoration of the national economy of the Estonian SSR was ready. It contained first-rate tasks in the field of health care; the plan also foresaw a number of actions to be carried out in the rear. The People's Commissariat of Health Care considered the most urgent tasks in the field of health care to be registering health care workers, opening of medical institutions, isolating patients with infectious diseases and hygiene control.¹³ In order to implement these measures, the ESSR Ministry of Health Care issued a decree on 27 June 1944 with instructions on personnel, equipment, medical and organisational matters. The lack of specialists in re-conquered Estonia was the reason why it was necessary to employ also medical assistants and senior students of medicine besides doctors as heads of health care departments, provided they were members of the Communist Party. The appointed persons arrived in Estonia immediately after the armed forces, with the so-called operative group. The People's Commissar Dr. Viktor Hiion became the Commander-in-Chief in the field of health care, student Aleksander Rāni became the Head of the Special Department, medical

assistant Paul Oberschneider became the Head of Department in Saaremaa and *stud med* Kirill Klenski in Valga.

With the beginning of the new Soviet occupation, new mass arrests started. These also concerned many well-known doctors who had dared to remain in homeland. Among the first victims were: Dr. Juhan Reimaste on 14 October 1944, Dr. Voldemar Sumberg on 23 October 1944, Dr. August Kukemilk in November, Dr. Robert Lattik on 18 December, Dr. Herman Kurba on 23 December etc. By the end of the year, 10 doctors had been arrested. Until 1953, at least 54 Estonian doctors fell victim to repressive measures.

4.2. MAIN TRENDS OF HEALTH CARE WORK IN 1944–49

Medical school was restored in Tartu, the work of Tallinn Medical College continued (based on the school of nurses that had been re-evacuated from Tambov). In the end of 1945, medical schools were also opened in Rakvere and Viljandi. 40 doctors were sent to refresher courses in Moscow and Leningrad.¹⁴ The ESSR Red Cross Society also trained medical personnel. The shortage of human resources brought along the appointment of Soviet specialists with low qualifications and no language skills to top positions in Estonia, which in turn increased the antipathy of the Estonian doctors towards the „Russian stuff”.

On 1 November 1944, vaccination against more widely spread infectious diseases (diphtheria, smallpox, camp fever, typhus and dysentery) started. To stop the spreading of diphtheria, children between the ages of 6 months and 12 years were to be vaccinated; against infections of digestive system, people between the ages of 12–55 years were vaccinated. Scabies was a real problem, thus special treatment rooms were established at the skin and venereal diseases centres.

On 9–11 March 1945 the first congress of the Estonian SSR health care workers took place. It was ascertained that there are places for 1645 doctors and 245 dentists in the whole health care network; 26.9 % and 26.1 % of these places were filled respectively. The actual need would have been 900 doctors; 457 doctors were needed to reach that number. Inventory of students and lecturers of the Faculty of Medicine of the Tartu State University established that two-thirds of the lecturers in 1941 had remained; there were 11 heads of chairs without a scientific degree, the places of assistants were filled with senior-year students. In 1944, Chair of the Organisation of Health Care and Chair of Infectious Diseases were established. In November 1944, there were the Board of Medical Equipment, the Board of Medical Establishments of Toupee and the Scientific Medical Library in Tallinn, with 2487 health care workers in total.¹⁵ In 1945 there were 443 doctors and 65 dentists in Estonia, as the demobilised medical workers had returned from the Soviet Union.¹⁶

In Tartu, the Health Care Department started its work soon after Tartu was conquered (25 August 1944); at that time no medical-prophylactic institutions or doctors were working in the town. The work began with establishing the Town Hospital at the Women's Clinic. After that, the Infectious Diseases Hospital, the Hospital of Skin and Venereal Diseases, the Tartu Water Cure Centre, the Children's Tuberculosis Hospital, the Polyclinic No 1, the Tuberculosis Prevention Centre and the Sanitary-Epidemiological Station were opened. Within the first year (25 August 1944 — 10 October 1945) the number of medical workers grew from 1 doctor to 44 doctors and 67 nurses.

Of the 272 buildings of rest homes and spas (1941), 186 had been preserved by the war. Mud cure centres of Pärnu and Haapsalu had been destroyed; the best health resorts (Narva-Jõesuu, Oru, Pühajärve) had been burned almost to the ground. The spa network developed slowly. Rest homes were opened in Võru and Aegviidu.

In the fight against infectious diseases, large-scale prophylactic vaccinations were carried out in 1945. According to the plan, 770 hospital beds were to be prepared for patients with infectious diseases, but the actual result was 1011. All rural medical districts were equipped with an isolation chamber, also the ambulance service was successfully organised.

In 1946 there were 519 doctors in Estonia, who filled 871 positions (the coefficient of second jobs was 1.6). 64.8 % of the staffing plan was fulfilled (in total, 800 doctors were needed to fill 1242 positions). Many vacant positions were temporarily filled with people of low qualification who had come from the Soviet Union (often with inadequate language skills). The shortage of medical specialists caused great difficulties in the field of specialised medical care.¹⁷ To raise the quality of specialised care and to reinforce the organisational-methodological control, the ESSR Institute of Chief Doctors was established in 1946.¹⁸ Sanatoriums and hospitals for children were opened and restored. In 1946 the building of the Children's Sanatorium in Taevaskoja and the renovation of the Children's Sanatorium in Lustivere were completed. In Tartu, the first tuberculosis hospital for children was opened. Blood transfer stations in Tallinn and Tartu were established.

The situation with tuberculosis was poor: every month 15—25 patients died, mostly in the age of 20—30 years. The biggest problem was that the seriously ill people could not be isolated.

By the end of 1950, there were 138 hospitals (with 6357 beds in total) subordinated to the ESSR Ministry of Health Care,¹⁹ but several medical and prophylactic establishments were subordinated to other government agencies.²⁰

Repressive measures continued. In the mass deportation of 25 March 1949, the City of Tallinn Medical Officer Dr. Nikolai Sarv with his family,

and Dr. Klaudia Bezanitskaja from Tartu with her family, were sent to Siberia. Several well-known doctors were arrested for the second time: Dr. Mihkel Kask in 1947, Dr. Harry Rütmann and Dr. Leonhard Mardna in 1949. Three well-known doctors of the Tallinn Central Hospital were arrested in 1951: in February, the Estonian SSR Chief Surgeon Georg Järvekülg, in November, Dr. Rudolf Mürsepp and Dr. Julius Paldrok. G. Järvekülg perished in the Narva prison camp on 10 August 1953.

4.3. HEALTH CARE IN 1950–91

Tuberculosis, traumatism, occupational diseases and dysentery were declared the main problems of medical scientific research work in 1950. Birth rate had increased, overall death rate and that of children had decreased and population growth rate had become positive.²¹ At the same time, the Faculty of Medicine of Tartu State University was greatly damaged by the massive repressive measures, which reached their peak in March 1950 after the 8th Plenary Session of the Communist Party. 56 lecturers were repressed, hundreds of students were expelled, and many were arrested.²² 12 of the 17 professors of the Faculty of Medicine were dismissed with an accusation of bourgeois nationalism and they were replaced by doctors of lower qualification who were loyal to the Party. The quality of studies and research work at the University dropped. Later some of the former professors were employed again.

During the period of the political „thaw”, which started in 1956, the building up of the health care system also became more peaceful. Natural development of the society led to progress in sciences, technology and people’s welfare, and this was also reflected in the Estonian medicine as a whole. There was great progress regarding all demographic indicators: birth rate increased, overall death rate and children’s death rate dropped, the natural increase of population was accelerating. All quantitative indicators improved, big hospitals were built, free medical care was available to all. This was the positive side of the socialist society.

But the closed character of the Soviet system hindered development. In a normal and free society, the progress would have been more rapid. Isolation from the West caused technical backwardness, scientific research work was hampered by scarcity of information on the scientific progress in the West, as the scientific literature had to be ordered for hard currency from abroad, just like medicines and modern medical equipment. Three-level network of hospitals had been created: Communist Party hospitals, central hospitals and district hospitals, and the difference between their provision with equipment and medicines was significant. The industrious work and skills of Estonian doctors had to compensate for the technical backwardness. International contacts were seriously limited and depended more on a person’s standing with the Party than on his/her

talent and abilities. The human-centred medical aid was being gradually replaced by fight against diseases. The military-oriented Soviet Union preferred war industry and with the degradation of economic situation in the last years, shortage in certain groups of medicines developed.

Soviet alcohol policy was an integral part of a society based on violence. It was implemented since the first year of occupation, when vodka was made available everywhere without any restrictions. As a consequence of the Soviet alcohol policy, alcoholism became an all-Union health problem. In Estonia, attempts were made at labelling it a 'bourgeois anachronism' and the problem was suppressed; until 1985, the press was instructed not to publish figures about the *per capita* consumption of alcohol²³, which reached its peak in 1982–84: 11.2 litres (in Finland at the same time 6–7 litres). A certain decrease was brought along by the change in the all-Union alcohol policy in 1985, but because of this, the death of a great number of victims of occupation-time alcoholism occurred after the restoration of independence in Estonia. The number of alcoholics registered at health care institutions reached its peak in 1985 and then dropped, but by 1991 it had increased by 4168 patients, as compared to 1980. In the same period, the number of drug addicts grew from 93 to 266.

Abortion, which had been forbidden in the Republic of Estonia and also initially in the Soviet Union, was legalised in 1955 and grew to be a serious problem, achieving its peak in the 1970s (in 1970 there were 188.7 terminations of pregnancy per 100 live births). This problem, too, has been carried over to the independent Estonia.²⁴

The comparatively late arrival of drug addiction in Estonia is to a certain extent connected with the occupation, i.e. the isolation from the rest of the world caused by the latter. When in 1980 only 1000 cases of sniffing volatile chemicals were registered, five years later the number was already 5000. HIV arrived in Estonia only in the last years of occupation as single isolated cases (in 1990 there were 6 carriers of HIV and 8 people had AIDS).²⁵

By the end of the fifty-year occupation period, in 1991 there were 6527 doctors, 13,215 mid-level medical workers, 17,626 hospital beds (per 10,000 people respectively 41.6, 84.1 and 112.2)²⁶, but the life expectancy of Estonians, which before the occupation regimes had been longer than that of the Finns, is now 5.5 years shorter.

¹ See Merila-Lattik, Helbe 1995, in more detail Merila-Lattik 2000, 7–34 and supplements.

² For more information, see Chapter „Research Work and Higher Education“, see also Merila-Lattik 2000 (list p. 1151 ff).

³ Report, 1991, 45.

⁴ The analysis is based on Statistical Yearbooks of Estonia and the Estonian

- SSR Statistical Yearbook on National Economy, and Ilmoja 2002. For a more thorough survey, see Ahelik 1980.
- ⁵ See Estonian Statistics of 1937, 1938, 1939, 1940 (January); Ahelik, 1980.
- ⁶ See Merila-Lattik, Helbe, 2000, 17.
- ⁷ The following issues were discussed: the need to reorganise the existing medical organisation; sending health care workers to the Soviet Union to learn about the health care organisation there; nationalising private medical institutions and establishments; free medical care for working people; establishing governmental social insurance for workers and public servants; free treatment for all tuberculosis patients; tasks of medical institutions for fighting and avoiding infections; enlarging health care network; research in larger industrial enterprises concerning temporary incapacity to work; research concerning health care situation in oil-shale region; opening additional hospitals in connection with the outbreak of war; activities of the Estonian Red Cross organisation in war situation.
- ⁸ 30 doctors started to work at the Central Hospital (former Town Hospital), general capacity was set at 562. Central Hospital No 2 was formed (former Health Insurance Fund Hospital, respectively 12 and 160); Tallinn Hospital of Internal Diseases (former Greiffenhagen's Clinic, respectively 4 and 60); Psychiatric Hospital No 2 (former Hirsch Sanatorium, 2 and 40); Maternity Hospital No 1 (former Krull's Clinic, 3 and 35); Maternity Hospital No 2 (former Knüpffer's Clinic, 2 and 25); Hospital of Infectious Diseases (former Hospital No 2 in Magasini Street, 7 and 300, including tuberculosis department); Tallinn Children's Hospital (former Dr Krull's Clinic, 70 beds); Hospital for Skin and Venereal Diseases (Veerenni Street, was enlarged).
- ⁹ Previously, there had been hospitals for infectious diseases, for women and for men, medical counselling for mothers and children, health care for schools, health care department, health care police. In total, there were 165 beds, 17 doctors, 2 dentists, 13 nurses, 33 other personnel; the total number of personnel was 65. After the enlargement, there were 303 beds, 76 doctors, 13 dentists, 84 nurses, 195 other personnel, in total there were 368 medical workers.
- ¹⁰ 45 of them left during the so-called second wave of re-settlement. For more details see Merila-Lattik 2000, 19–23.
- ¹¹ For more details see Chapter „Research Work”, 3.1.
- ¹² EE 11, 403; Merila-Lattik, Helbe, 2000, 24–28.
- ¹³ More specifically: in 3 days, it was necessary to complete the registration and appointing to work of all medical, pharmaceutical and other health care staff (employing 4th and 5th year medical students and middle-level medical personnel as doctors where necessary); in 3 days, to organise sanitary-epidemiological stations and infectious diseases hospitals; in 5 days, to put to work general hospitals, surgeries, leprosy hospitals, institutions for children and a basic network of pharmacies; in 7 days, to organise as many makeshift sanitary cleaning centres and disinfection chambers as needed to guarantee the sanitary service for the population of the whole region endangered by infection; in 7 days, to identify and isolate the carriers of infectious diseases; in 14 days, to open rural medical divisions; and in the first 20 days, to open a hospital with 5–10 beds and a pharmacy in each medical district; from the first day, to carry out the sanitary-epidemiological survey and cleaning of settlements, public water system intake points, warehouses, dwellings, shops etc.
- ¹⁴ 10 epidemiologists, 10 sanitary inspectors, 5 eye specialists, 5 surgeons, 3 gynaecologists, 4 pediatricians, 2 skin and venereal disease specialists, 2 neurologists (the 11 December 1944 decree of the ESSR People's Commissar of Health Care).
- ¹⁵ 353 doctors, 448 nurses, 117 medical assistants, 106 midwives, 25 massage specialists, 46 laboratory assistants, 1368 other personnel working at health care establishments (17 December 1944 Report of the People's Commissar of Health Care to the Soviet of People's Commissars).
- ¹⁶ EE 11, p. 403.

- ¹⁷ Only 6 % of the required number of epidemiologists, 20 % of sanitary and eye specialists, 40 % of throat, nose and ear specialists were available for filling the positions.
- ¹⁸ Ahelik, 1980, p. 289.
- ¹⁹ Incl. 61 in towns (5014 beds), 77 in rural areas (827). All health care institutions had 7151 beds in total. See Ahelik, 1980, p. 336 ff.
- ²⁰ E.g. medical institutions for railroad and water transport workers, general sanatoriums of the trade unions etc. (see National Economy of the Estonian SSR in 1970).
- ²¹ See Ahelik, 1980, 312. Cf. the 25 August 1949 Decision of the ESSR Ministry of Health Care.
- ²² For more details see Chapter „Research Work”, 4.1; many details can be found in Merila-Lattik 2000, 27–32. Some lecturers were again employed during the political „thaw” that followed Stalin’s death.
- ²³ The first known article with concrete data was published in 1985 in the Noorte Hääl newspaper.
- ²⁴ Uibu, Kalju, 2000/2001, 15 ff.
- ²⁵ Liiv, Anti, 2002.
- ²⁶ ESA 1992, 171–173. The number of doctors was largest in 1986 – 7,357 – but after that it has dropped. At the same time the number of hospitals and beds also decreased.

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IV

PERMANENT HEALTH DAMAGES

Heino Noor

Massive terror and repression measures were employed during the Soviet occupation in Estonia, including mass murders, arrests and deportations. The Soviet power injured and crippled a large number of people, causing a serious permanent trauma to their mental and physical health. About half of Estonia's population suffered because of direct or indirect repressive measures.¹ Memories of violence and health injuries will be engraved in the collective memory and their results might last for generations.

This chapter of the White Book focuses on the results of the crimes against humanity committed in Estonia during the Soviet and so-called Stalinist repressions (1940–41 and 1944–54).² The treatment of the issues is victimological.³

1. DEFINITION OF CRIMES AGAINST HUMANITY

In international legal terminology, the 1968 UN Convention on the Non-Applicability of Statutory Limitations to War Crimes and Crimes Against Humanity is called timelessness convention. It defines a ***timeless crime against humanity*** as *intentional and/or deliberate killing, destruction, exiling, deportation, persecution, imposing of living conditions, causing destruction or hindering births, causing serious bodily and/or mental harm to a national, ethnic, racial or religious group or its members by the occupation power during the period of war or peace.*

Art. 89 of the Penal Code of the Republic of Estonia (2002) defines ***crimes against humanity*** as *systematic or large-scale deprivation or restriction of human rights and liberties, instigated or directed by a state, organisation or group, or killing, torture, rape, causing damage to health, forced displacement, expulsion, subjection to prostitution, unfounded deprivation of liberty, or other abuse of civilians.*

Such crimes have been committed in Estonia during the whole Soviet occupation. This survey deals mostly with the period of Stalinist repressive measures (1940—41 and 1944—54). The treatment of the issues is victimological, and at the same time also sovietological, because it deals with several aspects of the Soviet reality.

The data, observation and analysis are based on a ten-year long (1993—2003) work in the Estonian Centre of Medical Rehabilitation for Victims of Torture (MRT) in Tartu, which provides medical and legal assistance to the victims of repressive measures. About 700 victims of hard repressive measures (both Soviet and Nazi) have been helped on civil initiative and free of charge. The author, at present a doctor-consultant of the MRT, was deported in 1941 and spent 8 years in a prison camp (Gulag).⁴

2. THE CHARACTER OF REPRESSIVE ACTS COMMITTED IN ESTONIA BY THE SOVIET OCCUPATION

Because of their extent and severity, the repressive measures of this period can be compared to the Jewish holocaust, which is found to have caused long-term physical and/or mental disorders to nearly all the survivors.⁵ Researchers say that these psychological consequences are carried over to the children and grandchildren of the survivors of the holocaust, and at least 30—60 % of the survivors still need care, while 10—30 % of them need cure. Researchers say that these symptoms can be observed for 50 years. Consequently, these symptoms will not disappear in Estonia before 2030—40. What has taken place here has been called „the Estonian holocaust”.⁶ Although there are many reasons to think that the direct and indirect results of the trauma that hit us are similar to those of the holocaust, they have received little attention so far. The same applies to the *tendency to ethnocide* that was hidden behind the Soviet repressive measures.⁷ The long-term violent sovietization of Estonia brought along a general psycho-traumatic situation. The indications and duration as well as the results of such psychological trauma depended on the condition preceding the trauma of one or another social group and/or person, on the duration of the trauma and on the opportunities to adapt to it.

Naturally, the whole Soviet period in Estonia was not an unbroken chain of crimes against humanity. Many of the repressed managed to uphold and strongly promote the national, cultural and also the social dimension, economy and science. This must not be belittled, but the sufferings of those who resisted violence must not be belittled either.

3. THE AIMS AND MEANS OF REPRESSIVE MEASURES

In this paper repression is treated as acts of violence committed for political purposes against the population of an occupied country by the occupation authority; such acts have been expressly prohibited in the international law.

The purpose of the Soviet repressive measures was to subdue, repress and/or destroy the active core of population.⁸ At the same time these acts of violence functioned as means with which the whole nation was, either due to conscious or subconscious fear, forced to surrender, be silent or conform, be reconciled with the situation and yield to the power of violence. Fear and anxiety were both the aim and the result of these anti-human measures. These were also a source of the fear of being timelessly deprived of one's human self-realisation during one's lifetime. Continuous violence caused a serious trauma to the Estonian society. Constant terrorist brainwash, which was aimed at forced and violent reforming of personal attitudes and convictions, had to erase the national independence from the common memory of the people. The emotional and mental worlds of the brainwashed were to become appropriate to Soviet people, who were not supposed to harbour any national or religious ideals. Accusations of being religious or national-minded could give grounds for repressive measures.⁹

The principal means of violence were *mass murders, deportations, torture and threats*. Their cruelty, scope and methods were described in detail by the German occupation authorities when they applied for the support of the population in the war against the Soviet Union. Those who had been tortured and survived could confirm this information. Fear of the return of the Soviet power induced many people to flee; those who stayed home were subjected to the same measures known from 1940—41.

Torture can be divided into *physical* and *psychological*. In the Soviet Union, both were considered justified¹¹ and were routinely used to extract information, confessions and denunciations from people.

Methods of *physical torture* included beating, suffocating, treatment with flame or electric current, compressing genitals, wrenching head and neck etc. The screams and groans of the tortured were often¹² played through loudspeakers or from a gramophone record.

The methods of *psychological torture* included threats of causing bodily injury, pointing a pistol at the prisoner's head, depriving of sleep for a long time, night-time interrogations, confining to a dark solitary cell for several days. Prisoners were also forced to watch the torturing of other prisoners or close people, take part in humiliating them (for example, one prisoner was made to kneel with his mouth open and the other, who had a pistol pointed at the back of his head, had to urinate

in the other's mouth so that the interrogator could extort the desired „confession“ from him).

The marks that psychological torture left in the human consciousness are often deeper than bodily injuries. The „confessions“ obtained this way could be used to justify a death sentence, especially in political cases when the confession of the accused was enough for a sentence. Now such confessions are sometimes used in malicious manipulation of old political cases that are considered timeless. The interrogators could also obtain confessions through *denouncement*, that is placing the real or invented blame on another accused person („not me alone“ or „he is more to blame than me“ etc.) or *denunciation* (informing against someone). In the Soviet justice system, the so-called Vyshinskii doctrine prevailed until the 1950s, which meant that the accused was *presumed guilty* and that he/she had to prove him/herself innocent.

One method of psychological torture was declaring the accused to belong to a group under suspicion (like *public enemy*, *counter-revolutionary*, *kulak*, *fascist*, *dissident*, *kulak's daughter*, *disloyal type* etc.). These names also warned others that it was dangerous to communicate with this person.

Threats and intimidation were amplified by their scope: they were not used in prisons alone (in prison language *small zone*), but in the whole Soviet Union (which in prison argot was fittingly called the *large zone*). Transition from the large zone to the small zone was often only a matter of time. The large zone was inhabited by the so-called *Homo sovieticus*, Soviet humans, who consciously or subconsciously lived with a sword of fear hanging above their heads.

4. MAIN HEALTH DISORDERS

Health disorder is a disturbance of a person's physical and/or mental welfare, which, according to objective evaluation, requires cure or, in more difficult cases, is incurable. In Estonia, we have encountered the following health disorders caused by repressive measures (the code number that follows the diagnoses stands for the marking of the given health disorder in the International Classification of Diseases):¹³

4.1. SOMATIC OR BODILY DISEASES AND INJURIES

The outward cause of death or health damage caused by the executors of the rule of violence was mostly a short-term or a lasting assault (X25–Y09).

Starvation, nutritional marasmus, alimentary dystrophy (E42); *chronic vitamin deficiencies, pellagra, scurvy* (E50, E64) and the symptoms caused by these and their indirect results.

Chronic pneumoconiosis (J60—J65) caused by working without protective measures in underground copper, gold, nickel, coal etc. mines.

Radiation disease with pneumoconiosis (T66, V88) caused by mining radioactive ores (uranium etc.) in Kolyma, Norilsk and other prison camps. Many of the victims died in Estonia soon after coming home.

Infectious diseases, like *lung or bone tuberculosis* and the symptoms caused by these (A15, A19, B90), *typhus* (A79) that spread via *pediculosis* (A75), *typhoid fever* (A01). A specific disease that befell the repressed was *brucellosis* (A23). Many women who were deported in 1949 were infected, because they were forced to work without means of protection in sheep, reindeer and cattle farms infested by brucellosis germs. Many of them were disabled for life and still suffer from serious multiple joint inflammations caused by chronic brucellosis.¹⁴

Permanent health damages also manifested as *maltreatment syndromes* (Y07), i.e. as a result of excessive forced exposure to natural cold, being left without food and/or potable water (X53, X54). *Bone fractures* and other *bodily injuries* (T03) of the repressed were the results of injuries received during torture and/or working under conditions dangerous to health.

Obliterating endarteritis of lower limbs is a terminal illness, resulting from the constriction of arteries of lower limbs (I00—I99), often ending with gangrene (R02) and the amputation of limbs, or death. This type of health damages most often occurs among the long-term convicts who had to work in the polar region mines (Vorkuta, Inta).

4.2. DAMAGES TO MENTAL HEALTH

Mental trauma is a shock or tension caused by excessive negative experiences; it damages the psyche, spirituality and mentality of a person, and results in damaged mental health. *Traumatic event* is either objectively or in the opinion of the victim him/herself something unprecedentedly overwhelming and connected with great misfortune, violence or losing control over one's life. If the trauma and the symptoms following it are caused by repressive measures and occur in the mental state of the repressed person or a person connected with him/her, it should be treated as *repression trauma*. In comparison with natural disasters and acts of God, the permanent damage caused by man-made trauma is much more noticeable and serious.

According to the international classification, mental traumas and their reasons are classified according to the degree of severity.¹⁵ The mental traumas caused in Estonia during the observed period belong to the categories *extreme* and *disastrous*.

A *repression trauma* can be divided into three stages:

1. Shock, scare, fright that accompanied/followed the invitation to an investigative body, imprisonment, deportation;
2. Adapting to the situation. This stage could last for some days, but also for years;
3. Resolution, regression, release. With residual symptoms and recurrences, this stage could last for the whole life.

More or less serious health damages could emerge during all the three stages.

A specific means of political repression and punishment was internment, or confinement of the suspect or the person with evident antisoviet views, to a closed mental hospital. Thus psychiatry was connected to politics. A following doctrine was applied: a person with anti-Soviet mentality is either a henchman of a hostile state or an imperialistic environment, a representative of class hatred or a public enemy and he must be destroyed, i.e. isolated from the Soviet society. He may also be a dangerous psychopath whose place is in a mental hospital indeed. Rather often a coercive treatment was applied under the pretext of a diagnoses like neurotic schizophrenia, latent schizophrenia etc. It could bring along the coercive implication of a person/personality with drugs causing psychic alternations. In the psychiatric hospital of Tartu such diagnoses and measures were factually not used. (Mehilane & Vasar, 2004). The dissidents in Tartu were rather taken to prisoners' camps than to mental hospitals.

There is proved evidence about the fact that the first President of the Republic of Estonia Konstantin Päts, after being arrested in July 1940 and interned to closed mental hospitals in Russia for ca 15 years, was also confined to Jämejala mental hospital for a short time, with a false diagnosis of senile psychosis. From Jämejala he was taken back to the Kalinin-Burašev mental hospital in Russia in January 1955, accompanied by a special convoy. On 18 January 1956 he died there from pleuritis and infectious hepatitis (H. Noor, 1994). In 1990 the remains of Konstantin Päts were brought over to Estonia from the special cemetery in Russia and buried into the consecrated earth of Tallinna Metsakalmistu cemetery on 20 October 1990.

4.3. PSYCHOSOMATIC DISEASES

This kind of diseases of the repressed were caused and furthered by such factors as *lasting stress* (i.e. tension combined with negative experiences caused by outdoor environment and the disturbed inner environment of organism) and *distress* (inhibited state of tension, hidden rage, repressed anger; malnutrition, hard climatic conditions¹⁶). In consequence of these diseases, *high blood pressure* (I10—I15), *gastro-intestinal ulcer* or the so-called *stress ulcer* (K28), *asthma* (J45), *chronic ulcerous colitis* or

inflammation of the large intestine (E51) became the most widespread life-long diseases among the repressed.¹⁷

4.4. POST-TRAUMATIC STRESS DISORDER (PTSD) (F43.1)

PTSD was and still is the main mental health disorder of the repressed and the people close to them. The typical symptoms are recurrent episodes of experiencing the trauma in obsessive mental images and nightmares. Often there is anxious expectation and fear of encountering objects, places, dates, persons reminding of the trauma. Avoiding things connected with the traumatic event is a characteristic feature: everything traumatic both in one's mind and in human relations is pushed aside. This may also be expressed in the inability/unwillingness to remember some details of the cause of the trauma. This can result in total alienation, overall narrowing, numbing and dying of feelings. This can also result in episodes of extreme caution and extreme agitation, daytime vision-like memory flashes of the past and mental images. Eruptions of repressed anger or the need to repeatedly retell the experiences of repression may also appear. We have also noted, albeit very seldom, lasting habitual self-victimisation, i.e. the so-called *victimism*, and joylessness.

In the case of the post-traumatic stress disorder (in international terminology PTSD) all the symptoms mentioned do not necessarily occur together; symptoms of *distress* and *depression* may accompany them. Some new shocking experience may cause the aggravation of the residual symptoms of the repression trauma, especially in the case of emotions too deep for tears. One of the most widespread ways of surviving depression is the so-called *workaholism* — passion for work, escaping, plunging into work, ambition to achieve something beyond oneself at any price and at a risk to health. In the case of the chronic PTSD, the victim repeatedly has horrible dreams and *nightmares* (F51.5, F51.4), which become more frequent and acute before some date or event important to the victim. A person who awakes from such dream is confused, nervous, bad-tempered; this condition has depressing influence also on the people close to the victim. Traumatic dream is often accompanied by heart troubles, muscle convulsions, involuntary outcries, perspiration („nightmare syndrome”).¹⁸

The person suffering from nighttime or daytime memory flashes often loses his normal daily and life rhythm, he or she must time and again find spiritual peace and acceptance of reality. This can result in behavioural disorders, stress, aggravating depression. The victim starts to fear, deny and avoid the situations that even remotely resemble the traumatic event or date, i.e. he/she develops the so-called *trauma phobia*. The person thus tries to cope by escaping reality. The time lag between the trauma event

and the emergence of post-traumatic symptoms can vary but generally it does not exceed six months.

The long-term PTSD also influences the family members and other people close to the victim, and even the whole community. The result is *proximal stress*. Living with a seriously traumatised person, seeing and enduring his/her situation and behaviour in turn causes tension. Often also *distal stress* develops, which means strenuous participation in imagined and sympathised sufferings, with the accompanying chronic anxiety and fear. It must have been particularly depressing for the repressed if his/her spouse, partner or fiancé/e was left under the pressure of the violent power. The health damages and sexual abstinence, forced celibacy in prison, often caused lasting sexual disorders, partial or complete impotence or childlessness. Decrease of fertility, forced massive long-term deportation of people in their fertile age and limitation of births was the dominating reason of depopulation in Estonia.

The seriousness and duration of the PTSD depends on the pre-trauma personality, depth and duration of the repression and the re-admittance of the repressed into the family and society, i.e. the possibility of reinstating his/her rights, good name, health, capacity for work and successful social rehabilitation. It is important to have the acceptance and attention of the society and family, and to receive legal, moral and material compensation.

It must be noted that the physical and mental health and welfare of those who were repressed by the Nazis returned more quickly and completely. They received several kinds of compensation, whereas the victims of the Soviet repressive measures and their relatives had to face surveillance, restrictions and injustice at work, while choosing and obtaining a residence and getting education.¹⁹ This was a policy of real segregation and Soviet apartheid (Enn Sarv, 1997). It was a permanent, cumulative, depositing psychological trauma. Your whole life was overshadowed by Gulag.

4.5. INFLUENCE OF REPRESSION TRAUMA ON PERSONALITY

Long-term PTSD can cause chronic irreversible *change of personality* (F62.0). The victim may acquire some traits of character he/she did not have before — distrust towards close people, the society, certain paranoid behaviour and peculiar feeling of emptiness. „Nerves are permanently on the edge“, as if there were continuous danger. The victims of the Soviet terror are more often introvert than extrovert.

Diseases and mental disorders of the repressed caused by other, non-traumatic external factors or brain damages, or psychoses caused by endogenous, hereditary or other internal factors of the organism remain beyond the scope of this analysis.

5. COPING AND INABILITY TO COPE WITH THE REPRESSION TRAUMA

5.1. DEFENCE AND ADAPTATION REACTIONS

The living conditions of the repressed sometimes turned out to be unsuitable for survival. Political prisoners were often told, „You are not meant to survive.“ In the prison argot there was a saying „you croak today and I will croak tomorrow“. In spite of that, the repressed used different means and strategies to cope with themselves and the life.

Coping comprised attitudes and activities that the repressed used to overcome fears and compensate for the harmful influences on their mental and spiritual health. Both the directly and indirectly repressed, as well as formally free people, could develop personal *defence and adaptation reactions* that had to form a protective mental shield against danger. The most widespread of these were:

depersonalisation (alienation from oneself, primitive non-personal robot-like behaviour or „echo behaviour“);

regression (regression of the harassed person, sometimes to a childlike „just a game“ attitude);

avoidance (selective avoiding of thoughts and memories that can cause hopelessness);

denial (consistent non-acceptance of life-endangering factors, detaching oneself from these);

sense-ascribing (looking for the eternal meaning and consolation in an extremely depressing situation);

rationalisation (rational explaining of, and reasoning in, an irrational situation).²⁰

The *hostage syndrome* acquired special importance, as it enabled survival and coping in a certain way (by identifying psychologically with the aggressor): the oppressed took over the ideology of the oppressor.²¹ A person living behind the Soviet iron curtain could choose to justify the Soviet system.²²

The above-mentioned defence and adaptation reactions that lasted for years favoured double thinking, splitting of personality; together, these could cause or deepen mental health disorders.

One of the coping strategies was a political prisoner's skill to ration his/her scanty food. Ritual or near-ritual ways of behaviour also made coping easier: religion, patriotic feelings,²³ and belief in the victory of justice, dreams and fantasies, such as the arrival of the „white ship“ or the „victorious liberation forces“. In places of detention, rumours with wishful content or containing predictions circulated. Although their contents usually did not correspond to sound reasoning, they provided pieces of information, emotional experiences and support: illusions were

like food. Jokes, anecdotes, black and gallows humour also helped to cope with oneself and the life. In this way the Soviet authorities created preconditions for anti-Soviet folklore, folk poetry and underground literature. Prison subculture was a peculiar component of the general resistance culture.

The companionship and feeling of conspiracy among the prisoners and the deported were widespread. Several of such conspiracies were discovered by the spying system. Being caught meant punishment, including execution. Sometimes such „plots“ were provoked and fabricated by the KGB who also staged the consequent „legal proceedings“ and sentenced the participants to special regime or death.

One way of coping with repressive measures was *religion*.²⁴ In filling the questionnaire, about two-thirds of the respondents stated that religion and spiritual togetherness were very important in coping with oneself and the prison life, especially in cases of repressive measures involving loss of freedom. Some practised religion only occasionally, as prayers for help to the Almighty. It still helped. In the era of repression, the explanatory role of religion was relatively modest. The focus was on searching a personal relationship with God and overcoming spiritual difficulties with the help of the Creator through faith, hope and love.²⁵

Inability to cope can lead to self-destructive, suicidal behaviour. During the Soviet occupation regimes, the suicide rate in Estonia was high, 24—25 and more cases per 100,000 people a year, but among the politically repressed, self-destructive behaviour and suicides occur very seldom.²⁶ In Soviet detention institutions suicides were also quite uncommon. This can be explained with the concerted influence of several factors, like the special feeling of unity among the political prisoners, their care for each other, daily contact with death, belief in eternal truths overcoming death.²⁷ At the same time, total passivity, complete exhaustion and apathy also prevented suicides.

In her article „Inimene ja süsteem“, Marju Lauristin gives a good survey of coping attitudes developed during the occupation period.²⁸ Research carried out in 1988 revealed that:

- 35—40 % of the respondents noted that success at work, satisfaction and recognition, and sufficient consumption of culture in the system of the period helped them to cope. At the same time, people were rather critical of the society and the system. Only 5—7 % shared the leading ideas of the official Soviet ideology;
- 20 % had found a suitable social niche, which helped them to escape from the society;
- 20 % preferred to live in the closed environment of home and family, like in a „domestic exile“;
- around 15 % felt to be cast overboard (according to researchers, they had detached themselves from the society).

8. INDIRECT RESULTS OF REPRESSIVE POLICY

8.1. PSYCHOLOGICAL CONTAMINATION OF LIVING ENVIRONMENT

Besides the damage to physical environment caused by the occupation authorities²⁹, the psychological pollution of environment should also be noted. This was caused by several measures deriving from the repressive policy:

- over-industrialisation and urbanisation, emphasising the sole leading role of the „older Russian brother“, subjecting education to one and only ideology;
- damaging the national and personal identity, perverting the notion of „us“, repression of Estonian culture (under the code name of 'culture with socialist content'), prohibiting music, songs and other creative activities with national contents, and punishing for practicing them;
- polarising and splitting the nation under the false slogan of class struggle, persecuting patriotically-minded people, especially intelligentsia, establishing a totalitarian system of persecution and denunciation;
- forcing materialism and atheism, restricting church life, prohibiting and destroying religious books, physical and moral repression of the clergy and the believers;
- abolishing of all real convictions and principles, creating of a nationless, godless and impersonal „herd human“. As a melancholy humoristic exaggeration one might say that a new subspecies of *Homo sapiens* developed, a *Homo sovieticus*.

One component of the repressive policy polluting the living environment was the *governmental alcohol policy*, which essentially meant turning the whole society into alcoholics whose individuality was crippled by alcoholism. This sometimes brought along the deterioration of both mental and physical health. The results of this alcohol policy are seen in the independent Estonia of the beginning of the 21st century. Alcoholism is often connected with the consumption of other psychoactive substances or drugs. The national self-destruction that started as a result of Soviet repression is a time bomb threatening the nation's mental health.

Distorting and injuring of human dignity is one of the most serious damages. The general environment where the authorities were above the law and repented nothing facilitated the spreading of moral and legal nihilism, perversion of ethics, double thinking, normlessness, negation of principles, values and norms, anomy. The notions of good and evil, guilt and forgiveness lost their meaning. These manifestations of anomy, irregularity and flatness of personality and alcoholism tend to reach to the present time and the future as well.

Forgiveness for crimes, which is necessary for cure of soul, spiritual liberation and catharsis, can only be given consciously and cannot be just a decision to push aside the injustice experienced. A precondition for forgiveness is the repentance of the guilty party. Many victims of repressive measures still suffer from a split mind and contaminated soul. As nobody has publicly regretted having committed timeless crimes against the humanity, the tragedy of repression has not reached a closure and spiritually purifying catharsis of forgiveness has not taken place.

„The historical experience of Estonia should also contain the biographies of organisers of deportation and quislings — not to revenge, but to understand. A winner is recognised by forgiveness.“(Lennart Meri, 2000)³⁰

The impact of political and socio-psychological factors to the physical and mental health of people is clearly demonstrated by the Singing Revolution in Estonia (1988—91) and the resulting experience. A new awakening period of the nation, vivacity of mutual feeling of togetherness, increase of hopefulness and real affirmative political activeness and overcoming social fears brought along positive changes. The frequency of self-destructive behaviour, suicides and alcohol poisonings decreased (H. Noor, 1993), religious life livened up and birth rates increased sporadically. The crises of the transitional period that followed, did not bring along such positive changes any more.

Violation and plunder of the nation's genetic fund — by destruction, forced deportation and banishment of the healthier part of the nation, — should also be considered as a far-reaching effect of Soviet repressive policy that had lasted for decades. The relevant surveys and generalisations are lying ahead to be carried out.

6.2. ACKNOWLEDGEMENT AND CURE OF INDIRECT RESULTS OF REPRESSIVE POLICY

The severe results of Soviet repressive policy, especially the permanent damages on peoples' health can still be observed today and need to be acknowledged and cured. In order to investigate the damages thoroughly we need further research in sociology, medicine, health care, psychology and criminology.

It is apparently necessary to claim for compensation from Russia, who is the legal successor of the Soviet Union — and also bearing the whole responsibility —, for all the damages. It is natural and predictable that Russia has to feel sorry for the caused damages ja ask for Estonia's apology.

For further information about the research work in Estonia into health damages caused by repressive measures, contact the Occupation Museum (www.okupatsioon.ee).

- ¹ Talve, Leo, 19.—23. 10. 1991.
- ² Repressive measures during the German occupation (1941—44) are described in Paavle, Indrek 2002, 9—26.
- ³ Definition of victimology: The scientific study of the extent, nature and causes of criminal victimization, its consequences for the persons involved and the reactions thereto by society, in particular the police and the criminal justice system as well as voluntary workers and professional helpers. (www.victimology.nl/)
- ⁴ Incl. 11 days in death row. His mother and father were also arrested in 1941, and were murdered in death camp in 1942.
- ⁵ Allegedly they are all psychologically seriously endangered (German *psychisch schwer gefährdete Personengruppe*, according to J. Lansen, 1995).
- ⁶ Juhan Kokla is known to be the first, in Stockholmi Eesti Päevaleht, 1990.
- ⁷ See the resolution of the CPSU Central Committee of 31 January 1938, Sabbo 2000, No 20. Cf. A. Must, Postimees, 28. 08. 2003.
- ⁸ Sarv, Enn, 1997, 68.
- ⁹ Former position (e.g. public servant, police officer), membership of an organisation (e.g. Defence League, Women's Home Defence, Women's League), activity (e.g. pastor) or property (e.g. farmer, businessman) sufficed as grounds for conviction.
- ¹⁰ For more information see Chapter „Human Losses“.
- ¹¹ In the Soviet Union, bodily torture was called *means of influencing physically* (Russian меры физического воздействия). The CPSU CC 20 January 1939 Regulation, signed by Stalin, emphasises that „means of influencing physically“ are not a crime — on the contrary, they must be used even more often „against the public enemies who refuse to co-operate during interrogations and do not disclose culprits and plotters who are still at large to continue their anti-Soviet activities.“ „Such means of influencing should also be used in the future for destroying the class enemy, and although some have sullied these means, they must be used in order to get confessions. Party leaders must ensure the necessary scope and extent of the use of those means.“ See Sabbo, Hilda, V, No 15.
- ¹² In the Tallinn NKVD building in Pagari Street, in Sverdlovsk prison, and elsewhere.
- ¹³ We use the International Classification of Diseases ICD-10 (International Statistical Classification of Diseases and Related Health Problems, World Health Organisation, Geneva, 1992) and its code numbers. In dealing with mental and behavioural disorders, we use the classification of mental and behavioural disorders ICD-10 and the corresponding instructions (WHO, 1992 and University of Tartu, 1999). The outward cause of death or health damage caused by the executors of the rule of violence was mostly a short-term or a lasting *assault* (X25—Y09).
- ¹⁴ It has been stated that those who were deported from Estonia in 1949—63 to Kazakhstan-Semipalatinsk Region, where nuclear weapons were tested, could have *radiation damages* (radiation disease etc). (Toom, Marju, Eesti sõnumid 13. 03. 1995) Such possible health damages should be treated separately from *brucellosis* that was diagnosed at the cattle farms of the places of deportation. The possible genetic damages of both those who were in the regions of radiation danger in 1949—63 and their offspring need to be ascertained.
- ¹⁵ Diagnostic and Statistical Manual of Mental Disorders, 4th edition, 1994 (DSM—IV).
- ¹⁶ E. g., extreme cold or heat, polar night without natural light.
- ¹⁷ In Germany, such diseases are known as *Spätheimkehrers-Krankheit* ('late home-comer's disease'). Thousands of imprisoned Germans were not allowed to return home when the war ended, but were kept in death camps for years. In the end of the 1950s, after the so-called Adenauer's amnesty most of the survivors were allowed to return, already burdened by the specific diseases mentioned above which they had contracted in the Gulag. As a result of the same amnesty and

- with the same health damages, those who had fought in the German army against the Soviet Union and received long-term convictions („25+5”) returned to Estonia in the 1960s.
- ¹⁸ Typical cases: K. (75), former political prisoner of Kolyma, describes his still (40 years later) recurrent dream about fighting with a chekist and banging on the prison wall with his fist, waking up because of this movement, awakening and frightening his wife. — L. (80), a former political prisoner of Kirov camps, often dreams of a violent fight with attacking prison camp bullies. — N. (80), a former political prisoner of Ivdel camp, depressingly often has a dream in which he is constantly persecuted or how a monstrous prison official informs him one day before his release of a special decision, „Five more years, sign it.” N. wakes up with pains in the heart. He suffered a heart attack during one of such dreams.
- ¹⁹ The passport of the repressed bore a coded sign until 1956 which meant that he/she was not to be registered as a resident in many places, admitted to institutions of higher education, and had only a limited choice of jobs.
- ²⁰ A great deal of the Soviet brainwashing was based on psychological rationalisation. Suffering, poverty, limitation of personal liberties and other means of political pressure had to be explained with sacrifices in the name of class struggle, justified wars, world revolution, the unavoidable victory of socialism and communism, and a bright future.
- ²¹ The so-called *Stockholm Hostage Syndrome* has been described in the case of the bank tellers who were taken hostage by bank robbers in 1971 and treated relatively politely. In some days the hostages started to like the robbers, placed themselves in the role of the robbers, identified with them and pleaded with the police not to touch or harm these in any way.
- ²² This syndrome could also be seen in creative personalities. A good example is the poem about Stalin by Juhan Smuul.
- ²³ A good example of „singing oneself free”, and actually of the whole resistance culture, and coping under the power of violence while remaining true to oneself, was the song „Mu isamaa on minu arm”, sung by everyone at all Song Festivals.
- ²⁴ This was revealed in a study conducted in Tartu in 1998–2001 (nearly 100 respondents). See Lehtsaar/Noor 2002.
- ²⁵ „Our life is in heaven” — this is how a convict at Kolyma, Rev. Harri Haamer worded a thought shared by many (his book of the same title was published in Estonia in 1993).
- ²⁶ This phenomenon is also described by V. Frankl and T. Bronisch, who studied the psychology of the inhabitants of Nazi death camps.
- ²⁷ The author was also prevented from committing suicide by believing in these truths.
- ²⁸ Published in collection „Eesti rahva elulood” III, Tallinn, 2003.
- ²⁹ This is described in more detail in Part 3 of this work.
- ³⁰ Lennart Meri. Inimene ongi ajalugu. Eessõna kogumikule Eesti rahva elulood I. Tallinn, 2000.

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V

HIGHER EDUCATION AND RESEARCH WORK

Jaán Laas

Damages caused by occupation forces can be divided into the following categories: loss of human and material resources (buildings, equipment etc.); limited academic liberties in research work; state-imposed inadequate organisation; overall restrictions on the intellectual environment and the freedom of scientific communication.

The most devastating were the losses inflicted on human resources: according to the 1945 census, Estonia had 83 Doctors and 283 Masters of Sciences less than in 1940, which means a loss of 57 % of the Doctors and 64 % of the Masters. In 1941, 12 university lecturers and scientists were killed, 3 professors of the University of Tartu (UT) later died in Soviet prisons, and a dozen lecturers were deported. Over one-half of Estonia's Doctors of Sciences and 2/3 of Masters of Sciences were forced into exile. During the German occupation, 9 university lecturers were executed and a couple of dozens arrested. During the first years of the second Soviet occupation, 1944–49, many renowned scientists were repressed and imprisoned. In 1950–51, during the campaign for „rooting out the bourgeois nationalists and unmasking and isolating those groveling to the West”, many employees of the Academy of Sciences were repressed for ideological reasons and a total of 125 lecturers were dismissed from Estonian universities.

Great and permanent damage was caused when valuable books and publications were destroyed and ideological censorship was established. Estonian economic and cultural development greatly suffered due to the submission of these fields to imperialistic occupation authorities, bureaucratisation, occasionally disproportionate magnification in importance or limiting of research areas, and isolation of Estonian scientists from the global scientific community.

1. SCIENTIFIC WORK AND HIGHER EDUCATION BEFORE OCCUPATION

During the 20 years of peaceful development of sciences in Estonia, 156 Doctor's and 441 Master's theses were defended in the **University of Tartu (UT)**¹. In 1934–39, increase in qualified scientific personnel, broadening of functions of science and diversification of practices prompted and enabled Estonian scientific bodies to specialise in various branches of science.² In 1940, there were 544 professional scientific workers in Estonia (mainly university lecturers); on 1 January 1940, the UT had 2789 students.

The **Tallinn Technical Institute (TTI; from 1938 onwards Tallinn Technical University – TTU)** was founded in 1936 on the basis of the Technical Faculty of the UT. The Institute had 3 departments: Building, Chemistry, and Mechanics and Mechanical Technology. The Institute planned to employ 14 professors and 6 associate professors. 11 professors and 3 associate professors were invited from the UT. Between 1936–40, 24 persons graduated from the Technical University. In 1940, the TTU had 628 students.

The **Natural Resources Institute**, an important research centre, was founded in 1937. It had 10 departments. In 1939, the Institute had 23 employees and 66 members.

The **Estonian Academy of Sciences (EAS)** was founded in 1938. The corresponding Act provided for the establishment of two divisions: 1) Division of Humanities, and 2) Division of Natural Sciences, each with 10 members. The first plenary meeting of the EAS took place on 28 November 1938; Karl Schlossmann was elected President, and Julius Mark Vice-President. The EAS incorporated the Learned Estonian Society, the Society of Naturalists, the Academic History Society and the Estonian Society of Local History.

During the 1920s and 1930s, also the predecessors of agricultural research institutes, the oldest ministerial scientific institutions, received support from the government. In 1929, Experimental Farm of Pig Breeding was opened in Kuremaa, and in 1939, Experimental Dairy Farm in Õisu. In 1938, the latter was subordinated to the Ministry of Agriculture.

During that period, scientific progress in Estonia owed much to amateur science, which functioned and developed in different scientific societies and institutes. The estimated number of amateur scientists was 700.

2. FIRST SOVIET OCCUPATION

The occupation government immediately started to radically reorganise the structure and work of higher education establishments, harmonising the network of scientific institutions and the actual research work with the new ideological plans and the practices in the Soviet Union.

The first step was sovietisation and ideologisation of the activities, structure and theoretical framework of the major research and higher education centres (UT, TTU, EAS). Cleanouts in institutions of higher education and science started already during the rule of the so-called People's Democratic Government, set up on 21 June 1940. Total subordination of higher education and research development to the Soviet communist ideology on every level remained the main objective of the Soviet authorities. At the same time, fight against the occupation regime continued, the form and substance of this fight varying in time.

2.1. ESTONIAN ACADEMY OF SCIENCES (EAS)

EAS was dissolved on 17 July 1940 by a legislative act. The most distinguished, internationally renowned Estonian scientists were isolated from the key issues in scientific research. Although the comment to the act maintained that „the dissolution of the EAS is not an act against science“, but that „scientific work must be developed on a wider basis, as soon as appropriate plans are drawn up,“ this remained a purely demagogical effort to alleviate a repression act.

In 1940, EAS had 13 members. Their fate during the first Soviet occupation and the following German occupation was as follows: Paul Kogerman (1891—1951) was arrested in June 1941 and sent to a prison camp in Siberia; Ludvig Puusepp (1875—1942) died of stomach cancer in Tartu, in October 1942; Teodor Lippmaa (1892—1943) was killed during a Soviet bombing attack on 27 January 1943; Hendrik Sepp (1888—1943) died in Latvia on 5 September 1943; Aleksander Paldrok (1871—1944) died in Kuressaare on 1 July 1944. The remaining members of the Academy — Hugo Kaho (1885—1946), Edgar Kant (1902—1978), Oskar Loorits (1900—1961), Julius Mark (1890—1959), President Karl Schlossmann (1885—1969), Gustav Suits (1883—1956), Jüri Uluots (1890—1945) and Ernst Õpik (1893—1985) fled Estonia in 1943—44 and worked in exile until the end of their lives. Many of them were, for decades, highly productive in their research work. By the beginning of the second Soviet occupation, there were no members of the EAS left in Estonia. The organisation of Estonian top scientists and high science was completely destroyed. After his release from prison, only P. Kogerman, the main theoretician and organiser of scientific research into oil shale, continued as a member of the ESSR Academy of Sciences, founded in 1946.

2.2. UNIVERSITY OF TARTU (FROM 9 OCTOBER 1940: TARTU STATE UNIVERSITY)

The „People’s Government“ of Johannes Vares began reorganising the UT as early as in summer 1940. Rector H. Kaho and the deans were forced to resign. They were replaced by new officials on 19 July: Prof. Heinrich Riikoja was appointed Rector, and Prof. Artur-Tõeleid Kliiman Vice-Rector. One of their responsibilities was to organise the first political cleanout among the lecturers.

A couple of days after the adoption of the so-called Constitution of the Soviet Republic of Estonia by the Supreme Soviet (25 August 1940), a delegation of the new heads of Estonian educational institutions left for Moscow in search of guidelines and orders for reorganising universities and scientific organisations. The delegation included Johannes Semper and Aleksander Valsiner, Assistants to the People’s Commissar of Education; H. Riikoja, Rector of the UT; and Jüri Nuut, Rector of the TTU. The Head of Delegation was Hans Kruus. The Estonian delegation had many lengthy meetings in the office of S. Kaftanov, the Chairman of the All-Union Higher Education Committee. The problematic issue was the reorganisation of studies of older students on the introduction of the course-year system, new in Estonia. Head of Delegation H. Kruus worried about the possibilities and the quality of teaching the foundations of Marxism-Leninism, as there were no lecturers on the subject. The delegation left Moscow armed with a letter from S. Kaftanov authorising the ESSR People’s Commissar of Education Nigol Andresen to make decisions on issues concerning institutions of higher education in the Estonian SSR within the limits of the competence of the All-Union Higher Education Committee (this was to remain so for at least one academic year).

On 10 September, professor of history H. Kruus was appointed Rector. The executive staff of the university was reinforced with people brought in and promoted from Russia. Communist Kristjan Kure, ostensibly a specialist in Finno-Ugric languages, was brought in from Leningrad and appointed Vice-Rector for Studies. His responsibilities included those of the ideological leader of the university, i.e. socio-political education. As Head of the Chair of Marxism-Leninism and Political Commissar with special mandate, he was supervising the University’s bolshevisation. Many of his contemporaries remember his narrow-mindedness and conflicting personality.

The University was reopened on 30 September 1940, and the Second Secretary of the Estonian Communist Party Nikolai Karotamm gave a speech at the opening ceremony. The leitmotif in the speech of the new influential official was that the Party would closely supervise the work of the University and that the most important responsibility of the University was to provide „political education“.

In the second half of 1940, many highly qualified lecturers were dismissed from the University. They were replaced by career-oriented scientists and teachers, more yielding and ideologically better suited for the occupation authorities. 70 new lecturers and scientific workers filled the vacancies during the autumn semester of 1940 alone.³ Taking into consideration that on 15 April 1941 the University employed 385 lecturers and scientific workers⁴, we can see that during a short period of time one-fifth of them were replaced or transferred to other positions.

The first Soviet academic year in the UT started on 30 September 1940. In all faculties the curriculum was adjusted to new plans and programmes, based on the system of course-years like in Soviet universities. On 9 October 1940, the ESSR Soviet of People's Commissars (SPC) ratified the temporary Statutes of the University. The University was renamed Tartu State University (TSU). The new Statutes emphasised the new ideological principles of the University: „The goal is to educate people capable of learning the most advanced science and technology, armed with the knowledge of scientific socialism, ready to defend our Soviet homeland and to dedicate themselves wholeheartedly to the construction of the communist society”.⁵

Pursuant to the new Statutes, the University had six faculties, which in turn had 77 chairs, in addition to which there were 4 all-university chairs. The Board of the University was replaced by the Soviet of the TSU: in addition to vice-rectors and deans, the Soviet included representatives of the Communist Party, trade union and YCL organisations. The personnel department of the TSU was established in the beginning of 1941, and it was responsible, among other things, for ensuring that the persons hired by the University would, in addition to professional qualifications, also comply with „ideological and political requirements.”⁶

Communist Party organisation was formed at the University on 5 September 1940. In the beginning of 1941, it had 15 members and 8 candidates. The main responsibility of the organisation was ideological work and „fight against reactionary elements” among lecturers and students. The agenda of the meetings of the Party branches always included „ideological work” and „fight against hostile bourgeois elements”. In the second half of 1940, leaders of the University started to cooperate with the ESSR Ministry of Education in changing drastically the social composition of the students. On 6 August, the Ministry of Education decreed that the University had to accept first and foremost students from among the proletariat, poor farmers and working intelligentsia.⁷ In addition to documents concerning their education, age, military service and nationality, the student applicants now also had to submit a certificate, issued by their local rural municipality or city government, testifying to their social background, former activities and financial situation of the family before 21 June 1940. Applications were discussed by a three-member committee:

Rector, a representative of the Central Committee of the Estonian Communist Party (ECP CC), and a representative of the Central Association of Trade Unions. Over 1000 applications were submitted for the 1940 autumn semester. On 1 October 1940, the TU had a total of 3478 students, but after revising the list according to class certificates, and on many other less important reasons, the number of students decreased to 1987 during the next six months (by the end of the spring semester).

Many of the former lecturers, mainly from the field of social sciences, were forced to leave the University during the autumn semester of 1940. A number of illustrious scientists and lecturers were arrested and sent to Russian prison camps.⁸

The first ones to suffer through merciless repression from the occupation forces were the scientists and lecturers in the fields of social and humanitarian sciences dealing with ideology and national independence: jurists, historians, scholars of literature and art historians.

The generation of jurists-professors who had been educated in the UT and on the top European level during the 20 years of independence was annihilated during a relatively short period.⁹ A distinguished Estonian jurist, Professor Ilmar Rebane, has described the process in the following manner: „The period that had started with the military occupation of the Republic of Estonia, can be described as bloodletting in the Faculty of Law. At least 4 people fell victim to the Stalinist rule of terror and lost their lives: Professors Ants Piip and Uno Lender, Acting Head Assistant Rein Eliaser and probably also Acting Lecturer Richard Räägo, who disappeared after his arrest in 1941.”¹⁰

For the purpose of teaching Marxism-Leninism and introducing post-haste and permanently the corresponding ideology, an all-university chair was founded and K. Kure was appointed its head. Lectures on Marxism-Leninism (i.e. brainwashes) were given by lecturers from the ECP CC, among others, in the University Hall, on a weekly basis, to the University's lecturers and all other employees.

In May 1941, the first central scientific research plan of the University was completed, with special priority assigned to translating Soviet school books from Russian and using them in Estonian institutions of higher education.

Regardless of the efforts of, and huge amounts of time and resources spent by the University's ideological leaders, the results of brainwashing and ideological re-education were not particularly extensive or fundamental. Only a small number of lecturers sincerely supported the occupation authorities and the Soviet ideology. The University's most dedicated communist of that time was probably H. Habermann, who was appointed the Head of the Internal Defence (i.e. the Head of the ESSR State Security Institution) in 1940 and became a loyal servant to the occupation administration.

The TSU lost another dozen lecturers during the mass deportation of June 1941. The relatively narrow scale of this cleanout could be explained by the fact that the University was not yet completely taken over by bolshevists, and without the participation of experienced lecturers bolshevisation of the University would have remained impossible.

Ideological cleanout among intelligentsia continued until the beginning of the war, 22 June 1941. Only a small number of University's employees evacuated to the Soviet Union.

University's buildings and properties suffered heavy losses during battles and under the canon fire of the occupation forces leaving Tartu in July 1941. In all, the University lost 22 buildings, incl. 3 lecture or research buildings and 3 apartment buildings. According to the data collected (in autumn 1944) by Managing Director A. Mitt, the University had lost 19 big buildings: 12 in Raadi, 4 elsewhere, plus 3 big buildings of the veterinary clinic. Damages to the main building, the lecture building of Aia (Vanemuise) Street 46, the observatory, the Botanical Institute and the Institute of Mathematics were considered to be serious. Over 80,000 m³ of the buildings' cubature was destroyed or seriously damaged. 12,000 m² of glass was required for the preliminary restoration of buildings.¹¹

Cultural riches suffered devastating losses: 135 private libraries were destroyed, specialised libraries of many sub-units of the University as well as book warehouses of book stores and printing houses had been burned down. An estimated 465,000 books were destroyed.

2.3. TALLINN TECHNICAL UNIVERSITY

In the beginning of 1940, there were two Faculties in the TTU: Faculty of Building and Mechanics, and Faculty of Chemistry and Mining. The University had 600 students and 70—80 lecturers.¹²

„Temporary Terms of Reference of the ESSR Tallinn Technical University“ were adopted on 9 October 1940. This became the founding document for sovietisation of the TTU and the basis for further actions. An important change involved the creation of Chairs as novel structural units. Chair of the Foundations of Marxism-Leninism was created in autumn 1940, in order to improve the efficiency of ideological work. Communist A. Sipsakas, brought over from Leningrad, was appointed its Head and Professor Ordinarius. The University started to organise political education for its lecturers.

According to the available information, 33 of the TTU's lecturers and 350 of its students left for the Soviet Union's rear in the beginning of the war, mostly because of forced mobilisations.

3. GERMAN OCCUPATION

Also the German occupation (1941—44) seriously damaged research work, caused loss of lives and great material destruction. National-minded scientific workers were forced to face many political, ideological and philosophical dilemmas.

3.1. UNIVERSITY OF TARTU

During the first months of the occupation, 9 UT lecturers were executed. 4 of them were from the Faculty of Law: Prof. A.-T. Kliimann, assistant lecturer Väino Lang, lecturer Aleksander Looring, assistant Elmar Kruus.¹³ In addition to the recent repressors and active supporters of the Soviet regime (e.g. members of destroyer battalions), many people were killed with no evident reason. According to the data presented by the Soviet administration, over 40 lecturers and students of the University were killed during the first period of the war.¹⁴

On 18 July 1940, E. Kant became the temporary Rector of the University and a few days later gave orders to dismiss all employees hired after 21 June 1940, to clean out the communist literature from the libraries and to omit the Soviet affixes to the names of the University's sub-units.¹⁵

University's national-minded lecturers and the general public had hoped to reopen the Estonian National University as soon and as much in its previous form as possible. But in the end of 1941 Berlin declared that all the Ostland's universities would remain closed until the victorious end of the war.¹⁶ As an exception to the rule, universities would have been allowed to continue in some fields, which were important from the military point of view. Liquidation of the national university was postponed by the unexpectedly long continuation of the war and the wish of the occupation forces to cooperate with the youth of the occupied territories. University was necessary as an institution that educates doctors, veterinary doctors and agronomists needed by the country in war.

In January 1942, the occupation forces gave permission to start work in Faculty of Medicine, Faculty of Agriculture and Veterinary Faculty. The Universities Act of the Republic of Estonia was applied to the University of Tartu of the Estonian Local Government (such was the new name of the University), which was from now on under the sole direction of the Rector without any advisory body. Lecturers of the UT were considered public servants of the Estonian Local Government. In August 1942, also the humanities faculties received permission to continue their work according to a special wartime curriculum. Student applicants were required to work for a year in state institutions. Preference was given to young men who had served in German military forces — they were accepted without exams (i.e. higher education as a thank-you for loyalty).

In October 1942, 835 new students were accepted to the University, only 133 of them having passed the exams.¹⁷

Research work had a low priority during the German occupation. In 1943, a new unit — the Institute of Anthropology and Racial Science — was opened at the University with the objective to develop and promote the racial theory fitting for the local environment. On 15 April 1943, after the declaration of total warfare by Germany, a campaign was put into action for using the scientific accomplishments of the Baltic universities for military purpose. There were only 18 subjects of military importance (the *group A subjects*). Less important subjects from military and economic point of view, or even totally unimportant fundamental research subjects (*group B, C and D subjects*) were either discontinued or, in rare cases, a single researcher was allowed to continue the research little by little. In a university with long and excellent scientific traditions directing the research work and planning the resources in such a way brought along moral and material damages to lecturers, scientific workers and assisting personnel.

In March 1944, the German occupation authorities decided to evacuate the University to Königsberg or to close it down. Lecturers of the UT were unanimously against these plans and later organised, ignoring the occupation authorities, an effective local defence of the University's properties and the relocation of a great part of the University's properties and inventory into shelters around Tartu. During the second half of August, many University's employees along with a part of the expensive inventory, were evacuated to Haapsalu and Tallinn. This coordinated action from behalf of lecturers and employees prevented the complete scattering of the University's lecturers and total devastation of its material and technical resources.

Many highly qualified Estonian lecturers, professors, scientists, experienced organisers of scientific research and leaders of higher education chose to emigrate between 1942 and 1944, as did a great part of the population (cf. chapter Human Losses).¹⁸ 110 lecturers of the University and more than 100 artists, actors, musicians, writers and journalists fled over the Baltic Sea.¹⁹ Estonia lost most of its top scientists, either due to Soviet repression or emigration to the West, away from the new occupation.²⁰

In August and September 1944, the University lost another 15 lecture and administration buildings during battles fought around Tartu. Buildings left untouched by the hostilities had also become useless. Offices and laboratories were all thrashed and looted. Total damages ran to an estimated 40 million roubles.²¹ According to Soviet data, out of the University's staff and students 57 persons were killed during the war in the spring semester of 1941 — either on battlefields or through executions by German occupation forces or collaborating forces.

3.2. TALLINN TECHNICAL UNIVERSITY

The first group of German soldiers entered the main building of the TTU using force on 28 August 1941. The German special commandos took away all the precious metal objects they found, causing the damage of 112,000 roubles to the University.²²

Prof. Robert-Johannes Livländer was appointed Rector on 12 September 1941; in a short while the TTU was renamed *Tallinn Technical University of the Estonian Local Government*. Despite the best efforts of the lecturers, work in the University did not start until 1 February 1942. Compared to the spring semester of 1941, when the University had 110 lecturers and 1258 students, there were now only 64 lecturers and 428 students. In addition to wartime circumstances, this decrease in number was also caused by structural reorganisation — the Faculty of Economy was reinstated to the University of Tartu. In other respects the structure of the TTU remained unchanged.²³

Due to insufficient funding, the 1941/42 semesters were very short (both lasting less than three months; the 1941 autumn semester also took place in the beginning of 1942).²⁴ 110 new students were admitted in autumn 1942 and the total number of students rose to the highest level of this period (693 on 1 December). There were 675 students the next spring, 495 in autumn and 499 at the end of June 1944. Also the number of lecturers remained at a relatively low level (58 in 1942 autumn semester, 62 in 1943 spring semester, 58 in 1943 autumn semester).

The work of the University continued with great difficulties and at an inferior level. Most students had to work while studying, and participate in compulsory collecting of firewood. Although 29 subjects had been classified as being of military importance and 22 subjects as being important from the reconstruction point of view, scientific work did not really receive any financing.²⁵

Work of the University was suspended on 16 February 1944 and the TTU remained closed until the end of the occupation period. Nationally minded lecturers succeeded in preventing the evacuation of the University's properties and staff to Germany.

According to the estimates of the Soviet, the material damages caused to the TTU during the German occupation period of 1941—44 amounted to 146,679 roubles.²⁶

4. SECOND SOVIET OCCUPATION

Estonia as part of a united empire and its position under ideological and political pressure. Soviet Union was for a long time a Stalinist totalitarian system, which suppressed all the features of European civilised society and prohibited any independent social institutions, which

might have formed through self-organisation of the society. The Communist Party of the Soviet Union (CPSU) held the society under its total control through its system of economic policy, totalitarian ideology, fear and threats of terror. One of the basic principles of Stalinism was that the right and militant ideology created a firm platform for changing the world and people, and achieving the triumph of communist ideas. The Stalinist totalitarian government system and its ideology ruled in the Soviet Union until the death of J. Stalin in 1953. Certain changes could be noticed after that.

In 1953, Nikita Khrushchev became the First Secretary of the CPSU. In 1956, he spoke at a closed meeting of the 20th Congress of the CPSU about the unfavourable consequences of the cult of personality of J. Stalin. The Congress discussed the cult of personality and condemned it. However, the ideological conflict around the cult of personality and the country's development began anew in June 1957, when the plenum of the CPSU Central Committee revealed and crushed the members opposing the main direction of the Party. In following years, certain economic reforms saw light and a kind of ideological liberation — the so-called „Khrushchev's thaw“ — could be observed. The Soviet Republics received more rights: creation of Public Economy Soviets in 1957 was especially important. However, the plans and political tendencies for building up communism remained practically unchanged.

Another important change in the direction of the development of the Soviet Union took place in 1964, when Leonid Brezhnev came to power. New ideological restrictions were introduced. In the middle of the 1970s, stagnation became more and more pronounced and economic difficulties deepened. The big plans of building up communism came to a halt once and for all. The reactionary idea of „a unified Soviet nation“ was adopted, bringing along a new wave of Russification in the Republics. L. Brezhnev's era was later dubbed by the stagnation period. Many think that Post-Stalinism is a more appropriate name.

In 1985, Mikhail Gorbachev became the leader of the Soviet Union. He attempted to start constructing the true socialism via the so-called Policy of Reforms, and save the Union from collapsing with the help of perestroika.

Ever since 1940, the local leaders of the occupied Estonia had conscientiously followed all the recommendations and orders of the ideological central authority of the Union. In the beginning of the second Soviet occupation, some illusions about the likelihood of a limited autonomy for Estonia still persisted. But in 1947—48 Stalinism was put to practice in all its indifferent brutality also in Estonia. From 1949 onward, more and more power was concentrated in the hands of Communists, Party and State officials who had been born in Russia to Estonian parents, and whose world-view and ideological ideas had been formed within the Union's

Stalinist totalitarian system. During 1949, the fight for power among the leaders of the Estonian Communist (Bolshevist) Party (EC(B)P) became much more fierce. Sides were taken and distinct antagonisms formed. In March 1950, at the 8th Plenum of the EC(B)P, Estonian communists born in Russia, led by Ivan (Johannes) Käbin, won a complete victory over their opponents. During the following cleanout, a considerable number of local communists were excluded from the Party. A witch-hunt started in scientific institutions and creative associations; books that had survived the independence period were destroyed. Authorities endorsed anonymous letters and secret accusations. Later, when the Stalinist regime had been liquidated in the Soviet Union, its active introducers and henchmen of the occupation forces still stayed in power in Estonia, making only relatively unimportant concessions. I. Käbin remained the leader of the EC(B)P-ECP from 1950 until 1978 — for 28 years — and in 1978–83 he held the position of the Chairman of the Presidium of the ESSR Supreme Soviet. In 1978, Karl Vaino was appointed the First Secretary of the ECP. K. Vaino had been born in Russia and was keen to implement the Russification policy.

4.1. UNIVERSITY OF TARTU

The Communist Party and its branch in the TSU began to change the University into a Soviet institution. On 17 November 1944, the occupation authorities hastily reopened the Tartu State University. The event had been sped up for ideological reasons. The University continued to function according to the structure and the curricula compiled in 1940/41. There were 1,455 students on the list, 543 of these were admitted to the first year.

The Party branch of the TSU comprised three members and started its work on 25 October under the leadership of Lydia Roots. In spring 1945, it had 11 members and 3 candidates. For decades, the main concerns of the Party organisation and its leaders were ideological education, promotion of the branch's protégés to leading positions in the University and elsewhere, and disposing of scientists and lecturers considered unfit for ideological reasons. At the same time, we must remember that the executive staff of the University was by far not independent and free in its personnel policies.

In order to control the executive staff and keep an eye on every even remotely important promotion, the Soviet Union had a special all-Union „nomenklatura“ of offices under the control of the CPSU Central Committee; personal files including detailed information were kept on every person holding one of such offices. This nomenklatura had two levels: the all-Union one (CPSU CC) and that particular to the Republic (ECP CC). The number of such nomenklatura offices grew: in the beginning of 1947,

the number of the so-called all-Union offices in the TSU was increased. Many of the heads of chairs of the University were also included in the nomenklatura (Chairs of History of the Soviet Union and the Estonian SSR, Theory and History of State Law, International Law, Administrative Law, Civil Law and Process, Land and Kolkhoz Law, State Law, Criminal Law and Process). The heads of Chairs of Dialectical and Historical Materialism, General History, History of Literature and Folklore were also added to the nomenklatura. The number of prepared reserve positions of the nomenklatura was also increased. Detailed personal files of all the persons holding these offices had to be submitted to the ECP CC post-haste.²⁷

This new requirement considerably limited the liberty of the TSU and of other institutions of higher education to pursue their own personnel policy and reduced their freedom of choice when filling academic vacancies. The Communist Party now monitored, with more and more scrutiny, any movement of personnel in the University, and people were no longer promoted for their competence or talent but to a large extent, for their ideological loyalty and social background.

In 1947–53, an ever-growing problem on the ideological front of Estonia was the unmasking and elimination of the so-called bourgeois nationalists. Although no adequate definitions had been given of the outward characteristics or the contents of bourgeois nationalism, this concept was in full use on almost every ideological level.

Besides the TSU communists, also the ESSR Ministry of Education hunted for „bourgeois nationalists“. Deputy Minister H. Maran sent a classified letter (10 February 1947) to the Secretary of the ECP CC Nikolai Karotamm, about the „ideological unmasking“ and controlling of several TSU lecturers. The letter names many „bourgeois nationalists“ and gives them the Ministry’s evaluation: Associate Professor of the Faculty of Geography Jakob Kents is „...not only an alien but also a disruptive element in this responsible office, which he is holding“; Associate Professor of history of literature Villem Altoa „... displays bourgeois nationalist leanings and, taking into consideration his former activities and present published works (...), he is unsuited to direct the work of students in an institution of higher education in such an important field as the history of literature“; Associate Professor of the history of the Soviet Union Jaan Konks „...compiled history books during occupation. (...) These books have been withdrawn because of their unsuitability. However, the executive staff of the University feels that it is possible to employ the author ...“; Daniel Palgi works in Tartu as an editor of scientific literature and is „generally known as a scholar of literature with bourgeois nationalist ideas.“ Lecturer of English Johannes Silvet, „... fought in the occupation forces against the advancing Red Army in August 1944 and was wounded. (...) Later he evacuated to Germany. In September 1945 he returned to Tartu. (...) Bizarre was the eagerness

with which the University employed Johannes Silvet. (...) Even though the above mentioned facts should clearly indicate that he is not worthy."²⁸

H. Maran's letter was noticed. Karotamm gave his subordinates strict orders: „If these facts prove correct, this bourgeois nationalist riffraff should be removed from the University."²⁹

One of the ways to influence the lecturers ideologically was via the evening university of Marxism-Leninism, which was compulsory for all the University's lecturers and employees. But even after the implementation of such extensive measures, meetings of the Party Bureau found time and again that the views of the University's personnel were not sufficiently international and communist, but downright „rubbishy”.

After the 8th Plenum of the ECP (1950), the TSU Party Bureau again discussed the personnel situation on 20 May.³⁰ Members of the Bureau Vill, Raag, Raudsepp and others decided at that meeting „due to the ideological contamination of personnel, to implement the following measures”, which consisted of dismissing and relocating deans, heads of chairs and professors, removing associate professors from educational activities and closing the TSU doors behind many lecturers. „Measures” were planned to be taken against 46 lecturers and employees of 7 faculties.³¹

The notice compiled by the Head of the TSU Personnel Department H. Kure in January 1951, addressed to Endel-Johannes Jaanimäe, Head of the EC(b)P CC Propaganda and Agitation Department, lists 16 former University employees.³² Among the 16 unemployed lecturers named in the list, there were 3 professors (Elmar Ilus, Elmar Liik, Harri Moora), 5 associate professors (Richard Kleis, Leo Leesment, Valmar Adams, Johannes Silvet, Juhan Aul), 4 senior lecturers (M. Kengsepp, J. Saviauk, Fred Kudu, Arthur-Robert Hone) and several lecturers of military training.

After the dismissal of many lecturers during the campaign for uprooting bourgeois nationalists, it was the turn of the Rector. The University's Party Bureau meeting on 13 March 1951 discussed the critical remarks of the Vice-Rector of Science Eduard Martinson concerning the University's government. The „critical discussion” in the Party Bureau took a clearly hostile view of the Rector Alfred Koort. At the same meeting, the Secretary of the University's Party Bureau remarked among other things „As regards Russian as the working language in the Scientific Soviet, I think this will be a good thing and that no one will oppose.”³³ By 1951, the University was just a step away from total Russification, brought along by sovietisation.

A. Koort was relieved from his responsibilities as the Rector on 8 June in the office of the ECP CC Secretary J. Käbin, and a new Rector was appointed on the spot. During approximately a year, 76 lecturers and over 120 other employees had been dismissed and forced to leave the TSU.³⁴

Search for a new Rector outside Estonia had already been going on for a long time. In the beginning of 1950, the decision was made in favour

of the Estonian physicist F. Klement, who was working in the University of Leningrad. After a long coordination round, the choice was approved by the USSR Ministry of Higher Education and by the CPSU CC Political Bureau (!). This shows how important the office of the University's Rector had become.³⁵

At the end of the first working week of 1951, F. Klement was told in the ECP CC that he must absolutely attend the immediate sitting of the General Assembly of the Estonian Academy of Sciences, because his candidacy for member of the Academy would be put forward. That was big news even to Klement himself. This is how the ESSR Academy of Sciences elected new members in 1951.³⁶

Rector F. Klement launched a purposeful implementation of the Soviet university system. The University's communists' open general meeting on 15 February 1952 drew attention to many deficiencies in the functioning of the University. A lot of emphasis was put on the argument that „There is no active fight going on against elements of national ideology in sciences. Furthermore, exploding bourgeois nationalist concepts in issues pertaining to Estonian history is completely inadequate.”³⁷ The decision of the general meeting was now formulated in Russian according to the familiar Soviet formulas.

In 1952, also the Secretary of EC(b)P CC I. Käbin actively searched and recruited lecturers from Moscow and Leningrad to Estonian institutions of higher education. In a letter of 17 January 1952, he asked the USSR Minister of Higher Education V. Stoletov to send professors to Estonian universities on a lecture tour or to accept a more permanent position. The Party leader displayed particular interest in the course of „Dialectics of Michurinist Biology”. Minister V. Stoletov promised to satisfy „as soon as possible” the request to have highly qualified scientists working in Estonian universities.³⁸

The year 1953 was a turning point for the Soviet Union: J. Stalin died in the beginning of March. The first half of the year was still dominated by eulogies on Stalin's brilliant accomplishments, cult of the great leader and relentless criticism of lecturers who were not able to understand and promote the importance and greatness of Stalin's „scientific works”.

New period of development in higher education and sciences started in the mid-1950s. „Ideological and political education” as well as fine-tuning of the world view of the students became the responsibility of universities' chairs of social sciences, at first the Chair of Marxism-Leninism, later the Chair of the History of the CPSU and the Chair of Scientific Communism.

The first chair of social sciences in the TSU was the Chair of Marxism-Leninism, which started work in autumn 1944 and was later renamed the **Chair of the History of the CPSU**. During the first year, the Chair had only 2 lecturers: Head of the Chair Vilhelm Reiman, and

Lydia Roots. The next academic year, the Chair had already seven lecturers. In 1960–68, the Chair was headed by Johannes Jakobson and Johannes Kalits became the Head in 1969. In the academic year of 1980/81, the Chair had 15 lecturers, incl. 1 Doctor of Sciences and 14 Candidates of Sciences. There were 170 hours of lectures on the history of the CPSU in the curricula of the I and II course year, or, in some departments, 120 hours.

The TSU Chair of Scientific Communism was founded in 1964, as a result of the compulsory inclusion of scientific communism in university curriculum. The Chair has been headed by Aleksander Blumfeldt, Kalev Koger, Ivan Volkov; Meeta Murd, Toomas Alatalu, Ivar Aimre, Märt Kubo, V. Mullari and others have worked there as lecturers.

On 5th and 6th course years of the TSU, there was an 80-hours course on scientific communism, ending with a state examination before graduation.

In the course year 1980/81, there were eight lecturers in the Chair. Lecturers of the Chair cooperated in publishing „collections of works on scientific communism“ and other ideological educational materials.

The TSU ECP organisation started its work on 25 October 1944. The University then had 3 communists: Hans Kruus, Karl Taev and Lydia Roots. In 1980, it had 600 Party members and 43 member candidates.

For decades, the main objective of the University's Communist Party organisation was, as mentioned before, „to strengthen the ideological fight, first and foremost the fight against manifestations of bourgeois nationalism.“

The office of the Secretary of the University's Party organisation was like a test of ideological and political loyalty for would-be members of the communist nomenklatura. Successful passing of it opened new career opportunities in science, and politics in general. The leader of the University's Party organisation was usually chosen from among the University's communists.

Many have held the position over the years: Lydia Roots, Arkaadi Uibo, August Premet, Pavel Kalju, Andrei Vill, Arnold Kõorna, Jenny Ananjeva, Vsevolod Arhangelski, Liina Stepanova, Johannes Kalits, Endel Laasik, Endel Silk, Antidea Metsa, Uno Polisinski, Lembit Raid, Edgar Salumaa, Vilmar Ruus, Kalev Koger, Jaan Reimand, Advig Kiris, Paul Kenkmann, etc. A great number of lecturers and administrators have been members of the Party Bureau or Committee. All of them are to certain extent responsible for sovietisation of the University, close collaboration with occupation authorities and the harm done to Estonia's sovereignty.

4.2. TALLINN TECHNICAL UNIVERSITY (IN 1944–89: TALLINN POLYTECHNIC INSTITUTE – TPI)

The first meeting of lecturers, presided over by the new Director Albrecht Altma, was held on 27 September 1944. Lectures started on 15 November. By the end of the year, there were 941 students (there had been 499 in February). By the end of November, there were 86 lecturers, incl. 32 professors and associate professors, 5 senior lecturers, 3 teachers and 46 assistants (the number of employees had been 66 in February). There were only 3 communists among the TPI staff. The attention of the Party branch was mainly directed at „turning TPI into a Soviet technical university”, improving the „ideological and political” level of education, surmounting the influence of „Estonian nationalists”, and recruiting new members. During the first years after the war, the First Secretary of the CC, N. Karotamm, repeatedly gave more detailed instructions.³⁹

Also the Chairman of the SPC A. Veimer was active in educating the technical intelligentsia. On 9 February 1945 the ESSR SPC and ECP CC adopted the Regulation „On Improving the Work in ESSR Institutions of Higher Education”. All universities and their sub-units were given the responsibility to carry out close monitoring that all lectures and seminars were „up to date with the latest accomplishments in the modern progressive science” and, in particular, that these were „ideologically correct and based on the theory of Marxism-Leninism, the „methodological basis for all progressive science, which serves the interests of the working people and is free from forgery and idealistic narrow-mindedness”.⁴⁰

In 1947, hostile attitude of the TPI Party branch towards views and lecture notes of „certain” lecturers became apparent. The minutes of the closed meeting of 24 June named professors who ignored accomplishments of the USSR and bowed down to the Western Europe. These were Paul Kogerman, Ottomar Maddison, Leo Jürgenson, Arnold Humal ...⁴¹ In October of the same year, the ECP evening university of Marxism-Leninism was opened in TPI. In a couple of years’ time, all lecturers of the Institute had passed the course.

In the context of an ever „aggravating” ideological fight, the evaluation of what happened during the 1948 concert tour of the TPI male choir to Tartu and Riga took an unexpected turn. As the choir was singing „Gaudeamus” and walking in a single line through the streets of Riga, far-reaching conclusions were made in Riga, Moscow, Tallinn and the Institute’s Party Bureau. The TPI Party Bureau meeting decided the following: „1. Fight against remnants of bourgeois nationalism and student corporations must be brought up more aggressively in the Institute’s whole staff and student body. All social organisations, administration and party cells must be mobilised in this fight.”⁴²

The decision of the closed general meeting of the TPI Party organisation (15 October 1948), before the 5th ECP Congress, reads that under the guidance of the Party organisation „...The executive levels of the Institute have been cleaned of people, who were not able to provide the correct Soviet education in the TPI and who were ideologically and politically alien to the Soviet society (Prof. Võrk, Associate Professor Oengo, Assistant Hellam)” and that „new Director and Vice-Director have been appointed (...)”.⁴³ Another „positive” achievement was the fact that „during the 1947/48 academic year alone, 30 students have been expelled from the Institute as socially alien.”⁴⁴

Repression on the basis of „ideology” and social background truly gathered momentum and became extensive after the 8th Plenum of the ECP CC (March 1950.). The 51-member TPI Party organisation’s seven and a half hours long general meeting discussed staff related issues and heard a report on the results of the 8th Plenum. The following decisions were made about the staff: „Erit, Voldemar — to be expelled from the Party as a person alien to it... (...). Lukas, Jaan Mark’s son — to be expelled from the Party... (...). Mullas, Olav Jüri’s son — to be expelled from the Party... (...)”. The last two were expelled because „...Lukas and Mullas had been arrested by the security forces...”⁴⁵ In reports presented at the general meeting, many lecturers were designated as „alien” and „harmful” and their removal from the Institute was demanded. In addition to Prof. Ottomar Maddison, the „vermins” included Professors Paul Kogerman, Schmidt and Jaan Kark, Associate Professors Oskar Kirret, Hugo Oengo, Georg Mets and Bernhard Veimer. In the end of the 1940s and the beginning of the 1950s, many distinguished lecturers lost their positions in the Institute. Prof. J. Kark and Prof. O. Maddison, the founder of higher technical education in Estonia, were dismissed; Prof. H.-R. Võrk was dismissed, arrested and in 1951 found guilty of anti-Soviet agitation. O. Mullas and J. Lukas, lecturers in military affairs were arrested in 1950. J Lukas died in prison camp in 1953.

The repression policy of the TPI Party organisation in 1945—51 greatly hindered the functioning of the Institute and its scientific activities and set limits to the development possibilities of many people.

As already mentioned, from the mid 1950s, the so-called ideological political activities and ideological education work were increasingly conducted by specialists in that field.

Faculty of Social Sciences — faculty for propagating communist ideas, ideological fine-tuning and supervision. From the beginning of 1945, there were two relevant chairs in the Institute: 1) Chair of Foundations of Marxism-Leninism, and 2) Chair of Political Economy. In the academic year 1961/62, there were already three chairs busy with teaching the foundations of Marxism-Leninism and political economy: the independently reorganised Chair of Philosophy (which had been reorganised into

an independent chair), Chair of the History of the CPSU, and Chair of Political Economy. In 1963, another central chair of ideological education was hastily organised in the University of Technology in order to implement the decisions adopted on ideological work in the CPSU June Plenum — the Chair of Scientific Communism. For the next 30 years, these four chairs taught, implanted and propagated the principles of communist ideology. These chairs were also responsible for the general ideological supervision and control over the views and aspirations of the students, as well as to some extent for generalising regional particularities of development of communist ideology and for including these new fragments into the „general theory“. We will now explore more closely the activities of two of these chairs and the damage they caused.

TPI Chair of the History of the CPSU: „Let us dedicate all our efforts and energy to the communist education of students“. The history of the CPSU had been a compulsory subject in the Institute ever since the start of the occupation. The independent chair, specialised only in the history of the CPSU, started its work in the academic year 1961/62.

For decades, the so-called scientific works and dissertations published by leading figures of the Chair were deeply hostile towards the Republic of Estonia and the Estonian independence, and distorted the actual facts of and relations between historic events. For example, Adolf Päss, Head of the Chair of Marxism-Leninism in 1949—54, wrote his thesis on „Estonian Communist Party — Inspirer and Organiser of the Fight of Proletariat against Foreign Invaders and Their Henchmen — Estonian Bourgeois Nationalists, in 1918—1920“. Works with similar contents and attitude were characteristic of the Chair's lecturers for forty years. In 1962—64, the Chair of the History of the CPSU was headed by A. Päss, who had previously been the Director of the ECP CC Institute of Party History in 1956—60. In 1964—67, Ülo Taigro was the Acting Head of the Chair. In 1967—77, the Chair was headed by Edgar Mattisen. In 1977—85, by Mati Graf.

In 1985, the Chair employed 15 lecturers, incl. 3 Doctors of Sciences and 12 Candidates of Sciences. History of the CPSU was taught as a compulsory subject to all students in technical fields on the basis of a 120-hour programme, and to all the students in the Faculty of Economics on the basis of a 170-hour programme. In 1985, when the Institute had 9609 students, approximately 260,000 academic hours of their valuable time were wasted on compulsory studying of this pseudo-science, the history of the CPSU. In ten years, this meant over 2.6 million academic hours, which in retrospect constitutes a huge material loss on the social scale.

Chair of Scientific Communism: „Comprehensive knowledge about the laws of development of the communist social order and about the ways of establishing proletarian dictatorship.“ The Chair was formed by the beginning of the 1963/64 academic year. Candidate

of History Boris Tamm was appointed Head of the Chair. Klara Hallik, former Secretary (1955–62) of the Estonian YCL Central Committee, also joined the Chair. In 1974–84, she headed the Chair. Her successor was Jusef Livshits.

The new subject was taught to all students of the TPI as a 70-hour course. Lecturers of the Chair included Gabriel Hazak, Herbert Vainu, Mikk Titma, Georg Sootla, Ivar Aimre and others. As lecturers and examiners these Estonian top specialists in „scientific“ communism exercised the ideological control over the students who had to spend approximately 150,000 hours a year on listening to lectures on communism and a lot of time on preparing for the exams...

Starting from the 1974/75 academic year, all students, no matter which field they were to graduate, had to pass a compulsory state examination in scientific communism, as decreed by the occupation authorities.

The TPI Chair of Scientific Communism was reorganised into the Chair of Political Science in 1989.

Growth in, and change in functions of, the TPI ideological structures – the Communist Party and the YCL organisations of the TPI.

In late autumn 1944, the Institute had 3 communists. By December 1945, the Party organisation already had 14 members and 4 member candidates. The number of communists increased relatively rapidly during the next years and they started discussing and controlling the work of dean's offices and chairs, filling vacancies with suitable personnel, electing researchers and associate professors, giving obligatory recommendation letters on people to be sent on missions abroad, educating students in ideological and political issues etc. The TPI Party organisation and its top figures became, within a period of a couple of years, major decision-makers in issues of total ideological control inside the Institute and also of its economic and organisational issues. In 1950, the Institute had 58 members of the Communist Party; in 1960, 102; in 1970, 296; in 1980, 417; and in 1985, 472.⁴⁶ (In 1986, the TPI had over 2100 employees and over 9000 students).

The functions and activities of the TPI Communist Party branch changed over the decades of occupation. During the first decade (1945–55), the attention was mainly focused on ideological fight against lecturers and students with „nationalist leanings“ and European sympathies, „unmasking“ them and „thoroughly rooting out bourgeois nationalism and grovelling to the West“, and, to sum up, turning the Institute as a scientific and educational institution into a „truly Soviet centre of culture“.

In the end of 1973, 39 % of the Institute's lecturers were communists. Almost 100 % of the lecturers in chairs of social sciences belonged to the Communist Party. During decades, many communists have headed the TPI Party organisation or belonged to its Board. Let us name some

of the leaders, members of the Bureau and the Committee, whom the communists themselves have put forward as exemplary.

In 1944–52, the leading communists were Ludvig Kalman and August Sipsakas, Ludvig Schmidt, Aleksei Tsögankov, Ferdinand Eisen, Ervin Kangur, G. Radionov, Adolf Päss, A. Palm and Albert Korsmik. The 9-member Bureau grew gradually. In the second half of the 1950s, August Klement held the position of the Secretary for a longer time period. In the 1960s, new communist leaders were Agu Aarna, Karl Allik, Vsevolod Arhangelski, Bernhard Hiire, Sergei Dokelin, Ivo Soidra, Erich Köpper, Vladimir Kozlov, Endel Uus, Oleg Bussel, Hugo Tiismus, Voldemar Maasik. In the 1970s, they were followed by Aadu Talts, Heli Joonase, E. Kogerma, Mihkel Pikner, Olga Pöder, Uljas Tamm, Linda Vambola, Gabriel Hazak, Igor Mihelson, Rein Otsepp, H. Herm, Mati Graf, Raivo Vihvelin and many others. In the 1980s, the TPI Party Committee already had 20 members. New members of the Communist Party activist group included Andres Keevallik, Leili Möldre, Eduard Saul, Vladimir Tatrokov.

In the beginning of 1945, the TPI had around 1000 students. There were 4 YCL members. In 1950, there were 365; in 1960 — 887; in 1970 — 3572, in 1980 — 4966.⁴⁷ One of the main responsibilities of the YCL was to contribute in every possible way to implementing the policies and putting into practice concrete decisions of the Communist Party. Checking and adjusting of the students' world view and ideological political leaning according to the models given made up an important part of the organisation's activities.

4.3. ESSR ACADEMY OF SCIENCES

The ESSR Academy of Sciences (AS) was founded in 1946 and in a relatively short period it came to unite all scientists in Estonia who corresponded to the then strict requirements of class background and ideology. The first meeting of the ESSR AS General Assembly took place in the Toompea Castle on 5 April 1946, with 14 members (Doctors of Sciences and 10 corresponding members) participating. Hans Kruus was elected the President, Juhan Vaabel and Aksel Kipper the Vice-Presidents, and Jüri Nuut the Secretary of the ESSR AS. In the second half of the year, 10 scientific institutions were subjected to the AS, with 360 employees in total (160 of them researchers). By the end of 1947, the AS had 4 departments, 12 institutes, 3 museums and 3 scientific societies. The number of positions was 862, of which 745 were filled.

The first scientific session of the AS took place in April 1947: it reviewed the Academy's activities, research topics and preliminary results of scientific research. During the session, the top figures of the AS demonstrated their ideological loyalty to the Communist Party and occupation authorities, and declared their humble submissiveness to J. Stalin himself,

„...the great scientist of our age“.⁴⁸ Research work in the fields of Estonian economy and development of culture, as planned at the Session, did not last long. The new wave of ideological repression policy against scientists, following the 1949 mass deportation, aggravated the ideological antagonism between intelligentsia and the political leaders. The ECP's ideological leaders were again eager to hunt for „bourgeois nationalists“ and „root them out“ everywhere.

The 28 January 1950 sitting of the EC(b)P CC Bureau discussed the work of the AS Department of Social Sciences. The ECP ideological leader I. Käbin was thoroughly contemptuous of the work of the AS and its leaders: „We only participated in the work of the AS, because the rotten policy, which has been characteristic of the Academy of Sciences since the very beginning, manifests itself here more clearly than anywhere. The reason for this is Kruus's opinion that science belongs to bourgeois intelligentsia and that a proletarian party has no say in it. Some others think that inviting people from other Soviet Republics, including those with Estonian origin, will cause a relapse in Estonian culture and science for 10—15 years. This notion was spread by Andresen and it has also been ascribed to Kruus. (...) 25 % of the AS staff originates from bourgeois parties. The Academy of Sciences has many members who will never become Soviet scientists. (...) Kruus's personnel policy confronts the Party. (...) „The upper crust“ holds on tight to their positions and does not allow the Party-approved science to go into the masses.“ Käbin finished by saying „...I'm joining with the resolution — Kruus to be expelled from the Party.“⁴⁹

Kruus was expelled from the EC(b)P on 18 March, a little before the 8th Plenum. In April of the same year, he was declared a forbidden author and was expelled from the AS (this decision was allegedly received by the AS General Assembly with fervent approval) and arrested in October.

In 1950, Johan Eichfeld was appointed President of the ESSR AS, and in the beginning of 1952, Gustav Naan became Vice-President. Both were Estonians born in Russia, with Soviet education and work experience. They had the same views about cleanout in the Academy and on which direction to take in the future work.

In 1951 and 1952, Secretaries of the EC(b)P CC Ivan Käbin and Leonid Lentsman were personally monitoring and ideologically examining the Academy's research topics, reports and materials of various sessions. By the end of 1951, the Academy already had a considerable number of so-called „closed“ or secret topics. CC Party Secretaries demanded to see and studied annotations of works completed in the Academy along with reports including characterisations of authors... For scientific workers this meant new problems and constant insecurity about tomorrow.

The year 1952 brought along new ideological attacks against „bourgeois nationalists“ and many employees were replaced within the

Academy. At the 7th Congress of the EC(b)P, in September 1952, the Head of the Political Board of the Baltic Navy Komarov publicly made the following demand: „...I'd like to hear why people known for their nationalist views are still holding very important positions in our Party and our Republic. I mean especially Veimer (...). It's been said that he supported people who were against the Soviet authorities. Why was he then given such an important responsibility as the scientific analysis of Estonian economy? (...) We must clear the important positions as soon as possible of people like Veimer, who support bourgeois nationalists; people, who for a long time sheltered enemies of the Soviet people.”⁵⁰

Arnold Veimer was dismissed from the position of Director of ESSR AS Institute of Economy by a resolution of the EC(b)P CC Bureau on 28 November 1952. Member of the Academy Nikolai Tomson left the position of Vice-President in 1953, Member of the Academy Nikolai Buzulukov left the position of Secretary in 1954, many other interrogated persons waited for possible developments with a trembling heart...

People were painfully aware of the fact that it was not safe to discuss the Soviet ideology, ideological leaders and their activities even in a narrow circle of friends. Even events of 1953 — Stalin's death and the ensuing processes in the Soviet Union — did not break this „political silence” in Estonia. The triumph of the Käbin-Lentsman ideological direction and its lengthy reign in institutions of the Academy, of higher education and other cultural institutions guaranteed promotions to executive positions for those who were loyal to the leading clique; they got the absolute power in checking the political views of the others. In 1950, Johan Eichfeld was appointed President of the ESSR AS; in 1951, Gustav Naan was appointed Vice-President of the AS; in 1951 Viktor Maamägi became Director of the Institute of History; in 1950, H. Tobias became Director of the Institute of Language and Literature. In 1951, wide propagation of Endel Sõgel's „ideologically correct” treatment of literature began. In 1952, he started working in the Institute of Language and Literature. In 1955, a convinced bolshevik Eduard Päll, who had been sent to Estonia in 1940 as a senior political instructor of the Red Army⁵¹, became Director of the AS Institute of Language and Literature. In 1968, this position went to E. Sõgel, who had been a long-time advocate of the principles of bolshevist orientation in literature and art, and who demanded that class characteristics be taken under close scrutiny in treatments in these fields. Aksel Tamm, long-time Editor-in-Chief of „Eesti Raamat” Publishing House, writes about E. Sõgel: „...who else but Endel Sõgel with his principles of steel would have been suitable to direct the activities of scholars of literature, compile histories of literature, and keep literature in order. Endel Sõgel controlled the editing of the Comprehensive History of Literature as well as checked the articles concerning literature in every reference book.”⁵²

Work of the ESSR AS institutes of social sciences was soaked through with ideology, and the active falsification of history subsequently influenced compilation and contents of reference books with a wider social resonance. When, in the second half of the 1960s, the first volume of the Estonian Soviet Encyclopaedia (ENE) was published, many distinguished communists were members of its central editing board, namely Hendrik Allik, Johan Eichfeld, Harald Haberman, Kaarel Ird, Feodor Klement, Albert Laus, Viktor Maamägi, Aleksander Panksejev, Arnold Veimer. The scientific editing of the entries about the Estonian literature was run by E. Sõgel. G. Naan, the former loyal ideologist and leader of the Kabin-Lentsman direction, was appointed Editor-in-Chief of the Encyclopaedia.

The 8 volumes of ENE were published between 1968 and 1976, supplements and the register were published as an extra volume in 1978. ENE's articles on social and humanitarian sciences consistently followed the approved ideological canons of the communist theory, and historical events were described from a propaganda-like historical point of view, falsified in the interest of the Soviet Union and Russia.

In 1985, the publication of a new ENE was launched. Although many changes in all areas of life had taken place, approach to compiling the new ENE had remained the same. When the first volumes were published, the central editing board still included numerous supporters of the forced communist ideology and the focus still was on the Soviet Union, Russia and the CPSU. The executive staff included G. Naan, V. Maamägi, E. Sõgel. G. Naan was the Editor-in-Chief of the first four volumes, until 12 February 1989.

5. ENFORCED ABSOLUTE CENSORSHIP AND DESTRUCTION OF LITERATURE

The Soviet Union combined two historical censorship methods — *pre- and post-censorship*, also adding a completely new aspect — *the ongoing correction of data and positions already published* in encyclopaedias and books. This new censorship method became known as permanent censorship.⁵³

After the occupation of Estonia in 1940, permanent censorship was put to practice immediately and completely. The first important task was the introduction of absolute pre-censorship and „cleanout of politically harmful literature in libraries“. The total suppression of encyclopaedic, scientific and popular scientific books and other classical literature complicated especially the studies of students, but also the scientific work of lecturers and researchers.

According to a research conducted in 1995, approximately 50,000 books were removed from the Estonian libraries between 1940—41. A couple of dozen people were hired to destroy the books amassed

to Tartu. They spent a fortnight hacking the books to pieces with axes.⁵⁴

In summer 1941, the Germans set up a multi-level censorship for the ideological forming of all published works. Libraries were cleaned of the banned German and Estonian books, according to special lists. This time, the libraries had to be cleared of communist literature in every language, English and French literature published after 1933, Jewish literature in every language, anti-German literature in every language etc. The Soviet occupation authorities estimated that over 250,000 books had been destroyed during the German occupation.⁵⁵

During the first years of the second Soviet occupation, the ongoing „ideological prophylactic work“ ran side by side with preparations for more extensive ideological cleanout operations in libraries. It seems that all of the classical Estonian literature was on the verge of being banned and destroyed. The classified report (20 October 1948) by L. Päll, Head of the ESSR Division of Literature and Publishing, stated: „Admittedly, most of the literature published in Estonia before becoming part of the Soviet Union must be removed. Even though some works have artistic or scientific value (...)“ For this reason, the journal „Looming“ (until July 1940), journal „Varamu“, „Eesti kirjandus“, and a part of „Eesti Entsüklopeedia“ were to be removed.⁵⁶

The closed letter of the All-Union Communist Party CC to intelligentsia, distributed in 1947, launched a general campaign for unmasking and isolating „those who grovel to the West, and all sorts of cosmopolites and bourgeois nationalists.“ „Groveling“ meant referring to foreign authors, introducing readers to their hypotheses and theories, publishing one’s works in foreign languages and, eventually, even reading books in foreign languages.

As a result of this campaign, access to foreign scientific literature became considerably more limited and Estonian social scientists faced the demand and the plan to re-evaluate ideologically the existing national and global cultural heritage.

For example, the implementers of absolute censorship judged the TSU General Library and its special collection (which included 10,000 books), to be in a very „poor“ condition. The Library was even closed in 1948, by order of the Director of the Division, until „...cleaned of forbidden literature“.⁵⁷

With the implementation of the system elaborated earlier in the Soviet Union, the libraries were „clean“ by the beginning of the 1950s. A great number of classical works and books in foreign languages were taken to the so-called special collections (there were 5 bigger ones), where they were accessible upon special permission.

K.-O. Veskimägi has summed up all the prohibitions, removals and omissions until 1966: „And if we now make the final calculation, we see

that the Soviet authorities banned (...) 27,000—28,300 titles published during the First Republic." That is about 87 % of all the titles.⁵⁸

6. OUTLINE OF DAMAGE CAUSED BY OCCUPATION AUTHORITIES IN ARCHIVES AND MUSEUMS

6.1. REORGANISATIONS AND DAMAGES IN ARCHIVES

The centralised state archive system and central state archives were established in Estonia in the 1920s—1930s, and the network of local archives was developed. The archive system was then developing rapidly, in harmony with the practical needs of the state and the requirements of the Estonian historical science. In developing and organising archives, the oldest periods (before 1710) received most attention. Older documents in archives were studied more thoroughly and attempts were made to restore them. In April 1940, the funds of the State Archive totalled approximately 4000 shelf metres.

With the Soviet occupation in 1940, the archives were reorganised and their use in the interests of the new authorities and their repression policy began. Already on September 4, a regulation was issued on reorganisation of the archive system.⁵⁹

All documents that had been created on the Estonian territory and were kept there, and were important from the state's point of view, including dossiers on private and public persons, were declared the property of the people. Many more documents were now subjected to centralised preservation. In 1940 and 1941, a great number of documents from nationalised or dissolved enterprises and from archives of persons who had left for Germany in 1939 were deposited in Estonian archives.

The Soviet occupation authorities had planned to evacuate, in 1941, all the most important Estonian archives to Russia, to the Kirov Region State Archive. This did not take place because of scarcity of transport facilities. Only some most valuable historical documents were taken away. A certain number of valuable archival units from Estonian factories and industrial plants were destroyed during transportation or hostilities.⁶⁰

The following German occupation caused new damage to Estonian archives. In 1942, for example, 2658 archival units dating from the time of the first German occupation (1918) were taken to the Potsdam military archive in Germany. More than 7000 archival units of valuable documents were taken to Germany from the Tallinn City Archive.

Estonian archives suffered serious damages through hostilities. The Narva City Archive building was completely destroyed. Approximately one-half of all the materials were destroyed in the fire of the Tallinn City Archive building. Many valuable documents — over 100,000 archival units in total — were also lost in the fire of the Central State Archive.⁶¹

Soon after the war, the main focus was put on replenishment and organisation of collections, because 80 % of the archival materials were estimated to be unorganised.⁶² Hurried action led to faulty expert evaluation and many materials, which should rightfully have been preserved, were destroyed.⁶³

6.2. REORGANISATION AND REPRESSION IN MUSEUMS

Immediately with the beginning of the occupation, reorganisation of work in Estonian museums according to Soviet customs started. Museums were considered to be ideological organisations, and therefore they were taken under a close supervision of the Party together with their staff. The basic ideological demand to the museums was to find and display documents illustrating an ever aggravating class struggle through the centuries, as well as household goods and everyday situations showing the different living conditions of different social strata and classes. Everywhere and in everything, the October Revolution had to be praised, and weapons, banners and other memorabilia of the era displayed. The requirement to explain and illustrate the „historical friendship“ between the Estonian and the Russian nations received one of the highest priorities. In the second half of the 1940s and in the 1950s, all opportunities had to be used to explain and demonstrate the superiority of Russian scientific, cultural and economic achievements and, especially, the new „progressive social order“ over the degenerate Western civilisation.

6.3. TRIAL OF THE HISTORY MUSEUM (1945–46)

The 1945–46 trial of the History Museum horrified the small-numbered staffs of museums and caused a lot of suspicion and distrust between people for a long time. This political trial sparked from a report of a „source“, i.e. an informer, and took the whole scientific personnel and some auxiliary staff members of the Museum under the KGB's scrutiny, on trial, and finally to prison camp. 15 museum employees (8 men and 7 women) were accused of conspiring to organise an armed uprising to overthrow the Soviet authorities in the Estonian SSR, with the use of the old decrepit weapons and forbidden literature collected to the museum.⁶⁴ A characteristic feature of this trial is that initially 4 employees of the museum were detained on the basis of an informer's report, but after intensive cross-examinations the whole scientific personnel of the museum was arrested. As some of the suspects owned up to having told seemingly innocent anti-Soviet anecdotes in social situations, and the NKGB weapons expert Yershov reached a technical conclusion that it would be possible to restore the working order of old and broken weapons in the museum's collection, even though these were missing

essential parts („the missing details are replaceable, weapons can be used with replacement parts“), the situation was interpreted as a proof of „preparations for an uprising“.

On 23 May 1945, when relevant institutions were still investigating the „armed uprising“ conspiracy, the ECP CC Bureau got involved. The issue was discussed and a decision „On the Situation in the Tallinn History Museum“ adopted. The decision emphasised that anti-Soviet persons had sneaked into the museum system and had in their work displayed sympathy for the activities of the German occupants. The decision decreed that in the near future the new executive body of the museum had to be staffed with politically loyal persons.⁶⁵ In October 1945, the investigation was closed and the materials were directed to a special court, which sentenced the men mostly to 10 years and the women to 8 years in prison camp (with some exceptions).

All the convicted persons served the whole sentence, one died in prison camp, one immediately after release. In 1957—58, the case was revised and concluded due to lack of evidence and the necessary elements of a criminal offence... In her study of the development, progress and consequences of the Trial of the History Museum, Sirje Annist reached the conclusion that „intellectuals who got trampled over by the paranoid communist totalitarian system were only guilty of having a democratic idea that different opinions and discussing the latter are allowed and they thought that they had a right to their own language, culture and state. As such, they were completely unacceptable to a system representing a totally different culture.“⁶⁶

7. HARM CAUSED BY FALSIFICATIONS IN SOCIAL AND HUMANITARIAN SCIENCES AND DISTORTIONS IN THE FIELD OF NATURAL SCIENCES

Ideological pressure from occupation authorities caused great damage by prohibiting the up to then acknowledged views and by remaking and adjusting the relevant factology to the communist ideology and empire-centeredness. Broad „research“ into and compulsory studying of pseudo-sciences, such as History of the CPSU and Scientific Communism, in all Estonian institutions of higher education wasted the students' time as well as a lot of research and other resources.

The superiority of the Marxist-Leninist principles and the later Stalinist additions was proclaimed and these canons were rigidly applied to scientific research. This created conditions for developing pseudo-sciences also in the fields of natural and exact sciences. Thus, genetics was declared a bourgeois non-science, research into the field was forbidden and eminent scientists were repressed; development of cybernetics was also interrupted for a long while. New grandiose Stalinist plans and

programmes for redesigning nature sprung from the basis of ideological pseudo-sciences.

We will now look more closely into the negative consequences of falsifying Estonian history and implementing Lysenkoism in scientific development.

7.1. DEVELOPING AND UPHOLDING THE SOVIET VIEW OF THE ESTONIAN HISTORY

The situation with historical science and historians took a clear turn for the worse during the period 1939–44. Working conditions and publishing possibilities grew worse, Estonia lost top specialists in various areas of history and many university lecturers. Some acknowledged specialists had died during the German occupation (O. Liiv, H. Sepp), some had fled to the West (Evald Blumfeldt, Juhan Vasar, Arnold Soom, Erik Tender), some were arrested in 1945 (August Annist was imprisoned in 1945–50; Peeter Tarvel was arrested in 1945 and died as a deportee in Siberia in 1953).

In autumn 1944, three small history chairs were established in the TSU, with only two or three lecturers in each. The ESSR AS Institute of History was founded in 1947; Richard Kleis was appointed its Director and Artur Vassar, Harri Moora and Voldemar Vaga were elected to head its sectors. The same year, the Estonian branch of the Institute of Marxism-Leninism of the All-Union Communist Party of Bolsheviks Central Committee was founded in Tallinn — the Institute of Party History of the EC(b)P Central Committee. Ivan Käbin, who was born in Russia and had experience in working in the Party, became the Director of this thoroughly Soviet institution, while Joosep Saat became Vice-President. The main responsibility of the Institute was to study the Party's history and publish classical works of Marxism-Leninism in the Estonian language. This organisational framework provided the conditions for reorganising the research into Estonian history „in total accordance with the Marxist-Leninist methodology” and rewriting the history in conformity with the communist ideology and empire-centeredness, as well as educating the new generation of historians.

In those years, it was not easy for honest historians to study history. „The possibilities in the field of recent history were particularly narrow, since all the existing studies on it were banned as early as in 1940. (...) Treatment of recent history depended entirely on propagandistic objectives of Stalinist Party leaders. (...) Everything unapproved was to be not known, was to be prevented from becoming public and going down in history. (...) Half of everyday life was classified... (...) Soviet double standards took root. These combined lies, attempts to save one's skin, grovelling hypocrisy and licking the boots of the authorities.⁶⁷ Even the

new, Party-approved treatments of history were facing unforeseen difficulties, as it was forbidden to mention many of the Estonia's leading communists from the past decades (they had been executed during Stalinist cleanouts). As time went on, names of Estonian cultural personalities, scientists, Communist Party ex-activists and their loyal assistants' continued to be added to the list of taboo names.

The main concerns in the second half of the 1940s, while processing the Estonian recent history from the Soviet point of view, were describing the occupation of the Baltic states by the Soviet Union as a voluntary accession, Stalinist re-evaluation of Estonian political, economic and cultural development, unmasking the „bourgeois nationalism“ as an ideology that is hostile to the people, and uprooting it. Two rivalling groups were trying to win over the ideological powers, with the goal to assess these urgent issues of the recent history „in the ideologically most correct way“ and „create/write a new Soviet history“ of the Estonian people. One of these groups was in the camp of Nikolai Karotamm — the team of „ideological history service“, headed by Hans Kruus; the second was a similar team in the more Stalinist camp of I. Käbin, gradually growing in strength — this team was headed by Gustav Naan.

Rewriting of Estonia's recent history started simultaneously with the second Soviet occupation. In 1945—47, H. Kruus was the theoretical and practical leader of the re-evaluation. In 1945, as the People's Commissar of Foreign Affairs, he gave a Marxist evaluation of foreign politics of the Republic of Estonia in a report presented at the TSU. The report was published in Postimees. Later on, H. Kruus had to correct his views and repentantly acknowledge his once „bourgeois“ positions on many historical issues, especially in his views of the treatments of the Estonian War of Independence. Also R. Kleis and H. Moora were compelled to publicly criticise and re-evaluate their own earlier works and positions.

G. Naan, with his fresh Party education from Moscow, promoted rewriting the Estonian history from the more radical proletariat „class positions“ and harmonising it better with Stalinist ideas. In 1945—46, G. Naan published three papers in the journal Eesti Bolshevik. In 1947 these were published as a book entitled „Reactionary Essence of Ideology of Estonian Bourgeois Nationalists.“⁶⁸ This book soon became the Stalinist foundation document in the fight against bourgeois nationalism, and the ideological justification for the later cleanouts by I. Käbin and the KGB. This book also became the ideological basis and the actual preparation for rewriting the Estonian history under G. Naan's guidance. The book remained the only monographic „scientific work“ of G. Naan.

In addition to Naan, other social scientists like Viktor Maamägi and Paul Vihalem revealed a forceful Bolshevik style in unmasking bourgeois nationalists.

Unmasking and uprooting of bourgeois nationalists, condemning and re-educating of scientists who grovel to the West reached an unprecedented scale in 1945–51, during a fight for power between the leaders of the EC(b)P. In major scientific institutions (TSU, ESSR AS), the persons who had been leading the development of Estonian science and culture were replaced by communists who had been invited from Russia and were ideologically more faithful to I. Käbin.

The leading historian H. Kruus was dismissed from the position of the President of the ESSR AS and kept in prison for four years while his case was being investigated; R. Kleis, Director of the Academy's Institute of History, was dismissed; professorships of Estonian history and archaeology were discontinued for a long time in the TSU. In the same year, G. Naan became Director of the Institute of History and began supervising the compiling of a Stalinist „History of the Estonian SSR“. The next year, G. Naan was already elected Member of the ESSR AS and was promoted its Vice-President. V. Maamägi, who had graduated from the University of Leningrad in 1941, became Director of the Academy's Institute of History.

G. Naan now had the absolute trust of the ideology-shapers in compiling the „History of the Estonian SSR“, which had been on the agenda for years as an urgent ideological commission. Naan was free to act as he pleased and had an obedient team of main contributors, including H. Moora, A. Vassar, Hilda Moosberg, J. Saat and V. Maamägi. The new version of Estonian history was created in cooperation with the leaders of the Communist Party. When doubting about certain issues, G. Naan conferred directly with I. Käbin.

In the end of 1952, the relatively bulky (484 pages) „History of the Estonian SSR (from the Earliest Times until Today)“ was published. The Stalinist treatment of Estonian history was finally ready. It was widely recommended to be used in communist propaganda, as well as a textbook in institutions of higher education and secondary schools.

Fairly soon, some months after Stalin's death in March 1953, it became apparent that the book no longer corresponded to the changed political situation. Preparations for the second edition of the book started immediately. In the 1957 edition of the „History of the Estonian SSR“ wording had been changed in many places, several historical personalities, who had been ignored earlier, were named etc, but „the basic historical truths established during the Stalinist era still stood strong...“.⁶⁹ The general outlines of the Soviet falsifications and the Soviet view and explanation of history persisted until the Union fell apart (for further details see A. Viires, 2003). A long time after the cult of Stalin's personality had been condemned and the Party itself had disapproved of the decisions of the EC(b)P CC 8th Plenum, the vol. 3 of „History of the Estonian SSR“ (1971) still read: „In the end of the 1940s and the beginning of the

1950s, Member of the ESSR AS G. Naan played an outstanding role in the ideological reinforcement of the Estonian Marxist historical thought.⁷⁰ As late as in the beginning of the 1980s, such comprehensive works as „History of Tartu University. Three Volumes. 1632—1982“, Tallinn 1982, and „Tallinn Polytechnic Institute 1936—1986“, Tallinn 1986, included many Soviet falsifications of Estonian history in the second half of the 20th century and became outdated in only a couple of years.

7.2. CORRUPTION OF GENETICS INTO A LYSENKOIST PSEUDO-SCIENCE⁷¹

The Soviet regime with its terror and destruction of millions of innocent people also caught science between its claws. Scientific thought was forcefully pushed in directions that appealed to Stalin and his eager henchmen. One of the fields of science where the ideological reform — a push „in the right direction“ — already began in the 1930s, was genetics. Agrobiologist Trofim Lysenko (1898—1976) declared that the genetic corpuscle theory and the acceptance of the very existence of genes was a bourgeois pseudo-science that served the interests of imperialists. Lysenko and the biologists and agronomists who followed him negated the existence of genes as „corpuscles“ passing on any hereditary characteristics of organisms. Lysenko claimed that organism as a whole, rather than some mythical genes, carried on hereditary characteristics. In addition to demagogical criticism against the classical genetics, Lysenko also disparaged the Darwinist theory of evolution, claiming that it must be substituted by „creative Michurinist Darwinism“ that negated the existence of fight inside the species as an important evolutionary factor. To put it more simply, Lysenko replaced the true evolution theory with Lamarckism.

Lysenko's tactics with the authorities consisted in endless promises to elevate the Soviet agriculture quickly to an unprecedented level. To this end, he promoted „kolkhoznik science“ — every kolkhoznik can develop science, organise scientific experiments, publish his „scientific results“ etc. In this way, Lysenko created a large army of pretentious half-intellectuals and non-scientists, who knew nothing of experiment accuracy and scientific integrity, scientific traditions, earlier accomplishments of science, etc. Lysenko made his followers think that scientific work was easy and that only under a communist-socialist regime was it possible to objectively solve problems of practical importance, while a capitalist-imperialist regime would not allow this.

When the great scientist Nikolai Vavilov died in prison, many of the real biologists, especially researchers in genetics, began to understand how dangerous in fact Lysenko was. He came under ever stronger criticism. A teaching like Lysenko's could not exist under criticism. Lysenko's

views were criticised by such outstanding scientists as P. Zhukovskii, N. Dubinin, I. Schmalhausen, A. Formosov, A. Sabinin, and others. Lysenko turned to Stalin for help in saving himself and the Michurinist biology from criticism and launched a counter-attack by organising the August Session of the V. I. Lenin Academy of Agricultural Sciences, „On Situation in Biological Science” (from 31 July to 7 August 1948).

Lysenko’s goal was monstrous — to destroy the rapidly developing and progressing positions of the evolution theory and genetics and replace them by Soviet Michurinist Darwinism and a new heredity theory that denied the existence of genes as corpuscles carrying on hereditary characteristics.

The principal presentation in the August Session came from Lysenko himself. It was followed by 48 co-presentations, which praised Lysenko’s revolutionary views. And then the floor was given to eight real scientists, whose presentations were continually interrupted by mocking shouts from Michurinists.

After the August Session, cleanout operations started — hundreds of scientists who had publicly criticised Lysenkoism were dismissed from their jobs, arrested and deported, or even executed in Stalinist chambers of torture. Dozens of institutes and research laboratories were closed down or their research profile was changed in such a way, that it became impossible to study the real genetics, evolution theory, biochemistry, physiology or any other fields of science in which Lysenko saw a rival to his own „scientific teaching”. After the infamous August Session over three thousand scientists were left to find a new job or direction.

It was a tradition and rule during the Soviet regime that what happened in the centre (Moscow) was to be copied in the provinces. The hunt for public enemies — anti-Michurinists and anti-Lysenkoists — started in Tartu State University, Academy of Sciences and elsewhere already in September. Party organisations held closed meetings (on 14 September 1948 in the TSU) in order to single out, in a smaller circle, the scientists promoting Mendelism and to discredit them later in public. The principal report at the closed Party meeting was presented by a plant physiologist H. Kallas. The presentation (like at the meeting in the Hall the next day) was so obscure that even the Party comrades were not happy with it. According to the minutes of the meeting, H. Kallas criticised Prof. Juhan Aul for promoting racism and „pure science”. The following people were heavily criticised: Prof. Liidia Poska-Teiss (taught Mendel’s laws!), Herbert Normann (was silent while Mendelism was praised!), Prof. Heinrich Riikoja and Konstantin Ramul (defended pure science!), Harald Haberman (published Polyakov’s book that Lysenkoists considered „anti-Darwinist”!), etc. The principal critic of these and other professors was Colonel Vill, who was a total ignoramus in scientific matters. On 16 September there

was a Hall meeting, at which Michurin's materialist biological teaching was praised. The teaching had been discovered for the benefit of the humanity by Lenin and Stalin (!) and had been vigorously implemented by the great scientist and Member of the Academy Lysenko. Constant praising of Michurin and Lysenko quickly turned tedious and annoying, new „blood“ was needed as a change. This was provided by scientists who tried to justify their positions and to assess objectively the work of the plant breeder Michurin. Associate Professor Hugo Sutter claimed that Michurin had really been a good gardener, but that the theoretical basis of his views was weak. This brought on the ire of the meeting's organisers and Sutter remained for a long time the prime example of an enemy of the Soviet biology. Scientists who presented reports at the meetings quickly understood that criticising the „new“ Michurinist-Lysenkoist biology was tantamount to committing a suicide. They adopted new tactics based on self-criticism and modest praise of Lysenkoism (presentations of August Vaga, Harald Haberman, Artur Valdes, Osvald Hallik, Voldemar Üprus and others).

Lysenko's supporters acted fast — the half a thousand pages long Estonian translation of the August Session's verbatim record was published in two weeks. The scientific session of the ESSR Academy of Sciences took place in October 1948 and the bulky volume of collected materials „Scientific Session on Issues of Biology“ was published at the end of the year. It began with an ardent declaration of love to Stalin, followed by papers by the President of the ESSR AS Hans Kruus, Johan Eichfeld, Julius Aamisepp, Mihkel Pill, Harald Haberman, Aare Pung, H. Seeberg, A. Trutnev, and presentations by many scientists and social personalities. The article of J. Eichfeld, Secretary of the Department of Biological and Agricultural Sciences of the ESSR AS, presents a couple of special features. This „passionate Michurinist and the closest co-combatant of Lysenko“ (as H. Kruus described him) did find the most despising and disparaging things to say about the Russian scientists advocating corpuscle genetics (N. Dubinin, M. Zavodovskii, I. Schmalhausen, I. Rapoport etc.), but did not say a single bad word about Estonian scientists who had supported Mendelism, Morganism and Weismannism — even though he admitted that the influence of Western European geneticists on Estonian plant breeders had been considerable. It has been said that thanks to the attitude of Eichfeld, the negative impact of the August Session on Estonian biology and other natural sciences was weaker than in other parts of the Soviet Union, especially in Moscow and Leningrad, where thousands of scientists and researchers fell victim to Lysenkoism. In E. Parmasto's opinion, Eichfeld's reticence was caused by the fact that, being the official „leader“ of Estonian biological and agricultural sciences — the Academic Secretary — he would have cast a shadow over his own managing abilities had he acted differently.

There were relatively few active, true Lysenkoists among the Estonian scientists. After all, we cannot call Lysenkoists all those scientists who were under suspicion because of their political, ideological or scientific convictions and had to express approval of Michurin's and Lysenko's views. They were forced to do this in order to save themselves and their colleagues from possible repression. Aggressive, open and convinced Estonian Lysenkoists were only plant physiologist H. Kallas, phytopathologist August Marland, geneticist O. Priilinn, geneticist Oleg Mihailov and plant physiologist A. Perk (the latter two came to the TSU in 1951) and some others. As mentioned earlier, it is more difficult to assess the activities of J. Eichfeld (President of the ESSR AS 1950–68). Although he was a convinced advocate of Lysenko's views, he was also an experienced researcher with a wide view of the world and, as a scientist, refrained from making too harsh and final conclusions on the activities and research results of Estonian scientists. Still, also J. Eichfeld is partly to blame for interrupting (like all Lysenkoists) the development of large scientific fields, especially genetics, in the Soviet Union, and for propagating unscientific views.

Immediately after the „triumph of Lysenkoism” repressions started against those scientists who worked in scientific and educational institutions (TSU, EAA, ESSR AS etc) and who did not succumb to the pressure by Lysenkoists. They were dismissed (Prof. Üprus, Prof. Aul etc.) and replaced with others who had given an oath of loyalty to Lysenkoism (no matter how inadequate their qualifications were). The level of research and teaching of biology, agronomy and related sciences fell to a depressingly low level. Fortunately, some researchers and lecturers continued, despite the danger they were putting themselves into, to present real, undistorted science (e.g. Prof. L. Poska-Teiss during her lectures on general biology and histology). After Stalin's death, Lysenkoism at first started to receive cautious and indirect criticism (e.g. in the journal „Ботанический журнал”), lecturers dared to return to their former lecture notes and research laboratories continued their interrupted research projects (at first without registering this in official scientific research plans).

Strong and categorical revolt against Lysenkoism did not take place until the 1960s. In January 1965, a widely attended meeting took place in the TSU lecture theatre on Vanemuise Street. It was organised by the Estonian Naturalists' Society, TSU, EAA and the Zoological and Botanical Institute in order to discuss issues of biology. Outspoken presentations revealed Lysenkoism's reactionary and unscientific character. Lysenkoists were expected to object. But they remained silent. They had lost.

- ¹ 1919–39: 42.9 % were Doctors of Medicine, 18.6 % Doctors of Mathematics or Natural Sciences, 10.3 % Doctors of Philosophy, 5.1 % Doctors of Agricultural Sciences, 4.5 % Doctors of Law.
- ² In 1934, when the Faculty of Technology was established at the UT, the network of university-oriented scientific organisations was more or less complete. By then, the UT had 8 Faculties: Law, Medicine, Philosophy, Mathematics and Natural Sciences, Veterinary, Agriculture, Technology, and Theology. The University also had 19 institutes and 28 chairs, as well as 3 laboratories, 9 clinics and many other independent subunits.
- ³ Cf. Tartu Ülikooli ajalugu, 1982, p. 163.
- ⁴ Incl. 71 professors, 35 assistant professors, 10 senior lecturers, 142 assistants, 36 heads of laboratory, 39 laboratory assistants, 24 senior preparators and 5 preparators. Cf. Estonian Historical Archive (EAA), c. R-355, i. 1, u. 7, 1.72.
- ⁵ Cf. Eesti NSV Teataja, 1940, 24, 268.
- ⁶ Ruus, V. 1980, 17.
- ⁷ Cf. „Postimees”, 07. 08. 1940.
- ⁸ The most famous among these were Ants Piip (1884–1942 — jurist, the UT Professor of International Law in 1919–40; he was arrested in 1940 and died in prison camp in 1942) and Ferdinand Linnus (1895–1942 — Estonian ethnographer, Ph.D. from 1938, lecturer of the UT 1930–39, Director of the Estonian National Museum 1921–40; he was arrested in June 1941 and died in prison camp in 1942).
- ⁹ Between 1919 and 1939, 1618 persons graduated from the Faculty of Law, 10 dissertations of Doctors in Law were defended at the University. In June 1940, the Faculty of Law employed 12 professors, 10 lecturers, 5 head assistants, 1 assistant lecturer and 1 lecturer in special subject.
- ¹⁰ Rebane, Ilmar. Eesti õigusteadlased eile, täna, homme. „Mana”, no 61–62, p. 120–127.
- ¹¹ Ibid., 38. In different sources and overviews, including those that were published several decades later, the data concerning damages and losses varies greatly. There is no room in this overview for comprehensive comparison and analysis of the sources used.
- ¹² In June 1940, the TTU had 14 professors, 4 adjunct professors (corresponds to „associate professors”), 25 assistants and 21 lecturers; in all, the University had 19 study and research laboratories.
- ¹³ The most distinguished persons among those executed were Artur-Tõleiid Kliimann (1899–1941, Professor of Administrative Law and Process 1933–41, Vice-Rector of the TU 1940–41) and Peeter Rubel (1905–1941, Professor of Agricultural Policy and Cooperation as well as of Agricultural Economics and Planned Economy 1938–41). Some twenty lecturers were sent into concentration camps for a period of time (incl. Professors Peeter Tarvel, Arnold Humal, Voldemar Vadi).
- ¹⁴ Cf. Kalits, Johannes, 1965, 99.
- ¹⁵ Cf. EAA, c. 2100, i. 15, u. 12, p. 6–7.
- ¹⁶ Myllyniemi, Seppo, 1973, 179.
- ¹⁷ Cf. Postimees, 17. 10. 1942.
- ¹⁸ 11 lecturers fled from the Faculty of Law alone. When the work started anew, only six of the former 30 lecturers had remained with the Faculty, 4 of them professors (Juhan Vaabel, Helmut Kadari, Leo Leesment, Elmar Ilus).
- ¹⁹ Oras, 2002, 232–233.
- ²⁰ In autumn 1944, the refugees included e.g. folklorist Oskar Loorits; poet and scholar of literature Gustav Suits; linguist Julius Mark; jurist Jüri Uluots; linguist Peeter Arumaa; classical philologist Pärtel Halliste; theoretician of pedagogy Juhan Tork; lecturer of Finnish Aino Suits-Thauvon; microbiologist Karl Schlossmann; linguist Andrus Saareste; economic geographer Edgar Kant; jurist Adolf-

- August Perandi; medical researcher Harald Perli. Geographer August Ferdinand Tammekann had already left for Finland in 1940.
- ²¹ Kalits, Johannes, 1960, 341.
- ²² Tallinn Polytechnic Institute, 1986, 99; ERA, c. R-14, i. 3, u. 66, p. 3, 4, 8.
- ²³ Cf. Tallinn Polytechnic Institute 1986, 101–103.
- ²⁴ Short semesters were characteristic of the whole period, even though the curricula of 1939 and 1940 should have been adhered to, which involved considerably more work in auditorium, passing over 30 exams in total, accomplishing around 25 field assignments and compiling projects at the end of each year.
- ²⁵ Due to the lack of finances, it was often impossible for TTU's scientists to get materials necessary for their research. In 1943, for example, TTU's expenses amounted to 375 240 reichsmarks, of which lecturers' and other personnel's salaries made up 70%. There was almost no money left over for the other, numerous needs of the University.
- ²⁶ Cf. Tallinn Polytechnic Institute 1986, 104.
- ²⁷ Cf. EAA, c. 1, i. 48, u. 187, p. 1.
- ²⁸ Ibidem, 1. 8–9.
- ²⁹ Ibidem, 1. 10.
- ³⁰ Cf. Minutes in Russian: ERAF, c. 151, i. 6, u. 24, p. 42–44.
- ³¹ The repressive policy of the Communist Party branch inside the University targeted e.g. in the Faculty of Law Professors Elmar Ilus and Helmut Kadari, Associate Professors Ilmar Rebane, Hillar Randalu, Leo Leesment and Johannes Mäll. in the Faculty of Mathematics and Natural Sciences Professors Hermann Jaakson, Jaan Sarv, August Vaga etc.; in the Veterinary Faculty Professors Elmar Vau, Johannes Tomberg and Ferdinand Laja; in the Faculty of Forestry Dean and Associate Professor Valdek Ritslaid; in the Faculty of Medicine Professor Rudolf Bernakoff, Artur Linkberg and many others; in the Faculty of History and Languages Professors Harri Moora and Voldemar Vaga, Associate Professors Richard Kleis, Johannes Silvet, Valmar Adams and many others were to be dismissed.
- ³² ERAF, c. 1, i. 59, u. 3, p. 1.
- ³³ ERAF, c. 151, i. 7, u. 4, p. 23.
- ³⁴ Martin, E. Üliõpilaste repressioonid 1950–1951. Tartu Ülikooli ajaloo küsimusi 25. Tartu, 1991. p. 34–36.
- ³⁵ Cf. Klement, Fjodor 1983, 116.
- ³⁶ Cf. Ibidem, 117–118.
- ³⁷ ERAF, c. 151, i. 8, u. 3, p. 69.
- ³⁸ ERAF, c. 1, i. 59, u. 11, p. 38.
- ³⁹ Karotamm had the so-called Leninist views, i.e. the main criteria, which the Soviet authorities should apply in evaluating the intelligentsia, who had been educated during the bourgeois regime, was how they work in constructing the new society. But those who did not obey and follow, had to „... be crushed by the wheel of life“. At the same time, he made certain concessions to the apolitical majority of Estonia's technical intelligentsia, declaring that „One must know the difference between an enemy and a person, who has not yet come to the right understanding“. N. Karotamm. Nõukogude Eesti kultuuriküsimusi. Tallinn, 1947, p. 95.
- ⁴⁰ ENSV Teataja, 15, 1945, p. 224.
- ⁴¹ ERAF, c. 910, i. 2, u. 3, p. 76.
- ⁴² Meeting 5. 04. 1948. ERAF, c. 910, i. 1, u. 12, p. 56.
- ⁴³ Ibidem, p. 112.
- ⁴⁴ Ibidem, p. 112.
- ⁴⁵ Jaan Lukas, Head of the TPI Military Chair, was arrested on 24 March 1950, and Olav Mallas, lecturer in the TPI Military Chair, on 18 March 1950. Jaan Lukas died in prison camp in 1953.
- ⁴⁶ Tallinna Polütehniline Instituut, 1936–1986; Tallinn, 1986, p. 174.
- ⁴⁷ Cf. Tallinna Polütehniline Instituut 1936–1986. Tallinn, 1986, p. 190.

- ⁴⁸ This address emphasises among other things that „The Department of Social Sciences of the Academy assumes important responsibilities for reinforcing the truly Soviet ideology among Estonian workers, basing its activities on the overpowering force of the Marxist-Leninist theory, on the face of which all false doctrines of the obsolescent capitalist world shatter.” To Joseph Vissarionovitch Stalin. Dear Joseph Vissarionovitch! Scientific session, 23–29 April 1947. Üldkogu istungid. Tallinn, 1948, p. 8.
- ⁴⁹ ERAF, c. 1, i. 4, u. 1087, p. 139–191.
- ⁵⁰ Ibidem, p. 82.
- ⁵¹ Tamm, A. Aga see oli üks mees. Tallinn, 2003, p. 112.
- ⁵² Tamm, A. Aga see oli üks mees. Tallinn, 2003, p. 202.
- ⁵³ Veskimägi, Kaljo 1996, 24–29.
- ⁵⁴ Ibidem, 132–134.
- ⁵⁵ Johani, Helene; Meo, 1950, 12.
- ⁵⁶ ERAF, c. 1, i. 2, u. 35, p. 238.
- ⁵⁷ Ibidem, 238.
- ⁵⁸ Veskimägi, Kaljo, 1996, 309.
- ⁵⁹ ENSV Teataja 4, 1940, p. 30–31.
- ⁶⁰ Varkki, B., 1968, 2–3. Board of Archives at the ESSR Soviet of Ministers. Rota-print.
- ⁶¹ Cf. Kipper, E., Materials of the 50th Anniversary Conference of Soviet Archives. p.17.
- ⁶² Cf. in detail A. Lember. *Обзор ...*, Riga, 1968, p. 28.
- ⁶³ Cf. Piirimäe, Helmut. Mõningaid probleeme teaduslikust ekspertiisist. Materials of the 50th Anniversary Conference of Soviet Archives. Riga, 1968, p. 5–6.
- ⁶⁴ Annist, Sirje, 2002, 40–57.
- ⁶⁵ ERAF, c. 1, i. 4, u. 184, p. 41–42.
- ⁶⁶ Ibidem, 56.
- ⁶⁷ Viires, A. Eesti ajalugu stalinlikus haardes. Tuna no 1, 2003, p. 38.
- ⁶⁸ Cf. Naan, Gustav, Eesti kodanlike natsionalistide ideoloogia reaktsooniline olemus. Tallinn, 1947, p. 128.
- ⁶⁹ Viires, A. Eesti ajalugu stalinlikus haardes. Tuna no 1, 2003, p. 47.
- ⁷⁰ Eesti NSV ajalugu. Vol. 3, Tallinn, 1971, p. 629.
- ⁷¹ Author of „Genetics crumbling...” is Member of the Academy Hans-Voldemar Trass.

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VI

FINE ARTS

Jaak Kangilaski

In 1944, approximately one-third of Estonian artists fled abroad. For those who stayed home, the most difficult period was the so-called Stalinist period (1948–56, when most of the repression acts and imprisonment took place), but the ideological pressure from the Soviet occupation authorities and restrictions to artists' creativity (as they were isolated from the Western art and subjected to emotional and spiritual violence) influenced them until the end of the occupation.

1. THE FIRST SOVIET OCCUPATION (1940–41)

The first objectives of the occupation authorities were securing at least a facade of loyalty from artists and calming down and conciliating the people by displaying the blooming art scene. Destroying Estonian independence step-by-step and using hypocritical slogans helped to achieve these objectives. Plans for sovietisation were not revealed immediately. President Konstantin Päts succumbed to orders of the occupants and on 21 June 1940 appointed a new Government, approved by the occupants. At first, artists were appeased by the fact that the new Government was headed by Johannes Vares-Barbarus, whom the intelligentsia knew as an avant-gardist poet, and that there were other distinguished members of the intelligentsia in the government. Some of the members of the Vares's Government probably naively hoped at first that Estonia could retain its autonomy and even become more democratic.¹

Although the first collaborating Government was soon replaced by people even more trustworthy in Moscow's view, it had sown confusion among the people and made them more compliant. Some artists, who were disappointed in the fine art policies or straitened economic conditions of the 1930s, let themselves to be lured by the favourable earning opportunities and the initially liberal declarations of the new authorities.

The intelligentsia of Tartu had been very critical of the authoritarian power of K. Päts. Limiting of democracy in Estonia in the second half of the 1930s had caused tension between the Government and artists. The brother of the President had had too much influence in distributing the resources of the Cultural Endowment. The attempts to link the state support to the so-called professional rights, i.e. an art school diploma, had been especially deplorable. Several outstanding artists did not have that diploma because their education had been fragmentary. This policy had discredited the administration in the opinion of many members of the intelligentsia. This partly explains why the Board of the Tartu Art Association „Pallas” so eagerly started to plan the reorganisation in the field of fine arts at their meeting on 26 June 1940, and even went as far as sending greeting telegrams not only to the top figures of the new Government, but also to the USSR Ambassador.² Many artists saw the changed political situation as a possibility to solve many problematic issues, but also just as a career opportunity. In the second half of the 1940s, mainly younger, less celebrated artists grabbed the limelight, while older or more conservative artists were pushed aside.³ New Estonian authorities did not rush to impose the so-called socialist realism, which had already become the compulsory style in the Soviet Union. Instead, the importance of art was emphasised and artists were praised in an unprecedented manner.⁴ State funds used to order works of art depicting subjects that pleased the occupants, including decoration items for all sorts of meetings and parades, but some money was also left over for politically neutral art.⁵

At first, no strict rules were given as to the form of works of art, but the Soviet bureaucracy started to creep into the artists' lives. To this end, the authorities managed to take advantage of many artists' wish to establish an all-Estonian artists' trade association. This had failed in the Republic of Estonia and that is why many artists took actively part in the National Artists' Congress on 25 July 1940. An organising committee was put together in the beginning of July, in order to organise the Congress. To this committee, the artists from Tartu elected Aleksander Vardi, Juhan Nõmmik, Kaarel Liimand, Arkadio Laigo and Ernst Jõesaar; the artists from Tallinn elected Richard Sagrits, Voldemar Mellik, Johannes Greenberg (who was also elected Director of the Committee), Ferdi Sannamees and Adamson-Eric (who became Secretary of the Committee). On the request of the Ministry of Education, art critics Hanno Kompus, Sten Karling and Armin Tuulse were also included in the committee. The first responsibility of the committee was to compile a list of active artists; the list was ready by 19 July 1940.⁶ At first it included 142 artists who got a vote at the Congress. The credentials committee of the Congress added another 59 names.

At the Congress, plans were made to organise artists, extend art education and develop museums.⁷ Authorities started to put some of the

wishes of the Artists' Congress into practice. The wish of Tartu artists fulfilled when the position of the „Pallas” Art School was reinforced. In August 1940, a young art critic, Villem Raam, published an optimistic article on the future of Estonian museums.⁸ Soon afterwards, V. Raam was appointed Director of the National Art Museum in Tallinn. In the beginning of 1941, an art museum was founded in Tartu. However, occupation authorities gradually took the control over the process of organising the artists. On 8 October 1940, the ESSR SPC published the decision on the establishment of the Estonian Soviet Artists' Association (ESAA). The ESAA was supposed to become part of the USSR Artists' Association, the establishing of which was in progress.⁹

The ESAA Organising Committee (Director Juhan Nõmmik, Assistant Director Eduard Wiiralt, Secretary Adamson-Eric, Members Aino Bach, Andrus Johani, Kaarel Liimand, Richard Sagrits) was no longer elected by artists, but appointed by the authorities. Objectives of the authorities were no longer hidden. Minister of Education Nigol Andresen wrote: „By appointing an Organising Committee, the ESSR SPC has given writers and artists an important responsibility: to organise writers and artists according to the Soviet system, to organise their activities in a way appropriate for the Soviet system.”¹⁰ However, the Artists' Association was not established in the first year of occupation; instead, by decision of the SPC from 15 November 1940, all existing artists' organisations and groups were dissolved and blacklisted, and the Administration of Fine Arts was established. Pursuant to its Statutes, its responsibilities included establishing state control over all works of art, over organising exhibitions and competitions, procuring objects for museums, supervising creative associations, etc.¹¹ The gradually strengthening control oppressed and frightened artists. Danger signals sounded also from the press, where art critics succumbed even more rapidly to Soviet models than artists themselves. This was partly caused by the art critics' attempt to adjust to the administration's ideology, either in the interests of their personal careers or in order to safeguard Estonian art against possible accusations, and partly because the censorship of the occupants controlled the written word more closely than the visual arts.

In autumn 1941, an Estonian SSR Culture Festival was planned for Moscow and preparations for it started as early as in 1940. Large sums were spent on ordering works of art of Soviet orientation. This yielded some sketches and a few completed works, which directly served the ideology of the occupants. Adamson-Eric, a very talented and ambitious artist who was especially bitter about having been accused of not possessing an artist's diploma, probably tried to gain the leading position among the Estonian artists with the help of the occupants, and temporarily he succeeded. A. Johani was probably an earnest supporter of the new regime. Both artists painted pictures with political overtones

in their personal style of the 1930s: Adamson-Eric in late impressionism and A. Johani in lush, picturesque realism.

The first year of occupation left no remarkable traces in the works of most Estonian artists, and the 1930s lived on in the style of the works and, in most part, also in the contents. The authorities promoted socialist realism and recommended it as an example, but expressed it in such a vague way that there was still room left for interpretation. Diverse and individual, but mainly tending towards realism, works of Estonian artists could be considered to conform to the recommendation. The subject matters started to include more depictions of people at work, but often the indirect influence of socialist realism was apparent only in the titles.

Violent acts of repression by the occupation authorities at first took place relatively covertly and artists were left mostly untouched, but even they did not escape the wave of arrests in June 1941. Director of the Art Museum **Villem Raam**, only a short while earlier appointed to this position by the occupation administration itself, was arrested. He was released from prison camp only in 1956. Grand master in applied arts **Eduard Taska**, father of Estonian leatherwork, died in prison camp on 7 March 1942.

The war between the Soviet Union and Germany caused a schism between the Estonian artists. Some artists who had supported the Soviet ideology (Kaarel Liimand, Andrus Johani) joined destroyer battalions, many others who had actively cooperated with the Soviet administration (Adamson-Eric, Aino Bach, Boris Lukats etc.) fled along with the Soviet troops, but many artists were taken away by forced mobilisation. Many of the mobilised perished in work battalions or at the front. However, several artists had fairly high living standards in the rear of the Soviet Union, because the Soviet administration wanted to use them in the propaganda war. Artists who had fled to the rear and those demobilised were concentrated in the city of Jaroslavl, where they founded the Estonian Soviet Artists' Association (ESAA) on 4 January 1943. Adamson-Eric became Chairman, Richard Sagrits Vice-Chairman and Aino Bach one of the Secretaries. There were 14 founding members in total. They were taught socialist realism and demanded to conform to the Soviet ideology.

2. GERMAN OCCUPATION (1941–44)

Direct acts of repression by German occupants hit many artists who were, either groundlessly or not, accused of having collaborated with the communists or just leaning towards the left. **Andrus Johani**, **August Roosileht** and **Arkadio Laigo** were executed, **Karl Pärsimägi** and **Nikolai Kummits** died in prison. Many artists were imprisoned for

a period of time: **Ida Anton-Agu, Vello Agori (Gori), Ott Kangilaski, Rasmus Kangro-Pool, Peeter Linzbach, Romulus Tiitus, Rudolf Sepp, Johannes Võerahansu**. At the same time, Germans did not try to change the Estonian art and the artists who had stayed in Estonia could continue their work in the traditional way.

The Soviet socialist realism and the German nationalist socialist art were very similar in their visual form and thus expressed the essential similarity of the two totalitarian regimes. This is especially evident in poster art and works depicting war. From the point of view of the Estonian history, it is important to note that the influence of nationalist socialist art ideology on Estonian artists during the German occupation was much less pronounced than the influence of socialist realism on Estonian artists working in Russia. The German authorities apparently considered educating of Estonian artists unimportant and the artists themselves were not eager to learn. Of course, ideals and models of nationalist socialist art were shown and praised, but, unlike in Germany, there was no persecution of „degenerate art” in Estonia. Even though there were not many clearly avant-garde Estonian art works that the Germans could have called „degenerate art”, a lot of Estonian artists’ inspiration had come from the 1930s Parisian art, which was significantly more innovative and diverse than the German nationalist socialist art; yet, the occupation authorities did not ban this style.

In 1942, Department of Science and Fine Art of the Education Directorate was formed in the structure of the Estonian Self-Government, appointed by the Germans. It organised art education and provided modest financial support for artists. Tartu Higher Art School had been closed after the German conquest of 1941; in 1942 an Advanced Art Course was organised instead. The next year, the higher art school could be reopened under the name „Pallas”. An intermediate-level school of applied arts functioned in Tallinn since 1942.

In 1941—44, Estonia’s art scene was very dynamic, many exhibitions took place, lively art discussions were held in the press and the art market flourished. The principal financier of art was the Estonian nation, because private persons commissioned and bought a lot of works of art. Admittedly, art was one of the means for investing money in a time where there was not much to buy; but, undoubtedly, the general public saw memories of independence transmitted by art and national consciousness preserved in it. Perseverance of the 1930s in the art thus became (like much later, during the long decades of Soviet occupation) not just a question of aesthetics but also of political nostalgia for many people. Another reason for the survival of the style of the 1930s was the introversion of the Estonian art scene, because ties to the West had been severed in 1940 and Estonia was completely cut off from the artistic development of democratic countries for almost twenty years.

When it became clear that the Soviet regime of terror was returning, there was a new split among the Estonian artists. In summer and autumn 1944, at least 60 artists — approximately one-third of Estonia's creative artists — fled from Estonia, mainly to Sweden and Germany. Fearing KGB persecution, famous cartoonist Gori (V. Agori) committed suicide on 7 October 1944.

Artists who had escaped the Soviet terror contributed to the development of Estonian cultural life in exile and, for the most part, participated in the art scene of their new country, creating valuable works of art. Nevertheless, being uprooted from their home country was for many of them a great spiritual loss and they suffered from it. Losing them was certainly a great loss to the Estonian art, but there is no doubt that most of them would have had to face Soviet repression had they stayed.

3. THE SECOND SOVIET OCCUPATION (1944–91)

In Estonia, the first goal of the occupation administration was the same as in 1940 — to achieve control over the artists and guarantee the functioning of art scene. The ESAA created in Jaroslavl was given the responsibility of uniting the artists who had remained in Estonia.

Artists joined the Association because it was impossible to work as an artist outside the ESAA. Members of the Association received food stamps, were provided with materials and given work opportunities; they also thus avoided being labelled „parasites“. Compared to the overall misery, living conditions of artists were relatively good. During the first years after the war, most artists could continue working in their pre-war style, because the authorities did not yet have a violent attitude towards art. One can say that at first the Soviet occupation administration used more carrots than stick to start up the art scene. Probably there were some more general reasons for the administration to be cautious. Moscow was still not sure if and to which extent it would be able to exercise its power over the Baltic states. The „June communists“ (so called because they only turned out to be communists in June 1940) tried to pass the hesitance of the central authority off as respect for Estonia's individuality.

Nevertheless, violent repressive measures also hit artists. Sculptor **Aleksander Eller** and painter **Varmo Pirk** were arrested in 1945; **Ilmar Malin**, who had fought in Finland, remained in a camp for war prisoners until 1948.

The overall objectives of the art policy were laid out in March 1945 by the ECP CC and the ESSR SPC regulation „Development and Responsibilities of Fine Art in the ESSR“¹², which stated that the most important task for artists is to educate people in the Soviet spirit and „resolutely fight against remnants of fascist ideology and bourgeois nationalism, using all the means available in fine art“. Authorities demanded that paintings had

a political content (depicting revolutionaries, modern life) and condemned „pure“, apolitical art¹³, but at first these demands were only of general nature and rather like recommendations. Artists still had the possibility to continue in their former style.

The dreariest period in the life of Estonian artists started in the end of the 1940s. The first threatening warning of the tightened Soviet cultural policy came in 1946 with the infamous decision of the All-Union Communist Party of Bolsheviks, which condemned „apoliticality“, „lack of ideals“, „formalism“, „cosmopolitanism“ and other „deadly sins“ of art. The ESAA Plenum of 15 October 1945 had also adopted a resolution „for directing fine art, which presently struggles in the clutches of pure art, towards the healing socialist realism“.¹⁴

From 1948 onwards it became clear that Moscow no longer tolerated distinct local individuality. Formation of kolkhozes began and the Estonian culture was forced to conform to common Soviet models. Stalinisation of the cultural life was accomplished in 1950. Anticipating Moscow's wishes and hungry for more power, some Stalinist extremists led by Max Laosson started to attack the cultural life, which until that time had been under the control of the „June communists“. Laosson's attack first hit theatre critics (following Moscow's example), but his writings included a clear aggression towards all other fields of art. Laosson wrote about the „decadent ideology of Western European bourgeoisie“,¹⁵ which had contaminated the thinking of some critics, and about how grovelling to everything foreign „poisoned the Soviet art scene“, as well as about how „those running at the heel of the bourgeois aesthetics“ favoured „art for art's sake“.¹⁶

At first, N. Andresen, J. Semper and others tried to argue with Laosson, but on the ECP CC 8th Plenum, in March 1950, radical Stalinists got the victory and the First Secretary of the ECP CC N. Karotamm, who had sided with the „June communists“, was forced to leave. At the same Plenum, M. Laosson gave a nasty and furious speech, accusing N. Andresen, J. Semper, Adamson-Eric and others of bourgeois nationalism, anti-Marxism etc.¹⁷ In 1950, Magnus Mälk¹⁸ and Aira Kaal¹⁹ joined M. Laosson in his attacks. Johannes Semper, Nigol Andresen and many other „June communists“ lost their positions. Some were arrested. **N. Andresen**, for example, was arrested on 24 March 1950 and convicted for 25 years in prison, but was freed during the so-called „Khrushchev thaw“, five years later.

Like other creative associations, Artists' Association also underwent „cleanouts“ and the majority of better artists were expelled, accused of „formalism“, „nationalism“, „cosmopolitanism“ or just „creative passivity“. Expelling made it impossible to work as an artist, but even more serious repressive measures could still follow. The theory of socialist realism gave licence to claim that an artist who did not practise realism and

leant towards formalism was not only on the wrong track in the creative sense, but also revealed his belonging to the political enemies, because why would he/she otherwise fake or hide „the truth of life”, which every progressive person should love. The one and only model for realism was the art of the Russian XIX century Peredvizhniki, while influences of Impressionism were called formalism.²⁰ This meant that political allegations could be levelled against almost all Estonian artists, as all of them had been influenced by the Parisian art of 1930s, where late-Impressionism dominated. Interest in innovative Western art provided sufficient grounds for arrest.

In 1949 and 1950, dozens of art students (Henno Arrak, Olev Subbi, Valdur Ohakas, Endel Palmiste, Henn Roode, Ester Roode, Lembit Saarts, Heldur Viires and many others) or young artists who had just graduated (Ülo Sooster, Kaljo Reitel) were sent to prison camps or deported. Art critic Rasmus Kangro-Pool had been in prison during the German occupation, but spent a longer time (1950—57) in Stalinist prison camps.

Artists who had escaped arrests had to live in fear. Artists were criticised in the press; sometimes the uneducated „voices from among the people” were used for this purpose. At meetings of the Artists' Association, local dignitaries or emissaries from Moscow made threatening accusations. For example, at the meeting of the ESAA „activists”, I. Melikadze, an expert art critic sent over from Moscow, attacked Adamson-Eric. Adamson-Eric was one of the few who tried to defend himself in public,²¹ although of course without success. Trembling artists presented public „letters of repentance”, but, alas, sometimes also slandered their colleagues in hope of saving their own skin. A typical feature of the Stalinist terror was that the accusers could soon become the accused. Needless to say, this atmosphere of fear, jealousy and lack of trust destroyed the artists' creative courage and individuality and brought along degeneration of art. Many artists refrained from exhibiting. Adamson-Eric went to work in a shoe factory, Anton Starkopf fled to Moscow to become an assistant of a local celebrated artist. Mockeries and losing all opportunities to work drove Johannes Greenberg to suicide on 29 November 1951.

The Stalinist culture policy separated Estonian artists from developments of arts in Western democracies, but also from their own history. Works of many already deceased artists were declared formalist and removed from museum exhibitions. Executive staff of museums was changed, to the Tallinn Art Museum new heads were appointed from Russia. The Chair of Art History of the University of Tartu and the Department of Art History of the Institute of History of the Academy of Sciences were dissolved. Tartu Higher Art School as a „nest of formalism” was reorganised into an intermediate level school and some of its lecturers were in 1951 taken under the ESSR State Art Institute (SAI). The Institute got a new Rector, Russified Estonian sculptor Friedrich Leht, who in the

1920s had earned the recognition of Stalinists as one of the suppressors of the Russian avant-garde. He was probably expected to clear the Estonian art education from remnants of formalism and nationalism.

In applied arts, an interest persisted in using the individuality of materials and in following functionalist principles, but attempts were also made at developing a national style based on folk art — an attempt seemingly justified by the slogan about a culture „with socialist content and national form“. In textile art this was reflected in wall hangings with a geometrical lay-out and use of folk-art motifs. All fields of applied art typically produced richly decorated objects with motifs reflecting those of the folk-art or stylising local flora. Compositions were often almost Baroque in their flamboyance and picturesqueness.

At first the applied arts managed to stay beyond the reach of the political propaganda, and works were sometimes carried even by a feeling of nostalgia. With years passing, tendency to use figurative art with a political content as a model became ever stronger in textile art as well as in other fields of applied arts. Wall hangings were often not seen just as pieces of decorative art and part of the decor but as an independent work similar to a painting. Geometrical decoration disappeared because it could have given cause to accusations of formalism, but folk motifs were allowed to frame the picture. The picture itself, of course, had to be as realistic and accurate as possible, with a clearly readable depiction; techniques, which were unsuitable for assuring such a result, had to be cast aside, so the choice of techniques in applied arts became narrower. Another popular type of wall hangings were the so-called poster hangings with Soviet symbols — stars, sickles and hammers, the Estonian SSR coat of arms etc., mixed with motifs borrowed from Estonian folk art.

In three-dimensional arts (ceramics, glass, metalwork) the choice of forms became narrow and monotonous. Possibilities of expressing an idea through form were shied away from, for fear of accusations of formalism. Flat, picture- or poster-like decoration was supposed to create the meaning of three-dimensional works. The composition had to follow the rules of classicism, but was usually eclectic and fussy in the academic manner.

The beginning of the 1950s, when the artists were under the heaviest pressure, brought along changes in the way in which the Estonian folk-art was used. All attempts at interpreting it in a more creative way were forbidden, and only accurate, lifelessly pedantic and soulless copying of ethnographic material remained permissible. Officially this was justified with the need to respect the national heritage, but there was probably a deeper reason: the Stalinist culture policy aimed at changing the „national form“ into something that belonged to the past and was only a formal addition to the modern-day life, with different nations melting into one unified Soviet nation.

The fate of the Estonian architecture was similar. The first years after the war were mostly taken up by reconstruction projects, although completed buildings did not always look like the originals. This was the case with the theatre „Estonia“. Alar Kotli designed its Pärnu Road facade in a more classicist style than it had originally been according to the project of Lindgren and Lönn. In 1947, reconstruction of former Officers' Casino building was completed — now with an altered columned portico, and it was turned into a political education centre in the Soviet era.

These solutions demonstrate how the „ceremonial traditionalism“ of the 1930s could be used as a basis for Stalinist architecture. The latter could also be called ceremonial traditionalism, although the traditions were different. The Stalinist architecture visually proves that the Soviet Union is in fact the heir of the Russian empire. The Stalinist architecture was also called socialist realism, although, unlike literature and figurative art, it could not be based on Russian XIX century realism, but proceeded from the pompous eclecticism and classicism of tsarist public architecture.

These influences also started to manifest themselves in city plans, which reflected dreams of large central squares, showy main streets and gigantic monuments. The first architectural competition for the House of Soviets (government building) took place in 1947. The final project from 1954 envisaged constructing a monstrous building with classicist half columns in colossal order, and a hundred metre high, gradually tapering tower in the centre of Tallinn, but this was rendered impossible due to a total change in direction of the Soviet policy of architecture. In Tallinn, a relatively pure Stalinist style can be best seen in the so-called „house with a tower“ on Tartu Road, but many other buildings in Tallinn, Kohtla-Järve, Sillamäe and elsewhere display Russian classicist elements.

In parallel with the above-mentioned style, a quite different style of architecture continued to develop until the end of the 1940s on the basis of domestic architecture of the independence period. Before 1948 it was still possible to hope that the Estonian tradition of farms would continue and in this spirit some competitions for projects of country houses took place and interior architects designed folk-art-inspired farm furniture. When kolkhozes were formed, such plans were no longer realistic. In the beginning of the 1950s, rules for domestic architecture also became stricter; for example, only narrow and high windows became permissible, while low and broad windows reminded of functionalism and thus were formalist and politically criminal. Showy pseudo-national style, on the other hand, was allowed, and borrowing motifs from folk-art was the simplest way of avoiding accusations of formalism and cosmopolitanism.

By the end of the Stalinist period, Estonian art was completely crushed. In the second half of the 1950s, when the Soviet system showed signs of mellowing, art started to recover. Artists who had not died in prison camps were released, and those who had been expelled from the Artists'

Association rejoined it. Elections to the Board of the Artists' Association became more democratic. Most artists took the opportunity to show more individuality, reduced Soviet motifs in their works or forsook these completely and focused on purely aesthetic objectives. Estonian art quickly developed into something very different from the official Moscow art and consequently became one of the means of preserving and strengthening Estonian identity. Nevertheless, the Soviet ideological pressure and the limits to artists' creativity were kept up until the end of the 1980s. The authorities were forced to accept the fact that art, for the most part, did not directly serve their ideology, but they strongly discouraged and mostly succeeded in avoiding all kind of dissident behaviour. Afraid of losing opportunities to work, many artists resorted to self-censorship.

Separation from the Western art remained, information about it was fragmented. Personal initiative of artists in communicating with the Western world was stifled in every possible way, their works and correspondence were confiscated from the post, artists themselves were interrogated by the KGB, scared and threatened in a way which in some cases led to a spiritual crisis. In this situation, the role of the Artists' Association remained contradictory. On one hand, the Board of the Association tried to soften the official rules and negotiate more autonomy for the artists; on the other hand, the authorities still tried to use the organisation for controlling the artists. For example, to stop exhibitions, which did not have official permission and had not passed through censorship. Creative freedom could also be hindered by the monopolistic position of the Artists' Association in the art scene. Since it was still difficult (although no longer impossible) to work as an artist outside the Association, a radically new piece of art could be rejected not always on political grounds, but sometimes merely because it was too different from the taste of the jury, which had been elected by the Association.

In conclusion, although the threat of direct repression against artists was clearly reduced after the end of the 1950s, this never completely vanished, while psychological and spiritual violence continued until the end of the occupation.

¹ E.g. H. Moora, the Assistant to the new Minister of Education declared on 16 July 1940 that organising the art scene will be the responsibility of the artists themselves. The Minister of Education J. Semper repeated that on 25 July. (Lamp 1965:13)

² Raudsepp, Ingrid, 1999.

³ Ole, Eduard, 1973, 263.

⁴ Päevaleht 26. 07. 1940, Kunst ei jää enam vallaslapse ossa.

⁵ Mark, Reet, 2003, 52.

⁶ Päevaleht 19. 07. 1940, Postimees 19. 07. 1940 etc.

⁷ Raudsepp, Ingrid, 1999, 60 etc.

⁸ Viisnurk no 1, 1940, 78–80.

⁹ Lamp, Ene, 1965, 191.

- ¹⁰ Looming no 10, 1940, 795 etc.
¹¹ ERA, c. R-1, i. 1, u. 36, p. 130–135.
¹² ENSV Teataja, 03. 04. 1945.
¹³ Sirp ja Vasar, 27. 10. 1945, 2–4.
¹⁴ ERA, c. R-1665, i. 1, u. 68, p. 10.
¹⁵ Rahva Hää, 02. 03. 1949.
¹⁶ Ibid.
¹⁷ ERK PA, c. 1, i. 4, u. B90, p. 185 etc.
¹⁸ Looming no 5, 1950, 988–1004.
¹⁹ Looming no 2, 3, 4, 1950.
²⁰ Kangilaski, Jaak, 2003, 11–28.
²¹ ERA, c. 1665, i. 1, u. 115, p. 2 etc.

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VII

ENVIRONMENTAL DAMAGE

Rein Ratas

The environmental damage was mainly caused by the following circumstances: administrative style of centralised economic management (primarily from Moscow) which resulted in unbalanced economic development; neglecting the need for complex approach in the use of natural resources; neglecting the need to take into account local environmental conditions; assigning the highest priority to military needs; backward technology; denial of human and family values; lack of owner's approach.

1. AGRICULTURAL LAND

Estonia's most important natural resource is the fertile land suitable for agricultural production. Agricultural land makes up one-third of Estonia's territory. In order to satisfy the immeasurable needs of the USSR, unbalanced intensive production of field crops, grass and hay, as well as stock-farming products was launched. This was accompanied by extensive use of chemicals, building of huge livestock farms, use of heavy agricultural machinery suitable to Russia's conditions and creation of enormous bare fields resembling steppes — all this damaged soil fertility and polluted water resources. In the 1980s, the use of up to 180 kg of nitrogen (two-thirds of which were made up by mineral fertilisers) per hectare of cultivated land was recommended. The continued use of such amounts of fertilisers would have rendered the upper layer of ground water (up to the depth of 40 m) undrinkable everywhere in Estonia.

Before the forced collectivisation, the use of land in farms was highly diversified with respect to land use types and the structure of areas sown. In Soviet times, elimination of this diversity began. As a result, crops were not cultivated on the soils best suited for them. Fields tended to „migrate” and arable land was in degradation: good arable lands near stock-farms were transformed into pastures, former arable lands were abandoned.

By 1980, 13,490 ha of lands had been allotted for mining oil shale and phosphorite. Allotment of 22,000 ha, of which nearly one-half consisted of arable land, was planned for this purpose for the year 2000. The requirement of re-cultivation of used lands was poorly observed. In oil shale mining areas, 2600 ha were used for depositing oil shale ashes. Underground mining led to collapses and emergence of crevices with the depth of up to 2 m. Deformed lands make up a total of 200 km². In these areas, drainage systems tend to deteriorate, agricultural use of a part of these lands becomes impossible, turf and timber resources are destroyed.¹

Industrial air pollution has damaged forests and diminished their natural growth by more than 50 % in some places near Kohtla-Järve, Kiviõli and Maardu.

Changes in the way of life always bring about changes in landscapes. Shaping of landscapes must be based on the historical development of cultural landscapes and on natural conditions. The natural development of cultural landscapes was interrupted by the forced collectivisation in the end of the 1940s. As a result, ancient villages have been mutilated with architecturally and historically alien buildings; agro-ecological systems have been destroyed and so-called economic associations — which are artificial, anti-human and anti-natural — have been created instead.

2. WATER

Water is like the blood of the earth; it reflects very accurately the condition of the environment. In the end of the 1980s, about 52 % of sewage was purified according to the then requirements. The rest was partially purified or left as it was.

In the end of the occupation period, there were about 1700 sewage treatment facilities, mainly small ones, of which one-third were out of order. Virtually no town or other settlement in Estonia had perfectly functioning sewage treatment facilities. There was no chemical treatment of sewage in Estonia.²

An inspection carried out in 1987 showed that 62 % of any kind of storage facilities (for fertilisers, silo, liquid manure etc.) in agricultural enterprises did not meet the established requirements. This was one of the main causes for the general pollution of water resources, another being the unbalanced application of mineral fertilisers. The sanitary condition of all our lakes was deteriorating, about 150 lakes were in a very bad condition. Most Estonian rivers were polluted. The condition of rivers in North and West Estonia was extremely poor; in South Estonia, Suur-Emajõgi was heavily polluted. In 1989, the phenol content in Purtse River exceeded the allowed maximum by 780 times. In several rivers, the content of sulphates exceeded the allowed concentration by 20 times and that of ammoniacal

nitrogen, by 120 times. The coastal sea was heavily polluted. Nearly all popular beaches had been closed for bathing for years. Near the beach of Pärnu, the *E. coli* index of water exceeded the allowed level by 5000 times.³

There had been a tenfold increase in the consumption of groundwater, if compared to the level of 1945. About 10 % of the groundwater resources were heavily polluted, about 30 %, substantially polluted. The main sources of pollution were as follows:

- mining and processing of oil shale in Ida-Virumaa;
- major cities, incl. Tallinn;
- military bases, especially the 5 greater military airports and rocket bases;
- animal breeding in huge farms and dispersed pollution originating from tilled land.

Former fertiliser storage facilities still pose a threat to the groundwater. Animal breeding was excessively concentrated and the corresponding enterprises lacked adequate manure storage facilities. Quite often, fertilisers were kept in outhouses of farms, which came into disrepair after abandoning, or directly on the ground. This was the characteristic situation everywhere in Estonia. For example, in Muhu there were 5 major pollution centres, near which the concentration of nitrate ion in the groundwater was as high as 650 mg/l. The quality of water used by rural people was — and in some places still is — poor. In some regions, up to 70 % of rural people have to use low-quality water. Although the nitrate content in the groundwater is decreasing, the situation is not yet satisfactory.

In areas formerly used by the occupation army, thousands of tonnes of aviation and rocket fuel have been disposed of into groundwater.⁴ The pollution of groundwater with kerosene has been a problem for years. There is a danger that dissolved oil products in Tapa and Ämari may leak into the water of the Cambrian-Ordovician aquifer. The Meltsiveski water intake in Tartu is in danger. The former military airports still remain the most important pollution centres, but are by far not the only ones. Much pollution has come from former missile bases, fuel tanks, pipelines and boiler-houses. Decontaminating these areas, purifying groundwater and surface water is very expensive, costing about EEK 60b. (See next Chapter.)

3. MINERAL RESOURCES

Mining and the ensuing processing of mineral resources was wasteful, because:

- of the deposit in use, only the best layers of deposits were mined;
- only the primary resource (e.g. oil shale) was mined, while the accompanying resources (e.g. turf) were destroyed;

- obsolete, wasteful technologies were used;
- extremely low calculated values (prices) had been assigned to natural resources.⁵

In Maardu, a total of about 30 million tonnes of phosphate rock was mined. In order to do that, up to 15 million m³ of high-quality limestone, 0.5 million tonnes of turf, about 100 million tonnes of Dictyonema shale and up to 50 million m³ of glauconite sand were damaged or destroyed. The agricultural efficiency of the phosphate fertiliser prepared from the local raw material was virtually nil. At the same time, mining and preparation of the fertiliser was an important source of pollution (massive emissions of hydrogen fluoride, sulphur dioxide and dust). The plume of the industrial plants of Maardu reached Finland across the sea. The pollution caused by mining and processing of phosphorite will remain in our surface and ground water for many years to come. Several hundred hectares have been transformed into deformed industrial landscape, only part of which has been re-cultivated.

In 1940—91, about 800 million tonnes of oil shale was mined. The loss of this production was close to 30 %. The mining of oil shale and its use in power engineering and chemical industry have led to the still persisting pollution of surface and ground water, massive atmospheric pollution and deformation of wide areas. For this reason, some areas in the eastern part of Virumaa are still in a critical ecological condition.⁶

In 1977, an overview of Estonia's environmental condition and its development trends were published „for internal use only”.⁷ The book stated that:

- the quality of water resources was deteriorating;
- water bodies have been polluted with carcinogens;
- the amounts of hazardous waste water were increasing year by year;
- the Rivers Kohtla, Erra and Purtse had no aquatic life;
- the Rivers Pühajõgi, Jägala, Pääsküla and Seljajõgi were in a critical ecological condition;
- the Rivers Narva (lower reaches), Tõdva, Kasari, Pärnu, Pedeli, Võhandu and Emajõgi had been heavily polluted;
- Tallinn, Tartu, Võru, Viljandi, Valga, Haapsalu, Paide, Kingissepa (Kuresaare) and other cities had no waste water treatment facilities;
- in 1975, only about 15 % of waste water was treated;
- by 2000, there would be an increase in the use of ground water by 3.5 times in cities and by 5 times in agriculture, as compared to that of 1973;
- by 2000, about 50 % of the perspective ground water resources would be polluted;
- in recent decades, the pollution of the Baltic Sea had aggravated, especially with nitrogen, phosphorus and organochlorine compounds;

- there was no reliable information about the amounts of solid waste and the location of its deposits;
- without taking thorough measures for utilising waste, there would be serious danger of general pollution of water bodies and the air;
- in Tallinn, the concentrations of atmospheric pollutants exceeded the acceptable limits: for sulphur dioxide up to 7, for carbon mono-oxide, 12, for nitrogen oxides, 20, and for dust, 12 times;
- the Regulation No 574 of 1976 of the USSR Soviet of Ministers stipulated that the annual oil shale production of Estonia should be increased to 50–60 million tonnes by 1990.

Fortunately, the occupation authorities did not manage to realise all their plans.

4. SMALL ISLANDS

The fate of Estonia's small islands has been greatly influenced by WW II and the ensuing occupation period. On the one hand, the population on small islands was decreased by the emigration to Sweden of the ethnic Swedes who lived on the western coast of Estonia, emigration of many Estonians to other countries, and by limitations set to the right of fishing and owning boats. While before WW II there were 32 small islands with permanent population, now there are only 6 (Prangli, Kihnu, Ruhnu, Manilaid, Vilsandi, Abruksa). Several islands were used by the Soviet Army, and Estonians, as a rule, had no access. In addition to the decrease in population, agricultural lands on these islands were lost. On Naissaar, there were 69 farms with the total used area of 71 ha, of which arable land and gardens made up 2.8 %. Two Pakri Islands made up a separate rural municipality. The rural municipality had 68 farms with the total used area of 1850 ha, of which arable land and gardens made up 133 ha or 7.2 %.

As most small islands were in the border zone, their recreational value could not be put to use. Recreation, as we know, is the main source of income on small islands all over the world. Small islands can be used as resort areas and also as bases for water tourism (yachting, fishing). Naissaar should be the resort area of Tallinn. The nearby small Aegna Island needs a systematic programme for its use as a resort area. The military use of Pakri Islands endangered the unique natural resources of Estonia — the limestone bluff of Pakri (especially that of Väike-Pakri), as well as rare plant and bird species occurring on these islands (breeding place of black guillemot). It was a crime to use Pakri Islands as a bombing ground of military aviation.⁸

Our material and also a great deal of our spiritual wealth comes from the nature, from the land we live on. The land gives us everything we need for life, and we return the products of our biological functioning to

it. William Petty, renowned English economist of the 17th century, was right to state: „That Labour is the Father and active principle of Wealth, as Lands are the Mother.“ Environmental protection is an integral part of the use of environment; it shows our mental and cultural level, our attitude towards ourselves, others and the future generations.

For further information about the investigation into the environmental damage, please contact the Ministry of Environment of the Republic of Estonia.

¹ Estonian Environment..., 1997.

² Keskkond 1991, 1991.

³ Keskkond '89, 1990; Keskkond 1991, 1991.

⁴ Endise..., 1999.

⁵ Ratas, Raukas, 1997.

⁶ Estonian..., 1997.

⁷ Eesti NSV..., 1977.

⁸ World War II..., 1991

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VIII

ENORMOUS ENVIRONMENTAL DAMAGE CAUSED BY OCCUPATION ARMY

Anto Raukas

In the last years of the Soviet occupation, there were 1565 military premises in Estonia in approximately 800 locations, taking up a total of 87,000 ha or about 1.9 % of Estonian territory. In 1999, the direct damage inflicted by the Soviet (and the Russian) Army was estimated to be about EEK 65b. The indirect damage caused to the health of people could not be assessed, but it should be added to this damage. As far as we know, the short German occupation did not cause any substantial pollution.

1. ON INFLICTION AND ASSESSMENT OF DAMAGE

WW II and the years of Soviet occupation severed not only social ties, but also ties between the man and the nature. During WW II, crimes were committed, which exceeded in their scope and depravity everything the world had ever seen before. However, devastation of human and natural resources was also continued in the years after the war. Efforts were made to pass the occupied Estonia off as a sovereign state, but the truth is that neither the Supreme Soviet nor the Soviet of Ministers of ESSR had any say in substantial matters. Such matters included the location of the Soviet troops, allotment of land for that purpose and monitoring of environmental condition on the territories possessed by the troops. There is a reason to think that most top people of the Estonian SSR had no information about matters concerning the Soviet Army.

Regaining of independence further aggravated the situation, as the relations between the Government of the Republic and the top commanders of the troops were not clearly defined and there was no control over the troops; as a result, big amounts of pollutants were discharged into environment. In 1992, a commission was formed under the Ministry of Environment (Commission for Assessment and Financing of Liquidation

of Environmental Damage Caused by the Troops of the Former USSR or, shortly, the Troops Commission), which was led by Rein Ratas, then Chancellor of the Ministry of Environment, and the activities of which were funded from the state budget. Several foreign countries provided considerable financial aid and also helped with equipment and training of specialists. The most substantial contributions were made by Denmark, Finland, Sweden and Germany. In 1999, the above commission was renamed the Commission of Liquidation of Residual Pollution, but, in reality, it terminated its activities. As a summary of the work of the Commission, the Ministry of Environment published, in 1999, a book, „Endise Nõukogude Liidu sõjaväe jääkreostus ja selle likvideerimine” (Past Pollution of the Soviet Army and its Liquidation) (compiled and edited by Anto Raukas). The present summary is mainly based on that book, and therefore, it is not referred to below.

2. NUMBER AND LOCATION OF MILITARY PREMISES

The first task of the Troops Commission was to identify the number and location of military premises. Unfortunately, we did not manage to find out the number of the military personnel of the former Soviet Union in Estonia. In the middle of the 1980s, the total number of the military personnel in Estonia was 122,480, to which the number of family members is to be added. In any case, their total number was higher than one-tenth of the number of permanent residents in Estonia. Thus, the direct pollution caused by the military troops was also accompanied by considerable domestic pollution. Military industry was yet another major source of pollution; the best-known example is the waste deposit at Sillamäe.

Thorough research work enabled us to establish that in the last years of the Soviet occupation, there were 1565 military premises in Estonia in approximately 800 locations, taking up a total of 87,000 ha or about 1.9 % of Estonian territory. In Tallinn alone, the troop entities were located in 212 places and had 863 ha of land at their disposal. Major territories at the disposal of troops were: the gunnery-practice grounds of Aegviidu (33,100 ha), Utsali (13,411 ha), Nursi (3703 ha) and Väraska (1962 ha), the entire Pakri Peninsula together with the City of Paldiski (3703 ha), Pakri Islands (24,447 ha) and Naissaar (1867 ha). The military premises differed in their pollution level and environmental harm; some of them were relatively harmless. However, relatives of a person killed in a cannon shell explosion take little consolation from the fact that the shell was the only one in that area. Therefore, all military premises had to be carefully checked. In order to give an idea of the dangerousness of these grounds in the past, let us mention that in 1995 alone Estonian Rescue Unit destroyed 2538 various blasting charges, incl. 432 live shells,

on Pakri Islands. From the tower battery on Osmussaar, 49 live shells were lifted and defused on 11 June 1996 alone.

3. ASSESSMENT OF POLLUTION DAMAGE

Assessment of the pollution damage was done on 194 military grounds with a total area of 80,000 ha, additional research into pollution (ecological inspection and hydrogeological works) was carried out on 64 sites. The assessment of the premises was made using the methodology recommended by the Ministry of Environment of the Federal Republic of Germany. All the pollutants were classified according to the *Estonian Waste Classification* adopted in 1992. The assessment revealed oil products in the soil of 4335 ha of land (the polluted soil layer weighs 761,427 tonnes), metal scrap can be found on 850 ha, chemicals on 65 ha of land etc. The calculated weight of chemicals was 8257 tonnes, of oils and fuels, 12,038 tonnes, and of plastics and rubber scrap, 44,191 tonnes. The total amount of the waste was calculated to be 1,741,159 tonnes. A total amount of 5637 tonnes of waste particularly harmful to the health of people was found in 20 places. For example, in Männiku, Lääne-Virumaa, Russian troops left 20 tonnes of napalm unguarded. In Pärnu and Tapa, great amounts of chloropicrin and incendiary mixtures had been left in the warehouses and at the territory of engineering corps. In Astangu, Tallinn, great amounts of ammunition and explosives were found. Discarded mercury-vapour lamps, PCD-containing transformer oil and Ni/Cd accumulators were found in many places. A total of EEK 34.3m was used for the assessment and sanitation works. The results, however, were negligible, if compared to the actual need, because the direct damage caused by the Soviet (and Russian troops) was estimated to be approx. EEK 65b. The indirect damage caused to the health of people could not be assessed, but it should be added to this damage.

3.1. MILITARY AIRPORTS AS SOURCES OF TECHNOGENIC POLLUTION

Military airports of Tapa (771 ha), Tartu-Raadi (698 ha), Pärnu-Sauga (731 ha), Haapsalu-Paralepa (799 ha) and Ämari (930 ha) were found to be most heavily polluted. At the Tapa Airfield alone thousands of tonnes of aviation fuel had leaked into the soil, and from there on into ground water; this had led to the pollution of an area of 16 km². In some places, the layer of kerosene and kerosene/water mixture resting on the ground water was more than 5 metres thick. In six years, a total of 105,200 litres of separated kerosene and 681,798 m³ of polluted ground water was pumped out; the work cost more than EEK 7m and DKK 8m. Despite the efforts, the pollution has not been completely liquidated to

this day (2004). In addition to the kerosene pollution, 101 other pollutants were found in 162 pollution sites at Tapa Airfield. 1217 tonnes of iron and steel scrap were identified. An area of 4485 m² was covered with oil puddles, 150 tonnes of fuel oil and tank slush were found. There were also 1037 tonnes of construction waste, 42.5 tonnes of mixed domestic waste, 30 tonnes of chlorides and 18 tonnes of sulphur.

The former Tartu-Raadi Military Airport also poses grave environmental problems. As the drainage system of the Airport area has been destroyed, the soil is wet and its self-cleaning capacity is low. The removal of an extremely hazardous component of rocket fuel, the so-called samine, consisting of 50 % of triethylamine and 48 % of xylydine and other toxic components, from fuel tanks and soil was completed only in October 1998. In order to return the area to civil use, the soil should be cleaned from oil residues and chemicals, and various other works should be done (providing the area with drainage, sewerage and water supply, cleaning it from rubbish and levelling it). The Raadi Airport was served by the Kärkna (Sillaotsa) fuel depot (11 ha) and ammunition depots in Akimetsa (134 ha) and Marama. There had been cases of massive fuel leakage both in the Kärkna fuel depot and at the airport (in 1968, 1971, 1981, 1982, 1988, 1990, 1991), where great amounts of fuel leaked from pipelines or tanks. Heavy pollution of soil and of the upper layer of ground water has been established in an area of at least 20 ha.

3.2. POLLUTION ORIGINATING FROM MISSILE BASES

In Estonia, the Soviet Army had about 50 anti-aircraft and coast defence bases, strategic medium-range missile bases and their support service units. Besides that, there were huge under-ground command centres, e.g. in Vana-Pääsküla in Tallinn and at the Humala Height, Harjumaa. The largest bases were those of Karujärve (1,218 ha), Kadila (941 ha) Säanna (543 ha) and Keila-Joa (423 ha). The headquarters of the strategic medium-range missile units of south-eastern Estonia was situated in Valga, its launch pads were in Vilaski, Rooni and Uniküla and a reserve pad in Holstre. The Palometsa missile base was used as a training facility. The sites of the medium-range missile unit were defended by an anti-aircraft regiment with prepared positions in Varna (Metsniku near Valga), Säanna (Võrumaa) and Rutu (near Karksi-Nuia, Viljandimaa). Before the Anti-Ballistic Missile Treaty Protocol was signed in July 1974, the military unit had missile bases also in Rõngu and Vastse-Nursi, which were later abandoned. Medium-range missiles were located also in the missile bases of Säanna and Piirsalu in Harjumaa and Läänemaa. Fuel components of liquid-fuel ballistic missiles pose a great hazard to the environment. An especially dangerous situation developed in the missile base of Keila-Joa, which is surrounded by summer cottages. In order to

unlawfully sell stainless steel tanks, the poisonous samine was just poured out onto the ground in 1993. In this way, 10–15 tonnes of samine leaked through the uncovered cracked limestone into ground water. Spreading of the poison was stopped in cooperation with IABG GmbH, Germany. Investigation into the environmental condition and sanitation works of the Keila-Joa missile base cost EEK 4,606,453 from the state budget, plus financial aid from the Federal Republic of Germany (DEM 150,000) and Finland (FIM 120,000).

3.4. THE PROBLEMATIC PALDISKI

The Pakri Peninsula had been strictly closed for Estonian civilians for more than five decades. There were enough reasons for that. The Pakri Peninsula accommodated the navy unit No 10717, the missile forces unit No 031115 (missile bases Leetse I and Leetse II), the border guard unit No 2198, the training centre for nuclear submarine personnel with nuclear reactors and the Põllküla punitive battalion. The army had the command over the two ports of Paldiski, Põhjasadam and Lõunasadam. The area between the ports accommodated torpedo depots. It is difficult even to list all the pollution centres at the Pakri Peninsula. The major pollution sources in Paldiski also included the central boiler house with its continual fuel leaks, the sewerage and waste-water purification facilities, which were in a very bad condition, and primitive dump sites. Waste water of rocket bases and concrete constructions factory was discarded, without any purification, directly into the soil; that of nuclear plants, border guard unit and electroplating department, into the Baltic Sea. Rainwater annually washed more than 60 tonnes of black oil from the central boiler house into the sewerage system; at least 20 tonnes of oil passed through inefficient oil traps and reached the sea. Fuel containers leaked and great amounts of fuel oil accumulated in limestone cracks. Ports were littered with metal constructions, bars, barrels and other rubbish.

The training centre of nuclear submarine personnel or the „nuclear object“ deserves a special note. It had been built near Leetse in the central part of the peninsula, where ground water is close to the surface, and neither ground water nor surface water has any natural protection. Its reactors (70 and 90 MW) were shut down in 1989. When the territory was handed over to the Republic of Estonia in 1995, it was established that the area had been heavily polluted with black oil (400 t); the polluted soil layer had a volume of at least 12,000 m³. An area of 5000 m² was littered with rubbish and smashed lead accumulators covered an area of 1200 m². Until the launching of the second reactor in 1983, rainwater from the territory (23 ha) and untreated wastewater were let into the Stream of Leetse, actually a groove in limestone. The storage conditions of nuclear waste did not conform to any standards.

3.5. SILLAMÄE INDUSTRIAL COMPLEX AND WASTE DEPOT

The processing of uranium ore in Sillamäe began in 1948. At first, local Dictyonema argillite was used as raw material. As the uranium content of the ore is low (0.03 % in average), it was later replaced by a more rich ore imported from Eastern Europe. The plant's administration maintains that more than 4 million tonnes of uranium ore have been processed at Sillamäe. In parallel, the plant started processing loparite, a radioactive mineral mined in the Kola Peninsula, in order to separate from it rare earth metals, niobium, tantalum etc. In first years of production, the processing waste was deposited on the low coastal terrace of Päitenina. Construction of a waste storage separated from the sea with a dam was started there in 1959; later, the storage has been enlarged to correspond to the growing need. According to assessments, the volume of the storage is about 8 million m³ at present; one-half of this amount is made up by the processing waste of uranium ore. There was a danger that water trickling through waste layers could create a sliding plane on the Cambrian clay, the layer which lies under the storage and is tilted towards the sea; as a result, the radioactive waste could slide into the Gulf of Finland. Heavy storms increasingly destabilised the dam by eroding the coastal terrace.

As the environmental security of the Sillamäe waste storage concerns all the Baltic Sea states, a working group of experts, SIERG, was established in 1997 on the initiative of Sweden; the group included specialists from Sweden, Finland, Norway and Estonia. On 13 October, 1999, the Minister of Environment of Estonia, representatives of the governments of the Nordic countries and NEFCO signed an agreement on sanitation of the storage. According to the agreement, this most hazardous pollution source of the Baltic Sea region will be made safe by 2006. The project is funded by the European Commission (EUR 5m), the Governments of Norway (USD 2m), Sweden (EUR 1m), Denmark (USD 1m), Finland (USD 1m) and Estonia (EUR 3m), as well as by NEFCO (EUR 2m). A long-term environmental loan of EUR 5m from the Nordic Investment Bank to Estonia is to be added to this sum. The total cost of the project is about EEK 320m.

3.6. THREE IMPORTANT CONCLUSIONS

On the basis of the above, and especially on the example of Sillamäe, we can draw three important conclusions: 1) the environmental damage caused by the Soviet Union and Russia is huge; 2) neutralisation of this damage is a long-term process; 3) the damage can be neutralised only with the assistance of international cooperation. The present review includes only a limited selection of the cases of environmental damage done by the occupation army. The real situation is even worse. It is

possible that we are unaware of the real situation, because the Russian Army, which left Estonia in 1994, did not leave any documents about their pollution; on the contrary, it tried to conceal its deeds. We know virtually nothing of pollutants dumped into the sea, and the bowels of the earth may still conceal many unpleasant things in Estonia.

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IX

ECONOMIC DAMAGE

Kalev Kukk

If the history had taken another turn and Estonia could have developed in the same political and economic conditions as Finland, and supposing that the development level of Estonia were equal to that of Finland (measured as the *per capita* GDP), then Estonia's GDP should have been EUR 37.2 b in current prices in 2003. The actual GDP of Estonia was only EUR 8.0 b or one-fifth of the hypothetical value that year. This is the most general and adequate assessment, albeit for one year only, of the economic damage done by the occupation and annexation of Estonia.

1. METHODS OF ASSESSMENT

The damage done to Estonia's economy can be assessed from various points of view. On the one hand, we might assess the value of the assets destroyed or carried away by the occupying powers and the value of **the part of the GDP alienated with the use of the tax and price system**. On the other hand, we can analyse the results of the violent termination of Estonia's independence and of five decades of occupation and totalitarianism imposed on Estonia, in other words, assess the damage done by destroying the market-based Estonian economy, which had been open to the world market and adhered to the European practices and values. The first approach would be justified and fruitful in the short run; however, as the occupation lasted for two generations and as the administrative pricing system was voluntary in its nature, the second approach is the only one we can use, that is, we have to define the damage as the negative impact on the development of the entire economy, illustrated by Estonia's irrefutable backwardness, as compared to Finland or other market-oriented developed Western European countries. Thus, we have to assess the **national income that was not received in the past and will not be received in the coming years**.

In this overview, we have chosen the second, i.e. indirect method of assessment. The direct damage (originating from the destruction or, respectively, alienation of the national wealth) is referred to only in the context of previous studies (Preamble of paragraph 2) or import and export (sub-section 2.8).

When speaking of direct damage, which is non-recurrent by its nature, one always has to decide, what is the context of speaking of direct damage or loss, and what are the prices we should use to measure it. The approach aimed at assessing the direct damage can be used for measuring direct war damages or those resulting from unbalanced export of resources. One can also assess the value of the non-recoverable natural resources consumed during the occupation period; however, one should then take into account that a great deal of these were wasted because of the inefficient production technologies.

Considering the decrease in the oil shale resources, we come to face the following questions: if Estonia had not lost its sovereignty and market-oriented economy, what would have been the mining capacity, what technology would have been applied, what would have been the environmental effects and for which purposes the mined oil shale would have been used? Economic and political trends in the second half of the 1930s suggest that Estonia would have attempted to develop strong power engineering on the basis of oil shale. Even its capacity would, probably, have been similar to that actually achieved, if we assume that the power consumption in Estonia would have developed similarly to that of the Nordic countries. This would certainly have depended on the energy intensity of the structure of economy chosen by Estonia. However, now we can only speculate what the structure of Estonia's economy and its energy intensity would have been like. In the final analysis, Estonia's actual losses originated from the circumstance that the production structure developed and technologies chosen in the course of the „socialist reconstruction“ of Estonia's economy, which was carried out in the imperial interests of the USSR, were not sustainable and competitive at the international level. This is why Estonia lags behind in its economic and social development, if we measure it in terms of the *per capita* GDP and compare it with that of our neighbouring countries with market-based economy. In other words, economic losses caused by the occupation regimes can be more or less adequately estimated only by comparing the productivity of Estonia's economy (and, thus, also of its human capital) at present and in the near future with intact benchmarks (i.e. with the economies that continued their market-based development). But indirect losses include, in one way or another, also long-term property damage, i.e. the losses inflicted by the destruction of and damage to the economic potential (natural resources, productive and human capital). Here we mean the lost productivity of the destroyed or damaged (wasted) capital.

As with oil shale, nobody knows what would have happened to the Maardu phosphorite resources, if the history had taken another turn. We know that in the end of the 1930s the mining of phosphorite and the production of phosphorous fertilisers in Maardu was being expanded.

Neither can the collectivisation carried out in Estonian villages be considered a direct loss of national wealth. Collectivisation itself did not reduce the total amount of assets used in agricultural production (the property of farmers was transformed into the „property of the society”), however, it directed Estonia’s agriculture into a blind alley of unsustainable development.

After the publication (in 1991) of the book „World War II and Soviet Occupation in Estonia: A Damages Report” economists and historians have paid little attention to the problems relating to the Soviet-time economy in Estonia. Estonian and Finnish economists have jointly published a book, „Estonia and Finland — A Retrospective Socio-economic Comparison” (1993), which can be regarded as the first serious attempt of comparative research into the development of economy in Estonia and in the rest of the world. In a paper about Estonia, added to the Estonian translation of the „Black Book of Communism” (*Le livre noir du communisme. Crimes, terreur et répression. Editions Robert Laffont. Paris, 1997*), Mart Laar has given an outline of the research into the economic losses of Estonia.¹ Economic studies carried out in the Soviet period contain interesting statistical data, however, their interpretation bears the unmistakable ideological mark of those times; such studies still await their critical reassessment. Archival documents concerning the Estonian Communist Party, the ESSR State Planning Committee and other institutions may help future researchers in understanding the background and the results of economic decisions of those times. Unfortunately, there are virtually no reliable statistical data about the years 1940—44.

2. COLONISATION OF ESTONIA

The incorporation of Estonia into the USSR in the consequence of WW II was accompanied by the economic annexation of Estonia, i.e. merging the occupied Republic of Estonia, as a formal Union Republic of the USSR, into the unitary economic system of the USSR. This process, for ideological reasons termed „restoration and socialist reconstruction of Estonian economy” in the post-war years, had all the **characteristic features of classical colonisation**, namely:

- 1) purposeful destruction of the national economic structure, created in 1920—40;
- 2) importation of the production structure, which served the interests of the occupying power; this was termed „intensive development of the branches of industry, in which Estonia specialises on the Union level”;

- 3) extensive and predatory exploitation of the local natural resources;
- 4) employment and migration policy aimed at assimilating the native population, and
- 5) severing the former economic ties and isolating Estonia from the world economy.

The transformation of Estonia into a component of the national economy of the USSR consisted essentially in the denial of any development prospects of the national economy, which Estonia had had as an independent state, and in the introduction of the „socialist economy“, i.e. the totalitarian administrative system based on central planning; in fact, the former, essentially market-based economy was mechanically replaced with the economic model of the USSR of the 1930s. With comprehensive nationalisation, producers were separated from means of production (in Estonia, small enterprises with self-employed owners dominated) and Estonian economy was cut off from the world economy. The local natural resources, production facilities and financial resources were subjected directly to the dictate of the central authority of the USSR.

The immediate subjection of the Estonian economy to the hegemony of the economic interests of the USSR central authority is apparent in the principal changes in the geographic structure of foreign trade. The breakout of WW II in the autumn of 1939 necessarily brought about orientation of Estonia's foreign trade to Germany and the USSR. Soon, however, more pronounced reorientation occurred: already from August to November 1940, 84.3 % of the export of the newly established „Estonian SSR“ went to the internal market of the USSR (Table 1). Such a ratio between the trade with the East and with the West was characteristic of the entire Soviet period.

Occupation of Estonia and its incorporation into the USSR immediately brought about unbalanced export of resources: in June—July 1940, while Estonia was still formally independent, its export into the USSR exceeded its import from the USSR by 96.1 % (EEK 5.7m and EEK 2.9m, resp.) and in the following four months, after Estonia's incorporation, by 39.5 % (EEK 31.0m and EEK 22.2m, resp.). Despite every kind of measures (longer workdays, administrative coercion etc.), the first Soviet year saw a decrease in production volumes. Unfortunately, the first Soviet year and the years of German occupation are among the least studied periods in the history of Estonia's economy; we hardly have any reliable statistical data about that period. The new regime did not like statistics and economic analysis. This is also evidenced by the fact that the incorporation of Estonia into the USSR immediately stopped the publishing of „Eesti Statistika Kuukiri“ (*Recueil mensuel du Bureau de Statistique de l'Estonie*) and „Konjunktuur“ (*Monthly Review of the Estonian Institute of Economic Research*).

Table 1.

Changes in the geographical distribution of Estonia's foreign trade (in per cent) caused by the breakout of WW II and incorporation into the USSR²

	1938	1939 I—VII	1939 IX—XII	1940 I—VII	1940 VIII—XI
Export					
United Kingdom	34.0	37.9	3.0	0.7	—
Germany	31.4	30.0	46.1	49.6	12.5
Finland	5.6	5.2	8.1	6.1	0.1
USA	4.4	3.3	10.0	0.0	0.0
Sweden	4.3	4.8	11.5	5.2	2.0
USSR	4.2	3.4	8.2	22.6	84.3*
Other countries	16.1	15.4	13.1	15.8	1.1
Import					
Germany	31.1	32.5	52.0	49.6	22.9
United Kingdom	17.9	20.4	5.6	1.6	0.3
Sweden	8.2	5.5	3.2	3.3	2.3
USA	6.6	8.0	6.8	4.4	1.7
USSR	4.9	3.6	8.7	19.8	61.2*
Finland	4.4	3.5	4.0	1.2	1.2
Other countries	26.9	26.5	19.7	20.1	10.4

* Incl. Latvia and Lithuania.

We regret to admit that no treatise on the economy of that period has managed to surpass the review articles published in the collective work „Estonian State and Nation in World War II”, which were aimed at ascertaining the damage done by the first Soviet occupation to Estonia's economy.³ Therefore, we can only repeat here the summary by Harald Nurk: „This material loss cannot be adequately assessed or compensated for. Any deposits and other savings of the Estonians were annihilated. In industrial enterprises, the equipment was dismantled and carried away to the Soviet Union... Before the retreat to the East, the Red Army destroyed many industrial enterprises, power plants, transport vehicles, livestock and houses in cities and in the countryside... The Soviet Union carried Estonian goods away in large quantities without any real compensation. Estonia was completely excluded from any normal economic, technical and cultural development of the free world. Even

an approximate calculation of these losses — as far as this is possible at all — would require extensive special studies.”⁴

The USSR officially assessed that the direct losses caused by the hostilities and the „evacuation of assets” both to the East and to the West in 1941—44 totalled 16b roubles in the then denomination. It has been maintained that during WW II 45 % of the Estonia’s production capacity was destroyed. This included: 90 % of the production capacity of fuel industry, 75 %, of textile industry, 60 %, of timber, cellulose and paper industry, 55 %, of chemical industry, and 35 %, of metal-working and machine-building industry.⁵ In 1941—44, there was a 24.0 % decrease in the number of livestock (43.6 % in the number of cows, 38.5 % in that of pigs, and 19.0 % in that of horses).⁶ However, these figures should be taken with caution. Namely, the sum of war reparations depended on the amount of „registered” losses, therefore, the Soviet Union was obviously interested in showing the war losses to be as heavy as possible.

Analogous assessments, especially about the damage done to agriculture in 1940—41, have also been published in 1943 in the collection „Eesti rahva kannatuste aasta” (*The Year of Suffering for the Estonian Nation*). According to the calculations, the direct damage done to the agriculture during the first Soviet year amounted to about 200m reichsmarks; this sum did not include the losses of the agricultural cooperation. Besides the direct damage from „evacuating” pedigree cattle and horses, burning down farms and destroying means of production, there were also indirect losses, caused by the Soviet land reform: the crop rotation was disordered, fertilisation was poor because of the diminished numbers of livestock and the reform caused general debilitation of agriculture for many years to come.⁷

2.1. „SISTERLY ASSISTANCE FROM SISTER REPUBLICS”

Liquidation of war damages helped the central authority of the USSR to hide its actual objectives in Estonia under the euphemistic guise of „sisterly assistance from sister republics”. Restoration of economy after the war required great investments, but this provided also a convenient opportunity to reorganise the economic structure of Estonia and bring it into conformity with the interests of the Soviet Union. Pursuant to the plan of the 4th five-year period (1946—50), 3.5b roubles (official data, in the then nomination) were to be invested in Estonia. This was 1.7 to 2.9 times more than the investments provided for Latvia, Lithuania, Moldavia, Armenia, Kyrgyzstan, Tajikistan or Turkmenistan, which had bigger population numbers. *Per capita* investments in Estonia’s economy exceeded the USSR average sum by 30 % in 1945—50 and by 17 % in 1951—55 (in the prices of 1 July 1955).⁸

We do not know where the money came from: it originated either in Estonia or was received from the central authority, which had expropriated it from other republics, or it came from war reparations. Besides, the origin of money was not important in a society, which had a fetish for administrative distribution system. It is self-evident that the preferential financing of Estonian economy did not originate from any altruistic considerations or objectives (a myth that has been widely advertised), rather, it served concrete political and economic goals of the central power. These investments became a means of colonising Estonia. The then Chairman of the Estonian SSR Soviet of Ministers Arnold Veimer has put it this way: „The Soviet Government, **proceeding from the Stalinist national policy**, unselfishly and generously helps some republics lagging behind or **carries out large-scale construction works for the benefit of the entire Soviet Union**, and thus, also of the republic, on the territory of which the construction works are carried out... (Estonia) has received not only allotments of billions of roubles, **it has also received construction organisations, which carry out a great part of these construction works**, and the equipment, with which these works are done. (*My emphasis — K.K.*)”⁹ As a matter of fact, the allocation of such „construction organisations” — by the way, one-half of the works relating to the tapping of Estonian oil shale resources were to be done by the NKVD¹⁰ — meant sending to Estonia the first wave of colonists. Calculations show that as the urban population increased by a quarter of a million in 1945—50 (from 267,000 to 516,000), at least 90 % of that increase was caused by immigration, i.e. by the influx of foreign colonists.¹¹

Juhan Talve (alias Sirje Sinilind) has given a simple explanation to this generosity with investments: „Why such altruism towards Estonia? **In fact, this was the economic invasion of Estonia by the Soviet colonial power.** (*My emphasis — K.K.*)”¹²

Economic factors facilitating the Union-oriented development of the Estonian economy were as follows: the presence of a relatively well-developed production and social infrastructure, historical production traditions and high working culture. Easily accessible natural resources (first of all, oil shale and timber) and a higher living standard than in the neighbouring territories eastward made Estonia attractive. These factors rendered the making of investments in Estonia less expensive than in most of the „old” territories of the USSR and reduced the economic risks. At the same time, Estonia was, owing to its geographical location, on the way of reparation deliveries from Germany and other countries. The most important external economic factor, which shaped the post-war „development” of Estonian economy, was, however, the nearness of Leningrad; for the same reason, the industrialisation was mainly based on oil shale.

2.2. TRANSFORMATION OF ESTONIA INTO LENINGRAD'S HINTERLAND

The objective — to transform Estonia into Leningrad's hinterland in the economic (and also in the political) sense — was, probably, the most important reason why Estonia deserved more attention of the central power than other Soviet Republics. This was, at first, expressed in the forced taking into use of the oil shale resources for providing the inhabitants of Leningrad with oil shale gas and the industry and transport of Leningrad with liquid fuel manufactured from oil shale. This direction was already fixed in the USSR Defence Committee Regulation of 10 June 1945 „On the Restoration and Development of the Oil-shale Industry of the Estonian SSR and the Leningrad Region, and the Provision of Leningrad with Gas”¹³.

The plan for 1946—50 provided for making investments in Estonia's economy in the amount of 3.5b roubles. 40 % of that was directed into the oil shale sector, which was gradually transferred into the subordination of all-Union Ministries, while the industry's total share was more than 60 % of that amount. Fortunately, the plan of investments for that five-year period was not fulfilled, neither in general, nor in the oil shale sector; in total, 64.2 % of the plan was fulfilled. The plan for 1950 provided for the mining of 8.4 million tonnes of oil shale; the actual production was 3.5 million. Out of all investments made in Estonia in 1946—50, the enterprises subordinated to all-Union Ministries (i.e. of all-Union priority) received 65.8 %, and those of so-called republican priority, 18.4 % (Table 2). The oil shale industry received one-half of the investments made in industry, e.g. 58 % and 42 % in 1946 and 1950, respectively.

Table 2.

Breakdown of capital investments by administrative levels in 1945—50 (prices of 1945, in per cent)¹⁴

1945	1946	1947	1948	1949	1950	1946—50
Economic entities subordinated to all-Union Ministries						
53.2	59.8	68.0	75.6	62.6	56.2	65.8
Economic entities subordinated to so-called Union-republican Ministries						
19.4	19.6	15.0	12.4	20.9	28.1	18.4
Economic entities subordinated to republican Ministries						
27.4	20.6	17.0	12.0	16.5	15.7	15.8

This „altruistic“ forced investing, which was first and foremost directed at tapping Estonia’s oil shale resources, pursued two main goals:

1. **Creation of an ex-territorial economy sector in Estonia**, characterised by direct subordination to the central authority, orientation to export and low prices set on exported goods. For example, the pipeline for oil shale gas from Kohtla-Järve reached Leningrad in 1948 and Tallinn, only in 1953. Even in 1961, 62.5 % (from total production) or 333m cubic metres of oil shale gas went to Leningrad. The importance of Estonian oil shale gas to Leningrad and Estonia can be characterised with the facts, proudly presented by Dmitri Kuznetsov, then research worker of the Institute of Economics of the Academy of Sciences of the Estonian SSR: By the end of 1954, 2.5 million residents of Leningrad in 227,000 flats used Estonian oil shale gas, while in Tallinn, as of 1 November 1955, gas had been installed in 6041 flats with 28,000 residents. Thus, the number of residents of Tallinn consuming oil shale gas was one-hundredth of that of Leningrad. He added: „The residents of Leningrad greatly benefit from the installation of gas in their flats, as it is 4 or 5 times more economical to use gas than other fuels in Leningrad. Thanks to using gas, the residents of Leningrad could save more than 400m roubles in 1948—54.“ The gas from Estonia greatly helped Leningrad to reduce the need for transporting expensive fuels from distant regions. In 1953 alone, oil shale gas substituted for 265,000 tonnes of standard fuel, incl. 160,000 tonnes of petrol as standard fuel (114,000 tonnes in kind) and 55,000 of standard coal (80,000 tonnes of coal from Pechora mines).¹⁵ He adds: „Estonian oil shale is used as fuel at the Pskov Thermal Power Station, in plants and manufactures of Riga, Vilnius, Kaunas, as well as of other cities of Latvia, Lithuania and Leningrad Region.“¹⁶ In other words, the „investments allocated into Estonia“ were paid for with the exported oil shale and its products; Estonia did not profit therefrom.

2. **Assimilation of local population** by means of „socialist“ industrialisation of Estonian economy. As stated above, greater part (at least 90 %) of the massive increase (a quarter of a million) in the urban population in 1945—50 was caused by immigration, i.e. by influx of foreigners. In 1951—89, Estonia’s population increased by 466,600 inhabitants; 241,200 or 51.7 % of this figure resulted from immigration.

The main accent was placed on the purposeful transformation of the ethnic structure of North East Estonia. A spectacular proof of this is provided by the accusations of the Secretary of the Narva City Committee of the Estonian Communist Party Yeryomin, levelled at the Deputy Director Volkov of the Kreenholm Manufacture because he had complained to the former heads of the Central Committee of the EC(b)P that the so-called „old“ inhabitants of Narva could not get dwelling in Narva. He had suggested that inhabitants who return to the town should get 15—20 % of housings. Comrade Yeryomin motivated his accusations with the

Table 3.Increase in Estonia's population in 1951–89 (in thousands)¹⁷

	Total	Including:	
		Natural increase	Increase caused by immigration
1951–1955	58.5	30.5	28.0
1956–1960	59.7	34.2	25.5
1961–1965	75.1	31.9	43.2
1966–1970	75.0	27.4	47.6
1971–1975	62.7	29.8	32.9
1976–1980	41.7	21.2	20.5
1981–1985	48.2	25.2	23.0
1986–1989	45.7	25.2	20.5
1951–1989	466.6	225.4	241.2

argument that together with thousands of honest workers there lived not few members of the White Guard, spies and exploiters in Narva before 1940; the Soviet Narva does not want to see them any more. Should those **who have come from Leningrad, Novgorod, Pskov, and other honest Soviet patriots** (*my emphasis – K.K.*) who bore the brunt of war, suffered so much misery and distress during it, get a place to live and other benefits only after the so-called „old“ inhabitants of Narva have satisfied their appetites?¹⁸

Another matter is, to what extent oil shale then helped to conceal the desire to launch the production of uranium from Dictyonema shale. Later this production brought about an additional influx of labour and investments in power engineering, declaration of Sillamäe to be a closed town and formation of a loyal production area, free of Estonians, in the North East of Estonia.¹⁹

2.3. STRUCTURAL CHANGES IN ECONOMY

Thus, during the first after-war five-year period the base was laid for a production structure in Estonia, which clearly proceeded from the needs of the USSR as a whole and in which both the use of resources and the distribution of products were dictated by the central authority. The functional and organisational integrity of Estonia's economy was liquidated. The unitary administrative structure of the economy of the Soviet Union, lack of economic structural regulation criteria (as the prices were established on an administrative and voluntaristic basis) and making a

fetish of administrative central planning (while banning any self-regulation of economy) cancelled any effect, which had been sought through the selective development of priority branches. At the same time, the economy of Estonia was isolated from the world economy and rendered a closed one.

In the post-war development of Soviet Estonia's economy at least three periods can be discerned:

- 1) From the end of war till the mid-50s;
- 2) From the mid-50s till the mid-60s, and
- 3) From the mid-60s till 1989.

Each of these periods has its characteristic political and economic ideology and quantitative structural priorities. If we proceed from this classification, the first post-war decade described above can be regarded as years of nearly one-to-one introduction into Estonia of the economic model put into practice in the USSR in the 1930s. The years 1957–64, the period of the so-called national economy councils, can be provisionally regarded as a period, during which there was a striving for Republic-centred administration and balanced development of various branches of national economy (as far as this was possible in the totalitarian economic system). In 1965, national economic councils were abolished, and one can say that in the ensuing time period a special accent was laid on the catering for all-Union needs in the economy of Estonia. The national economy of Estonia was rendered a very abstract notion, a synonym of the economic conglomerate located in Estonia. The lack of Estonian own national economy was legalised in the last Estonian SSR Constitution (1978), § 16 of which said that: „The economy of the Estonian SSR shall be a component of the unitary national economy complex, which **includes all the segments of social production, distribution and exchange in the territory of the USSR** (*My emphasis. — K.K.*)” So, the Estonian national economy was defined constitutionally from so-called outside.

As said above, 38 % of all investments in 1946–50 (29–35 % in later five-year periods) were made in industry; e.g., the ratio of investments in industry and agriculture was 6.6:1. Thus, the so-called socialist reconstruction of Estonia's national economy was based on industrialisation; in the production aspect, the latter was based on oil shale, and in the political and organisational aspect, on catering for the needs of the Union. As to the nature of its national economy, Estonia was quickly transformed into an industrial-agrarian country (which had also been the objective of the Republic of Estonia in the end of the 1930s), but the high employment of labour in industry and agriculture and the under-development of the tertiary sector showed in the end of the 1980s that Estonia was 20 or 30 years behind the Scandinavian countries (Table 4).

Forced investments into fuel industry allowed to increase the production of this branch more rapidly (6.7 times in the fixed prices of the period)

Table 4.

Changes in the distribution of economically active population in Estonia and in some reference countries (in per cent, the total population is 100 %)²²

		Agriculture Forestry Fishery	Mining Manufacturing Energy Construction	Service activities
Estonia	1960	26.5	38.9	34.6
	1970	16.1	44.4	39.5
	1980	13.9	43.0	43.1
	1990	12.7	42.5	44.8
Finland	1970	22.6	34.6	42.8
	1990	8.4	31.0	60.6
Sweden	1970	8.1	38.4	53.5
	1990	3.3	29.2	67.5
Norway	1970	13.9	37.3	48.8
	1990	6.5	24.7	68.8
Federal Republic of Germany	1970	7.5	48.9	43.6
	1990	3.6	40.6	55.8
Austria	1970	14.5	42.3	43.2
	1990	7.9	36.8	55.3
Switzerland	1970	8.6	46.0	45.4
	1990	5.5	35.0	59.5
Poland	1990	25.8	37.3	36.9
Czechoslovakia	1990	11.2	45.2	43.6
Hungary	1990	18.8	35.4	45.8
USSR	1990	18.2	38.4	43.4

than that of any other in 1946–50, but the branch made up only 10 % of the total production of Estonia's industry, as it was then and also later considered that oil shale as a natural resource cost nothing (in 1955, the raw material and direct materials made up a mere 0.5 % in the structure of production costs in the oil shale mining industry).²⁰ Capital investments in power engineering, machine building and metal-working industry, as well as in building materials industry were also indirectly and at least partly related to the oil shale industry. In total, 24.9 % of the fixed assets of Estonian industry were made up by those of oil shale industry in 1950; in 1955, the corresponding figure was 24.0 %.²¹

Table 5.

The structure of the civilian industry of Estonia in 1950–89*

Total industry, including:		1950	1960	1970	1975	1980	1985	1989
		100	100	100	100	100	100	100
Power engineering	A	2.6	2.8	5.3	5.5	5.2	5.5	5.1
	B	1.0	2.0	6.4	6.5	6.2	5.3	4.7
Fuel industry	A	8.7	7.4	5.5	5.8	6.4	6.1	**2.2
	B	8.0	6.0	5.9	6.2	6.8	6.1	5.5
Chemical industry	A	1.8	2.4	3.1	3.2	3.2	3.4	**7.8
	B	2.0	3.0	3.1	3.1	3.1	3.4	3.3
Machine-building and metal-working industry	A	12.6	13.8	14.3	16.4	17.5	16.2	16.5
	B	5.0	6.0	10.5	12.2	14.4	16.0	17.2
Timber, cellulose and paper industry	A	14.6	9.7	8.2	7.6	7.4	8.3	8.8
	B	16.0	11.0	8.7	8.0	7.9	8.4	9.0
Building material industry	A	3.9	4.1	4.6	4.5	4.0	4.3	4.3
	B	3.0	4.0	4.8	4.7	4.4	4.3	4.4
Light industry	A	20.9	27.2	23.2	20.0	21.2	23.1	22.7
	B	31.0	35.0	28.2	24.5	23.4	23.1	22.7
Food industry	A	30.5	29.5	30.2	30.8	28.1	26.3	25.0
	B	34.0	33.0	30.4	30.5	28.0	27.2	26.0

*Rows „A” are given in the fixed prices of the corresponding year²⁶, and Rows „B” in the actual prices of 1985²⁷.

** There was a change in the sub-structure of the branches.

Besides the fuel industry, priority had also been given to increasing the output of light industry (“Kreenholm Manufacture” and „Balti Manufacture” were restored and developed with the aim of satisfying the needs of consumers all over the Union), building materials industry, machine building and metal-working industry and chemical industry. Table 5 displays changes in the production structure of Estonian industry in these years and later. It needs to be stressed here that the data include only the so-called civilian industry. We have no statistical data about the military industry, which was rather modestly represented in Estonia, if compared with other Soviet Republics.

Industrialisation of Estonia was carried out at the expense of other branches of economy, especially of agriculture, and, certainly, at the

expense of the people whose purchasing power remained low. From the events in agriculture, one has to mention, first of all, the controversial land reform of 1944—47, the policy of rooting out efficient agricultural production with high taxes imposed on the so-called kulak farms, and the forced collectivisation carried out mainly in 1949—50. In 1955, as a result of direct war losses and the „socialist reorganisation“ of agriculture, the sown area made up 85.2 % of that number in 1940, the number of cattle was 82.4 % (the number of cows being 65.7 %) and the number of pigs, 86.7 % of the corresponding number in 1940. Over these years, there was a decrease of 14.6 % in the production of meat and 28.6 %, of milk.²³

The Soviet agricultural and land reform was entirely subjected to ideological needs. While the authorities understood that small farms had no economic prospects, their fear for rebirth of capitalism was stronger than fear of the possible famine. Edgar Tõnurist, First Deputy Chairman of the Estonian SSR Soviet of Ministers in 1961—79, has admitted that in the then conditions a farmer in Estonia should have had at least 45—60 ha of agricultural land to make both ends meet, however, in order to justify the past agricultural policy, he said: „Allowing land to concentrate in private farms of this size or even larger **would have meant a new capitalist**

Table 6.

„Social structure“ of the production of some agricultural products in 1950—58³¹

	1950	1955	1958
Meat (thousand t)	82.1	95.2	111.3
out of that number, produced by:			
sovkhozes and other state farms	8.0	10.5	17.8
collective farms	15.5	26.0	26.8
private auxiliary productions, farms	58.6	58.7	66.7
Milk (thousand t)	508.0	558.1	734.0
from that amount, produced by:			
sovkhozes and other state farms	47.6	54.1	99.9
collective farms	178.3	188.6	263.3
private auxiliary productions, farms	282.1	315.4	370.8
Eggs (million pc.)	121.7	146.7	188.0
from that number, produced by:			
sovkhozes and other state farms	2.1	5.1	12.5
collective farms	12.3	24.0	32.4
private auxiliary productions, farms	107.3	117.6	143.1

differentiation in rural areas, together with all the accompanying vices, first of all, the abandonment of the union between the working class and the peasantry and directing the agricultural production towards capitalist development. (*My emphasis — K.K.*)²⁴ He drew the conclusion that „it was necessary to apply strict administrative and economic measures in order to limit the growth of kulak farms and to watch that no new kulaks would emerge from amongst peasants.”²⁵

The fact that ideological considerations dominated over the economic approach to agriculture arises from the circumstance that in spite of the nearly complete nationalisation and collectivisation of agriculture (99.3 % of farms had been collectivised by 1957) the share of the collectivised sector in the output of agriculture remained more than modest even in the end of the 1950s (Table 6).

With administrative means, absurdly low prices had been established for agricultural products, as compared to those for industrial products. In those times, it was a well-known „truth” that in the beginning of the 1950s industrial production made up more than 80 % of the total output of Estonia’s national economy.²⁸ The extremely low official procurement prices of agricultural products are very telling in this respect.

This type of industrialisation of Estonia has been summed up by Rein Taagepera in 1983 as follows: „It was an industry based on Russian investment and Russian labor, managed by Russians according to goals set by Russians, importing a large part of the raw materials from Russia, and exporting most of its product. The whole show was called „Baltic” industrial growth because the Soviets decided to run it on Baltic soil.”²⁹ Arnold Purre has said: „The only benefit that the Estonian nation derived from the quite massive Soviet industry in the Estonian territory consisted in the possibility to get employment and earn money for sustenance.”³⁰ Another matter is, what living standard one could afford for that salary, as compared to, for example, that in Finland. Obviously, the (often quite emotional) assessments given by Estonians living in exile widely differed from the ideological praises sung here in Estonia in glory of the achievements of the Soviet economy.

2.4. FAKE ECONOMIC AUTONOMY

In 1957, the system of national economic councils, in which attempts were made to give priority to territorial management, supplanted the former system of management by central authorities. Raising of the territoriality principle (the so-called Khrushchev model) to the foreground in the management of the national economy of the USSR required a new approach to the shaping of economic ideology and strategy also in the periphery. Arnold Veimer, Chairman of the National Economic Councils of the Estonian SSR during all its existence, formulated its objectives as follows:

„... We have the task of comprehensively developing the national economy of the Republic. We have to analyse, which branches of the national economy here have prospects to achieve all-Union significance, and which branches should only cater for everyday needs of the working people in Estonia. ... We have to analyse critically the existing structure of industry, its profile, in order to develop it knowledgeably and consistently, proceeding from the laws of positioning of socialist productive forces.“³²

In spite of all that, the formation of the National Economic Councils did not render the national economy of Estonia much more autonomous. Rather on the contrary, because the „Estonian SSR“ was in the economic context often degraded to „Estonian administrative economic region“. Here also, Arnold Veimer's contribution was noticeable. In 1961, he published a monograph „Комплексное развитие и специализация Эстонского экономического административного района“³³ (in Russian: Comprehensive Development and Specialisation of the Estonian Administrative Economic Region), which he defended as a Doctor's Thesis a year later. This serves as a basis for the assessment of Arnold Purre: „The reorganisation of the management of the Soviet industry gave good arguments to propagandists. They started to tell that the Estonian SSR had already been completely independent, but now it became even more independent under the management of the National Economic Councils.“³⁴ Raul Renter has said that the greatest difference from the former situation was, probably, „that after the 20th Congress of the CPSU local revolutionaries and self-seeking communists regained power in Estonia,“ taking over from the so-called Estonians from Russia.³⁵

Although the so-called Khrushchev model changed little in the management system of the Soviet-totalitarian economy, the period of the national economic councils (1957—64) was, in retrospect, relatively the most successful part of the entire Soviet period. At the same time, one has to take into account that this was a period of purely extensive development of economy. Industry, undoubtedly, made some progress (in these years, up-to-date power engineering and machine-building were created in Estonia) and, at last, some development was achieved in the agriculture. Namely, by the end of the 1950s, Estonia's agriculture reached the pre-war level of output, and by 1965 it exceeded that level by 1.3 times. Although in those years the major part of investments were still made in exporting branches (in 1960 and 1965, 58 % and 61 % of investments, respectively, were made in such capital-intensive branches as power engineering, fuel industry and fishery oriented to open sea fishing), the economic relations of Estonia were no more that simple giving-and-taking practised under the name of „sisterly assistance“ in the first post-war decade. Moreover, in 1956 measuring of Estonian national economy began: that year, the calculation of net and gross material product was introduced (with the use of the then methodology, of course).

It is again doubtful, to what extent we can trust and how do we have to interpret those data; for example, to what extent military expenses were included in those amounts.

The qualitative and quantitative changes in the national economy of Estonia in those years can largely be attributed to the strengthening of the Republic-centred management (although the economy remained command economy). In 1958–62, 98–99 % of the industrial output was made up by the enterprises subordinated to the Ministries of the Estonian SSR; this is especially remarkable in comparison with the about 10 % after 1965 (Table 7). At the same time, the „local“ management and the changes in the structure of the industry of the Estonian SSR brought about the highest immigration wave in the post-war years (see Table 3).

Table 7.

Structure of civilian industry of Estonia according to the form of subordination of enterprises in 1955–89 (in per cent)³⁶

	Total industry, including:	enterprises subordinated to all-Union Ministries	enterprises subordinated to Union-republican Ministries	enterprises subordinated to republican Ministries
1955	100	23.6	...	...
1960	100	1.2	—	98.8
1965	100	28.6	57.5	13.9
1970	100	23.5	65.9	10.6
1975	100	30.5	57.8	11.7
1980	100	27.6	59.5	12.9
1986	100	29.2	61.5	9.3
1987	100	29.2	62.2	8.6
1988	100	29.0	56.5	14.5

2.5. YEARS OF „DEVELOPED SOCIALISM“

In 1965, the system of national economic councils was again replaced by the former ministerial management system and Estonia's economy was for the most part subjected to the management by all-Union Ministries and combined management by all-Union and Union-republican subordinated Ministries (Table 7). At the level of legal acts, the highest body of executive power of the Soviet Republics, the Soviet of Ministers of a Republic, was at best equated to all-Union branch Ministries and public agencies, as testified by the traditional list in all-Union normative acts:

„... The Ministries and Public Agencies of the USSR, as well as the Soviets of Ministers of the Soviet Republics ...”.

Together with the triumph of the so-called concept of developed socialism, economic progress showed signs of retardation (the 1965 economic reform, which brought some market stimuli into the Soviet economy, at first helped to keep up the development rate) and qualitative setbacks appeared: in the middle of the 1970s there was a rapid decrease in the development rate of economy and some signs of economic degradation emerged. In Estonia, there were signs of retardation of technical progress, especially in the machine-building and metal-working industry and, as Estonian products were losing their competitiveness, there was a decrease in the export capacity. From the widely advertised and diverse machine-building production of Estonia, only electric motors of Volta Factory reached the market of developed industrial countries, mainly as components of machines and pieces of equipment exported from other Soviet Republics.

As to the retardation of technical progress, a decrease in the share of new products in the output of machine-building enterprises was evident. Functional obsolescence of the products increased gradually, as the average production age of products was increasing and antiquated

Table 8.

Breakdown of the products by their number of years in production. Results for machine-building enterprises of Estonia in the area of government of all-Union Ministries in 1970–89 (in per cent)³⁸

	Total output	Among that number, the products launched:		
		within the last 5 years	6–10 years earlier	more than 10 years earlier
1970	100	46.6	36.1	17.3
1975	100	49.6	34.9	15.5
1976	100	35.0	40.1	24.9
1977	100	29.5	44.0	26.5
1978	100	31.6	36.7	31.7
1979	100	35.1	32.7	32.2
1980	100	27.9	37.9	34.2
1985	100	51.4	25.3	23.3
1986	100	42.3	33.1	24.6
1987	100	48.9	27.3	23.8
1988	100	56.5	24.8	18.7
1989	100	54.6	22.5	22.9

machines, pieces of equipment, appliances and measuring instruments tended to remain in production (Table 8). Introduction of new products was slow; in Estonia, it usually took 4–6 years to launch a new product into production; products intended for export took even more time. The share of novel inventions among the new products launched into production was extremely low. For example, in 1981–85 (i.e. in the 10th five-year period) such products made up only 10.8 % of those launched into production in the machine-building and metal-working industry of Estonia. Yet, only such products could be considered, in principle, really competitive on the world market, because the global novelty of such products was at least officially assured and patent protection could be sought for them.³⁷ In 1979–82, there was a decrease by more than one-fifth in the export of Estonian production.

The seemingly positive trends in the late 1980s, when some growth in the export of machines and pieces of equipment was demonstrated, proceeded, to a great extent, from statistical manipulations, which had little to do with the reality. In a situation where at best 3–4 % of the produced machines and appliances were exported (mainly to the socialist countries), the official statistical data showed that the share of the exportable products in 1989 was 35.8 %.³⁹

The scarcity of qualified labour already became a problem, especially in producing exportable goods in the machinery and metal-working industry, because in this branch exportable goods are substantially more labour-intensive than those intended for the domestic market.

The loss of competitiveness of Estonia's economy could also be due to the circumstance that in the 1980s only 2–3 % of the industrial production was sold on foreign markets (Table 9) and only 0.4–0.5 % was sold for freely convertible currency. As Soviet producers were isolated from the world economy and, thus, also totally protected against all global competition, they became complacent in the USSR internal market, where the consumers accepted everything. This led to the increasing technological and economic backwardness of the Estonian industry, degradation of production culture and loss of competitiveness on foreign markets. In the second half of the 1980s, the value of Estonian products sold for freely convertible currency totalled USD 50–60m; the resulting *per capita* value is nearly 100 times lower than the respective export revenue in Finland.

Table 9.

Share of export in the realisation of the output of Estonian industry in the 1970s and 1980s (in per cent)⁴⁰

1970	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
5.0	3.4	2.4	2.1	1.9	1.9	2.0	2.2	2.6	2.9	2.7	2.3

In the 1980s, the seemingly well-developed agriculture was not longer able to produce enough food products for the people of Estonia: even the milk and meat for the Estonian market were partly produced with the use of imported fodder. The agriculture, developing in the conditions of total customs protection and accustomed to producing for the USSR bottomless internal market, was losing any resemblance to real agriculture. Instead, it was half-industrial transformation of the imported fodder grain (by 1987 and 1988, its imports totalled 1.3 million tonnes) into meat and milk, which in turn was delivered to all-Union funds.

2.8. CLOSED ECONOMY

The Estonian economy was open only in the context of the internal market of the USSR. Indeed, Estonia was one of the Soviet Republics with most intensive economic relations. According to the detailed input-output balance based on the latest inventory data of 1987, Estonia had the leading position among the Soviet Republics with respect to its *per capita* import and export amounts, 2324 and 1883 roubles, respectively. The ratio of total exports to GDP (which is used in international comparisons) was 49–50 % in 1987–89 (without the export of services); this number was actually very high. In 1987, 41 % of the industrial output of Estonia was exported and 45 % of the industrial products consumed in Estonia had been imported.

The isolation of Estonian industry and economy as a whole is further illustrated by the fact that in most enterprises producing for foreign markets (so-called external export), the share of such production in the total production of the enterprise never exceeded 3–5 % (the median measuring the average share of external export in the total output of Estonian enterprises producing for export outside Soviet Union was 1.8–2.7 % in 1975–88); there were only about ten enterprises, in the production of which the share of external export exceeded 10 %.

Economic relations of Estonia during these fifty years were almost entirely limited to those with the East, due to the autarchic character of the entire economic policy of the USSR. (Such self-isolation from the world economy can be regarded as conscientious or sub-conscientious manifestation of the instinct of self-preservation of the Soviet regime.) **To Estonia the loss of sovereignty meant also isolation from the world market during nearly fifty years.** The „close sisterly cooperation with other Soviet Republics“ had to substitute for the former relations with the entire world. The trade with the East (internal export and import) prevailed both in the export and import (Table 10).

Table 10.

Geographical breakdown of Estonia's import and export in 1956–87 (in per cent)⁴¹

	1956	1961	1966	1972	1977	1982	1987
Export:							
Into other Soviet Republics	97.6	92.7	89.0	91.4	92.9	94.6	92.7
Into foreign countries	2.4	7.3	11.0	8.6	7.1	5.4	7.3
Import:							
From other Soviet Republics	95.3	88.3	87.3	80.7	81.7	80.9	81.8
From foreign countries	4.7	11.7	12.7	19.3	18.3	19.1	18.2

As the unitary economic system of the USSR did not actually recognise the existence of individual Soviet Republics, it is quite obvious that there could be no economic relations between the Soviet Republics. These were essentially an ideological fiction, non-existent even for the official statistics. (Statistical information of that kind, expressed in statistical money measures and meant „for official use only“, was collected in 1960–80 only for compiling the input-output balance of gross material product once in 5 years.) Economic relations between Estonia and Latvia (or Ukraine, or Georgia etc.) were not relations between them as republics; rather, these could be better defined as an arithmetic sum of deliveries done by enterprises located for no particular reason in Estonia and Latvia (or Ukraine, Georgia,...) within a system managed from Moscow with the use of „funds and limits“ (i.e. allotted stocks). Instead of fostering relations with the world, local enterprises and organisations had to negotiate with all-Union foreign trade associations, which represented the state monopoly on foreign economic relations.

2.7. BALANCE OF IMPORTS AND EXPORTS

As economic relations between the Soviet Republics were not clearly defined, this area became a breeding ground of ideological speculations. Normal flow of goods between regions were time and again to be interpreted as mutual sisterly assistance, although no actual facts were generally provided. In the end of the 1980s, however, Mikhail Gorbachev, Secretary General of the CPSU and President of the USSR, reproached Estonia for „living on credit“, which launched hot debates. The balance

of imports and exports was widely treated by Estonians living in exile; however, these treatments tended to be naive and remained at the level of speculations. The best sum-up of the interpretation difficulties of the economists living in exile comes from Agu Kriisa: „Usually, a high level of exports is positive, as it allows a country to import goods which cannot be produced locally. Fulfilment of Moscow’s plans is, however, of no benefit to Estonian people, as Moscow also prescribes what and in which amount Estonia may import.”⁴²

Because of the administrative pricing method in the USSR, it was neither possible, nor necessary to assess the equality of imports and exports of a Soviet Republic — this was excluded *a priori*. The actual ratio of imports into and exports from Estonia was essentially determined (as with other Soviet Republics) by the production structure shaped by the central authority of the USSR in its own interests. The administrative prices did not generally reflect the actual value of produced and consumed goods. The import-export balance of Soviet Republics was further distorted by the regional statistical redistribution of the foreign trade revenue of the USSR; each Soviet Republic’s share of that revenue did not depend on its own direct or indirect efficiency in exporting its goods. The statistical information that was collected once in five years described only the flows of goods, as organised by the state; no attempts were made to calculate the balance of payments. Formally, the statistics on the ratio of produced and consumed national income also illustrated the „living on credit” (Table 11), however, those data had hardly anything in common with the real economy. On the other hand, Eduard Poom maintained in his analysis of the national income parameter that in 1970, for example, the central authority left in Estonia only 32 % of the national income produced here, while „the Kremlin expropriated and carried away the remaining 68 % of the national income without paying any compensation.” His calculations are also open to criticism.⁴³

Table 11.

National income produced and consumed in Estonia in 1956–89 (in the prices of the corresponding year, millions of roubles)⁴⁴

	National income produced	National income consumed	Balance
1956	743.4	...	...
1957	804.4	...	...
1958	900.2	...	...
1959	942.9	...	...
1960	984.8	...	...

	National income produced	National income consumed	Balance
1961	1070.3	1138.2	-67.9
1962	1141.4	...	...
1963	1212.7	...	...
1964	1318.8	...	...
1965	1488.1	1384.8	+103.3
1966	1554.5	1489.0	+65.5
1967	1719.0	1715.3	+3.7
1968	1845.6	1843.2	+2.4
1969	2009.7	1962.8	+46.9
1970	2164.8	2184.0	-19.2
1971	2278.7	2288.9	-10.2
1972	2265.8	2331.6	-65.8
1973	2366.4	2504.8	-138.4
1974	2544.1	2524.9	+19.2
1975	2617.9	2623.7	-5.8
1976	2791.7	2688.5	+103.2
1977	2889.4	2866.6	+22.8
1978	2954.2	2943.1	+11.1
1979	3056.3	3226.2	-169.9
1980	3222.0	3358.6	-136.6
1981	3333.5	3498.7	-165.2
1982	3398.1	3586.6	-188.5
1983	3678.6	3825.2	-146.6
1984	3761.4	3985.7	-224.3
1985	3605.1	4084.0	-478.9
1986	3867.5	4297.0	-429.5
1987	4067.4	4333.3	-265.9
1988	4061.8	4624.7	-562.9
1989	4386.1	4959.6	-573.5

The column „Balance“ in Table 13, thus, shows whether import or export of resources (goods, services and financial resources) formally prevailed, based on the administratively set prices for the corresponding year. In addition, it should be noted that although the formal prevalence

of import was rapidly increasing since the middle of the 1970s, this was, among other factors, caused by a trend in prices, which was unfavourable for Estonia. Namely, the prices of imported goods (raw materials, energy, industrial and agricultural equipment) grew more quickly than those of the exported production; this can be seen from a change in the import and export balance in the fixed prices of 1973.⁴⁵ Thus, in the context of prices, the production structure of Estonia grew more and more inefficient. This can be measured with the ratio of price indexes of produced and consumed national income, analogously to the terms-of-trade logic in international trade, which uses the ratio of price indexes of exported and imported goods; this ratio was 0.844 in 1971—88. In principle, this ratio should show that Estonia's economy could not adapt to the price changes. However, it would be unjust to reproach Estonia for that, because the unitary system of the USSR treated Union republics as a mere abstraction and equilibrium prices were unknown.

Any attempts to assess transfers of the revenue created in Estonia via the budgetary system to the USSR state budget, and transfers of the means allotted in the USSR state budget to the Estonian SSR state budget should be considered in the same logical context. Arno Susi has calculated that Estonia transferred the following amounts into the USSR state budget: 1.9b roubles of the income tax collected from the people, 8.2b roubles of the turnover tax, and 3.9b roubles collected as taxes on the earned profit from enterprises. To these sums, we have to add childlessness tax and agricultural tax, as well as the differences between the procurement prices and selling prices of meat and milk products and potatoes, which the Estonian SSR put at the disposal of the central authority. On the other hand, Arno Susi has calculated that Estonia got 3.4b roubles as pensions and 3.9b roubles as net investments from the state budget of the USSR.⁴⁶

Such calculations should now be regarded as an expression of the emotional atmosphere of the period when the independence was regained; their statistical accuracy and comprehensiveness are doubtful, and their actual value and possibilities for adequate interpretation are, thus, questionable, to say the least; in addition, even if various denominations of rouble are taken into account, its purchasing power changed greatly over the time.

3. WHAT WAS THE DEVELOPMENT LEVEL OF THE ECONOMY OF THE ESTONIAN SSR?

It was and it is quite difficult (if possible at all) to quantitatively assess the real cost of the Soviet administration and the damages caused by the economic colonisation. Like the economy of the USSR, that of the Estonian SSR was also surrealistic by its very nature. On one hand, it

was characterised by remarkably high natural production figures (which potentially gave Estonia a high world ranking), on the other hand, there was a general and increasing shortage of every kind of resources and consumer goods. Thus, in 1988 the *per capita* production of electricity in Estonia was 11,188 kWh (the figures for Finland, Sweden and FR Germany are 10,846, 20,104 and 7101 kWh, resp.); of meat, 145 kg (73, 67 and 96 kg); of milk, 818 kg (556, 406 and 405 kg); of butter, 20.7 kg (11.0, 8.1 and 6.9 kg). Estonia also produced 762 kg of cement, 156 kg of mineral fertilisers, 122 m² cotton material etc. *per capita* in 1988.⁴⁷

The accuracy of these data is again questionable, but it was a production based, first of all, on the central planning, production for the production's sake, and the manufactured products could be marketed solely on the bottomless and all-accepting closed internal market of the USSR. These products were not competitive at the world market, that is, could not be sold for freely convertible currency. The uncompetitiveness of Soviet Estonia's economy on the world market — and now also on the internal market — became evident only after the Soviet economic system collapsed and Estonia regained independence.

Any conclusions about the actual sums should be taken with great caution, as these sums were based on administratively established, i.e. artificially fixed prices, which were biased in favour of manufacturing industry. The parameter GNP (Gross National Product) was in the USSR taken into use only in the end of the 1980s; it could be used in international comparisons, however, as it was expressed in roubles and calculated on the basis of internal market prices, it was still devoid of any information. It has no equivalent value in dollars, because rouble and dollar had no relation between them that could be accepted in such calculations and relied upon. Rouble had no actual market price, and until the beginning of the 1990s, even the black market price could not be regarded as an exchange rate of rouble. In 1987, the so-called differentiated currency coefficients were introduced in the USSR for measuring the export income of enterprises (in fact, the actual value of exported products in freely convertible currency, rather than in internal market roubles, was recognised). These were, in effect, product-based foreign exchange rates, and the number of such coefficients, differentiated by industry branches, enterprises and product groups, rapidly began to grow. According to various sources, it reached 3000 by the end of 1987, and the value of the coefficients ranged from 0.2 to 6.6.⁴⁸

The *per capita* GNP of Estonia in 1989 was 4030 roubles⁴⁹. According to the official exchange rate in the end of 1989, this was equal to USD 6400, however, according to the so-called tourist exchange rate introduced by that time, it was equal to USD 640. In the former case, Estonia would have been the 35th to 40th in the ranking of the countries of the world, in the latter case, the 110th to 120th. By the way, at the first

currency auction of the USSR on November 3, 1989, the average price of US dollar was 24.3 roubles.

The difficulties in adequately assessing the Gross National Product or the Gross Domestic Product (GNP or GDP) and, thus, the actual development level of the economy of Soviet Estonia are best illustrated by the widely differing values of the assessments. The values were overestimated in the USSR, as well as in the West. As an example of the Soviet ideological euphoria, we can quote the words by Bruno Tamre, official of the State Planning Committee of the Estonian SSR, when addressing Estonians living abroad. According to him, Estonia's *per capita* national income places it "... among the top ten countries in the world, higher than such well-developed countries as the United Kingdom, Norway, Finland."⁵⁰ A. Fedotov made a similar statement about Latvia in 1988, when he tried to prove that any strivings of the Baltic states for independence were doomed. He maintained that the *per capita* national income of Latvia (and, hence, of Estonia) made up more than 70 %, in comparable prices, of the corresponding figure of the USA.

However, Western experts' assessments were no more correct. As late as in 1991 the newspaper *European and Business* assessed the *per capita* national income of Estonia to be USD 8340.⁵¹ According to this parameter, Estonia would have been comparable to Austria. This was 3.4 times the corresponding figure for Hungary and 4.5 times that for Poland. „PlanEcon Report“ had the data of the CIA at its disposal and assessed, on the basis of the purchasing-power parity, the *per capita* GNP of Estonia to be USD 6240 in 1989, while the average figure for the USSR was believed to be USD 5000.⁵² And this in a situation where shortages had become general and the processing industry had nearly entirely lost its competitiveness on the world market.

Assessments of Estonia and the then USSR were as erroneous as those of the German Democratic Republic made under the spell of reunification of Germany. According to approximate assessments, the *per capita* GNP of Estonia in the end of the 1980s was USD 2200—2300, which can be compared with the corresponding figures for Hungary (USD 2450 and 2560 in 1988 and 1989, respectively).⁵³ This assessment is further supported by the figure USD 1780 for the USSR in 1989, proposed by the International Monetary Fund and the World Bank.⁵⁴

4. THE COST OF THE FIFTY YEARS

Considering the above, we have to conclude that the damage done to Estonia's national economy in 1940—90 cannot be unambiguously assessed either on the basis of the value of nationalised, collectivised, confiscated, exported or destroyed assets, or on the flows of money and goods in the USSR (either in roubles, or in reichsmarks or dollars). Rather,

the damage manifests itself in the present-day backwardness of Estonia's economy, as compared to the economies of other Nordic countries, and in the profoundness of the transformation crisis in the beginning of the 1990s (great fall in the production capacity, hyper-inflation, prevalence of early capitalistic morality etc.). It is incorrect to ascribe that crisis to any management errors or incorrect decisions in re-introducing of market economy in Estonia. Let us give here, as background to the data on Estonia provided above, the data of the World Bank about the *per capita* GDP of Finland, Sweden and Denmark in 1989: USD 22,060, 21,710 and 20,510, respectively (see also Table 12).

On the basis of these differences, a question arises: „**What has Estonia lost because it could not develop in the political and economic conditions enjoyed by Finland?** (To an average Estonian, Finland has served as a synonym for successful development.) On the basis of these figures, we can approximately assess the economic damage (or the income not received in the past, as well as in the near future) inflicted on Estonia by these fifty years of forced Soviet development and incorporation into the USSR. Finland serves as an excellent reference country for Estonia, as the development levels of these two countries were nearly equal before WW II, their natural and social development conditions were similar, and Estonians and Finns used to share many values because of

Table 12.

Per capita GNP in some Baltic Sea countries in 1993–98 (USD)⁵⁵

	1993	1994	1995	1996	1997	1998
Actual prices (World Bank methodology)						
Estonia	2 720	2 820	2 860	3 080	3 360	3 360
Latvia	2 310	2 290	2 270	2 300	2 430	2 420
Lithuania	1 340	1 350	1 900	2 280	2 260	2 540
Finland	19 400	18 850	20 580	23 240	24 790	24 280
Sweden	24 740	23 630	23 750	25 710	26 210	25 580
Denmark	26 580	28 110	29 890	32 100	34 890	33 040
On the basis of the purchasing-power parity:						
Estonia	6 860	...	4 220	4 660	5 090	7 563
Latvia	5 170	5 170	3 370	3 650	3 970	5 777
Lithuania	3 160	32 40	4 120	4 390	4 140	6 283
Finland	15 230	16 390	17 760	18 260	19 660	20 641
Sweden	17 560	17 850	18 540	18 770	19 010	19 848
Denmark	18 940	20 800	21 230	22 120	23 450	23 855

their national and cultural similarity. We can measure this quantitatively by using the value of GNP/GDP not received.

As there are no suitable statistical data about Estonia, we necessarily have to resort to some simplifications to make such calculations possible. Thus, the author of this report has, in an earlier treatment⁵⁶ on the years of 1969–87, conditionally considered the development level of Estonia and Finland in 1968 as equal (there were logical grounds to believe that the *per capita* GNP of these two countries was USD 1720 in current prices that year) and further supposed (again a simplification) that the increase in this figure in 1969–87 in Estonia was linear. The *per capita* GNP in 1987 was estimated to be 3700 roubles in Estonia and various exchange rate scenarios were used to find out this value in US dollars. In the most plausible version, Estonia's *per capita* GNP was taken to be equal to that of Hungary (USD 2240). In that case, the calculated exchange rate in 1987 would have been 1 US dollar = 1.65 roubles; the exchange rates of the years between 1969 and 1987 were interpolated with the use of the official exchange rate in 1961: 1 US dollar = 0.90 roubles. As the *per capita* GNP of Finland in 1987 was already USD 14,370, the calculated (with the above-described simplifications) loss in the GNP of Estonia would have been 153 (± ?) billion US dollars in 1969–87 or 73 % of the GNP value, which Estonia could have reached „in Finnish conditions“. The significance of this figure is also illustrated by the fact that only in 1996 did the GNP of Estonia exceed USD 4b. To this damage, we have to add the damage done to the environment by polluting and wastefully exploiting natural resources, which has still not been compensated for, as well as the damage proceeding from the distortion of moral values of people.

This is but one example about a relatively short period, and a quite hypothetical one, as such; we can estimate its statistical reliability, but these values, like the model itself, have only „theoretical“ meaning. The question is in the basic presumptions of our model. The selection of those presumptions is extremely conditional and subjective. If one considers that Eurostat estimated the *per capita* GDP in 2004 to be 50.5 % of the average value of the European Union (on the basis of the purchasing-power parity; in the current prices which show the international purchasing power of an economy, the figure is about half of that), the total damage to Estonia resulting from the income not earned is even greater. The *per capita* GDP of Estonia is lower than that of any old Member State of the EU (the corresponding figures for Portugal and Greece in that year were 73,4% and 81,2 %). For comparison, Finland exceeded the average level of the European Union by 15 % respectively.

If the history had taken another turn and Estonia could have developed in the same political and economic conditions as Finland, and supposing that the development level of Estonia were equal to that of Finland

(measured as the *per capita* GDP), then Estonia's GDP should have been EUR 37.2b in 2003. The actual GDP of Estonia was only EUR 8.0b or one-fifth of that hypothetical value that year. In 2003 the *per capita* GDP of Estonia and Finland were 5941 ja 27 496 euros respectively.

Ülo Ennuste⁵⁷ has employed a similar approach to assess the long-term damage done to Estonia's economy, that is, he compared Estonia's development with the market-based development of neighbouring countries.

The development of Estonian economy after Estonia regained independence is illustrated in Table 13 with the aid of comparative assessments of the *per capita* GDP of the former USSR republics, made by The Economist Intelligence Unit Ltd in 1998 on the basis of the purchasing-power parity (see also Table 12). Pursuant to these data, Estonia was the only former Soviet Republic that managed to exceed the level of 1989 after the transformation crisis (the lowest point of the crisis in Estonia was in 1993).

Table 13.

The *per capita* GDP in the former USSR republics in 1989–97 (on the basis of the purchasing-power parity, in USD)⁵⁸

	1989	1990	1991	1993	1995	1997
Estonia	4914	4691	4375	3803	4174	5118
Latvia	5094	5469	5114	3070	3313	3847
Lithuania	5505	5412	5278	3681	3612	4148
Belarus	4832	4878	5004	4228	3507	4131
Ukraine	3314	3446	3579	3227	2312	2129
Moldova	3664	3723	3193	2362	1681	1637
Georgia	4296	3919	3256	1407	1009	1303
Armenia	5058	4804	4467	1853	2122	2389
Azerbaijan	3074	2804	2879	1476	986	900
Kazakhstan	4342	4477	4302	3316	2421	2587
Uzbekistan	2215	2312	2341	2048	1952	1998
Kyrgyzstan	2553	2706	2523	1863	1336	1529
Turkmenistan	2797	2903	2806	2195	1513	1107
Tajikistan	1917	1920	1769	915	693	680

Information about further studies into economic losses can be obtained from the Occupation Museum (www.okupatsioon.ee).

- ¹ Laar, Mart. 2000, 869–875.
- ² Sources: Recueil mensuel du Bureau Central de Statistique de l'Estonie, 1939... 1940; Estonian National Archives, State Archive: c. 1831, i. 1, u. 4523 (September 1939 – November 1940).
- ³ Köll, G. J. K., 1956; Nurk, 1956 and 1959; Nõu, 1956.
- ⁴ Nurk, 1956, 127.
- ⁵ Eesti NSV ajalugu, 1971, 569.
- ⁶ Tõnurist, 1967, 16.
- ⁷ Eesti rahva kannatuste aasta, 1995, 832–834; see also: Nõu, 1956.
- ⁸ Народное хозяйство СССР в 1958 году, 1959, 627, 631.
- ⁹ Veimer, Arnold, 1949, 51–52.
- ¹⁰ О газификации Ленинграда, 1945, 37.
- ¹¹ Eesti NSV ajalugu, 1971, 601.
- ¹² Sinilind, Sirje, 1983, 37.
- ¹³ О газификации Ленинграда, 1945.
- ¹⁴ Source: Brandt, 1957, 83; Veimer, Korrovits, 1952, 83.
- ¹⁵ Kuznetsov, 1956, 63.
- ¹⁶ Ibidem, 63.
- ¹⁷ Source: Statistical yearbook 1994, 1994, 49, 75–76 (calculated by the author).
- ¹⁸ „Нарвский рабочий”, 25. 04. 1950.
- ¹⁹ See, e.g. Vseiov, 2001, and Maramäe, 2000, and 2003.
- ²⁰ Eesti NSV rahvamajandus, 1957, 68.
- ²¹ Ibidem, 32.
- ²² Source: Eesti NSV rahvamajandus (the corresponding years); Statistika aastaraamat 1991, 1991, 60; Statistisches Jahrbuch für das Ausland 1992, 1992, 21, 237–238.
- ²³ Nõukogude Eesti saavutusi 20 aasta jooksul, 1960, 41–43.
- ²⁴ Tõnurist, Edgar. 1967, 20–21.
- ²⁵ Ibidem, 20.
- ²⁶ 1950 and 1960: EE 2, 1987, 321; 1970–1989: Eesti tööstus, 1990, 17.
- ²⁷ Calculated by the author.
- ²⁸ Šustikov, 1955, 14; Brandt, 1956, 34.
- ²⁹ Misiunas, Romualdas, Taagepera, Rein, 1983, 107.
- ³⁰ Purre, Arnold, 1965, 155.
- ³¹ Source: Народное хозяйство Эстонской ССР за 1958 год, 1959, 82–84.
- ³² Veimer, Arnold, 1958, 92–93.
- ³³ Veimer, Arnold, 1961.
- ³⁴ Purre, Arnold, 1965, 112.
- ³⁵ Renter, Raul, 1991, 19.
- ³⁶ Source: Eesti NSV rahvamajandus (1968...1988).
- ³⁷ Kuk, Kalev, 1985, 11–13.
- ³⁸ Source: Kuk, Kalev, 1985, 12; Eesti NSV rahvamajandus (the corresponding years).
- ³⁹ Eesti statistika aastaraamat 1990, 1991, 188.
- ⁴⁰ Source: Studies by the author in the Estonian Institute of Economics (manuscript).
- ⁴¹ Source: Kuk, Kalev, 2000, 176.
- ⁴² Kriisa, Agu, 1984, 61.
- ⁴³ Poom, Eduard, 1985, 16.
- ⁴⁴ Source: Баланс народного хозяйства Эстонской ССР, 1975, p. 33 (1956–1970); Eesti NSV rahvamajandus (the corresponding years).
- ⁴⁵ Kuk, Kalev, 1987, 44–49.
- ⁴⁶ Susi, Arno, 1990, 48.
- ⁴⁷ Eesti statistika aastaraamat 1990, 1991, 413–418.
- ⁴⁸ Новый ..., 1988, 103.
- ⁴⁹ Statistika aastaraamat 1991, 1991, 4, 50.
- ⁵⁰ Tamre, Bruno, 1980, 25–26.

⁵¹ European and Business, 25.—27. 10. 1991.

⁵² „PlanEcon Report“, 1990, No 52, 6.

⁵³ World Bank Atlas 1990, 1990, 7.

⁵⁴ The Economy of the USSR, 1990, 51.

⁵⁵ Source: World Bank Atlas (1996—2000).

⁵⁶ Kukk, 1990.

⁵⁷ Ennuste, Ülo, 1993, 1—4.

⁵⁸ Source: The Economist Intelligence Unit Ltd., 1998, 25—27.

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