

RUSSIAN MAECENAS

April 2017

Issue 6/25

With
Russian
pages



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Sire! *p. 4*

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with Gryphons *p. 16*

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Hear *p. 36*



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ST PETERSBURG

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RUSSIAN MAECENAS

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Cover images:

'I love thee, Peter's grand creation'.
Photo: Alexander Petrosyan.

Welcome!

Will the Bridges Sing?

A light festival can be held anywhere in the world. Inventing a truly *St. Petersburg* holiday is not easy. The city symbols are in sight (the white nights, the Neva, the Admiralty Needle...), and it seems that all the stories have already been used. The creators of the Singing Bridges holiday have found a new one. Last year, the idea of drawing the St. Petersburg bridges in tune and bringing music into this romantic ritual was implemented for the first time.

From July to September, the bascules of the Palace Bridge rose to the sounds of Russian musical classics including Tchaikovsky, Rachmaninoff, Mussorgsky, Borodin, Rimsky-Korsakov, and Glier. One week in September was dedicated to Andrey Petrov. Melodies from *Beware of the Car* and *Autumn Marathon* floated over the decks of tourist ships. According to the composer's wife Natalya Yefimovna, Andrey Pavlovich would dream of hearing his music in such a 'film'.

It is not even a sound show as the organizers call it but rather a cultural and educational activity. A perfectly Petersburg one. With a rich potential for development. One could open every new season of the singing bridges with a live music concert. Announce an international



(or folk) contest of melodies for each season with an expert jury that would choose the winner.

Of course, assembling the equipment and the distributed sound system cost money. Last year, there was a sponsor. This year, there is not one so far. Yet the prospects of creating a new city brand are obvious for professionals. In the first season, two million people visited the show.

The idea of the Singing Bridges was invented by Sergey Serezleyev and implemented by Lyudmila Yakovleva. Their principle is not taking any money from the state for the celebration. That means a need for partnership schemes and a combination of efforts and interest of the government, business, and public structures.

This is why we are writing about it in our social partnership magazine, which has been holding the Maecenas Day, a St. Petersburg holiday with international participation, for the 12th time. Soon the white night will spread over the Neva again, as it is sung in a popular song.

*Arkady Sosnov,
Editor-in-Chief
of Russian Maecenas*



HERITAGE

THANK YOU, SIRE!

What Peter I's visit to Paris meant for
St. Petersburg and Russia / p. 4



EFFECTIVE PRACTICE

A POLYTECHNIC PLANET

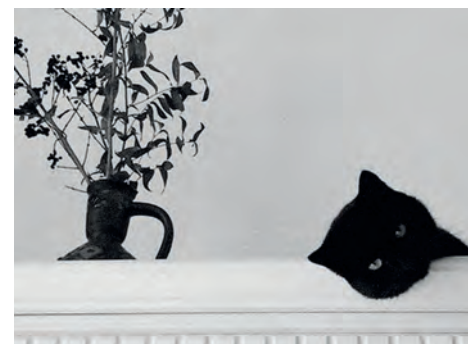
Graduates are the pride of the country's
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STREET OF MERCY

'LYONKIN KOT' AS PER SCIENCE

A Professor of Economics has launched
a foundation to help homeless animals
in memory of his son / p. 30



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AN ARMCHAIR WITH GRYPHONS

Nothing is a coincidence in the life of collector
Yury Abramov / p. 16



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LET THE WORLD HEAR

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The main thing is not to consider
your fate broken / p. 46

MAGIC SYMPHONY

The first music festival for children with
hearing difficulties / p. 48



**You can't educate people point-blank.
That is why we have gone around schools
with exhibitions. We don't tell the
children to love animals. We tell them:
draw them, and then we'll have a look.**

*Professor Valery GORDIN, Deputy Director
of the Higher School of Economics
in St. Petersburg, founder of the charitable
organization for help homeless animals
in memory of his son / p. 30*

Thank you, Sire!

WHAT PETER I'S VISIT TO PARIS MEANT FOR ST. PETERSBURG AND RUSSIA

Evgeny ANISIMOV, writer, Doctor of History, Supervisor of Studies at the Peter the Great Institute. Illustrations: the State Hermitage, from Sergey Mezine's book *Peter I in France*



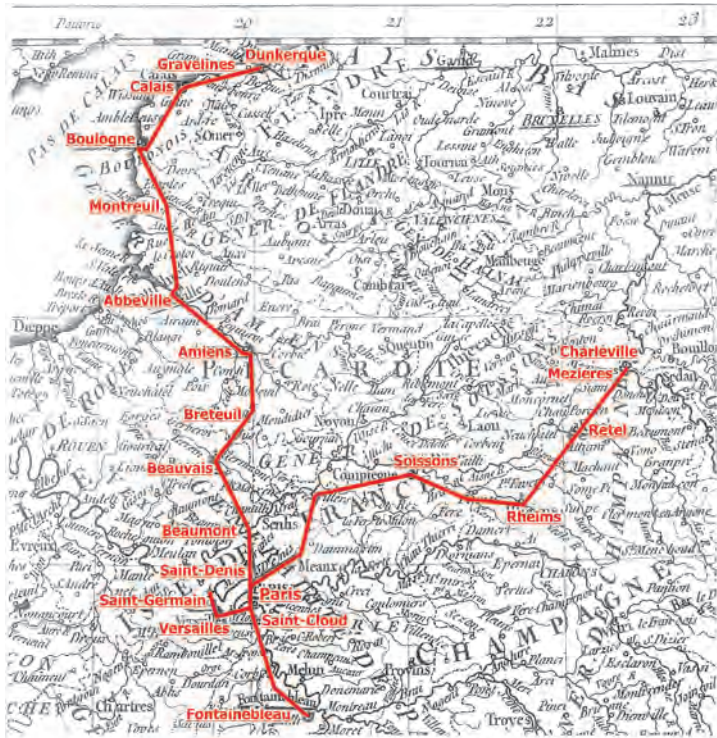
This is how the Russian tsar was seen by Jean-Baptiste Oudry, but he refused to go to Russia with Peter.

Three hundred years ago, in the spring of 1717, Peter the Great was living in Amsterdam, having arrived in the Netherlands on a private visit the previous autumn. He appeared to be about to return home to Russia when he suddenly set off in a completely different direction — to Paris. And Peter's latest caprice (remember that Nikolay Karamzin called St. Petersburg 'Peter the Great's caprice') proved to be exceptionally important for Russia, for St. Petersburg and for us today.

Relations between the two countries had traditionally been bad and frequently hostile: it is worth recalling that Russia went to war with France six times, more than with any other country except Turkey. There were many reasons for mutual displeasure and dissension. The main bone of contention was that France constantly supported Poland and Turkey, countries with which imperial Russia was always at odds. Despite the extremely unfavourable political climate, however, the influence of French culture in Russia in the 18th century was huge and occasionally overwhelming in comparison with that of Dutch, English, German and Italian culture. The scale and depth of French influence in Russia in the 18th century can be compared with American influence in the 20th century, even in countries proud of their consistent anti-Americanism.

There is no paradox or accident in this: we are talking here about the influence of culture (mass culture in the American case), of various cultural practices, of language, art, ideas and images — everything that has nothing to fear from a stern border guard (let alone a Customs officer!). Such influence easily passes from person to person as it is determined not by decrees and regulations but by common sense, pragmatism, the laws of aesthetics and all-conquering fashion and appetite.

Heritage



Whatever the case may be, at the time of Peter I and Louis XIV relations between Russia and France were very cool, not to say icy. However, in 1714 the Sun King died and was succeeded by his five year-old great-grandson Louis XV, with Philippe d'Orléans as regent. Sensing that the wind of change was blowing through Versailles, Russian diplomats recommended that Peter try to normalize relations with France. A great deal depended on France in European affairs, and Russia wanted finally to put an end to the war with Sweden that had lasted nearly two decades. Alas, hopes that France would use its influence as a mediator to procure this long-desired peace proved to be groundless — the interests of the two parties were too different. However, that had

already receded into the background when Peter headed for Paris and changed our history and our fate.

He arrived in the French capital at the end of April, when all the numerous parks and gardens were in bloom. Of course this was the old Paris before it was rebuilt under Napoleon, but even then it was a great, heavily-populated city — a true world capital. The visit of the Russian tsar attracted the universal attention of the French. By that time Peter had achieved enormous successes and had transformed Russia from a remote provincial country into a mighty power to be reckoned with. Legends also abounded about Peter himself as an extraordinary man, highly original and clever. And Peter immediately confirmed his reputation by his behaviour in Paris, which was completely different from the accepted round of official visits, balls and receptions.

For a start the tsar turned down the offered accommodation in the Louvre and settled in the fairly unpretentious Lediguier Hotel (Mansion), where he lived very modestly, as in fact he always did. One thing that amazed the French was Peter's order for a *banya* to be constructed on the bank of the Seine — the tsar, like all Russians, could not do without one. But it was not that which staggered the French *grandees* who accompanied Peter. They were presented with a schedule of what the Russian monarch wished to see: the list included not only tours of the city, but also a great number of places where high-ranking visitors rarely ventured — factories, arsenals, museums, picture galleries, the mint, a printing-house, the botanical garden, etc.

And these were not simply the familiarization tours that are now customary, when *grandees* don white coats and condescendingly listen to a company director stammer from agitation by some stand and then majestically proceed further. Contrary to protocol Peter spent a long time in the workshops of founders, carpenters and joiners, interrogating them about their work and occasionally attempting to copy what the masters were doing,



From left to right:
Peter the Great's route in France.

Jean-Marc Nattier painted what is, perhaps, the most elegant portrait of Peter I. 1717. From the State Hermitage collection.



Louis XV. 'A child who is very extraordinary in appearance and figure' (Peter I).

Legend has it that as Peter climbed the stairs at the Tuileries Palace, he took the king in his arms with the words: 'I am carrying the whole of France'.

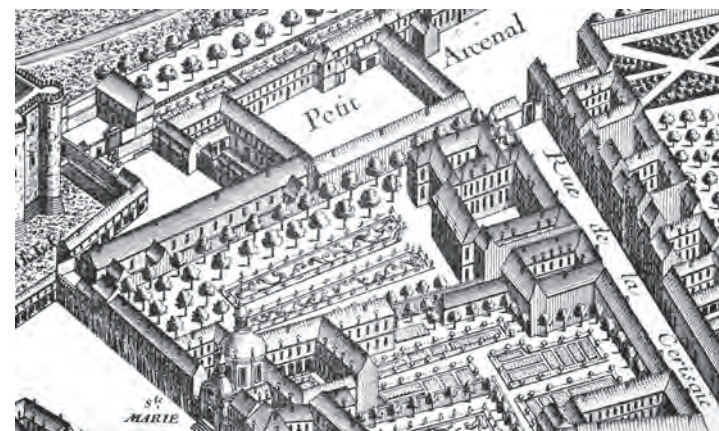
Fragment of the statue *Peter I Kissing the Infant Louis XV* at Peterhof State Museum-Reserve.

Nikolay Karlykhanov, based on a model by Leopold Bernstamm. 2005.

whether it was the stamping of medals, the weaving of carpets at the celebrated Gobelins factory or the etching of hallmarks at the glassworks. This sovereign of a huge country with his penetrating gaze and horny hands astonished the French with his profound knowledge of machinery, his extraordinary curiosity, his ability to understand the essence of things and find the right words for a meaningful conversation, and his entirely natural simplicity and warmth.

Peter spent many hours in picture galleries and the botanical garden inspecting the works of art and the collections, bombarding those accompanying him with questions and constantly noting down or drawing something. He visited the Paris Observatory several times, scrupulously gazing at the starry sky through the telescope. One day, as he turned away from the telescope, he pensively pronounced: 'The world of the stars is infinite, which shows the infinity of God and His inscrutability. Lay sciences still lag far behind the knowledge of the Creator and His creation.' Incidentally, many physicists (not just ordinary people) think the same even now. And how Peter enjoyed Versailles and the other gardens! He had a weakness for landscape gardening and dreamed of bringing all the very best from France to his own city of St. Petersburg, which he called 'a paradise' in letters.

Taking all this into account, one can understand the specialists of various professions who were invited to work in Russia by diplomats at Peter's behest. They had seen the kind of sovereign who was inviting them and were tempted by the new undertaking and, of course, by the substantial salaries they were promised. And many of them agreed to go to the distant country with hopes and expectations of a better life. The majority of those who agreed were Huguenots who were repressed in Catholic France, so their departure for Russia rescued them from persecution, prison or the stake. Peter's visit was the starting-point for French expansion in the new Russian capital.



The Hotel Lesdiguières lies beneath the walls of the Bastille, where Voltaire was imprisoned at the time. From Sergey Gorbatenko's book *The Architectural Routes of Peter the Great*. SPb., 2015.

The leader of this mass exodus (and we are talking about hundreds of masters) was the outstanding architect Jean-Baptiste Alexandre Leblond, a pupil of André Le Nôtre, who had laid out the park at Versailles. Peter, by nature cautious and distrustful, was nevertheless enraptured by Leblond. He wrote to Menshikov: 'This master is one of the best in the world and an absolute marvel. He is not lazy, is of good humour and has great credit in studios in France.' The tsar immediately commissioned Leblond to design 'the garden on the Cape of Strelna', which he thought of as the Russian Versailles.

The Frenchmen who arrived in St. Petersburg were welcomed 'affectionately', as Peter had specified in a decree, and were accommodated in completed houses on Vasilevsky Island. The area stretching between the Neva, behind what later became the Academy of Arts, and Bolshoy Prospekt soon came to be known as the French quarter. A colony of masters of various professions settled there: artists, founders, joiners, carvers, fitters, doctors, chefs and sculptors.

Heritage



The first ‘invasion’ was followed by a second, then a third. After the actors of Charles Sereigny’s company came the ballet troupe of Jean-Baptiste Lande, who founded the ballet school which now bears the name of Vaganova. They all settled on Vasilevsky Island and wrote home inviting their friends and relatives to Russia. For many Frenchmen Russia became a second native land, and along with Russian masters and those from other countries they built and decorated the country’s most European city, investing it with the culture of their great homeland, and traces of their labours can still be seen in many features of St. Petersburg today.

In fact, the change in styles from baroque to classicism was largely effected by French architects led by Jean-Baptiste Vallin de la Mothe. Louis Caravaque painted portraits of Peter and Catherine. The elegant railings on the balconies of the Hermitage were designed by Guillaume Belin based on a drawing of the railings on Peter’s favourite ship the *Ingermanland*. Everyone knows Nikolay Ge’s painting *Peter the Great Interrogating Tsarevich Alexey at Peterhof*, but few people know that the marble black-and-white ‘chessboard’ floor of Monplaisir (French for *my pleasure*) is the work of the French master Cardasier, and the magnificent ceiling is by another Frenchman, Philippe Pillement. The carvings of Etienne Follet and Jean Michel based on sketches by the French master Nicolas Pineau still adorn the Grand Palace. St. Petersburg residents recall from childhood the touching *Favourite* fountain at Peterhof also designed by Pineau, in which a barking dog chases quacking ducks round and round and has still not caught them after three hundred years. There are dozens, if not hundreds of such examples.

And when I walk by the Neva and shudder, like everyone in St. Petersburg, at the loud cannon-fire from the bastion of Peter and Paul Fortress, I doff my hat and remember Osip Nikolayevich Delisle. He was the great French astronomer Joseph-Nicolas



Philippe d'Orleans was similar to the Russian tsar in his lively character and inquisitiveness.

From top to bottom:
Peter’s acquaintance with Paris began at Place Royale (now Place des Vosges) with its statue of Louis XIII.

Peter crossed the Pont Nouveau many times and saw the impressive view of the Seine embankments, already dressed in stone.

Peter met the young Louis XV in the Tuileries Palace.



You can now fly from Paris to St. Petersburg or vice versa in just three hours and see a number of features in common.

From left to right:
Views of Les Invalides
and St. Isaac's Cathedral.

'St. Petersburg absorbed French 'blood' and became as beautiful and majestic as Paris.'

Delisle, who came to Russia at Peter's invitation to work in his newly-founded Academy of Sciences and went on to gain renown for himself, St. Petersburg and Russia with his discoveries. We are obliged to him for the traditional cannon shot without which we could not now live, just as we could not live without everything brought to our culture by that peaceful invasion of Frenchmen which landed on the bank of the Neva in those far-off days. It is thanks to them that St. Petersburg absorbed French 'blood' and became as beautiful and majestic as Paris.

After Peter, in the reigns of his daughter Elizabeth and Catherine II, gallomania swept the country. The fashion for everything French spread from the Russian capital to the towns and villages. This fashion manifested itself in clothes and perfumery, but mainly in the spiritual sphere. At least three or four generations of the Russian nobility (including Pushkin and Turgenev) absorbed the ideas of the French Enlightenment, and the names of Voltaire, Dalember and Rousseau were sacred to Russian thinking society. Even the Patriotic War of 1812 did not destroy the lofty attitude to the values of French culture. It is striking that French became the principal language for society and for the military — let

us not forget that the council at Fili, where Kutuzov and the other generals decided the fate of Moscow, was conducted... in French!

Since then our cultural and human links with France have only become stronger. For Russians Paris was then and still is the Mecca of culture and taste. For all our lives from childhood onwards we could not do without books by French authors (we need only mention the charming Dumas and his musketeers), we could not imagine architecture without Vallin de la Mothe (New Holland, the Academy of Arts), Thomas de Thomon (the Stock Exchange), Falconet (the Bronze horseman) and Montferrand (St. Isaac's and the Alexander Column), painting without the French Impressionists, choreography without Marius Petipa... Paris is forever in our hearts, and what joy that we can board an aircraft and three hours later can be strolling in the Luxembourg Gardens, having coffee and croissants in a cosy cafe in Montmartre or wandering along the streets of the Latin Quarter and not feel that we are in a strange city.

And the reason for that can be traced back to Peter the Great, who suddenly decided to go from Amsterdam to Paris, so linking our countries, our cities and our hearts. Thank you, Sire!

The Long Road to Russia

RELICS OF THE BENOIS FAMILY ARE RETURNING TO PETERHOF

Elena KALNITSKAYA, General Director, Peterhof State Museum-Reserve Illustrations: Peterhof State Museum-Reserve Archive

The world-famous Russian noble family of Benois is of French extraction. Its pater familias in Russia was Louis Jules César Auguste Benois (1770–1822), who left France during the post-revolutionary period in 1794 to make a new home in another country. In Paul I's reign he served as chief confectioner to his wife, Empress Maria Fyodorovna. Thus began the Russian history of the family.

Many members of the dynasty were connected to a greater or lesser degree with Peterhof. It was there that the talent of the architect Nikolay Benois (1813–1898), who worked for Nicholas I in the emperor's beloved neo-Gothic style, first became apparent. His son, the artist, art historian and art critic Alexander Benois (1870–1960), admitted in his *Reminiscences* that the family's absence of even a 'homeopathic dose' of Russian blood did not prevent them from becoming 'fully Russian' — not only in citizenship but also in language, way of life and some character traits.



Portrait of Louis Jules Benois (copy of an 1820 work by Nicolas de Courteuil). Viktor Dumitrashko. Second half of the 19th century.



Portrait of Nikolay Benois. Viktor Dumitrashko. Second half of the 19th century.



Portrait of Alexander Benois. Elena Benois-Clément. 1936.



View of the Chateau de St. Cloud
from the road to Versailles.
Jacques Rigaud (1681–1754). France.

Nearly thirty years ago, in 1988, the history of the Benois family became a prominent part of Peterhof's museum life. On the initiative of Alexander Benois's son Nikolay (1901–1988) the Benois Family Museum was opened. Many well-known people in St. Petersburg took part in its foundation, in particular the city's then Governor Valentina Matvienko. The museum's display, the compilation of which was supervised by Vadim Znamenov, then Director of Peterhof State Museum-Reserve, consisted mainly of painting, sculpture and graphic art, decorative applied art, family photographs and personal belongings of members of the dynasty.

Alexander Benois jokingly called himself 'the product of an artistic family'; but there is every reason to consider this 'product' as

the one most closely linked with Peterhof. Even in his early works included in *World of Art* exhibitions the subject of Peterhof came over loud and clear. At the same time Benois's imagination was fired by the beauties that he knew well from living in France for so long.

Today every researcher of Peterhof realizes how long-lasting the clichés of the last three centuries have proved to be: 'Peterhof is the Russian Versailles', Tsar Peter had the desire to 'construct the likeness of Versailles', to create 'a garden no worse than that at Versailles...' and so on. Peterhof's past can be seen more clearly through the magic crystal of time and historians of the residence now realize the similarities and differences between the two fountain capitals of the world.

Heritage



Alexander Benois was one of the first to write about this objectively: 'Although Peter was certainly amazed by the French king's residence in 1717, although he named one of the pavilions at Peterhof Marly, although the naming of the Monplaisir Palace can be seen as evidence of his French sympathies, and although at Peterhof we encounter the names of three artists sent for by the tsar from France (the architect Leblond, the painter Pillement and the sculptor Pineau), Peterhof as a whole is nevertheless in no way reminiscent of France, let alone Versailles. Peterhof's principal artistic adornment, its fountains, reflect the Europe-wide fascination with garden ornaments, but these water amusements are nothing like those at Versailles either in their arrangement or their character.

Rather they show German, Italian and Scandinavian influences, but even these influences were substantially adapted to the personal taste of Peter and the other Russian rulers who devoted their attention to Peterhof... Finally, the nature... In spite of every effort (particularly by Peter himself) to subdue the severe St. Petersburg climate or at least create the illusion that it had been subdued, the natural surroundings have remained somewhat bland, almost sickly. At times Peterhof's direct proximity to the sea makes existence there excruciating. Rain, mist, all-pervading dampness — all this is characteristic of the whole area around St. Petersburg'.

Constantly reflecting on Versailles and Peterhof in their similarities and their contrasts, Benois admitted that he was

View of the Grand Palace
and the Grand Cascade at Peterhof.
Louis de Lespinasse — drawing,
Claude Niquet — engraving.
France. 1768.

*'Peterhof itself really has
a special and unique
fascination.'*

Alexander Benois

Heritage



‘inclined to agree with my fellow-Russians who have assured me that our Peterhof is much more splendid than Versailles.’ Two favourite themes can be traced in the work of Benois the artist: ‘France in the reign of the Sun King’ and ‘St. Petersburg in the 18th century’.

Nor did Alexander Benois forget Peterhof later on when he was working for the magazines *Art Treasures of Russia* and *Old Years*. After the October revolution he put a great deal of effort into devising a plan of action for preserving the architecture and art treasures that had become the property of the people. Benois sat on various artistic-historical committees, researched the private collections of the Yusupovs, Stroganovs, Sheremetevs, Shuvalovs and others and was in charge of the Hermitage picture gallery.

Alexander Benois had done a great deal for St. Petersburg and on behalf of St. Petersburg, but life in bolshevist Russia had become onerous and in 1926, while in Paris, he decided not to return to the USSR and spent the rest of his life in France.

Alexander Benois’s son Nikolay, who was born in Oranienbaum and grew up in St. Petersburg, left for Paris in 1924 at the invitation of the French National Opera and in 1936 became Head of Production at La Scala in Milan. He designed around 300 productions for the great theatre and many of his sketches for scenery are now in the Benois Family Museum.

At the end of 2016 this unique Peterhof collection received some priceless items — Alexander Benois’s easel, palette and brushes with an amazing story. For over thirty years his son Nikolay had been friends with the Italian wine-grower Pietro Pittaro and his wife — they had spent a great deal of time together, conversing on various subjects and sharing reminiscences. After the death of his old friend Pittaro acquired several paintings and personal belongings of Alexander Benois from Nikolay’s widow.

The Pittaros came to St. Petersburg during the 5th St. Petersburg Cultural Forum in December 2016 — not their first visit. On this



The Benois Family Museum at Peterhof.

Monplaisir Palace, Peterhof.
Alexander Benois, from a study of 1918.
Paper, watercolour, gouache, graphite pencil,
Indian ink. France. 1942.

Alexander Benois beside his painting
On a Shore of Deserted Waves...
Photograph taken in France in the 1950s.

Illustrations on page 12:
Rain in the park at Versailles.
Alexander Benois. 1906.

The Grand Cascade at Peterhof. Actaeon.
Alexander Benois. 1900.

Heritage

The Benois family at Peterhof.



occasion their purpose was not only to see the sights of the Northern Capital: Pietro Pittaro had decided to donate Alexander Benois's personal belongings and two of his original works to the Benois Family Museum. Tatiana Shumova, President of the Centre of Film Festivals and International Programmes, helped our donor to fulfil his intention.

We now have a photograph of Alexander Benois standing beside his easel, on which is his famous watercolour *On a Shore of Deserted Waves...*, also now in our collection. So the easel and the painting have now been reunited in the Benois Family Museum: their history has come full circle, and the artist's long-cherished dream expressed in his declining years has also become a reality: to place some of the documents from his archive in the Russian Museum. I think he would also have been pleased with the return of his personal belongings and works to his beloved Peterhof.

The ceremonial handing-over of the easel took place in the Mariinsky Theatre before the official opening of the Cultural Forum, during President Vladimir Putin's meeting with Russian and foreign cultural figures. Before this meeting our guests were nervous but happy and promised that Peterhof would receive their new gifts.

And finally... When Alexander Benois's easel had taken its rightful place in the display, a letter was received at Peterhof from the Russian Embassy in Paris. The Russian Ambassador Alexander Orlov, a great connoisseur of Russian culture, reported that the embassy had been approached by Christian Jacob, a deputy in the French National Assembly and leader of the Republican Party, with a request for assistance to publishers in the preparation of an extensive work devoted to the history of the Benois dynasty.

Peterhof will support this initiative with pleasure and will make every effort towards the further development of cultural links between Russia and France.



Ceremonial donation of paintings during the 5th St. Petersburg International Cultural Forum.

Illustrations (from top):
At Stepanov's villa. Alexander Benois.
Italy (?). 1931.

Sketch of scenery for Glinka's opera
A Life for the Tsar. Nikolay Benois.
La Scala, Milan, Italy. 1959.

On a Shore of Deserted Waves...
Alexander Benois.
France. 1920–1940.

An Armchair with Gryphons

NOTHING IS A COINCIDENCE IN THE LIFE OF COLLECTOR YURY ABRAMOV

Arkady SOSNOV. Photo: Evgeny Sinyaver, Larisa Tiktinskaya and Timur Turgunov



'This statuette shows the naivety of the 18th century and the slight dissimilarity with which foreign masters portrayed the Russian monarch'.

Elena KARPOVA

GIVEN: a bronze equestrian statuette found among waste in Arkhangelsk.

TO PROVE: its place in the State Hermitage collection.

That theorem form is probably familiar to antique dealer Yuri Abramov. After all, he is a Doctor of Mathematics and Physics, an expert in (wait for it) the spectral theory of operator pencils in the Hilbert space. In this fairly general theme (in mathematical terms) he found a branch dealing with the theory of wave-guides and achieved interesting results which also had a practical application — not for the antique business, though.

This lean individual with an ascetic appearance knows things about antiques that are unknown to mere mortals. The most abstract of sciences, to which he devoted half a century including 37 years of teaching in the Higher Mathematics Department at the Finance and Economy Institute, taught him to appreciate the beauty of material ob-

jects and to develop an intuition for the thrill when faced with an unidentified masterpiece. Sitting in a Empire chair with carved gilded armrests in the form of gryphons (early 1820s, designed by Karl Rossi), Abramov admits: 'I am not afraid of sudden actions and never think twice about them — it makes life easier in a competitive environment.' For another of his abilities — not only to take instant decisions but also to carry them out despite opposition — he is indebted to basketball, which he became keen on almost simultaneously with mathematics in the fifth class at school.

Two years ago Yuri Abramov had already donated a marble Jupiter by the Venetian master Antonio Tarsia to the Hermitage — that was the gift of a *simple professor*, as he humbly calls himself, for the great museum's 250th anniversary. The gift, it should be noted, is now in the Italian Gallery and is part of the permanent display in the Winter Palace. The Jupiter is one of six statues acquired in Venice in 1718 by Savva Raguz-

Philanthropists

Yury Abramov
in his favourite chair.

insky, an official in Peter the Great's time. It was purchased for Empress Catherine I and graced the Summer Garden.

In the late 18th century the god of thunder mysteriously disappeared (according to Sergey Androsov, Doctor of Art History from the Hermitage, this was down to the greed of Vincenzo Brenna, Paul I's court architect, who purloined it during the construction of the Mikhailovsky Castle. The statue was considered to be irrevocably lost, but, to the amazement of experts, it has been rescued from oblivion in the 21st century. Abramov bought it during a nocturnal stroll along the Neva embankment on the oral description of a friend without even seeing it or bargaining for it. Shortly afterwards he and Androsov were examining the letters on the pedestal: TERSIA (that was how the Italian often signed his name) and S. V. — the distinguishing label of Savva Raguzinsky's purchases. A touching detail: Jupiter was reunited in the Hermitage with its pair — a statue of Juno who had waited for him for over two hundred years.

Abramov was soon approached by the Ministry of Culture with a proposal to sell the statue for a ceremonial presentation to the Hermitage by a *very important person*. A substantial sum was mentioned. The collector asked for a 'time out' to consult with his wife, but had, in fact, already made his decision: the statue had already suffered even without that and should be free of intrigues.

At the donation ceremony Hermitage Director Mikhail Piotrovsky called Abramov's conduct 'typical of St. Petersburg', while in a short speech in reply the professor drew an analogy from the world of mathematics: his colleague Grigory Perelman also turned down a monetary prize for the proof of the Poincaré conjecture because a) it was without price, and b) it belonged to humanity. 'As far as my modest person is concerned, I am grateful for the sense of journey which came to me early on and has still not let me down' — that is how he rounded off his priceless speech.





Mikhail Piotrovsky at the Jupiter donation ceremony.

When Abramov goes to the Hermitage he always visits Jupiter: 'I draw nourishment from his energy. This Jupiter has seen a great deal in his time and could tell us things about his adventures that we know nothing about'.



A Marble Algorithm

Nobody understood what he meant by a sense of journey, but he had a specific episode in mind. As a twelve year-old boy he was running home along a Leningrad street in springtime — the sun was shining and the snow was melting underfoot — and something suddenly dawned on him. It was as if somebody was saying to him: 'Yura, you have an outstanding life before you — the most important thing is to do what you think is necessary and don't betray your choice.' By then he had already chosen maths and basketball and decided that to be successful in them he had to cast off everything superfluous, including regular attendance at school. He was too short for basketball, but he trained hard, wore a ten-kilogram lead belt, invented his own feints to develop his jumping and — jumped as far as the title of master of sport and a member of the city team. He received a 'C' for behaviour at school for missing lessons, but by the time he finished he had mastered the university programme in mathematics.

In the early 1990s almost all the participants in a seminar to study the cataclysms in the Hilbert space, which took place in the St. Petersburg branch of the Steklov Mathematics Institute on the Fontanka, where Abramov coincided with Perelman, had decamped to the West.

Abramov stayed — there was much that held him here, such as that lead belt (though he no longer played basketball). It is hard to explain what attracted the experienced mathematician to the world of antiques. It was not entirely an alien world — he had grown up in a professor's family among beautiful things which he did not ignore: he liked changing the furniture in the home. More importantly, what really prompted him to search for rarities was probably the conscious challenge of an unknown space which seemed to him to be much simpler to penetrate than the Hilbert space. He relied on intuition and his inner navigator to engage his sense of journey.

There was no point in contending with the old-school antique dealers who had survived in the catacombs of the Soviet system. The newcomer looked for market segments in which it was realistic to be the leader and found his niche — collecting marble sculpture, which for some reason was not particularly popular in the Soviet period. According to his observations it was uncoordinated — there were quite a few marble sculptures outside official collections, including Italian examples. In this area there was an opportunity to come across high-class pieces by leading sculptors, and Abramov made use of that opportunity.

One day (before he bought the Jupiter), while visiting an experienced antique dealer, he saw a bust and could not take his eyes off it. To be more precise, the marble bust of a bearded man with a broken nose seemed to be giving him a searching look. Abramov was chilled to the bone: I won't leave here until I've bought it, even if it means staying the night. The owner believed it to be a 19th century piece and quite readily agreed the sale. The obsessive purchaser hauled the marble stranger to his salon by night and there remained one to one with it. Scarcely waiting for morning he phoned the Hermitage. The aforementioned Sergey Androsov, Head of the Painting and Sculpture Section of the Department of the History of Western European Art, examined the find in detail and declared it to be (here there ought to be a drum roll) a previously unknown bust of Michelangelo by a Roman

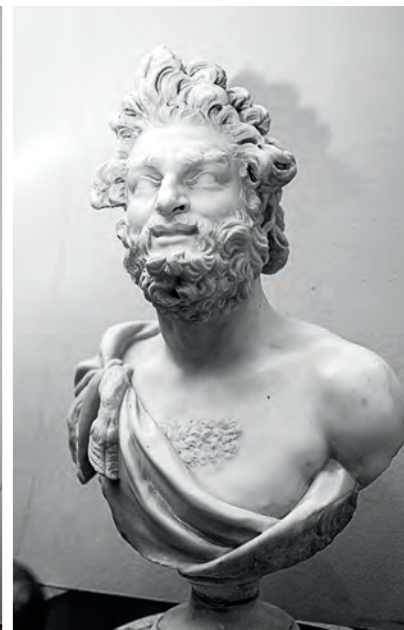
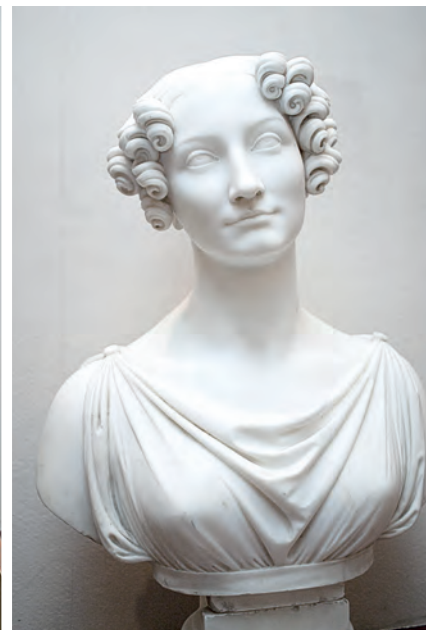
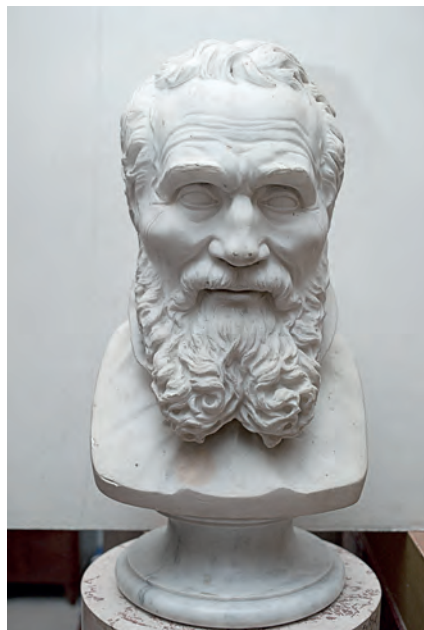
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sculptor in the third quarter of the 16th century! Abramov impertinently assumes that is a self-portrait of the genius.

A marble bust of Countess Olga Orlova ended up in his salon in an equally magical way. When Abramov saw it he was won over by the simplicity and expressiveness of the woman's face, full of inner sadness. Although not suspecting that the bust was the work of the early 19th century Italian sculptor Lorenzo Bartolini (who is proudly represented in the Louvre and the Hermitage), he felt that familiar frisson of excitement. And shortly afterwards Elena Karpova, Head of 18th — early 20th Century Sculpture at the Russian Museum, studied this *'Portrait of an Unknown Woman' by an unknown sculptor*, analysed the commissions received by Bartolini from the Russian nobility, including from the Orlov family, compared the portraits of Countess Olga Orlova in paintings and sculptures and established the name of the artist, subsequently reading several papers on the subject, including in Italy. Her colleagues were impressed. And who could fail to be convinced by a plaster model of the same portrait which Karpova found in the *Gipsoteca Bartoliniana* in the Accademia Gallery in Florence!

Also awaiting verification for its noble provenance is a marble faun, probably from the 17th century. The professor is confident that it is the work of the Italian architect and sculptor Giovanni Bernini, *a genius of the Baroque age*. The arguments that there are no Berninis today, at least not in the antiquarian backwaters of St. Petersburg, are met with a winning smile: 'Anything can be found in an imperial capital.' After all, you could say neither Tarsia nor Bartolini could have been found.

The man who seeks fortune *where others have been unable to find* it has been successful as a collector after a career as a mathematician. One thing he has not learned is to conceal his excitement when faced by masterpieces and assume a *poker face* — a serious shortcoming for a businessman. But he does not consider himself to be a businessman, but an educator from antiques. He has fully proved this by opening the first museum of noble life in the new Russia.



A Noble Nest

Mikhail Manevich, Chairman of the Property Committee and one of the professor's pupils at the Finance and Economics Institute, helped to choose a site for the museum on the instructions of Anatoly Sobchak, then Mayor of St. Petersburg. They settled on one of the quaint architectural monuments from Peter the Great's time — the building of the former Imperial Stables Department. Abramov and two partners rented two thousand square metres on three floors of the left wing on a 49-year lease, which did not promise them an easy life. Abramov invested his earnings as a professor and from his antique dealings in clearing the premises of age-old rubbish, restoring and refurbishing it according to blueprints by the architect Stasov from the 1830s. The expenses grew like the snowdrifts on the huge Konyushennaya Square. When they took up the thin floors they discovered a flooded three-gallery basement from Peter's time. The water mixed with petrol (legacy of the Ministry of the

Michelangelo.
Roman sculptor from the third
quarter of the 16th century.

Countess Olga Orlova.
Lorenzo Bartolini.

Faun. Unknown sculptor.



Memories in the Museum of Noble Life.

Right:
Meeting Elton John.

Most of the antiques acquired by Abramov once blended naturally into the apartments of noble families. That is how he envisaged the museum — not as a storehouse of antiques but as a collection of interiors that were authentic for their time.



Interior's vehicle base) was pumped out. Complex hydroisolation was required — the basement was a metre below sea level. Old chimneys were discovered in the corner tower, which enable them to construct real fireplaces according to classical canons. Most improbably they received permission to build viewing balconies in the embrasures of the arches. 'Peter did not guess that they would be necessary here. If we had advised him he would have agreed.' (How do you like Abramov as Peter's adviser?)

The basic display was opened to the public for St. Petersburg's ter-centenary. From one of the balconies you could see *nine bridges* across the Moika and the Griboyedov Canal — an entry for the Guinness Book of Records! It was a museum (each age had its own interior), but not a museum in the usual sense of the word. Visitors were permitted to touch the exhibits — literally to get close to history, and even guided tours for

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partially-sighted children were encouraged. There were no custodians or hidden cameras: the organizers kept order and gave explanations themselves. 'In all the years only one candlestick was stolen, though it was an expensive one,' smiles Abramov. The qualification was unnecessary — nothing there was cheap.

Wood burned in the fireplace-exhibits, visitors sat on the sofa-exhibits. Fashion parades were held in the basement and the table-exhibits were laid for supper. And noble guests came — aristocrats, politicians, stars of stage and screen; crews from Moscow and St. Petersburg filmed here. Elton John intended to drop in for fifteen minutes and stayed for several hours. The museum became one of centres for St. Petersburg's cultural elite. Abramov still receives phone calls from people wishing to immerse themselves into noble life.

Alas, a few years ago the city decided it needed the dilapidated imperial building in Konyushennaya Square — all of it, for an investment project. Abramov reluctantly moved the furniture, bronze, porcelain, paintings and sculptures back to his salon in Pestel Street. The salon is a tenth of the size of the museum and is now definitely not appropriate for guided tours.



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The champion of the Hilbert space and collector of artefacts from the noble Atlantis did not see eye to eye with the city bureaucracy. He looks at it differently. 'My instinct told me: accept it as a gift of fate that you were granted sixteen years to pursue your beloved business in the heart of the city. And you are left with the joy of sharing it with your nearest and dearest.' And with that he consigned the museum to oblivion, taking as a souvenir the visitors' book with honourable mentions and good wishes: 'keep it up', 'preserve and increase', 'protect it from pen-pushers and bureaucrats'. The book contains Elton John's autograph and a photograph with him in front of the Saviour-on-the-Blood Church.

A Davenport Dearer than Money

But life goes on, as we are reminded by the chiming of the unusual clocks in the *Renaissance* salon. Each of them has its own special characteristics and history with a rich, sometimes imperial pedigree. The antique dealer sits in his favourite chair with the gryphons and accompanied by the melody of passing time intones like a mantra: 'Now I am free and don't have to rush anywhere'. Perhaps his clocks not only measure time as it passes but also enable him to look into the future...

The Hermitage needed a davenport desk for a forthcoming exhibition of furniture from the historicist period in 2018 — there were no examples of this type of bureau in the museum's collection. In no time at all Abramov had acquired two davenports. A davenport, a compact desk with a stand for writing and elements of privacy in the form of locking drawers on one side and imitations of them on the other, is named after the man who first commissioned it, a Captain Davenport. It was first made in the late 18th century, when Britannia still ruled the waves, as a *campaign desk*. The invention proliferated in various styles and variations as an attribute of 'the best houses in Europe'. The Pushkin Flat-Museum at No.12 Moika Embankment is graced by a *davenport* from the 1830s — 'a mahogany bureau with drawers, a sliding top and a lifting lid'.



Yury Abramov's gift to the Hermitage on Maecenas Day 2017 — a table and chairs by the Liesere Brothers Company from the Alexander Palace.

The davenport with the secret compartment, now in the Hermitage collection.



'Why did you buy a second davenport when you already had one?'
'They rarely come on to the antique market, and I try to buy rare pieces irrespective of whether there is something similar in my collection — it is as intelligible as Pythagoras's theorem is to a schoolboy. I even restored this one myself — as if I sensed that the Hermitage would need it.'

Abramov gave the Hermitage the more elegant of his two davenports — made in Russia, evidently for a lady (rounded shapes, marquetry insets on the lid of the stand, leather with gold blocking). It immediately appealed to Natalya Guseva, curator of the collection of Russian furniture. The piece was commissioned, as evidenced by a clever secret





'Since he is a scholar himself, albeit in a different field, it is interesting to talk to him and exchange information', say the museum staff who write in Star of the Renaissance. Sergey Androsov can name only one such phenomenon: from 1960 to 1980 in London the collector and patron of the arts Count Andrzej Ciechanowiecki published folios with scholarly descriptions of objects from the Heim Gallery.

device that is not encountered in the constructions of Western masters: it gave access to a hidden space beneath the pencil-case where the owner could conceal intimate correspondence, jewels, pages with literary quotes...

At the donation ceremony shortly before New Year 2017 Mikhail Piotrovsky emphasized that it was a brilliant example of furniture art. And then, passing from the particular to the general, he highly appreciated the importance of people who know of gaps in the museum's collection and unselfishly help to fill them. The *simple professor* calmly survived his latest minute of fame in the crowd of journalists and visitors, but the Hermitage director's speech moved him to frankness.

'I know of one incredible gap. I have something that throws new light on certain objects in the Hermitage and enables them to be correctly attributed,' he said with an enigmatic smile the following day, drawing from his working davenport a pile of books and magazines.

Peter I on Horseback

Not being a qualified art historian, this stalker of the area of antiques has furnished himself with a library on art occupying twelve bookcases. And while bowing to scholarly expertise he began to publish an almanac in which top-class professionals verify his finds. There is no shortage of material — *Star of the Renaissance* has been published twice a year for the last ten years.

'Yury Abramov has been able to attract the best museum specialists in St. Petersburg to contribute to his almanac the brightly expressed attributive orientation,' wrote Mikhail Piotrovsky in the foreword to the anniversary issue of *Star of the Renaissance*.

The dossiers on works of art by authors of that calibre can be accepted as truth in the last analysis. However, in the case of a bronze equestrian statuette found in Arkhangelsk about twenty years ago the enthusiast from Pestel Street had the courage to proceed based on his own conclusions. He scrutinized it and bought it from an unsuspecting colleague. He was taken by the figure with an eagle on its helmet and the scarcely legible signature *Krüger* scratched on the horseman's cloak and, with the aid of his own intuition and old German reference books, he was able to conclude that it was a statuette of Peter I by the Dresden master Krüger, commissioned by the diplomat and man of letters Prince Beloselsky, who was the Russian envoy in Dresden from 1779 to 1790.

And the thread could be followed even further: the sculptor and medallist Friedrich Heinrich Krüger was the grandson of the amber and ivory carver Wilhelm-Gottfried Krüger, whose workshop in Dresden was visited by Peter I in September 1711. The statuette was based on a drawing by Giovanni Casanova (1730–1795), who was one of Prince Beloselsky's circle of friends. This Italian painter and draughtsman, who became director of the Dresden Academy of Arts, was the brother of the famous adventurer Giacomo Casanova. Not a bad cast for a detective novel, with a statue found on a rubbish tip in Arkhangelsk at its centre!

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Casanova designed and supervised the manufacture of two table settings for Alexander Beloselsky (not yet Belozersky). One of them, a *surtout de table* made of bronze and precious stones, included this statuette of a horseman on top of a triumphal arch. Abramov believes that the stones were the work of the Italian jeweller Luigi Valadier, whom Giovanni Casanova had invited to take part in the making of the *surtout de table*. The composition was shown in an exhibition in the Dresden Academy of Arts and described in detail in a book by J. G. A. Kläbe (Leipzig, 1796), referred to by Elena Karpova from the Russian Museum in *Star of the Renaissance* (No.24, 2016).

'Peter I on Horseback' was the title of the article in which she surveyed the tradition of portraying emperors in Roman robes on a jumping or rearing horse, beginning in ancient times. The Dresden statuette fits well into the context of sculptural portraits of Peter from the early 18th century. Monuments to other monarchs in European cities were



sometimes used as a prototype for these sculptures. Foreign travellers were amazed to discover equestrian statues of Louis XIV with the head of the first Russian emperor in the palaces of Russian aristocrats.

As Elena Karpova writes, in comparison with the equestrian statues of Peter in the Stroganov and Vorontsov-Dashkov collections Abramov's statuette 'is more original and expressive in its graceful dynamism.' Bravo, Giovanni Casanova and Heinrich Krüger, bravo, Prince Beloselsky! After this publication the Dresden-Arkhangelsk statuette went into scholarly circulation and was shown in an exhibition at the Russian Museum. It has not yet been possible to trace its whole history, according to the art historian.

And from there Abramov's built-in navigator led him to the Hermitage and the first-floor landing of the Sovietskaya staircase, where on a huge table there is a plateau of precious stones with a triumphal arch decorated with agates, jasper, chalcedony, amethyst and relief mosaic.

The composition on the first floor landing of the Sovietskaya Staircase in the Hermitage.

Left:
This is how the arch should have looked according to Yuri Abramov.
Reconstruction by Igor Rumyantsev.





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The arch bears two Latin phrases: *Hic vir est* (Here is the man) and *Non surrexit maior* (There is none better). But where is the man to whom those phrases refer? Why is the plateau empty? There will be a number of further questions and a few less answers...

‘One day Igor Sychev, curator of the Hermitage collection of Russian bronze and light fittings, sent me a photograph,’ says the antique dealer. ‘It was of an exhibition of clocks in the foyer of the Hermitage Theatre in the 1920s. And in the background was our Peter on the top of the arch, and you could make out the plateau on which it stood. I remembered where I had seen that composition!’

The six-metre plateau on the Sovetskaya Staircase has sixteen divisions, eight on either side of the arch — an indication of a *surtout de table* of sixteen pieces. The arch and the plateau, to judge by archive documents, came to the Hermitage from the Maltese Cappella, which suggests that the missing items should also have arrived here — try to find them in the museum’s reserves! How did a *surtout de table* by Casanova, Krüger and Valadier from Dresden come to be in the Maltese Cappella? In Abramov’s opinion it was donated to the Cappella by Beloselsky in 1799, when Paul I appointed him as a commander of the Order of Malta and ordered him to add the sobriquet Belozersky to his surname.

Igor Sychev had a suggestion: in the early 19th century Beloselsky-Belozersky published a print with a portrait of Peter the Great in honour of Emperor Alexander I, and it bears the same two Latin phrases as the triumphal arch on the Sovetskaya Staircase! They were not only familiar to him — he may have composed them himself. However, the key question is: if the prince actually did donate the *surtout de table* to the Maltese Cappella, why was it without the original statuette of Peter which ended up with Abramov?

The St. Petersburg antique dealer suggests that as a genuine collector Beloselsky commissioned *two statuettes* of the monarch on horseback — one for the *surtout de table*, the other for his own study or gallery. At Abramov’s request Sergey Androsov found a bronze statuette of Peter in his department’s reserves — the one that appears in the 1920s

photograph, but without the maker’s signature. Would you like to know from where it was acquired by the Hermitage? Also from the Maltese Cappella! It is reminiscent of the discovery of Pluto or the Higgs boson forecast theoretically, is it not?

But even this amazing sequence of coincidences does not totally convince the experts. The statuette signed by Krüger may have been model which was copied by him to adorn the *surtout de table* with the triumphal arch described by Kläbe, or for other purposes. Subsequently, after the exhibition in the foyer of the Hermitage Theatre, the statuette was separated from the arch (there is an inventory record of this), obviously for a reason. And by completely incomprehensible means Beloselsky’s piece by Krüger found its way to Arkhangelsk...

The museum world has turned out to be more complex, intricate and non-linear than the world of mathematics: it has dimensions of history, art and human relations. Abramov’s acquaintances from this world talk of the necessity of painstaking research, perhaps not only in Russian museums but also in Germany. He knows in advance that his hypothesis will stand up to the expert examination of professionals and will become a theorem.

‘We know almost everything about this *surtout de table*,’ says the antique dealer, pressing the beaked heads of the gryphons on the armrests of the chair with his palms. ‘I am prepared to help to assemble it and fill the gap in the Hermitage collection. The result will be a fantastically beautiful composition bringing together the names of Peter the Great, Paul I, Casanova, Krüger, Valadier, Beloselsky-Belozersky...’

Perhaps he might add mentally... Abramov? With his mathematical mind has he already drawn the trajectory of the objects’ route from Krüger’s workshop in Dresden to the great museum in St. Petersburg?

Nothing is a coincidence in this man’s life — not the Jupiter or the davenport or the statuette from Arkhangelsk. And his favourite Empire chair by Karl Rossi comes from the former home of Princess Shakhovskaya on the Fontanka near Nevsky Prospekt — it is now the St. Petersburg branch of the Steklov Mathematics Institute, where he once studied the minutiae of the Hilbert space.

Yury Abramov has developed a number of principles, all beginning (characteristically) with ‘not’. Not to take actions with irreversible consequences. Not to do what one is strongly pushed to do. Not to cause grief to those he holds dear. Not to impede his leaving nature and to leave: just as he did with basketball, with poetry (he wove a garland of fifteen axiomatic sonnets and was then content), with teaching higher mathematics (he retired at 60, though he still held sway in the auditorium) and with the Museum of Noble Life... But he will never give up his collection of rarities.



A Polytechnic Planet

GRADUATES ARE THE PRIDE OF THE COUNTRY'S LEADING TECHNICAL UNIVERSITY

Alexander KOBYSHEV, Head of Corporate PR of Peter the Great St. Petersburg Polytechnic University, Candidate of Technical Sciences. Photo: SPbPU archives



The student Pyotr Kapitsa.

In 2019, my alma mater, Peter the Great St. Petersburg Polytechnic University, will turn 120. These years have been full of turbulent and complex events that changed the world's history and people's fates. The biggest technical school in Russia, the Polytechnic University has changed as well. What, however, has never changed is the supreme quality of its education and research and the University's leading role as one of the main Russian engineering schools. The word *Polytechnician* has become a mark of professionalism for students, graduates, teachers, and researchers.

Look at the photo from the personal record of the student Pyotr Kapitsa who enrolled in the Electromechanical Department in 1912. He is still wearing his secondary school uniform. Then there were WW1, work at Rutherford's laboratory in England, establishment of the Institute of Physical Problems of the USSR Academy of Sciences, the Hero of Socialist Labor award, disfavor and unemployment,

teaching at the Moscow Institute of Physics and Technology, and global fame... In the 1920s, Kapitsa did research together with Nikolay Semyonov who was then an assistant at the University. It is no accident that the future Nobel Prize winners are pictured together at the painting by Boris Kustodiev.

Our graduates have made an invaluable contribution in the country's development, be it the implementation of the GOELRO plan, the design and construction of Dneproges and the Sayano-Shushenskaya HPP, the development of metallurgic and engineering plants, the first man-made satellite of the Earth, the first lunar rover or the first nuclear icebreaker.

The Polytechnicians have played an exceptional role in the development of the Russian science. In 1918, the famous Physics and Technical Institute was opened in Petrograd. It developed from seminars and the Physics and Mechanics Department, a creation of

Effective Practice



Left:
This is how Boris Kustodiev saw
the young physicists Pyotr Kapitsa
and Nikolay Semyonov.



The monument to the Polytechnic Institute
student and the fountain Us at the first
academic building were made with the
Polytechnicians' funds.

Abram Ioffe who started his scientific career in 1906 as a laboratory assistant at the Polytechnic Institute. Later on, numerous physical institutes and departments nationwide span off from the Ioffe Institute.

There is no need to introduce Yuli Khariton, Igor Kurchatov, Yakov Zeldovich, Anatoly Alexandrov (President of the USSR Academy of Science in 1975–1986), and Georgy Flyorov (the 114th element of the periodic table is named after him) who created the nuclear shield of our country. Alexander Baykov developed the scientific foundations of metallurgy, and high voltage electricity transmission would not exist without Mikhail Shatelen's studies.

A special group of Polytechnicians are artists and writers who developed in the humanistic aura of the University. These include the theater director and teacher Leonid Vivyen (a reinforced concrete structure engineer by education), the writers Yevgeny

Zamyatin, Boris Zhitkov (shipbuilding engineers), Daniil Granin (electromechanical engineer), and Alexander Zhitinsky (electrophysical engineer), and the legendary World Chess Champion Mikhail Botvinnik (electrical engineer).

Our graduates have carried the Polytechnic spirit through their lives. As early as in 1910, they organized a Society of Peter the Great St. Petersburg Polytechnic Institute Alumni. This alliance survived the revolution and had branches working in Europe, Asia, and North and Latin America. The memoirs of its members were published for the 25th and 50th anniversaries of the University and republished for the 105th anniversary of the Society.

In the 1990s, many young scientists found jobs abroad. One of them was our former Lenin scholarship holder Ilya Bezprozvanny who became a Professor at the University of Texas Southwestern Medical Center. This did not, however, stop him from creating a



The best WW2 tank is the famous T-34 designed by Mikhail Koshkin. The renowned U-2 by Nikolay Polikarpov were in the air service, and the world's biggest cargo aircraft, Antei, was designed by Oleg Antonov. All these people are graduates of the Polytechnic University.



Neuromolecular Degeneration Laboratory at his home Polytechnic University where he spends several months every year with his young colleagues studying Alzheimer's and Huntington's diseases and methods to fight these lethal illnesses. Several more laboratories headed by Russian scientists are part of the RASA center (Russian-Speaking Academic Science Association), which opened in 2016.

Thousands of foreign graduates of the Polytechnic University are the engineering, scientific, and teaching elite of their countries. For example, Gao Jingde, a postgraduate student from China, defended a candidate's thesis here that was recognized as a doctor's thesis. In 1983, he became the head of Tsinghua University in Beijing and made it the biggest technical university in China. In 1987, Tsinghua became the first Chinese university to sign a partnership agreement with the Polytechnic University. Another center of cooperation is the SPbPU office in Shanghai, which is the first headquarters of a Russian university in China.

Our graduates at Tsinghua and universities of other countries are united through foreign associations of the Polytechnicians.

They are supported by the University's Graduate Liaisons Center, which has been publishing the Unity magazine since 2015. In a February 2016 letter to the University Rector, RAS Academician Andrey Rudskoy (a Polytechnic graduate, of course), Hungarian Polytechnicians wrote about the celebration of the 60th anniversary of their class. The forms of cooperation between the University and its alumni are diverse. It is logical that an association entitled *Graduates and Friends of the Polytechnic Institute* was created on the Rector's initiative. This is not just a sign of 'high relations' or nostalgia about the good young days, but a part of a resource mobilization project for bringing the university into the global educational elite. Integration of professionals who have accumulated the best achievements of the Polytechnic school and hold commanding positions in the science and economy of various countries is one of such resources.

And indeed, our graduates are working successfully in every Russian region, running the biggest companies including Silovye Mashiny, Atomproekt, Aerospace Equipment, Izhora Pipe Mill,

Effective Practice

Zvezda, and many more. Vitaly Savelyev, CEO of Aeroflot, the best airline in Eastern Europe, is a graduate of our Mechanics Engineering Department. A complete list of the Polytechnicians would be too long, but the University is in contact with each and every one, and that contact is bilateral. 'Never in my post-university life have I been ashamed to answer the question, What school did you go to' are the words written in the SPbPU Book of Guests of Honor by Alexander Lapshin, First Deputy General Director of Rosatom.

In the fall of the 2016, the Graduate Liaisons Center initiated a new educational project entitled *Knowledge from the First Person*. The speakers are renowned Polytechnicians, and the audience are students, postgraduate students, and staff. The lecture schedule is full for six months ahead, and there are usually not enough seats in the classroom.



From the top:
Rector of the University Andrey Rudskoy and his predecessors, Mikhail Fyodorov and Yuri Vasilyev, at the University Graduates and Friends Forum in 2014.

Ilya Bezprozvanny and young researchers from his laboratory.

The 105th anniversary of the first graduates' association. Nils Knigge, an intern from Germany, is testing a bolide made by students.

Alexander Kobyshev and Issa Togo, a Mali graduate who defended his thesis at SPbPU and now runs a chair.

‘Lyonkin Kot’ as per Science

A PROFESSOR OF ECONOMICS HAS LAUNCHED A FOUNDATION TO HELP HOMELESS ANIMALS IN MEMORY OF HIS SON

Elena OZHEGOVA. Photo: Alexander Gluz, Nikita Kruglov, Timur Turgunov, Valery Gordin's family archive



The foundation's website: www.lyonkinkot.ru.

One might suppose that an article like this should be mournful with occasional bursts of emotion, as is customary when writing about tragedies. In this case that would be inappropriate. The title itself is worth something — *Lyonkin Kot* (*Lyonya's Cat*), almost like *Yozhkin Kot* (*Translator's note: Yozhkin Kot is a phrase used by Russians to avoid a swearword, as in English one might say 'fudge' or 'fiddlesticks'*). Why do we need tears and sadness here? Lyonya himself, in whose memory the foundation has been created, was a 'really sloppy individual'. These are not my words, but those of Lyonya's father who set up the foundation, a scholarly and very ironic man.

'Do you expect me to howl when I talk about it? That's life, it's fate' — Professor Valery Gordin, Deputy Director of the Higher School of Economics in St. Petersburg, shrugs his shoulders.

His son was on the aircraft which exploded over Sinai on 31 October 2015. 28 year-old Leonid Gordin was returning home to

St. Petersburg with his girlfriend Sasha Illarionova after a holiday by the warm sea. They were looking forward to their wedding on 1 April.

'You can't begin a serious undertaking on such a day,' his father had reproved him.

'Never mind, we'll begin gaily, but afterwards it will all be serious,' joked Lyonya.

He was always like that — spontaneous and witty, with an easy-going character. He worked as a lawyer for a bank. He decided not to follow in his father's footsteps, but graduated from the law faculty.

'Being a banker is not a sentence,' smiles his father. 'I would have liked him to go on to something else, maybe to us, but he liked working in the bank.'

Lyonya also loved animals. From the age of twenty he lived separately from his parents and was always adopting various pets.

Street of mercy

'No, of course it was great that my son was helping homeless animals, finding new homes for them. But it was childish in a way — he never institutionalized his hobby, scientifically speaking', argues Valery Gordin. 'So I got to thinking...'

By that time the dreadful months of identifications and funerals had passed. Gordin senior was already on the council of the Flight 9268 foundation for relatives of those who died, but he wanted to do something specifically in Lyonya's memory. So was born the idea of an organization to help homeless animals.

'I'm certain Lyonya would definitely have approved. He supported my various good impulses and was even proud of me at those times. As a friend of animals he used the Internet to find help groups — there are many such associations now. It's a little late for me to be a blogger, so I took on what I can do best,' explains the professor.

Some people would have been lost in this situation, or would have gone down the well-trodden path and opened a refuge which would have been 200% full within a week. But Valery is a Doctor of Economics — he formed a council of experts, invited experienced animal protection activists and asked them what they needed. He remembered everything that he had known in the 1990s when he used to teach management and marketing to the staff of charitable organizations. He added the achievements of the sharing economy on which he now lectures his students. And he decided to launch a foundation with a centre for the free hire of veterinary equipment, the like of which had never previously been seen in Russia.

'From conversations with managers of refuges I learned that they have scarcely enough money to feed and treat the animals and are in urgent need of equipment,' says Gordin.

The hire centre opened at the Elvet private clinic on 29 November 2016, when the world marked *Generous Tuesday*, an international day of good deeds. It was the first time Russia had taken



part. Since then city refuges have been able to hire cages, cat-catchers, traps and equipment for anaesthesia and intensive care free of charge.

'So far the most in-demand items have been, surprisingly, not expensive apparatus but cat-catchers — cages to catch homeless and wild animals who will not come to hand,' says Olga Karpenok, Executive Director of the foundation.

She is not only an efficient manager and public relations expert. Valery Gordin chose her as executive director on the advice of a mutual acquaintance on the 'kindred spirit' principle.

Lyonya and Sasha met eight months before the air crash.
Jurmala, July 2015.



From left to right:
Lyonya aged 5.
Lyonya in the first class.
Lyonya's first flight. The pilots invited him into their cabin and took a photograph as a souvenir.
In Palace Square.

'Our family never bought animals — we used to pick them up off the street', smiles Olga. 'When I first met Mr. Gordin and heard about his foundation I was so touched that I immediately agreed to work with him.'

The hire centre is in the right place: the Elvet clinic is run by Anna Kondratieva, the Doctor Doolittle of all the Hermitage cats.

'As an expert she supported the idea of the hire centre', says Olga. 'We issue equipment only to registered refugees and sign official contracts with them. The contracts even specify sanctions for infringing the periods of hire. We don't do this to make money, but so that a hire does not become permanent use. To be honest, the refugees are still getting used to us — it is as if their owners could not believe that they were being given something free of charge.'

The academic status of the head of the foundation does not presuppose any bother with the animals. If he has decided to run a charity, it has to be systematic and to show results.

'In the West foundations do nothing specific themselves; they draw attention to a problem, bring in the necessary people and money and distribute it among those who can solve the problem', explains Gordin. 'I don't feed the cats myself or sit in the hire centre — I talk to vice-governors and members of the board of trustees. The board includes two doctors of science, the city's chief veterinary officer, a deputy of the city parliament, the member of the St. Petersburg Government's Social Council on matters concerning relations with pets (yes, there is such a person — the actress Anastasia Melnikova!). In order that these people lend their names to the foundation and offer their moral support it was necessary to meet with them and make them our allies.'

The title of the foundation was also chosen scientifically.

'Would a basic *In memory of...* or *In the name of...* really have sounded better?' the initiator sounds surprised. 'In the first place Lyonya was a cheerful boy, and I think the title would have ap-

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pealed to him. I also took advice from marketing specialists, who immediately approved our title because it is so memorable’.

Besides marketing specialists, Valery Gordin also consulted psychologists and sociologists, who said: ‘Go to children and explain to them that homeless animals are a bad thing. The children will become your agents of influence and will persuade their parents to take animals from refuges’.

In developing this idea the founders of *Lyonkin Kot* have organized a peripatetic exhibition with attractive pictures about animals. The display will travel around schools and will be accompanied by lecturers from the Academy of Arts, who will teach schoolchildren to draw animals.

‘And if Lyonya as a child had tried to persuade you to let him have a pet, would you have done so?’, I asked Gordin.

‘My son lived with me from 14 to 20 — before that he was with his mother. He didn’t ask me’.

‘But if he had?’

‘I would probably have allowed him something very good — clearing up his room, for example’, says the strict father, thinking on the spot.

When Lyonya was a small child living with his mother he had a dog — an ordinary dachshund that was not easy to get on with. Rather they had to fight with the dog, because it thought it was the master of the house. Lyonya had to separate from his parents before he became involved in animal welfare.

‘Lyonya had a beloved cat Kysya, whose former owners had thrown it out of the window. Kysya slept with Lyonya and followed him around as if he was attached to him. In summer Kysya was taken to the dacha —and got lost. Lyonya looked for him a long time, put up notices. And it was not until October that the cat was found. What joy! I even asked my son whether he was sure it was his. Of course, he said, here’s his little patch just where it should be’.



Lyonya aged 15.
With his father before a Zenit match.

Shortly afterwards Lyonya flew off to Egypt with Sasha. The cat was left with Lyonya’s mother and got completely out of hand. After the terrible events she took the cat to the clinic and it turned out to be a female! Lyonya, of course, never heard this incredible news. *Happiness is when everyone is at home...* is the motto of the *Lyonkin Kot* foundation. But the boy after whom the foundation is named will never return home, nor will his fiancée Sasha Illarionova.

‘Sasha was a good person and Lyonya was an excellent, kind boy’, says Sasha’s mother Marina Illarionova. ‘They really fought for their relationship and nurtured it, treasured it. Now they are together forever — we buried them next to each other. They will never split up, never argue. The tragedy absolutely hit me for six.’

‘We will try to become a bridge between cats and people’.

Anna Kondratieva



Valery Gordin, Anna Kondratieva and Olga Karpenok at the opening of the hire centre for veterinary equipment.

Valery Gordin at the University.

And I responded to Valery Gordin's suggestion to join the foundation's council as if clutching at a straw. I agree that the memory should be active — after all, it is Sasha's memory too. She was also worried about Kysya and like Lyonya flew off happy that he had been found.

Valery Gordin and Marina Illarionova, who both worked in the University of Finance and Economics for many years, were once introduced by their children. Now life has brought them together again in the *Lyonkin Kot* project.

'I was miles away from all this animal rescue business,' admits Valery Gordin. 'And had it not been for those sad events I would have remained sceptical. I used to laugh at Lyonya with his animals.

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On the other hand, we travelled a lot together and visited all the large zoos abroad. He used to feed dogs at his grandmother's dacha and that was probably when his humane attitude to animals was formed. You can't educate people point-blank. That is why we have gone around schools with exhibitions. We don't tell the children to love animals. We tell them: draw them, and then we'll have a look.

Unfortunately, another unusual but very necessary project of the *Lyonkin Kot* foundation has had to be shelved. The idea was suggested by former St. Petersburg Vice-Governor Olga Kazanskaya, who run both the social bloc in the government and a veterinary clinic. She drew attention to the problem of animals which remain after their owners' deaths. Many lonely old people have

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cats or dogs as pets and worry what will happen to them when they are gone.

‘We wanted to draw up a list of people prepared to take on pets after the deaths of their elderly owners. We were about to start a pilot project in Kalininsky District. Shortly afterwards the administration telephoned us and said they were evicting a woman who had sixty cats from her flat. We took it upon ourselves to find homes for them.’

In intervals between lectures, seminars and meetings Professor Gordin, cursing his thoughtlessness, set in motion the process of settling and treating this horde of cats. He simply did not have the strength for the project to prevent the pets of elderly people becoming homeless.

‘In theory I knew everything about charities, but reality has brought some adjustments’, says Valery Gordin. ‘People give less money for animals than for deprived children and the elderly. At the moment we are collecting funds via a button on our website. We are also preparing documents for the registration of the foundation on a crowdfunding platform. Again it is not scientific, it’s a modern trend. I cannot say that money is pouring in. At the moment it is mainly my own money, but I don’t mind that.’

He is probably right. Things have so turned out that a Doctor of Science now knows everything about cat-catchers, something that his son would not have failed to make a joke about. It is fate.

Morning Cat. Sasha Illarionova was very proud of this photograph of Kysya.

Lyonya at the dacha.

Let the World Hear

HUMAN VALUES OF A FAMILY COMPANY

Arkady SOSNOV. Photo: archive of the company MED-EL



Page 37:
In the Audioversum Museum.

Invitation to the Audioversum

It's difficult to get lost at the foot of the Alps in Innsbruck, the ancient Austrian city. All the roads lead to the Hofburg palace, the 'Golden Roof', the Hofkirche and other iconic monuments... It is worth not skipping Audioversum — the ultra-modern museum of sound. The museum of auditory adventures, if you wish. Here the principles of infotainment are completely observed: interactivity, entertainment, education.

You get fully convinced in it once you step on the stairs — it is musical and seems like you are stepping on the notes. Then you get into the Scream Box — a small room where you can yell as loud as you like for your pleasure. There is a diagram on the wall showing the relation of different sources of sound. The elephant blares louder than all the others — over 120 decibels. You can reach its level, if you do want that.

The main hall of the museum shows the incredibly wide variety of sounds. Typical for Innsbruck this includes the tolling of the church bells, noise of an aeroplane from the city's airport and rustling of bicycle tyres. All of these are ranged according to the force of their sound: for instance, a thunder in the sky reaches the same 120 decibels, crashing of a jackhammer — only 90: it is annoying rather than ear-splitting.

And here we have an amusing game similar to hide and seek. You put on earphones and catch invisible birds on a conventional lawn. The closer to the goal, the louder chirping of birds in your ears. As soon as you have 'caught' it, you receive a special signal and you start to catch the next one. You can organize a competition for the best hunter. Furthermore there is another entertaining activity — recognition of sounds, including exotic ones. You are invited to distinguish the sounds from a variety of

Beyond barriers

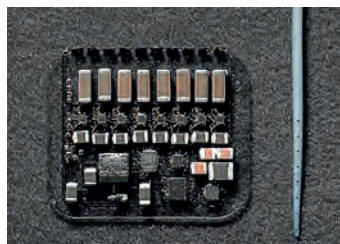
sources including the steps of someone walking on the snow, a mountain stream or a folk instrument from Bali.

In the next room there is a real surprise for a visitor: humans can hear with different parts of the body! To prove it, the visitor inserts earplugs to prevent the ears from accepting sounds. Then I leaned my forehead against the wall and listened to the sounds of 'Valse Sentimentale' by Tchaikovsky — through my head! Then I leaned my elbow against the wall— the effect is the same, but the melody is softer. So my head hears better than my elbow but in reality the answer is that the vibration comes into the inner ear through the bones of the skeleton.

Audioversum really excels in showing different ways of presenting information help to fix it in your mind. On an illuminated panel the anatomy of the ear with all its internal labyrinths is shown, and a group of pupils are discussing it excitedly. Then the guide invites them to look at a large model of the cochlea composed of elastic fibers. Unbending each of them one by one the children hear the sound of a certain tonality, keeping in mind that in the upper, apical part of the cochlea it is lower. Another advantage of this model is in simulating hearing loss — a major issue around the world. The next screen, flashes pictures and sounds of street life: cars rushing on the road, people wandering on the pavement, talking and laughing. Suddenly the sounds become muffled and disappear, just as in silent films. You cannot help feeling like a man completely or partly deaf. And you realize how terrible it is.

The brain is the central element of another piece of work on display. And it's worth noting that it is an actual brain scan of an employee of the Bremen Fraunhofer Institute. This highlights the zones of activity while listening to variations of Bach's compositions, an audio novel 'The Name of the Rose' by Umberto Eco, the rustling of leaves. It shows how the brain is illuminated by sounds and all of a sudden you imagine what it would be like if the signal did not come to them...

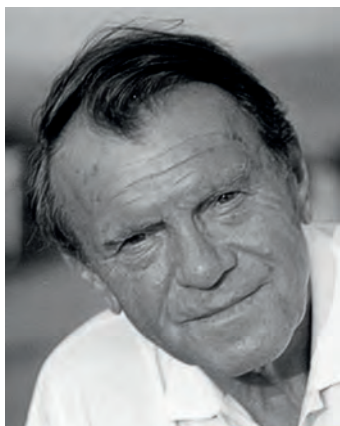




The story started from this simple device...

Wedding photography. 1975.

Professor Kurt Burian — the surgeon who implanted the first multichannel cochlear implant.



The panel depicting the history of the acoustics since the Middle Ages is also interesting in its own right. One chooses any date from the past and gets information about what happened. I clicked at random on 1975 and saw a wedding photograph: Ingeborg and Erwin Hochmair in Vienna. They are young and happy and this was an early insight into the creators of microelectronic cochlear implants that enable people to hear again...

The last section of the exhibition is called 'World of MED-EL' (it would be strange if it didn't exist: the museum was created by this company). Here one can examine models of hearing implants and speech processors, including the newest models.

They also is another feature to lean a postcard against an illuminated table and then to read the text providing insight into this fascinating topic. I chose a postcard with a photo of Ingeborg Hochmair and I learned that in her childhood she loved to watch the caterpillars turn into butterflies, to cultivate a culture of bacteria on an agar substrate and to collect radio receivers. At the age of 13 she chose biomedical engineering as her major to use

high technology to improve public health. During two years at the university she studied both medicine and electrical engineering, then she focused on the latter, as she had found a role model in her professor. It was not Erwin Hochmair (at the time he was 'only' an assistant of the professor and his friend) but Fritz Paschke. Soon, as history shows, everything fell into place.

Leaving this exceptional museum one can express their emotions in the acoustic guestbook. As for me, I exclaimed 'Great!' and decided to meet the Hochmairs as their family company MED-EL is located nearby in Innsbruck, and Ingeborg is Chief Executive Officer.

Engineering Approach

Even if you do not know Ingeborg Hochmair personally, this woman deserves admiration. Not only has she given birth to four children and raised them, not only has she created world's first microelectronic cochlear implant in cooperation with Erwin, but also created 1700 jobs at MED-EL for highly-skilled employees.

In the very beginning there were only the two of them, then they hired more staff, then they were collaborating with a medical company from Minnesota in the USA, with which they wanted to launch cochlear implant systems — until they realised that the formula 'You can create a good product only by yourself' was indeed true. Ingeborg had the courage to sacrifice a university career and to take on the challenge of commercialization realising her child's dream 'to improve the quality of people's lives'.

In any history, especially in a family one, it's vital to know the details. For the first time in his life Erwin noticed Ingeborg Desoyer, a student his lecture in 1972, then he questioned her and she answered very well. A twelve-year age gap was not an obstacle to the mutual interest. In 1975 after an international conference the professor of Ear, Nose and Throat University Clinic in Vienna, Kurt Burian told Erwin about the first devices of

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electrical stimulation of the auditory nerve in deafness and shared fellow doctor's requirements regarding the technology. Erwin immediately thought of Ingeborg and offered to collaborate with her in creation of a cochlear implant within her master's thesis. At the time he was working on semiconductors and planned to give them up for six months — clueless that he would give them up for the rest of his life.

The union of electrical engineers and the Professor Burian proved to be fruitful, although physiologists doubted that a cochlear implant could help a deaf person to hear. They doubted because they knew how difficult the auditory system is structured: 'In the cochlea there are 20 thousand nerve endings, and you have a device of only 8 channels'. It wasn't that the technology experts claimed a breakthrough — they would only try their microelectronic implant to see what happens. Such an typical engineering approach! Erwin did not even attend Burian's surgery of implantation on 16 December 1977, while Ingeborg, who was worried about the safety of the device of biocompatible materials made by them, did. Visiting the following surgeries has become

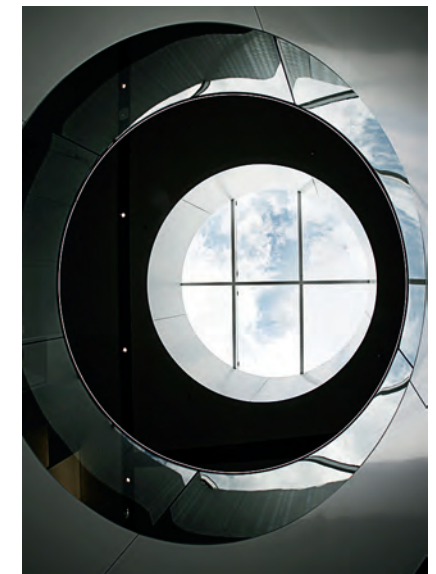


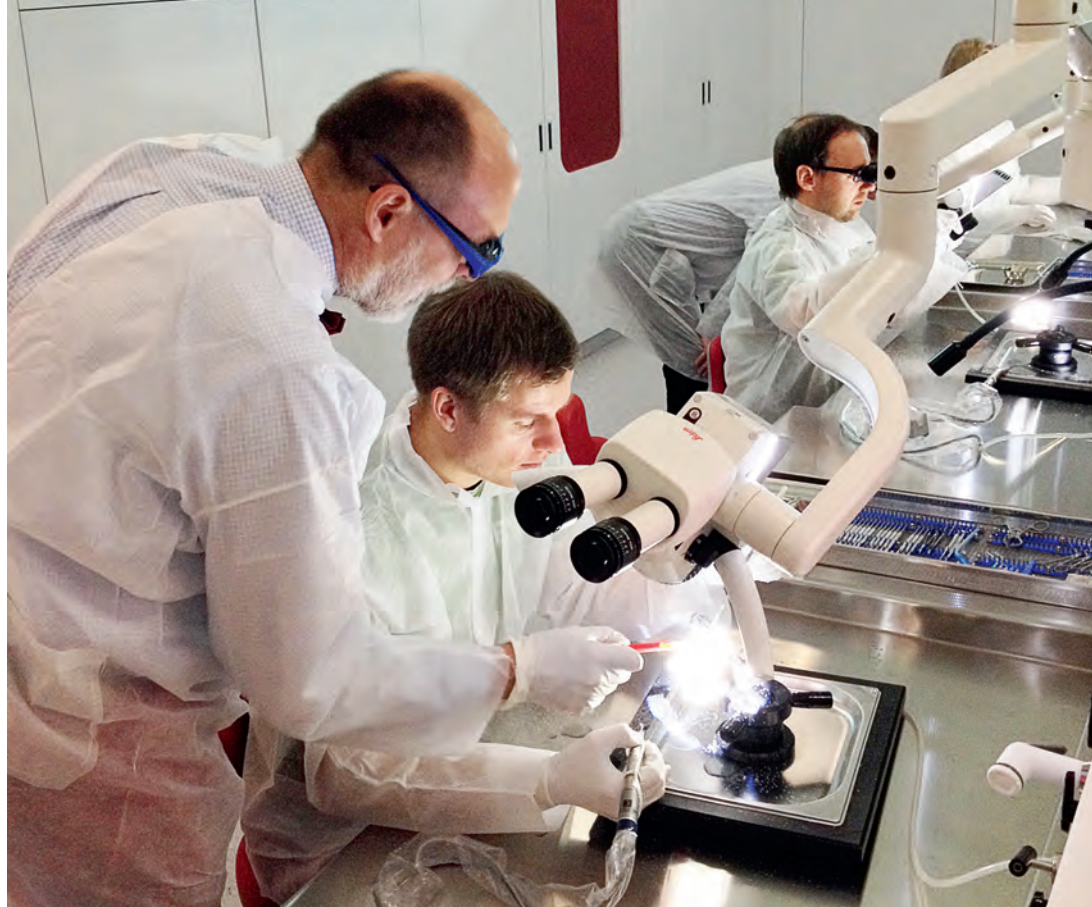
an imperative, since the depth of the electrode's insertion into the cochlea determined the features of a personal system settings.

And what happened? After being connected to the external processor the first patients could distinguish sounds and understand pieces of speech without lip-reading. For them it was a real helping hand, and for the inventors it was a victory. However the main thing is a launch pad for countless experiments on the passage of signals of different frequencies and power. As Ingeborg says with concealed pride: 'The first model was not bigger than the present ones. But since then hundreds of thousands of implantations have been made and we have learned so much that the present ones work much better'.

And Innsbruck was lucky: Erwin Hochmair was invited to head the Institute of Applied Physics at the local university. The family followed him and now their company occupies several buildings forming a new district of the city. The knowledge-intensive project started in Vienna and has become a driver of scientific research in Innsbruck, while the capital of Tirol has become a world's center of cochlear implantation. Erwin

Family company: a modern building, a supermodern facility.





Master-class in the laboratory of the temporal bone.

About 20 people are working with the electrodes in R&D department. According to the head of this area Claude Jolly, the company produces three different types of standard electrodes, 80% of them are 1,2 in long. Their number is expected to reach 10 and then pass to 'a personal service', defining by means of MRI the configuration of cochlea of every potential patient.

likes Innsbruck more than Vienna: you can ski, walk along the mountain's paths, whereas Ingeborg prefers Vienna because it is more convenient to do business there. The office in the Austrian capital does not solve the problems, and although they are both from Vienna, she misses her native city more than her husband.

In large part, their success is due to their university background. Think it over: the Hochmairs have made a technical discovery correcting nature that returns the hearing to those who are deprived of it from birth or as a result of diseases. However, while correcting the defects of nature, they rely on the fundamental knowledge of its laws. Are there many companies, where the R&D department has more employees than production itself? In MED-EL the number of creators is larger by a quarter.

The efficiency of the connection between processor to implant is vital. The processor converts acoustic signals of the outside

world into electric ones that the brain can understand. This is expressed by the formula of three C's — Complete Cochlear Coverage. That means that the electrode implanted in the cochlea of the ear extends all over its length, i.e. approximately 1,2 inches. The other two principles underlying the MED-EL's technology are the protection of the inner ear's structure and different types of signal processing for the basal and upper, apical part of the cochlea (as we have already seen in the museum, they broadcast respectively high and low frequencies).

— 1,2 in is like the Pi number for us — a universal quantity. The electrodes used in the United States and Australia are stiffer and shorter, — explained the head of the research and signal processing Peter Nopp. — It is considerably more difficult to implant a long and flexible electrode. However, it allows a patient to perceive the whole range of sounds, as well as to get aesthetic enjoyment while listening to music.

The Smart Lab

Such an aim deserves the efforts of producers and physicians. Not only at conferences and negotiations but also in the sacred place of the company — the laboratory of the temporal bone, which is considered the standard of sterility and automation. It is a junction of clean rooms provided with pressure controls, which is necessary while working with anatomical preparations. Don't look for the switches on the walls: all functions are activated via an iPad. Eight working places are supplied with medical digital microscopes, water, air, vacuums and other connections.

In fact, each of them is a small surgical theater. It is during the 'rehearsals' when a non-traumatic inserting of the electrode into cochlea all over its length and curls is being trained for surgeons around the world. The electrodes have to be flexible enough (the company guarantee that) while the otorhinolaryngologists must be highly skilled. The speed is not demanded, it is better to act slowly,

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but with confidence avoiding touching a nerve or letting any air microbubbles get into the endolymph which fills the cochlea.

According to the rules of Ideal Image Guided Surgery, the data of a CT scan, which an intern oversees, are duplicated on the remote screen. The picture is also displayed on the 3D screens for tutors and at the Master Station — as a rule it is an expert surgeon. The company's employees assist him, but do not participate in training.

One can find such an equipment only in selected clinics, for example, the clinic of Professor Skarzynski in Warsaw, the clinic of Professor Müller in Munich or the one of Professor Chisin in Jerusalem. By the way all of them, as well as other top surgeons from Europe and the United States, give master-classes at MED-EL for specialists from different countries.

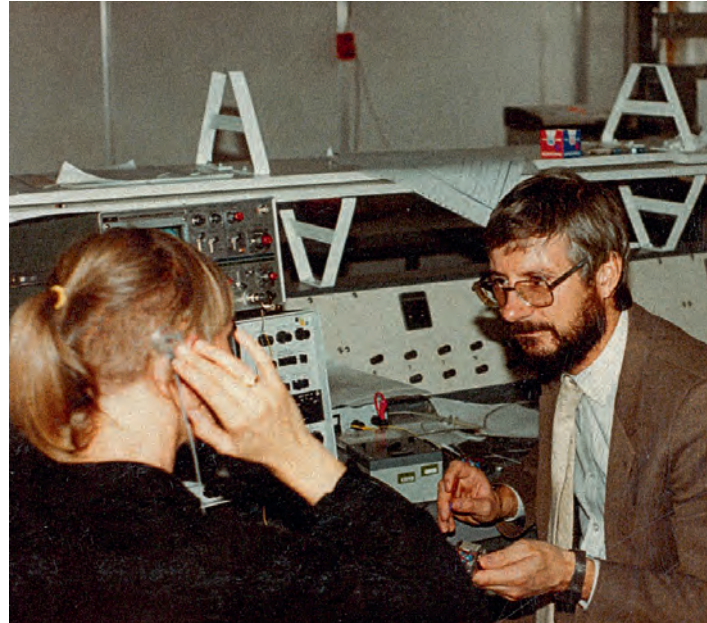
— 'The Smart Lab' is cool. But why is it you who need these apartments for training? — I asked the employee of the company Michael Poeckle.

— We understand that providing patients with a quality service is possible only if the surgeons have perfect skills of implantation. This is the reason why both of them are confident about MED-EL.

And then Michael suggested a thesis which I have already heard from different MED-EL staff members and on different occasions: 'The advantage of the family company is that a stock market do not quote us and we have more freedom to develop, to put forward ideas, to be innovative. We are ready to invest in a risky project and we don't need to return the money to the shareholders. I do not want to cast a shadow on other companies: they also think about the patients, but they are under a higher financial pressure.'

Forever with the Patient

With all respect to me the visitor from Russia, I wasn't allowed to enter any of the 12 clean rooms where the implants and speech



processors are produced — I admired it from behind a glass wall. Every person is clearly visible.

The combination of high-tech machine and manual work is impressive. I was explained that the manual work is used where security is especially required. I noticed a middle-aged woman, who methodically covered the electrodes with a silicone shell. She noticed my look, nodded and continued her needlework. I thought that one of the Austrian implants would go to a child somewhere in Siberia and it would serve him during all his life. To animate this relationship, the company has launched an interesting program: a customer is invited and is introduced to the very worker whose hands have restored their hearing. The deliverer can be easily identified by the number and the series of implant.

At the dawn of cochlear implant patients used to come to the laboratory for test trials, and Ingeborg and Erwin knew all of



The first patients were like members of their family for Ingeborg and Erwin.

Conny — pioneer patient.

Every year about 200 interns from different countries and 300 employees of the company's divisions in Austria and abroad go through a system of training, according to the head of education and training services Melissa Waller. In addition to full-time classes, the on-line ones are also provided at 10 am local time for the Asian region, and at 15.00 for the US and Canada.



Ingeborg Hochmair at the ceremony of Lasker-Debakey Award (an analogue of the Nobel in medical and clinical research area), 2013. Bill Gates was the winner of one of three nominations of this year.

their names and considered them the members of their team. One of the first ever patients named Conny turned to be special. She grew up in a large family, and her mother, sisters and brothers suffered from hearing loss. To avoid their fate, Conny contacted professor Burian, moved from Bavaria to Vienna for a few years, and had become a permanent participant in experiments and an invaluable source of details about the process of understanding the speech.

Erwin notes that it was a bold move for her as no one promised her anything. Cochlear implantation required pioneer engineers and surgeons, as well as a pioneer patient, whose risk was justified: they were the first to enjoy the fruits of progress.

Then in 1979 Conny received a small wearable processor for home use, and on 6 March 1980 (another historic date) the first Behind The Ear (BTE) processor allowed her to converse without visual cues. This cochlear implantation's pioneer holds the world record — despite her complete deafness she has understood speech, including mixed with other sounds, almost for 40 years!

It is clearly seen that MED-EL is used to keep in contact with its patients. The implants are lifelong products and the processors are constantly being updated. This is why the company has to be stable in a long term, and this is not just engineering, but a socially responsible approach.

— If a one-year-old child gets a cochlear implantation, and his lifetime is expected to be about 90–100 years, our company becomes a guarantee of his prosperity, while he and his relatives become a part of MED-EL's family, — defines Ingeborg, the head of the company and of a large family at the same time (let's remember hundreds of thousands of cochlear implantations!).

Developing its business since 1990, MED-EL has been balancing stability and renewal. From the first bulky implants to flat ones in titanic cases. From wearable processors to tiny devices that are easy to hide under the haircut. Products' usability is a unique feature of the company in the XXI century. Among the other priorities the Hochmairs consider respect to the delicate structure of cochlea: if a patient has residual hearing, it has to complete the senses acquired after the implantation. And of course there is also a constant improvement of structural elements, for example, developing of a special magnet inside an implant which provides a patient with access to MRI scan without the need to remove the implant.

But most of the hopes and aspirations are turned to the speech processor as an intellectual remote part of the system: the use of directional microphones, compatibility with iPhones and other gadgets, including electronic translators...

Beyond barriers

It is surprising that these two have dedicated to working on such little gizmos like implants and processors almost all their conscious life. However, it does not seem so surprising for themselves.

— For forty years of work in the area of cochlear implantation I haven't got a minute of boredom, — says Ingeborg.

— It is interesting that in the beginning I underestimated the job. We still have it on and there are so many ideas to bring to life, — agrees Erwin.

Diversification on the March

Bringing ideas to life requires money, while the company hasn't got outside investors there are two owners and only sales of the main product form the budget, which includes payments of research and developing. Ingeborg strongly argues my notes. First, they don't withdraw profits from turnover, but reinvest in the company. That's why in the past year they spent 20% of turnover in R&D — it is significantly more than joint-stock companies do. Second, it's been a long time since they staked the diversification of activities:

— If you have got only one project, even profitable, there is no room for manoeuvre. We are developing many projects and partnerships, and none of them is guaranteed to be successful. But some of them 'shoot' and give us an opportunity to conduct various works, including searching. Diversifying the business, we rely on something that we have already developed — electrical stimulation.

The pioneer in the area has become the subsidiary STIWELL, which has existed since 1996. It creates and inserts electrical stimulators in order to restore functions of the human organism after a stroke in particular. (It is also used in orthopedics, urology, physical therapy, sports medicine). Specialists of STIWELL Peter Stefflbauer and Thomas Schick demonstrate a compact version of the device combined with a computer which contains the program



Rehabilitation of the patient after a stroke according to the company's methodology.

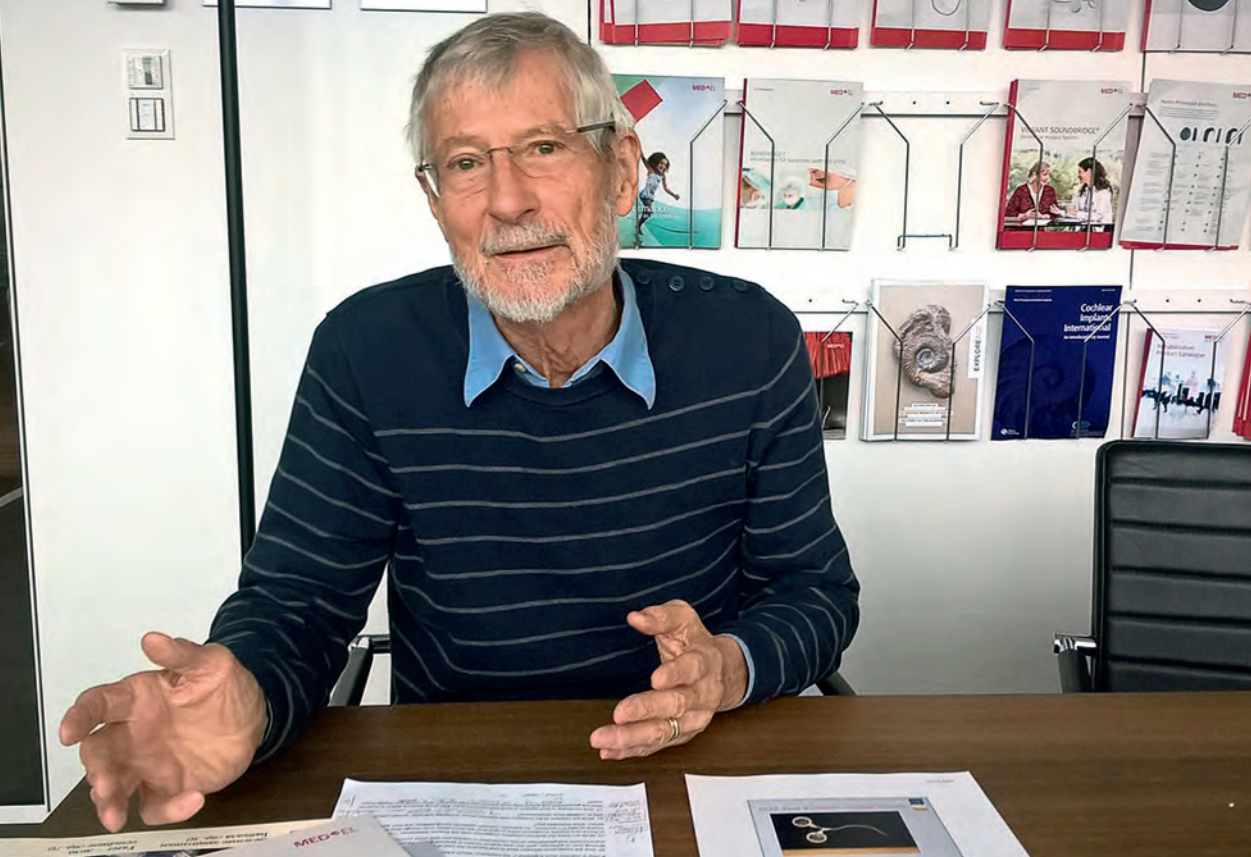
of procedures, stimulated my muscles in the way that the hand lifted a cup of water and brought it to my mouth without my efforts... Joking aside, it is important to start the rehabilitation in the hospital one day after the stroke, then go on at home and within returning to work (the equipment is available for rent). Thus, motor skills of 90% of patients recover completely in three stages. This is not a booklet's bait, but the conclusion of the study conducted in one of the Tyrolean clinics under the direction of professor Leopold Saltuari — MED-EL doesn't make a step without science! Posts of post-stroke rehabilitation in Austria and the inclusion of these procedures in medical insurance contribute to the promotion of the methodology. The client base is growing, 5,000 patients from Austria, Germany and Switzerland have already been helped, and Scandinavia is next.

Another problem MED-EL deals with is vocal fold paralysis. Shortness of breath, choking and coughing while swallowing have become chronic for those who suffer from this disease. According to statistics, in German-speaking countries a thousand patients with bilateral vocal cord damage — due to a trauma, viral infection,

Treatment in the form of a game.



Beyond barriers



Erwin Hochmair makes plans based on the needs of his patients.



are revealed every year. A specialist of R&D department Stefan Kabas highlighted the seriousness of the issue.

In order to determine gravity of the pathology and social importance of struggling with it, the company has interviewed dozens of patients on condition of anonymity. There is a hint of despair in their monologues. Original implantable stimulators were created to cure people like them, and 9 patients of 3 different clinics became the first users. The control of their state shows that the new medical technology is safe and relieves the process of respiration, speech and swallowing. A prestigious American journal 'The Laryngoscope' published an article about it. Nowadays 40 employees of R&D department are working on the subject of vocal folds. Yet this is not a business cell like STIWELL, a group which systematically pursues research and examines markets. This year 50 patients are expected to go through implantation in 8 clinics.

The lesson of this story is that the clinics which rely on MED-EL have taken the new technology into account. Kabas quoted a professor of one of them: 'Since you got a private, and moreover a family company, it does not pursue profit and tries to study the problem from top to bottom before solving it'. Doesn't it remind you of something?

Ingeborg's aptitude for research and her membership in the scientific community help her to establish creative collaborations — she is appreciated and known outside the company. Its geographical proof is a common project aimed to study disorders of the vestibular apparatus with the universities of Manhattan (USA), Maastricht (Netherlands) and Tomsk (Russia).

The relations with professionals is something that she needs herself. Diversification is not a reason to isolation. Fundamental approach to the business construction admits some mistakes in the beginning that, however, should be corrected in time in order not to get worse.

A specialist of the company Manfred Pieber (one of its projects was the launch of advanced implant Concerto, which is used in St. Petersburg ENT & Speech Research Institute) considers her an ideal integrator of different opinions. Thus, after measuring thrice, she made a number of innovative decisions, while other companies didn't dare to do that. For example, it was her idea to put speech processors not over the ear, but just over the implant.

The Company's Secret

What does it mean to work in a family company, if you are not one of the Hochmairs? Pieber also admitted that he feels quite secure, because the head is not obsessed with a short-term financial success and is concerned about the employees unlike a public company where managers are under pressure of shareholders, and that affects the staff.

Indeed, Ingeborg managed to create a family atmosphere at MED-EL. Whether it is a cause or an effect, but the company

Beyond barriers

employs about 20 couples — of course they work in different departments to avoid 'senior — subordinate' relations. Here they feel comfortable due to the atmosphere and work schedule: four 8.5-hours working days, 4.5 hours on Friday, 38.5 hours in total and almost 2.5 days off a week.

We already know one of these couples: Claude Jolly and Melissa Waller. He has worked for the company for about 20 years, and before he did research of cochlear electrodes in the University of Washington (USA). She used to work as an audiologist in an American hospital, and in the company she is responsible for the programs educating customers, partners and employees. Claude is from France, Melissa is from US. But still there is a point of intersection: he creates the electrodes, about which she tells the trainees. In turn she informs him about customer's needs. They say that they don't get bored at home as they've got something to discuss in their spare time...

I got a similar response from Erwin after I suggested that his and Ingeborg's constant involvement in the company's business can damage the smooth course of their private life.

— On the contrary, it eases our family life. There are many things we are both interested in, and many objects for which we strive. If we don't have enough time to discuss something at work, of course we do it at home. I think it's an ideal configuration, and we were very lucky to meet each other at the University, because we would not have reached separately what we have reached together, — said he adding with a smile: — We are happy, one can shoot a film about us.

It's worth saying that their younger daughter Janine is writing a master's thesis on physics and it seems like she wouldn't mind to follow in her mother's footsteps. But Ingeborg has got an expanded concept of a family meaning those who return hearing and skills of communication to people: scientists, managers, clinicians, surgeons, audiologists, — all in the same boat, united by a common



mission. She finds it a pity that despite the effective technology created at the end of the last century only one in five children with severe hearing loss receive a cochlear implant. Because delaying the surgery limits progress as the plasticity of the auditory pathways declines as children age, and these people run the risk of staying in the world of silence, where one can't hear the voice of a friend, rustling of leaves, variations of Bach's themes...

What is a result of one's long-term activity as the head of the company? What is the crucial component to success for a manager of a knowledge-intensive company? Ingeborg Hochmair has one answer: the creation of (no, not an implant!) a team.

— You need to understand how to react on a request of professionals and users — surgeons and patients in this case. But to work successfully it is necessary to gather a team and motivate it. Only collaborating with right people you will come to a desired outcome.

Ingeborg Hochmair and Alexei Il'tchenko.

'We have got a team headed by the company's vice-president Alexei Il'tchenko, a native of St. Petersburg, who knows Russia quite well and builds the bridge of trust between our countries. By the way, his wife Elena also works in the company. During the meetings with Russian specialists I always feel their real motivation to help their patients, young children in particular. And we are pleased to participate in these programs, either it is an interaction in medical science, or cooperation within the Hearing network (www.hearing.com) or helping the parent association 'I hear the world'. Not only do we provide the product, but also from here, from Austria we want to bring our patients all over the world a better life'.

Ingeborg HOCHMAIR

In the Rhythm of Waltz and Salsa



On first name terms with cars.

In 1997 Dmitry UVAROV became the first patient in St. Petersburg to have his hearing restored with the aid of a cochlear implant. Four years of profound deafness followed by twenty years with a MED-EL implant — Dmitry has a story to tell. And the story is not sentimental but optimistic, because Dmitry is a very positive person. So, let's start from the beginning...

Dima completely lost his hearing at the age of fifteen — a massive shock for a teenager. He cut off relations with his friends — he could not bear any show of pity. He went to a special school for the deaf, but on principle did not learn sign language, hoping that sooner or later his hearing would return. He completed his secondary education, but realized that even he was accepted for a course of higher education he would be unable to finish it. Instead he qualified as a car fitter and rose to be a higher category specialist. One fine day he was invited to the St. Petersburg Ear, Nose and Throat Institute. Candidates for the first implants were selected almost in the same way as the first cosmonauts: they were painstakingly examined and had the essence of the operation and the potential risks explained to them. When Dmitry was chosen he did not hesitate for a moment.

‘When the system was switched on about a month after the operation, I immediately began to hear sounds,’ says the pioneer patient. ‘I had a very simple processor with just a single programme. I still have it at home and amazingly it still works. I also keep the box for the four batteries — I used to wear it on my belt. I quickly worked out that it was cheaper to buy accumulators and recharge them... The specialists at the Institute calibrated the processor. I began to distinguish their voices and figures

earlier than the speech of my parents and sister. The strength of sound gradually increased, but it was indistinct. It was like printing a photograph from a negative: the image appears, but the picture is blurred. I tried not to force things — my organism and the mechanism had to get used to each other. And do you know what helped? Keeping old things — I still had a set of audio cassettes with my favourite music. I listened to them again, picked up the rhythm and recognized the instruments, and through the tune I could make out the words. The doctors didn’t expect that my adaptation to the system would be so quick. And I began to grow as a person, mainly in the professional field. Thanks to the implant I could now hear the ‘voice’ of the engine, carry out the initial diagnosis and repair.’

The comparison with the photographic process is no coincidence. Dmitry began a correspondence course at the Institute of Cinema Engineers, where he developed an interest in photography. However, in the fourth year he transferred to the Northwest Correspondence Polytechnic Institute in his speciality: cars and car equipment. All those years he combined study and work — he was an expert in a vehicle examination station and even drove a taxi-bus. After he graduated he taught for five years in the Department of Transport and Road Safety at the Mining Institute. When his contract expired he went back to practical affairs — to a bus depot. Normal professional mobility.

Most importantly, he did not experience any problems with his hearing (this after a total loss of hearing!) — either when he was teaching or when checking the condition of cars. And nobody with whom he came in contact (his family apart) suspected that there was a tiny speech processor concealed by his hair. For that



Dmitry as a teacher at the Mining Institute.

Beyond barriers

reason he does not intend to go for a bilateral implant. Dmitry has a little secret: as his implant is over his left ear, there is an area of 'vacillating reception' near his right ear, so in any situation he subconsciously adopts the most convenient position.

Dmitry's confidence was increased by a wireless processor which MED-EL gave to its first patient in St. Petersburg in 2007. This innovation enabled him to fulfil a long-cherished dream to take up dancing: he adores both European and Latin American dances. He met his current wife in the dance studio. The couple are no longer dancing together for a very good reason — they have an eighteen month-old daughter. However, the head of the family still goes to paid courses to improve his qualifications in his main speciality, because he is convinced that one should not rest on one's laurels.

'For all my conscious working life I have paid taxes like anyone else, though as an invalid of the 3rd group I am actually exempt from taxation by law. But I do not consider myself damaged or the victim of fate — everybody has problems and I can cope with mine', he says with a winning feeling of virtue and self-respect.

Last year Uvarov was fitted with a new MED-EL processor as a planned free replacement under the Compulsory Medical Insurance Fund. As an advanced user he particularly appreciates the remote control — the possibility to switch programmes and adjust the volume means he can avoid the cacophony that causes headaches and can find a balance in the acoustic environment. Improved hearing is for him a working tool: the braking system on buses is pneumatic, so it is important to determine the source of an 'incorrect' sound.

However, life is full of surprises: he was once spending the night with friends and, as usual, he took the processor out before going to sleep and hid it, but the dog found it and chewed it. As a result the batteries and antenna had to be thrown away and the processor itself was damaged... It is a good thing that Dmitry does



not throw out old objects — for the moment he is using a processor of the previous generation and has not lost his optimism. He is getting ready for the opening of the summer dancing season.

'Have you never stepped on your partner's toes or lost the rhythm?'

'I don't remember', smiles Uvarov. 'The most difficult dance I have tried is the Argentinean tango in twelve bars; the second most difficult style is salsa, with a sudden splash in the middle. But if you catch the first bar and engage your inner metronome you won't go wrong. The waltz is even easier: one-two-three, one-two-three — from beginning to end.'

Open air dance event on the Vasilievsky Island Point.

Dmitry Uvarov's speech processors: visible progress.



COMBI 40 — from 1997.



TEMPO+ — from 2007.



OPUS 2 — from 2016.

Magic Symphony

THE FIRST MUSIC FESTIVAL FOR CHILDREN WITH HEARING DIFFICULTIES WAS SUPPORTED BY *RUSSIAN MAECENAS*. ST. PETERSBURG. SEPTEMBER 2016.

Photo: Maria Istomina

