

# Museum Historicum Universitatis Tartuensis



UNIVERSITY OF TARTU

**MUSEUM HISTORICUM  
UNIVERSITATIS TARTUENSIS**

TARTU 1994

## Sisukord

About the Museum .....	3
The Building .....	4
Guide to the Exhibition .....	7
Tartu University in 1632–1710 .....	8
Tartu University in 1802–1919 .....	11
Scientific Research in Tartu University 1802–1919 .....	15
The Humanities .....	16
Medical Sciences .....	19
Natural Sciences .....	22
The Sciences .....	24
The Foundation and Development of the Estonian National University (1919–1940) .....	28
The Humanities .....	30
Natural Sciences .....	32
The Sciences .....	33
Medical Sciences .....	34
Agricultural Sciences .....	36
The Student Body .....	37
Tartu University in 1940–1990 .....	39

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## About the Museum

The Museum of the History of Tartu University was founded on December 6, 1976. Initially the Council of the Museum was set up with the task of carrying out preparatory work which in 1979 became more active when the museum was fully staffed.

On April 1, 1981 the first exhibition "Tartu University 1632-1919" was opened in the basement of the University Main Building where the museum was given its first rooms.

At the end of 1981 the museum moved into the former building of the university library on Toomemägi (Dome Hill). On the 350th anniversary of the university the exhibition "Tartu University 1632-1982" opened there.

In 1985 the museum building was closed for complete restoration. On September 1, 1988 the restorers from the Polish Budimex Construction Firm completed the work in the building which was specially converted to satisfy the needs of a museum. On November 28, 1989 on the eve of the 70th anniversary of the Estonian national university, a new exhibition was opened.

The exhibition occupies three floors, beginning on the 4th floor and continuing on the lower floors. On the fourth floor the visitor can get information about the history of the university in the 17th century, the reopening in 1802 and the following period. A survey of the development of science at Tartu University in the 19th century can be seen on the third floor. The exposition on the second floor is devoted to the life of the university in the Republic of Estonia before 1940 and the university today. In the hall a selection of some objects of interest from the museum's collection is exhibited.

The aim of the present guide is to help the visitor become acquainted with the exhibition. Considerable stress has been laid on the life of the university in the Republic of Estonia before 1940 as this historical period has hitherto been treated tendentiously and it deserves more attention.

The museum is open from 11 a.m. to 5 p.m. Closed on Mondays and Tuesdays.

For guided tours phone 35 335.

The Student Museum (61, Veski Street), affiliated to the Museum of the History of Tartu University, gives a survey of student life in Tartu during three centuries. Open from 11.30 a.m. to 4 p.m. Closed on Sundays and Mondays. Guided tours, phone 33 003.

## The Building

The museum built in the choral part of the Dome Church of Tartu is also of great interest. The Dome Church was the largest medieval ecclesiastical building in Old Livonia.

The construction of the brick church was started in the second quarter of the 13th century. The church was rebuilt several times and its final shape dates back to the beginning of the 16th century. In the 14th century the church was built in the form of a three-naved basilica, with chapel aisles along its longitudinal walls. Originally there were no towers, but at the end of the 15th century the western facade was decorated with high twin towers that were unique in Old Livonia. The earliest choir was a simple one-aisled room that was later replaced by a polygonal covered vault. In the second half of the 15th century the choir was rebuilt to meet the requirements of a hall church.

During the Livonian War in the second half of the 16th century the church was neglected and fell into disrepair as the Catholics had left the town after its surrender to the Russians

in 1558. The Lutheran town had no right to have such a church. By the 1580s the vaults had fallen down. After an inspection in 1613, when Tartu was again under Polish rule, the Dome Church was considered to be totally ruined. The fire of 1624 was the cause of its further destruction. In fact, the church had fallen into ruins in the course of complicated and troubled times.

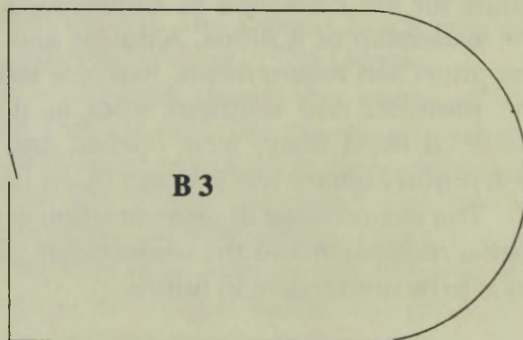
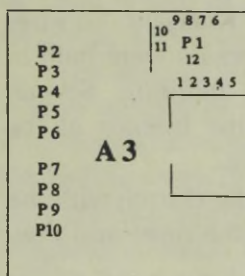
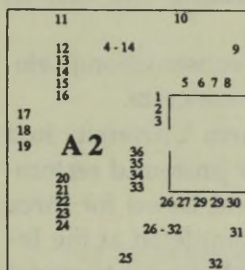
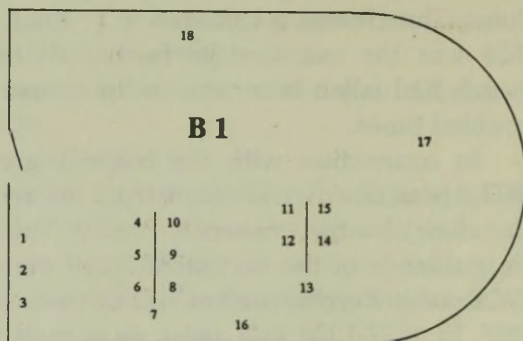
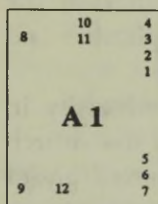
In connection with the reopening of the university in 1802 it was decided to reconstruct the remains of the church (the choir) for the university library. The work started under the guidance of the first architect of the university professor J.W.Krause. Reconstruction was carried out in the years 1804-1807. In 1927-1928 side aisles were built around two eastern vaults designed by the architect P.Mielberg.

In the years 1962-1964 the wooden constructional elements of the choir were replaced with ferro-concrete.

After the Museum of the History of Tartu University had moved into the Dome Church, the need for profound restoration increased. The work started in 1985 and lasted for three years. The design for the restoration was completed at the Institute for the Protection of Architectural Monuments under the leadership of K.Alttoa, A.Buldas and J.Kulasalu. To meet fire protection requirements, two new staircases were built in the southern and northern sides of the building. Several medieval blind doors were opened and the interior of the 19th century library was restored in the halls.

The second stage of reconstruction of the church with the partial restoration and the conservation of the ruins and towers is to be undertaken in future.





# Guide to the Exhibition

- THE 4th FLOOR**
- A 1** Western wing  
Tartu University in 1632-1710
- B 1** Eastern wing  
Tartu University in 1802-1919
- 1-3** Reopening of the university, academic studies, teaching staff
- 4,5,6,7,9,10,13** The student body, societies, fraternities
- 8** The Society of Estonian Students
- 11,12** The role of Tartu University in the cultural history of other nations
- 14** Tartu University and the War of Independence
- 16** Rectors
- 17** Construction activities
- 18** Library and K.Morgenstern

- THE 3rd FLOOR**
- A 2** Western wing  
Scientific Activities at Tartu University 1802-1919
- 1-3** History, philosophy, philology
- 4-14** Medicine
- 17-19** Astronomy
- 25,33** Natural sciences
- 15-16,20-24,26-32** Chemistry, physics, mathematics
- 34** Agricultural sciences
- 36** Law

- THE 2nd FLOOR**
- A 3** Western wing  
Tartu University in 1919-1940
- P1** Establishment and development of the Estonian national university
- P2** Tartu University during the years of German and Soviet occupation
- P3** Chemistry and Physics
- P4** Biology and Geography



- P5 Law  
History
- P6 Medicine
- P7 Philology  
Mathematics
- P8 Physical Education
- P9 Research
- P10 Amateur art activities, student life, social organization
- B 3 Balcony Hall**  
Collections  
Temporary exhibitions

## Tartu University in 1632-1710

### A1 Western wing

The first universities in Europe were founded in the 12th and 13th centuries.

The foundation of Tartu University took place at a critical period. The first decades of the 17th century were also the years of acute political and ideological conflict. In Northern Europe the Catholic Polish-Lithuanian Kingdom (Rzeczpospolita) and Protestant Sweden were confronting each other. In the 17th century the political struggle of the great powers also involved Livonia.

By the Truce of Altmark concluded in 1629 the bigger part of Livonia remained under Swedish rule. The newly conquered territories constituted the Province of Livonia. Tartu was made its centre and the Swedish king Gustav II Adolf (in the painting) appointed his former tutor Johan Skytte as its first governor-general (display case 1, further c.).

On June 30, 1632 Gustav II Adolf signed the charter for the foundation of Tartu University in his military camp near Nuremberg (c.1). The university was inaugurated on October

15 (25), 1632. On that day insignia and other symbols of the Rectors's power including a red velvet gown trimmed with yellow buttons and yellow borders and two silver sceptres were handed over to the first Rector Jakob Skytte (c.11). These baroque sceptres, decorated with dragon heads and a shielded lady's bust (an allusion to academic Pallas), were made by the goldsmith Christian Holst in Riga. The sceptres were also used at the ceremony on enrolling doctors.

The big seal of Tartu University dates from 1632. It depicts the half-profile of Gustav II Adolf in armour, with a laurel wreath on his head. Above on the left the text reads: Gustavus Adolphus D.G. Rex Sveciae Fundator Academiae (Gustav Adolf of Grace of God King of Sweden, Founder of the University). Around the oval edge there is a text: Sigillum Academiae Dorpatensis in Livonia. Anno MDCXXXII (the seal of Tartu University in Livonia in 1632). Some coins of the Swedish Kingdom of that time are also displayed (c.1).

Since 1638 scholarships were paid to the students. Among the first to receive scholarships were 80 students.

The main form of instruction was the obligatory attendance at lectures delivered in Latin. Another method of studies was the dispute for which the orator had to present a printed text - the disputation (c.5).

Diagram (c.9) gives a survey about admission to the university in the years 1632-1665. In all 1016 students were matriculated in this period. 91 % of the students were not of aristocratic descent. The local noblemen had no great confidence in Tartu University and they sent their sons to German universities. There were the children of burghers, pastors, Swedish and Finnish officials, clergymen and peasants who studied at Tartu University.

The diagram "The social composition of the students matriculated to Tartu University from Estonia and Livonia in 1690-1710" shows that in the second period of the university's existence, the number of noblemen in the student body of Tartu University had increased. Dr. hist. Helmut Piirimäe has pointed out that Estonians could also have been matriculated

in that period. In 1642, for instance, Johannes Freyer from Tallinn was matriculated. This surname was often given to liberated peasants. It is quite certain, however, that there was a Latvian, Janis Reiters, among the students.

The university had its own printing shop. It commenced operations in 1631, being the first printing shop in Estonia. In the exhibition a photocopy of its first publication, a disputation by Henricus Boismannus, is displayed. All in all, more than 1000 dissertations, disputations, orations, lectures and other publications were printed. Due to war there was a break in the activities of the university from 1665-1690. The university was opened again on August 21, 1690 under the name of Academia Gustavo-Carolina (in honour of Charles XI). In the display case we can see copies of the symbolic keys of Academia Gustavo-Carolina. The original gilded keys made of iron are preserved at the History Museum in Stockholm.

On the eve of the Northern War the university was transferred to Pärnu where it was festively inaugurated on August 23, 1699. On June 27, 1710, Russian troops reached Pärnu and on August 12 the town surrendered. The university had insufficient facilities for the continuation of its existence: its property had been scattered, the professors and students had either fled the country or died of plague. Neither did the Russian authorities show any interest in the university.

In the 17th century Tartu University had four traditional faculties: Theology, Medicine, Philosophy and Law. Logic, Ethics, Rhetorics, Politics, Poetics, History, Mathematics, Astronomy, Physics, Hebrew and Greek were taught at the Faculty of Philosophy, the seal of which dating from 1699 has been preserved to the present day (c.1). It depicts new shoots growing from a stump with a text "Excisa resurgit" (the excised rises again). A pair of scales for measuring gold from 1560 (c.3) and a microscope from the 18th century (c.6) are also exhibited. Pewter dishes and a candlestick belong to the same period.



The seal of the faculty of theology from 1632 (c.1) depicts an angel with an open Bible hovering in the clouds above the town.

In 1643-1649 Johan Gezelius, one of the most outstanding scientists of the 17th century at Tartu University, taught theology and Greek here. He is an author of several textbooks. His Greek Grammar which was published in Tartu continued to be used in Finnish and Swedish schools as late as the 19th century.

Among other eminent graduates of the university we can mention Urban Hjärne (c.5), physician in ordinary to Charles XI who was a scientist and practitioner of many disciplines.

A pair of dentist's forceps from the 18th century made by a village blacksmith is also exhibited (c.5).

Tartu University played an essential role in the cultural history of the Baltic countries in the 17th century. The history and folklore of the indigenous peoples were studied here. For instance, Arved Moller (1674-1758) (photo c.7), a graduate of Tartu University, was the first to write a book on the history of Tartu (photocopy of the title page c.7) which was published in Lund in 1755. Although the activities of the university were often disturbed by wars, it is important to stress the idea that the establishment of the university in Tartu laid the foundation to scientific and cultural development in this region.

## Tartu University in 1802-1919

### B1 Eastern wing

After the reopening of the university in 1802, the first 19 students matriculated on April 5, 1802. Since 1805 few Estonians have been admitted (c.1). Until 1850 there were four faculties at the university. In 1850 the Faculty of Philosophy was divided into two parts - the Faculty of History-Philology and the Faculty of Mathematics (scheme in c.1).

The main economic problem which the re-established University was facing was the construction of buildings. On June 8, 1803 a special building commission consisting of five professors was set up with Johann Krause, Professor of Economics, Technology and Civil Engineering in charge (painting, artist I. Malin, 1988). Krause designed and supervised the construction of university buildings.

In 1803 the reconstruction of the choir part of the ruins of the Dome Church started with the purpose of housing the University Library (a model is in the centre of the room). The corner stone of the main building was ceremonially laid on September 15, 1805. In 1809-1810 the Observatory was erected at the southern end of Toomemägi (model).

In 1805 the construction of the rotund of the Anatomical Theatre was completed, to which wings were added in 1827 (model).

Several outstanding scientists like the professors of medicine A.V.Volkman, Fr.Bidder, W. von Wahl and others have been rectors of the university. One of the most noteworthy rectors of the earlier period, especially from the point of view of the establishment of the university, was the physicist G.Fr.Parrot (painting, artist I.Malin 1988).

At the beginning of the 19th century student life was regulated by the University Statute of 1803 and the rules for the students approved by the Russian Tsar which remained in force until 1834. In order to avoid breaches of discipline by the students, the curator G.Crafftström established a special institution - the beadles - in 1831. Each beadle controlled a fixed territory in the town where he watched the students and reported every breach of discipline to the Rector. The students had to wear special uniforms. Until 1831 the uniform consisted of white trousers and a long blue greatcoat with a velvet collar adorned with embroidered oak-leaves (c.7). From 1831 the uniform greatcoat was to be green in colour, with a blue velvet collar and gilt buttons. With the greatcoat blue trousers were worn, the white ones being donned on festive occa-

sions. The obligation to wear the uniform was abolished in 1861.

As can be seen from the diagram (c.1), at the beginning of the 19th century most of the students came from Livonia (45.1 %). The nobility (37.1 %) and townspeople (38.8 %) (c.2) constituted the majority of the student body.

Several student fraternities were pursuing their activities at Tartu University. The first fraternity "Curonia" (an organization uniting students from Curonia) was founded in 1808, it was followed by "Estonia" (1821), "Livonia" (1822) and others. In 1855-1890 one third of the students were members of the fraternities. In the exhibition some objects belonging to the students' fraternities have been displayed. There is an engraved pipe which in 1823 was presented to a lecturer, member of the General Convent of Students (Allgemeine Burschenschaft). Several well-known aristocratic family names whose offspring had studied at the university can be read on this pipe.

The visitors can also see a seal made of rock crystal together with a box which belonged to "Estonia" (c.2). There are some students' song books (c.1, c.5), the so-called "devil's money-box" into which the student had to throw some coins as a fine for using four-letter words (c.6) and a colour band of "Livonia" from the 1820s. This colour band belonged to a member of the Samson-Himmelstierna family who had studied at Tartu University. Written on the band are autographs of several well-known scientists who worked at Tartu University in the first half of the 19th century.

Quarrels between students were settled by the students' court consisting of the representatives of the fraternities and the additional court of honour. Often they were settled by fighting rapier duels (c.13) which, from time to time, ended sadly.

In 1870 four Estonian students - Andres Kurrikoff, Hugo Treffner, Heinrich Rosenthal and Martin Wühner - started to meet in the so-called Kalevipoeg - evenings for discussions of national problems, literature, etc. Soon the Society of Estonian



Students was set up, which at first pursued its activities semi-legally. In the exhibition a paper-weight and an album published by the Society can be found (c.8). The colours of the Society of Estonian Students - blue, black and white - later became the colours of the Estonian national flag.

On August 17, 1915 the Russian Tsar issued a decree, admitting women to universities.

One of the first women students was J.A.Sadovskaya (c.5) who was studying physics.

The matriculation to the university took place twice a year, from the 13th to the 17th of January, and from the 11th to the 15th of August. The student matriculation booklet (c.7) cost 6 roubles.

Everywhere students have always been fighting for democracy and progressive ideas.

The participation of patriotically-minded students of Tartu in the War of Independence is confirmed by the fact that the Society of Estonian Students, the fraternities "Fraternitas Estica", "Fraternitas Livensis", "Sakala", "Vironia" and "Ugala" joined the Estonian army in a body. The members of the Estonian Women Students' Society joined the Red Cross committees and the Joint Work Organization. They also went to the front as nurses.

As the table shows (c.14), about 350 students of Tartu fought at the front in the War of Independence, 35-40 people fell in battles and 146 students and lecturers were decorated with the Cross of Liberty.

The exhibition about life at Tartu University in the 19th century is displayed in one of the most beautiful halls of the building. During the reconstruction work the former interior was restored. In the second half of the 19th century the personal library of K.Morgenstern (1770-1853), the first director of the library, was kept in the northern part of the hall. The library (about 12,000 volumes, obtained in 1852) contains books on philosophy, philology and history. At that time the hall served as the reading-room for the university staff. The books were kept on shelves running along the walls and arranged

systematically, according to the branches of science. In the middle of the hall there were tables for readers. Now we can see here a small collection of furniture used at the university in the 19th century.

Here the visitor can also admire the oldest exhibit of the museum - a celestial globe (c. in the middle of the hall) dating back to the 12th or 13th century and being probably one of the few islamic globes which have survived.

## **Scientific Research in Tartu University 1802-1919**

### **A2 Western wing**

The 19th century is known to be a century of rapid development of university science in Western Europe. The number of universities grew from year to year. New scientific organisations were founded; the principle of the unity of teaching and research was put into practice. The ever-growing need for educated specialists forced the central authorities of Russia to set up new universities beside the University of Moscow (founded in 1755).

In the beginning of the 19th century the universities of Kazan (1804), Harkov (1805), Warsaw (1817), St.Petersburg (1819) and Kiev (1834) were opened.

Scientific research at Tartu University reached international level in the first half of the 19th century. Introducing the methods of academic work of the universities of Germany, the country which had become the leader of the scientific world, and inviting graduates of German universities to teach in Tartu contributed considerably to the rise in scientific activity. In the years 1802-1825 graduates from the Universities of Jena, Leipzig, Göttingen and Berlin made up 60 % of the pro-

fessors and lecturers of Tartu University. In the second half of the 19th century, however, the graduates of Russian universities and Tartu University formed the majority of the teaching staff. The reactionary statute of the universities, confirmed in 1884, but actually introduced at Tartu University in 1889-1895, brought along a wave of Russification, changing the ethnic composition of the professoriate to a great extent in favour of Russians. Foreign orientation and scientific contacts changed as well.

Essential research trends were established in medicine, astronomy, physics, chemistry, mathematics, linguistics and agricultural disciplines. Publishing activities increased and the students were involved in scientific research. At that time original scientific schools were created, several expeditions and circumnavigations around the world were arranged. Up to the 1880s Tartu University acted as a scientific mediator between Russia and Western Europe and several graduates occupied academic positions in the universities of Russia and Western Europe.

Already in the 19th century it was considered necessary to record the history of the university. In 1827 the album "Die Kaiserliche Universität Dorpat..." (c.1) was published, including detailed designs and plans of the university buildings, as well as information about professors, lecturers and students.

## The Humanities

In the 19th century social thought at Tartu University was influenced by Enlightenment philosophy and German classical philosophy. The latter was propagated here by Kant's disciple G.B.Jäsche, a professor of philosophy who became an intellectual leader of the "Ephenesische Kirche", a circle of adherents of Kant's philosophy. A pince-nez and professor's hat which belonged to G.B.Jäsche have been preserved to the present day (c.2)



In 1871-1888 the professor of philosophy G.Zeichmüller worked at Tartu University. He created the Tartu variant of the philosophy of personalism and his works have influenced the views of F.Nietzsche. In the exhibition G.Zeichmüller's theological treatise on Darwinism is displayed (c.2). The Chair of History took shape in the 1820s. In 1828 Fr.K.Kruse was elected Professor of General History. He taught general history and the history of Russia. He became an enthusiastic researcher of the prehistoric history of the Baltic countries. In 1839 he undertook a first archaeological expedition and, on the basis of the ancient finds, laid the foundation to the Museum of Archaeology at Tartu University. A short illustrated survey from the series "Russische Altertum" dealing with archaeological finds is displayed in case 2. The history of medieval Livonia was thoroughly studied by the professor of general history R.Hausmann, a graduate of Tartu University who was born in the small Estonian town of Võru. R.Hausmann's development as an historian was essentially influenced by professor C.C.Schirren, a researcher into the history of Russia and Baltic countries, as well as into the history of Tartu University in the Swedish period. (Survey of the history of Academia Gustaviana compiled by C.C.Schirren is exhibited in case 2). R.Hausmann considered it essential to employ the sciences ancillary to history, especially the criticism of primary sources in the science of history. He has also published several works in the field of archeology, for instance "Depotfund von Dorpat" (c.2), a detailed description of an earlier treasure trove in Tartu.

Classical philology was an important discipline at Tartu University. The holder of the chair in 1802-1836 was J.K.S.Morgenstern who simultaneously occupied the post of the director of the University Library. From that period the seal of the Library is exhibited (c.2).

In the second half of the 19th century courses in linguistics began to be delivered more consistently and the fundamentals of the scientific study of languages were established. Several talented linguists started their teaching and research

activities here, including J.I.N.Baudouin de Courtenay, one of the founders of modern phonology, and L.Meyer, a researcher into Indo-European languages. The latter was the President of the Learned Estonian Society for 30 years. A copy of Meyer's Doctoral diploma is displayed. Doctoral diplomas began to be conferred soon after the reopening of the university and they were printed in the Grenzius' Printing Shop in Tartu.

The Estonian language and other Finno-Ugric languages were only taught by a lecturer from 1803-1919. The first lecturers of the Estonian language were Fr.D.Lenz (1803-1809), G.P.A.von Toth and J.S.Boubrig. The first Estonian to teach the Estonian language from 1838-1841 was D.H.Jürgenson. The first Estonian Doctor of Philology was M.Veske, who worked at Tartu University 1874-1885. From 1842-1850 Fr.R.Faehlmann, a graduate of the medical faculty of Tartu University, who initiated the writing of the Estonian national epic "Kalevipoeg" and had collected a large amount of preliminary material for it, worked at the university as a lecturer of the Estonian language. In display case 3 are displayed Fr.R.Faehlmann's treatise "Verba conjugationen ..." based on his linguistic studies and some copies of the collections of the Learned Estonian Society (the originals are preserved in the Literary Museum).

The marble bust of Rector J.P.G.von Ewers completes the part of the exhibition dedicated to the Humanities. It is made by the Baltic-German sculptor L.von Maydell who had studied at Tartu University for some time. Professor G.von Ewers was an outstanding historian and a specialist of law studying, among other things, the legal conditions of the peasantry of the Baltic countries.

The posters displayed on the stands dedicated to law give a survey of the main schools of law and their representatives. In case 36 we can see the treatise on the problems of international law by V.E.Grabar, the last outstanding representative of the Tartu school of international law. The Master's Diploma of J.V.Passek, a graduate of the Berlin Institute of Roman Law,

and lecture-notes from 1893 which belonged to a student of civil procedure are also displayed (c.36). In teaching criminalistics a course of lectures on phrenology (a theory about the shape of the parts of brain, on the basis of which it is possible to determine man's character and intellectual abilities) was delivered as well. In case 36, the visitor can see a model of a brain (L.N.Fowler, London) used for illustrating the lectures.

## Medical Sciences

Since the reopening of the university the Medical Faculty has been the biggest. The faculty commenced with six professorships, but already by 1882 there were 20 staff members including 13 professors, 4 docents, 2 prosectors and an apothecary.

Throughout the 19th century the students of the Medical Faculty made up 35-36 % of the student body. 84 % of all Doctor's and Master's dissertations defended in 1802-1917 were in the field of pharmacy and medicine.

Already by the middle of the 19th century the Medical Faculty of Tartu University became one of the leading scientific centres in Russia. Strong schools of physiology, pharmacy, pharmacology and surgery developed here.

44 of the 97 lecturers who were working at the faculty in the period 1802-1890 came from the Baltic provinces; 44 lecturers came from Western Europe, mostly from Germany. Some outstanding scientists who came to Tartu from Germany, were, for instance, K.Fr.Burdach (one of the founders of the study of the anatomy of brain), C.B.Reichert (discoverer of hemoglobin crystallization), R.R.Buchheim (the founder of the first laboratory of experimental pharmacology in the world in Tartu in 1874), J.Fr.Erdmann (the first to introduce physiotherapy in clinical practice, the first in Russia to use the stethoscope in 1820), J.G.N.Dragendorff (discovered a reagent



for alkaloid isolation still used to the present day), A.Rauber (one of the most outstanding anatomists of the 19th century). Several graduates of the Medical Faculty won international recognition, for instance H.A.A.Schmidt (formulator of the fermentative theory of blood coagulation in 1861), G.Fr.K.H. Bidder (the first to describe the secretion of gastric juice), J.E.O.Schmiedeberg (one of the founders of experimental pharmacology), N.J.Pirogov (founder of experimental surgery who laid the foundation for the study of surgical anatomy), E.G.B.Bergman (introduced antisepsis and asepsis in Tartu), W.M.Fr.Zoege von Manteuffel (introduced rubber gloves) (see map 11).

The contribution of the medical professors of Tartu University to medical science is shown by eponymical medical terms - names of syndroms, organs and their parts, theories, methods of treatment, medical instruments, etc. which bear the names of the persons who were the first to describe or use them. Altogether 200 medical professors of Tartu are connected with eponymical terms, for instance, N.I.Pirogov, A.P. Gubarev, F.V.Ovsyannikov, J.A.N.Szymanowsky, M.H.Rathke, K.W.Kupffer (see map 9).

Scientific apparatus, medical instruments, study aids and publications displayed in the exhibition give a survey of the scientific-experimental level of different branches of medicine and the role of outstanding medical professors at Tartu University in the 19th century.

The manual of the anatomy of man compiled by A.Rauber (c.4) which survived 20 editions in print was still widely used in the 20th century. Hemometers (c.3) were used to investigate blood. We can also see instruments for bone operations (c.4) which were probably made in St.Petersburg in the second half of the 20th century.

In 1880 H.Stillmark, a graduate of Tartu University, synthesised toxic substance ricin from ricin seeds in Tartu. It was the first substance from the class of lectins to be discovered. Some jars containing ricin seeds are exhibited (c.5).



*The Concert Hall*



*Achromatic object glass, Tiedemann, Stuttgart. Before 1808.*



*Tangens - bussol, C. J. Brucker. 1863.*



◀ Islamic globe. 12<sup>th</sup> or 13<sup>th</sup> century.

▲ Armillary sphere, J. Rauer, Nuremberg. 1791.



Rector's sceptres, 1612. Made by the goldsmith Christian Holst in Riga





▲ *One of the Halls.*

► *Microscope. 17<sup>th</sup> century.*





*Silver plate, presented to the University in 1932 on the 300 th anniversary by Swedish students.*



*The White Star Order of Merits (III Class) 1939 presented to the professor of Mathematics H. Jaakson for his service to the Estonian nation and state.*



G.Ph. von Oettingen was the first ophthalmologist from Tartu who became more widely known. A collection of preparations from the Eye Clinic and a set of eye survey instruments are displayed in the exhibition (c.6).

Case histories in which J.Fr.Erdmann describes the use of stethoscopes in diagnosing a disease were first published in the Annals of the Tartu Clinical School of Medicine in 1821 (c.7).

In 1837-1838 M.Pirogov published his book "Chirurgische Anatomie der "Arterienstamme" supplemented by an atlas of 50 original drawings. Two of the drawings painted on parchment by the artist Fr.Schlater from Tartu, are exhibited (c.8).

The Institute of Hygiene founded by B.Körber in 1888 contributed a great deal to the investigation of hygienic problems in Tartu. B.Körber's Doctoral dissertation and his drawings of a disinfection chamber, which he used to illustrate his lectures, are exhibited (c.8).

Professor of pharmacy J.Dragendorff founded his school here. His analytical scales and a chair are preserved. An example of a laboratory with the instruments used in pharmacy and pharmacological laboratories in the second half of the 19th century can be seen (c.10).

The instruments from the 19th century physiology laboratory were being used to investigate the contraction of prepared muscles (c.13).

The activities of M.Rostovtsev, a professor of surgery and an educationalist, are also worth mentioning. On his initiative the Private University with faculties of Medicine and Physics-Mathematics was founded in Tartu in 1908. The aim of the Private University was, first and foremost, to give higher education to women whose attendance of lectures in Tartu University as auditor-students was abolished in 1907. On display we can see M.Rostovtsev's Doctoral thesis on acute appendicitis (defended in 1902). This is one of the first exhaustive monographs in this field. An album about the Private University (what existed up to 1918) is next to it (c.12).



## Natural Sciences

The natural scientists who have worked and studied at Tartu University have also brought fame to their Alma Mater. In the 19th century they took part in numerous expeditions in order to investigate the vast territory of Tsarist Russia. A map displayed on the poster gives a survey of the routes of the expeditions.

C.C.F.v.Ledebour, an internationally acknowledged professor of botany, brought back an herbarium consisting of 1600 species from his Altai-expedition (1826-1827). Two herbarium lists of Ledebour, and one of A.G.Bunge, his travel companion, are exhibited (c.25). Later A.G.Bunge became one of the leading plant systematisers of his time.

The instruments used by the natural scientists are represented by a microtome and a microtome's knife (both from the 19th century) for cutting preparations and an instrument for measuring the corners of crystals (c.25).

In the same display case there are three samples of minerals from the collection of O.M.L.v.Engelhardt, professor of mineralogy. As a result of his expeditions, the university's collections of minerals were doubled. In 1836, the catalogue of the collections of the Cabinet of Mineralogy contained 11,370 units.

One of the largest scientific organizations of the 19th century was the Tartu Naturalists' Society (founded in 1853, affiliated to the university in the years 1878-1946). In display case 33 we can see a memoir medal and a publication on the occasion of the 50th doctoral anniversary of K.E.von Baer, one of the most outstanding natural scientists of the 19th century who was the president of the Naturalists' Society (1869-1876). The text on the medal reads: ORSUS AB OVO HOMINEM HOMINI OSTENOIT ("has shown man the man from the ovum"). In the same display case we can see A.Th.v.Mid-

dendorff's masterful description of Siberia which appeared in four volumes between the years 1848-1875. Professor Middendorff, an honorary member of the Naturalists' Society, was the leading expert on Siberia in the 19th century.

Expeditions to Russia were arranged regularly. A large number of botanical, zoological and geological samples were collected. In display case 33 we can see a part of the collection of butterflies which belonged to the Naturalists' Society and the samples of the skeletons of fossils which were collected and investigated by professor A.Rosenberg, an acting member of the Naturalists' Society. He was one of the most competent osteologists in the world, possessing one of the most accomplished osteological collections.

The top achievement of the Society in the 19th century, however, is considered to be the drawing of a geological map of the Baltic provinces by C.Fr.Schmidt (1858). A work by C.Fr.Schmidt, describing the above-mentioned effort, is exhibited.

Tartu University was the first in Russia to prepare specialists in agriculture since 1803. The first professor was J.W.Krause. He founded the Board of Agriculture and Technology and started a collection of agricultural implements and models.

After Krause's death J.Fr.L.Schmaltz was invited to take his place. Professor Schmaltz founded the Agricultural Institute on the Vana-Kuuste Manor near Tartu, which was the very first higher agricultural school and research centre in Tsarist Russia. One of its most prominent graduates was Jakob Johanson, the founder of agrochemistry in Russia, the first Estonian who had the degree of Doctor of Agriculture.

Dutch grain scales dating from the end of the 19th century, made in the Baltic Manufactory of Scales and Measuring Instruments in Riga, and Berlin grain scales, made in the famous C.Gerhardt Scales Manufactory in Germany, are displayed in case 34. A lactodensitometer for measuring fats in milk dates from the same period.

## The Sciences

The study of astronomy in Tartu University reached its peak after the Observatory building on Toomemägi was completed (1810) and W.Struve, a graduate of the university, was appointed its director. W.Struve purchased a number of modern observation instruments for the observatory from Western Europe. Most of these instruments are preserved in the Observatory Museum. Of the 19th century astronomical instruments a small transit instrument, made in 1846 by Brauer in Pulkovo (c.17), the Dollond's telescope from the turn of the 18th-19th century (c.18), and an armillary sphere, made by J.Rauer in Nürnberg in 1791 (c.18), are displayed in our museum.

Tartu Observatory was the cradle of Russian geodesy. In 1816-1855 on Struve's initiative and under his supervision the 19th century's biggest and most precise measurement of a meridian arch was carried out. The results of this extensive scientific work can even be used today in determining the shape and the size of the Earth.

Chemistry occupied an outstanding place at Tartu University due to highly-qualified professors and multi-faceted research themes. The university was given the right to give out a chemist's diploma in 1850.

Already the first professor of chemistry A.N.Schrerer had laid the foundation of teaching chemistry, based on the most recent scientific ideas. Here worked the outstanding scientists, professors D.H.Grindel and C.C.F.F.Goebel. The latter discovered alkaloid harmaline and was the first propagator of J.Liebig's agrochemical ideas in Russia (c.27). In 1844, while studying platinum ores and remnants of platinum production, professor of pharmacy C.E.Claus succeeded in discovering the element Ruthenium.

Several laboratory implements are exhibited in case 27: platinum holders, a set of areometers (P.T.Mussner, 1805), a



pycnometer for measuring the density of liquids, a dilatometer for measuring thermal expansion (H.Geissler, Bonn, 1869) and a thermometer.

Professor C.E.H.Schmidt, teacher of several prominent scientists, worked at the university for more than 40 years. He was one of the first to employ chemical-analytical method in solving biochemical problems. Later he was active in the field of pure chemistry, studying soils, minerals, fertilizers, water from many water bodies in the world, etc. In case 26 we can see several items which belonged to C.C.H.Schmidt: a pair of scissors, a magnifier, a touchstone for assaying gold, crystals, rocks, and samples of metals from his collection of minerals. C.E.H.Schmidt's disciple, W.F.Ostwald laid the foundations of a new branch of science, physical chemistry, which had already begun to take shape in Schmidt's laboratory. W.F.Ostwald, a Nobel prize winner in 1909, defended his Master's and Doctor's dissertations in Tartu (c.28). At Tartu University the same research trend was carried on by another outstanding pupil of C.C.H.Schmidt - C.H.J.A.Tammann (1861-1938) who was an Estonian by nationality.

Professor of pharmacy I.L.Kondakov was the first to synthesize synthetic rubber in Tartu in 1901. He also wrote the first monograph on synthetic rubber (c.28).

Several instruments used in the chemistry laboratory are displayed: balances, a set of weights of rock crystal (1874) (c.22); spectroscopes for spectral analysis (Schmidt & Haensch, Berlin; M.Kohl, Chemnitz), a polarimeter for determining the specific turn of optically active substances (Askania, Berlin c.23), Mohr-Westphal balances for measuring the density of liquids (Sartorius, Göttingen c.24).

Many outstanding physicists have worked at Tartu University. G.F.Parrot founded an exemplary physics laboratory with 445 different types of apparatus. Of his 50 instruments, still preserved, 29 are exhibited in Parrot's display cabinet (c.32). The most interesting are the following: an electrical frictional machine (1809), a big battery of Leyden Jars (1809), the Gregorius telescope made by Adams (1805), the first ac-

romatic instruments - an acromatic triple prism made by Dolland (1804) and an object glass made by Tiedemann (before 1808) - a device for demonstrating Chladni figures and a big natural magnet from the Urals.

The other outstanding physicists of the 19th century connected with Tartu are H.F.E. Lenz, a specialist in electromagnetism (Lenz's rule, the Joule-Lenz law) and M.H. Jacobi, a specialist in electrotechnics, the founder of galvanoplastics in Tartu in 1838. In the exhibition we can see two items made by using the galvanoplastic technique: a relief painting and a copy of the Order of Merit awarded to V.J. Bunyakovski, Doctor of Mathematics at the University of Paris in 1825-1875 (author V. Alekseyev).

Professor A.J. von Oettingen, a physicist and a music theoretician, started systematic meteorological observations through the network of stations, being at the same time the founder of the Meteorological Observatory in Tartu. On his initiative practical classes in physics began to be taught. We can see a work-book for a practical class in physics from the academic year 1895/96, the jubilee publication of the Meteorological Observatory (1865-1915), a Lambrecht-Holster barometer at the standard mark and a pocket-barometer from Moscow (c.29).

Professor A.I. Sadovski carried out important research on the mechanical effect of light on crystals. He introduced research on x-rays at Tartu University (x-rays were discovered in 1895). In case 30 we can see one of the first x-ray pictures, and an x-ray tube (Рейнигеръ, и Гебберт и Шаль. С.Пб.) models of optical wave surfaces (1859) and optically active crystals.

Mathematics at Tartu University was taught at a high contemporary level by professor J.M.C. Bartels. Carl Eduard Senff, the younger son of the teacher at the local drawing school C.A. Senff, was one of his most talented students. Here we can see Senff's prize essay on curve and surface theory "The principal theorems of curve and surface theory" (1831, c.31). This essay, being the first attempt of making a complete presentation of differential geometry, captured international

attention. C.E.Senff started the Tartu school of differential geometry to which professor E.F.A.Minding and his student Karl Peterson also belonged. At present this trend is being further developed in the departments of algebra and geometry. In case 31 we can see a planimeter (Ed.Borchardt, Berlin) which was used to measure areas in the maps, a spherometer used for measuring surface convexities of the lens, a divider and a compass (B. Вестберг, С. Петербург).

In the upper display case found in the middle of the exhibition hall several physics instruments are displayed: a prism circle (Pistor-Martins, Berlin, 1847), a theodolite (Ertel, Munich, the 1830s), the forerunner of the modern theodolite (c.15) and large and small dischargers (1866, 1868) which were used to investigate electric discharges in the air and in a vacuum (c.16). Research in this field is being carried on in the Sector of Gas Discharge at the Department of General Physics.

Photography was invented in 1839. The visitor can see an old camera, daguerrotype plates (after L.Daguerre who elaborated the method of fixing an image on a photosensitive silvered copper plate), a photo album from the end of the 19th century and stroboscopic discs (professor Stampfers), forerunners of the cinema, which give the illusion of movement while rotating (c.35). One can also see a large Voigtländer's object glass (Vienna), Hermagise's (Paris) and other object glasses and utensils for making photosensitive colloid solutions (И. Ритинг, С. Петербург) (c. 20).

Tangens-bussol (1863), used for measuring low electric currents (c.21) and the measurer of thickness (c.15) made by the university mechanic C.J.Brückner (Estonian by birth, worked at the university in 1824-1874) are also of great interest.



# **The Foundation and Development of the Estonian National University (1919-1940)**

A3 Western wing

The preconditions for the foundation of the Estonian national university were already mature in the middle of the 19th century when the local intellectuals, influenced by the Learned Estonian Society, took a deeper interest in the indigenous people, language and history of Estonia (p 1).

Soon after the overthrow of the Tsar and the establishment of Estonia's autonomy, the need for the foundation of the Estonian university arose. At the first congress of the Estonian students and alumni, which took place in March 1917, J. Tõnisson, P. Põld and V. Ernits expounded their ideas about higher education in the Estonian language. On May 31 the university in Tartu where the instruction was in the Russian language was officially closed. Soon after that the German occupation authorities quickly set up the pro-German University (Landesuniversität) with instruction in German which was boycotted by most Estonian students. Because of the November Revolution in Germany Landesuniversität could only pursue its activities for a little more than two months (September, 15 - the end of November). The property of the German University was handed over to a commission, which was set up by the Provisional Government of the Estonian Republic and headed by P.Põld. On December 1, 1918 the Prime Minister K. Päts proposed P.Põld to take up the duties of the curator of the university. In March 1919, under P.Põld's guidance, a preparatory commission for the reopening of the university was appointed. At its first meeting on May 16, 1919

the commission laid down the main principles of the Estonian university: 1) the development of all the branches of science, especially national sciences; 2) the provision of higher education; 3) training of specialists of Estonian nationality.

On October 4, 1919 the first 69 students were ceremonially matriculated in the assembly hall of the university. The inauguration ceremony was held on December 1, 1919. In 1920 H. Koppel was elected the first rector of Tartu University in the Republic of Estonia. As the leader of the university H. Koppel was highly respected. When he retired, a decorated citation of honour made of silver with the engraved signatures of the professors of the Medical Faculty was presented to him (c. 12).

In the exhibition we can see a bust of J. Tõnisson, professor of Tartu University, an Estonian nationalist (author F. Sannamees, 1932). Jubilee medals (c.12) depicting the profiles of J. Skytte and P. Põld, designed by V. Mellik on the occasion of the 300th anniversary of the university, are also displayed.

The most essential change in the life of the university was the use of Estonian as the language of tuition and administration. One of the main problems was to find qualified lecturers for the university. Some of the lecturers of the tsarist university had been evacuated to Russia, most of the German professors had left together with the occupation army. It was necessary to begin training university lectures of the Estonian nationality. Talented graduates were given state scholarships for advanced studies abroad. The grant-aided scholars were mostly at universities in Germany, Finland, Sweden and England (see map P.1). The number of lecturers of Estonian nationality was continuously increasing: By 1938 Estonians constituted more than 80 % of the teaching staff. It is possible to say that by the 1940s a competent body of Estonian scientists had been formed.

As the legal successor of the tsarist university, Tartu University in the Republic of Estonia inherited all the buildings and most of the property of its predecessor. In 1934 the uni-

versity possessed 251 buildings and 800 hectares of land. A scale model in P. 1 shows where the buildings were situated.

## The Humanities

The Humanities, being more important from the point of view of national culture, were taught at the Faculty of Philosophy. As can be seen from the displayed study programmes, it was possible to major in 20 special fields. The most essential feature was the significance given to the study of the so-called national sciences - the Estonian language and literature, folklore, history, archeology, ethnography (c.2).

Noteworthy work in studying the mother tongue was done. The standardization of the literary Estonian language usage was completed, the vocabulary was enriched by new word formation, and the school of Fenno-Ugric comparative linguistics was established. The influence of linguists of international renown A. Saareste, J. Mark and J. Mägiste who were active in these fields is even felt today. The linguists joined the Academic Mother Tongue Society, The Estonian Language Journal (*Eesti Keel*) was published. With the help of the Society A. Saareste organized a systematic network for the recording of dialects, a collection of the Estonian dialect material and an Estonian dialect atlas was compiled (c.2).

A big contribution to the creation and unification of scientific terminology in Estonian was made by J.V. Veski who took part in the work of more than 40 commissions of terminology. With his help more than 30 terminological glossaries containing about 100,000 terms were published. In the display cases we can see glossaries of medical and zoological terms (c.6, 7).

The seal of the Seminar of Romanic Philology (c.1) reminds us of teaching Romance and classical philology at the university.



In that period the schooling of specialists in ethnography began for the first time at Tartu University. In the exhibition we can see treatises by the Finnish scientist I. Manninen and his Estonian colleagues L. Linnus and G. Ränk. In 1920-1923, A.M. Tallgren, an outstanding Finnish archeologist, worked in Tartu. He laid the foundation of the teaching of archeology and of the systematic scientific research into antique relics in Estonia. Professor Tallgren's work was continued by the prolific professor of archeology H. Moora under whose supervision several thorough studies on the ancient history of the territories of Estonia and Latvia were completed (c.5).

The Academic Historical Society became the centre of historical research at Tartu University. In 1922 the Society started to publish its periodical *Ajalooline Ajakiri* (Historical Journal) the editors of which were the young Estonian historians P.Tarvel and H. Kruus (c.5).

In the autumn of 1919 K. Ramul was elected Docent of Psychology. Under his guidance the Laboratory of Experimental Psychology and Pedagogy was founded. Some instruments used in the first years of the laboratory have been preserved to the present day (c.1).

After some discussion the Faculty of Theology was opened again. Its main aim was to train pastors and teachers of religious instruction for primary and secondary schools. The lecturers of the Faculty took an active part in the cultural and educational life of Estonia. Several publications of the faculty members in respective fields are displayed (c.2).

The Faculty of Law (together with the Department of Commerce) developed into the largest faculty of the university. The Faculty was mainly engaged in developing the scientific basis of law and order in Estonia and training Estonian law specialists. Professors N. Maim, A. Piip and J. Uluots began delivering law lectures in the mother tongue. In the exhibition we can see treatises written by the professor of international law A. Piip and the professor of administrative law and procedure A.T. Kliiman (c.2).

## Natural Sciences

In the Estonian national university the zoological, geological, geographical and botanical investigation of Estonia began. Professor T. Lippmaa, the founder of the school of Estonian geobotanists, became widely known. Of the plentiful scientific and instructional works written by him a survey of the plants in the university's botanical gardens richly illustrated with original drawings is displayed in the exhibition. Next to it, study aids for teaching the structure of the animals' organs of sight and nervous system, written by the professor of zoology J. Piiper, occupy the visitor's attention (c.6).

H.Riikojä laid the foundation of the study of hydrobiology with planktonology in Estonia. He also paid much attention to creating Estonian zoological terminology. In cooperation with the linguist J.V. Veski he published a glossary of zoological terms.

In 1922 H.Bekker was elected a Docent of Geology. In 1925 he compiled the first geological map of Estonia. His work was continued by the professor of geology and paleontology A. Öpik who gave the first interpretation of the geological structure of the bedrock of Estonia. The visitor can see a photo of a fossil which inhabited the Baltic sea more than 400 million years ago. The photo was made by A. Öpik during his expedition to Northern Estonia.

The first professor of geography at Tartu University was J.C. Granö from Finland. He had made a considerable contribution to educating Estonian geographers and creating geographical terminology in Estonian. He helped to establish contacts between Finnish and Estonian geographers. As a proof of it we can see a letter of thanks from the Finnish Geography Committee to the Department of Geography (c.6). The first Estonian to become a professor of geography was A.F. Tamme Kann. His globe and lecture-notes on geomorphology are exhibited as well (c.12).

## The Sciences

The development of industry in Estonia was impossible without specialists with higher technical education. The mining and processing of the main Estonian natural resources - oil shale and phosphorite - became the most important branches which needed the backing of research in theoretical chemistry. The leading chemist was the professor of organic chemistry Paul Kogermann. He published numerous articles dealing with the chemistry of dienes and oil shale chemistry. He also wrote the first manual of organic chemistry in the Estonian language (c.8). A. Paris compiled the first textbook of anorganic chemistry (c.8). Together with M. Wittlich, Paul Kogerman set up a laboratory for the study of oil-bearing shale in 1925, which developed into the first centre for the study of oil-shale in Estonia. The seal of the laboratory and some reagents produced by the firms in Tartu are displayed. The Academic Chemistry Society and the Chemistry News Journal played an essential part in developing chemistry and uniting chemists (c.8).

In 1919-1940 a highly capable body of physics teachers and scientists was created. Most notable achievements were made in the field of climatology and meteorology, as well as in studying the structure of solids. At the end of 1920, on the initiative of H. Perlitz, apparatus for investigating the structure of matter started to be purchased from abroad and also constructed on the spot. Among other things cameras for roentgeno - structural analysis were ordered from the Latvian scientist Straumanis in 1937. Two of these are preserved up to the present day (c.8). Modern study aids for the faculty were constructed by the local mechanic Hugo Masing. Analytical scales made by H. Masing in 1920-1930 are displayed (c.11). In 1920 J. Vilip, an outstanding experimenter and constructor, became professor of physics. He elaborated the technique of the construction of seismographs which enabled the construction



of one of the most precise seismographs in the world. Twenty-two of the major seismological stations of the world, including San Francisco, La Paz, Manila, Nanking and others (see map P 1), ordered these seismographs. In 1930 J. Vilip defended his doctoral thesis on seismographs (c.8).

K. Kirde worked as docent (later professor) of meteorology and geophysics. From 1925 he acted as the head of the Meteorological Observatory where a strong school of climatologists was developed. Thanks to the research carried out in the observatory the territory of Estonia is one of the most thoroughly investigated climatic regions in the world. All meteorological observations were published in year books (c.9).

The first professors of Mathematics of Estonian nationality H. Jaakson, J. Sarv and G. Rägo worked in Tartu throughout the period of independence. H. Jaakson's doctoral thesis on the solution of infinite sets of equations was the first remarkable study by an Estonian mathematician. J. Sarv introduced the four-colour problem into Estonian mathematics. His doctoral thesis "Fundamentals of Geometry" stood out for its innovative qualities (c.9). Professor of mechanics and applied mathematics G. Rägo supervised the training of teachers of mathematics at the seminary of Didactics and Methods. In the display case we can see G. Rägo's passport for travelling abroad and his slide caliper gauge (c.9).

## Medical Sciences

During the period of independence the Faculty of Medicine won international recognition in several fields of medicine. Traditional research in physiology was continued by professors A. Lipschütz and A. Fleisch. A. Fleisch, who was born and educated in Switzerland, investigated blood circulation and the physiology of respiration. After his Tartu period A. Fleisch continued his work in Switzerland. Jaguet's sphygmocardiograph for registering the activities of the tip of the

heart and the sphygmograph for measuring the frequency of pulse (c.7) were used in the Institute of Physiology.

Research in bacteriology was promoted and supervised by K. Schlossmann. Under his guidance several infectious diseases, their origin, spread and treatment were investigated. In 1939 K. Schlossmann published a study on Estonian curative muds which was awarded a prize by the Board of the Estonian Book Fund (c.9). Medals of the French Academy of Sciences, the Paris Pasteur Institute and the Finnish Physicians' Society (c.12) give evidence of K. Schlossmann's high international reputation.

In 1920 L. Puusepp, a scientist of international renown, one of the founders of the first neurosurgical hospital in the world, was invited to Tartu from Petrograd. L. Puusepp has published more than 150 treatises on neurosurgery which are very valuable even today. In 1935, on the occasion of L. Puusepp's 60th birthday, a jubilee medal designed by the artist V. Mellik was issued and transactions in his honour were published (c.7). A golden badge with the text "Estonian excursion to Paris" (c.7) which belonged to Professor Puusepp dates from 1922.

F. Grant started his research on the methods of cardiology and electrocardiography and their application in 1930. We can see an electrocardiograph made by "Siemens" and one of the first electrocardiograms made in Estonia.

Professor A. Valdes has made a considerable contribution to publishing medical journals and developing medical terminology in the Estonian language. In cooperation with J. V. Veski he modernized, specified and created medical terms, many of which were introduced by the Estonian Physician Journal (c.7).

## Agricultural Sciences

The Faculty of Veterinary Medicine started its activities as the Tartu Veterinary Institute. Its aim was to educate veterinary surgeons and scientists and also create veterinary terminology in the Estonian language. In order to promote animal husbandry and veterinary medicine the Academic Society of Veterinary Medicine was set up. On the Society's initiative a glossary including about 5,000 terms compiled by professors K. Saral, F. Laja, J. Kaarde and J. Tehver was published in 1931 (c.10).

The other new faculty at Tartu University was the Faculty of Agriculture consisting of Departments of Agronomy and Forestry. The further training of graduates of the Agronomy Department enabled them to work both in the field of plant cultivation and that of cattle-breeding.

In the new Department of Forestry the foundation of scientific investigation of the Estonian forests was laid. Different types of forestry specialists were educated in this department.

Professor E. Lepik, an investigator of plant diseases, became internationally well known. His herbarium on plant diseases is still being used by specialists. The university bought the oldest part of the herbarium (ca 2500 samples) from the famous Czech microbiologist A. Bäumler in 1922. By 1934 E. Lepik had enlarged the collection to 15,000. The herbarium contains flowering plants, fungi, mosses and lichens from most European countries as well as from Northern Africa (c.10).

From the first days of the faculty A. Nõmmik worked as professor of soil science and agricultural chemistry. In 1919-1923 he investigated Estonian soils and published a detailed survey of his work. The first map of Estonian soils and diaries of his field work are displayed (c.10).



## The Student Body

The establishment of Estonian independence and foundation of the Estonian national university brought along great changes in the student life of Tartu. The number of Estonian students increased rapidly: in 1916 only 16 %, in 1920 81 % and in 1938 90 % of the student body were Estonians (see diagram P 1). At the time when the Estonian university was established, however, Estonian students could look back on 50-year-old traditions of Estonian student life. The biggest and oldest Estonian students' organization was the Society of Estonian Students. Its cap and ring (c.4) are displayed. "Põhjala" Estonian Students' Society was at first a mixed society uniting students of Estonian origin who studied in St. Petersburg in the years 1884-1918. Later "Põhjala" pursued its activities in Tartu, becoming solely a male society in 1925. As with most student organizations, "Põhjala" developed contacts with Finnish students. As a proof of this, we can see a friendship contract, concluded between "Põhjala" and the "South-Finnish Nation" of Helsinki University on October 10, 1930. "Põhjala's" original ring, decorated with the Northern Star, is also exhibited (c.4). In 1921 the "Liivika" Students' Society was set up only for sports- and music-oriented students by the former members of the Riga and Moscow Estonian Students' Societies. The visitor can see an album dedicated to the activities of "Liivika" (c.3).

The oldest organization for Estonian women students was the Society of Estonian Students which was founded in the autumn of 1911. A silver monogram depicting the initials of the society is displayed (c.3).

Altogether 10 Estonian fraternities, 4 sororities and 7 German fraternities pursued their activities at Tartu University in the Republic of Estonia. In the exhibition we can see several items belonging to these organizations, a silver jug

and a cup belonging to "Sakala", one of the oldest Estonian students' fraternities.

Fraternitas Liviensis was founded in 1918 by pharmacy students. We can see two silver cups presented to the fraternity by its alumni on its 10th and 15th anniversaries (c.3).

In the same display case we can see a white-red- and -green cap of the oldest Estonian sorority, Filiae Patriae (founded in 1920), and a brown-red-green- and- white cap of "Indla" (1924). Beside them we can see the cockades which combine the initials of the motto Vivat:Crescat:Floreat: with the name of the organization (c.3).

The plate which belonged to the only Jewish fraternity "Limuvia" depicts a typical May-day celebration.

Several objects remind us of the more serious side of student life: a matriculation booklet of P. Bogovski (later professor, oncologist) from 1937 and his student identification card (its owner was entitled to 50 % railway discount ). We can also see a receipt received by a student of agriculture O.Tääker on paying her tuition fee (30 kroons) for the second term of 1938. Students often had economic difficulties: we can see an application and a thorough questionnaire about income and expenses presented to the Bergmann Subsidy Board by a student of agriculture A. Lüüs who wanted to get a subsidy of 300 kroons for the first term of 1931 (c.5).

Challenge cups in relay swimming and chess give evidence of student sports. One of them was donated by the well-known radio physician M. Kask and the other by the Alumni Association (c. 4, 12).

In 1932 the 300th anniversary of Tartu University was ceremonially celebrated. On that occasion an Estonian 2-kroon coin depicting the facade of the university main building was issued. Many foreign guests took part in the festivities; we can see a silver plate with Latin congratulations given by the Swedish students (c.12).

## Tartu University in 1940-1990

In 1940, after Estonia was incorporated into the Soviet Union, rearrangements in the Soviet style began at Tartu University. The Faculty of Theology, as well as the academic and student societies, associations and fraternities were closed. In the autumn of 1940 dismissals of lecturers and expulsions of students for political reasons began.

Due to World War 2 the academic work came to an end, beginning again only in October, 1942. In the spring of 1944, as the war front was approaching Tartu, the academic activities again came to a standstill. In the summer and autumn of the same year many lecturers emigrated to the West, professors G. Suits, G. Ränk, J. Mägiste, A. Tuulse, J. Köpp, K. Schlossmann and many others among them.

A stand (P 2) gives a survey of the extent of the war damages.

The period of 1944-1950 can be described as one of the most complicated ones in the history of the university. The historical role of Tartu University as a scientific mediator between the West and the East came to an end. The system of education was levelled down to all - Union standards, a negative evaluation was given to the previous period.

The decisions of the 5th Plenary Session of the Communist Party of Estonia (December 1944), calling people up to fight against the bourgeois ideology, served as the basis for the political rearrangements. Russian was adopted as the language of official communication, study plans and reports. A special commission was set up to reassess academic degrees and professions. In 1949 E. Martinson from Leningrad was appointed Pro-rector for research. Under his supervision the history of the university was rewritten. A commission of history was set up with a task of proving that the university was founded only in 1802. The investigation of contacts with Rus-



sia was given priority. After the 8th Plenary Session of the Central Committee of the Communist Party of Estonia (1950) altogether 202 employees, including 76 lecturers, were dismissed from the university. Twenty-two professors and docents were excluded from the Learned Council. Scientists from Moscow and Leningrad were invited to fill the vacancies.

The situation relatively stabilized after Teodor Klement, a physicist from Leningrad University, was appointed Rector of Tartu University in 1951. When F. Klement retired, Arnold Koop was appointed the next Rector. While he held the office, the material base of the university improved considerably. New buildings and student hostels were erected; new apparatuses were purchased for the laboratories. On June 21, 1988 Jüri Kärner, Doctor of Biology, was elected Rector, becoming the 53th Rector of Tartu University. The 54th Rector is Professor Peeter Tulviste.

The main stand gives some general information about the university in the post-war years, including data about the graduates, the qualifications of the teaching and research staff, etc.

In a display case we can see student caps used in the post-war years: a blue cap rimmed with red-and-white bands which was worn by students of Tartu University since 1956 and a white cap worn by members of student choirs. In the same case there are documents which were given to students when matriculating: a student identification card and a booklet for recording academic performance. At the graduation ceremony the new specialists received a diploma in dark blue binding, it was red for the graduates with honours.

The stands in this exhibition hall give a detailed survey of the faculties and other institutions of the university, student organizations, sports and amateur art activities in the present day.