

# Good Gratifying and Renowned

A CONCISE HISTORY  
OF LEIDEN UNIVERSITY

WILLEM OTTERSPEER

LEIDEN PUBLICATIONS



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Font: Gerard Unger was special professor of graphic design at Leiden University from 2006 to 2012. In 2013, he received his doctorate for his design of the Alverata font, a 21st-century European font design with roots in the Middle Ages. This book uses this font.

The publication of this book has been made possible by financial support from:  
Leiden University  
Fund A.E. Cohen / Leiden University Fund

Translated from the Dutch by John R. J. Eyck

Design and lay-out: Suzan Beijer

Printer: Drukkerij Wilco

Cover illustration: The Academy Building in 1763 and today. Photo by  
Eva Bartlema

ISBN 978 90 8728 235 6

e-ISBN 978 94 0060 226 7 (ePDF)

NUR 680

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## PREFACE

One of the more recent though pleasant traditions of Leiden University is the so-called 'Red Carpet'. Behind the phrase is the day when the Executive Board receives newly appointed professors and tells 'who we are' and 'what we stand for'. Why this tradition is called the red carpet and not the blue carpet is a question that even a short history has been able to obscure. Leiden has never been red (although the doctoral hood had that colour for a long time), and blue is the university colour – Nassau blue.

The day closes with a dinner banquet, and it is on such occasions, between the main course and dessert, that the university historian is permitted to relate something about the history of the university. After one such gathering the university rector, Carel Stolker, asked me if I was aware that my account was always constructed around four portraits of four centuries. Actually, I had not been aware of it – those who do not wish to repeat themselves have to improvise – yet I could not deny it, either.

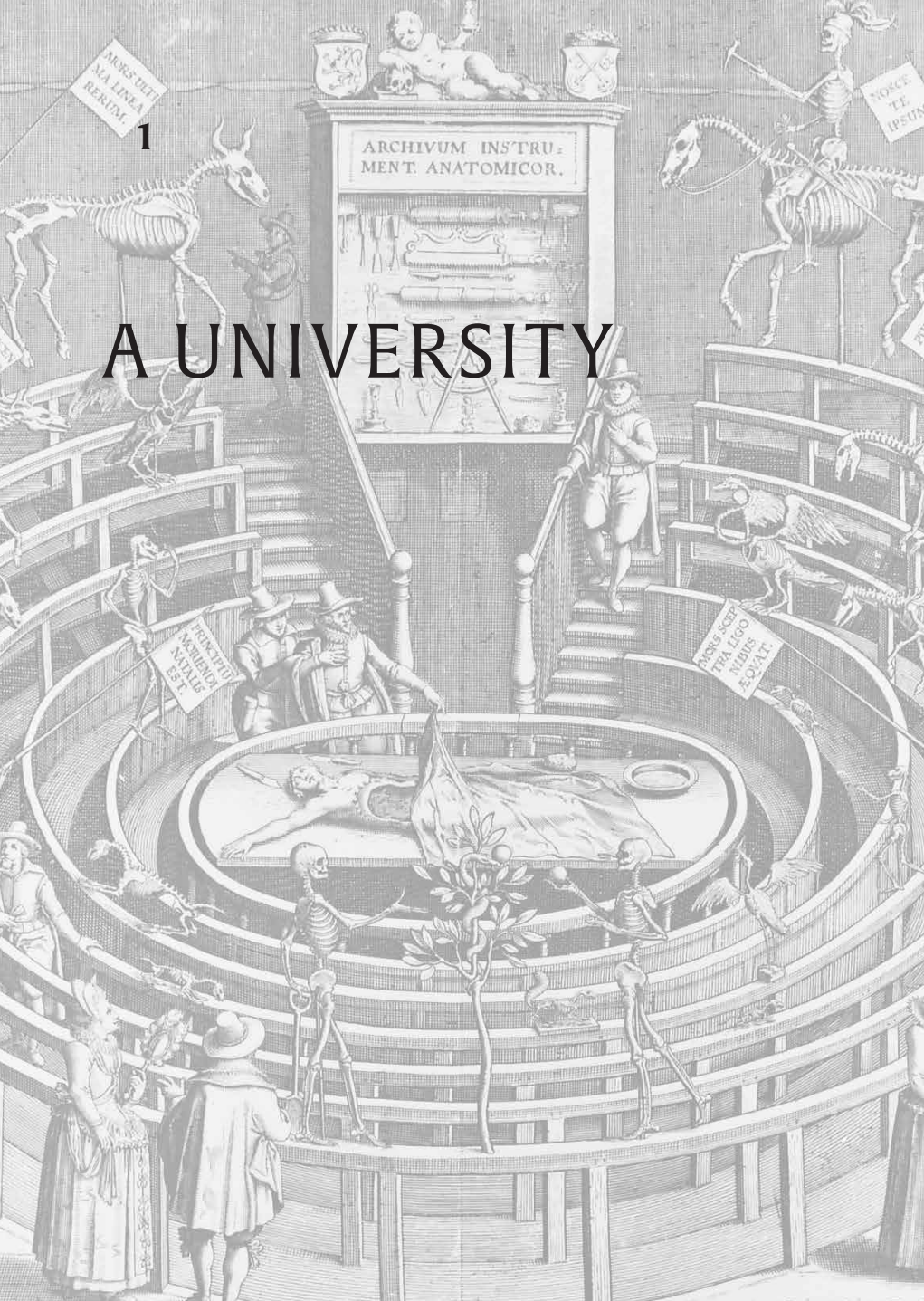
And then the anniversary celebration arrived, and the rector's observation became the blueprint for a commemorative edition.

Willem Otterspeer

◀ *Letter written by William of Orange from Middelburg on 28 December 1574, to the States General of the provinces of Holland and Zeeland*







1

# A UNIVERSITY

MORSU SUI  
MA LINA  
AENIM.

MORSU  
TE  
IPSIUM

ARCHIVUM INSTRUMENT. ANATOMICOR.

FRUCTU  
MARRINO  
EST

MORSU SUI  
MA LINA  
AENIM.



On 28 December 1574, William of Orange wrote a letter to the States General of the provinces of Holland and Zeeland from the town of Middelburg. 'Noble, wise, prudent, dear, especial members', the salutation read. He came to the representatives with a proposal, a dream actually, with the plan for founding a new university ('a good, gratifying and renowned school or university'). This university should serve, he wrote, 'as a firm support as well as sustenance for freedom and sound lawful government of the country'. Freedom of religion, freedom of governance – that was what the prince of Orange had in mind. Henceforth the youth of Holland and Zeeland – and also those from the surrounding provinces, as far as he was concerned – would no longer have to go to Leuven or Paris but would be able to study in their own country.

It was indeed a dream, for at the moment that William was writing this letter the Low Countries were in an uproar. The northern provinces were entangled in a furious struggle with the Spanish authorities for more freedom and independence. As his response, King Philip II had sent the duke of Alva to break their resistance. Yet the war with Spain was also a civil war, for the struggle revolved around not only freedom of governance but also freedom of religion. It was a struggle between Catholics and Protestants in the Low Countries, one that no one knew how it would end. When the prince of Orange wrote his letter, the province of Holland was still teeming with Spanish troops. Amsterdam was still loyal to the Spanish king.

As soon as the letter from William arrived at the States General in The Hague, an intense lobbying effort began. For where should this university be located? Amsterdam was not under consideration, of course, but Middelburg was very interested, and Gouda, too. In a second letter, in which he pressed for speed, William suggested that Leiden was an appropriate site. Why he thought of Leiden is not known, though it seems obvious that it had to do with the siege by Spanish troops that Leiden had withstood the year before. For the prince of Orange, the fact that Leiden was saved for the Revolt was a gift from heaven.

On 3 January already it was decided that the university would be established in Leiden. More than a month later, on 8 February 1575, the university was dedicated. Very early that morning, at seven-thirty, there was a church service in St Peter's. And at nine o'clock a hastily organised dedicatory procession went from the town hall to the first accommodations for the university, the monastery of St Barbara where the Rapenburg canal began. The town militia marched in the vanguard with drums and banners. It had defended the town, after all, and thanks to it the university was Leiden's. The main body of the procession was a symbolic representation of the four faculties of the university: theology, law, medicine and the so-called 'liberal arts'.

This last faculty – called *artes* in keeping with the Latin term – was also the 'lowest' faculty, the introduction to the 'higher' sciences. And yet its symbol, Minerva, the goddess of wisdom, also became the symbol of the new university. In the arms of the university Minerva stands front and centre. She is reading a book, for she is Wisdom. At the same time, she is outfitted in full armour, for she is also the goddess of war. Around her hang the coats of arms of the House of Orange, of the provinces of Holland and Zeeland, and of the town of Leiden.

In this procession 'professors' also marched along – Caspar





Procession on the occasion of the dedication of the university on 8 February 1575



Coolhaes, for example, who had agreed to give a number of theology classes. A renowned medical doctor from the vicinity, Pieter van Foreest, was also there, as well as the jurist Joost de Menijn. In this way, they had found a couple of learned men for every faculty. Yet they were not genuine professors, and there were no students to be seen anywhere, either.

And so there was a university in Leiden, there was a building, and there were ideas about how instruction was supposed to be set up. Yet the northern Low Countries had not ever had a university. They were only familiar with a number of good 'Latin schools', where the country's elite were trained, afterward continuing their studies abroad. There was no academic tradition, and no one knew that there was a university at Leiden. And yet one hundred years later Leiden University would be one of the most well-known European universities.

## A NEW UNIVERSITY

The premier universities in Europe, those of Bologna and Paris, of Oxford and Cambridge, all date from around 1200. The university as an institution thus stems from that creative period of the high Middle Ages that is also called 'the first Renaissance', that of the twelfth century. These were internationally oriented universities *par excellence*. They were in the service of all Christianity and of the two universal powers, the pope and the emperor. The sciences that were taught there were intended to bring order to religion and harmony to society.

Hence the strict hierarchy of what was taught, too. A medieval university provided both secondary as well as higher education. In the lowermost faculty, that of the *artes*, Latin was taught as well as how to speak and to reason in that language. In addition, the principles of mathematics and physics were taught – all of this to young persons sometimes no older than thirteen or fourteen. Sub-



sequent to these subjects came instruction in the higher faculties, first medicine, then law, and at the top theology. From start to finish, the entire curriculum could last more than ten years. Those who ran this course became – after a rigorous exam – ‘Doctor’. And in late medieval society a doctor was as important as a nobleman.

The students also *lived* at university, in separate colleges, where they were under strict supervision. They ate and slept there; they studied there under supervision and received instruction there. The university acted ‘*in loco parentis*’, replacing parents as it were. Studies revolved around memorising as well as gaining insight. Students had to learn a lot by rote, but were also trained in uncovering the heart of a matter or in solving a specific problem. In doing so they lived together with their instructors and forged intense ties with their professors.

As the Modern Era commenced in the fifteenth and sixteenth centuries, the nature of the university changed. As a result of the Reformation the unity of Christendom was broken down; as a result of the rise of dynastic states the Empire (the Holy Roman Empire, that is) fell apart. In the eyes of Luther, the pope was the devil incarnate and the Catholic Church the whore of Babylon. When Charles V abdicated the throne, the Empire was still only the instrument of one dynasty, the Habsburgs. Both religiously as well as politically Europe was divided up into a multiplicity of beliefs and power blocks.

With the disintegration of society the university system and the sciences taught there disintegrated as well. Many more universities came about because all these new states, large and small, wanted to have their own institutions. They also had different names, no longer called themselves *Universitas* but – following the example of Antiquity – *Academia*. There were also many other institutes in addition to universities: technical institutes, colleges,



and 'illustrious' schools or athenaeums. Many additional, and different, subjects were taught than at the older universities.

Literally, too, there was more movement in university life. Religious discord brought about a real student migration. Protestant students left for Wittenberg, Heidelberg or Geneva; Roman Catholic students went to Paris, Leuven, Vienna or Cologne. Other universities – in Padua, Siena, Orléans and Montpellier – were well-known precisely for their emphatically tolerant stance. And there were also other reasons for undertaking a scholarly journey: the *iter italicum*, for example, a trip to Italy and the sources of Classical culture; or a *peregrinatio academica*, wandering from university to university to visit their collections and their scholars.

This was also the time period of the Renaissance, that is, the era of the fall of Constantinople (1453) and the discovery of America (1492), of the invention of the printing press and the telescope. Scholars who had fled the former Eastern Roman Empire brought Greek to universities as well as knowledge of Classical Greece. In addition to this old world, Europe was introduced via voyages of discovery to a totally new world – America, Asia – with new peoples and cultures, new flora and fauna. Geography became a new university discipline; assembling collections of curiosities from the new world became all the rage. Universities were enhanced with 'cabinets', theatres and libraries.

Universities also acquired an entirely different kind of professor: the humanists, advocates for Classical Antiquity. If it was thought in the Middle Ages that awaiting the end times would not take long, the humanists were of the opinion they were standing right at the beginning of a new era. They did not take God but, rather, humankind as their point of departure. Put another way, they reasoned not from the top down, but the other way around. The Middle Ages had rejected reality; the Renaissance passionately embraced it. Not reason or reasoning provided certainty

henceforth but rather the senses and perception. God spoke to human beings not just by way of the Bible of the Word, but also by way of the Bible of Nature.

## LEIDEN AS A NEW UNIVERSITY

Leiden University was the university of the province of Holland. The United Provinces were a confederation of independent States, the provinces, that is. These States were in their turn another confederation of independent towns. Founding a university was the right of the authorities and, thus, of the States. Each province could create its own university and some – like Friesland, Groningen, Utrecht and Gelderland – also did that. Yet it was precisely Holland that very rapidly became the wonder of Europe. Diplomats and scholars, merchants and tourists: whoever visited Holland could not believe his eyes.

The pre-eminently favourable location of the country, the great quantity and thorough cleanliness of its towns, the unique nature of its political system, the peaceful yet industrious character of its population, their technical and economic ingenuity, above all their freedom – it was a source of continual surprise to the observer. ‘The *United Provinces*’, wrote the English diplomat Sir William Temple, ‘arrived at length to such a height . . . as made them the Envy of some, the Fear of others, and the Wonder of all their Neighbours’.\* And in this case by ‘United Provinces’ he meant above all the rich province of Holland, which accounted for more than 60 percent of the income of the Republic.

The university that began with drums beating and colours flying in 1575 was a genuine university of the Renaissance and called itself, moreover, ‘*Academia Lugduno-Batava*’. When William of Orange made known what his plans were for the university at the beginning of 1575, he mentioned the ‘advancement of welfare as well as politics and modern government of these lands’.



Janus Dousa (Jan van der Does) (1545-1604), first governor of the university (1575-1604)



Jan van Hout (1542-1609), secretary of the governors (1575-1596)

The university, then, had to advance prosperity as well as provide for sound governance.

That mission was also what the two men entrusted with its actual organisation had in mind. The first was Jan van der Does (1545-1605), lord of Noordwijk and well-known for his poetry in Latin, written under the name Janus Dousa. His high birth and cultural importance made him the right man for the job. He had studied in Leuven, Douai and Paris, had a large network and knew how a university worked.

The second man was Jan van Hout (1542-1609), born and reared in Leiden, who came from simple beginnings (his father and grandfather were weavers). He was a man of many vocations: printer, notary, town secretary. Van der Does was considerate and

tactful, Van Hout impulsive and frank. Van der Does was the man of influence, Van Hout the man of action. Both of them were humanists, even though the one composed poetry in Latin and the other in Dutch. Both of them committed themselves fervently to keeping the town out of the hands of the Spaniards. The siege had made them friends for life.

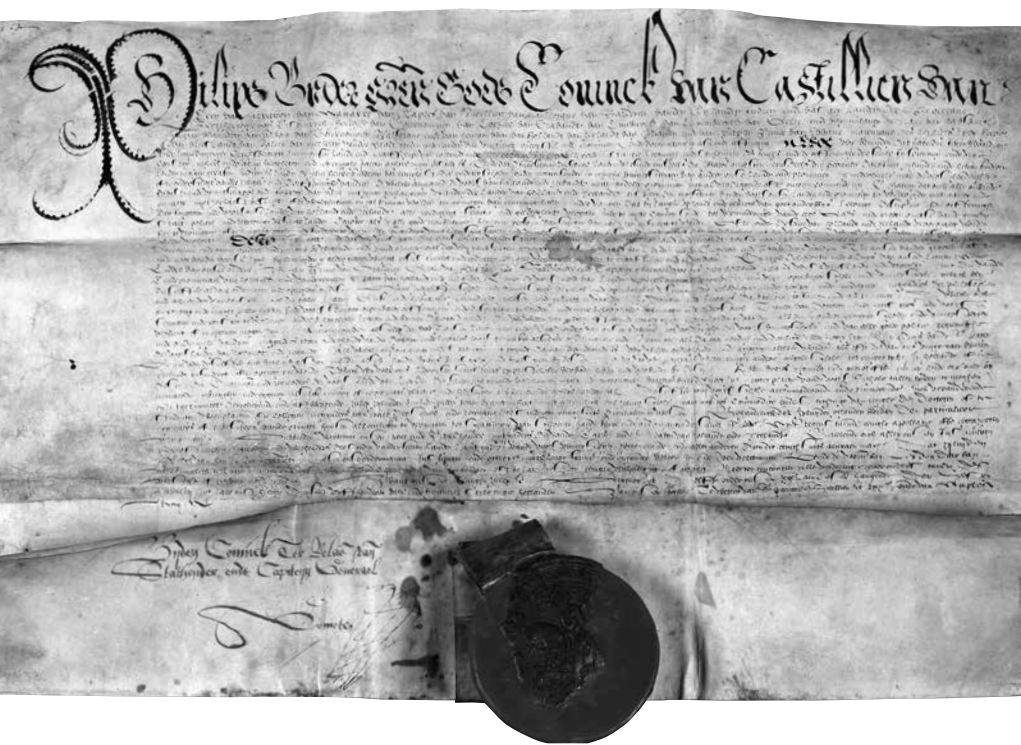
If the question is posed as to how it came about that an unknown university – in a town without any academic tradition, in a small country that was at war with the mighty Spain – would be able to acquire a central position in the intellectual life of Europe within 75 years, then the answer must be sought in these two men. They needed only two ideas, yet they were ideas that innovated all university education and provided Leiden University with lasting fame.

The first was a unique and audacious appointment policy. An institution that had no reputation itself, so they argued, had to secure for itself famous scholars. So, for example, Van der Does succeeded in catching two big fish very quickly for the university, scholars of world renown: Justus Lipsius and Hugues Doneau (Donellus). Donellus (1527-1591) was one of the most well-known jurists of his era. He was a Calvinist who had first left the Catholic city of Paris and then the Calvinist town of Heidelberg behind. He was received in Leiden like a prince, with a princely salary.

That had happened earlier already with Justus Lipsius (1547-1606), one of the greatest Latinists of his era. Lipsius was definitely not a Calvinist, but rather more of a moderate, a man who preferred to keep his religious conviction to himself. Lipsius was willing to be a Catholic in Leuven and a Lutheran in Jena, so why not be a Calvinist in Leiden? As long as he was left in peace, that is. Yet he was actually not left in peace anywhere, not in Leiden even, where he got into trouble with all manner of fundamentalists. After a little while, he packed his bags and returned to the bosom of the Mother Church.

Lipsius, above all, would be of inestimable value to Leiden University. He was not only 'Rector magnificus' four times, but as such he put the entire university administration into place. He launched the idea, for example, of printing the roster of classes that were given and of sending it round to annual fairs and exhibitions. He was often in The Hague on diplomatic affairs, and he became the director for Prince Maurice's studies when the future stadtholder came to Leiden in 1582. This course of study in and of itself was of enormous importance for the Dutch Republic.

*Foundation charter of Leiden University, dated 6 January 1575, in the name of King Philip II of Spain*



Lipsius, namely, was the major expert on the Roman historian Tacitus. And it was from Tacitus that Prince Maurice of Orange learned how the Roman army was organised. He learned, for example, that it was better to have a small but practised army rather than a large, untrained one. And that it was important not to dismiss such an army during the winter but to keep it in place and train it to build camps and to practise complicated manoeuvres. Thanks to classes from Lipsius, Maurice would become the most successful general of his era.

Donellus and Lipsius were called 'the two brilliant minds and eyes' of Leiden University. They had privileges that other professors did not enjoy. They earned more, received honorary posts, better housing and so forth. These perquisites were the cause of much envy, though appointing luminaries of this sort became tradition. When Lipsius left, Dousa succeeded in convincing the great scholar Scaliger to come from the south of France to Holland. At the same time the renowned botanist Clusius was invited to exchange Vienna for Leiden.

Josephus Justus Scaliger (1540-1609) was perhaps the most learned man of his era, a man who knew a dozen languages, including Arabic, Hebrew, Greek, Aramaic, Syrian, Persian and Turkish. He was an authority in the area of astronomy, papyrology and comparative linguistics. He was above all a virtuoso in historical chronology. In his study *De emendatione temporum* he succeeded in grouping the major events from Biblical and Classical history in such a way that they fit onto one timeline. He would publish this masterpiece in Leiden.

It was also one of the reasons he wanted to come to Leiden. As a Calvinist, Scaliger could not be admitted to university in France. In Leiden, it was promised him, he did not have to give any classes, he got a nice house and he would earn five times as much as the other professors. And at every ceremonial procession he was al-

lowed to walk in the lead. The most important condition was that he was allowed to publish everything he wrote, with the university's own printer. For that reason he ultimately agreed and was brought to the Netherlands from the south of France under military escort – an operation that was so expensive that two houses on the Rapenburg canal could have been bought with it.

Scaliger was not even a professor, either: he was called '*decus academiae*', the jewel of the university. Carolus Clusius (1526-1609), too, was not a professor. He was brought specially to Vienna at that time to lay out the emperor's medicinal herb garden. He was invited to Leiden, too, to lay out a '*hortus botanicus*'. By then he was already too old for the actual work and was having trouble with his legs. He therefore got a special horticulturalist as an assistant. Yet he made Leiden's 'Hortus', as it came to be called, into one of the most well-known herb gardens in the world.

And this garden touches upon the second answer to the question why Leiden University became famous so quickly. For in addition to the series of great scholars who were supposed to make the university well-known by virtue of their reputations – a tradition that was continued until the end of the eighteenth century – Dousa and Van Hout thought of something much more important even: an array of institutes that would become so famous that pretty much everyone who undertook an academic journey wanted to go there, namely, the Hortus Botanicus, the university library and the anatomical theatre.

The decision to lay out a garden for the purposes of studying medicine had been taken already in 1587, though preparing the garden lasted until 1594. Even though only medicinal herbs were actually supposed to be cultivated in it, Clusius made a genuine botanical garden out of it, with plants of such great variety and origin 'that it seems', according Jan Orlers, the town historian, 'that the Goddess Flora is keeping her residence and household



here, and gratifies and satisfies the eye and nose of every Flower-lover with the smell and the sight of so many Flowers and Herbs’.

The Hortus was more than 1,400 square metres large, surrounded by walls and given a shed to store the non-hardy plants during the winter, keeping them alive with the aid of a stove. That was not any luxury, given the tropical plants like aloe, bamboo, sugar cane and prickly pear cactus. The garden was divided into four squares, each of which was again divided into four parts. Looking at the print on which it is depicted, one sees that the Hortus has the same grid as a Roman army camp.

In 1599 the shed for the exotic plants was replaced with a genuine gallery, the so-called ‘*ambulacrum*’. This structure quickly acquired the nature of both an orangery and a space for lessons, as well as a cabinet of rarities, as can be seen on the print from 1610. The description of the interior given by Orlers also shows that ‘on the inside this ambling-place is decorated and hung with many divers Maps and Land-tableaux, and similarly with some strange animals and plants, which have been brought here from both the Indies and other places’.

Somewhat later, in 1642, the orangery was made longer, extended over the entire width of the Hortus, for 730 metres, with a barrel vault as a roof ‘to be able to place the tall plants or trees into it upright, without cranking them down or kinking them up’. The first printed catalogue of plants, from 1633, contained 1,107 species, while additionally 289 species were enumerated that grew in the wild in the environs of Leiden. The subsequent printings of this catalogue show how the garden expanded: from 1,598 species in 1642 to 1,821 in 1668.

The library, that other jewel of the university, dates from approximately the same time. It was housed for a short time, between 1577 and 1581, in the Faliede Bagijnkerk – the little church that served as the Academy Building, also located on the



Rapenburg canal. There, on the floor that was added specially for it, the first public library in the Low Countries was opened in 1595. It was more than 25 metres long and nine metres wide. What is most striking about the print from 1610 are the 22 cupboards, which at the same time were lecterns at which one consulted the books while standing.

These cabinets were so-called '*plutei*', intended for volumes with a large format. Books with a small format were stored in two closets against the back wall. Globes of the earth and the heavens can be seen as well as an enormous print with a city view of Constantinople from the north, manufactured by a certain Melchior Lorich. On the back wall also hung life-size portraits of William of Orange and his son Maurice. Both paintings, including separate coats of arms, were given to the university by Maurice in 1598. Along the south wall there were portraits hanging of great humanists, such as Erasmus and Janus (Johannes) Secundus. And at the entrance was the *Arca Scaligeri*, the closet with the precious legacy of manuscripts that Scaliger would leave to the university in 1609.

At the opening of the library, on 24 May 1595, the first catalogue was also published, the so-called '*Nomenclator*'. This work painstakingly indicates what books the university had collected by this time: 338 folios, 104 in smaller formats, in total 442 titles (approximately 525 volumes). It was a library with a clear accent on the classics, theology and history – a genuine scholar's library with, according to the catalogue, a two-fold purpose. It had a role in instruction, that is, in demonstrations and exercises for students. Yet it was also meant to provide prestige and pleasure.

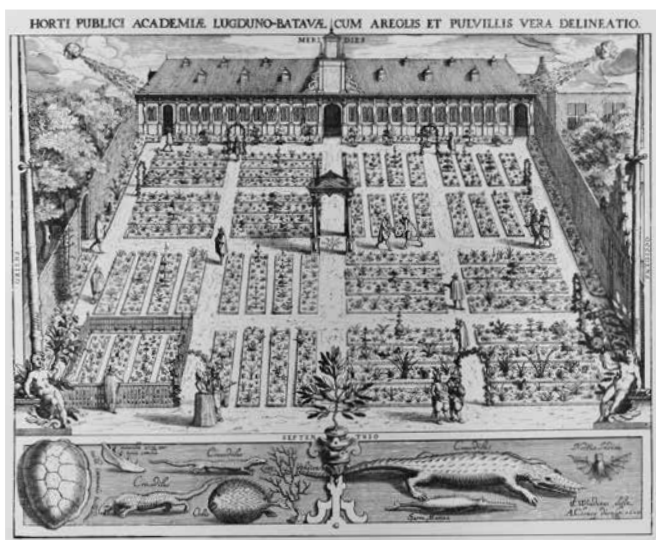
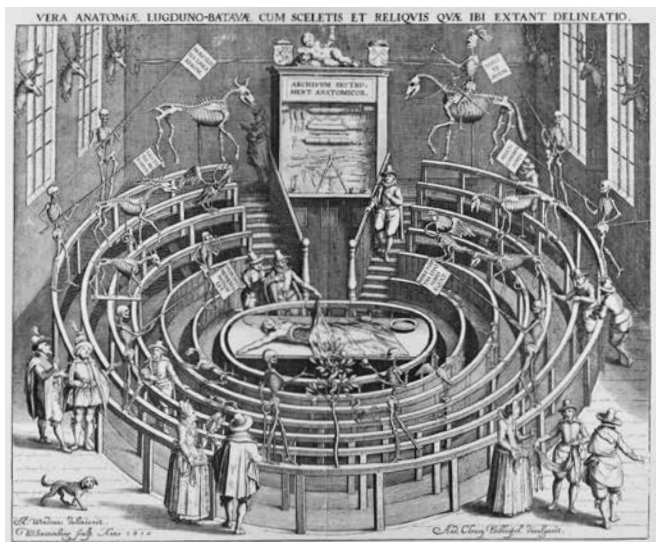
In 1607 a *Catalogus rariorum*, containing rare writings, was also published. This title describes 143 Latin, Greek and Oriental manuscripts and annotated books, yet also 27 maps and a number of globes. Among the rarities were, furthermore, 'books coming

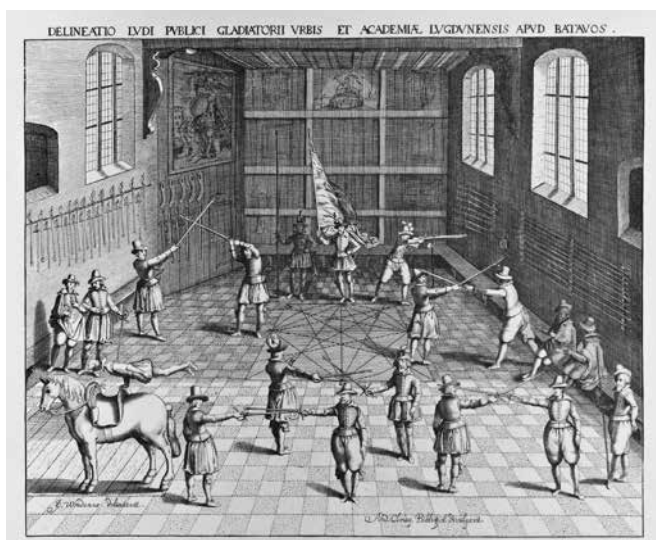
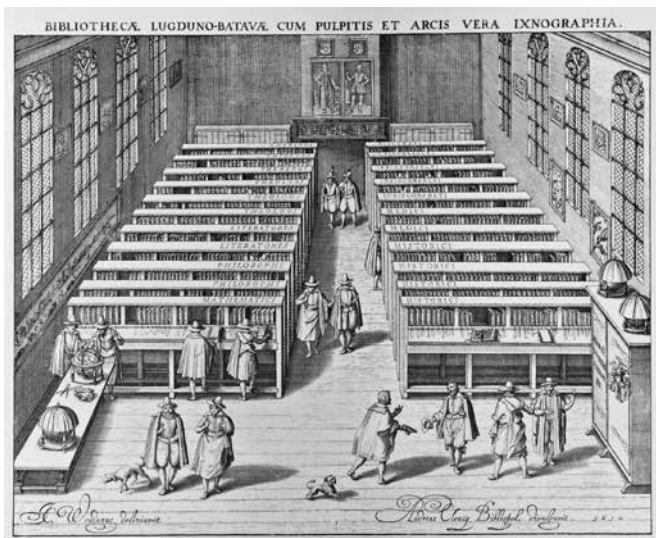
from distant lands', including a lontar (palm-leaf) manuscript, brought along shortly beforehand from Java by an expedition of the '*Compagnie van Verre*' (the 'Long-distance Company', a forerunner of the Dutch East India Company). No one could read the text but at some point some one would be able to do so. Globes, too, were not a matter of mere decoration, but intended to serve as scientific instruments. When the brilliant young Daniel Heinsius, a pupil of Scaliger, became librarian in 1607, he expressed the hope that the library would be an 'arsenal of wisdom'.

The *Theatrum Anatomicum*, which was completed at the same time as the library in 1595, was a genuine theatre, built in the apse of the same small church where the library was housed. Seven feet above the floor, with a workroom underneath it, and nine by nine metres, it was a wooden theatre manufactured from 12 heavy, star-shaped beams radiating outward, onto which six walkways were placed. In the winter months when there was a deep freeze and the preserved state of a corpse was guaranteed, sometimes for more than a week, dissections were carried out. In the summer months, if the temperature did not permit doing that, the theatre was opened up to the public, and skeletons and other parts of the collection were set up.

The print from 1610 shows the winter and summer set-up simultaneously. If dissection lessons were given – in the winter – the theatre was emptied out and its collection removed. In the summer months, though, it was filled with the strangest things. What is striking in the print is above all the male skeletons in the outermost circle, holding banners in their hands with edifying sayings in Latin on them. Skeletons of animals can also be seen, of a cow and a horse, a cat and a dog, a fox and a wolf, a weasel and an otter, a 'glutton' (i.e. wolverine) with gilt paws and a badger.

On the wall separating the dissection hall from the library hung the shoulder blade of a whale that had beached in 1600 near the





▲ Library (1610) ▼ Fencing School (1610)

town of Katwijk. There was a small, straw-filled manatee hanging from the ceiling, a 'brown-fish' or 'puffing-pig' (i.e. porpoise), a snake, and an anteater. And on the outer wall a series of nine sets of deer antlers 'with gilt tips' on wooden boards and 'and atop each head is a sconce for placing candles for when they are anatomising in the evening'. Hanging from the library wall, where the stairway was cut out that provided access to theatre, was the cupboard with instruments, with drills and saws, cutters and irons for cauterising. There were forceps 'for pulling musket balls and other things out of wounds' and 'a silver instrument for draining liquid via the navel in cases of dropsy'.

Soon enough there were also all manner of 'rarities', such as a large collection of bones, examples of deformities or abnormal growths, as in the case of 'two thigh bones', for example, 'very monstrous, gnarled and twisted'. There were amazing kidney stones, like one from a young girl, 'a terrible, monstrous, large, pointy stone, the colour of dark walnut wood, weighing over sixteen lots (approx. 8 ounces or 250 grams). Moreover, 'the entire bowels of a human being' were hanging on the wall, 'reaching from the south side to the north side'.

In addition, there were many objects from other cultures. There were mummies and stone statuettes of divinities from Egypt and 'a jug of ash-gray transparent marble that was found in China', 'a female and a male figurine from Japan, which the magicians there play games with', papyrus and Chinese paper, 'a Muscovite shirt and pair of underpants', '2 skates they use in Norway and Finland for sliding down snowy mountains'. Furthermore, there were seeds, dried fruits and nuts from Africa and Asia.

Finally, there was clearly the strong moral accent of the theatre. There was a skeleton of a grown woman, 'called Pretty Jenny, executed by strangulation in Leiden, in the year 1594, on account of her infamous thievery'. Additionally, on the dissection table were

two skeletons depicting Adam and Eve, along with the tree of knowledge of good and evil, and the snake, too. There were four skeletons with banners that had 'divers edifying sayings in Latin and Dutch', such as '*Pulvis & umbra sumus*' ('Ash and shadow are we'), '*Nascentes morimus*' ('Already at birth we begin to die') and '*Nosce te ipsum*' ('Know thyself').

It was scary and it was grisly, but everybody wanted to see it. Everyone came to Leiden just to stroll around the wonderfully beautiful garden, to spend a couple of hours there in the renowned collection of books and manuscripts, to see the error of one's ways during a tour through the exceptional collections of rarities. Or just to touch the coattails of one of the great scholars walking around there in the flesh.





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RUM

JOHAN VAN DEN BERGH  
Burgemeester

DANIEL VAN ALPHEN  
Burgemeester



met stroy door 12 lazen

C. Leem, fecit

Schets van de Mijnschik Waard





- p. 33** *The Faliede Bagijnkerk, which housed the Academy Building between 1577 and 1581, and subsequently the library, anatomical theatre and fencing school*
- p. 34-35** *One of the earliest images of the Academy Building, from the liber amicorum of a Leiden law student*
- p. 36** *Justus Lipsius (1547-1606), Leiden professor and philologist*
- p. 37** *Joseph Scaliger (1540-1609), Leiden professor and Biblical scholar*
- p. 38** *William I, prince of Orange (1533-1584), with coat of arms*
- p. 39** *Maurice, prince of Orange (1567-1625), with coat of arms*
- p. 40** *Doctoral graduation procession in front of the Academy Building, ca. 1650*









Tabella Lycaum  
et studiosa sapientia  
circius Alueum  
ai. Trobe. incant.



JOSEPHUS. SCALIGER, IUL. CAES. A BURDEN. FIL.



ACADEMIAE LUGD.-BAT. DECUS INDE A.  
D. 28 AUGUSTI. A. 1593. NATUS AQUINNI  
NITIOBRIGUM. NONIS AUGUSTI. A. 1540.  
OBIIIT D. 21 IANUAR. A. 1609.











2

# THE SEVENTEENTH CENTURY



Since time immemorial, a university had been an independent institution. In the Middle Ages universities were founded only by the pope or the emperor, who in doing so gave the university all manner of 'immunities' or 'freedoms', as they were called. These conditions meant, for example, that professors and students did not have to pay all sorts of taxes (import duties, excise taxes on wine and beer), that they had police of their own watching over them, and that a tribunal of their own sat in judgement over them.

This situation made a university into a mini-state within the town where it was established. Yet in the sixteenth century the power of the pope (as a result of the Reformation) and of the emperor (as a result of the rise of the dynastic state) had starkly decreased. The new states that resulted were organised much better and oriented toward centralising government. That change was one of the reasons that the Low Countries had revolted: because Spain introduced all manner of new taxes that the local authorities wanted to collect themselves – and wanted to spend in their own country.

For that reason these new authorities proceeded to found their own universities and also wanted to have influence over them much more than previously was the case. That was also the case in the northern Low Countries, and so it was that Leiden University had had to serve two masters since its inception: the province of Holland *and* the town of Leiden.

42 This dual role meant that in order to maintain its independence

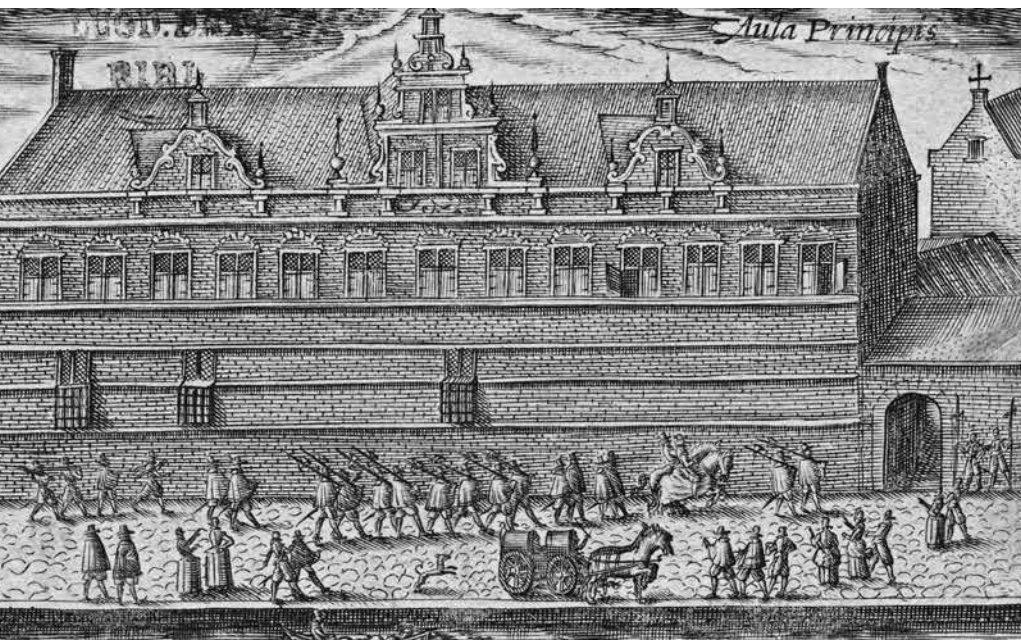
the university had to compromise between the various authorities, on both provincial and local levels. The Senate, that is to say, all the professors in congress, had to do everything to maintain its say-so concerning university instruction. Even the university statutes tried to find a balance between these three parties: the States of Holland, the town of Leiden, and the Senate.

The statutes of the university placed the most important responsibility with three representatives from the States of Holland, the so-called 'governors', who were to be 'qualified and capable persons'. For the most part they had studied themselves – in Leiden, above all, and at the law faculty, mostly – and they had a lot of experience in politics or in municipal or provincial governance. It was customary for the first governor to represent the nobility (he was also the president). Another was elected from either the High Council (i.e. 'Supreme Court') or the Court of Holland (and represented the judicial powers). The third represented the political powers in general and was burgomaster or pensionary from one of the major towns in the province of Holland.

Yet because the town of Leiden had to cede a portion of its powers (levying taxes, pronouncing justice) as a result of the university's coming into being, it demanded a position in the administration as well. For that reason, in addition to the three governors from the States General, the four burgomasters from the town of Leiden were also included in the university administration. As a result, the burgomasters had a majority, though on the other hand a burgomaster was only appointed for two years and a governor for life.

The stadthouder, too, wanted to have a finger in the pie: he was, to be sure, the servant of the States General, yet as a result of the great prestige as well as high nobility of the House of Orange, his influence was great. William of Orange was deeply concerned with 'his' university, and the involvement of his son Maurice was





*The monastery of St Barbara on the Rapenburg canal, where the university was headquartered until 1577*

equally intense. He set up a separate training programme for engineers at the university, for example – engineers he needed in waging war. Prince William III was even designated as the ‘Most Supreme Governor’ of the university, whose power was pretty much absolute.

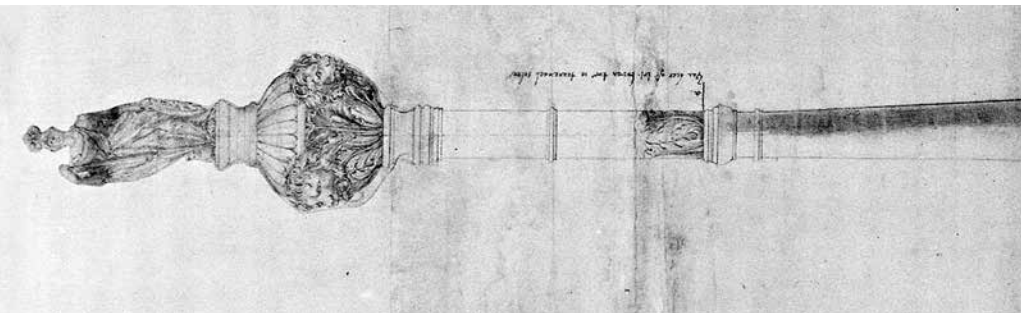
Governors had a clear role. They appointed the professors and determined their salaries. They also stipulated what subjects the new professor had to teach and what that teaching would look like. In addition they were responsible for university finances and the administration of buildings and institutes. In these tasks they were assisted by a secretary and a steward.

The steward saw to the money. The university was initially financed from the revenues of monastery property that the States had made available to the university, primarily from Egmond Abbey. That income revolved above all around farmlands that were leased to peasants. In addition to the lease on the land, the income from it consisted of the so-called '*tiendrecht*', the right to the tithe, that is, the tenth part of the revenue from the land.

In the accounts of the steward there are all manner of tithes mentioned: the 'major (or coarse) tithes' from grain crops, and the 'lesser (or fine) tithes' from fruit, yet also the 'blood (or crying) tithes' from livestock. Yet because the revenues covered the costs less and less, the university was more and more dependent on annual allocations from the States. This allotment diminished the university's independence considerably, of course.

The secretary of the university was a powerful man, because the governors convened no more than five or six times per year, and he – along with the burgomasters – constituted the day-to-day administration. Jan van Hout, who was not only the town secretary but also the governors' secretary, had enormous influence. Johan van den Bergh was both burgomaster as well as governors' secretary and was later even able to have his two sons-in-law appointed as secretary. With one of them, by the way, that appointment was part of the marriage contract!

Then there was the Senate, also called the '*corpus*' (i.e. 'body') of the university. It comprised all the professors, though in the beginning also anyone who had taken an advanced degree in Leiden. The leadership of the Senate was in the hands of the '*Rector magnificus*', who was selected by the stadtholder from a list of three professors, drawn up by the Senate. The rector was in regular contact with the burgomaster in charge; he was frequently in The Hague to attend the assembly of the States or to be present at the reception of ambassadors or other important guests. In addition, he



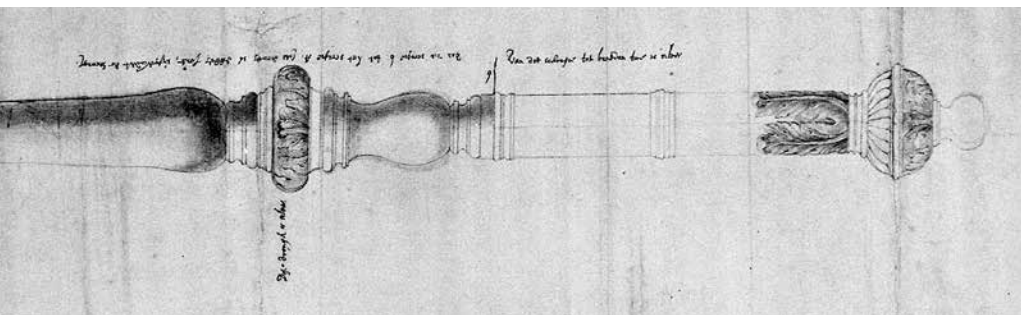
*Design for the beadles' staffs (ca. 1594)*

was responsible for the day-to-day supervision of the students.

In all these functions the rector was assisted by representatives from the four faculties, namely, the 'assessors' (at present they are called 'deans'). Together with the governors they stipulated the scope and content of the subjects that were taught. They were able to make these definitions in a very precise way at times, by prescribing a certain book or a certain way in which this book was to be treated. More frequently, though, the assignment of the professor was kept rather general, and he was able to introduce his own preferences as well.

The consultation between Senate and town – or, rather, between the rector and assessors *and* the burgomasters – was intense. Those deliberations were necessary because the town wanted to be well-informed concerning the precise number of students and whether there was any abuse of the freedoms from taxation. Specifically, it was not only students who registered but also all manner of 'hangers-on', that is, servants of students and all kinds of instructors (in fencing, horse riding, drawing, or French and Italian), yet also local surgeons, apothecaries, physicians and lawyers. These attendants had to pay taxes like anyone else, according to the town.





The most important ‘freedom’ is the so-called ‘*Forum Privilegium*’, the university’s own tribunal. All students – whether they were the plaintiff or the defendant – had the right to bring their case before this tribunal. Because many cases had to do with problems between students and the citizens of Leiden, the town demanded an important vote in the tribunal. During court sessions the Senate was represented by the rector and four assessors, whereas the town was represented by the four burgomasters and two aldermen. On top of that the town sheriff acted as prosecutor.

The tribunal handled both civil as well as criminal cases, though civil cases occurred the most: overdue payments, for instance, open accounts with shopkeepers or rent on rooms that was not paid. Thus, for example, the Polish count Samuel Koretsky was taken into custody in April 1607, by order of his creditors. His debts amounted to the astronomical sum of around 6,600 guilders, distributed among 23 creditors. Other frequently occurring complaints concerned defamation or unfulfilled promises of marriage, requests for divorce from bed and board, or sometimes a request from a family to lock up a student who had lost control of himself.

What appeals more to the imagination, naturally, are the criminal cases. In this regard too much drink was frequently the cause.

Then the students got to fighting, and lopped-off ears and noses could be the consequence, though also outright manslaughter. Questions of honour that ended up in a duel occurred just as regularly. What is remarkable is how mild the judgements of the tribunal often turned out to be, even in the case of serious crimes. As long as the student had 'honest', that is to say, influential parents, and showed remorse, then even manslaughter could result in a pardon. One part of deliberations with the town also involved the activity of the civic guard. That militia – at least according to the students – was often not sufficient for dealing with the (international) student population. In the beginning of the seventeenth century, therefore, a separate student guard was created. This 'night watch' was better trained and was, in close cooperation with the Senate, supposed to guarantee safety on the street. The guard was paid by the States of Holland and the town of Leiden, and the town therefore demanded the appointment of its captain.

That such a civic guard was necessary is also shown in other cases before the tribunal. Smashing the windows of Leiden citizens or assaulting young women from Leiden often occurred. Brawling with the local population could end up terrorising an entire neighbourhood. And, in addition to that, groups of students of different nationalities also came to blows. Above all, the fights between Dutch and German students could take on great vehemence. The Dutch were reviled as 'milquetoasts', the Germans as 'krauts'.

Although the statutes and all kinds of consultation were intended to promote good cooperation, individual conflicts between the various administrators could never be avoided completely. If there were conflicts between governors and burgomasters, for the most part the governors – as representatives of the States of Holland – got the long end of the stick. In times of crisis – for

example, during the ideological fighting between the Arminians and the Gomarists in 1618 – the States were even able to take matters into their own hands. With town and gown, however, relations were much more complicated. In 1657, for example, the municipal government summoned Professor Thysius to the town hall because he had talked about the '*Academia Batava*' – the University of Holland, that is – on the title page of his book. It was supposed to say '*Academia Lugduno-Batava*', Leiden University. Immediately the Senate protested in The Hague that the town of Leiden was infringing on the rights of the States of Holland.

A year later the university published an entire list with complaints concerning encroachments against its privileges. Burgomasters treated the rector like a servant, they demanded the appointment of all kinds of university officers, they autocratically expunged students who had been exempted from taxation and forced professors to contribute to paying for municipal construction projects. On top of that they had put eminent students – 'among whom often times are princes, dukes, noblemen and the country's children of highest quality' – into prison.

The burgomasters responded that they were allowed to do all of that because they were also university governors, after all. Yet that was precisely what the Senate was now disputing. The statutes stipulated that in the case of important problems the Senate was supposed to obtain the advice of the governors. For problems with the town, this condition meant that they were presenting the problem to their opponent. That could not be what was intended. The States of Holland were to hack through this Gordian knot and take a definitive decision, but they chose ambiguity above clarity. In that case it was still easiest for them to stay in control.

## PROFESSORS

The professors were appointed by the governors, but not only by them. Frequently the burgomasters were also involved in an appointment, as well as the House of Orange or the Synod of the Reformed Church. In addition, all manner of non-official, political or religious and ideological groups could try to influence the decision. For important appointments, the help of diplomats or important intellectuals was also called in, and even the influence of a foreign prince could be decisive. Sometimes, too, the faculty itself or an influential professor was asked for advice.

Over the centuries, nevertheless, something akin to an 'appointment policy' appeared out of the powerful political arena of all these parties involved. First of all there was the appointment of a number of '*honorarii*', men of great renown who could secure or uphold the reputation of the university. Lipsius and Donellus, Scaliger and Clusius, Salmasius and Heinsius, through to Wyttenbach at the end of the eighteenth century – all of them had an exceptional appointment and special remuneration. Yet that was expensive and therefore also had to be offset.

This was done by attending to the university's own nursery. Not only for financial reasons but also to be able to choose from a small supply of young, often just graduated scholars, full of promise, the governors opened up the option of giving instruction 'to acquire experience'. The university did not pay for these classes, but for young scholars it created the possibility of calling attention to themselves and becoming qualified for a professorship.

At times – and in this regard the governors proved to be quite creative – applying for a position took the form of a competition in which two or more young men competed for one professorship by giving classes. Contests such as these could even lead to a double appointment, whereby two young professors shared the already rather minimal salary of a beginning professor. In this way



*The jurist Hugo de Groot, better known as Grotius (1583-1645)*

Leiden University was able to retain much talent. In 1599, for instance, four students were allowed to fight for one teaching appointment in the *artes*, among them the polyhistor Vossius (as Gerrit Janszoon Vos [1577-1649] came to be known), who would acquire great renown as a scholar and be bought out by academic headhunters for Amsterdam in 1630.

With most candidates for professor, the application process attended above all to their course of study completed and their practical experience acquired. In the seventeenth century a pro-

fessor at Leiden University had attended on average three universities – 2.7 to be precise – two thirds of which were outside the Dutch Republic. These were German universities mostly, followed by Paris and Orléans. For professors of medicine Italy, above all, was a favourite. In the eighteenth century that international experience diminished somewhat: the average by then was two universities, three fourths of which were inside the Republic.

After a course of study lasting six years or longer, a typical Leiden professor had on average ten years of practical experience after studying (as a minister, physician or jurist) before he was appointed at Leiden. Approximately 30 percent had been a professor previously at another university. There was but one exception to this preference for experienced teachers: those who ended up teaching immediately after their studies were for the most part sons of professors. In the eighteenth century this occupational experience also diminished and individuals were appointed, above all, who only had experience at one other university.

In the seventeenth century there were no parchment professors withdrawn into their ivory towers. They were men of flesh and blood, who were found in the midst of their surroundings and who passionately participated in what today is called 'public debate'. They believed they had a clear exemplary role to fill, one of commitment and harmony, even though they could often get into physical altercations. They demanded above all the right to be left in peace, so that they themselves could define what their duty was and how they fulfilled it.

'*Otium*' – free time – is what they wanted to have. 'If barkers and quacks were desired, who are able to speak for entire days,' then those could 'be had all over and for lesser wages', according to the classicist Gronovius (Johann Friedrich Gronow), a professor of Greek; 'but if men of renown were desired, then they must be treated with more liberty, not just with wages but also with '*otio*'

– they had to be not only paid well, that is, but also not disturbed too much. Gronovius entrusted his opinion to paper in 1666, after the governors had once again complained that the professors were skipping their classes.

Gronovius and a number of his colleagues reacted furiously. Scholarship demanded study and contemplation; professors, so they said, were not schoolmasters. And with their writings, too, professors contributed to the benefit of studies and the honour of the academy. And what else did they not do! Gronovius enumerated an entire list of duties: giving classes, both public and private; thinking up subjects for advanced studies ('theses', as he said), as well as looking them over; conducting examinations; conferring advanced degrees; delivering orations. 'It has cost many their health; yea, it has shortened the lives of a few,' complained someone who did not dare mention his name.

More and more the professors of Leiden University began to form a single entity. Initially, for example, the gowns of the various faculties had different colours: orange for theology, red for law, green for medicine, and white for the humanities. Rather quickly, though, it was prescribed that the professors had to be dressed 'in blue tabards and bonnets', and over the course of the seventeenth century that dark blue colour changed to black. In addition, the professors began to hold communal meals, two times every year.

Certain rituals, too, brought more unity into the Senate. The inaugural (commencement) address, issuing from the address first spoken by an academic doctor in the Middle Ages, was held more frequently. In the second half of the seventeenth century approximately half of the Leiden professoriate delivered that kind of oration, and after 1700 pretty much every new professor did. From the 1680s forward professors also had to wear a gown at graduation ceremonies and burials. When ministers wanted to do the



same, they were told that in their case such dress was 'against the ancient custom'.

## STUDENTS

Within fifty years after its foundation the university was already attracting nearly 400 students each year, and nearly half of them came from abroad. In the seventeenth century approximately 25,000 students studied in Leiden. Initially they enrolled in the lowest-ranked faculty, above all, that of the *artes*. Accordingly, the university was above all an extension of the 'Latin school' (or 'college preparatory school', as it is called today). Yet at the end of the century the number of students in the *artes* had declined to less than ten percent. In the faculty of medicine it was precisely the opposite: from less than ten percent it grew to nearly a third of all students. The law faculty grew from 30 to 40 percent.

Law was the subject most wanted. It was there, too, that the most students took advanced degrees: more than 50 percent. What is striking is that more and more graduated with advanced degrees in medicine as well. Local bureaucracies demanded a genuine diploma more and more often as proof of academic study. That study also became increasingly more expensive. Although most students came from the upper middle classes, many children of common manual labourers came initially, too, above all if they came from nearby and could continue to live at home. Yet their numbers declined intensely from the end of the seventeenth century forward.

The university got more children, above all, from the upper classes. Sometimes they were even from the highest nobility. On 14 April, for instance, the Polish prince Janusz Radziwiłł enrolled together with his lord high chamberlain, his chamberlain, his house tutor and twelve noble friends. They of course did not come to study a subject or to acquire a degree. They were there above

all to prepare for a position in society. For the most part they followed a number of classes (generally in law), yet additionally improved their knowledge of one or another modern languages and above all else their proficiency in fencing and horse riding.

Thus, there were those who studied for a career and those who studied for status, those who came for a subject and those who wanted to be initiated into the lifestyle of the *haute bourgeoisie* or the nobility. These two groups preferably did not mix, and it is striking to what degree students from certain class or regional origins were inclined to fall in with one another. The English, French and Germans resided pretty much in their own houses or inns. Such inns could be used by their fellow countrymen even, such as the Yarmouth Arms where Peter Powell received his English guests.

The regional clubs that were organised by students for mutual support or conviviality were called '*nationes*' – that is, 'nations' – and they caused major trouble as a result of great differences in culture and notions of honour. The university tried to suppress these 'nations', yet in view of the fact that the prohibition had to be repeated again and again, they were not quite successful. Not until the second half of the seventeenth century did the university administration get more of a handle on clubs of this sort.

For poor students who wanted to study theology, the university acquired the so-called 'States College' ('*Statencollege*') in 1592. It was housed in the former Cellites (or Alexian Brothers) monastery, on the Cellebroedersgracht (the Cellites canal, now in the lane called the Kaiserstraat). The States of Holland made 31 scholarships available (the chivalric orders were allowed to send six students, the major towns two, and the smaller towns one). The young persons selected (often not older than fifteen) did have to take a substantial admissions examination. And their behaviour was strictly supervised by a regent and a sub-regent. A valet and a

cleaning woman took care of their day-to-day needs.

The daily and weekly schedule of those who held such a scholarship was meticulously laid down. At five o'clock in the morning (six o'clock during the winter) they had to get up and get their room in order. An hour later they had to appear at roll call washed and kempt before there was any breakfast. At every meal there was recitation from the Bible and in this way the Bible was gone through once each year. The scholarship holders went to class with the regular students, but after classes were finished they had to return respectably to the College. They spoke Latin with each other, and at nine o'clock they had to go to bed. In 1605 the (francophone) Walloon Reformed Church got a much smaller College of its own, located on the Groenhazengracht.

In spite of the major differences with one another the student population also showed similarities. Thus, for instance, over the course of the seventeenth century wearing a so-called Japanese frock came into vogue. Most of the students wore such an outfit, and this gown defined the street scene to such an extreme that a tourist thought an epidemic had broken out: he thought all those who were wearing pyjamas to be recuperating patients. Additionally, of course, students stuck out as a result of carrying a sword, and their hats and perukes and books under their arms betrayed both their nationality as well as the reason they were in the town.

Many students lodged with professors, who made a good second income from these boarders. In that case students – and there could be ten or twenty of them – not only had room and board but frequently got instruction, too, or were quizzed after their classes. Most, though, simply lived with private citizens who, until well into the nineteenth century, indicated their willingness to rent rooms with a sign on their houses, reading in Latin '*Cubacula Locanda*': rooms for rent. All together students constituted around three percent of the town population, but because they

mostly lived on the Rapenburg canal or in the vicinity, a kind of student district emerged, a '*quartier latin*' as they would say in Paris.

The university took the general edification or amusements of the students seriously. Thus, for example, in the space underneath the library – again, located in the Faliede Bagijnkerk – the university fitted out its own fencing school, complete with fencing master: the renowned Ludolf van Ceulen, who gave both fencing and mathematics lessons. On top of that, near the Hague (or White) Gate in 1633, the university set up a '*paille-maille*' (pall-mall) field – that is, a kind of golfing range – for students. The students could also 'play catch with the racquet' – play tennis, in other words – on various courts along the street called the Doelensteeg.

Furthermore, students could go to the theatre – there were even 'strolling players' from England, who stopped in town especially for them – and the markets and fairs provided much amusement. Even attending church services could count as such, though that was not true for the sermon but rather for looking at the young daughters of the citizenry. Sometimes, when strictly chaperoned, those daughters were permitted to attend student parties, but more frequently, when they were in love, the students would serenade these beauties. In that case they engaged musicians and sang to the girls, not infrequently 'high from drink'.

## **INSTRUCTION**

The academic year was intensive but short: in addition to free days on Wednesday and Saturday, there were a lot of vacations – for the most part, two weeks at Easter, Pentecost and Christmas, and six weeks during the summer – while, on top of that, many lessons were cancelled during book auctions, anatomical demonstrations and major annual fairs. Thus, for the most part only

around 160 to 170 days were left for non-private classes.

Those public lessons were accessible free of charge for everyone who had enrolled (after paying 15 stivers). They were given on Monday and Tuesday, Thursday and Friday. On Wednesday and Saturday there were always private classes, 'extraordinary lessons'. Those private lessons were mostly given to groups of students who hired a professor for a certain subject or for the explanation of a certain book. They paid him in cash and thus professors frequently began giving many more private than public classes.

Proof of any prior education was not demanded, though to be able to follow classes the students did have to understand Latin as well as have a certain familiarity with Classical literature. They also had to have full command of thinking and reasoning methodically. That knowledge was also tested initially. If it was insufficient, the student was advised to do some 'Latin school' first. Inasmuch as was feasible, the level of the student was taken into account when selecting subjects and the way they were treated.

Above all, a student had to learn to understand and analyse a number of important books. He also had to have that knowledge readily at hand, storing it in his memory or working it up into notes collected from class. And on the basis of that knowledge he had to be capable of speaking in governmental or religious gatherings. He had to become '*vir bonus dicendi peritus*' – a decent man, skilled in speaking. In the eighteenth century the emphasis would come to be placed on the practice of a profession, but in the seventeenth century there was still more interest in the edification of an elite. Sometimes the professor dictated his class from notes, though in general the governors did not encourage such lecturing. Preferably professors had to teach 'from memory'. The students had to take notes and even received advice on assembling various kinds of collected notes, alphabetical indices or systematic collections of statements and guidelines. They were en-

couraged to contemplate what they had heard and to elaborate upon it in their rooms.

Ideally, a course began with a general overview and the professor gradually worked toward more specific questions or topics. Theory was treated first, then practice, whereby the professor began with what was certain and subsequently treated that in which there was a difference of opinion. Much attention was devoted to training one's memory. There was a desire to be concrete, above all. Those who came up with a specific example, who had a piece of evidence or a method of treatment readily at hand, got high marks.

Introductory courses were almost always conservative in nature. Philosophy had a canon of its own, taking Aristotle as its point of departure. The faculty of medicine stuck to Hippocrates and Galen; the law faculty conveyed a very traditional treatment of Roman law, and the faculty of theology treated ecclesiastical doctrine. In more advanced phases of instruction more varied opinions and more modern methods were introduced.

The full breadth of this form of instruction found its expression in the so-called disputations. Not unlike later debating societies, these were gatherings in which printed propositions were defended against opposing views of fellow students. They were considered to be an indispensable means of teaching. 'Lessons are like sermons, the disputations like catechisms', wrote Gronovius. In this way, the professor could monitor whether the students had understood what he had told them.

These assemblies, then, were practice disputations, '*exercitii gratia*' as they were called. Ultimately, they were preparation for the disputation for a specific degree, the '*disputatio pro gradu*'. The university conferred two degrees: '*magister*' for the *artes*, and '*doctor*' in the other faculties. First there was a check as to whether or not the student would indeed withstand the interrogation,

then he had to take a private examination before the faculty and finally he had to defend a proposition in public that he had formulated himself.

In the seventeenth century the difference also appeared between awarding advanced degrees either in public or in private. In the former case, there was pomp and circumstance. The Grand Auditorium of the Academy Building on the Rapenburg canal was decorated with tapestries, the young academic doctor wore a gown of black damask, and he was accompanied with music on his way home. Yet that ceremony was expensive and for that reason the private graduation frequently was preferred. That award took place in the chamber of the Senate, at which only the faculty was present and, therefore, no public debate took place.

## KNOWLEDGE

Knowledge was something entirely different in the seventeenth century to what it is understood to be at present. Knowledge had to have undisputed authority, preferably not be exposed to criticism but corroborated over and over through human reason. In the seventeenth century knowledge based on criticism and experimental research began to break through cautiously as well, but it was not customary as yet.

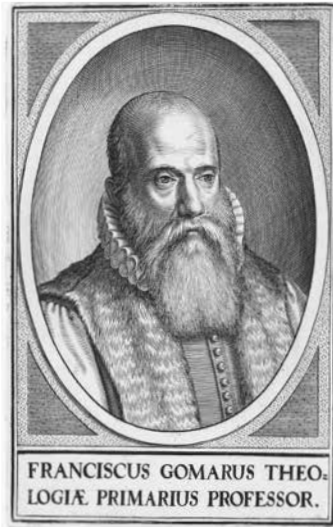
Knowledge was built up around a specific dogma, a doctrine. For the *artes*, the founding principle of all knowledge, that was Aristotle. For medical doctors, Hippocrates – the Greek physician from the fourth century before Christ – was the great authority. The wisdom of jurists went back to the *Corpus Juris*, the collection of laws and commentaries on them that was put together on the authority of Emperor Justinian in the sixth century after Christ. And the theologians had the Bible, of course.

With time it was indeed the case – as a result of the voyages of discovery and the observations of astronomers – that the author-





*Jacobus Arminius (1560-1609),  
professor of theology from 1603 to  
1609*



*Franciscus Gomarus (1563-1641),  
professor of theology from 1594  
to 1611*

ity of Aristotle, above all, began to falter. And with that, then, the entire edifice of knowledge faltered. Alternative propositions and systems were brought to the fore and that often yielded trenchant debates that were not always conducted in scholarly Latin, or kept within the walls of the university.

This situation proved to be the case in the altercation between the adherents of Gomarus and Arminius, two Leiden theologians who had a difference of opinion concerning a teaching central to theology, namely, predestination. The question, that is, was whether God had determined everything, and therefore also who would go to heaven or not. Was humankind, as Gomarus said, always inclined toward evil or, as Arminius maintained, did humanity also desire good as well? Were there persons who knew good

but did evil, or could they conquer evil as a result of knowing good?

Debates of this kind were partly the consequence of the appointment policy of Leiden University. Governors did their best to find a balance between the various philosophical and scientific trends of their era. In this way, in the arena of theology and philosophy specifically, dogmatic differences could cause fierce debates and even political unrest. Nevertheless, governors preferred to appoint representatives of opposing systems.

Thus, whenever they installed a 'moderate' individual (a follower of Arminius, say), they additionally sought a 'stricter', dogmatic thinker (a follower of Gomarus). In the case of philosophy, that led in the first instance to the appointment of representatives of various versions of Aristotelianism. Later on it meant that an adherent of Aristotle was appointed alongside a follower of Descartes. Later, then again, an adherent of Descartes was combined with a follower of Newton.

This practice did not mean that the university was out looking for trouble, for in general it succeeded in controlling the struggles these opponents had with one another. Even where schools of thought were irreconcilably opposed toward one another, knowledge itself at university still proved to be above all a question of finding a safe middle ground or a gradual transition. And if scholars did not conform of their own volition to that convention, they were sometimes encouraged heavy-handedly by governors to do so.

In the long term this custom had major consequences, though, for the subjects that were taught and the way in which that instruction occurred. Initially logic was the most important subject in the *artes*, yet it gradually made room for something called natural philosophy, the description of the world on the basis of a mixture of reasoning and observing. Not 'deductive reasoning'



*The 'Arminian Trash-Wagon' (1618), a caricature of the Arminians*

– which reasons from proposition to conclusion – but comparison, that is 'reasoning by analogy' – a specific form of 'inductive' reasoning – got the upper hand.

Now, whether a culture was compared to a language, the pollination of plants to human sexuality, chemical processes to human feelings or differences in local law to Roman law, analogy proved to be a handy tool everywhere. Thus, for example, the unfamiliar was traced back to the familiar and reality elucidated by using rational models.

The debates resulting from these antitheses were especially

useful. In this way fundamental scientific questions came up for discussion, such as the difference between systematic versus empirical knowledge or between a mechanical and a biological explanation. Secondly, because they almost always exerted their influence in theological and political problems, these discussions were a kind of lightning rod. The debate remained within the walls of the university. And, as a result, the university became a kind of information service, translating the major topics of the era for the public and making them accessible.

These debates also show the importance of the university in the formation of social and political opinion. Religious debate – with Jews or with Catholics – was seen as an essential part of the work of theology professors, just as was giving advisory opinions about certain books or controversial topics. The law faculty was consulted regularly in all manner of situations, from marriage between members of the same family to matters such as usury, disturbing the peace, tenancy, last wills and testaments, property rights, piracy and hijacking.

Providing comparable services was also expected of the other faculties. So, for instance, the faculties of medicine and philosophy jointly responded to a question the Court of Holland had put before them in 1594. The Court wanted a pronouncement concerning the so-called 'ordeal by water'. If a woman was thrown into the water and she continued to float, was it then proved that she was a witch? Both faculties concluded that unless the woman could swim, she would always drown, and that the test did not furnish the slightest legal proof.

## **FROM THE RENAISSANCE TO THE BAROQUE**

In the first century of its existence Leiden University was a genuine Renaissance university. It called itself an Academy, it had renowned humanists among its professors, it passionately com-

mitted itself to the study of humankind and desired to be a school for life. Was it also a Calvinist university, though? Or perhaps a genuine Holland university?

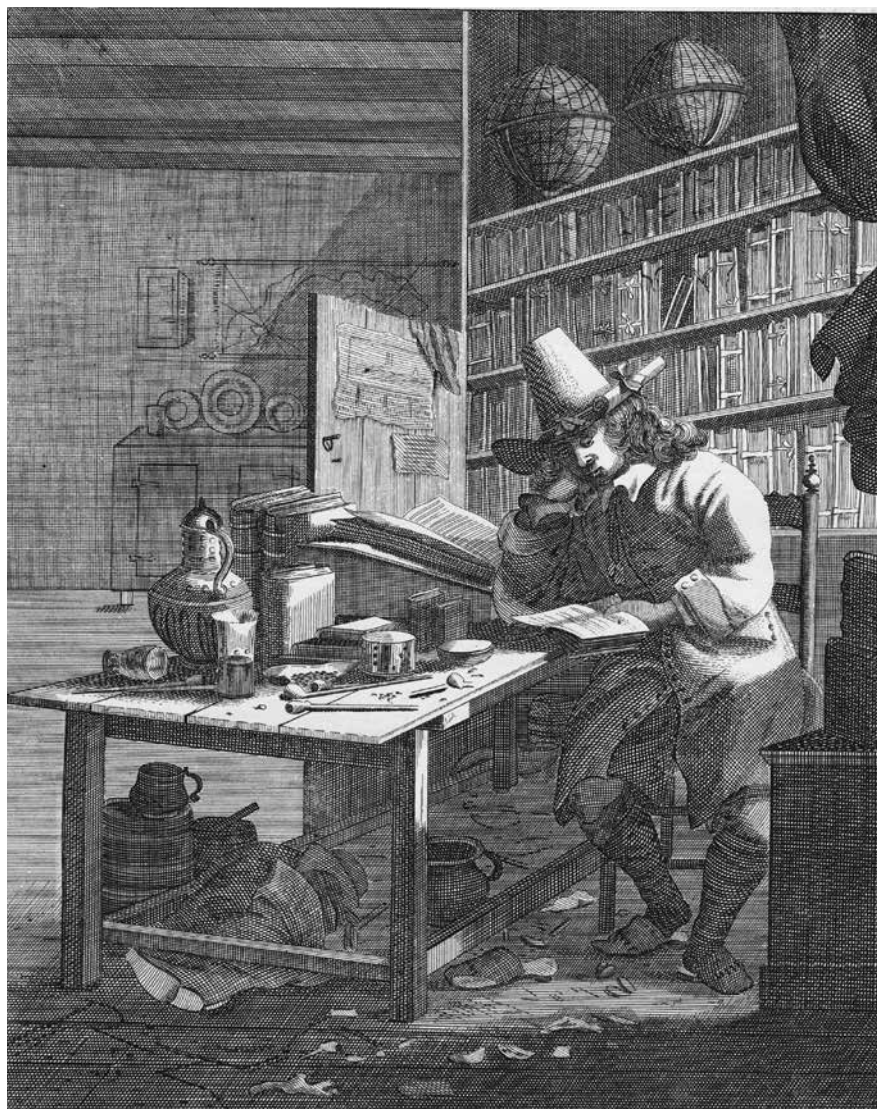
As for the former, Leiden has never been a Calvinist university. Naturally, Philip II of Spain saw in Leiden nothing other than the work of a 'Calvinist sect' that was intent on 'changing our ancient Catholic Roman Religion'. He considered everyone who studied there to be a heretic who would never be allowed to hold a job or an office inside his realm. Parents who sent their children to Leiden would lose their possessions and be persecuted.

Yet even though the university counted a number of hard-headed Calvinists among its professors, most of them were fairly vague about their beliefs. As for Lipsius and his colleague Vulcanius in Classical Greek, nobody knew what they actually believed; the botanist Dodoneus remained Catholic, as did his law colleague Sosius. Most were averse to hair-splitting. When Danaeus attempted to get his colleague Caspar Coolhaes fired because he suspected him of 'heterodoxy', he had to pack his bags instead. And that happened with Gomarus, too, who wanted to be rid of Arminius.

The enormous commotion that ensued after the altercation between Arminius and Gomarus, between Remonstrants and Contra-Remonstrants, spilled over from professorship to chancellery and from the church to politics. In the end, it cost the Dutch statesman Van Oldenbarneveldt his head, and the stadtholder Prince Maurice of Orange succeeded in increasing his power. During the Synod of Dordt in November 1618, not only the church was purged but also Leiden University. The governors were told to hit the road and a number of professors were dismissed. The entire faculty of theology was replaced.

Yet this act did not mean that Contra-Remonstrants were appointed instead. Thus, for instance, the newly appointed theolo-



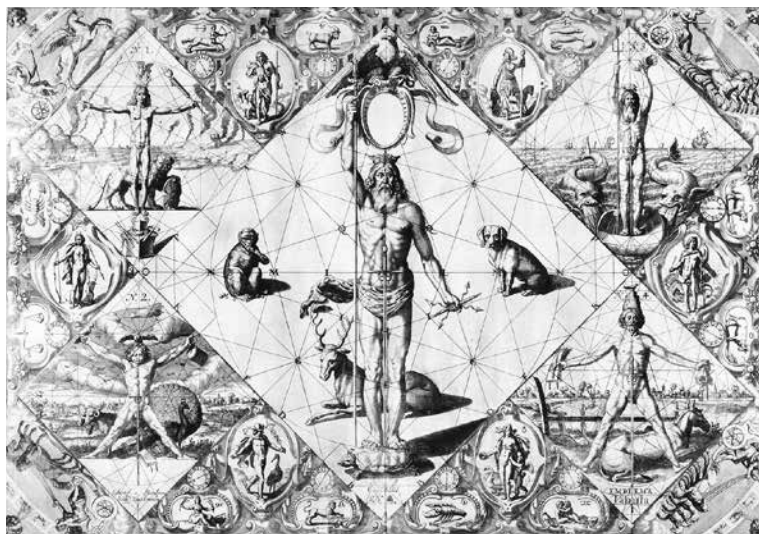
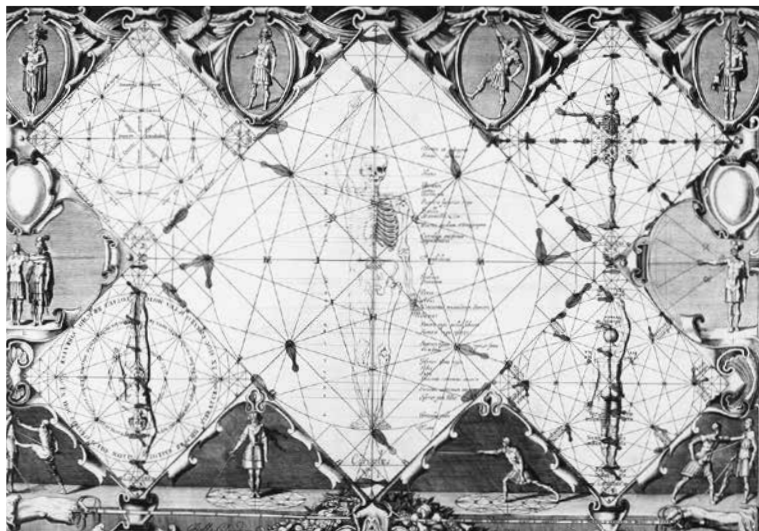


66 *Student (third quarter of the seventeenth century)*



*Scholar (third quarter of the seventeenth century)*





*Images from the fencing master Girard Thibault's Académie de l'espée ('Academy of the sword', 1628)*

gians – individuals like Walaeus and Rivetus – were able to prevent that the faculty fell under the authority of the church. And in the other faculties, too – specifically, that of philosophy – persons were appointed who considered their scholarship to be more important than their faith. Leiden University was much more a ‘moderate’ institution than a ‘strict’ one, and that is what it would always remain.

Is that to say, then, a university by, for and of Holland? That description seems a better one. The university was founded during the great struggle for the province’s autonomy, and it lived to the rhythm of the major political events that were taking place there. Not just the troubled times of 1618 had their effect on the university, but also those during the *annus horribilis* of 1672 (which included the French invasion, when the De Witt brothers were murdered for their political position and William III was appointed stadtholder). Students heeded the call to arms, but the university administration would wait to see what happened. Just like the town of Leiden, the university was a complaisant supporter of the House of Orange by this point, and there was in fact no talk of any purge.

Leiden was also a Holland university in the sense that it shared in the wealth of the province. Holland realised approximately 60 percent of the common assets of the Dutch Republic and could spend more money on its university than the other provinces. Leiden, therefore, wanted to stay characteristic for Holland. When, in 1586, plans were wrought during the regime of the English Earl of Leicester to transfer the university to the town of Utrecht, people reacted furiously.

The same response happened in 1630, when Amsterdam conceived a plan to create a university of its own and for that purpose bought out two Leiden professors, Vossius and Barlaeus. The governors moved heaven and earth but only managed to keep the

new institution from being called a university – it became an ‘illustrious school’ instead – and from conferring any degrees. Two years later such a school was also established in Utrecht, which indeed became a university in 1634, without the governors in Leiden being able to do anything to prevent it.

And in the meantime Leiden University had become a genuine Baroque university, indulging in the ostentation and the political subservience that went along with that character. The visit made by the prince of Tuscany, Cosimo III de’ Medici, on 10 January 1668, might be considered somewhat exceptional, yet it indicated precisely what image of itself the university wanted to put out.

The prince was visited in his lodgings by the *Rector magnificus* as well as a delegation of five professors and invited to hear an oratory address. Outside the Academy Building he was met by the full Senate, who took him to a Grand Auditorium, decorated with tapestries, where the governors were already seated. Gronovius held a splendid address with lots of genealogy and generals and emperors and other friends of scholarship. Subsequently the prince received waves of praise in Latin verses from Professor Heinsius and others. The entire university subsequently brought him back to his lodgings, but after the noon meal the full board of governors came with a speech in French to thank him once more for the honour received.

Much more emphasis came to be placed on ceremony. Graduations had to be embellished with music from that point forward, and such spiffing up could be accomplished that much better when Baldwin Hamey, the English medical doctor who had received his advance degree at Leiden in 1525, gave the university 1,000 guilders upon its centenary celebration, with which an organ was purchased. In 1677 wearing a robe during graduations was made obligatory, and two years later it was stipulated that every new professor had to be ceremoniously accompanied back


to his home after his inaugural address. Thenceforth at such an oratory address, in addition, everyone had to appear in his robe. In 1681, out of self-esteem, the governors gave themselves elevated seats in the Grand Auditorium, 'clad in tapestries and distinguished from other seating to some extent'.

By this time the university had built up a tradition in 'haranguing', that is, declaiming oratory on the great William III of Orange and his glorious deeds. In 1687 a student named Arend van Wasenaer got the opportunity to hold a speech on the birthday of the prince. The governors also made a commemorative medallion available to encourage the youth 'to make and recite public orations or poems'. In doing so, the great deeds of the illustrious prince were an obvious choice for the topic. A series of speeches was the consequence, and because those 'harangues' had come only from students, professors were also told that they had to exalt William III.

Gronovius would give a total of six orations on William's heroic feats, including the conquest of Namur and the prince's return to the Republic in 1691. On 29 June 1696, Govert Bidloo, the *Rector magnificus* for that year, may well have held the most bizarre speech. The occasion was the thwarted assassination attempt on William III. In a Grand Auditorium filled to the rafters and appropriately spruced up, Bidloo pointed to Louis XIV as the brains behind the attempt. As proof of Louis' involvement, Bidloo had 'all manner of implements of murder' put on display in front of him, 'decorated with golden lilies, so as to visualise that King as such an assassin, not only from hearing the oration but also from seeing these implements of murder dressed up as such'. It might be called an early form of PowerPoint.

- p. 73** *Herman Boerhaave (1668-1738), Dutch humanist, botanist and physician, Leiden alumnus and professor*
- p. 74** *Willem Jacob 's Gravesande (1688-1742), Leiden alumnus and professor of mathematics and astronomy*
- p. 75** *Bernhard Siegfried Albinus (1697-1770), Leiden alumnus and professor of anatomy and surgery*
- p. 76** *Gerard Noodt (1647-1725), Dutch jurist and Leiden alumnus*
- p. 77** *Top: Model of an air pump, from the collection of Leiden's Theatrum Physicum ('Physics Theatre')*  
*Bottom: Model of a mechanical portage, from the collection of the same Theatrum Physicum*
- p. 78** *Specimen, probably prepared by the botanist and anatomist Frederick Ruysch (1638-1731)*
- p. 79** *Human foetus, from the Brugmans collection*
- p. 80** *Design for setting up the 'Papenbroeck marbles' in the university's Orangery*

HERMANN. BOERHAAVE. VORHOUT. BATAV

A portrait of Hermann Boerhaave, a Dutch physician and chemist. He is depicted from the chest up, wearing a dark, heavy academic or professional robe with a prominent white and grey striped cravat. His hair is long and wavy, and he has a serious expression. The background is dark and indistinct.

BOTANICES ET MEDICINAE PROFESS. ORDIN.  $\frac{1}{2}$  MDCCIX  
DEIN ET CHEMIAE, POSTEA. MEDICINAE PROF. ORD.  
NATUS  $\frac{1}{2}$  MDCLXVIII. OBIIIT  $\frac{1}{2}$  MDCCXXXVIII.



GUL. IAC. s GRAVESANDE, SILVA-DUCENSIS.



MATHES. ET ASTRON. PROFESS. ORDIN.  $\frac{22}{9}$  MDCCXVII.  
DEIN ET PHILOSOPHIAE.  
NATUS  $\frac{25}{9}$  MDCLXXXVIII, OBIT  $\frac{6}{12}$  MDCCXLII.



BERNARDUS SIEGFRIDUS ALBINUS, FRANCOFURT

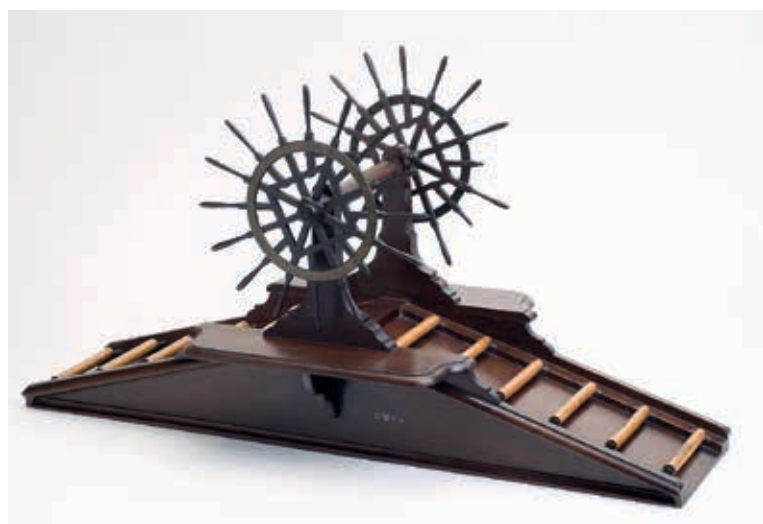


MARCH. PROFESSOR ANATOMES & CHIRURGICAE  
ORDINAR.  $\frac{12}{10}$  MDCCXXI, DEIN & MEDICINAE  $\frac{2}{3}$  MDCCXLV.  
NATUS  $\frac{25}{2}$  MDCXCVII. OBIT  $\frac{3}{8}$  MDCCLXX.

GERARDUS NÖÖDT, NEOMAGO- GELRUS.



NEOMAGI, DEIN FRÆNEQ., POSTEA ULTRAI, TANDEM  
LEIDÆ. IUR. PUBL. ET PRIV. PROF. ORD.  $\frac{31}{8}$  MDCLXXXV.  
NATUS  $\frac{4}{5}$  MDCXLVII, OBIT  $\frac{15}{8}$  MDCCXXV.











3

# THE EIGHTEENTH CENTURY





In the eighteenth century Leiden University remained the most important university in the Dutch Republic. It had become great as a result of its courage and creativity, the same sources that made the Republic great, but also because the surrounding countries were in trouble. In the eighteenth century those much larger countries had solved their problems, and the Republic had to deal with an entirely different world – as did the university.

One striking phenomenon that raised the concerns of the governors to an increasing extent was the decline in the number of students as well as increasing competition from other educational institutions. In 1648, peace in Germany had brought the restoration of academic life there, and the influx of German students to Leiden University slowly diminished. Other countries, too, tried to keep their students at home and at their own universities.

Within the Dutch Republic there were also developments that caused the number of students to decrease. Specifically, all manner of different kinds of secondary and higher education were being instituted. The 'French school', for example, offered a modern programme with modern languages as well as mathematics and physics and thus snatched many students from the university. Those students who did come, came above all for a degree, studied with a purpose in mind and were, moreover, from a narrower, higher stratum of the population.

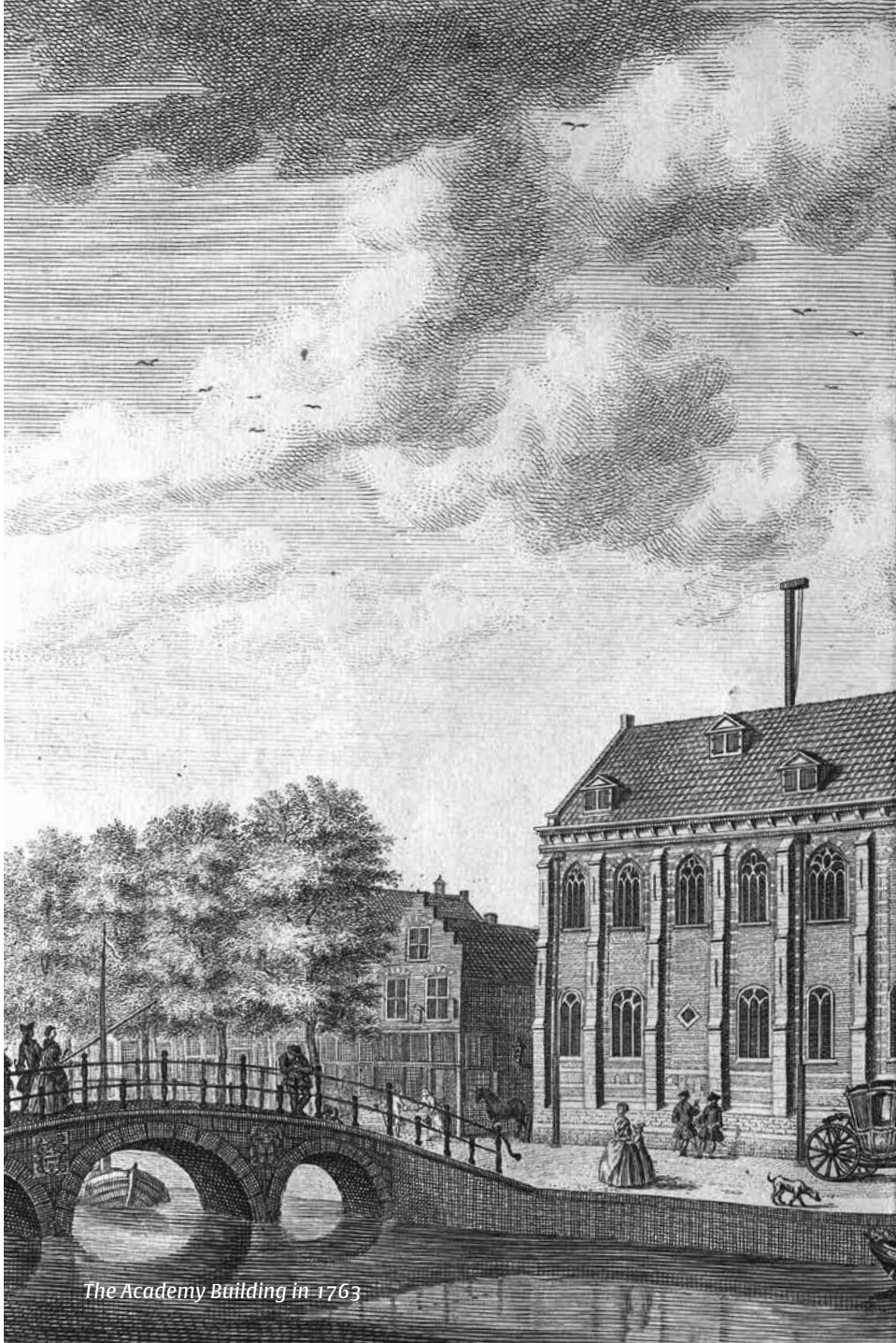
The most significant complaint was that secondary education was no good. The students were starting their university study

without being well-prepared because they were insufficiently equipped for beginning with the liberal arts or *artes*, as they were called. The governors pointed to three causes: absence or premature departure from secondary school; the possibility of obtaining a degree elsewhere, even though the students were 'still ignorant and worthless'; and illegitimate operators who themselves did not have the faintest idea of scholarship but nevertheless offered instruction at private institutions – age-old complaints, that is.

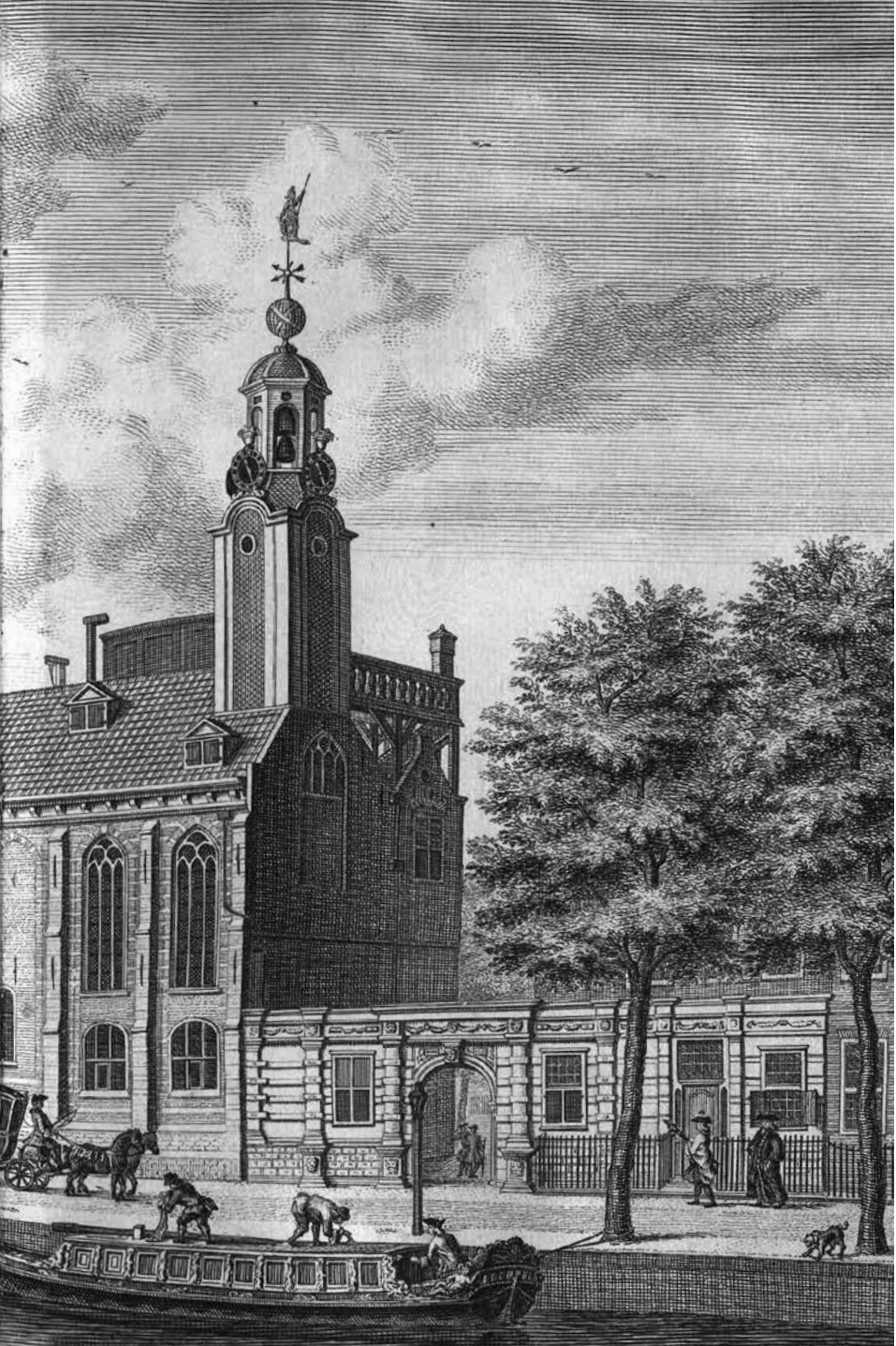
Yet there was another problem: 'the all too permissive and sumptuous upbringing by parents with regard to their children'. The parents were too rich, their children too spoiled. These children were not at all interested in studying and only did it for their amusement and not because they depended on it for their daily bread. They left the secondary 'Latin school' without knowing Latin, wanted to go to a higher faculty of university immediately and got themselves groomed for such study by 'those sorts of preceptors who promise to make them competent for advancing to their doctoral degree in the very most facile and least difficult way'.

In addition, the university had much more competition from other institutions. By this time the Dutch Republic was provided with a dense network of universities and various sorts of 'illustrious schools' or athenaeums, ranking institutionally between the 'Latin school' and the academy. Though these 'illustrious schools' were not allowed to grant any degrees, they did attract students who otherwise would be studying the *artes* in Leiden. Those in Dordrecht and Rotterdam proved to be successful institutions, not to mention the 'Atheneum Illustre' of Amsterdam, which established its own academic chairs in jurisprudence (1640), medicine (1660) and theology (1686) and, in so doing, started looking very much like a university.

In the meantime, the towns of Groningen (1612) and Utrecht



The Academy Building in 1763



(1632) had been granted full-fledged universities, and even Franeker (1585) and Harderwijk (1647) drew many students away from Leiden as a result of the ease with which a degree could be obtained (or, rather, bought) there. Abroad, too, the number of universities grew and authorities took all manner of protectionist measures.

They could do that in Leiden as well, the governors of the university must have thought. In that case, though, the States of Holland would have to collaborate, of course. The governors proposed that the province of Holland recognise only diplomas from Leiden and that only those who had studied in Leiden be allowed to practise an academic profession. This proposal struck close to the heart of the university in Utrecht, around one third of which consisted at this time of students from Holland, often from Amsterdam. In addition, the university tried to prevent the establishment of new 'illustrious schools', as in The Hague in 1710, for example, and in Zierikzee in 1756.

The biggest problem for Leiden University in the eighteenth century, though, was perhaps the notion that one just simply needed to continue its formula for success. In that respect the university was genuinely part of the government structure surrounding it. Just like Holland itself, the university would have to come to the conclusion that it could not rely solely on its own inventiveness and versatility. Factors that were beyond its control, such as the the political goings on of the Dutch Republic in Europe, also determined its success. By this time those outside the Netherlands were looking with much less admiration at the Republic than they had in the seventeenth century.

## **HOLLAND AND LEIDEN**

'Holland may be regarded as the great emporium, not less of literature, than of every commodity', the English writer and physician

Oliver Goldsmith noted in his *Polite Learning* (1759). Holland could be seen as the great marketplace of both literature as well as other trade goods. All languages were understood, studied and spoken there. All useful innovations in the arts and discoveries in the sciences were published there. Still, according to Goldsmith, Holland's scholarship and expertise came above all from abroad. Universities in Holland looked like those trading houses, in his view, in which enormous sums circulated, though they themselves had no capital.

Concerning the trade and economy of the Dutch Republic, Goldsmith was right, though not as concerned scholarship and the university. Even in the eighteenth century Leiden University succeeded in attracting great scholars. And in spite of somewhat declining student numbers, Leiden remained a major destination for foreign students. Once in Leiden, they did not keep their admiration under wraps. It was precisely in the eighteenth century, the age of the Enlightenment, that Leiden University became 'the premier university in Europe'.

For example, the Swiss physician Albrecht von Haller, one of Boerhaave's students, was jubilant about his stay in Leiden between 1725 and 1727. 'Nichts ist rührender', he wrote, 'als die Rapenburg bey dem Mondschein zu sehen'. Nothing was more touching than to see the Rapenburg canal by the light of the moon. He was full of praise for the university as well. It was flourishing. He extolled the diligence of the professors and the richness of the collections. The anatomical theatre, the library, the Hortus (as the botanical garden was known) – it was all well cared for.

There was criticism as well: quite a few travellers were bothered by Leiden's climate and by its stinking canals. The manner of dress and conduct there, the boorish passion for imitating anything that was French, attracted ridicule. In a letter to his uncle from May 1654, Goldsmith called the average Hollander 'a well



cloathd vegetable', a dressed-up piece of produce, and his lady a foot stove wrapped up in a muff and petticoats. The coarse craving for profit that prevailed was striking as well. Joseph Shaw found that he was treated at inns to extremely high prices, and he even had to pay a guilder just to put down his baggage somewhere for half an hour. 'And it was much stranger still that I had to send for four barbers in a row before I had one who knew how I was to tie up my peruke'.

The visitors were fascinated by the collections, though. An enormous date palm in the Hortus, a cactus eight metres tall, a gigantic aloe – as long as it was big, then it was great. That was also true for the covered passage in the gardens called the 'ambulacrum': a hippopotamus, a rhinoceros, a lion, snakes six to seven metres long, the head of a stag with an enormous set of antlers. And if it was not big, then it was strange: a cat with wings, the hand of a mermaid, a starling with long ears. In the case of a winged dragon Johann Beckmann, subsequently professor in Göttingen, remarked that no such thing existed. He was promptly informed that it could also be a mouse, made by fancy into a flying contraption.

The anatomical theatre remained an attraction. The Englishman Thomas Penson was initially quite impressed and wondered whether he dared to go inside. 'For just as in a forest the trees all stand entangled, here, too, there was an army of bones (it seemed) of dead men, women and children, staring and grinning at us as if they meant to change us into skeletons like themselves'. Soon enough, though, everyone had a catalogue in English put into their hands, the tour began, and the anguish gave way. That sale of catalogues, above all, as well as the way in which the tour guides tried to wheedle money from the visitors with bizarre tales, was something that struck the foreigners.

88      Amongst the professors, too, there were a large number of rari-



Interior of the library (1712)

ties. From the diaries of foreign visitors we catch the Leiden professoriate in their slippers or with a high peruke on, and this inside glimpse holds nothing back. Lulofs and Allamand, Schultens and Ruhnkenius, Van Royen and Rucker, Van Oudendorp and Von Pestel: though all well-regarded names from the world of learning and scholarship, they prove to be rather limited wits, self-absorbed provincials and compulsive gossips.

At the same time, it was this university that Voltaire spoke of

with admiration to Frederick the Great – the university where scholars like Boerhaave and Albinus, Noodt and Schulting, Perizonius and Hemsterhuis, 's Gravesande and Van Musschenbroek taught. Without a doubt, it was thanks to this list of names that in 1765, Leiden University had the honour of being described as 'la première de l'Europe' in the renowned *Encyclopédie* of Diderot and d'Alembert: 'Il semble que tous les hommes célèbres dans la république des lettres s'y ont rendus pour la faire fleurir, depuis son établissement jusqu'à nos jours'. Indeed, it seemed as if all the famous men from the Republic of Letters had gone there to make Leiden flourish.

## ENLIGHTENMENT

The light that gave the Enlightenment its name was the light of reason. Rationality was the most important word of the eighteenth century, with happiness and liberty, tolerance and equality, civilisation and usefulness all following close on its heels. The goal that the Enlightenment had set for itself was to improve human life. '*Allgemeine Glückseligkeit*', was what it strove for, '*utilité publique*', 'the greatest happiness of the greatest number'.

Education and information: that was what it was about in the Enlightenment. Everyone who wanted to take part in it, actively or passively, as writer or reader, as scientist or member of a learned society, made up part of the 'Republic of Letters', as it was called. Every scholar or scientist who wanted to share his knowledge had access to that republic. Money, origin or belief actually did not matter. 'This Republic', wrote the philosopher Pierre Bayle, who spent a great part of his life in Holland, 'is a pre-eminently free state. Only the rule of truth and reason is recognised here'.

Communication – that was what it was about: exchanging ideas with one another, travelling – that was the idea – conversations, letters and journals. Not about who your father was or what you

had studied. 'He is a person unlearned both in sciences and languages,' the statesman and polymath Constantijn Huygens wrote to a friend about Antoni van Leeuwenhoek. 'He has no training in the sciences or humanities, but he is curious and adventurous by nature.' Van Leeuwenhoek was a simple shopkeeper, who had not done more than primary school. And yet he was the inventor of the microscope.

He was, thus, one of the most important participants in a new adventure, the scientific revolution. It began in the seventeenth century but became commonplace in the eighteenth. And Holland and, specifically, Leiden was one of its major way stations.

A brief overview makes clear how important this revolution was. Around 1600, natural science was still entirely under the spell of Aristotle. Around 1700, everyone was debating Descartes and Newton. In 1600, the world still stood stationary at the centre of the cosmos, but one hundred years later pretty much the entire scholarly elite was convinced that the earth revolved around the sun. By now the idea was dawning on a somewhat smaller elite that the universe was infinite and had room for much that was as yet hidden from human observation.

Around 1600, matter was still seen as a mixture of mysterious elements, Aristotle's four sensible qualities of 'earth', 'fire', 'water', 'air'. Around 1700, matter was nothing but quantitative, seen as composed of super small particles, atoms. Around 1600, any change in matter was a qualitative change, a rearrangement of those mysterious qualities. Around 1700, particles were controlled by the laws of mechanics, motion and impact.

Around 1600, the distinction was still made between the mechanics of the heavens and that of the earth. That of the heavens was perfect; that of the earth was a mess in which space and time were tangled up together. A century later that distinction belonged to the past and what remained was one mechanics of





92 *Frontispiece for the Catalogus Librorum (1716)*

absolute quantities, of absolute time and absolute space, which, in the words of Newton, were only relative to each other and always remained the same.

Of major importance was that totally different concepts about life were being entertained. For the followers of Aristotle everything that lived had a soul and there was a continuity, a progressive organisation, of souls. For Descartes and his followers there was actually no difference between living and dead matter. The difference between a dead and a living body was nothing more than the difference between clocks that were either wound up or not.

In addition, Europe was presented an entirely new concept of the term 'natural law'. Formerly a law was a moral law, above all, a system of obligations binding all persons. Henceforth a law was associated with nature. Natural laws were fundamental rules of nature. They were set up by God himself, but were no longer altered by Him. This meant that one also had a very different view of the relationship between God and His creation. Formerly, God was omnipotent (even in making exceptions), yet he stood outside his creation. From the seventeenth century forwards, there were no exceptions any longer. God was in His creation, though, and natural laws were derived directly from Him. Nature became a second Bible.

The scientific revolution embraced not only new knowledge but also a new way of knowing. The most important change was the conviction that knowledge was a matter of one's own observation. Perhaps the English philosopher Locke put it best into words, though, when he wrote that looking at something through another man's eyes was just about the same thing as understanding something with another man's brain. That was impossible. Only what one saw and understood oneself could pass for actual knowledge.



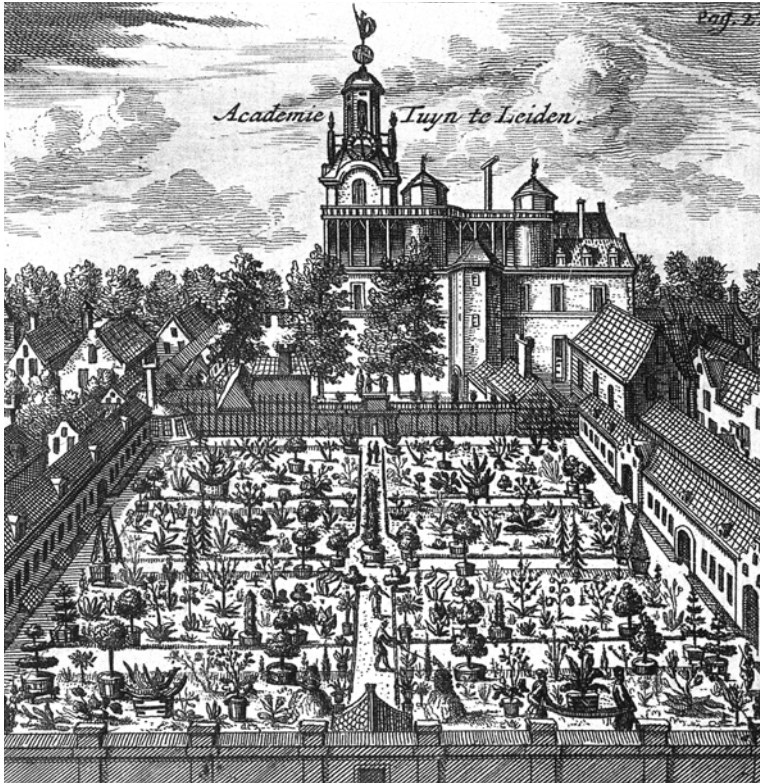
To look at something with one's own eyes was possible in various ways. Everywhere in Europe by this time extensive collections of 'curiosities' were put together with products of nature and of culture from across the entire world. Scientific instruments were invented, like the microscope and the telescope, which enlarged human capacities for observation considerably.

The problem remained what could count as an observation. Galileo Galilei discovered that the planet Jupiter has moons and Saturn rings, but a colleague of his refused to look through his telescope because he doubted that an instrument that was admittedly helpful on earth was also reliable for observing beyond it. What was needed, in other words, was a standard that made an ordinary observation a reliable observation.

That required a different concept of experience. Experience for Aristotelians was everyday experience, common sense supported by authoritative opinions. The difference with the new science was that henceforth one was not looking any more at all the kinds of things that happened, but at what exactly was happening, and under well-defined conditions.

This is the beginning of empirical science, which required not only instruments for objectively measuring. For this endeavour, persons were also needed who were practised in observing, in setting aside their prejudices. In addition, finally, this science needed a system in which observations could be published and checked.

For many adherents of the new science the universities were slow institutions, bulwarks of the old science, places where the worn-out ideas of Aristotle were still supported. 'In the norms and customs of schools, academies, colleges and comparable institutions, destined to offer shelter to scholars and to advance scholarship', wrote the English scholar and philosopher Francis Bacon, 'everything is directed against the progress of science'.



*The Hortus Botanicus and back elevation of the Academy Building with its astronomical observatory (1712)*

In practice, though, it turned out much better. Generally speaking, the university was an institution where what was new acquired a place next to what was old, where the old Aristotelianism was adapted to new findings and the new philosophy was as much as possible provided with an old lustre. The sixteenth and seventeenth centuries added quite a lot to history and theology, to geography and botany, to natural history and anatomy, which

was incorporated into the instructional material at many academies and made accessible in libraries and gardens, anatomical theatres and collections of curiosities.

Yet the scientific revolution was also a product of the university. A large share of the scientists associated with that revolution taught at a university. By bringing new disciplines like experimental physics into the old curriculum, by using new instructional methods with instruments and collections and by creating new facilities like laboratories, a number of universities contributed actively to spreading the new science. Leiden University was one such university.

Even so, most universities were not really bulwarks of the Enlightenment. Those were, rather, the new academies of sciences. The first academies were above all linguistic and cultural in nature. It was not until the Accademia dei Lincei of Rome (1603) that any such association focussed on the natural sciences. In the second half of the seventeenth century, the founding of the Royal Society in London (1660) and the Académie Royale des Sciences in Paris (1666) signalled the start for the foundation of a dizzying quantity of academies and societies, which bolstered all Europe.

Academies, too, were of various sorts and sizes. The nobility, above all, as well as representatives of the *haute bourgeoisie* were members of the major metropolitan academies, either founded by the state or established by a Royal charter. They also possessed considerable financial resources and a wealth of equipment, libraries as well as cabinets of curiosities and *naturalia*, observatories and laboratories. Initially they concentrated on the natural sciences, above all, and were separated into special divisions for mathematics, physics, chemistry, botany, geometry, astronomy. Later the humanities were added, and the academies also comprised divisions for archaeology, history, jurisprudence, economy, agriculture.

In addition to pure scientific research these academies concentrated in particular on science that could be applied and on results that could be utilised. Created by the state and dedicated to the general welfare, these academies engaged in cartography and climatology, statistical research into demographics as well as economic activity, into the exploitation of natural resources and into the improvement of industry and agriculture.

Their *modus operandi* consisted of meetings with a well-defined programme: public experiments, debates, lectures and reports. In addition, contests were held and the academies also issued periodical publications, like the *Philosophical Transactions* of the Royal Society and the *Histoires et Memoires* of the Académie des Sciences. Furthermore they maintained an extensive correspondence and other kinds of contact with one another.

This kind of network also emerged in Holland. It included general scholarly societies like the Holland Society of Sciences and Humanities (Hollandsche Maatschappij der Wetenschappen) at Haarlem from 1761, and the Batavian Society (Bataafsche Genootschap) at Rotterdam from 1769. Other societies were dedicated to one branch of knowledge, like the Society of Dutch Literature (Maatschappij der Nederlandsche Letterkunde) or the Society for the Advancement of Surgery (Genootschap ter Bevordering van de Heelkunde), or they had a philanthropic or educational purpose, like the Economic Branch (Oeconomische Tak) of the aforementioned Holland Society, or like the Society for Public Welfare (Maatschappij tot Nut van 't Algemeen).

## A SCHOLARLY CULTURE

Leiden University was the centre of this network. As a result, it was one of the most important agents in the emergence of a scholarly culture in Holland. Not always peaceful and at times even escalating intensely, debates conducted there between Aristotelians

and Cartesians, Cartesians and Newtonians, found their way, translated and simplified, into broader strata of the population.

Thanks to education, the different systems of medical science and of jurisprudence each acquired their university spokespersons. And these subjects, thanks to religious or political implications, radiated outward to a much greater extent than just to insiders. That found its greatest expression, of course, in theology where, in addition to the orthodoxy of the Reformed Church, divergent opinions of a more free-thinking or scholarly tendency were also continually heard. Every congregation closely followed what was learned there about topics like tolerance, predestination and natural theology.

Thus, Leiden University, for example, had Holland's first public library and it was open to everyone, even though the opening times were few. By the middle of the eighteenth century it had the respectable size of around 25,000 volumes and was meant to be 'for the public good'. Professors and students were the primary users, of course, but the library was essentially part of a public system for providing information. Borrowing books long-term not only from a public library but also from private individuals and even from bookstores was very common. Leiden was actually one big library.

In a certain sense, though, the town was an exception, as a result of the large quantity of book printers and bookstores and its large book auctions, which could bring instruction to a standstill for days. Upon visiting the town in 1725, Albrecht von Haller wrote: 'Ganze Strassen sind voll Buchhändler, und alle Winkel voll Druckereyen' – entire streets were full of booksellers and printers' shops, and amongst those the printers to the academy (i.e. Leiden University) were the most important.

The tradition of printers to the academy in Leiden originated with Christoffel Plantijn, the Flemish 'arch-printer' who came to





*Title page of De comparando certo in physicis (1715), the oration given by Hermann Boerhaave (1668-1738)*



Leiden in 1582 to save his business during the troubled times of war. Yet it was above all the Elzeviers, Bonaventura (1583-1652) and Abraham (1592-1652), who established the great name of academic printing in Leiden. This seventeenth-century tradition was continued with fervour by eighteenth-century printers to the academy like Pieter van der Aa (1659-1733) and Samuel Luchtmans (1685-1757). The former, above all, was a genuine entrepreneur – called a scoundrel by some and a daredevil by others – who built up a splendid financial base, made possible by also printing the greatest rubbish.

In addition to collecting books, collecting ‘curiosities’ – from natural history or cultural history – was an activity that held a broad portion of the bourgeoisie under its spell. Here, too, Leiden University set the most important example. The curiosities possessed by the university – on view for everyone who had an interest in them, in the afore-mentioned ‘ambulacrum’ of the Hortus as well as in the ‘summer exhibition’ of the anatomical theatre – drew curious multitudes from home and abroad.

In other towns, too, these kinds of collections were combined with gardens or anatomical theatres. Made possible by the major flows of trade that brought the province of Holland in contact with the entire world, it was those in the public with a lot of purchasing power, above all, in towns with offices of the trading companies – Amsterdam at the top of the list, but also Hoorn, Enkhuizen, Delft and Rotterdam – who dedicated themselves to collecting curiosities.

In the eighteenth century these kinds of collections acquired a different character. What initially had an illustrative nature, above all, where ‘the great big world’ was presented ‘on the small scale’, became more and more an activity for specialists, concentrating only on *naturalia*, for example, and within that specialty only on shells, for instance. Still, the number of collectors in-

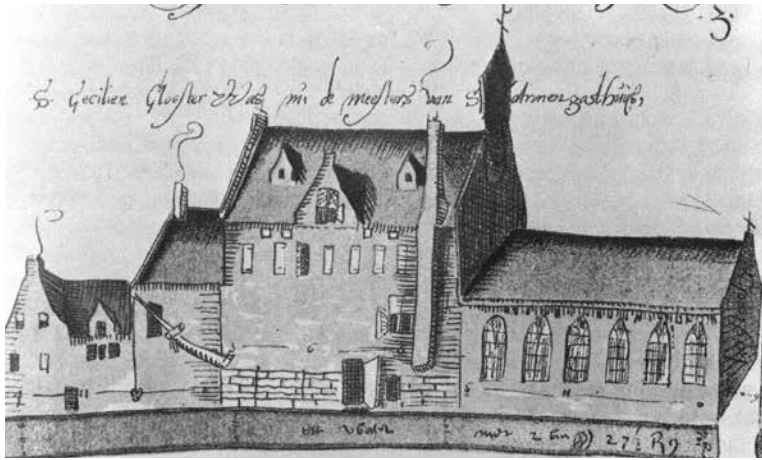
creased spectacularly as well, aided by an extensive wholesale trade and specialised shops, lending many a bourgeois house in Holland an exotic appearance, while possibly giving the foreigner the impression that Holland itself was a curiosity.

Along the lines of this collecting, Holland experienced an intense garden culture and in this regard, too, the university preceded its province. The Hortus of the university, intended 'for the advancement of the Studium Medicinae', was in the end not so much a medicinal garden as it was rather a genuine botanical garden, of which only a third of the plants was medicinal in nature and a large portion was of exotic origin. In this regard the Hortus of Leiden University was not distinctive but representative, rather, of knowledge in a wide field of scholarly pursuits. In the end other towns, too, acquired public gardens, of which Amsterdam's from 1682 would become the largest.

In addition, there were many nurseries on the sandy soil behind the dunes close to Leiden, Haarlem and Alkmaar. Along with the private gardens – from the small vegetable and herb gardens, orchards and wooden sheds on the outskirts of every town to the splendid parks of the grand country estates – they constituted a collective activity, in which scholarly, economic and social motives were effortlessly interwoven.

A third university institution that would exert a major influence on Holland's scholarly culture was the afore-mentioned anatomical theatre. Here lessons in dissection of the human body were given before a large and diverse audience of physicians, students and those with a general interest. Over the course of the seventeenth century, vivisection of dogs, above all, came into fashion as well, in empirical research into the circulation of blood, the function of reproductive organs and the action of endocrine glands.

There were many of these kinds of anatomy sites in the provin-



*Inner courtyard of the hospice of St Caecilia (1732)*

ce of Holland. The surgeons' guilds in Amsterdam, Delft, The Hague, Dordrecht, Rotterdam, Alkmaar and Haarlem all had a dissection hall. Specifically, those of Leiden, Amsterdam, Delft and The Hague developed into much more than locations for surgical lessons. In conjunction with the library, the collection of curiosities and the botanical garden, these theatres became true cultural centres, where scholarly research, artistic production and economic activity went hand in hand.

In spreading technical knowledge, too, Leiden University set an example. In the beginning of the seventeenth century in Leiden, Prince Maurice of Orange-Nassau had founded the curriculum of Dutch Mathematics (or 'Nederduytsche Mathematique') for training military and civil engineers. Here instruction was given in Dutch, and students as well as craft artisans learned the principles and practice of building fortifications, surveying land, and navigating the seas. In the eighteenth century, much technical knowledge came to be part of regular lessons in mathematics and

astronomy, chemistry and natural history. For that reason the university established all manner of ‘cabinets’ for chemistry and physics, where empirical philosophy was combined with a sophisticated interest in electricity and steam.

A university town was a pre-eminent site for all manner of private instructors who gave young students instruction in what was called a ‘virtuous and noble upbringing’. Other major towns in Holland were also the setting for the appearance of minor ‘knowledge entrepreneurs’, who focussed on fields like arithmetic and linguistics, mathematics and physics, astronomy and chemistry. Lessons in farming, too, or in what merchants needed to know, were given by all sorts of itinerant persons in a semi-scholarly or outright popular manner. Popular medical knowledge, subjects like agriculture and horticulture, animal husbandry and natural history, experimental physics and chemistry, hydraulic engineering and building mills – all of it was present in Leiden.

Thus, from its very beginning, for example, Leiden was acquainted with fencing and riding masters alike, but in the eighteenth century their presence increased intensely. A good example is Gaspar de Saunier (1663-1748), a learned *piqueur* (or horse trainer) with a fascinating track record. The son of a Master of the Horse, at home in the Royal stables of Louis XIV and trained at the renowned Parisian riding academy, Gaspar could be employed everywhere. If there was war, he fought; if there was peace, then he maintained a stud farm. In the 1730s he came to Leiden, where he not only gave instruction but also published. In 1733, the governors rewarded him with 300 guilders for his book *La Parfaite Connoissance des Chevaux*, concerning the perfect knowledge of the horse.

## THE BIG NAMES

Yet the pride of Leiden University was, of course, the big names of its famous researchers. The three-point strategy of the seven-

teenth-century appointment policy still applied: a couple of expensive 'luminaries', a lot of experienced practitioners and its own home-grown stock, carefully trained and retained with positions and promises. A good example of this last category is Boerhaave, who would become the most famous scholar of Europe (as the story goes, one could post a letter in China addressed to 'Boerhaave, Europe', which was subsequently deposited nicely into his letterbox on the Rapenburg). Yet he started out as a university fellow with a small position.

Hermannus Boerhaave (1668-1738) was the son of a preacher. His father died when he was a boy of fifteen. He received a scholarship for the States College, and after his study of theology the governors gave him a job in the library, while he studied medicine on his own initiative. In 1693, he earned his degree without having ever taken a course. After having been a physician for a number of years, he became a professor, first in botany (medicinal herbs) in 1709; from 1714 forward, though, he acquired the so-called 'Collegium Medicum Practicum' as well, that is to say, the academic chair in practical medicine, or clinic with actual patients, while in 1718 he also became professor in chemistry.

At that time, then, he had three professorships and, moreover, he wrote famous handbooks about all those sciences. Not only students came from all over the world to attend his classes (he was called '*Communis Europae Praeceptor*', the schoolmaster of all Europe), but also many a foreigner sought his medical advice. He became very rich from it, and also very influential. Even Peter the Great, on his travels through the Dutch Republic, made a visit to Boerhaave – and had to wait until he was finished with his class.

In the beginning of the eighteenth century, above all, Leiden University was able to provide itself with great scholars: Voet and Vitriarius in law, Bidloo and Albinus in medicine, Gronovius and Perizonius in the humanities. One of the very greatest undoubted-



*Student in ceremonial dress (beginning of the eighteenth century)*



ly was Noodt, who was snatched away from Utrecht and appointed in 1686 to restore the faculty of law 'to its old lustre and reputation'. From his professorship in Leiden, Noodt, like no other, let the message of the Enlightenment ring.

Gerardt Noodt (1647-1725) was a man without enemies who gave his opinion without regard for the person yet also without insult. Twice he was 'rector magnificus' (akin to university chancellor), and he used this well-regarded office to hold two speeches that would become known in all of Europe. The first, in 1699, was called *De jure summi imperii et lege regia*. In a time of monarchist thinking and absolutist theories, while William III was sovereign and king of England, it was a daring republican plea for popular sovereignty.

His second speech, *De religione ab imperio gentium libera*, from 1706, was even more important and more radical. In this address, in a time of state churches and diametrically counter to the power of the Reformed Church, Noodt maintained that freedom of religion was a right, founded on international law. When he held this plea for tolerance, Noodt must have been very aware of the risk he was running. Witnesses declared that he stepped up to the rostrum of the Great Auditorium pale as a corpse. His speech in Latin was nigh on immediately translated into French and spread across all Europe.

The governors made perhaps the most important appointment of all in 1717, with the installation of 's Gravesande in mathematics and astronomy. Willem Jacobus 's Gravesande (1688-1742) had admittedly studied law, yet he seems above all to have made mathematical calculations during those classes. He would be the major representative of empirical philosophy in Leiden. For him, research into nature and the cosmos was embedded in a larger philosophical context. Natural order and human obligation were for him two sides of the same coin. As a genuine man of the En-

lightenment, he was the co-founder of the *Journal Littéraire*, a popular magazine in which much attention was paid to natural science.

Yet 's Gravesande did something that was even more important and was crucial for changing Leiden University from an academy of the Renaissance into one of the Enlightenment. Though the old facilities of the university, the collections of curiosities, still did attract foreign admirers, they were by this time obsolete as centres of science. The new centres were the dissection and demonstration halls; the future belonged to laboratories.

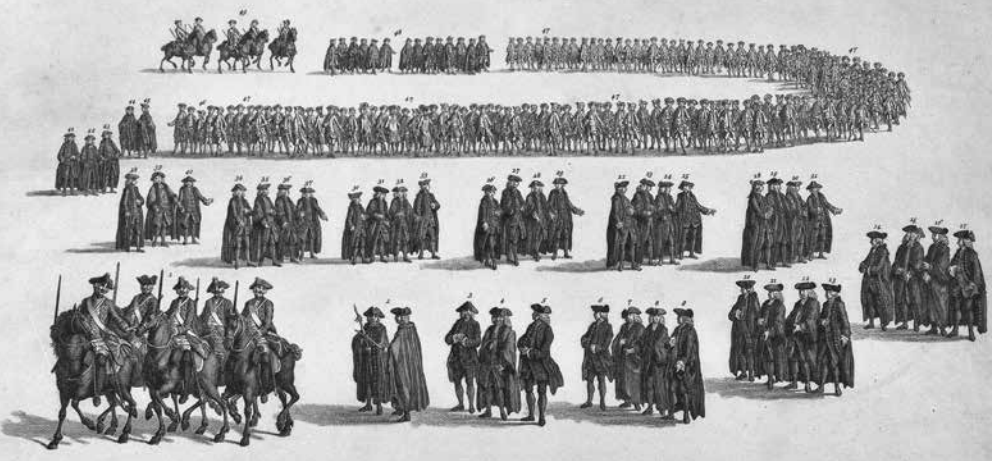
Anyone who looks at the frontispiece of the catalogue for the library of Leiden University, issued by Pieter van der Aa in 1716, sees a pedestal with Minerva on it (see p. 92). Surrounding this pedestal are four depictions: a laboratory, an anatomical theatre, an observatory and an apothecary. The library, or so it was suggested, had acquired a new purpose and become part of empirical philosophy. If one puts this engraving next to the depiction of the Hortus and rear of the Academy Building printed four years earlier, it is obvious that by this time the university had indeed made a practice of that philosophy.

As a botanical garden, the Hortus functioned in the first place as an experimental garden for all the botanical systems that had been introduced in the meantime. As a result of his major international contacts, Boerhaave succeeded in bringing together a variety of plant types that – if we are to believe Linnaeus – was present in no other garden in Europe. The Hortus had by this time also been intensely expanded, first with a so-called 'round African hot-house', heated by 'a large subterranean boiler'. Under Boerhaave's administration, the 'Maliebaan' (an erstwhile course for games like pall-mall and croquet) was also incorporated into the Hortus. Moreover, he used his own garden at his castle of Oud-Poelgeest as an annexe of the Hortus. More than 8,000 trees, shrubs and plants could be seen there.

In 1745, the Hortus also got a new orangery, built by the renowned French architect Daniel Marot. This was a building with two wings, one for plants in the winter and the other for the new collection of *naturalia*. This last, in contrast to before, was no grab bag of accidentally acquired 'foreign wonders', but a systematically assembled collection. Thus, for example, by order of the prince of Orange, letters had gone out to the colonies 'to remit specimens of the unique examples found there'. In that way, with the aid of the Dutch East India Company, the garden expanded its collection, not only of plants and herbs, but also of minerals and animal specimens.

A good impression of the collection is given by the German economist Johann Beckmann, who made an extensive visit to this experimental 'cabinet' in 1762. He found it 'very rich and superb', its shell collection 'one of the most complete'. He had never seen such beautiful nautilus shells before. In addition, the types of stones, crystals, corals, precious metals, as well as the products made from these, roused his admiration. The department for mounted animals did the same – a multitude of birds, marsupials and pangolins, a stoat in its summer and winter coat, hippopotamus and elephant foetuses, wolves, bears, lions, tigers, reindeer. Finally, he saw, in a separate room, curiosities of cultural origin, like a collection of Japanese and Chinese attire, house wares and religious objects.

The middle portion of the building was set up as a museum of classical antiquities. In 1741, as it turned out, Gerard van Papenbroeck, the last male scion from a wealthy Amsterdam merchant family, had bequeathed his collection of 'Antique Marbles' to Leiden University. That was the reason, actually, that the new orangery was built. On September 27, 1745, the building was officially opened and the 'marbles' – antique fragments with inscriptions, urns and sarcophagi – could be admired there.



TREIN VAN DE STATIE UIT DE ACADEMIE NAAR DE PIETER'S KERK den 8 Febr. 1775.

1. De Oppenheit van de Academie	10. de Wier Professor J. J. Schrevelius	19. de Wier Professor J. J. Schrevelius	28. de Wier Professor J. J. Schrevelius	37. de Wier Professor J. J. Schrevelius	46. de Wier Professor J. J. Schrevelius	55. de Wier Professor J. J. Schrevelius	64. de Wier Professor J. J. Schrevelius	73. de Wier Professor J. J. Schrevelius	82. de Wier Professor J. J. Schrevelius	91. de Wier Professor J. J. Schrevelius	100. de Wier Professor J. J. Schrevelius
2. De Wier Professor J. J. Schrevelius	11. de Wier Professor J. J. Schrevelius	20. de Wier Professor J. J. Schrevelius	29. de Wier Professor J. J. Schrevelius	38. de Wier Professor J. J. Schrevelius	47. de Wier Professor J. J. Schrevelius	56. de Wier Professor J. J. Schrevelius	65. de Wier Professor J. J. Schrevelius	74. de Wier Professor J. J. Schrevelius	83. de Wier Professor J. J. Schrevelius	92. de Wier Professor J. J. Schrevelius	101. de Wier Professor J. J. Schrevelius
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5. De Wier Professor J. J. Schrevelius	14. de Wier Professor J. J. Schrevelius	23. de Wier Professor J. J. Schrevelius	32. de Wier Professor J. J. Schrevelius	41. de Wier Professor J. J. Schrevelius	50. de Wier Professor J. J. Schrevelius	59. de Wier Professor J. J. Schrevelius	68. de Wier Professor J. J. Schrevelius	77. de Wier Professor J. J. Schrevelius	86. de Wier Professor J. J. Schrevelius	95. de Wier Professor J. J. Schrevelius	104. de Wier Professor J. J. Schrevelius
6. De Wier Professor J. J. Schrevelius	15. de Wier Professor J. J. Schrevelius	24. de Wier Professor J. J. Schrevelius	33. de Wier Professor J. J. Schrevelius	42. de Wier Professor J. J. Schrevelius	51. de Wier Professor J. J. Schrevelius	60. de Wier Professor J. J. Schrevelius	69. de Wier Professor J. J. Schrevelius	78. de Wier Professor J. J. Schrevelius	87. de Wier Professor J. J. Schrevelius	96. de Wier Professor J. J. Schrevelius	105. de Wier Professor J. J. Schrevelius
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8. De Wier Professor J. J. Schrevelius	17. de Wier Professor J. J. Schrevelius	26. de Wier Professor J. J. Schrevelius	35. de Wier Professor J. J. Schrevelius	44. de Wier Professor J. J. Schrevelius	53. de Wier Professor J. J. Schrevelius	62. de Wier Professor J. J. Schrevelius	71. de Wier Professor J. J. Schrevelius	80. de Wier Professor J. J. Schrevelius	89. de Wier Professor J. J. Schrevelius	98. de Wier Professor J. J. Schrevelius	107. de Wier Professor J. J. Schrevelius
9. De Wier Professor J. J. Schrevelius	18. de Wier Professor J. J. Schrevelius	27. de Wier Professor J. J. Schrevelius	36. de Wier Professor J. J. Schrevelius	45. de Wier Professor J. J. Schrevelius	54. de Wier Professor J. J. Schrevelius	63. de Wier Professor J. J. Schrevelius	72. de Wier Professor J. J. Schrevelius	81. de Wier Professor J. J. Schrevelius	90. de Wier Professor J. J. Schrevelius	99. de Wier Professor J. J. Schrevelius	108. de Wier Professor J. J. Schrevelius

Procession of professors, functionaries and students on their way from the Academy Building to St Peter's Church, on February 8, 1775

'Have a look, then,' Professor Oudendorp invited students, 'Jupiter, Serapis, Apollo and Bacchus in various attire and decorated with their unique attributes, naked Venuses, splendid cupids, Silenus, Pan, fauns, Hercules fighting with Antaeus, or standing proud with the golden apples of the Hesperides and, finally, the goddesses Domina Urbs, Fortuna, Salus, Abundantia and Nehalennia, and the horrifying head of Oceanus with his fisherfolk.' Van Papenbroeck had collected all of it for Leiden.

Yet the greatest wonder in the Hortus was not the antiquities or the curiosities – it was the laboratories. Next to each other and easily seen in the engraving of 1712, they were housed in the buildings on the Nonnensteeg, with the rear of the buildings toward the Hortus, that is. The chemistry laboratory dates from 1669, though at that time it was on the Doelensteeg. After being moved and under the administration of Boerhaave, the laboratory

had six normal boilers, four distillation boilers, one smelter, and one digester. Here, along with his students, Boerhaave made his thousands of distillations as well as determinations of specific weight, and he saw to it that the number of lab stations for students was expanded.

The physics laboratory was even older. In 1674, after a visit to the Royal Society, Professor Burchard de Volder requested a laboratory for instructing students 'with experiments'. For that purpose he acquired a separate appointment, a building on the Nonnensteeg and a budget for buying instruments. The first instrument that he bought was an air pump, made by the instrument maker Samuel van Musschenbroek. Besides vacuum experiments he did all manner of hydrostatic experiments and mechanical demonstrations. Furthermore, the laboratory was equipped with a variety of optical instruments, such as microscopes and reflectors.

On March 15, 1724, the governors turned the laboratory over to 's Gravesande and then its finest hour began: levers, windlasses, pulleys, collision and centrifuge apparatuses, falling body apparatuses, instruments for measuring water pressure, hydrostatic balances, compressed air cylinders, heliostats, yet also entire mills built to scale, hoisting mechanisms, mechanical portages. He turned his interest in steam engines, too, into a request to the governors for an engine 'to show on a small scale how water can be moved by means of fire upward out of deep mines or inundated sites with better success than with any mill'. In this way the laboratory in Leiden already had its own steam engine in 1730, fabricated by Jan van Musschenbroek – perhaps the first steam engine to be seen in the Netherlands.

Finally, there was the observatory, also easily seen in the engraving from 1712: a platform that was placed across the entire length of the narrow axis of the Academy Building and upon which two hexagonal cupolas stood, outfitted with flaps that could be

opened towards the section of the heavens one wanted to look at. This platform dated from 1632 already, though at that time the observatory's most important instrument was still a quadrant that had been manufactured by Blaeu. When De Volder took over, he was allowed to buy more instruments and under 's Gravesande administration, above all, the set of instruments was expanded intensely with, among other things, a lens with a focal distance of fifteen metres, a Hearne mirror telescope and a passage instrument made by Sisson.



- p. 113** *Self-portrait of Eduard Stollé, member of the Leiden tirailleurs corps fraternity (1831)*
- p. 114** *The botanist Sebald Justinus Brugmans (1763-1819), administrator of the Hortus*
- p. 115** *The Dutch statesman Johan Rudolph Thorbecke (1799-1872), Leiden alumnus and professor*
- p. 116** *The theologian Abraham Kuenen (1828-1891), director for the new Leiden translation of the Old Testament*
- p. 117** *The Orientalist Hendrik Kern (1833-1917), Leiden alumnus, professor and founder of its Oriental Studies*
- p. 118-119** *Print of the masquerade procession (1935)*
- p. 120** *Rector's address in St Peter's Church at the celebration of the university's third centenary on February 8, 1875*



SEBALD JUSTINUS BRUGMANS



ART. LIB. MAG. MED. ET PHIL. DOCT. PHIL. LOG. METAPH.  
ET ASTRON. IN ACAD. FRANEQ. 1785 PROF. ORD. IN ACAD.  
LUGD. BAT. 1786 BOTAN. 1787 HIST. NAT. 1791 MED. 1800 CHEM  
NAT. FRANEQUERAE 24 MART. 1763 OB. 22 JULII 1819.

JOHANNES RUDOLPHUS THORBECKE ZWOLLA-TRANSISALANUS



NATUS 15 JAN: A° 1798 IN FAC: JURID: ACAD: LUCD: BAT: PROF: EXTRAORD:  
A° 1831 ORD: 1834. MINISTER REGIS FACTUS A° 1849. OBIIIT 4 JUN: A° 1872

ABRAHAMUS KUENEN.



THEOL. ET LITT. HUM. DOCT. IN ACAD.  
LUGD. BAT. THEOL. PROF. 1853-1891. NATUS HARLEMI  
16 SEPT. 1828. OBIT LUGD. BAT. 10 DEC. 1891.



JOHANNES HENDRICUS CASPARUS KERN



E PAGO POERWOREDJO (JAVA). NATUS 6 APR. 1833.  
PROF. IN COLL. REGIN. BENARES. 1863. LING. SANSKRIT.  
PROF. ORD. IN UNIV. LUGD. BAT. 18 OCT. 1865.  
EMER. 1903. OBIIT ULTR. TRA. J. 4 JUL. 1917.





# N VAN RETHORYKE BINNEN LEYDEN



## DER LEIDSCHEN HOOGESCHOOL.

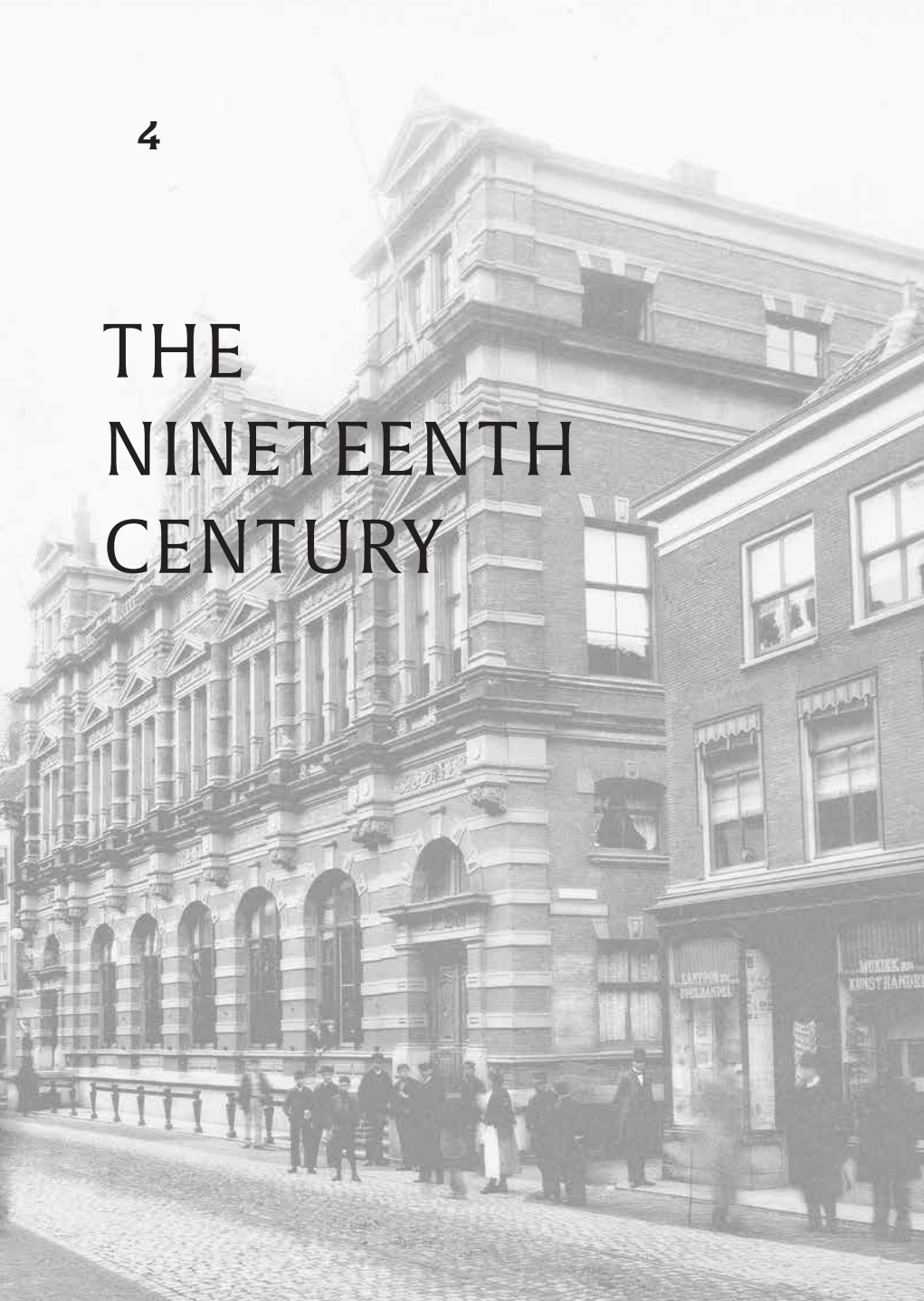






4

# THE NINETEENTH CENTURY



The nineteenth century is often presented as a dull century, that of Biedermeier and bourgeoisie, of cosy domesticity and carefully concealed feelings. Yet at the same time it was the age of Romantic ecstasy and impassioned liberalism, of iron and steel and colonial expansion. The young Kingdom of the Netherlands began the century as a small country. So was the Dutch Republic, too, but it was a powerful small country. That power was lost in the eighteenth century, however, as became dramatically clear in 1780, during the Fourth Anglo-Dutch War. Then it became evident how large and strong the foreign countries surrounding the Netherlands were, and how internally divided the Republic was.

Economically and politically, the country had fallen into a kind of rigidity. Political problems could not be solved because the provinces were divided; economic problems continued because society was divided. The Republic became indebted but the provinces did not want to pay for it. The province of Holland became isolated from the rest, the House of Orange from the Republic. In 1780, England proved to dominate the seas and succeeded in bringing Dutch international trade pretty much to a standstill.

The rebellious 'Patriots' Movement', followed by domination under the French Republic, brought no relief. One regime succeeded the next and even though all sorts of necessary reforms came about – legal and fiscal unity, a modern bureaucracy and an influential role for parliament – it was ultimately all associated with a hated occupier, that is, with France. Regardless of how resolved

the Dutch had been to say goodbye to the House of Orange in 1795, its return seemed inevitable in the end. It even seemed logical that the stadtholder, William VI, became King William I of a now united Netherlands. What was indeed remarkable was that this kingdom comprised Belgium, too.

The Constitution of 1815 was therefore a compromise. It wanted to build a bridge 'between the constitutional law of the Republic of the United Netherlands [in the 1600s] and that of its Rebirth [in the 1800s]'. Yet that rebirth lay in the hands of William I. The tragedy was that he came to head a state that was created on the drawing board rather than in reality.

The combination of the Netherlands and Belgium seemed – as strange as it may sound – like the partition of Poland. The combination was more appropriate for the king than for his kingdom. Regardless of how he did his best to make 'a perfect union', the contrasts continued to have the upper hand. Belgium did not want to stay united, and the young kingdom ripped apart in 1830. Ten years later the king abdicated.

During the tumultuous 1840s the Netherlands had to tackle the problem of locating a new equilibrium, one that was found in 1848. In that year the country acquired a modern Constitution. Thenceforth, the Lower House of Parliament was boss and the prime minister responsible, not the king. And this Lower House was elected directly by (a portion of) the people. Groups of people excluded until that time were included in politics. With their involvement the eighteenth century was really brought to a close. And people accepted that the Netherlands was a small country.

In this time period the country had to try to acquire a new sense of its self-esteem, had to formulate an idea of nation that converted political impotence into national pride. Initially, Dutch nationalism was – in the words of E. H. Kossmann, alumnus of Leiden and subsequent historian at Groningen – a nationalism of scholars, of



persons who looked back at the sixteenth and seventeenth centuries: 'it was neither Romantic nor bourgeois-liberal'.

Not until the rise of liberalism, around the 1840s, did the Netherlands acquire a political movement that preached Romanticism and freedom. This liberalism was against popular sovereignty and against rational political order, while favouring free growth and free institutions. It would strongly define the character of the nineteenth century. And in that process a number of Leiden professors dominating the debate played a major role: Johan Thorbecke, Abraham Kuenen, Carel Cobet, Simon Vissering, Johannes Buys and Robert Fruin.

### **A NEW HIGHER EDUCATION**

Along with the new kingdom, the Netherlands also got a new higher education act, the so-called '*Organic Decree*' of 1815 ('organic', in its application to the organisation of education, that is). Higher education had to be 'learned', above all, in accordance with this law. The professor took centre stage; any course of study for useful or 'career' purposes was cast aside; knowledge was seen as 'a well-delineated and uniform system of qualifications', as the Leiden historian Johan Huizinga described it, 'practical and noble, neither deep nor adventurous'. The *Organic Decree* was above all a compromise, somewhere between a little new and a lot old.

Studies began with broad preparatory training. Those who went to do theology or law first had to study arts and letters extensively; anyone who wanted to become a medical doctor did mathematics and physics. The law provided for higher education at three universities, at Leiden, Utrecht and Groningen. Leiden received the title of 'first' school of higher education, given priority 'in subsidies and provisions'.

In addition, except for Utrecht, Groningen and Drenthe, each



University library (1862)

province was allowed to establish its own 'atheneum' (cf. Chapter 3). The description of the mission of such an athenaeum was: 'as much general dissemination of taste, refinement and scholarship as possible'. For contrast: the purpose of schools for higher education was 'to prepare the student for an educated position in society'.

The *Organic Decree* stipulated that there would be five faculties. Following the French example, the lowest faculty, that of the *artes*, was split up into a faculty of reflective philosophy and letters and a faculty of mathematics and physical sciences. Instruction had to be given in Latin. There was no sequential order in which subjects had to be studied. The law did recognise two academic degrees, though, those of candidate (similar to a bachelor's) and doctorate. The latter was linked to the practice of all manner of positions in society, which were indicated in the diploma.

The requirement to give lessons in Latin gave something antiquated to university education, certainly in comparison with abroad where almost always the national language was used. An additional concern was that the individual differences in levels of education that the 'Latin schools' had with one another brought

very differently trained students to the university. Those who had learned Latin well, were bored in the introductory lessons; for those who had insufficient command of Latin, the lessons could not be simple enough.

For over sixty years, one had to make do with this legislation. Yet with the Higher Education Act of 1876 everything became different. Preparatory training was relocated to the college prep secondary school (the '*gymnasium*') that had been created in the meantime. Study also became much more oriented toward specialisation and for all of these specialties separate degrees were introduced. These distinctions meant that the higher education's generally edifying nature was definitively passé.

The new law instituted no less than 17 doctoral degrees and described 61 required subjects. Henceforth, the field of knowledge was parcelled out: the subjects were strictly defined and separated from one another. Whatever fell outside the specialties, fell outside the university. Before long the professionalisation of university education and the disintegration of the university as a result of specialisation let loose a storm of criticism. And yet a new higher education act would not come about until just under a hundred years later.

## **ADMINISTRATION**

The *Organic Decree* of 1815 preserved the Board of Governors, yet this did not mean that the eighteenth-century situation was continued. The university of the Ancien Regime was an institution with significant administrative and financial independence as well as far-reaching privileges; the university after 1815 was a state institution that did not have any exceptional status. In the preceding eras the governors could carry out their own financial policy; since 1815, a budget approved by the king served as a guideline for payments to be made by or on behalf of the national

ministry of education. Previously the governors were able to appoint new professors as they saw fit; henceforth, the king made appointments, albeit based on their nominations.

In other respects, too, the power of the governors was hollowed out. Their job remained sizeable: complying with higher education legislation, seeing to the quality of higher education as well as caring for academic buildings and other property, appointing lower-level personnel. In the act of 1876, though, their 'intermediary function' between the ministry of education and university, above all, was emphasised. Since 1876, the governors had gone from being the university's representatives to the ministry to being the ministry's representatives to the university.

The governors were still almost always jurists, often former students of the university. For the most part they were politicians; often they came from the nobility. In spite of their indisputable authority, their influence within the university decreased as well. At the end of the nineteenth century, the faculty acquired a substantial voice in appointments. On top of that, the university grew intensely during this time period. A board that met less than once a month, and which was assisted only by one permanent secretary, necessarily fell short.

At the beginning of the nineteenth century the relationship between the professors and governors was outright bad. The high-and-mighty attitude of the governors incited many feelings of discontent. 'Pedantic Guardians of Zion' was what the jurist Van Assen called the governors, and he suspected that they did not understand even the Latin used for the list of classes. At the end of the century the relationship was just as bad but the ratios had inverted. The professors demonstrated much more self-awareness. On top of that, they wanted an organisation that could respond more quickly to developments in science and society. They desired more co-determination and greater independence from the ministry of education.



### *Observatory (1861)*

Initially, the relationship between professors and students was above all detached. The Senate saw student life as something the students themselves were responsible for. There were informal relations, though, such as the renowned ‘tea-calling’ (*theeslaan*). This activity consisted chiefly of required visits, during which tea was drunk and remarks were made about the weather, generally alternated with long periods of silence.

Halfway through the century, the Senate interfered more in student life. Stiff measures were thought up to augment discipline, such as the *consilium abeundi*, for example, an urgent recommendation to abandon one’s studies. The phenomenon of *ontgroenen* (i.e., literally, ‘degreening’ or ‘ragging’/‘hazing’), in which new students were heavy-handedly initiated into student life, was a problem that the Senate had to tackle with increasing frequency.

In classes, too, the relationship to students changed. The lingua franca was initially Latin, even though most of the students could follow it only with difficulty. As a consequence, professors dictated from notes a lot. Only halfway through the century, in the 1860s, did Dutch come more into use and professors switched over to extemporaneous presentation.

At the end of the nineteenth century, the contact between professors and students also became more intense during instruc-

tion. The tendency was to have the lecture be observed by tutors ('*repetitoren*') or be replaced by a textbook. Actual university instruction had to take place in small tutorial groups or by means of guided instruction in the laboratory.

Among professors, too, there was initially a certain detachment that prevailed. That was also beneficial, though, for individual differences could be great: variation in remuneration, class fees and supplemental earnings; variation between conservatives and liberals, between traditional believers and modern Christians. These differences were bridged somewhat by common origins in the *haute bourgeoisie*. On top of that, the professors became increasingly more liberal and free-thinking in their beliefs.

## SCHOLARSHIP

The most progressive concept of science in the eighteenth century was the experimental method, which went back to Newton. In Leiden University this method found one of its most ardent adherents. Yet its success did not mean, not even in Leiden, that other concepts were immediately dismissed. In many respects, the experimental method was not truly generally accepted until the second half of the nineteenth century. In the meantime three concepts dominated alongside one another: the classical model, the museological model and the experimental model.

The classical model was a form of scholarship that played out around collections in 'cabinets'. It was oriented toward organisation and classification and was made possible, above all, by wealthy private individuals. Around 1800 this method was changed in favour of a more large-scale and more professional idea of science. This science was practised above all in large museums and hospitals. It did not make classifications but analyses and comparisons instead. Around 1860 this type of study was to yield to a science that played out chiefly in laboratories, mostly uni-



versity laboratories, oriented toward counting and measuring in terms of its method, materially concentrating on manipulation and control.

Something comparable can be seen in scientific institutes. In the eighteenth century, these were above all the small 'cabinets' (cf. Chapter 3). In the nineteenth century, these 'cabinets' broke apart into museums and laboratories. In the former case, this disintegration led to the emergence of institutional collections: the British Museum at London, the Museum Fridericianum at Cassel, somewhat later the Musée National in the Louvre. They collected everything and doing so became enormous.

To an increasing degree, however, organisation was transitioning into other forms. Specialised museums, organised thematically, arose such as, for example, museums for Classical antiquities or museums for exotic cultures or for plants and animals. Museums played a different role in university training than their former one of general edification. Henceforth, that edification took place by means of science. The basic premise was that the scientific method itself acted in an edifying way.

Using a German term, the concept was called '*Bildung*' (that is, 'educational formation'). The best translation is the 'cultivation of one's own individuality'. That edification took place through the practice of science, in the integration of instruction and research. That combination, then, could take place only at university.

In doing so, every discipline could be taken as a point of departure. Some saw philology, the absorption of the values of Greek and Roman culture, as the best training; others preferred philosophy. The basic premise remained cultivation, with the aid of science. And that took shape for the first time in a new type of instruction, the so-called 'seminar', the workshop where the professor together with his students worked and where a library of their own was at their disposal.



*Interior of the Academic Hospital (1889)*

Ultimately, every science could serve as an initiation into the culture of science, but the classical example for the integration of instruction and research was not a library, but rather a laboratory, specifically, the laboratory of Justus Liebig in the German town of Giessen. What began as a simple training laboratory for pharmacists in 1826 became the first genuine modern laboratory where large-scale research and instruction were combined.

The reputation gained by the laboratory under Liebig's direction resulted in cohorts of 50 students or more within 15 years after its beginning. Yet Liebig was not alone. Bunsen in Heidelberg, Kolbe in Leipzig, Bayer in Munich – inside their laboratories they all provided science with an equivalent of the artist's atelier, including the same master-journeyman relationship as well as the introduction into the guild by means of training in the practice of their profession.

## INSTITUTIONS AT LEIDEN

At the end of the eighteenth century, the cabinets were the most important university institutions in Leiden, too. Over the course of the nineteenth century they were developed into impressive museums. Between 1818 and 1825 the buildings in the space surrounding the 'Hof van Zessen' (i.e. the Rapenburg, the Houtstraat and the Papengracht) were purchased and reconfigured into a museum. Initially, it was intended for both natural history as well as antiquities, and as the cabinet for art and physics. However, the director for the Museum of Natural History, C. J. Temminck, succeeded in getting the building pretty much all to himself. The Museum of Antiquities, having moved to the Breestraat in 1837, got the vacated premises on the Rapenburg. In 1937, the National Ethnographic Museum ('s Rijks Ethnographisch Museum') – by that point renamed as the National Museum for Ethnology ('Rijksmuseum voor Volkenkunde') – got a building of its own, the former Academic Hospital on the Steenstraat.

Additionally, the 'old' institutions – the Hortus, library, observatory, physics cabinet – were enlarged. Between 1816 and 1819, under the direction of Sebald Justinus Brugmans, the Hortus was expanded by no less than 8,500 square metres. In 1830, as a consequence of the Belgian Revolt, the garden acquired the entire National Herbarium from Brussels, along with the director (C. L. Blume) and everything else.

The library, too, was rebuilt a number of times, including a new front to the building in 1870. Ten years earlier Friedrich Kaiser, professor of astronomy, got an observatory of his own, designed by H.F.G.N. Camp. In exchange, the Hortus had to give up a portion of the ground it had gained. One year earlier, a laboratory also designed by Camp was opened, intended for physics and chemistry, anatomy and physiology. It stood, and still stands, on the so-called 'ruin', the site where a cargo ship loaded with gunpowder had ex-

ploded in January 1807. Space was there, therefore, for large-scale new construction.

These directors, by the way, were not inclined to place these institutions in the service of instruction. The large national museums wanted to be above all scientific collections. On top of that, they saw themselves more as national than as university institutions. The observatory and the main laboratory concentrated instead more on research than on instruction. And the university library was only open a couple of hours a day.

In addition to that, the Walloon Orphanage ('Walenweeshuis') located along the former town fortifications on the Oude Vest, which had served the university as an academic hospital beginning in 1818, was not suited for instruction. Not until 1873 did the university acquire a new hospital, built by Camp as well, on the Steenstraat. This clinic was indeed suited for its instructional role, though as a result could not be a genuine hospital again. For a large portion of the nineteenth century it meant that little came of the connection between research and instruction in the various museums and laboratories, but for a few exceptions.

Nevertheless, with the progression of time that connection did acquire more concrete shape. The generation of medical doctors that came to university during the 1860s felt the lack of a good academic hospital, of a large patient population and of well-equipped laboratories much more keenly than the generation before them. The university as merely an institution for instruction was an idea that was already no longer supported by most of the professors during the 1860s. As a result of the introduction of the new Higher Education Act of 1876, not only instruction but also the whole ensemble of university institutions underwent considerable expansion.

Even earlier, in 1874, the Zootomic Laboratory was built, also on the site of the gunpowder disaster. This building by Johan Frederik



*Pathological anatomy laboratory with statue of Boerhaave (ca. 1900)*

Metzelaar still clearly shows traits from the older laboratories. A much more modern building for biology on the drive of the observatory was put into use in 1876. And in 1877, the former government architect K. de Boer built a four-storey building for the library, on the north side of the Faliede Bagijnkerk. In 1885, a book repository was put here, perpendicular to the new construction, and heading toward the Rapenburg canal. For the first time ever, 'seminars' were accommodated here, departmental institutes with their own specialised libraries.

In 1885, the government architect J. van Lokhorst contributed his first Leiden laboratory, the Boerhaave laboratory for pathological anatomy, near the hospital. Also in that year major rebuilding of the laboratory for chemistry and physics began on the 'ruin', including two new wings to make it suited for the new laboratory for the research in extremely low temperatures being conducted by Professor Kamerlingh Onnes. For the physiologist Willem Eindhoven, too, a laboratory was set up on the Zonneveldstraat there.

Of greater importance architecturally was the complex of three laboratories for chemistry and pharmacy, also designed by Van Lokhorst, erected between 1898 and 1901, just beyond the city moat on the estate of Vreewijk. In 1899 the Academy Building was expanded with a new building for classes on the Nonnensteeg. And in 1908 Van Lokhorst added a new botanical lab onto this structure. All of this happened in the neo-Gothic style fashionable in that era.

## SCIENCE AT LEIDEN

Until well into the nineteenth century, science, even in Leiden, was a civilised pleasure for learned individuals. Instilling refinement was also its most important task. Every science was a well-wrought ensemble, and all sciences together formed a harmonious unity. That coherence was God-given, making the man of science at the same time a philosopher, someone who put his science in the service of proving that God's creation had a purpose. Everything created had a role and was in the service of humanity.

In this way, every science had its own aim in mind. In the faculty of mathematics and physics, natural history had the most prestige. It was practised by scholars also esteemed abroad, like Bruggmans, Caspar Reinwardt and Jan van der Hoeven. In natural history the teleological essence of creation, its order and hierarchy, was there for the taking, as it were. From the lowest plant form nature climbed all the way to humankind, the crown atop creation.

Medical doctors, too, studied all human beings, not only those who were sick. In so doing, scholars like Michael Macquelin and Pruijs van der Hoeven (brother of the afore-mentioned Jan) studied humanity's spiritual well-being, its environment and its culture. Prophylaxis, the prevention of illnesses, played a major role. Among theologians like Van Voorst and Clarisse, there prevailed a



kind of religious common sense, the conviction that the affairs of God may well go beyond reason but never contrary to it.

The faculty of letters emphasised above all the edification of a harmonious individual. Great names like Wyttenbach, Bake and Cobet kept the renown of Leiden alive in Classical literatures. They wished to instil taste and sense for form, and were supported in their efforts by Van der Palm and Van de Wijnperse, their colleagues in Oriental literatures and philosophy. Among the jurists, finally, Roman law constituted the tie between jurisprudence and Classical literatures.

Around the middle of the nineteenth century science as it was practised by Leiden's professors came to be marked by the 'philosophy of experience', by positivism as it was called, the determination and connection of facts with one another. Outside the faculty of mathematics and physics, too, the scientific method was praised as the only true method. Hard facts, rock-hard knowledge – that was what mattered.

For jurists like Vissering, Goudsmit and Buys, this conviction meant that the emphasis came to lie on the development of the state. In the case of theologians – giants like Scholten and Kuenen – historical study of the Bible took centre stage. With humanities scholars, too – like Dozy, Juynboll and Kern (Oriental literatures), Jonckbloet (Dutch), Cobet (Greek) and Fruin (history) – attention shifted from literature to history, from the description of language to the dictionary. And in the case of medical doctors, interest turned toward physiology, toward the human being as a material substance.

In the 1870s, yet other voices made themselves heard, manifestations of dissatisfaction with an all too easily ordered concept of knowledge and with an all too forced positivism. And by the end of the nineteenth century there was little of that severe ideal of knowledge left any longer. Jurists preferred to occupy themselves

with concepts like law and justice, and humanities scholars looked more at matters like aesthetics and love of fatherland.

Among theologians, too, an ethical turn can be observed in this instance, while medical doctors put the treatment of sick persons at the centre of their attention. Mathematicians and physicists (namely, Lorentz and Kamerlingh Onnes) tackled questions dealing above all with the connection of experience and theory. It meant a reversal in the appreciation of knowledge for everyone – less detached for some, more relativistic for others, and more abstract for others still.

## **COURSES OF STUDY**

In 1876 the obligatory foundation course of study for beginning students was eliminated. Preparatory studies in the natural sciences were still required, though, for medical doctors. The requirements for the various doctorates diverged quite a lot. Above all the difference between the two largest paths of study, medicine and law, is remarkable.

If a future physician wanted to be admitted to the bachelor's level examination, he first had to take a comprehensive examination in the faculty of mathematics and physics. This exam then comprised anatomy, physiology and histology, general pathology and pharmacology. The doctoral exam comprised pathological anatomy, pharmacy, special pathology and therapy, hygienics, clinical medical practice, theoretical surgical science and theoretical obstetrics. On top of all that there were also doctoral examinations in surgical science and obstetrics. Writing a dissertation was required to graduate with an advanced degree.

Jurists, on the other hand, did not have any foundation coursework; their bachelor's level examination comprised introduction to jurisprudence and to economy, as well as to the history of Roman law. The doctoral exam covered Dutch civil law, commer-



*A class of Professor Thorbecke who, in contrast to many other colleagues, packed the halls*

cial law, criminal law and Dutch constitutional law. The special doctorate in political science had a different doctoral programme. And until 1921 it was possible to graduate with a doctoral degree on the basis of propositions alone.

This difference in studies reflected a notable difference in social strategy in the two largest independent professions known in the country at that time. Whereas the legal profession concentrated on traditional values, family businesses and old partnerships in its attempt to influence the market, medical doctors chose to profile themselves by way of modern science.

The largest differences arose in the extent to which graduating with a doctorate was put to use. Jurists came to graduate with doctorates more as time went on (at the end of the century at 75 percent, in fact). In the case of medical doctors, graduating with a doctorate actually decreased, though the medical dissertation had developed into a fully-fledged scientific study by then, the fruition of years of research. The legal dissertation consisted mostly of a few pages of propositions or competently executed compilation work, also called 'a cumbersome kind of visiting



*Interior of the student society 'Minerva' (1829-1830)*

card'. These differences – and the images linked to them – were not eliminated until the 1960s.

During the entire nineteenth century the law faculty was the largest, followed by that of medicine. The arts and letters remained stable and small, whereas theology (large at first) and mathematics and physics (small at first) alternated with each other. The large size of theology at the beginning of the century was, moreover, artificial: initially, theology students did not have to pay any class fees and were able to obtain scholarships easily.

A benevolent sort of examination process can be counted among the early measures for promoting studies: between 60 and 70 percent of students completed their studies. In instruction the emphasis lay more on presence in class than on doing examinations, more on edification than on training. The student's social background during this time period was chiefly derived of lawyers and administrators, from the *haute bourgeoisie* to a significant degree.

Halfway through the century this profile changed. Because

theologians had been lured away by the more conservative university at Utrecht and medical doctors by the clinical schools that had been set up in the meantime, the university became almost solely a faculty of law. The examinations became more rigorous as well, and even more rigorous for the medical doctors than the jurists. This change was the consequence of changing beliefs concerning the purpose of higher education, one more oriented toward praxis.

It is during this time that an extremely striking turn of events takes place in the social composition of the student population: beginning with the 1860s, Leiden University obtained 50 percent or more of its students from the middle class. 'Many a retailer and merchant who does a good business considers his son too good for that lowly position and sends him to university, full of illusions surrounding a splendid future', sighed the Leiden mathematician Pieter van Geer in 1887. During this time period of economic growth, optimistic expectations for the future led these small business-owning parents to send at least one son to university.

This change in the social background of the students suggests that the university in the nineteenth century was responding to the economy. The university had always been seen as an institution that strengthened the elite and made the gap in society wider. Certainly in the second half of the nineteenth century, though, it became an instrument for improving one's social position. And with that role, the university softened social tensions that a society has to bear because of economic change.

These major changes, of course, date from the new Education Act of 1876. Its impact does not seem to translate into numbers initially. Without even 5,000 students in the time period from 1875-1905, the university seems to stagnate as a whole. Here, however, one must additionally consider the fact that many students from Amsterdam failed to attend after 1876, because the

'Atheneum Illustre' had become the University of Amsterdam, where one could also graduate with a doctoral degree.

## STUDENT LIFE

In the student life of the old order, social origin played a major role. That proved to be the case above all during 'ragging', the initiation of the new student into student society. The humiliations that went along with this 'hazing' ritual could lead to great frustration as well as to discord in the ranks. A ragging scandal in 1839 was the overture to the official establishment of the Leiden Student Corps. Over the long term, this fraternity succeeded in uniting all students for nearly half a century. It even acquired official approval from the professors.

No end came to the initiation rituals with that sanction, and the scandals continued to arise with great regularity. In addition to violence and forced drinking, most complaints concentrated on the sexual 'degreening' of the initiate. The initiation play, performed at the conclusion of the initiation period, consisted above all of salacious scenes. In 1911, the Leiden professor of Chinese J.J.M. de Groot published the text of that year's theatrical show out of protest. In it, Abraham Kuyper, erstwhile prime minister, was portrayed as naked. The scandal led to debates in Parliament lasting for days, a heated meeting of the university Senate and De Groot's departure for Berlin.

The most important organisational aspect of the Corps fraternity, in addition to being able to use a social clubhouse of their own – including its bar, dining facilities and library – was the creation of subdivisions. These chapters could be sports clubs, or regional clubs that kept students with the same local origin together, though the clubs for each cohort year and the debating societies were the most important. Cohort clubs for each year were groups that the newly arrived students put together on their



own initiative. A new student also got assigned a sponsor, someone from a more senior cohort who guided the junior student in his first strides into student life.

Of the two types, the debating societies are actually more characteristic. They date from the end of the eighteenth century already. Just as the organisation of the Corps fraternity was a copy of the university Senate, in the debating societies students imitated the classes of their professors. Initially they were above all literary, all of them having names reverberating in Latin, like '*Tandem Fit Surculus Arbor*', '*Non Sordent in Undis*', '*Litteris Sacrum*'. Later on, special debating societies for certain professions were added, for instance, for the theologians, medical doctors and jurists.

The way things went in a debating society was as follows: the meetings took place once every two weeks for the most part, around six o'clock. The number of members was usually small, around ten. They had their own lectern (clad in baize, and full of ink, wine and candlewax spots) and a chest for their own records, including their statutes and minutes from their meetings. The evening mostly broke down into two parts: a recital with an evaluation and a defence of a number of propositions. In the end, many *pocula* (drinks in glass cups) ensued, and an evening snack.

During all of this activity, fines were frequently distributed for transgressions of the statutes: speaking for too long or for too little, interrupting, and so forth. The yields from these demerits made up a kitty, which was spent on an annual trip. In addition, they organised regular convivial gatherings, on Sunday afternoon, for example, or during the week around six o'clock. These parties began with hot chocolate and long rusk biscuits, and ended with small jars of bitters and glasses of Madeira.

All these customs were described from experience by Leiden student authors. There were great names among them, like Bernardus Gewin and J.P. Hasebroek, Gerrit van de Linde ('De School-



*Johannes Kneppelhout (1814-1880)  
published under the alias 'Klikspaan'  
(i.e. 'Tattler') on student life*



*Nicolaas Beets (1814-1903)  
wrote under the pseudonym  
'Hildebrand'*

meester', i.e. 'The Schoolmaster'), Nicolaas Beets ('Hildebrand'), Johannes Kneppelhout ('Klikspaan', i.e. 'Tattler'), and François Haverschmidt ('Piet Paaltjens'). They evoked an enchanted world in which friendship and frivolity, jest and melancholy predominated – a world everyone seemed to long for after his student days.

Students were also socially active. One of the unique types of their involvement was their willingness to take up arms during times of political unrest. Such military service had also occurred in the seventeenth and eighteenth centuries already (in 1672 and 1784, respectively). Dating from 1815, the group of 'Flankeurs' made a belated attempt to stop Napoleon at Waterloo. All these efforts were very much on a small scale and above all amateur.

In 1830, nevertheless, when the king called the people to arms against the secessionist Belgians, one third of the student fraternity enlisted, in part out of nationalism, in part attracted by what the poet and corporal Gerrit van de Linde would call the 'maiden-

seducing combat suit (green and canary)'. In 1848 the students came together as the Peacekeeper Corps, and in 1866 the Prussian threat caused the emergence of *Pro Patria*, an organisation that could count on broad support from the professoriate.

One of the most fascinating phenomena from student life was undoubtedly the masquerade. This sort of masquerade was a costumed procession with an historical theme that students organised in the nineteenth and twentieth centuries for a commemorative celebration of the university. A masquerade of this kind mobilised the entire Corps fraternity and required months of preparation.

In the evolution of the masquerade four dimensions are of importance. In the first place is the growing attention for historical accuracy. To an increasing degree sources and specialists alike were consulted. At the same time the costumes became more beautiful and detailed. The fact that from 1850 forward the procession was no longer held during the evening in February, but during the day in June instead, also paved the way for these improvements.

In addition, there is the national dimension. The sense of fatherland was to be central to the masquerade. On top of that, the demand was heard more and more that the main character should be a member of the House of Orange. And finally there was also the moral dimension at play, the exemplary function of the figures depicted. At the end of the nineteenth century historical inspiration faded to make way for grand display and even theatricals.

These theatricals were the heyday of the phenomenon. The masquerade became a *Gesamtkunstwerk*, with ostentatious structures and stage productions. Their organisation increasingly fell into the hands of professionals, dramatists; many of the supporting roles were played by hired help. In the beginning of the twentieth century the masquerade developed into a grandiose specta-

cle, lasting a week and attracting visitors from afar. Yet it was digging its own grave financially and lost its entire support base during the economic crisis of the 1930s.

Events such as these, whether on a small or a large scale, could not disguise the fact that the student fraternity was falling apart by the end of the nineteenth century. The dissolution came about in part because students no longer became members of the Corps fraternity. This so-called 'nihilism' also caused concerns for the Senate, because the professoriate understood that an important part of socialisation and edification took place within student life.

The first female students constituted another divisive issue. Olga von Stoff and Fanny Berlinerblau, two Russian women, registered in 1873 already. They wanted to study medicine in Leiden and were enrolled in the *Album Studiosorum* by the rector. The medical doctor Simon Thomas sent them away, though, because he thought that gynaecology was no course of study for girls. Maria Catharina Slothouwer was more successful five years later, perhaps because she came to study Dutch literature.

In part, student life also crumbled apart along various religious and ideological connections. Thus, for instance, the Roman Catholic student organisation *Sanctus Augustinus* was established in 1893, and the Protestant *Societas Studiosorum Reformatum (SSR)* in 1901. In the meantime Leiden had also acquired its own organisation for female students, the *VVSL* (the *Vere[e]niging voor Vrouwelijke Studenten te Leiden*, or 'Organisation for Female Students at Leiden'), in 1900. Conviviality 'inside one's own circle' became the motto.

In general, politics did not gain any hold on this conviviality. The students did show themselves to be involved in the notion of a 'Greater Netherlands', though, the idea that the Netherlands was one large linguistic community, to which Flanders and South Africa also belonged. Initially their enthusiasm was directed above



all toward the Boers in the Transvaal. Yet many students turned out willing to become involved in the international peace movement as well.

## TOWN, COUNTRY AND WORLD

Even in the nineteenth century, the university and the town were intensely involved with each other. The burgomaster had been a member of the Board of Governors since time immemorial, many a student and professor came from the town, various university institutions were accessible to the citizens of Leiden. The museums provided learning and amusement, the Hortus gave peace of mind and the observatory gave a sense of one's own smallness and God's greatness. In addition to more informal or day-to-day contact, other connections were institutional in nature, and over time town and university formed a close-knit community.

One of the first nineteenth-century institutions that operated on the interface between university and town was the so-called 'industry school', which was intended to promote industrial production in the town. Schools like these were established on the initiative of King William I 'to awaken the slumbering nation and incite it to industriousness'. Under the somewhat eccentric leadership of Professor A.H. van der Boon Mesch, not just prospective or already practising manufacturers and architects, but also regular carpenter's and blacksmith's apprentices were initiated into the mysteries of chemistry, such as these principles applied 'to arts and manufacturing'.

As the century advanced, various university institutions became more embedded in the services the town provided. The academic hospital, for example – initially a shadowy little hall for a small number of interesting patients – became a large, modern hospital, which in addition to interesting cases also for humanitarian reasons took in many less affluent people from Leiden.



In addition, there were all sorts of ties between town and gown. Students took part in major town festivals; they even took the lead in resuscitating the neglected festivities for 3 October, celebrating Leiden's survival from the Spanish siege in 1574. And with their annual masquerade they kept the entire town (and people from far and wide) spell-bound. The citizens of Leiden were invited to the public gatherings of literary clubs and to performances by the music group *Sempre Crescendo*. And the town's *Leidse Maatschappij van Weldadigheid* ('Leiden Benevolent Society') could count on the membership and generosity of the students.

Yet it was nonetheless the professors, above all, who embodied, as it were, the tie between town and university. They were the ones who furnished the many local clubs of a literary or intellectual nature with prestige; at the same time, their lectures were a type of adult education *avant la lettre*. In addition, there was scarcely any religious fellowship, school board, advisory panel or charitable institution that multiple professors were not members of. Without exception, the distinct electoral colleges, too, contained the names of Leiden professors.

As the century advanced the municipal involvement of the professors clearly increased. Any arbitrarily selected municipal registry shows the extent of their social positions. Thus, for instance, there were almost always three or more professors on the municipal council. There was scarcely any school or almshouse that did not have professors on its executive board. Whether it involved fishermen lost at sea or a swimming pool, a missionary society or an institute for deaf-mutes, an association for the improvement of public health or a society for bringing up orphans in private families, a pension association for labourers or Leiden's bread factory, Leiden's professors were always present.

In 1815 Leiden University also acquired a position of its own nationally. This '*status aparte*' was described in so many words in the

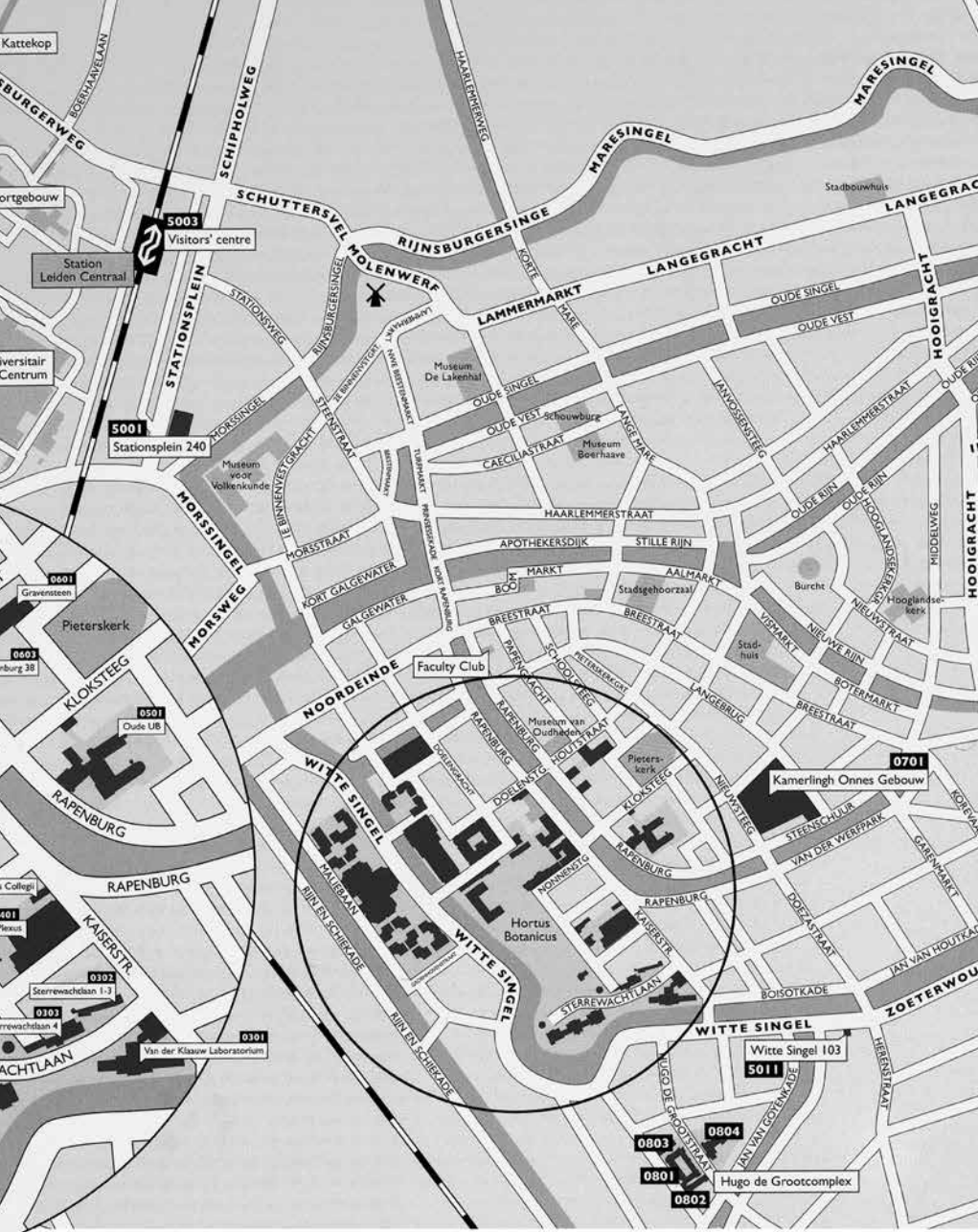
*Organic Decree*, mentioned earlier, in which the university was designated as the 'first' in the country. In forging the national identity, Leiden's professors played a substantial role. That can be illustrated above all, of course, in the case of the faculty of arts and letters.

For Matthias de Vries, for example, language was not the refined written language, but the language 'as it lives and flourishes in the hearts of the folk, free and unhindered, loose and lively, yet pure and unadulterated'. The *Woordenboek der Nederlandsche Taal* ('Dictionary of the Netherlandish Language' – the Dutch *OED*) was originally a Leiden creation and intended to be a 'linguistic museum', 'a treasure trove of all the riches of our mother tongue'. De Vries was present at the creation of the first and only Dutch professorship for the history of the fatherland, which became a *fait accompli* grown as a branch from his own chair in 1860. This professorship was to be beneficial as well as national, and with occupants like the historians Robert Fruin and Petrus Blok, national inspiration was abundantly clear, as divergent as their practice may have been.

Significant topics in this nationalism were national unity above religious division and the weight of culture over politics. For that reason, too, in their love for country around the turn of the century, Leiden professors concentrated on the struggle of the Boers in South Africa or on the Flemish question. In a comparison that endured, Fruin made a connection between the Dutch Revolt against Spain and that of the Boers against England. Whether for a short while or longer, almost all Leiden professors were members of the Leiden chapter of the *Nederlandsch Zuid-Afrikaansche Vereeniging* (the NZAV, or 'Netherlands-South African Society'). In the twentieth century, the notion of a 'Greater Netherlands' would be more oriented toward Flanders, or toward better governance in the Dutch East Indies.



Map of Leiden University



5003 Visitors' centre

5001 Stationsplein 240

0601 Gravensteen

0603 Pieterskerk

0501 Kloksteeg

0501 Oude LIB

0401 Rapenburg

0401 Rapenburg

0302 Kaiserstr

0302 Sterrewachlan 1-3

0303 Sterrewachlan 4

0301 Van der Klauwe Laboratorium

Faculty Club

0701 Kamerlingh Onnes Gebouw

Witte Singel 103  
5011

0803  
0801  
0802

0804  
Hugo de Grootcomplex

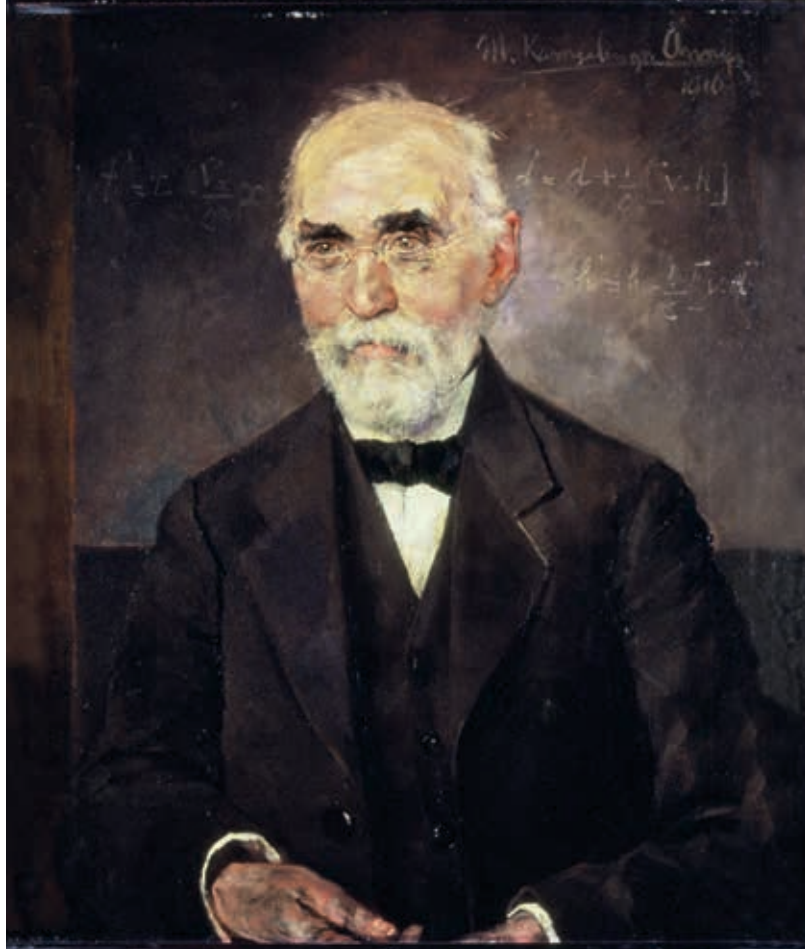
- p. 153** *Albert Einstein (1879-1955), sometime Leiden professor and recipient of the Nobel Prize in Physics in 1921, whose archives are held by the University*
- p. 154** *Hendrik Lorentz (1853-1928), Leiden alumnus and professor of physics, as well as recipient of the Nobel Prize in Physics in 1902*
- p. 155** *Heike Kamerlingh Onnes (1853-1926), Leiden professor of physics and recipient of the Nobel Prize in Physics in 1913*
- p. 156** *Johan Huizinga (1872-1945), Leiden professor of history and author of the renowned *Herfstij der Middeleeuwen* ('Autumn [or Waning] of the Middle Ages', 1919)*
- p. 157** *Willem Einthoven (1860-1927), Leiden University professor and recipient of the Nobel Prize in Medicine in 1924*
- p. 158-159** *Top: Senior student on the lookout for arriving students (initiates, or 'greenhorns'), ca. 1920  
Bottom: Two of three painted-glass windows by the artist Harm Kamerlingh Onnes, with the image of the discovery of the 'Zeeman effect'*
- p. 159** *Top: Student on the way to the doctoral graduation ceremony, supported by assistant paranymfen ('paranymphs'), ca. 1920*
- p. 160** *Design for the banner of the Vere[e]niging voor Vrouwelijke Studenten te Leiden, or 'Organisation for Female Students at Leiden'*







HENDRIK ANTOON LORENTZ ARNHEMENSIS



NATUS 18 JULII 1853. PROF. PHYS. THEOR. IN  
ACAD. LUGD. BAT. 1878. OBIIT HARLEMII 4 FEBR. 1928.

HEIKE KAMERLINGH ONNES. GRONINGENSIS.



NATUS 21 SEPT. 1853. PHYS. EXPER.  
PROF. ORD. AC. L.B. 11 NOV. 1882.  
OBIIT LEIDAE 21 FEBR. 1926.

JOHAN HUIZINGA GRONINGANUS



NATUS 7 DEC. 1872. PROF. IN ACAD. GRON. 1905-1915. PROF.  
HISTORIAE GENERALIS ET GEOGRAPHIAE POLITICAE IN  
ACAD. LUGDUNO-BATAVA 1915-1949 ORUIT 1 FEBR. 1945

GUILIELMUS EINTHOVEN  
EX URBE GEMARANG.

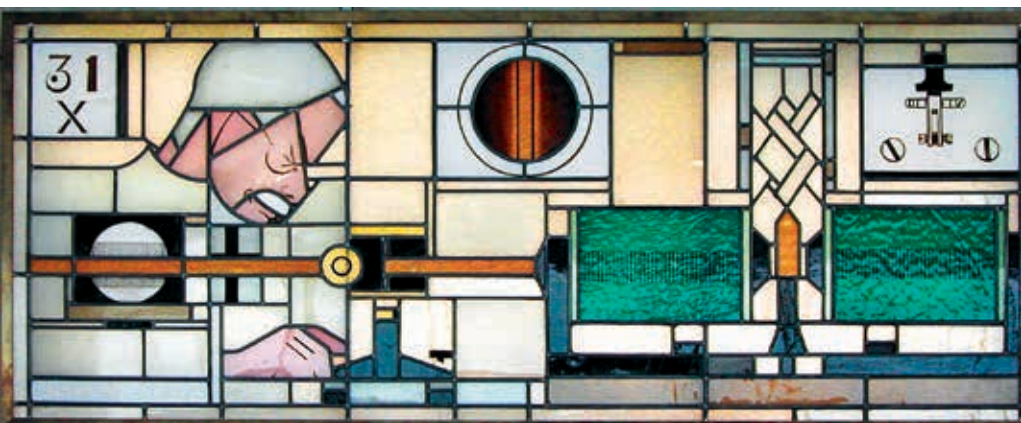
WILLEM EINTHOVEN



NATUS 21 MAII 1860. PROF. PHYSIOL. ET HISTOL.  
IN ACAD. LUGD. BAT. 24 FEBR. 1886. OBIT LEIDAE  
28 SEPT. 1927.











5

# THE TWENTIETH CENTURY



In the second half of the nineteenth century many changes began to transform the Netherlands into a modern country. Everything was changing, and the changes came faster and faster, meaning, too, that people could not keep up with the pace. In this way, the Netherlands became a country that left its past behind while at the same time trying to hold onto that past.

The facts speak for themselves. The population of the Netherlands increased from more than five million in 1899 to nearly seven million in 1920, while the big boom came after the Second World War. In the 1960s the Netherlands numbered around twelve million inhabitants. At present, the Netherlands numbers nearly 17 million people, of whom approximately ten percent are considered so-called 'ethnic minorities'.

In the meantime the country has become one of the most urbanised societies in the world. The metropolitan '*Randstad*' did indeed become one megalopolis, plus some green here and there in-between. In addition, the Netherlands had a large number of medium-sized towns with 150,000 or more inhabitants, with the countryside only a slight distance away from them.

Those distances that remained were bridged by the construction of an extensive network of railways and highways. And not only were physical expanses levelled but mental distances as well: the Netherlands acquired a dense organisation of newspapers, regional as well as national. Beginning with the 1930s, radios were playing in many parlours, by the 1950s televisions were going,

and thirty years later the internet was beginning its advance.

Politics was changing, too. The major religious and ideological movements, such as those that had come into being at the end of the nineteenth century – the Liberals and the Protestants, the Socialists and the Catholics – organised into ‘pillars’ (*‘zuilen’*, as they were known), from low to high, from labour union to political party. At their bases these pillars stood far apart, though at the top the elites worked together.

The political landscape changed dramatically. The electorate was expanded by leaps and bounds to general suffrage for each adult – for women, too (1918), as well as for labourers. Though Liberals and Protestants initially dominated public service, after the First World War the Roman Catholic State Party (the *‘Rooms-Katholieke Staatspartij’*, or RKSP) became the largest in the country, and ‘Roman/Red’ governing coalitions were at the heart of politics in the Netherlands after the Second World War.

The economy did not lag behind, either. From the 1890s forward the trading country that the Netherlands had been joined the queue of industrialised nations. At the same time, agricultural activity, trade and services remained of great importance. This combination provided for a balanced economic system that continued to characterise the Netherlands until the 1970s.

The economic expansion also resulted, since the 1960s, in a rise in prosperity of unprecedented scope, distributed ultimately across the entire population. The Netherlands became the country with the largest middle class in Europe. With that increase, it intensified its characteristic bourgeois culture, as was expressed in being thrifty, diligent, and law-abiding as well as incrementally improving one’s lot.

Yet the twentieth century was also called ‘the most catastrophic of all centuries’ – and with good reason. For the most part the horrors of the First World War passed by the Netherlands, which

managed to remain neutral. The Second World War, however, brought the country nearly to the abyss: the economy was cannibalised and the countryside plundered, and in the end came the destitution of the *Hongerwinter* (the 'Hunger winter', that is, the famine during the winter of 1944) and the damage from the war of liberation.

A lasting sense of guilt arose on account of the fact that the Netherlands passively observed how 75 percent of its Jewish population was deported and murdered. Nevertheless, the country quickly got back on its feet. By the end of the 1950s the earlier prosperity had returned and a new society arose with help from older resources. The 'pillarisation' (*verzuiling*) into social groups – now converted into the 'polder model', with social 'partners' adamantly negotiating yet still working together – was once again capable of accommodating the major differences of these groups with one another.

Even so, in the 1970s the entire arrangement was kicked to the curb. The Netherlands, a country used to stability like no other, fell into a state of confusion that has continued to the present day, one combining a deep longing for the old order with a cantankerous capacity for panic. The system of pillarisation imploded; the accompanying organisations lost their cohesion or base of support.

A country oriented toward authority and austerity converted at breakneck speed into a welfare state, where personal development and luxury set the tone. A society, sprouted from work and family, went running from leisure to licence. Consumer society (from refrigerator to automobile) and social services government (from cradle to grave) had made their entrance.

Now that the welfare state is again being dismantled and everyone communicates, and looks for a fight, with everyone via the internet, now while the Netherlands still cannot solve its multicultural drama, try as it may, the country is above all really quite rich

and quite disoriented. And the university is needed to show the way like never before.

## LEGISLATION

The Higher Education Act of 1876 was not subjected to any thorough revision until after the Second World War. In 1960 this revision resulted in another Higher Education Act. Whereas the act of 1876 placed the emphasis on knowledge of and preparation for a profession, that of 1960 made a direct tie between academic education and scientific research. All manner of new kinds of instruction and investigation were suggested – research groups, seminars and the like.

These innovations meant that personnel had to be considerably expanded. Just as the 1876 act had drastically expanded the number of subjects, the 1960 act did so with academic employees and assistants. At the same time the coherence of higher education was accented; emphasis was placed on the sciences 'being related', that is, the idea that 'the sciences, which are housed together in one entity, are taught by a group of professors who "understand" one another's subject'.

Two other laws were of great importance: first of all, the University Administration Reform Act ('Wet universitaire bestuursherforming', or wub) of 1970. Everyone, from high to low, from professor to porter, was allowed to have a say in deciding the fortunes and misfortunes of the university. In addition to this so-called 'internal' democratisation there also came an 'external' one: everyone with a diploma from a pre-university secondary education ('voorbereidend wetenschappelijk onderwijs', or vwo) had the right to study at university. The question, rather, was: if everyone was allowed to get involved in everything, then how was it to be administered? And: if everyone was allowed to study, then how was that supposed to be paid for?



Indeed, the student numbers increased explosively. Between 1950 and 1975 on average 1,280 students per year enrolled in Leiden – between 1975 and 2000 on average 3,055. This great influx led, of course, to retrenchments. Two methods to do so were thought of. The first was the division of tasks among the universities, in the middle of the 1980s. The universities would compete with one another for the various subject areas. That competition meant that they had to think about an identity of their own more than previously. What kind of university did they want to be, what were the weaker components, what were the stronger ones?

In the middle of the 1980s so-called ‘conditional funding’ was also introduced. Education was assigned to programmes and these programmes were paid for by the government. Their quality was monitored by commissions outside the university (the so-called ‘visitation’). The Dutch Organisation for Scientific Research (‘Nederlandse Organisatie voor Wetenschappelijk Onderzoek’, or nwo, provided for the allocation of money from this ‘second-flow funding’, which the universities had to compete with one another for.

At the beginning of the twenty-first century the so-called ‘BaMa (i.e. ‘bachelor/master’) system’ was introduced: a course of study lasting four years at the maximum and a plan of study set up in two phases. There was a *bachelor* and a *master* phase, and the course of study was cut up into so-called ‘modules’, which had their own systems of study credits. A student acquired a number of study credits and those credits were interchangeable among universities.

## LEIDEN’S INSTITUTES

The three laboratories on the former Vreewijk estate, built at the end of the nineteenth century, were Leiden University’s first ‘big science’ project. Many would follow in the twentieth century. The

first was an entire medical town – following the French example called a *cité médicale* – in the so-called ‘Boerhaave Quarter’. These grounds were on the other side of the railway and signified an important leap ‘outside’ for the university.

It also meant an experiment in building design that was adopted from Germany, above all, the so-called ‘pavilion system’. It was thought that this structure would diminish risk of infection, though this theory proved not to be the case. The new hospital was subdivided into ten separate buildings. Construction was begun immediately after the First World War, though the physiological laboratory was not completed until the end of the 1950s. At that time the disadvantage of this decentralised construction became apparent: altogether, according to calculations, the staff had to cover 327 kilometres between the buildings daily.

After the Second World War building activity got underway again only slowly. At the start of the 1950s the Kamerlingh Onnes Laboratory was expanded with a new wing and the Gravensteen building was set up as centre for law studies. The biology laboratories on the Kaiserstraat, as well as the new clinic for internal medicine, date from the end of the 1950s, beginning of the 1960s.

After the war the university acquired two additional locations for its educational and research activities, in the Leeuwenhoek campus area and on the Witte Singel. In the Leeuwenhoek area, as an extension of the academic hospital, came laboratories and (from 1988 forward) the social sciences building (the De la Court Building, the former polyclinic for internal medicine). The grounds on the Witte Singel were intended for a new library and the humanities (including theology).

In 1957 the towns of Leiden and Oegstgeest together put down an infrastructural plan in which the university was assigned a rectangular polder property of approximately 100 hectares, between the Central Station and the A44 motorway. Intended for housing

the faculties of medicine and of mathematics and physics, the area was named after the Leiden scientist Antoni van Leeuwenhoek, meant initially to be an American-style campus.

Such a complex would not come to pass, though a spectacular ribbon of laboratories did take off along the road called the Wasenaarseweg. Above all the Gorlaeus Laboratory, a cube-shaped high-rise from the 1960s, with a building for classrooms attached in the form of a saucer, was spectacular. The second tower block comprised the Huygens Laboratory and the Snellius Building, both from the 1970s. The Snellius housed the Central Computing Institute. More recent and more stylish are the slanting J.H. Oort Building and the vibration-free Kamerlingh Onnes Measurement Laboratory. Since 1984 the Bioscience Park has been developed around the Gorlaeus-Huygens-Oort complex.

In the meantime the blue and yellow blocks of the new academic hospital have risen, now called the Leiden University Medical Centre ('Leids Universitair Medisch Centrum', or LUMC). The first part was opened in 1985, the second in 1996. Even more recent are the impressive research and teaching buildings, which date from 2005 and 2007, respectively.

For the humanities a comparable project came about on the Witte Singel, albeit on a smaller scale, naturally. It was decided to build a number of clusters for Western and non-Western languages and additional faculties (theology, philosophy, archaeology), a large classroom building and a new library. The library was opened in 1984 by Queen Beatrix.

Finally, it was again the Rapenburg's turn. The university's Executive Board and Administrative Bureau had bivouacked beginning in the 1960s at their Stationsweg 46 address, a utilities block that was not particularly qualified for any beauty prize. In 1999 'the old UB' (university library) was pleasantly restored and set up as an administration building.



*Hortus Botanicus*

This relocation was one of the expressions of a reversal in thinking about the architectural representation of the university. In this turn-around the Rapenburg got assigned an iconic location. In 2004 the old Kamerlingh Onnes Laboratory – after an elegant ‘restyling’, though keeping its name – was opened for use by the faculty of law. This faculty could also have at its disposal the likewise entirely restored Observatory, which was completed in 2012.

Additionally, the Hortus Botanicus and the Academy Building underwent thorough-going changes. In 1990 the Hortus gained a Japanese garden and in 2000 a large, transparent building with a subtropical greenhouse and a visitors centre. On 31 August 2009, then Queen Beatrix reopened the renovated Academy Building. After reconstruction lasting three years, it was again suited for the role it had always had, that of the heart of the university. Henceforth all faculties would hold their ceremonial gatherings there. Even a faculty club was added. Earlier, in 2004, the old student cafeteria (called the ‘Bak’, or ‘Trough’) was reconfigured into a modern student centre (‘Plexus’), with accommodations for more than ten student organisations and a number of student services.

## THE SCIENCES

Over the course of the twentieth century, there was increasingly the sense that a dividing line cut across the sciences. A fairly rigid distinction was made between the human sciences and the natural sciences (the renowned 'two cultures' of C.P. Snow). At the same time, nearly each discipline acquired a 'soft' and a 'hard' side. An important historian like P.J. Blok was profoundly influenced by economic history with its figures and measurements. His colleague Johan Huizinga, though, was much more occupied with the history of culture and wanted to convey the very 'experience' of the past.

Under jurists, too, this distinction can be observed. In private law as well as political science and criminal law there were major differences between theory and praxis, between describing and prescribing. Counter to economists of the liberal school of thought who advocated the freedom of economic life, there were younger economists who charted its social consequences. Even within the exact sciences comparable tensions existed.

In the area of medicine, for example, there was the problem of professional, technical schooling versus academic training – the criticism that the university produced medical experts but not physicians. Here and elsewhere the problem of specialisation constituted a separate field of study. Nevertheless important scholars were found among the 'progeny of Boerhaave', such as the ophthalmologist Van der Hoeve, the physiologist Querido and the haematologist Rood.

In physics and chemistry a division came about between the old (Newtonian) and the new (Einsteinian) world view, as well as between small-scale, empirical research and 'big science'. It was the era of the genius Lorentz. H.A. Lorentz (1853-1928) was 16 when he went to university, 21 when he received his doctorate, and 24 when he became professor. In harmonious collaboration

with his colleague, the great experimenter Heike Kamerlingh Onnes (1853-1926), he brought world renown to physics at Leiden.

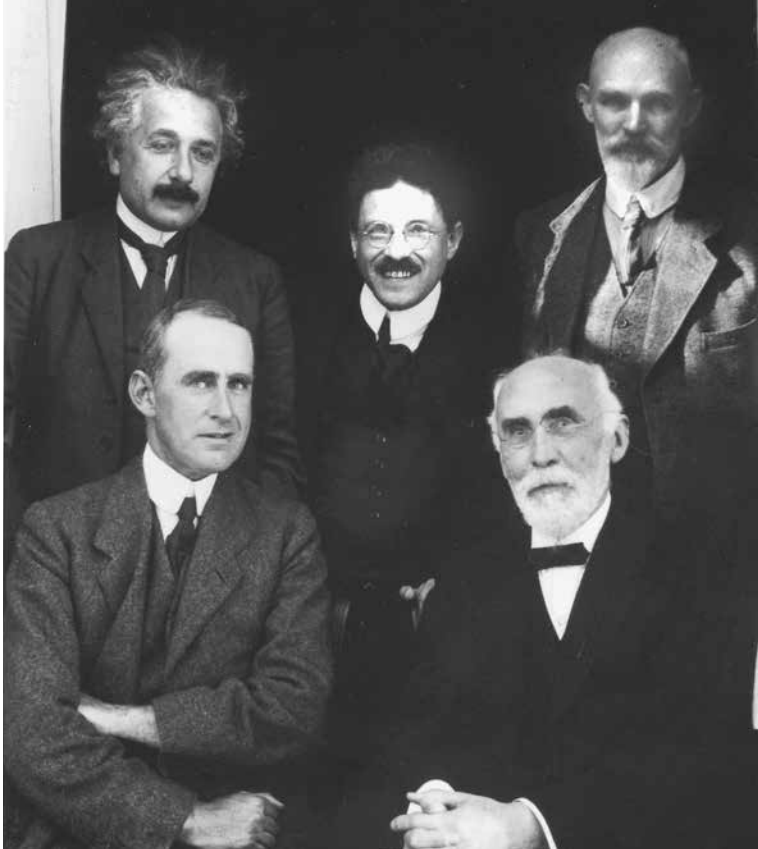
It brought them both, in short succession of each other, the Nobel Prize (in 1902 and 1913). Additionally, in 1924, Willem Einthoven (1860-1927) got the Nobel Prize for his physiological research. Einstein, who was a professor at Leiden by special appointment from 1920 forward, may be counted among Leiden's Nobel Prize winners as well, just like Jan and Nico Tinbergen, who carried out the research for which they got the prize (in 1969 and 1973, respectively) to a significant degree at Leiden.

The faculty of law went through a major boom as well. While it could pride itself on great names like Buys, Goudsmit, Modderman, Van der Hoeven and Oppenheim during the last quarter of the nineteenth century, after the First World War it retained its fame with internationally renowned scholars like Van Vollenhoven, Krabbe, Van Eysinga and Meijers. After the Second World War it maintained its orientation toward public affairs and had a wide offering of subject areas.

The faculty housed, for example, a strong international division, with a number of professorships for legal systems of other countries. In addition, it placed an accent on historical and social subjects. Thus, for instance, though the university had no faculty of economics, there were distinguished economists inside the faculty of law. Significant impetus for innovation came from Nagel for criminal law and criminology, as well as from Daalder for political science.

Little by little, the traditional curriculum offered in Oriental Studies was divided along the main lines of anthropological research by the adat expert Van Vollenhoven ('adat' being Indonesian customary law), the Arabist Snouck Hurgronje and, later on, the anthropologist De Josselin de Jong. After the war the faculty of humanities became divided up into a Western and a non-Western





*The physicists Einstein, Ehrenfest, de Sitter, Eddington and Lorentz at Leiden (1923)*

part and into an area for 'minor' and 'major' literatures. On the one hand, a language or a literature was studied; on the other hand, the entire culture of a specific area, the so-called 'area studies'.

The social sciences were oriented in a broad way and comprised cultural anthropology, psychology, pedagogy/androgogy (i.e. child and adult education). Sociology grew out of pre-War studies in Indology, and got its own programme of study under the leadership of Van Heek in 1948. In this case influences from

the humanities and social sciences remained in effect, as did questions of theory and praxis, though the more 'hard' forces won out in the long term. Such an impact was also the case in the faculty of medicine, in the distinction between pre-clinical and clinical subjects. Rather quickly after the war a new orientation toward research took place in clinical subjects, in regard not just to internist subjects but also to surgery.

Regardless of how old-fashioned the chemistry laboratories in Vreewijk had become in the meantime, new developments in organic, physical and biochemistry were quickly accommodated. Physicists found new inspiration in the research into superfluidity, while astronomers charted the Milky Way galaxy under the ingenious leadership of J.H. van Oort (1900-1992). Research in information and computer science concentrated, among other things, on communicating processes: programming languages based on logic as well as grammatical methods for pattern recognition. Biologists focussed above all on molecular botany and cellular biology.

## STUDENT LIFE

At the end of the nineteenth century, as a result of the 'pillarisation' (*verzuiling*, cf. above) of student life, conviviality 'in one's own circle' became the slogan. In general, politics gained little hold on this conviviality. Party politics in the sense of being involved in Socialism or Liberalism was avoided as much as possible. It did so happen that Socialist papers to which the student club had a subscription were ripped up. No one wanted any politics, and absolutely not any social politics. Fraternity politics was permitted but otherwise 'Let the cobbler stick to his last' was the rule.

A good example is the conduct of Leiden students at the conference of the International Student Service held in Leiden in 1933. The German delegation turned out to be under the leadership of a

Nazi, Johann von Leers. He had all sorts of anti-Semitic writings to his name and when Johan Huizinga, the *Rector magnificus* that year, found out about it, he sent Von Leers away – this to the great displeasure of the other participants, including the representative from the Corps fraternity.

In contrast, the attitude of the majority of students during the Second World War was remarkably involved. The protest by Leiden students against the introduction of the Aryan Declaration in November 1940, gave occasion to the occupying force to close the university. The paper *De Geus* – hearkening back to the rebellious ‘Sea Beggars’ in the seventeenth-century war against Spain, and set up by the Leiden brothers Jan and Huib Drion – became the mouthpiece for the student resistance. In this movement they followed the brave example of their law teachers Telders and Cleveringa. Above all the protest speech that Cleveringa delivered as dean of the faculty of law on 26 November 1940, against the dismissal of Professor Meijers, motivated students and colleagues to an exceptionally steadfast stance. Precisely Leiden University was exposed to stiff-necked attempts by the Germans to Nazify education. To prevent this process the majority of the teachers – 58 of the 93 – collectively submitted their resignations from May to June of 1942.

During the Second World War the students thought, just like the professors, intensely about the post-War organisation of the university. In order to restore unity to the student community, the Corps fraternity intended to open itself to groups from various religious orientations. Doing so, Augustinus, SSR, and Unitas (among the religious organisations mentioned previously) were to be entirely or partially subsumed into the Corps. The Corps fraternity was to become a genuine university organisation, with greater religious and social openness, and with lower financial burdens for those involved.

Although these plans were very successful during the first decade after the war – healthcare and housing, a *Studium Generale* (popular academic lectures) and a *mensa* (dining facility), sports facilities and an Academic Arts Centre – the idea began to lose its resilience at the beginning of the 1950s already. Above all, it was the increase in scale and the gradually yet strongly changing composition of the student population that caused the cohesion among students to crumble – and thereby the ideal of one large community.

Out of a genuine social class where students had one and the same traditional and hierarchical lifestyle, little by little a class of students grew who pursued their own interests as an independent group. That independence brought them quickly into conflict with their professors. In principle it was above all a question of sensibility. The professors began to become seriously concerned about what they saw as a ‘degeneration of morals’. Put on stage by the student theatre at the beginning of the 1960s, an older play like Arthur Schnitzler’s *La Ronde* (originally entitled *Reigen*, from 1920) still frightened the professors as a result of the sexual allusions it made.

At the same time politics also began to develop as a divisive issue. Precisely when Amsterdam University’s student newspaper *Propria Cures* characterised Leiden University as the ‘Borobudur of the bourgeoisie’, government policy in the matter of New Guinea and the development of nuclear energy were causing intense divisions. Before long subjects suited for indignation came flying in from every corner of the world: Central America, North Africa, South East Asia.

Thus, protest demonstrations came about even in Leiden, like those that affected the entire university in 1969. Although the waves of dissent were lower at Leiden than in Nijmegen or Amsterdam, the Academy Building was in fact ‘requisitioned’ from 8

until 20 May as a permanent centre for debate and action; for certain occasions even all of St Peter's Church was used as such. Before long the ensuing internal democratisation and the breaking open of old organisations made a totally different student life manifest. In 1969 the '*Collegium*' of the Corps fraternity presented themselves for the first time not in tails but in corduroy suit jackets and trousers.

There were other signs of the times. In the 1960s, the religious student organisations Augustinus and SSR both left their confessional foundations, never to rediscover them. Initially such organisations seemed to dissolve into generally accessible youth clubs, but in the 1980s they were back to focussing on clubs for cohort years and debating societies, and their nature again became more typical of college students. That can certainly be said for Quintus, the new, and fifth such organisation. Established in 1979, it was initially an exception, attracting students from other organisations as a result of its 'primacy of implacable conviviality'. Yet as the other clubs again became more convivial, Quintus became more normal.

Additionally, the massification of student life was influential. Initially the number of students remained stable and low, but after 1925 an intense increase set in. In that year the student almanac lists 2,493 students (88 in theology, 882 in law, 625 in medicine, 429 in mathematics and physics, 209 in letters and philosophy and 260 in Indology). Around the First World War women comprised approximately one eighth of the student population, but right before the Second World War they were already more than one quarter. Even after war's end that remained the average for a fairly long time.

Between 1945 and 1960 the student numbers doubled: from 2,824 (2,111 men and 713 women) to 5,370 (3,723 men and 1,647 women). The decade following showed a doubling of numbers

again (1970: 11,858 of whom 8,159 were men and 3,699 were women). Thereafter the number of male students remained fairly stable (nearly 9,000 in 1985), whereas the number of women continued to climb to the same level as that of the men, such that in the academic year 1985/86 nearly 18,000 students were enrolled. In the year this book is being published, the university numbers nearly 25,000.

An equally remarkable shift can be confirmed for the choice of study programme. The substantial decrease in law and medicine and the corresponding growth in the humanities and above all in the social sciences and in mathematics and physics yield a totally different view of the student population at Leiden. Traditionally that picture was dominated by the future occupants of the independent professions (i.e. lawyers and doctors), yet henceforth students were equally distributed across the five major academic areas of the university.

The explosive rise in student numbers – both in Leiden and elsewhere – had two remarkable side-effects: the graduation outcomes for university study, though never high, declined even further, and that was also the case for membership in student organisations. In 1962 it turned out that after five years of study only approximately half the students had made it to the bachelor level exam. Nearly 40 percent did not reach the finish line.

The following year the minister for education came up with a proposal to shorten the length of study. This idea led to protest from the entire academic community, yet it was above all the beginning of the student union movement. With the first increase in course fees, this movement caught the wind in its sails. Conflicts of interest and identity politics went hand in hand and resulted in the loss of traditional student life.

The slight participation in student life had attracted attention before already. The increase in the number of students coming



from lower social strata (in 1974 approximately 18 percent, whereas nearly 50 percent came from the middle classes), the intense growth in study programmes (mathematics and physics as well as sociology) combined with slight interest in the traditional forms of conviviality – all this contributed to the feared phenomenon called ‘nihilism’. Additionally, the ageing of the student population, the increase in the number of married students and in the number of students commuting and working was to blame for it.

The increase in the number of students caused, of course, a housing problem. In 1920 already the ‘Student Village’ Foundation (Stichting ‘Studentendorp’) was created, which resolved to build a ‘student garden village’, with a capacity for 128 students to begin with. Though it did not get much farther than the foundation and the plans, its scope and ideals are telling. Not until after the Second World War was the Foundation for Student Housing (Stichting Studentenhuisvesting) established, having purchased first of all the large premises known as ‘Oude Vest 35’ and ‘Het Wallon’ – each sufficient for 50 students. In 1957 the establishment of the Foundation for Leiden Student Housing (Stichting Leidse Studentenhuisvesting) ensued, which concentrated on new construction. This focus resulted in the opening of the well-known ‘Sterflat’ (‘Star-Flat’), followed later by flat buildings like ‘Het Hogerhuis’ (‘Higher House’), the ‘Poddekenpoel’ (‘Toad Pool’) and the ‘Pelikaanhof’ (‘Pelican Court’).

## PROFILE

The debate concerning the ‘profile’ of the university was one that was externally imposed. It was above all the division of responsibilities that obliged the university to ponder on what subjects and methods it needed to concentrate. At first, it revolved above all around instruction, and the solution was pursued in terms of social relevance and interdisciplinary education programmes. Sub-

sequently, the introduction of conditional funding (money for specific programmes) led to intense debate concerning the redistribution of available monies for research.

The most important step in the direction of finding a unique 'mission' for Leiden was made in the first strategic plan from the Executive Board under the leadership of Loek Vredevoogd, called 'Koersen op Kwaliteit' (that is, 'Setting a Course for Quality') from 1994. Its chief guidelines lay in the conviction that a number of 1970s fictions regarding equality had to be let go. Those who wanted quality, rather, had to discriminate and select in both instruction and research, in personnel policy as well as financial administration.

Perhaps the most important characteristic of the plan was not so much its emphasis on quality as the fact that it pursued its foremost elaboration in the realm of instruction. The fact that Leiden did a relatively poorer job of attracting students than many other Dutch universities played a role in this agenda. Additionally, though, the conviction that instruction and research are connected contributed to the fact that the plan could count on broad support within the university.

A number of important proposals were made to improve the quality of instruction: a selective foundation course of study (with binding advisory opinions on this course of study); intensification of contact between staff and students; disciplinary development of courses; and selection of academic personnel based on their didactic qualities. At the same time attention was paid to the breadth of training programmes.

For this purpose consideration was given to either introducing an inter-faculty course component for general edification or to restructuring a *Studium Generale* (a general studies course). Additionally, strengthening the role of organisations for students and their studies came up for discussion. Instruction during the mas-

ter's level phase was to be geared toward picking out excellent students. Tutorials with high standards, master classes and exchange programmes with students from foreign universities – all this was to come together.

As concerned research, such a profile was above all pursued in a number of priority areas and in the introduction of internal quality control. Additionally, the plan aimed for a more flexible personnel and payment policy, broader formulation of teaching assignments, part-time appointments, rejuvenating personnel and attracting talent by appointing 'trainee assistants' (*'assistenten in opleiding'*, or AIOs) and post-docs (researchers with doctorates).

Subsequent plans elaborated and adjusted this profile further. Instruction was linked more and more intensely to research, as well as to discipline-related career paths. At the same time preparation for a professional career, too, was emphasised, and the faculties were challenged to create new programmes of study for prospective graduates, such as 'Entrepreneurship, Law and Management' (*'Onderneming, Recht en Management'*) and 'Humanities in practice' (*'Letteren in praktijk'*).

The creation of what came to be called the 'Hague branch' shows the creativity of this time period. In 1999, in collaboration with the Delft University of Technology, the 'Campus at The Hague' was opened. What was initially a platform for lectures developed rather quickly into a number of regular training programmes in law and political science. Above all the course of study in Public Affairs – added in 2002, at the interface between business, government and civil society organisations – proved to be a great success.

The expansion of priority areas and pursuit of collaborative relationships in the area of research were paramount in all these plans. In the process, instruction was given continued attention. This development is seen in innovations like the institution of the

Pre-University College for gifted pupils in college preparatory secondary schools, like widening the bachelor's phase with major and minor course programmes, and like improving facilities for students. Yet the major emphasis lay on the design of graduate schools and on international recruitment for the postgraduate phase. Leiden became what it had been: a research university.

## **UNIVERSITY AND THE BUSINESS WORLD**

Since 1985 providing services to society and the business world formally belonged to the core duties of the university. The LUMC with its patient care and its research focussed on improving healthcare, the faculty of social sciences with centres for social conflict or for improving crisis management – all of these contribute in a broader sense to the social order. In addition, the university was and remains present in social debates by way of its large number of experts and columnists.

The changing relationship between the university and the business world is of at least as much importance. For a long time these relations were far from impeccable. Detachedness and suspicion were more characteristic than appreciation and cooperation. The turn-around took place in the second half of the 1970s, particularly with the government's 'Innovation Memorandum' from 1979. In this directive, contacts were encouraged between the university and businesses (above all medium-sized and small businesses), and so-called 'transfer points' were instituted to promote these connections.

These contacts were also important for the university because the money from the so-called 'third flow' came to constitute an important component of financial resources. By the 'first flow' of money, the university means resources from state contributions; the 'second flow' consists of money allocated via the NWO (mentioned above) or organisations derived from it. The 'third flow' has



*Lipsius Building*

chiefly three sources: resources coming from government institutions, apart from the regular state contributions (national, provincial, municipal); from the business world and from international organisations (European Community, United Nations, Rockefeller Foundation, Fulbright and others); and from charitable institutions (the Kidney Foundation, the Heart Foundation, the Queen Wilhelmina Fund, etc.).

In addition to the changing stance vis-à-vis personnel and students, the retrenchments of the second half of the 1970s in the faculties of medicine as well as mathematics and physics gave occasion to seek out support from the business world. That support could take on various forms: subsidies for fundamental research, contract research, payment for advisory opinions, advisory positions and the like; yet, additionally, it could include the rent of space and facilities, the sale of courses and of licences and patents, for example.

In 1981, in collaboration with the then Technical College at Delft, one such transfer point was instituted where employees of the university helped potential contractors to find the right researcher or research group. Conversely, researchers also got support to commercialise their inventions or to find the right partners in the business world. In collaboration with the Municipality of Leiden and the Chamber of Commerce, this Transfer Point provided stimulus for creating the Academic Business Centre, which resulted in the successful Science Park in the Leeuwenhoek complex (mentioned previously). Above all the world-renowned Leiden Centre for Bio-Pharmaceutical Sciences demonstrates this success.

The Science Park has concentrated on biomedical and life sciences. With 40 enterprises at the moment, Leiden houses half the specialised life science businesses in the Netherlands. In 2003 the most important of those involved were organised under the motto 'Leiden – Life Meets Science'. There is a comparable initiative on the Hague Campus in the tailor-made training programmes for administration, developed for the public sector. In this way these faculties obtained sometimes 30 percent, but in any case at least ten percent of their budget from the second and third flows of money.

## **INTERNATIONALISATION**

Initially, Leiden University's international efforts were an extension of politics. Thus, during the first decades of the twentieth century, for example, the combined faculties of law and humanities fought passionately for an 'ethical politics' – also called 'ethical blinding' by critics – which with the help of science and education intended to modernise the Dutch East Indies and prepare it for independence. In those days Leiden also produced a number of major scholars in the field of international law – namely, Cornelis



van Vollenhoven and Willem van Eysinga – and Nobel Prize recipients like Hendrik Lorentz and Heike Kamerlingh Onnes made the Netherlands – to cite the German chemist W. Voigt – ‘into a superpower in the field of physics’ (‘zu einer Grossmacht im Gebiete der Physik’).

Against this backdrop – and stoked further by an activist peace movement – the plan emerged to make The Hague the so-called ‘world capital of the intellect’. The architect Karel de Bazel even made a draft for this objective, including a ‘Peace Palace’ (*Vredes-paleis*) and an international academy (the *Association des Académies*). An article by Lorentz shows how academe in the Netherlands was not averse to these ambitions: in 1913, in the journal *Vrede door recht* (or ‘Peace through law’), Lorentz laid out how international scholarship was advancing peace. Above all the controversial pamphlet by Van Vollenhoven – *De Eendracht van het Land* (‘The Unity of the Country’), also from 1913 – issued an ardent plea for the moral duty of the Netherlands in the world.

After the First World War – which had split the international academic community into two inimical camps – the Royal Netherlands Academy of Arts and Sciences (the KNAW, or ‘Koninklijke Academie van Wetenschappen’) under the leadership of Lorentz and Van Vollenhoven developed an intense academic diplomacy to undo the exclusion of scholars from the erstwhile antagonist Central Powers from the International Research Council that had been set up in the meantime. Travelling back and forth between Berlin and Paris, they tried to come to ‘a kind of academic Locarno’, a peace convention for scholars.

Even before the Second World War already, major American foundations like the Carnegie Endowment and the Rockefeller Foundation saw to it that attention from European academics – and certainly Dutch scholars – was oriented toward the United States. Johan Huizinga, as Fellowship Advisor of the Rockefeller



*University Library*

Foundation, managed to arouse interest among Dutch academics for the fellowships from this foundation, which also furnished major support to astronomy and physics at Leiden.

After the war the organisation of the academy would be taken up entirely in accordance with American guidelines, particularly with the establishment in 1950 of the Netherlands Organisation for the Advancement of Pure Research (the zwo, or 'Nederlands Organisatie voor Zuiver-Wetenschappelijk Onderzoek'). The great appeal emanating from the Fulbright Program further caused Dutch scholarship to become oriented toward the United States to a very large extent.

Since the 1970s the university has also worked on internationalising its instruction and research to an increasing degree. In addition to the existing network of individual contacts of researchers and the practice of sending students on internships or of organising excursions, the university has had its own International Centre since 1967. Two years later a Permanent Foreign Commission was set up, which was supposed to advance not only international academic contacts but also the study of foreigners at Leiden and of Leiden students elsewhere.

This initiative was born from an ideal: the desire to make a con-

tribution to issues like the environment, to relationships between rich and poor and to the problem of war and peace. This activity also includes the attempt to break through the traditional unilateral flow of academic traffic and to involve scholars and institutions from what have been called developing countries. The Working Group (subsequently, Institute) for the History of European Expansion and Reactions to It (IGEER, or 'Instituut voor de Geschiedenis van de Europese Expansie en de Reacties daarop'), set up in 1975, is one example, as the brainchild of Henk Weseling, professor for modern history. Comparable initiatives have been post-doctoral training programmes organised by the department for the languages and cultures of South East Asia, and which took place partly in Leiden and partly in Indonesia.

The existence of collections like those of the National Museum of Ethnology has constituted an important source of inspiration for ages. Para-university institutes – like the Netherlands Institute for the Near East ('Nederlands Instituut voor het Nabije Oosten'), the African Studies Centre ('Afrika Studie Centrum') and the Royal Netherlands Institute of Southeast Asian and Caribbean Studies ('Koninklijk Instituut voor Taal-, Land- en Volkenkunde' or KITLV, since 1967 in Leiden) – have become more closely connected with the university. New collections have been set up, like the Documentation Centre for Modern China ('Documentatiecentrum voor het moderne China', since 1965). Institutes like the Institute for Asian Studies, the Indonesia-Netherlands Cooperation Programme for Islamic Studies and the Centre for International Legal Cooperation ('Centrum voor Internationale Juridische Samenwerking') have further been added.

As a result of these facilities, important cultural institutes abroad that were always under financial pressure, such as those in Jakarta, Cairo and Tokyo, acquired a new *raison d'être*. In Cairo, training courses were set up for students of Arabic and archae-

ology. The Japan-Netherlands Institute in Tokyo provides 20 talented students with post-doctoral training in the Japan Prize Winners Programme.

Over the long term, of course, the emphasis on development cooperation became outdated. Research of an interdisciplinary nature, above all, received support from Brussels and the institutions of the European Union there. Mobility programmes like ERASMUS (European Action Scheme for the Mobility of Students), followed by LEONARDO, ISEP and TEMPUS – all acronyms for scholarships of various scope – made it possible for Leiden to see a considerable increase in foreign students, and be able to send many students of its own out into the world.

In 1985, in the run-up to the ERASMUS programme, Leiden concluded an agreement to work together with a number of traditional, mostly older European universities – the so-called ‘Coimbra Group’. The idea was that the more than twenty affiliated universities would admit one another’s students without charging course fees. In 1992, together with Oxford, Leiden was the founder of EUROPAEUM, an ‘international university without walls’, now including ten universities. The cooperation takes place in the areas of instruction and research, above all in the social sciences, the humanities and academic policy.

## **OLD TRADITIONS**

And so the old university became a modern university. Yet was Leiden also a different university as a result? That is very questionable. Traditions lead a tenacious existence – even knowledge and know-how cannot get around them, and universities least of all.

One of the things that make Leiden ‘different’, for example, is its relationship to the House of Orange. Many princes and princesses of Orange have studied at Leiden. In addition, Wilhelmina

(1925), Juliana (1930) and Beatrix (2005) received honorary doctorates from the university. On every *Dies Natalis* ('Foundation Day', that is, with a capital 'D'), the university sends a telegram to the Royal House, in which the celebration of the university's own anniversary is linked to the commemoration of William of Orange, its founder.

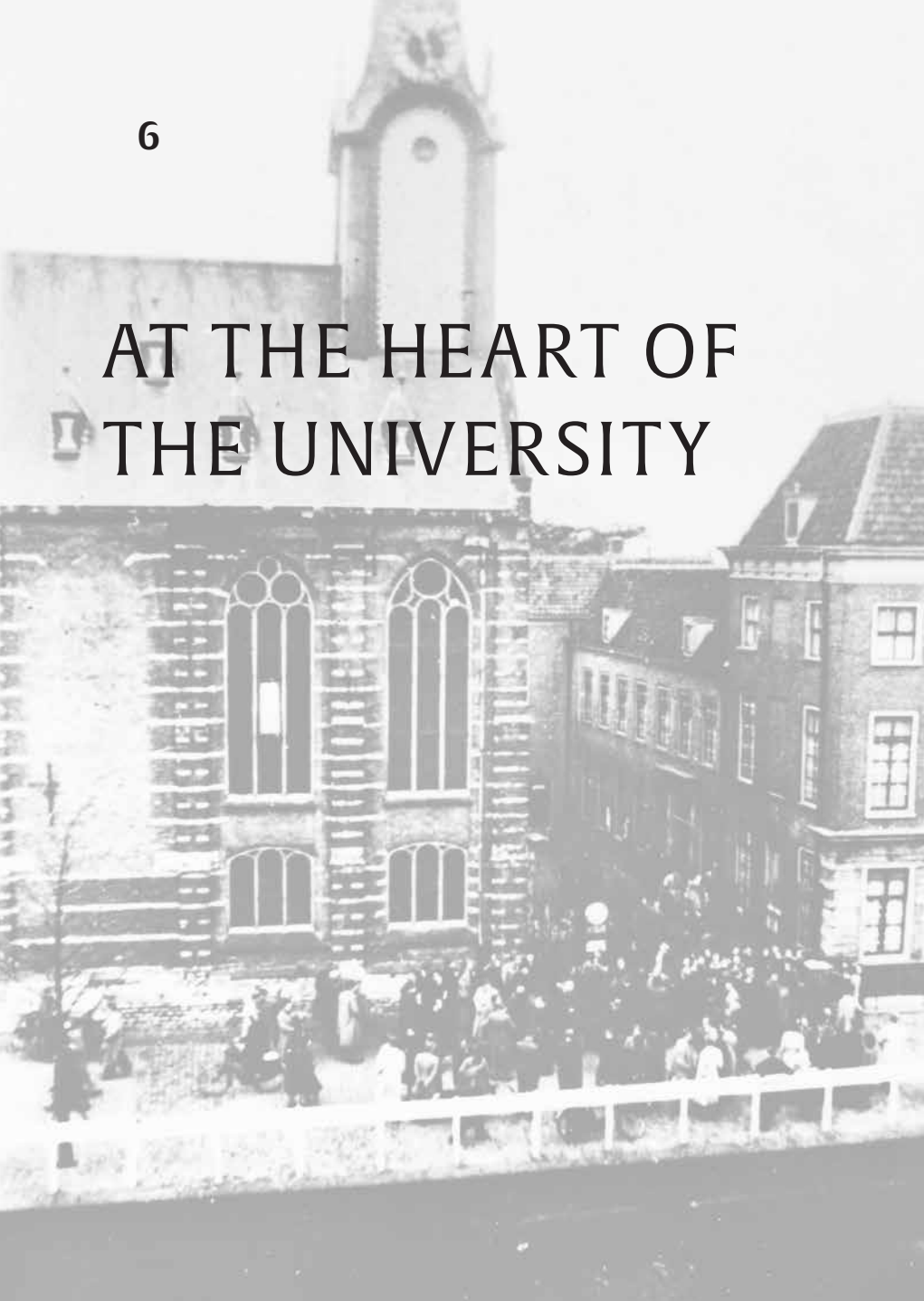
In addition, the university has a multiplicity of other traditions, perhaps the most important being a combination of tolerance and liberalism. That, for example, was the experience of the Leiden Slavist Karel van het Reve. In his farewell address he describes how this very combination made it possible for even someone like him – coming from a godless Amsterdam, from the planned community of proletarian housing called 'Betondorp' (i.e. 'Concrete Village'), from a Communist family, from a college prep secondary school with a known 'red' reputation, and from an even 'redder' university – was nevertheless welcome at 'the Borobudur of the bourgeoisie'.

It implies a certain inadmissibility of trendiness, as if tradition has a dampening effect on the way in which news filters through to Leiden. Thus, for instance, Van het Reve remembered how a telegram for the *Dies* once was addressed to Princess Juliana. Fortunately, someone found out in time that she had been queen for ten years already.

So it was, too, that Leiden students had invited the historian Jan Romein to give a lecture, though he had died a few years before. His widow supposedly began her answer with the words, 'Although it is not my custom to open someone else's letters ...'. Or, as Tatyana Afanesyeva, the widow of the Leiden physicist Paul Ehrenfest, once remarked, 'Nowhere does the transition between life and death go as unnoticed as it does in Leiden'. She said this to Einstein, though, who felt completely in his element in the Leiden of his fellow physicist Hendrik Lorentz.

6

# AT THE HEART OF THE UNIVERSITY





There is an anecdote concerning a certain Jacob Maestertius, who was supposedly born in Denmark, whence he travelled to Leiden. He arrived there, raggedy and without a red cent, but in the possession of a sword and a '*corpus juris*', a book of law. 'With one or the other', he reportedly said, 'I shall earn my bread'. The anecdote is not quite reliable: Maestertius, for example, was not born in Denmark, but in Dendermonde, a little town in Flanders. He did become professor at Leiden, however, and the story has much to say about Leiden University.

It is a well-known anecdote that is told in another connection as well. Don Quixote, for example, knew about the same two ways to acquire wealth or glory: 'There are two roads', as the errant knight says to his daughters, 'by which men may arrive at riches and honours; the one by the way of letters, the other by that of arms. I have more in me of the soldier than of the scholar; and was born, as it appears by my propensity to arms, under the influence of the planet Mars'.

The choice between words and weapons, between '*arte et Marte*', is a literary topos as old as Homer. In the work of Homer, the *Iliad* supposedly symbolises military life and the *Odyssey* civilian life. Even Homer himself is often compared with Achilles. In that case Achilles is the great general, Homer the great poet. The man of great deeds stands opposite the man who preserved them for posterity.

190      These two possibilities have been combined more often than

not. According to Plato, a king was supposed to have strength and wisdom, *fortitudo* and *sapientia*. In his *Politiaia (Republic)*, He wrote that only they who had proven 'to be the best in philosophy as well as in war' could be king. The *imperator literatus*, the learned warrior, was a constant character in Classical literature, a prince who coupled diligence with weapons and knowledge of poetry and rhetoric, philosophy and music.

This combination was not easy. '*Inter arma silent musae*': 'Where weapons speak, the muses are silent', said the well-known Roman orator Cicero. In the emblem books of the Renaissance (emblems being illustrations accompanied by a short poem), the combination was often depicted as an opposition: the pen against the sword, the gown versus weapons, book versus spear, lyre against trumpet.

In this way over the long term different yet nevertheless matching virtues or skills became associated: enduring and doing, theory and praxis, *vita contemplativa* and *vita activa*. The one who possessed both was a kind of double talent, and it was precisely the university that was associated with that talent and with its training. And this combination was the case pre-eminently with Leiden University.

After all, Leiden had been born in the midst of war. William of Orange, the university's founder, had had himself depicted by the master engraver Hendrik Goltzius as a 'learned warrior'. Completely outfitted in armour, he plays the part of the scholar along the margins of the well-known engraving. There one can see four vignettes, which at first sight represent four scenes from the life of Moses: how he was placed as a foundling in a reed basket, how he led the people of Israel through the desert, led by God during the day with the help of a column of smoke and by night with a column of fire. And how on the mountain he received the stone tablets, the laws of his people, directly from the hand of God.

The association is clear: William of Orange compares himself with Moses. Just like Moses he is leading his people out of the house of servitude – in this case not from Egypt but out from under the yoke of Spain. Yet there is also something else at play in these four little squares in the print: they symbolise at the same time the four elements: earth and air, water and fire. These are the elements into which Pythagoras broke down reality and upon which the faculty of the *artes* based its entire investigation of nature. The double talent played a game of doubles.

That was also what the man did who was commissioned by the prince of Orange to organise Leiden University – its first governor, that is, Jan van der Does. He, too, had his portrait engraved and he, too, had himself depicted as a learned warrior. He, too, is depicted outfitted in armour, just as he was attired when he led the civic guard together with Jan van Hout during the siege of Leiden by the Spaniards. At the same time, his hand rests upon a copy of a collection of his poetry, *Dulce ante omnia musae*, or ‘The Muses, above all, are sweet to me’.

The connection between *arte et marte*, between words and weapons, between the passive and the active life, can also be seen as that between ‘freedom and restraint’. This combination is handsomely expressed by the philosopher Frans Hemsterhuis, son of the Leiden professor Tiberius Hemsterhuis. In one of his essays, alluding to the Dutch Republic, he pointed to ‘the nearly unequalled phenomenon of a people that was great in times of war and ridiculously despicable in times of peace’.

Hemsterhuis made a connection between the state of war and the power of the central authority. In times of peace, one is inclined to diminish the powers of the authority on behalf of the law. This disposition then goes to such lengths that nothing more remains of that authority and the law can no longer be defended. The balance between power and freedom, between preserving

one's freedom and ceding (a part of one's) freedom was a reformulation of the old opposition between *arte et Marte*.

This relationship between freedom and restraint has been of great importance in the history of Leiden University. In the letter he wrote to the States of Holland on 28 December 1574, as recounted earlier, William of Orange saw the university as 'as a firm support as well as sustenance for freedom and sound lawful government of the country' (cf. Chapter 1). A university was a proven means for preventing the country's enemy from continuing its violent occupation. The university would be 'like a steadfast fortress and protection for the entire country'.

It is not known where the prince of Orange took this characterisation from. 'Fortress' (*blochuys*) has a clear Biblical meaning: 'God is my rock, my fortress strong and steadfast' ('*God is mijn borch, mijn blochuys sterk end' vast*') was how William's contemporary Marnix van Sint-Aldegonde translated Psalm 18 for his collection of psalms from 1580. On the other hand, it is very well possible that the prince of Orange was thinking of the Roman historian Livy with the phrase 'as a firm support as well as sustenance for freedom and sound lawful government of the country'. In the first Dutch translation of Livy's *Ab urbe condita* (his history of Rome since the city's founding) from 1541, this phrase occurs: 'for the sustenance of their [= the people's] freedom and their law'.

This passage in Livy proved to be of great importance in the continuation of Leiden's tradition of freedom. In 1917 the university incorporated the device '*Libertatis praesidium*' as the circumscription in its new great seal. The new seal was an oval version of the original seal from the sixteenth century, but the device was from a much later date: it came from an address that the aforementioned Matthias de Vries held at the centenary celebration of 1875. In it, he recalled – in Latin and before the representatives of other universities – how William of Orange had wanted a univer-

sity, 'that would serve as a bulwark for independence and for civilisation'.

In his address a year earlier at the anniversary of the university, when he himself was rector – the *Dies Natalis* of 6 February 1874, that is – De Vries had sketched how Leiden University 'has always been a bastion of liberty'. Expressed in Dutch, the slogan appeared in the information on the student masquerade from June 1875, as well as in Latin above a print with the list of names of all Leiden professors since 1575, the caption of which read: 'Leiden University, monument of strength, glory of the country, bastion of liberty'.

Thus, since the centenary celebration of 1875, '*Libertatis praesidium*' and the Dutch version '*Bolwerk der vrijheid*' (again: 'Bastion of liberty') have been a famous phrase, designated as the university's distinct device in 1917. Yet De Vries was not the original inventor of the motto. That was the classicist Petrus Hofman Peerlkamp, who spoke of it in his rector's address of 1839, at which De Vries was present as a student. The university was founded, said Peerlkamp, 'in such circumstances, in such a town, at such a moment, and with such urgency, that it seemed to have come down from heaven by the hand of God as a bulwark for independence'. And Peerlkamp had got this phrase, again, from Livy.

Livy told the story of the dramatic conflict between the senate and the plebeian party in the year 305 (B.C.), an enormous crisis in the Roman Republic. The reforms that resulted from it were supposed to guarantee the rights and the freedom of the Roman people. Decisions the people had taken were declared binding for everyone, including the nobles. Another act made it possible 'to lodge an appeal with parliament, a bastion of liberty unique in its kind'. The association with what happened in the Netherlands during the Revolt against Spain is obvious.

jump among quotations – between the university's early and recent history. And that connection was the notion of freedom. Or, put more correctly, the connection between freedom and self-restraint. And, even more important: the identity derived from this idea acquired the value of a self-fulfilling prophecy.

At one specific moment that identity was put to the test and freedom seemed to have been lost: during the German invasion of May 1940. Half a year after the invasion, on 23 October, the so-called 'Aryan Declaration' was distributed to university personnel, who had to declare whether or not they were Jewish. The intention was clear: all Jewish employees would be dismissed.

How was staff to react to this act? What could people undertake who were not born heroes, but teachers, in the face of a barbaric measure of this kind? How they felt can be seen via the diary of Professor Cleveringa, who was dean of the faculty of law at that moment. 'Thus, every professor feels his position shake', he wrote on 27 July, 'and lives in fear of what he should do for his wife, for his children, if the stroke falls; with him goes likely every judge, every higher official, every clergyman, everyone whose basic vital necessities are not at stake'.

The Senate was to meet concerning the Aryan Declaration on 26 October, in view of a forceful protest drawn up by a colleague of Cleveringa, the jurist B.M. Telders. In that complaint Telders recalled the *Regulations concerning the Laws and Customs of War on Land* (the 'HagueReg', for short) and its Article 43, above all, which obligated the occupying force to respect the laws of the country in its measures regarding public order. The dismissal of Jewish personnel was a flagrant transgression of that regulation.

The prospects were not favourable. Cleveringa wrote in his diary on 27 October: 'It has made a very poor impression that the Supreme Court has given its signature. [...] In Amsterdam and Delft most appear to have signed already; only in Utrecht, Gronin-





*Rudolf Cleveringa (1894-1980)*

gen and Wageningen is there still hope. But there they are waiting on the Leiden Senate meeting; and that's not going through!

Indeed, the meeting was obstructed by the Nazis, but people still got together in small 'circles' of less than 20 individuals (the number of people allowed to meet without a permit). Now, too, the professors did not turn out to be heroes. The minimum of 25 objectors set for making any collective refusal was not met. The example of the Supreme Court, then, had indeed not been good. Now Leiden risked falling short as well.

Cleveringa himself was not resolute, either. 'If I were alone', he wrote a day later, on 28 October, 'it would not matter to me; at home, though, the decision to participate weighs heavily upon me on account of the children. When I think of my little dumpling ... ! And yet giving my signature under protest hardly gratifies me, either. I'm going to proceed with refusing, the 25 of us together; I've said so, though I feel like I'm being tortured on the rack'.

Then, on 23 November, when the decision had been taken that the faculty would protest: 'It burdens me on account of my wife Hiltje and the children. I desperately wonder at times why I got all this to cope with, why there is no salvation from this agony. But A Higher Power than ours destines it to be this way; evidently, I must take up my cross. I hope to have the strength and the courage to do it with dignity; I have to take care of the children; but that also means that I cannot leave them with a name that is tainted. So be it!' That is the crucial sentence: 'Leave them with a name that is tainted'.

One of the Leiden professors who were dismissed was the jurist E.M. Meijers. The faculty of law decided to seize the opportunity for protest at Meijer's very next class. On Tuesday morning at ten o'clock, on 26 November, Cleveringa held his well-known address as dean of the faculty. He read the letter of dismissal 'in its barren nakedness', without attempting to clarify any further: 'their deed makes its qualities sufficiently known on its own'. In addition, he described the significance of his teacher, Professor Meijers:

The only thing I desire now is: to have them from sight, beneath us, and to direct your view to the height at which the shining figure stands of him who validates our presence here. For it seems right to me that at this moment we try again to take in who it is that a power, which is supported by nothing but itself, heedlessly shoves aside here after thirty years of working.

The address by Cleveringa was both a courageous and a well-considered protest. He consciously refrained from any political pronouncement, he did not go into the racist principle of the measure for the dismissal. The address was intended, moreover, to prevent any irrational student action. Yet by juxtaposing black and white so clearly, the address was extremely effective. The next day stu-

dents walked out of classes and the occupying force closed the university.

A German government report, located at the Netherlands Institute for War Documentation ('Nederlands Instituut voor Oorlogsdocumentatie', or NIOD), shows how important this address was. Dating from 28 November 1940, it makes up part of a weekly set of reports, based on data present, and also acquired by infiltrators, of what was going on in the Netherlands. The drafter of the document wrote, 'This week it came to demonstrations against the introduction of the order by the *Reichskommissar* concerning the dismissal of Jewish personnel'. The reporter believes to know precisely who the ringleaders are: Leiden students, under the command of Leiden professors.

A number of those professors are mentioned by name. The professor of medicine Bok, for example, supposedly called upon students in his classes to prepare themselves for 'certain events'. The report also contains a short account of Cleveringa's address, which emphasises that the demonstration was prepared with an objective in mind: 500 students had come to what was supposed to be a normal lecture and, with a sound system installed, the speech could be heard in two other halls and outside at the same time. Afterwards the student strike is described. In barring access to the classrooms, members from the Corps fraternity, from the women's *vvsl* and from Augustinus were involved.

For an outward display, the report continued, professors still gave their classes, but they let the few who did show up know that they disapproved of their conduct. Professor Kolléwijn was mentioned explicitly in this context: he is supposed to have said to his six audience members that they were six too many. Not mentioned, though preserved for posterity, were the classes that Professors Barge and Van Holk gave that day, which also included a brave protest against the dismissal of Jewish personnel.

Barge was an anatomy professor, and fate would have it that he gave class precisely at the same time as Meijers, thus during the protest by Cleveringa. He threw out the topic of his class but did remain within his subject area, treating instead the Nazi doctrine of race. He demonstrated that there was no pure Germanic race, that the doctrine of Nazism was based on nothing, and that this, then, also applied to the dismissal measure taken against the Jews. The theologian Van Holk, who gave class around noon, changed his topic as well, but also stayed within his subject area. He laid out how great the contribution was that the Jewish people had provided to Dutch culture, emphasising Baruch de Spinoza.

Concerning the role of Cleveringa, the German report is very informative. Cleveringa himself contrasts his version in his diary. At his arrest he continued to maintain his position: he disputed the right of the *Reichskommissar* to promulgate any ordinance like the dismissal of Jewish officials. In doing so, he based his argument on the reasoning of Telders and said that it was up to the occupying forces to refute it. Additionally, he said that he had not prevented his students from giving up classes for a short time, but that he had also advised them to bow to violence.

The German reporter called this attitude 'typical for the opportunistic spirit at Leiden University'. In it one senses the impotence felt vis-à-vis the position that Cleveringa had chosen. Just like Telders, he put the emphasis on the 'HagueReg'. Those regulations were supposed to be followed, 'except in the case of complete impediment. That is, only in the case of acts of war and gross disturbance of public order was the occupying force allowed to deviate from the 'HagueReg'. Those conditions were not at play in the dismissal measure.

Dismissals ensued. Telders was arrested and imprisoned in a concentration camp. He reportedly died in Bergen-Belsen on 6 April 1945. Meijers also ended up in a concentration camp but sur-

vived. Cleveringa was imprisoned one and a half years but was ultimately freed. Barge and Van Holk would also be robbed of their freedom for quite some time, though they, too, survived the war.

In the meantime the occupying force tried to reshape the university by intensifying the rules, by means of more dismissals and 'deutschfreundliche' (i.e. 'German-friendly') appointments. Yet after a few dismissals – one such crucial firing being that of the jurist R. Kranenburg in March 1942, because in his book on administrative law he had supposedly not given enough attention to the ordinances of the occupying force – a large portion of the instructors themselves resigned (53 of the 84 professors). Between October 1940 and August 1944, approximately 40 Leiden teachers were imprisoned for shorter or longer periods of time.

## IN CONCLUSION

In an intriguing book entitled *The Honor Code*, Kwame Appiah tries to answer the question why we try to act 'good'. In the process he relates the role of our social identity, of our great attachment to respect and to a good name. He argues for a new emphasis on 'honour' for a better understanding of ethical action. And in so doing he especially provides for professional ethics.

Every profession has its own honour code and precisely in instilling that code, in emphasising and intensifying it, Appiah sees a means for converting private moral convictions into public norms. Of course, the conviction to do good because it is good is primary. Yet if we earn respect by doing good, that is a much more effective means than any other law or force whatsoever, according to Appiah. 'What we need are codes that are *compatible* with morality'. And it is there, for him, where the role of professional codes comes in.

ual soldier to the honour of his company, battalion or regiment. Gradual reward or legal provisions have little effect in the heat of battle – much less, in any case, than the individual sense of honour. And that is certainly the case with the kinds of deeds that go beyond normal obligations, risks that cannot be asked, yet sacrifices that are made nonetheless. These are not carried out to avoid punishment or acquire a bonus.

Cleveringa, Barge, Van Holk – and many others at Leiden University – all acted out of a fundamental sense for what was good and just. Yet they did not have to become Homeric heroes or demigods to be brave. They were able to act that way, and did so as well, staying within what was true to their scholarship and within the professional ethics appropriate to that knowledge. Barge and Van Holk had taught their entire lives what they said on that 26th of November. If they had not said so, they would have thrown away all their scholarship, all their professional honour.

The same holds for Cleveringa. The two most important emotions that played a role in his address were his deep loyalty to his teacher and his equally deep attachment to an untainted name. The former is a code of honour specific to academe, the latter a more general one. Yet they are both codes that can be taught – that have to be repeated and strengthened again and again, but that can be taught. That is one of the most important duties of a university.





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The fourth part will be published in 2016.

## ACKNOWLEDGEMENTS

My thanks go out to my assistant, Corrie van Maris, to Jos van den Broek, who has again permitted me to print a few photos, and to the readers of the chapter on the 20th century, Corine Hendriks, Minke Holleman, Kees Schuyt, and Piet van Slooten.

I also thank Leiden University Press for their impeccable cooperation.

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