Chapter 1
Women's accession to Lund University – with special focus on medicine, science, technology and mathematics

By Fredrik Tersmeden

Fredrik Tersmeden. Photo credit to Mikael Risedal.

Archivist at the University Archives
Email: fredrik.tersmeden@legal.lu.se
Biosketch

Fredrik Tersmeden (born 1968 in Tynnered) holds a bachelor's degree in history and works as an archivist at the central archives of Lund University. He was the head of the Student Archives and Museum at Akademiska Föreningen 2001-2007. Tersmeden has published numerous books and articles, mainly on university and student history, and is one of the main authors of an upcoming book on the history of Lund University, which will be issued in connection with the University's 350 years anniversary.
From the time Lund University was founded on January 28th 1668, more than 200 years would pass before Swedish women – in 1870 – would formally gain access to academic studies. And a decade more would pass before any women chose to exercise that right at this institution of learning. In other words, the phenomenon of the female Lund academic is only 136 years old.

It would be a mistake, however, to draw the conclusion that women were entirely absent from the early history of the academic world in Lund. Even without formal access to the university, many women were able to exercise varying degrees of influence or to serve important practical roles even in early academic life.

One such opportunity – for natural reasons, reserved only for the highest echelons of society – was to become a donor. The fact is that the university’s very first single benefactor was a woman. It was the country's then Queen Dowager Hedvig Eleanora, who was also the person whose signature crowned all the official documents through which the minor Charles XI's regency founded the university in 1666. At the inauguration fourteen months later, Hedvig Eleonora gave the university and its professors a set of ceremonial robes in black silk (or possibly velvet; the sources disagree), i.e. the predecessors to the robes that are still used today at ceremonies such as promotions and professor installations. The donation also included the university's first rector's uniform with "hat and cap of violet-brown velvet, with a large pearl hatband".

In the 1700s, too, we find a couple of prominent female donors, as well as givers of scientifically more useful gifts, which furthermore are connected to both the world of natural science and medicine. The first was yet another queen, Hedvig Eleonora's granddaughter Ulrika Eleonora. In 1733, she donated 6,000 Swedish "riksdaler" for the establishment of an "anatomical theatre" on the second story of "Kunghuset", the university's main building at the time. This amphitheater was primarily intended for anatomical dissection for teaching purposes, but also for physical experiments and demonstrations with the large collection of apparatus and instruments – the Triewald Collection – that the university acquired at the same time.
The other major female donor of this century was the utterly wealthy widower countess Christina Piper of Christinehof. In 1751, she allowed transportation of about sixty carriages with plant life – cypresses, cedars, laurels and myrtles, trees with lemons, oranges, Seville oranges, figs and olives, as well as box, agave, aloe, carnations and much more – from one of her many castle gardens to the university's newly established botanical gardens (located at the current University Square). Unfortunately, many of the exotic plants suffered, as the orangery building they were to be placed in was not yet ready. However, at least one plant – a bay bush – is said to have survived into the 1920’s, and today, the museum Kulturen still has some of the cast iron pots in which some of the trees were delivered.

There are also early examples of women employed at the university, albeit not in academic positions. The first was probably Anna Flink, who in the late 1600s was hired as "head housekeeper" for "Communiteten", the University's own student dining-hall, where a large number of the poorer students received free meals as a kind of grant. Both Anna Flink and one of her successors, widower Risbeck, fought hard battles with the men on the board of the university to get the means needed to maintain the prescribed standard of meals, and in the end, both gave up and left.

Communiteten was soon closed, but a new opening for female services arose with the establishment of a university hospital in 1768. Among the very first staff at the hospital - comprising just three individuals - was Elna Carls as
"female orderly". She was reputed to be very good with the sick, but seems to have been a woman capable of holding her own, as well. For her 40 silver riksdaler in wages, she was also expected to pay a number of expenses that are considered to be the employer’s responsibility today – such as soap with which to wash patients' clothes. Mrs. Carl, however, found these wages to be inadequate and negotiated a pay increase of 12 riksdaler.

Figure 2
Kilian Stobaeus Jr., professor of obstetrics, as painted by Martin David Roth (Source: Lund University Art collection)

Indeed, nursing was also the first area where the women of Skåne would receive an education from an academic, even though it was not formally under the auspices of the university. It was local doctor Kilian Stobaeus Jr. who took the initiative in the 1770s to begin educating women in "midwifery". His activities initially met protest from Collegium Medicum in Stockholm, which claimed to have sole rights to certify midwives, but Stobaeus stood his ground. In time, he obtained both state assent and a pay raise for his activities, and in 1783, he was appointed Lund University’s first ever professor in obstetrics.

In this connection, we should not forget the hundreds of unknown and forgotten women of Lund’s working and middle classes who well into the 1900s comprised an essentially service-based infrastructure for the male students of the time: landladies and cooks, laundresses and cleaners – all
necessary at a time when young men neither had the practical skills to look after their own household nor a home with the tools for doing so. Nor should we forget the role that wives and daughters of academics played in the parlor room culture that characterized, in particular, the social lives of the middle-class/academics of the 1800s.

The debate concerning women's access to university

In 1865, the last Swedish diet assembled in Stockholm. The politically dominant issue was, naturally, changing the representation of the Riksdag itself. In the shadow of this, however, a single parliamentarian put forward a motion that would have tremendous consequences for the Swedish educational system. It concerned the issue of women's access to higher education.

The position and rights of Swedish women had grown successively stronger in the 1800s. In 1845 equal inheritance rights for men and women were introduced; in 1858 the unwed women were granted legal majority; and between 1846 and 1864 various changes in commercial legislation gave women the right to own their own business. If you look at education, this was made equal at a basic level: the Swedish elementary school system established in 1842 was opened for both boys and girls. The institutions of higher learning, secondary grammar school and university, however, were in 1865 still closed to women. This was something that someone was set on changing.

It is interesting to note that this someone, Carl Johan Svensén, represented the least academic layer of society – farming society – and that he, himself, a freeholder from the area of Hultsfred had likely never been anywhere near university studies. He was apparently educated, however, and in support of his arguments on the matter, he cited three scientific, literary and moral authorities: Thomas Thorild, Carl Adolph Agardh and Carl Jonas Love Almquist. From a Lund perspective, it is interesting to note that the first two have clear links to Lund University (as student and professor, respectively).

Svensén's motion incited debate as well as discord within all the estates of the diet, but in the end led only to very weak formulations about allowing
women to obtain certificates of higher education (studentexamen) and to take part in certain academic programs of study. Initially, this concerned medicine. The Riksdag put the matter to the government for analysis. As a result, in 1867 proposals for consideration were submitted to the Universities in Lund and Uppsala, among others. In the responses, Lund was generally more favorable than Uppsala, although there were strong sceptics in both camps, in particular from the faculties of theology and law. The most positive among those from Lund were those from the faculty of medicine. This was not by chance. In the debates in the Riksdag, many of those who were otherwise skeptical about admitting women to the academic sciences - "such activities that essentially require and entail the use of pure, isolated reason" - envisaged making an exception for studies in medicine. Here, it was believed that women's more practical and instinctive caring disposition might prove useful. In addition, practical medicine was a field where experience had already been gained with working women in the form of nurses and midwives. Medical doctor was also one of the few academic professions that women potentially could exercise in practice, namely as a private practitioner. Those professions in public administration and the church that most other university educations were aimed at were, on the other hand, still mostly formally inaccessible to women (the number of academics in the private sector were insignificant at the time compared to the present day). This was also one of the arguments that opponents made: what use was it allowing women to obtain academic degrees if they subsequently could not get the kind of work that these diplomas were intended for? If self-improvement was what they were after, they could attend the university's lectures as private individuals, it was said; such lectures were quite literally open to the public. Something which, examples show, women indeed took advantage of.

Some representatives of Lund's faculty of medicine were not satisfied with simply welcoming women to their own faculty. For instance, the professor in charge of medical chemistry, Johan Lang, made the, for the time, unbiased statement that "women's ability to rise to the level of man in the world of science has been proven beyond a doubt throughout the course of history". His colleague, anatomist Carl Fredrik Naumann, found "women as human beings, by nature, to be equal to men and capable of the same development in both spiritual and physical respects".
However, the government did not dare go quite as far as Lang and Naumann – at least not initially. On the basis of the collection of responses to their proposal for consideration, they decided in 1870 that women could obtain a higher certificate and, as a private practitioner, exercise the profession of doctor and, to this end, could take the university medical exams. The decision did not, however, lead to any rush of budding women doctors. When, two years later, a woman by the name of Betty Petersson asked to register at Uppsala University, it was to study at the faculty of philosophy. This was granted through special dispensation but it re-ignited the general debate. A new proposal was submitted for consideration in late 1872, and this time the response was generally more positive. From there things took off. As early as November 1873, the Swedish universities opened up all programs to all women, with the exception of theology and those leading to a licentiate degree in law.

The first female students - what did they study? What happened to them?

As early as the 1870s, Uppsala University received a handful of female students. In Lund, change was somewhat slower, and the first female student came to Lund in 1880. In many contexts over the years – even those emanating from the university itself – it is said that this pioneer was Hedda Andersson (1861-1850), a student of medicine from Malmö, who later became Sweden’s second female doctor, practicing primarily in Stockholm, but later returning to Lund. Hedda Andersson – who later lent her name to both a women's network and a guest professorship at Lund University – did indeed register at our institute of learning in 1880, but not until the autumn and, as such, she missed being the very first female student by just a few months.
That honor instead goes to a much forgotten Hildegard Björck (1847-1920), who registered as a student in Lund in the spring of 1880. She had already studied several years at Uppsala (where she was the second female student) and taken a bachelor's degree in medicine (as the first women in Sweden). In Lund, she intended to pursue the licensiate's degree, which was a prerequisite for becoming a certified doctor. Medical problems – impaired hearing as a result of adult-contracted measles – forced Björck, however, to discontinue her studies after just a short period. Through one of her teachers (and landlords), Carl Fredrik Naumann, she was still given the opportunity for a while to work under him informally as an assistant doctor. It was the same professor Naumann who, in 1867, spoke out positively about women's intellectual equality. After his death, Björck's opportunity to "exercise the profession of doctor in this half private half public manner" disappeared, and instead she began to work as a private nurse for a number of rich private patients. Despite her time in Lund being short, she made a lasting mark. She
namely bequeathed her private library of primarily philosophical literature to the women’s residence hall (Kvinnliga studenthemmet) in Lund. After that residence closed, Björck’s book collection was moved to Lund’s women students' residence (Studentskegården), where it still exists.

Lund’s two first female students were thus both medical students. Considering both the general attitude at the time towards female academics and the practical means of making a living – as described above – this is hardly surprising. Not all early female students at Lund were students of medicine, however. So what did they study? Even more importantly, to what extent were the other subjects in the STEM faculties (science, technology, maths) prioritised? In an attempt to answer this, I did a systematic review of all 20 women that can be found in the printed issues of Lunds Kungl. Universitets katalog for the period 1880-1889. The possibility of extracting exact answers from this, however, is limited by a number of factors in how studies were organized at the time and in the university’s organization.
One such factor is the division of faculties at the time. The students' affiliation with a faculty is indeed stated in the catalogues, but the faculties – four then compared to nine today – were somewhat different. The faculties of theology, law and medicine already existed back then as they do today, but other subjects – from humanities to what we consider today as social or natural sciences – were all gathered in the faculty of philosophy (purely technical subjects did not exist as sub-disciplines, however, this was not the case for the natural sciences physics and chemistry, which today make up part of the studies of the faculty of engineering and the faculty of science). Ever since 1876, however, the faculty of philosophy has been divided into two sections (humanistic and mathematics/natural sciences), and starting in the autumn of 1888, the catalogue states from the start what section each student belonged to. Before that, section affiliation was only stated on taking the bachelor exam. It is impossible, therefore, to tell which students of the faculty of philosophy were students of the natural sciences if they terminated their studies before the exam. Another problem lies in the fact that all students at the time started their university studies in the faculty of philosophy, even if they intended to specialize later on in one of the "higher" faculties (theology, law or medicine), because students were forced to take mandatory preliminary exams in philosophy. In other words, a prospective student of medicine can hide behind the symbol "F" ("filosofisk" = philosophical) in the catalogue if the individual never took their preliminary exams.

With these reservations, it is still possible to extract relatively certain data from the catalogues (and a number of complementary sources). From these, we find that among the decade's total of 20 female students, at least 6 of them studied natural sciences for at least a time. Of these, 3 later chose to switch to medical studies, making medical students the largest group, with 8 female students. In total, this means that more than half - 11 out of 20 - of the first female students at Lund studied subjects in the STEM area.

What profession did these first female students of Lund ending up pursuing? This, too, can be answered for the most part with the help of different biographical reference works and records. Of the eight medical students, two were forced to end their studies prematurely (Hildegard Björck and Botilda Andersson), and one seems to have been content with the role of housewife, having married a professor. The remaining five all became practicing doctors. Of the three that chose to complete their studies in the field of...
natural sciences, all became teachers, and this is also the most common profession among their sisters within the humanities. In the subsequent group, however, we also find some practitioners of free cultural professions, such as authors and translators.

And how were they received?

How were the first female students received by their male counterparts and teachers? Officially very well - as required by the conventions of the time. In the student nations, each one of the odd creatures was welcomed on her arrival with special parties, balls and welcoming speeches - which they were expected to listen to quietly and not answer. Their presence at such tributes also required that they had a chaperon - normally an older woman - with them, and it was understood that they would leave the party relatively early so the real "tippling" of their fellow male students could begin.

The latter indicates a cleavage among the male students, and that cleavage is also the image left by some of the first female students. Anna Herrlin (registered in 1887) called the position of the first female students "absolutely fine" and believed that "we were met in a friendly and amicable manner by both teachers and students" (with the added mention, however, "in the instances we had anything to do with them"). Hilma Borelius (registered in 1891) was of another opinion. In a letter dated 1893, she wrote that "Lund is as utterly conservative as most small towns, and the necessary condition for their tolerating female students is that they do not afford themselves any liberties". Pioneer Hedda Andersson painted two contradicting pictures. In a speech given in 1925, she claimed "in Lund, we were received with goodwill and kindness by both teachers and fellow students", but fifteen years later, in another speech, she revised that picture: "On registering for academic citizenship, it was clear how unwelcome we were".

It was not until the 1900s that female students began to find their place and voice in the student world in a more obvious way. An important symbolic act was daring to don a student cap in public. The may seem insignificant in our day, but around the turn of the previous century, it was a big step for a young woman to be seen with an article of clothing as masculine as a cap.
Among the early cap wearers was Elsa Collin (1887-1941), who was also the first female student to stand on a student amateur theatre stage and to smoke cigars in public in Lund. That took courage! Likely even more provocative for the time was the liberated medical student Hildur Sandberg (1881-1904), who did not only take part in radical groups such as Malmö’s social democratic youth club and hold speeches on information about sexual matters, but lived in an open relationship with a fellow male student until her premature death in circumstances that are still unclear.

First female university teacher delayed by 20 years

As mentioned above, all of Lund’s female students from the 1880s chose a career outside the university. This was not at all a voluntary choice; the opportunity for women to serve in academics was indeed very limited. Defending a doctorate thesis was possible (the first female Swede to do this was Ellen Fries in Uppsala in 1883) as was being named to the lowest teaching position, senior lecturer (here, too, Uppsala was first, 1892). The higher teaching positions in the university – as in the state sector in general – were closed to women. This was because article 28 of the constitution of the time established that only "native Swedish men" could be called to services requiring royal appointment; something that applied to professorships, among other things. A certain opening for female professors came through a decision of the Riksdag in 1911, but with a very large number of restrictions (among others that they were expected to leave their posts upon marrying) and generally it was with the 1925 "qualification act" that Swedish women obtained full equal access to services in Swedish public administration (but still with exceptions for clerical and officer professions).

In Lund, a much longer time would pass than in Uppsala before any female academic would obtain a doctorate and thus become a candidate for those teaching positions that required this. It was a relatively short time after this, however, that in 1890 the university almost got a female teacher, albeit not a doctor. What opened up for this possibility was the establishment of a new teacher category, foreign lecturers. These lecturers were to provide more practically oriented teaching in the modern languages (German, French and English) and it was a requirement that they were native in the respective languages. When these jobs were announced, a private British teacher
residing in Lund, Fanny Hodges, sought the lectureship in English, which resulted in an interesting discussion in the humanities section of the faculty of philosophy. Hodge's competence was apparently known and recognized by all, but the regulations for the post stated specifically that the holder should be a "foreign man". Several professors spoke in favor of nominating Hodges despite this, including linguistic expert Edvard Lidforss, who argued that they risked, “for the sake of principle, denying a skilled and perhaps eminent woman in favor of a mediocre male”. Even some of the professors who were otherwise, in principle, against women's "in-march into men's sphere of activity" were prepared to make an exception for Hodges. Not all, however, and it all ended in a compromise. The section chose not to request actively an exception to the rules, but encouraged Hodges herself, instead, to seek "dispensation from her gender" from the government.

Hodges dispensation was not granted; however, and thus another 20 years would pass before Lund University got its first female teacher. Her name was Hilma Borelius, and in 1909 she defended her doctorate thesis on Erik Gustaf Geijer.

Figure 5
Hilma Borelius (Source: Lund University Library)

The following year, she was promoted to doctor and appointed senior lecturer in literary history. Borelius became thus not only the first female teacher at the university, but also the first to defend a doctorate thesis. Not after the first accomplishment, but after the second, there were a few others
in other faculties who were quick to follow. Two years after Borelius, teacher Petrén (doctoral thesis 1911) was promoted to doctor of mathematics. She became Lund's first female doctor in the mathematic/natural science section, as well as the first ever Swedish female to defend a doctorate thesis in mathematics. However, Petrén never became a university teacher, but was hired as a statistician for an insurance company. The same year that Petrén was promoted, 1912, Gertrud Gussander defended her doctoral thesis in medicine. The thesis (on a now obsolete diagnosis, gastroptosis) was flawed and thus only received a plain "passing" as a mark, which entailed an end to any possible future career in research for her. Instead, she continued down the path of practitioner as Sweden's first female surgeon and established in time her own hospital in the Dalarna region.

It is worth noting that both Borelius and Petrén came from academic homes (Gussander, on the other hand, was daughter of a lower ranking military man). Generally speaking, a larger percentage of the early female students probably had this background compared the overall student population. Borelius's father was a professor of theoretical philosophy, while Petrén's father was a "simple" vicar, but of her eight brothers, seven received their doctorate and four became professors (one of them was opponent for
Gussander's thesis)! Louise, who also married a professor, is said to have stated "I am not a woman, I am a Petrén".

Lund's first female professors

Hilma Borelius temporarily stumbled in the 1920s into substitute teaching, or – as she called it – "play professor" when the ordinary holder of the professorship in literary history, Fredrik Böök, took leave. She never choose her own ordinary professorship, however, despite this possibility having opened up in her lifetime. In fact, one has to look so far ahead in time – more than a half century after Borelius's senior lectureship – to find Lund's first female professor that it all falls outside of what was originally intended as the chronological framework for this chapter. However, the subject deserves to be examined, although it will have to be somewhat brief.

The question of exactly who was Lund University's first female professor is something of a trick question. Indisputably, the first woman to obtain a professorship at an academic institution in Lund was Carin Boalt, professor of building function analysis, in 1964. However, her professorship was at LTH, which, at the time, was an independent institution and not part of Lund University. Not until the institutions merged in 1969 could Boalt also boast the title of professor at Lund University, and by then, historian Birgitta Odén since her appointment in 1965 was already able to claim the title of the university's first female professor. To further complicate matters, there were two other female Lund academics at the time who assumed the title of professor, both of medicine. The first was endocrinologist Dora Jacobsohn. In her case, however, it was not a matter of an actual ordinary professorship, but rather a conferral by the government of the personal honorary title of "professor's name" in 1964. The second was Inga Marie Nilsson, a prominent scientist working with blood research at the then university hospital in Malmö. She was appointed as professor in 1965, but only to extraordinary professor and not formally at Lund University, but at the Swedish Medical Research Council. In modern times, however, one of the streets on the SUS hospital compound in Malmö was named after her.

The first woman to obtain a professorship within the university's own medical faculty was the kidney doctor Ulla Bengtsson, appointed in 1976.
The first female natural scientist to hold the position did not come about until 1982, when Ikuku Hamamoto-Kuroda became professor in mathematical physics. However, this with in the technology faculty (where yet another female professor, Birgit Krantz, had already been appointed after Carin Boalt). In the faculty of natural sciences, the first female professor was not appointed until in 1993 when Honor C Prentice became professor in systematic botany (ecologist Birgit Nordbring-Hertz had, however, received the title of "professor's name" in 1987). By then, the medical faculty had already come up in eight appointed female professors (of which one never assumed the post), and the engineering faculty in six.

From this small handful of women professors just 20 to 30 years ago, today Lund University is in a situation where 202 women figure among the total number of 848 professors (including all sorts from regular professors to guest professors), i.e. 24% of the entire corps. Within the faculties of particular interest to us in this chapter, the breakdown is as follows:

* Medical faculty: 54 women of 214 professors
* Natural Sciences faculty: 23 women of 136 professors
* Faculty of Engineering (LTH): 31 women of 207 professors

While there may be quite a long way towards full statistical balance in the above figures, it is safe to say that they describe a reality that neither Queen Ulrika Eleonora, female orderly Elna Carls, Kilian Stobaeus’ midwife students, pioneer students Hildegard Björck and Hedda Andersson, or even doctors Borelius, Petrén and Gussander in their age could have imagined.
Figure 7
Fotocollage from eth 1890s of most (but not all) of the female students at Lund University up until that time; made by Lina John, a pioneering female photographer (Source: Lund University Library)

This chapter builds, in part, on a yet unpublished manuscript that is part of a larger summerical popular historical work on Lund University scheduled for release in December 2016.
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