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SPECIAL ISSUE: CROSSING BORDERS Women and Higher Learning in a Nordic Perspective 1860–1960

Edited by
Pernille Svare Nygaard &
Ning de Coninck-Smith

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Mailing Address
Nordic Journal of Educational History
Department of Historical, Philosophical, and Religious Studies
Umeå University
SE-901 87 Umeå
Sweden

Email and phone
Henrik Åström Elmersjö (Senior Editor)
henrik.astrom.elmersjo@umu.se
+4690 7866816

Webpage
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COVER IMAGE: Gretha Hjort, seated in the middle, surrounded by the students at the University of Melbourne, Women's College, after her arrival as president-elect in 1938, Papers of the Derham Family, University of Melbourne Archives, UMA-IT-000047103

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INTRODUCTION

Crossing Borders: Women and Higher Learning in a Nordic Perspective, 1860–1960

Pernille Svare Nygaard & Ning de Coninck-Smith, special issue editors

This special issue on women and higher learning contributes to the exploration of the divergent, overlapping stories of women who sought knowledge and negotiated their womanhood in various ways. The special issue contains six articles about women's paths into higher learning. More specifically, there are articles concerned with female students at a teacher training college in Finland in the second half of the nineteenth century (Sofia Kotilainen); the construction of gendered statistical arguments in Sweden's girls' school committee in the 1880s (Sophie Winkler); the first woman professor in mathematics at Stockholm University, Sofia Kovalevskaya (1850–1891) (Maria Tamboukou); textile researchers in Denmark around the time of the First World War (Ulrikka Mokdad and Morten Grymer-Hansen); Nordic women within higher learning in home economics after the Second World War (Pernille Svare Nygaard); and the entangled lives of two female scholars in the middle of the twentieth century (Ning de Coninck-Smith).

Historiographies

Important literature has been written about the history of girls' schools, teacher training for women and the women who established schools for women in the Nordic countries.[1] Furthermore, biographies have traced the lives of well-known female scientists. Examples include the Danish physician Marie Krogh (1874–1943), the Norwegian philologist Clara Holst (1868–1935), and the Austrian-Swedish physicist Lise Meitner (1878–1968).[2] In recent years, the interest among scholars has shifted towards studies of women's encounters with specific disciplines. Interdisciplinarity, and not least the history of gender and emotions, have had an impact on the history

1 Emil Marklund, *Teachers' Lives in Transition: Gendered Experiences of Work and Family Among Primary School Teachers in Northern Sweden, c. 1860–1940* (Umeå: Umeå University, 2021); Birgitte Possing, *Viljens styrke: Nathalie Zahle - en biografi om dannelse, køn og magtfuldkommenhed*, (København: Gyldendal, 1992).

2 Bodil Schmidt-Nielsen, *August og Marie Krogh: et fælles liv for videnskaben* (København: Gyldendal, 1997); Hanne Sindbæk, *August og Marie: dansk videnskabs glemte stjerner* (København: Politikens Forlag, 2022); Ruth Lewin Sime, *Lise Meitner: A Life in Physics* (Berkeley: University of California Press, 1997); Ernst Håkon Jahr, *Clara Holst: En kvinnelig pioner i akademia i Norge* (Oslo: Novus, 2006).

of education, and several scholars have written about female physicists, chemists, and doctors, and about how they fulfilled, challenged, or reinterpreted their academic roles, or their *scholarly personae*.[3] Today, women are in the majority among the students at institutions of higher learning in the Nordic countries.[4] This has led to increasing discussion of how this came about, and to an interest in the paths and detours through which women have pursued knowledge and education.[5] It has also drawn attention to women's vocational education and professional training, primarily in the fields of care work, home economics, teaching, and textiles,[6] as also reflected in this special issue. During the twentieth century, education was no longer only a privilege for girls in the upper echelons of society, as was primarily the case for the pioneering generations of the nineteenth century. In this remarkable process, teacher training took on new meaning in women's struggle for independence at a time when female enrolment in upper secondary education was not a matter of course due to cultural, social, and geographical restrictions.[7]

In a broader perspective, studying the history of women's higher learning is a relatively young discipline, whether examined comparatively across nations or by country.[8] In the western world, interest in women's educational history grew in the late 1970s with the rise of the second feminist wave. This growing interest was accompanied by a focus on the lack of female representation in history writing and educational history.[9] However, there is still a need for exploration of the more personal stories of those women who pursued higher learning and the untold stories of the generations of women who followed in the wake of the pioneers. Therefore, this special issue shares new Nordic research on women and higher learning with a focus on women's individual

3 E.g., Annette Lykknes, "Enabling Circumstances: Women Chemical Engineers at the Norwegian Institute of Technology, 1910–1943," *Ambix* 69, no. 3 (2022), 262–90; Rebecka Göransdotter, "En teoretisk anomali? Nytt ljus på intellektuella kvinnor under 1900-talets första hälft i Sverige," in *Ny utbildningshistorisk forskning II: Nio bidrag från Forskarskolan i tillämpad utbildningshistoria,* ed. Johannes Westberg and Germund Larsson (Uppsala: Uppsala Studies of History and Education, 2023); Heini Hakosalo, "Cut Out for Medicine: Anatomical Studies and Medical Personae in Fin-de-Siècle Finland," in *Gender, Embodiment, and the History of the Scholarly Persona: Incarnations and Contestations,* ed. Kirsti Niskanen and Michael J. Barany (Cham: Palgrave Macmillan, 2021), 149–80.

4 Danmarks Statistik, "Uddannelsesgabet mellem kvinder og mænd øges," https://www.dst.dk/da/Statistik/nyheder-analyser-publ/nyt/NytHtml?cid=38257; Eurostat Statistics Explained, "File: Number of Tertiary Education Students by Level and Sex, 2015 (Thousands) YB17.png," https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Number_of_tertiary_education_students_by_level_and_sex,_2015_(thousands)_YB17.png.

5 E.g., Simonetta Polenghi and Tanya Fitzgerald, "Breaking Boundaries: Women in Higher Education," *Paedagogica Historica* 56, No. 6 (2020), 724–28.

6 E.g., Åsa Broberg, Viveca Lindberg and Gun-Britt Wärvik, eds., *Kunskapstraditioner och yrkeskunnande: Kvinnors yrkesutbildning i historisk belysning* (Göteborg: Makadam, 2022).

7 Anne Katrine Gjerløff et al., *Da skolen blev sin egen: 1920–1970*, (Aarhus: Aarhus University Press, 2014); Emil Marklund, "Teaching and Family: Either or Both? Work and Family among Women Primary School Teachers in Northern Sweden, c. 1860–1937," *Scandinavian Journal of History* 48, no. 4 (2023), 503–29.

8 Linda Eisenmann, "Creating a Framework for Interpreting US Women's Educational History: Lessons from Historical Lexicography," *History of Education* 30, no. 5 (2021), 453.

9 Joyce Goodman and Jane Martin, "Breaking Boundaries: Gender, Politics, and the Experience of Education," *History of Education* 29, no. 5 (2000), 383; Julie McLeod, "Feminism, Gender, and Histories of Education," in *Handbook of Historical Studies in Education: Debates, Tensions, and Directions*, ed. Tanya Fitzgerald (Singapore: Springer Nature, 2000), 120–23.

stories. We hereby want to contribute to a discussion of the social and cultural changes that might have facilitated women's participation in higher learning and in society more generally. What made these women leave behind their home and family, what were their dreams, and what impact did higher learning have on their identities as women?

Unsettling established narratives

When reviewing research on women's educational history in the western world, the historical lines seem to be roughly parallel with each other. Within a period of approximately 50 years around the turn of the twentieth century, women gained access to university and higher education. Teacher training schools for women were established, and female domestic occupations, such as caring, cooking, and sewing, were professionalised, with new education programmes emerging. *Access* is thus a key element in the history of women's efforts to obtain any level of education. Although details of the Anglo-American and Nordic histories differ, there are similarities in the overall chronology of women's initial attempts to demonstrate their intellectual capacities and their arguments for gaining access to education. According to Linda Eisenmann, the gradual opening of various opportunities and the persistent push for increased options characterise both these histories.[10] However, the term *access* contains other significant aspects, such as the influence of patriarchy, as highlighted by Joyce Goodman and Jane Martin among others.[11] They note that "the breaking of boundaries and the crossing of borders is a far more complex process than trajectories of progress suggest."[12] The notions of *boundaries* and *border crossing* challenge linear narratives of heroic women who fought and succeeded. The narratives in this special issue tell stories that are messy, entangled, and with multiple chronologies, where women have combined different kinds of education, both formal and informal, public and private, sometimes returning to higher learning after years spent caring for children and family. Therefore, from a post-structuralist, feminist, and neo-materialist perspective, women's educational history is not about writing women into the history of education, but about women's agency, the many paths they follow, and the dilemmas of being a woman within education. It is about encounters with the world of academia that did not go smoothly, inequalities that persisted, meaning that some women were included, and others excluded because of their religion or social class. The result was frequently a gendered precarity, with temporary positions and periods of unpaid academic work.[13]

Higher learning

To the extent that women's admittance to education has been examined, the focus has often been on access to the university and higher education.[14] Women's educational

10 Eisenmann (2001), 455.

11 Goodman and Martin (2000).

12 Goodman and Martin (2000), 384.

13 Joyce Goodman, "Afterword: Histories of Women's Higher Education, Time, and Temporalities," *Paedagogica Historica* 56, no. 6 (2020), 847–56, 852; Tamson Pietch, "Geographies of Selection: Academic Appointments in the British Academic World 1850–1939," in *Mobilities of Knowledge*, ed. Heike Jöns et al. (Cham: Springer Nature, 2017), 157–79.

14 Bente Rosenbeck, *Kvindekøn: den moderne kvindeligheds historie 1880–1980*, (København: Gyldendal, 1991); Pelle Oliver Larsen, "En ukvindelig dame? Billedet af udenlandske kvindelige læger og andre akademikere i Danmark 1849–1875," *Historisk Tidskrift* 122, no. 1 (2023), 35–71.

pathways combining and connecting the private and the public, the formal and the informal, short courses and degree programmes have remained uncharted territory.

In this special issue, we use the term "higher learning" instead of "higher education." The concept of higher learning enables an awareness of the many different layers of learning and training women have made use of, and how they were combined and connected. At the same time, a one-sided focus on university or upper secondary education is avoided, while also drawing attention to the important role that for example, teacher training and care work have had for women's educational opportunities. As a concept, higher learning also points to the importance of women's agencies, strategies, and plans in relation to education and their use of female networks – something that is easily neglected if the emphasis is on the formal educational system.[15]

In 2020, the international journal *Paedagocia Historica* published a special issue: *Breaking boundaries: women in higher education* (2020),[16] inviting scholars to continue to think about female educational subjectivities and the encounters between women and academic disciplines, as Joyce Goodman frames it in her afterword.[17] In the research project *Women's University 1928–2000*, funded by Aarhus University Research Foundation and the Faculty of Arts at Aarhus University, we have taken up this challenge. The project deals with the encounters between gender and higher learning at Aarhus University from its founding in 1928 until 2000. From early on, we were joined on this journey by Maria Tamboukou and Joyce Goodman, as well as Astrid Elkjær Sørensen, Bente Rosenbeck, Harriet Bjerrum Nielsen, Christian Larsen, Susanne Malchau Dietz, and the late Katrin Hjort.[18] The purpose of this special issue of *Nordic Journal of Educational History* was to invite other Nordic scholars to join our conversation about women and higher learning. A call for papers was published in the autumn of 2021, contributions were selected, and a workshop on gender and higher education was held in February 2022. The articles have developed and been discussed among peer reviewers and editors across different subjects, institutions, and countries throughout 2023. In September 2023, we expanded our network of conversation partners and organised an international seminar held at Sandbjerg Estate in Southern Denmark on the topic of higher learning, knowledge circulation, and gender history. At this seminar, papers were presented on women and education in France, Egypt, Australia, Sweden, and Denmark. The introduction to this special issue builds on the stimulating discussions and reflections at both the workshop and the seminar. We would like to thank Kystan Palani-Jafi for diligent assistance with the practical arrangements in planning and organising the events as well as this special issue.

Intersecting and connecting themes

The concept of higher learning helps make visible women's contribution to knowledge production, for example as assistants to male researchers, as amateur botanists,

15 Sarah Jane Aiston, "Women, Education and Agency, 1600–2000," in *Women, Education, and Agency, 1600–2000*, ed. Jean Spence, Sarah Jane Aiston and Maureen M. Meikle (New York: Routledge, 2010), 1–8.

16 Jeroen J. H. Dekker et al., eds., "Special Issue: Breaking boundaries: Women in Higher Education," *Paedagogica Historica* 56, no. 6 (2020).

17 Goodman (2020), 855.

18 Ning de Coninck-Smith and Pernille Svare Nygaard, "Women's University," Projekter, Aarhus University, Danish School of Education, https://projekter.au.dk/en/womens-university.

or astronomers,[19] or as governesses or private teachers, through which they gained knowledge and educational training. This is a topic addressed in Sofia Kotilainen's article about the first generation of female students at the Jyväskylä Teacher Training School, the first Finnish-language teacher training school for elementary school teachers, established in 1863. The concept of higher learning is also central when examining the movements that exist across, for example, women's colleges and universities, private and public institutions, and within women's associations and literary societies. Such movements are depicted in Ning de Coninck-Smith's contribution examining the entangled lives of two female academics, Grethe Hjort and Julie Moscheles, at the crossroads of the academic world in the middle of the twentieth century.

The lack of historical visibility of women in education is challenged by greater attention to the transitions between the formal and the informal, the private and the public, and to shifting chronologies and the interactions between educational programmes of different lengths.[20] A good example of this is the article by Ulrikka Mokdad and Morten Grymer-Hansen about a female drawing school and the emergence of textile research in Denmark. Here, they show how random, unintentional, and unplanned the design of the educational programme was – entirely dependent on the specific individuals involved. Pernille Svare Nygaard's analysis of a group of women from across the Nordic countries who applied for admission to a higher learning programme in home economics at Aarhus University in the years after the Second World War likewise shows how this programme came into being and was shaped over the years – a process that did not follow the original plan but was negotiated by various stakeholders.

Several interlinked themes frame the content of this special issue. For example, a discourse depicting women as "the intellectual other" appears in some of the articles. Central to this discourse was the relationship between intellect, body and soul, rationality, and emotions, as shown by Sophie Winkler in her examination of the 1888 report of the second Swedish Girls' School Commission and how statistics were used as an important tool to justify the view that girls are frail of both body and intellect, and as an argument for the creation of specific educations for women.

Another key theme deals with women's educational possibilities and the barriers they had to cross – and the resistance they encountered – when leaving their home and family. It could be the Finnish teacher and poet Isa Asp, who followed her dreams and travelled for many days to enrol at the first Finnish-speaking teacher training college in 1871, or the first generation of female mathematicians, who overcame restrictions and the limitations of their gendered position, as Maria Tamboukou writes. Even though mathematics was not considered a purely male domain in the late nineteenth century, it was far from simple and without conflict for women to enter this academic discipline. Conservatives considered women within the scientific subjects as bad role models that could stir unnecessary ambitions in the minds of young girls.

Another common theme is travelling as a female academic. This theme is explicitly detailed in Ning de Coninck-Smith's article on two women who fought for academic recognition in Denmark and Czechoslovakia, but who had to settle abroad to obtain

19 Ruth Watts, "Scientific Women: Their Contribution to Culture in England in the Late Eighteenth and Nineteenth Centuries," in *Women, Education, and Agency, 1600–2000*, ed. Jean Spence, Sarah Jane Aiston and Maureen M. Meikle (New York: Routledge, 2010), 49–65.

20 Aiston (2010).

an academic position. In this way, women moved in terms of both geographical location and knowledge acquisition, as also seen in Pernille Svare Nygaard's contribution on the many Nordic women who travelled to Aarhus to pursue advanced learning in home economics.

A recurring theme concerns how women performed their roles as scholarly personae and which public and academic expectations they had to face in relation to marriage, motherhood, clothes, sexuality, and behaviour. This is present in Maria Tamboukou's description of how Sofia Kovalevskaya was constantly confronted with the dilemma of being a single mother and a professor of mathematics at Stockholm University in the 1880s. At Aarhus University, Pernille Svare Nygaard traces the emergence of a new female figure in the post-war years who embodied modernity and tradition at the intersection between the housewife and the female student at what was commonly referred to as "The Faculty of Meatballs."

Finally, we want to highlight how the exploration of the histories of women and higher learning benefits from micro-historical and collective biographical methodologies, as well as a plurality of theoretical thinking and new conceptualisations. It might be feminist state theory, with its emphasis on how the notion of patriarchy structures ways of thinking about the good state and concepts of citizenship. It could be affect theory, placing intersectionality and the development of new female figures within education at its core. Or it could be new materialist thinking, pointing to the importance of reading sources diffractively – and as a mattering.

In addition, there is a multiplicity of interwoven chronologies at play across the contributions in this special issue. Firstly, the past haunts the present; historical notions of women's bodies and abilities did not change overnight. Secondly, social and cultural events and changes outside the narrow walls of the educational institutions are important. Just as the development of Nordic welfare states after the Second World War required professional female caregivers such as health visitors, the nation states of the late nineteenth and early twentieth centuries called for educated women. These women were needed as mediators and teachers of language and culture, as seen in the Finnish school system; as scientific nutritionists to optimise the household economy and improve the population's health; or as textile researchers who could contribute to the understanding of a cultural heritage and the positioning of the Danish Kingdom as ancient old culture. Women desired education, but the education they had access to was largely dependent on time and place. Seen from a social and cultural perspective, the agency of educated women extended beyond personal and social autonomy into narratives of the nation and the welfare state.

Overall, the articles in this special issue show the importance of private tutoring, women's colleges, international networks, university courses, and vocational training in women's multiple and entangled paths to higher learning.

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Language Shift as a Way of Acquiring New Citizenship and a Profession: The Educational Background of the First Female Students at the Jyväskylä Teachers Seminary

Sofia Kotilainen

Abstract • This article sheds light on gendered aspects of the early years of the Finnish teacher training system. It focuses on the first generation of female students at the Jyväskylä Teachers Seminary in central Finland, their educational background, and their language competences. My main sources are the students' applications to the seminary, which I explore with the help of the collective biographical method. The Jyväskylä Teachers Seminary, the first Finnish-language teacher training college for elementary school teachers in Finland, was established in central Finland in 1863, partly in response to the increasing significance of the Finnish language to the nation. For the girls who entered the seminary, their preparatory private education and the language shift they experienced there from Swedish to Finnish were significant factors both in their training as teachers and in the opportunity to gain a public profession of their own, as well as a new kind of female citizenship. Most of these women had graduated from private schools or had only private tutoring at home.

Keywords • female citizenship, multilingualism, professions, social motherhood, teacher training

Introduction

The young Finnish poet (Lovisa) Isa Asp (1853–1872) had an exceptional dream for a country girl of her time. She wanted to study at the new teacher training college, known then as the Teachers Seminary, in Jyväskylä, central Finland, to become an elementary school teacher. She also had a greater dream and ambition: to write poems, and someday to become an author or poet.[1] She believed becoming a teacher might leave her time to write, so this seemed an ideal profession for a girl who wanted to become a poet in 1860s Finland, where female authors were still a rarity.[2] She eventually became the first woman poet to have her work published in Finnish in the nineteenth century.[3]

This dream was why, in August 1871, she was excited to participate in an entrance examination in Jyväskylä far to the south, for which she had to travel for several days in a horse-drawn carriage from her home parish Puolanka in northern Finland.[4] There

1 Sofia Kotilainen, "How to Become an Author: The Poet Isa Asp and Her Childhood Fascination with Writing for Magazines," *Knygotyra* 76 (2021); Helmi Setälä, *Isa Asp*: *Nuoren pohjalaisen runoilijaneidon elämäntarina* (Helsinki: Otava, 1912), 71–72.

2 Heidi Grönstrand, "In Fredrika Bremer's Footsteps: Early Women Authors and the Rise of the Novel Genre in Finland," *NORA – Nordic Journal of Feminist and Gender Research* 16, no. 1 (2008), 46–47; Minna Maijala, *Herkkä*, *hellä*, *hehkuvainen*: *Minna Canth* (Helsinki: Otava, 2014), 341.

3 Toivo Hyyryläinen, ed., *Kohise*, *villi aalto*: *Isa Aspin runot* (Jyväskylä: Minerva, 2003); Erkki Hyytinen, *Isa Asp*: *Elämä ja valitut runot* ([Oulu]: Pohjoinen, 1983), 5.

4 Setälä (1912), 78–79.

were no train connections yet: railway traffic from western and southern Finland to Jyväskylä commenced only in 1897.[5]

Isa Asp was born in the countryside of northern Finland.[6] There were long distances to travel and hardly any schools, public or private, where girls from the families of the upper classes[7] (which consisted of the nobility, clergy, successful merchants, businessmen, the most successful factory owners and manufacturers, university figures, senior officers and public servants) could pursue their studies beyond the elementary level.[8] Asp was the daughter of an ironworks bookkeeper. Her mother's family were peasants, as were her father's forefathers. Her father taught her to speak and write Swedish,[9] which in Finland in those days was the main language of administration, education, the economy, and of the upper classes.[10] With the help of her paternal grandmother, Asp got the chance to attend a private girls' school in the town of Raahe on the west coast of Finland, approximately 200 kilometres from her home. She studied there for ten months in 1864–1865, but her family's inability to pay the school fees meant that she was forced to leave before graduating.[11] She had a sharp mind, however, and was a skilled writer, so she longed for more education.[12]

This article focuses on the first generation of female students at the Jyväskylä Teachers Seminary, their educational background, and their language competences. The primary research objective is to investigate the fundamental educational opportunities and requirements facing the first female students at the Jyväskylä Teachers Seminary, the inaugural Finnish-language teacher training college, established in 1863. The lens of analysis is employed to explore the processes of feminization and professionalization these women faced, that is, their pioneering endeavours to obtain qualifications through institutional education and thereby acquire professional identity, competence, and the potential to serve as elementary school teachers in public educational institu-

5 Päiviö Tommila, *Jyväskylän kaupungin historia 1837–1965, I* ([Jyväskylä]: Jyväskylän kaupunki, 1972), 303–4.

6 Setälä (1912), 9.

7 In Sweden and Finland, there was a four-estate system (nobles, clergy, burghers, and land-owning peasants) and in the Russian Empire's Grand Duchy of Finland, this system lasted until the latter half of the nineteenth century, but it was already breaking down from the mid-nineteenth century. The Diet of four estates (with a few extensions) remained in force to the beginning of the twentieth century. See e.g. Irma Sulkunen, "Suffrage, Nation and Political Mobilisation: The Finnish Case in an International Context," in *Suffrage, Gender and Citizenship: International Perspectives on Parliamentary Reforms*, ed. Pirjo Markkola, Seija Leena Nevala-Nurmi, and Irma Sulkunen (Newcastle upon Tyne: Cambridge Scholars Publishing, 2009), 86.

8 Anne Ollila, *Jalo velvollisuus* (Helsinki: Suomalaisen Kirjallisuuden Seura, 1998), 35; Sisko Wilkama, *Naissivistyksen periaatteiden kehitys Suomessa 1840–1880-luvuilla*: *Pedagogis-aatehistoriallinen tutkimus* (Helsinki: Helsingin yliopisto, 1938), 37, 43.

9 Hyytinen (1983), 6–8; Setälä (1912), 9–13.

10 Erik Geber, "Språkets och språkens betydelse för Uno Cygnaeus reformarbete," in *Koulu ja menneisyys* 48 (Helsinki: Suomen kasvatuksen ja koulutuksen historian seura, 2010), 19; Kaisa Häkkinen, *Suomalaisen oppikirjan vaiheita* ([Helsinki]: Suomen tietokirjailijat, 2002), 41, 55–56; Irma Sulkunen, *Suomalaisen Kirjallisuuden Seura 1831–1892* (Helsinki: Suomalaisen Kirjallisuuden Seura, 2004), 11, 122, 129.

11 Setälä (1912), 22–24, 39; see also Sofia Kotilainen, "Seminaarin kahdeksan Augustaa: Isa Aspin tilapäisrunous ja nimipäivien vieton yleistyminen Suomessa," *Genos* 90, no. 3 (2019), 34.

12 Setälä (1912), 12, 16, 28, 34, 81.

tions.[13] The ideology of social motherhood and the national need for mass education of the rural population suddenly justified a new and public role for women in Finnish society compared with earlier generations. In the nineteenth century, as nation-states were built and women's role in society was mainly restricted to the home, especially in upper- and middle-class families, motherhood was seen as a woman's highest calling.[14] In the role of teacher – an otherwise new and somewhat suspect public role for a woman – it was considered more gender-appropriate for a woman to devote herself to a professional career in which she could be seen as implementing social motherhood in her work outside the home.[15] This was regarded as a continuation of the woman's private role, but allowed her to support herself through her own work.

The central research inquiry is structured by three interrelated questions. The initial research query examines the nature of the basic or upper secondary education that most female teachers received in their own childhood and youth in elementary and private schools, along with other educational avenues accessible to girls during their formative years. The second question presents an analysis of home schools and private tutoring for women beyond the formalized education provided for girls. This investigation includes a consideration of the gendered[16] experiences associated with multilingual learning, literacies, and education,[17] acknowledging the historical constraints that reserved higher education and vocational training predominantly for men. Women during this period engaged in language studies within domestic settings involving family, friends, and governesses; they participated in activities such as reading literature, composing letters, and learning from informal sources.[18]

The third research question extends the inquiry by exploring how the linguistic

13 Christina Florin, *Kampen om katedern: Feminiserings- och professionaliseringsprocessen inom den svenska folkskolans lärarkår 1860–1906* (Umeå: Universitet i Umeå, 1987), 72–76; Vanessa Heggie, "Women Doctors and Lady Nurses: Class, Education, and the Professional Victorian Woman," *Bulletin of the History of Medicine* 89, no. 2 (2015), 267–68, 291–92.

14 E.g. Johanna Annola, "Maternalism and Workhouse Matrons in Nineteenth-Century Finland," *Women's History Review* 28, no. 6 (2019), 953–56; Eileen Janes Yeo, "The Creation of 'Motherhood' and Women's Responses in Britain and France, 1750–1914," *Women's History Review* 8, no. 2 (1999), 201–18.

15 Marjo Nieminen, "Breakers of Glass Ceilings: The Professional Careers of Women in Finland and the Graduates of Three Girls' Upper Secondary Schools (1890s–1910s)," *Paedagogica Historica* 60, no. 2 (2022a), 7. The vast majority of Finns obtained their livelihood from agriculture, and women worked hard on (e.g. their father's or husband's) farms, not just in the house. Women had for centuries taken part in heavy labour, tending cattle and working in the fields and forest. In the early twentieth century about 90% of Finnish people still lived in the countryside. Sulkunen (2009), 100.

16 Gender is referred here to as socially constructed differences between the sexes and socially constructed understandings of how women were supposed, for example, to live, study and work in a nineteenth-century society that was still predominantly male dominated in both public and private spheres. See Joan W. Scott, "Gender: A Useful Category of Historical Analysis," *The American Historical Review* 91, no. 5 (1986), 1053–75. https://doi.org/10.2307/1864376.

17 See e.g. Susan N. Bayley, "The English Miss, German Fräulein and French Mademoiselle: Foreign Governesses and National Stereotyping in Nineteenth- and Early Twentieth-Century Europe," *History of Education* 43, no. 2 (2014); Michelle Levy, "Do Women Have a Book History?" *Studies in Romanticism* 53, no. 3 (2014); Marjo Nieminen, "Women Teachers and the Feminisation of the Teaching Profession in a Finnish Journal for Primary School Teachers (*The Teacher*), 1915–1920," *Paedagogica Historica* 58, no. 1 (2022b). Cf. the Swedish teachers: Emil Marklund, *Teachers' Lives in Transition*: *Gendered Experiences of Work and Family Among Primary School Teachers in Northern Sweden, c. 1860–1940* (Umeå: Umeå university, 2021a).

18 Ollila (1998), 29; Wilkama (1938), 3.

identities of female seminary students as aspiring professional teachers were shaped by their multilingual reading and writing skills. This examination takes into account the expectations placed upon these often native-Swedish-speaking women to teach in Finnish, considering the prevailing linguistic demographics, whereby the majority of the population spoke Finnish. Additionally, it acknowledges the gradual entry of new Finnish-speaking pupils into the emerging elementary schools, particularly in rural areas. Notably, girls' schools and private tutoring often emphasized foreign languages, such as French, German, or Russian[19].

Within this broader context, the article investigates the diverse educational backgrounds of the seminary students. They had studied a range of subjects including religion, geography, history, mathematics, and singing, and some were talented at painting, drawing, music, or writing.[20] This article, however, will specifically focus on the linguistic qualifications of the future elementary school teachers. I will also consider the significance of private education and of the language shift from Swedish to Finnish.

As a micro-historical illustration, the article delves into the exceptional educational trajectory of Isa Asp, examining her and her classmates' multilingual identity as they pursued their studies to become early elementary school teachers. As the first published female native-Finnish-speaking poet of the nineteenth century,[21] Isa Asp presents a unique case, having initially studied and written poems in Swedish during private girls' school,[22] and eventually transitioning to writing poetry in Finnish during her time in Jyväskylä.[23]

Previous research on the Jyväskylä Teachers Seminary

The Finnish school reformation was influenced by western and central European views of women's education, but Swedish and even east European models (adopted via St Petersburg) were also important. Uno Cygnaeus is seen as the father of Finnish elementary education in the 1850s and 1860s. As he prepared his plan for the Finnish elementary educational system, he travelled widely in the neighbouring regions as well as in central Europe. Cygnaeus had a profound influence on the content of the Elementary Education Act of 1866. He wanted school pupils to learn practical disciplines as well, such as handicrafts and gymnastics.[24] Unlike some other educational planners of the period, Cygnaeus also wanted women to be able to study to become teachers; but their main duty was to be to teach the youngest children.[25]

Linguistic skills had their own value for the early seminary teachers and lecturers, because they made several study trips to Europe in order to adopt new pedagogical

19 FNA, AJS, Applications of female students 1863–1872; Wilkama (1938), 39, 119.

20 FNA, AJS, Applications of female students 1863–1872.

21 Hyyryläinen (2003); Setälä (1912), 95.

22 Setälä (1912), 21–22.

23 E.g. Hyyryläinen (2003).

24 Aimo Halila, *Jyväskylän seminaarin historia* (Porvoo: WSOY, 1963), 14, 102–4, 108–12; Veli Nurmi, *Uno Cygnaeus: Suomalainen koulumies ja kasvattaja* (Helsinki: Kouluhallitus, 1988), 76–77, 93–104.

25 Marja Jalava, "Kansanopetuksen suuri murros ja 1860-luvun väittely kansakoulusta," in *Valistus ja koulunpenkki: Kasvatus ja koulutus Suomessa 1860-luvulta 1960-luvulle*, ed. Anja Heikkinen and Pirkko Leino-Kaukiainen (Helsinki: Suomalaisen Kirjallisuuden Seura, 2011), 84; Ollila (1998), 43.

ideas and transform and utilize them in developing the work of the Jyväskylä Teachers Seminary.[26] Some of the elementary school teachers who graduated from the seminary continued their studies by travelling in Europe and familiarizing themselves with new ideas.[27] This is also one reason why a multilingual approach was necessary in improving the Finnish educational system.

The educationalist scholar, Veli Nurmi, studied the early history of the Jyväskylä Teachers Seminary and the development of the elementary education system in Finland, as well as the training of elementary school teachers, and his research forms a basis for later research.[28] Previously, in the 1940s, the social and cultural historian Aimo Halila studied the students of Jyväskylä seminary quantitatively and published the results of his comparison of student's social status, educational and linguistic background, and skills.[29] Halila conducted basic research on the students and his work covered several decades, but it seems that he did not systematically use all the original sources included in the seminary archives.

Halila's study of early elementary school teachers[30] was largely based on a commemorative register of 1937. Published in 1937,[31] this included remembrances from the seminary years as well as a register of teachers and students. However, Halila did not mention specifically what use he made of the lists of accepted applicants following the entrance exam, or of the personal files register of seminary students (both of which are in the seminary archives), if at all, alongside the published register. Halila also mentioned that the information in the published register was not complete, especially for the older generations of students.[32]

Some of the early female students of Jyväskylä Teachers Seminary have been studied in more detail and have been the subject of their own biographies, often more than one.[33] Among these women are the best-known national and public figures, such as the author, Minna Canth (1844–1897), the principal teacher, feminist and politician, Lucina Hagman (1853–1946), and the head teacher and educationalist, Ottilia Stenbäck (1848–1939). But the seminary students and seminary classes, as well as the first female students, have not been studied in detail, whether as a whole or systematically, either as female professionals in education or as women who had the possibility or necessity to pursue a career of their own. As a group they represent a new kind of female citizen,[34] members of society who achieved greater independence as public actors than was the norm for women in those days.

26 E.g. Halila (1963), 70.

27 J. M. Mikkola, Artturi Leinonen, and Sulo Rekola, eds., *Jyväskylän seminaari 1863–1937: Muistojulkaisu* (Helsinki: Valistus, 1937).

28 E.g. Veli Nurmi, *Suomen kansakouluopettajaseminaarien historia* (Helsinki: Opetusalan Ammattijärjestö OAJ, 1995); Nurmi (1998).

29 Aimo Halila, *Suomen vanhin kansakoulunopettajisto: Yhteiskuntahistoriallinen tutkielma* (Helsinki: Suomen kansakoulunopettajain liitto, 1949).

30 Halila (1949), 17.

31 Mikkola, Leinonen, and Rekola (1937).

32 Halila (1949), 17.

33 E.g. Maijala (2014); Ollila (1998); Tyyni Tuulio, *Ottilia Stenbäck ja hänen aatemaailmansa* (Porvoo: WSOY, 1950).

34 Ollila (1998), 138–39, 230. In other Nordic countries, see e.g. Marklund (2021a).

The history of Finnish home education and of governesses or private tutors is not very well known and has yet to be studied widely in a systematic way.[35] Many upper-class (often noble or wealthy) families had private teachers prior to the establishment of the public elementary and secondary school system, but other upper social groups as well, such as the junior clergy (e.g. curates), tried to provide their children with a private education, if possible.[36] Information on their work is scarce, sources are fragmented, and knowledge is based on unofficial family sources or other secondary sources, so the work of these tutors and governesses is not recorded systematically. This is a part of Finnish education history that calls for more comprehensive study, though there is some international research on this theme.[37]

Method and sources

To explore the female students' biographical sources, I have used the *collective biographical method*, which means studying a group of persons, their identities, and networks.[38] Taken as a group, the lives of the female teacher candidates yield a more thorough description of the path a nineteenth-century Finnish woman took to acquire her professional skills. The collective biographical method is also required in the analysis of teachers' group identities because it makes it possible to investigate these female teachers' ideas and linguistic biographies in relation to the different networks in their life and their professional development. I approach the multilingual identities of the female teacher trainees from the 1860s and 1870s mainly as a qualitative case, but I have also made some numerical calculations[39] about their backgrounds.

Collective biography is particularly valuable in the context of microhistory because it helps place everyday events and phenomena in a meaningful context while distinguishing between isolated occurrences and shared patterns.[40] By microhistory, I refer particularly to the Nordic approach to microhistory. Where Italian micro-historians have traditionally sought to clarify the histories of exceptional persons and their

35 See also Sofia Kotilainen, "Maaseutupappilat tyttöjä jatko-opintoihin valmistaneina kotikouluina," in *Kirkko, papisto ja yhteiskunta 1600–1800*, ed. Ella Viitaniemi (Helsinki: Suomalaisen Kirjallisuuden Seura, 2023), 90–123.

36 Timo Joutsivuo, "Papeiksi ja virkamiehiksi," in *Huoneentaulun maailma: Kasvatus ja koulutus Suomessa keskiajalta 1860-luvulle*, ed. Jussi Hanska and Kirsi Vainio-Korhonen (Helsinki: Suomalaisen Kirjallisuuden Seura, 2010), 180; Liisa Lagerstam and Jessica Parland-von Essen, "Aatelin kasvatus," in *Huoneentaulun maailma: Kasvatus ja koulutus Suomessa keskiajalta 1860-luvulle*, ed. Jussi Hanska and Kirsi Vainio-Korhonen (Helsinki: Suomalaisen Kirjallisuuden Seura, 2010), 209. Students of Jyväskylä Seminary, see FNA, AJS, the personal files register of female seminary students 1863–1872.

37 See e.g. Bayley (2014), 160–86; Christina de Bellaigue, "Home Education 1750–1900: Domestic Pedagogies in England and Wales in Historical Perspective," *Oxford Review of Education* 41, no. 4 (2015), 421–29; Nora Gilbert, "A Servitude of One's Own: Isolation, Authorship, and the Nineteenth-Century British Governess," *Nineteenth-Century Literature* 69, no. 4 (2015), 455–80; Kathryn Hughes, *The Victorian Governess* (London: Hambledon Press, 1993).

38 Barbara Caine, *Biography and History* (London: Red Globe Press, 2019 [2010]), 60–65; Katharine S. B. Keats-Rohan, ed., *Prosopography Approaches and Applications: A Handbook* (Oxford: University of Oxford, 2007).

39 I have counted the numbers of the students accepted at the Teachers Seminary, and some percentages of their cohort according to their age, father's occupation, social position, and basic education.

40 See Koenraad Verboven, Myriam Carlier and Jan Dumolyn, "A Short Manual to the Art of Prosopography," in *Prosopography Approaches and Applications: A Handbook*, ed. Katharine S. B. Keats-Rohan (Oxford: University of Oxford, 2007), 41.

worldviews,[41] Nordic researchers have used microhistory more to analyse the person as a representative member of their local community. A small group of people can also provide a micro-historical example of phenomena which would otherwise be difficult to observe. The multiple sources which have been preserved of so-called ordinary Nordic people have made this possible.[42] Collective biography and microhistory have a common interest in that the objective of microhistory is to provide insights into social structures and processes that shape everyday life.

A micro-historical approach enables a more profound analysis of a previously little-studied theme. Generally, there has been little research on the experiences, as a group, of young Finnish lower-class women from the countryside who sought teaching careers and a professional identity of their own in the mid- to late nineteenth century. The choice of a collective biographical approach also involves the question of whose story *deserves* to be told using a historiographical methodology. Given that the Teachers Seminary in Jyväskylä was the first and only Finnish-speaking seminary at that time, studying Isa Asp and her classmates as a micro-historical example can train a shaft of light on the early foundations of female teacher training in Finland.

The benefit of the collective biographical method is the space it gives for analysis: the whole group describes the women of the age in a more multifaceted and reliable way than any one life story. Even though Isa Asp is the main character of my research, I want to shed light on a larger group of female students, including her lesser-known fellow students. Asp died young, before she graduated, and the sources describing her life have been insufficiently preserved. If information on the whole life of one woman is lacking and the sources are fragmented (as they often are), the first group of seminary students can describe more thoroughly the life of a young female teacher in those days. I want to take the research to a more general and theoretical level beyond that of a single biography, because as a group these students represent the birth and early history of the whole elementary school teacher training system in Finland – and what it meant to women.

Fluent literacy skills formed important cultural capital that a person could utilize – for example, by graduating as an elementary school teacher. As a theoretical framework in my analysis, I use Pierre Bourdieu's concept of immaterial capital, and more specifically of social and cultural capital.[43] This concept includes, for example, linguistic capital and literacy skills, which can also indirectly create social and cultural capital. According to Bourdieu, it is possible to gain access to new possibilities and opportunities in society through active utilizing of one's cultural capital, that is, immaterial personal capital.[44] I am interested in the ways female teacher candidates utilized the cultural immaterial capital they possessed in the exceptional situation in which they

41 Carlo Ginzburg, *Juusto ja madot: 1500-luvun myllärin maailmankuva* [The cheese and the worms] (Helsinki: Gaudeamus, 2007 [1976]. However, e.g. Giovanni Levi, *Aineeton perintö: Manaajapappi ja talonpoikaisyhteisö 1600-luvun Italiassa* (Helsinki: Tutkijaliitto, 1992) shows the importance of communal relations and family and kin networks to an individual.

42 E.g. Sigurður Gylfi Magnússon, *Emotional Experience and Microhistory*: *A Life Story of a Destitute Pauper Poet in the 19th Century* (London: Routledge, 2020), 28.

43 In his theory Bourdieu divides capital between economic (which is often material), social, and cultural capital.

44 Pierre Bourdieu, "The Forms of Capital," in *Handbook of Theory and Research for the Sociology of Education*, ed. J. G. Richardson (Westport, CT: Greenwood Press, 1986 [1983]), 243–45.

could obtain qualifications to be a teacher. Women had also worked in earlier periods as, for example, private teachers and school mistresses, but had lacked any official position as a part of society or in public schoolhouses.

Bourdieu's theory can be extended to studying historical communities. It can help us to determine the immaterial cultural capital these women had previously acquired (linguistic, social networks, education), which they could now utilize as they studied to be professional teachers in the Jyväskylä seminary. Bourdieu's theory combines these different viewpoints, which were essential in early formal teacher training. Students of the seminary formed tight and durable networks of future colleagues who could support each other later on. They became linked to one another through their shared profession (a form of social capital), which gave them an identity of their own and, to varying extents, institutionalized relationships of mutual acquaintance (i.e. cultural capital).[45] Elementary school teachers were expected not only to have the academic qualification, but also "a certificate of cultural competence"[46]; and all the former students of the Jyväskylä seminary shared these values and identities at the end of the nineteenth century.[47] For most of the female students, the language shift from Swedish to Finnish also strengthened both their national identity and their ability to communicate with the ordinary people of the countryside.

As my main sources, I have used the archives of the Jyväskylä Teachers Seminary. The most important sources are the lists of applicants, as well as applications to the seminary from its first ten years of training women as teachers.[48] Furthermore, the personal files register of seminary students is an important source because it shows who the applicants were and who was accepted after the entrance examinations held in August. Students and teachers started the new semester in September, but all accepted candidates did not begin their studies in the same autumn – or ever.[49] Therefore, it is important to compare the different lists to confirm who of the accepted students were actually studying in the seminary.

A significant proportion of the women left the seminary in their second, third, or fourth year, before graduating. Their reasons for leaving included poverty, sickness, or marriage, but it was possible that women who had not graduated from the seminary still worked the rest of their life as elementary school teachers, even though they lacked the formal qualifications and diploma.[50] As elementary schools became established everywhere in the countryside, the need for capable teachers in the early years exceeded the number with a formal qualification.

I have compared the numbers of students in Isa Asp's class, of the women who applied to the seminary, and of those who started their studies in 1871. I have also used the published register from 1937. However, not all students are mentioned in the

45 Bourdieu (1986), 247–49.

46 Bourdieu (1986), 248.

47 See also Sofia Kotilainen, "Seminaarin mallikoulun idea ja suomenkielisen opetusharjoittelukoulun synty," in Janne Haikari and Sofia Kotilainen, *Opettajuuden mallia*: *Jyväskylän Normaalikoulun historia 1864–2015* (Jyväskylä: Jyväskylän normaalikoulu, Jyväskylän yliopisto, 2016), 90.

48 FNA, AJS, Applications of female students; Lists of applicants of entrance exam.

49 FNA, AJS, the personal files register of female seminary students 1863–1872; Mikkola, Leinonen, and Rekola (1937).

50 FNA, AJS, the personal files register of female seminary students 1863–1872.

published register.[51] This is why it is necessary to combine the original sources with the printed register, as is done in this article. These sources complement each other and give a more precise understanding of who the first students were.

Women's education in Finland before the 1860s

Before the nineteenth century, most Finnish women were left outside public education.[52] In Finland, the nature and extent of education had for centuries depended on a family's social position.[53] Many practices were similar to those in Sweden, such as private tutoring in upper-class families,[54] and Swedish culture and language held an important position in the society still in the latter half of the nineteenth century. The Swedish language had been the language of administration, justice, and higher education,[55] and it was until the mid-nineteenth century mainly used in local administration, including in the Finnish-speaking parishes, and still for some decades afterwards alongside the Finnish language.[56]

The nobility and upper class had used Swedish, the language of mother country and central administration, in everyday life since the seventeenth century. This had created not only geographical language barriers in society, but also "social language barriers." Many members of this class were also fluent in Finnish, but Swedish carried greater social prestige and a higher cultural status in society. Swedish was also spoken by Swedish-speaking Finns from lower social groups, especially in the coastal areas of Finland.[57]

Since the Reformation, the Evangelical Lutheran church had taught the basics of Christian doctrine in Finnish. The clergymen and civil servants in Finnish-speaking areas therefore required competence in Finnish language in their everyday work.[58] There were not many local schools for Finnish-speaking agrarian children before 1860s, except for the teaching of elementary reading skills, which was controlled by the church in the rural parishes as a means of imparting basic Christian teachings to the people. The peasant families were supposed to take care of the elementary instruction of their children; in cases where this was not possible, the junior clergy or cantors might help with the rudiments, and local skilled people held Sunday schools for children.[59]

51 Mikkola, Leinonen, and Rekola (1937).

52 Wilkama (1938), 17–22, 37–39.

53 Joutsivuo (2010), 179.

54 Lagerstam and Parland-von Essen (2010), 185, 190. See also Marjatta Rahikainen, "Shaping Middle-Class and Upper-Class Girls: Women as Teachers of Daughters of Good Families in the Baltic Sea World, c. 1780–1850," in *Early Professional Women in Northern Europe, 1650–1850*, ed. Johanna Ilmakunnas, Marjatta Rahikainen, and Kirsi Vainio-Korhonen (London: Routledge, 2018), 247.

55 Anna-Riitta Lindgren, Klaus Lindgren, and Mirja Saari, "From Swedish to Finnish in the 19th Century: A Historical Case of Emancipatory Language Shift," *International Journal of the Sociology of Language* 209 (2011), 19.

56 Matti Klinge, "Poliittisen ja kulttuurisen Suomen muodostaminen," in *Suomen kulttuurihistoria II*, ed. Päiviö Tommila, Aimo Reitala, and Veikko Kallio (Porvoo – Helsinki – Juva: WSOY, 1980), 23.

57 Lindgren, Lindgren, and Saari (2011), 18–19.

58 Klinge (1980), 23.

59 Esko M. Laine and Tuija Laine, "Kirkollinen kansanopetus," in *Huoneentaulun maailma: Kasvatus ja koulutus Suomessa keskiajalta 1860-luvulle*, ed. Jussi Hanska and Kirsi Vainio-Korhonen (Helsinki: Suomalaisen Kirjallisuuden Seura, 2010), 260–66, 277–79.

During the nineteenth century, nationalist Finnish ideas flourished, and Finnish as a language gained more esteem.[60] The Fennoman nationalist movement aspired to elevate the Finnish language and culture from peasant status to a national language and culture. At the same time, there were many among the church and statesmen, educators, social and state philosophers, and many authorities who for nationalistic reasons wanted to discuss and renew the traditional schooling system, to detach it from the church's religious duties, and to provide public elementary education for the whole population.[61] In the first decades of the nineteenth century, wealthy Finnish clergy, merchant, burgher, and civil servant families often sent their daughters to be educated in private pension(ate) and private boarding schools – often to Sweden, the former mother country, and, during the period of autonomy after 1809, also to St Petersburg, where there were more of these schools. There were a few, rare, boarding schools also in Finland.[62] Little by little, the education of girls moved away from the home and became institutionalized. In the private boarding schools, the purpose of teaching was not to provide girls with a well-rounded general education or train them to be public servants but to impart the social skills needed in high society: namely, foreign languages, discussion skills, needlework, and musical proficiency.[63]

The question of women's education was being publicly debated by the 1840s and 1850s, especially among the upper class and in the universities,[64] intensified by the Fennomanian ideology, which urged that the whole of the population should be educated, a goal that was conditional on improving the position of Finnish as the language of schooling.[65] Educating women was one of the most important controversial issues in Finnish public discussion. It was only in the following decade, however, that new schools and the Jyväskylä seminary were established with reformed legislation.[66] There were many such reforms[67] in Finnish society after Russia's defeat in the Crimean war of 1853–1856.[68] After the reforms of the 1860s, teacher training gradually became professionalized, as teacher seminaries offered equal pedagogical education to women as well as men.[69]

In the 1840s, critics of the private schools and of education for girls had advocated

60 Häkkinen (2002), 55–56; Ilkka Liikanen, *Fennomania ja kansa: Joukkojärjestäytymisen läpimurto ja Suomalaisen puolueen synty* (Helsinki: Suomen Historiallinen Seura, 1995), 97–99.

61 Jalava (2011), 75; Soili Tiimonen, *Valoa kansalle: Luterilainen kirkko ja kansanopetuksen kehittämispyrkimykset autonomisessa Suomessa 1809–1848* (Helsinki: Suomen kirkkohistoriallinen seura, 2001), 381–90.

62 Jessica Parland-von Essen, *Behagets betydelser: Döttrarnas edukation i det sena 1700-talets adelskultur* (Helsingfors: Helsingfors universitet, 2005), 70–71; Rahikainen (2018), 252–53.

63 Wilkama (1938), 2–6.

64 Tiimonen (2001), 214; Wilkama (1938), 64–67.

65 Arvo Inkilä, *Kansanvalistusseura Suomen vapaassa kansansivistystyössä 1874–1959* (Helsinki: Otava, 1960), 18–27; Liikanen (1995), 99–101.

66 Jalava (2011), 91–93.

67 After the loss in the Crimean War, Czar Alexander II carried out major social reforms to modernize and industrialize Russia. In Finland, several reforms created the foundation for the state's future independence. The Diet of Finland could assemble regularly, Finnish became the official language, elementary schools were established, local municipal administrations were developed, and Finland got its own currency, the mark.

68 Liikanen (1995), 121.

69 Halila (1963), 13.

the teaching of practical and general subjects rather than educating girls in the social skills of high society. Many argued that girls should be equipped to follow what was considered to be their natural calling, as mothers of the family and keepers of the household.[70] The statute of national education issued by Catharine the Great in 1786 had instituted an school system that provided for public education for girls in the territory of Old Finland,[71] but other areas of Finland, which had been part of the Swedish kingdom until 1809, lacked a similar school system. However, the school legislation of 1786 influenced autonomous Finland's own school act in 1843,[72] and public education for women ultimately became widely accepted. In the largest towns of Finland, private girls' schools were established. The first private Swedish girls' school opened in Helsinki in 1835, and in 1843, the provision of public school for girls written into Finland's own act on schooling had the effect that in the following year public Swedish schools for girls were established for the first time in Helsinki and Turku. These schools, however, still had quite traditional curriculums, and did not prepare students for careers in the civil service or other similar roles, but to be mothers and housekeepers of their own home.[73]

Thus, women in Finland were only able to enter higher education and, in this way, increase their immaterial capital in the last decades of the century. The first women completed their matriculation examination from upper secondary school from the 1870s. Prior to 1901, they had to apply for dispensation to gain the right to study at the University of Helsinki.[74] Women's university studies became more common only in the twentieth century.[75]

The first female students of the Teachers Seminary

The Finnish society was intensively modernised after the defeat of Russia in the Crimean War. Partly in response to the increasing significance of the Finnish language to the nation, in 1863 the first Finnish-language teacher training college for men and women, the Jyväskylä Teachers Seminary, was established in central Finland to meet the demand for qualified teachers.[76] In the following year, the first Finnish-language upper secondary school for girls was opened in Jyväskylä. Many of the founders of this private girls' school were lecturers and teachers from the seminary or from the Jyväskylä Lyceum (originally Jyväskylän yläalkeiskoulu, the first Finnish-language

70 Tiimonen (2001), 214; Wilkama (1938), 64–67.

71 The areas in south-east Finland that Russia gained from Sweden in the Great Northern War (1700–1721) and in the Russo-Swedish War (1741–1743). Old Finland was joined to the autonomous Grand Duchy of Finland as Viipuri (Vyborg) Province in 1812.

72 Wilkama (1938), 342.

73 Wilkama (1938), 21, 37–41.

74 The University of Helsinki, the Imperial Alexander University in Finland (1828–1919), founded in the city of Turku (in Swedish *Åbo*) in 1640 as the Royal Academy of Åbo, at that time part of the Swedish empire, was the only university in Finland as late as 1901.

75 Mervi Kaarninen, "Maisteri Emma Irene Åström: Legenda jo eläessään," in *Naisten aika: Valkoinen varis ja muita oppineita naisia*, ed. Riitta Mäkinen and Marja Engman (Helsinki: Gaudeamus, 2015), 45–49; Matti Klinge, *Helsingin yliopiston ylioppilaskunnan historia kolmas osa 1872–1917* (Helsinki: WSOY, 1968), 143–45; Nieminen (2022a), 5.

76 Inkilä (1960), 11; Jalava (2011), 75; Kotilainen (2016), 25–26; Nurmi (1995), 15. The University of Jyväskylä has continued the legacy of the Teachers Seminary into modern times with its teacher training programmes.

upper secondary school for boys, established in 1858)[77] who wanted to provide for girls (and also their own daughters) the opportunity to study in Finnish.[78]

During the 1860s, Jyväskylä became a significant town for education in the interior of Finland, including for women, as several Finnish-language schools were founded there. With the Elementary Education Act of 1866, which ordered towns to establish elementary schools for all children[79], the whole Finnish educational system was renewed (as had happened in several Western and Nordic countries already in the first decades of the century).[80] At first, the establishment of elementary schools in the rural parishes was voluntary, so that many remote and poor areas were left without schools until the end of the century;[81] but the 1866 Act resulted in an increased demand for the new elementary schools and for teachers for Finnish-speaking children.

New teachers were needed to educate the Finnish-speaking masses who had previously been left outside the school system. Fennomen saw that rural young people had important immaterial linguistic capital, that is, fluent Finnish language skills, which many upper-class children and young people still lacked at this time. In families of upper social groups, the home language was still Swedish, until it became fashionable and ideologically necessary to switch to Finnish during the last decades of the century.[82] The significance of the Finnish language (the native tongue of the vast majority of the population) was truly realized in the latter half of the nineteenth century, when nationalist ideas and movements began to emphasize the importance of the people and its distinctive and original culture. It was also a way to maintain a national identity and show that the Finns had historical roots and a right to their existence within the Russian empire.[83]

Rural literacy had traditionally been a communally shared skill. Some in local communities had specialized in reading and writing on behalf of others when the skills were still rare (especially writing skills, until the latter half of the nineteenth century), or where people were semi-literate.[84] This was partly due to the subordinate position of Finnish for administrative purposes. However, the Evangelical Lutheran church had for centuries translated sermons and the central tenets of Christianity, as well as important announcements, into Finnish for the Finnish-speaking people.[85]

77 Halila (1963), 25.

78 Tyyne Wahlman, "Jyväskylän tyttökoulun ja tyttölyseon vaiheet 1864–1964," in *Jyväskylän tyttökoulu ja tyttölyseo 1864–1964*, ed. Tyyne Wahlman, Hilja Wesala, and Alma Tenhunen (Jyväskylä: Jyväskylän tyttölyseon entisten oppilaiden yhdistys, 1964), 14–15, 41.

79 Elementary School Decree 12/11/5/1866.

80 Nurmi (1995), 15; Johannes Westberg, *Att bygga ett skolväsende: Folkskolans förutsättningar och framväxt 1840–1900* (Lund: Nordic Academic Press, 2014), 21; Johannes Westberg, Lukas Boser, and Ingrid Brühwiler, eds., *School Acts and the Rise of Mass Schooling*: *Education Policy in the Long Nineteenth Century* (Cham: Palgrave Macmillan, 2019).

81 Elementary School Decree 12/11/5/1866; Kotilainen (2016), 26–27; Nurmi (1995), 75.

82 Lindgren, Lindgren, and Saari (2011).

83 Liikanen (1995), 147–59.

84 Sofia Kotilainen, "Yhteisöllisesti jaettu luku-ja kirjoitustaito: Kollektiivibiografisesta menetelmästä luku-ja kirjoitustaidon historian tutkimuksessa," in *Kulttuurihistorian tutkimus: Lähteistä menetelmiin ja tulkintaan*, ed. Rami Mähkä et al., 85–102 (Turku: Turun yliopisto, 2022); Arja Rantanen, *Pennförare i periferin*: *Österbottniska sockenskrivare 1721–1868* (Åbo: Åbo Akademi, 2014).

85 Laine and Laine (2010), 259–63, 296.

The ability to read and write and a school education increasingly provided a possible route to social mobility for young people in rural areas in the modernizing Finnish society,[86] but at the turn of the 1860s and 1870s, this was still a route primarily available to men, as women could not very often educate themselves or work in public professions at that time. The occupations of nurse or elementary school teacher were the first of these professions to be considered "appropriate" careers for women of middle or upper social groups.[87] The Jyväskylä Teachers Seminary was the first institute in Finland intended for Finnish-speaking teacher training – including for female students.[88]

The professionalization of elementary school teachers in Finland required many skills and the acquisition of a large amount of knowledge. The early students at the seminary had a heavy workload during the semesters. Duties and the study load were fairly equal for men and women, and in addition to attending class, they also had to work in the seminary garden.[89] Uno Cygnaeus, in common with other organizers of the early teaching seminary and other important educationalists of the nineteenth century, believed that gardening was healthy and pedagogically useful. These thinkers believed that work-oriented education should be integrated with the wider society, and that graduate teachers could provide a good example for the locals in their community and for their school children by spreading information about the new garden plants. Through working in the school gardens, pupils at school would also learn more about natural sciences and practical agricultural skills.[90]

The seminary presented an excellent opportunity for diligent Finnish-speaking rural women eager to learn to improve their social position.[91] In the early years, however, there were relatively few students from lower social groups, such as the working population or peasantry; throughout the 1860s and 1870s, most of the female students came from the families of civil servants or the clergy, although many of these families were in fact poor and a teacher's work was a necessity to earn a living, rather than necessarily a vocational

86 Kirsi Keravuori, "Self-Taught Writers, Family Correspondence, and Social Mobility in the 19th-Century Finnish Archipelago," *Scandinavian Journal of History* 44, no. 3 (2018), 318; Kotilainen (2016), 306; Kotilainen (2022).

87 Mineke van Essen, "Strategies of Women Teachers 1860–1920: Feminization in Dutch Elementary and Secondary Schools from a Comparative Perspective," *History of Education* 28, no. 4 (1999), 417; Narciso de Gabriel, "The Entrance of Women into the Teaching Profession in Spain (1855–1940)," *History of Education* 43, no. 3 (2014), 340; Heggie (2015), 268–69; Jukka Rantala, "Kansakoulunopettajat," in *Valistus ja koulunpenkki: Kasvatus ja koulutus Suomessa 1860-luvulta 1960-luvulle*, ed. Anja Heikkinen and Pirkko Leino-Kaukiainen (Helsinki: Suomalaisen Kirjallisuuden Seura, 2011), 268.

88 Halila (1963), 31.

89 Halila (1963), 16, 19–20, 42–43; J. M. Mikkola, "Seminaarin vaiheita," in *Jyväskylän seminaari 1863–1937: Muistojulkaisu*, ed. J. M. Mikkola, Artturi Leinonen, and Sulo Rekola (Helsinki: Valistus, 1937), 33–34.

90 Halila (1963), 11; Nurmi (1995), 31. For a comparison with international educational aims of school gardens, see e.g. Kate Gardner Burt, "A Complete History of the Social, Health, and Political Context of the School Gardening Movement in the United States: 1840–2014," *Journal of Hunger & Environmental Nutrition* 11, no. 3 (2016); Sally Gregory Kohlstedt, "'A better crop of boys and girls': The school gardening movement, 1890–1920," *History of Education Quarterly* 48, no. 1 (2008). For the Nordic countries see Petter Åkerblom, "Footprints of School Gardens in Sweden," *Garden History* 32 (2004); Christian Larsen, "The Pedagogical School Garden and the Educationalization of Social Problems in Denmark," *Studies in the History of Gardens & Designed Landscapes* 43, no. 1 (2023).

91 On the strategies used by female teachers to improve their position within the educational system, see van Essen (1999).

calling.[92] The first director of the seminary, the pastor Uno Cygnaeus, was pleased to see daughters of upper-class families becoming new elementary school teachers. He felt that this kind of popular educational duty would bring the educated groups and the people closer to each other.[93] Popular education was one of the most important ways to make people conscious of their culture, roots and identity – which is why the position of the Finnish language was also improved to create a stronger national identity.[94]

With the establishment of the Finnish-speaking Teachers Seminary, agrarian Finnish-speaking women were able to achieve a profession of their own and an independent position in society by utilizing their immaterial and linguistic capital to study for the teacher examination and then by working as teachers.

Social motherhood and the teacher's profession

Since 1859, Finnish women had already been allowed to pursue a trade or a profession in order to maintain themselves. In 1864, women gained new legal rights which made them more equal with men. Unmarried women were freed from the guardianship of their fathers or other male relatives in the name of equality and universal human rights, and from the age of twenty-five they were legally recognized as adults, thereby gaining full control over their property and income from that age. Married women, however, remained under the guardianship of their husband until 1930, when the Marriage Act was renewed.[95]

Thus, from the 1870s on, educated Finnish women were gaining new rights to work in public occupations as elementary school teachers or as civil servants in the role of, for example, postmistresses.[96] For other women belonging to the upper, middle and lower classes, there were opportunities to participate in voluntary organizations, temperance associations, youth associations, as well as in national, cultural and even political societies. These became the arenas of emancipation and for gathering experience of working in society outside the home for those who did not have public posts or for married women.[97] Finnish women eventually received the right to vote and the right to run for elected office in the parliamentary elections of 1906.[98]

Historically, upper-class families had educated their daughters at home or in private girls' schools so they would learn the skills they needed for marriage and in high society. Sometimes unmarried women ended up as teachers;[99] but formal elementary school teacher training only began with the Jyväskylä Teachers' Seminary. Only after the Finnish national awakening and the development of popular education did members of all social strata increasingly want to participate in elementary schools by the first decades of the twentieth century.[100] The upper classes also wanted to provide their

92 FNA, AJS, Applications of female students 1863–1872.

93 Nieminen (2022b), 142; Ollila (1998), 44.

94 Liikanen (1995), 160–62.

95 Anu Pylkkänen, *Trapped in Equality: Women as Legal Persons in the Modernisation of Finnish Law* (Helsinki: Finnish Literature Society, 2009), 42–43, 97.

96 Ollila (1998), 43. See also Nieminen (2022a), 3.

97 Sulkunen (1987), 162.

98 Sulkunen (2009); Tuulio (1950), 280.

99 Joutsivuo (2010), 183.

100 Jalava (2011), 94.

daughters (whose mother tongue up to that point had mainly been Swedish) with a general education and knowledge of Finnish language and culture, because educating them (and learning Finnish) also meant building the future of the nation.[101] Studying in Jyväskylä served this purpose well.

In this period, motherhood and taking care of the family and the home in the private sphere were still socially accepted as the most important goal for women.[102] From the end of the century, the idea of "social motherhood" arose, according to which mothers' roles as educators and caregivers were not limited to the home. Upper- and middle-class women in particular could now extend their care to the whole of society through the idea of social motherhood, usually to its lower and underprivileged strata.[103] They were to care for their immediate community, children and the disadvantaged in the lower social groups, and they were to educate them on how to care for the home and raise children. Every woman was considered to be motherly by nature; women without families could also participate in helping and educating the less fortunate and the poor through social motherhood, even if they did not have children of their own. In this case, motherhood was the justification for the social activities of women. From the late nineteenth century on and up to the first world war, social motherhood was driven especially by women from women's organizations and the temperance movement.[104]

For many unmarried girls from families of upper social classes, training as a teacher was not only a livelihood, but a way to fulfil their calling for (social) motherhood.[105] Being a teacher was seen as a continuation of the natural calling of women to be mothers, now expanded from the domestic sphere to society as a whole, and teaching in a public school was a part of social motherhood.[106] This idea of the teacher's social vocation was also reflected in the studies at the Jyväskylä seminar.

Basic education of the female seminary students

Like Isa Asp, many young men and women travelled hundreds of kilometres from home to study in Jyväskylä for four years and become elementary school teachers. The Jyväskylä Teachers Seminary also offered young persons from the Finnish-speaking countryside a route to social mobility and study for a profession since they could receive instruction there in their own mother tongue.[107]

The Jyväskylä Teachers Seminary was a "twin seminary," with separate departments for men and women. Male and female students met only rarely, and then only on well-supervised occasions.[108] In the first years, the students were, according to the

101 Halila (1963), 13; Jalava (2011), 82; Ollila (1998), 49.

102 van Essen (1999), 416.

103 Irma Sulkunen, "Naisten järjestäytyminen ja kaksijakoinen kansalaisuus," in *Kansa liikkeessä*, ed. Risto Alapuro et al. (Helsinki: Kirjayhtymä, 1987), 165–67.

104 Sulkunen 1987, 164–65.

105 Ollila (1998), 43.

106 van Essen (1999), 417–18; Wilkama (1938), 106–7.

107 Halila (1949), 22–23. On the socio-economic background and educational capital of primary school teachers, see also Emil Marklund, "Who was Going to Become a Teacher? The Socio-Economic Background of Primary School Teachers in Northern Sweden 1870–1950," *History of Education* 50, no. 1 (2021b).

108 Halila (1963), 19, 163.

historian Aimo Halila, strictly divided based on their gender and social background: with a few exceptions, the women were from upper social groups, and the men were from peasant families from the countryside.[109] Halila studied the social background of the early students at the Jyväskylä and Sortavala[110] teacher seminaries as a whole from 1863 to 1898, and he did not always separate male and female students in his examination of the results.[111] It is therefore important to note that his results are not completely accurate for the Jyväskylä students and do not provide a basis for comparison. More detailed research into the sources is needed.

The majority of female students accepted at the Jyväskylä seminary in its first year of operation came from upper class families rather than from agrarian homes. Most of these women, ranging in age from 18 to 31 years when they started their studies in autumn 1863, had previously studied in girls' schools.[112] In Asp's class eight years later, by contrast, the students' age ranged from 18 to 26 years.[113] These students had often graduated from girls' schools.

Table 1. The social position of early students of Jyväskylä Teachers Seminary, 1863–1872

Father's occupation or social position	**%**
Civil servants	24
(Lower) clergy	20
Land-owning peasant families	11
Workers	10
Merchants and manufacturers	7
Handicraftsmen	7
Cantors	5
Teachers	3
Others	13
TOTAL	100

Source: FNA, AJS, the personal files register of female seminary students 1863–1872; Mikkola, Leinonen, and Rekola (1937).

109 Halila (1949), 31; Halila (1963), 32, 124.

110 Sortavala Teachers Seminary was the second Finnish-language teacher training college in Finland. It was situated between 1880 and 1944 in Karelia, on the northern coast of Lake Ladoga (near the present Finnish border with Russia). After the second world war, teacher training at Sortavala Seminary was continued in the town of Joensuu, nowadays at the University of Eastern Finland. Sortavala Seminary was a twin seminary. There were also two Swedish-language seminars in Ekenäs (Tammisaari 1871, for women) and Nykarleby (Uusikaarlepyy 1873, for men).

111 Halila (1949).

112 FNA, AJS, the personal files register of female seminary students 1863–1872; Mikkola et al. (1937). For some reason, Halila (1963, 29) has mentioned that the ages were ranging from 19 to 32.

113 FNA, AJS, Lists of applicants of entrance exam 1871; Mikkola, Leinonen, and Rekola (1937).

From 1863 to 1872, a total of 213 female students were accepted as students at the seminary and started their studies in the same autumn. Of these, as shown in Table 1, a little over 20 per cent were daughters of the (lower) clergy, and 24 per cent of civil servants (rural police chiefs, land surveyors, district registrars, judges). Some 11 per cent came from land-owning peasant families, while 7 per cent were the daughters of merchants and manufacturers, 7 per cent of handicraftsmen, and approximately 10 per cent of workers. While fewer than 5 per cent were daughters of cantors, overall, more than 30 per cent – almost one-third of all the female students – were daughters of fathers who worked in the Evangelical Lutheran church parishes (clergy, ministers, pastors, cantors, sextons, gravediggers). Furthermore, nearly 3 per cent were the daughters of teachers (see Table 1). Popular education had traditionally been one of the major tasks of the church, and in the families of the clergy and of teachers, educating the people was seen as a suitable future occupation for their daughters, too.

Because the backgrounds were so varied, the basic education of the first students was often very different, and the immaterial capital of the future teachers was therefore heterogeneous. The agrarian men in particular had little earlier formal education, whereas the women had frequently studied in Swedish-language upper secondary schools[114] after receiving their elementary education either in elementary schools or at home or under the guidance of a private teacher.[115] Halila has shown, that of the students starting their studies at the seminary in the period between 1863 and 1898, a minority, about 32 per cent, had attended elementary school and had then also studied in other schools or institutes; most, around 73 per cent, came from rural parishes. Townspeople were in the minority.[116] However, in the first years there were not yet so many elementary schools in Finland, and many of the students who applied to the seminary did not have especially high education or very much formal basic education.

In Asp's year-group, 31 of the girls invited to take the entrance examination to the seminary in Jyväskylä in August 1871 were accepted as new students.[117] Approximately half of these girls had received their basic education in some public or private school outside the home,[118] while more than a third, 37.5 per cent, had prepared for their seminary studies by private study or studying at home. Fewer than a third had, like Lucina Hagman, the daughter of a regional police official (*nimismies*) from the parish of Kälviä, been at a girls' school in the largest towns (Hagman studied in Vaasa (Vasa) Swedish girls' school). Furthermore, two of the girls had elementary school as their basic education.[119] In the first years of the seminary, from 1863 to 1872, approximately 44 per cent of the Jyväskylä seminary female students had studied in girls' school before their admission to the seminary. Thirty-four per cent of them were the daughters of civil servants, 19.1 per cent were clergy's daughters, 10.1 per cent merchants' and 8.5 per cent land-owning peasants' daughters.[120] The daughters of clergy and teachers in

114 Halila (1949), 71.

115 FNA, AJS, Lists of applicants of entrance exam 1871; Mikkola, Leinonen, and Rekola (1937).

116 Halila (1963), 128–29.

117 FNA, AJS, Lists of applicants of entrance exam 1871.

118 FNA, AJS, Lists of applicants of entrance exam 1871.

119 FNA, AJS, Lists of applicants of entrance exam 1871; Mikkola, Leinonen, and Rekola (1937).

120 FNA, AJS, Lists of applicants of entrance exam 1871; Mikkola, Leinonen, and Rekola (1937).

particular had received significant cultural and educational capital from home before arriving at the seminary, as these fathers frequently taught their children[121] as well as students and parishioners.

According to the register published in 1937, the basic education of one-quarter of the girls in Asp's class was unknown, or details are completely missing from the register.[122] Comparison of the printed register with the original lists of applicants shows that the commemorative publication of 1937, compiled several decades later, fails to include comprehensive information about all the students accepted in the entrance examinations and studying at the seminary, compared with the original archive sources.[123] For this reason, Halila's 1940s study does not include all the data on the early students, and his results are therefore less detailed than an analysis based on the original lists but supplemented by data from the register. Furthermore, the differentiation and differing backgrounds in the applicants' knowledge base demonstrates that there was a transitional phase going on in the education of girls from home education to public schooling, which became more common at the end of the century. This change cannot be observed as distinctly when looking at the whole period of more than thirty years 1863–1898.

The seminary archives and the entrance examination lists show that ten of the students accepted in autumn 1871, almost one-third, were daughters of the clergy. About 60 per cent of all the new female students who had been taught privately were from the families of clergy or cantors.[124] Asp, too, had received private teaching in the vicarage where she was taught by her friend's home tutor, Edla Niska; her best friend Sally was the daughter of the vicar of Puolanka, Johan Fredrik Thauvón.[125] Furthermore, Asp herself had studied at a girls' school but had not graduated. Other girls who had also not graduated from their previous schools may not have been documented clearly enough in the commemorative register of 1937, or in the entrance examination documents, and therefore may not have been registered as thoroughly as in the original personal files register of female seminary students.

Several rural students (especially men) were from impoverished families and were studying on credit. Some of them had only a few marks and some food with them when they arrived at Jyväskylä.[126] Most of the new female students in autumn 1871 were from a higher social status than Asp's own family. She was an exceptional student, because she had received private teaching with the help of networks outside her home. Asp was successful because of her skills in the entrance exam and got the second-best points after Lucina Hagman, who had graduated from a girls' school.[127]

Soon after the great famine of 1866–1868,[128] most of the female students accepted

121 See also Marklund (2021b), 46.

122 Mikkola, Leinonen, and Rekola (1937).

123 FNA, AJS, Applications of female students; Lists of applicants of entrance exam.

124 FNA, AJS, Lists of applicants of entrance exam 1871.

125 Setälä (1912), 62–66. See also Kotilainen (2019), 33.

126 Halila (1949), 31.

127 FNA, AJS, Lists of applicants of entrance exam 1871.

128 There had been years of severe famine in Finland in 1857, 1862 and 1865. The famine of 1866–1868 was the last famine in Finland, known as "the great hunger years," and the last major famine in Northern Europe (along with the subsequent Swedish famine of 1867–1869). About 10% of the entire population of Finland died of hunger. For further information, see e.g. Henrik Mikael Forsberg, "'If They do not Want to Work and Suffer, They Must Starve and Die.' Irish and Finnish famine historiography compared," *Scandinavian Journal of History* 43, no. 4 (2018).

by the seminary in 1871 were no longer from the upper classes of Finnish society. Many of these successful applicants seem to have come to the seminary to find a more secure economic future by studying for a profession of their own and then supporting themselves by work as elementary school teachers. Most of Asp's classmates had been born in the early 1850s (75 per cent), and for almost half of these (47 per cent) their provider was given as "impoverished" or "very poor." Of these poorer students, only 53 per cent of these poorer students were, however, accepted as resident students in the first seminary year.[129] It seems that many of the girls with a higher social status than working women usually had – that is, those who were daughters of pastors and civil servants – simply had to start working as elementary school teachers to secure their future economically, both for lack of money and to support their families should their fathers die.[130] Another reason could have been the desire for an independent life without having a husband to decide what one should do or not do.[131]

Multilingualism at the Jyväskylä Seminary

An elementary school teacher was required to know both Finnish and Swedish. Both were taught at the seminary, but the language of schooling was Finnish, and it seems that the Finnish language gave the female teacher candidates more trouble.[132] Nearly half (over 40 per cent) of the girls who began their studies in 1863–1872 had previously attended a Swedish-language girls' school[133] (most of the girls' schools were Swedish-language), so their skills in Finnish probably needed strengthening during their seminary years. In her letters to her friend Sally Thauvón, Asp describes how the female students of the seminary had together decided to support the use of Finnish after enthusiastic encouragement by their teacher. From that moment, they stopped speaking Swedish among themselves.[134]

Many of the young women who came to Jyväskylä from Swedish-speaking families had to learn Finnish grammar from the basics (whereas male students were often Finnish-speaking peasants).[135] In 1866, once four years of classes were enrolled, Finnish was studied for six hours per week in years one and two, five in year three, and two in year four. Swedish, by contrast, was studied for two hours per week in all years in both men's and women's departments, with the exception of men in the first year at the beginning of the 1870s, who were taught Swedish for three hours per week. In year four, neither women nor men studied Swedish at all.[136] In this final year, Swedish was no longer seen as being as important as the other subjects and its place in the curriculum could be reduced.

129 FNA, AJS, Lists of applicants of entrance exam 1871.

130 FNA, AJS, Applications of female students 1863–1872; the personal files register of female seminary students 1863–1872.

131 Nieminen (2022b), 142.

132 Halila (1963), 38.

133 FNA, AJS, Applications of female students 1863–1872; the personal files register of female seminary students 1863–1872.

134 Setälä (1912), 93.

135 Halila (1963), 52, 88–91. Cf. similar situation in Norway in 1870s: male students were often sons of farmers and female teachers generally had a higher social background, which caused significant differences between the male and female teachers. Marklund (2021b), 32.

136 Mikkola (1937), 33, 40.

It was supposed that the students needed more practice in Finnish, because for most of the women it was a less familiar language. The male students, with low basic education before coming to the seminary, usually spoke dialects even if Finnish was their mother tongue, and often needed practice in the orthography of written Finnish. In the seminary's first decades, no further languages were taught,[137] in contrast to the girls' previous schools and private tutoring before entering the seminary, which had frequently concentrated on foreign languages such as French and German, sometimes even Russian.[138]

The call for seminary applicants in 1871 was published in several national and local newspapers in March of that year. Applicants were supposed to be able to write their applications to the seminary themselves, in Finnish. They needed to be able to read texts in their mother tongue fluently and be able to explain in spoken and written form the contents of what they read, also to know the correct spelling of their mother tongue and know the basic calculations.[139] According to this call for applicants, they did not need to know a foreign language. Sufficient knowledge of Finnish was, however, crucial for entry to an elementary school teacher training.

In their applications, the potential students highlighted their knowledge of Finnish; they could even send certificates demonstrating their knowledge,[140] especially if they had studied in Swedish-language girl's school. In the teachers' seminary, Finnish-language skills had a certain value because students would need them every day in their teaching profession. Many of the girls who had studied in the girls' schools were already multilingual; in theory this would have made it possible for them to continue their studies at the university or as civil servants, but in the 1860s and 1870s women were not usually supposed capable of doing either of these. The next seminary generation, of the 1890s and 1900s, were more likely to proceed to such positions. The first seminary students ended up as elementary school teachers. Some of them, however, also became school directors or head teachers, politicians, or leading feminists of the time.[141]

This shift in language had the greatest significance for the Swedish-speaking women who had started their studies in Jyväskylä. They had to acquire sufficiently good Finnish skills to be able to work as elementary school teachers in a society where Finnish was gradually gaining ground at the expense of Swedish; at the same time, a multilingual identity helped them as school teachers to acquire new pedagogical knowledge and to work with all social strata of Finnish society.[142] For women whose mother tongue was Finnish, multilingualism made it possible to acquire new knowledge and a profession of their own. At the end of the nineteenth century, Finnish was becoming a useful immaterial asset in a professional sense. Society was becoming more and more Finnish culturally, and the upper-class people were identifying themselves as Finnish-language users even when they were not very fluent speakers or writers. The national (language)

137 E.g. Halila (1963), 49, 341; Nurmi (1995), 47–48. However, female students could voluntarily read the basics of German if they were already proficient in Swedish language. Halila (1963), 91.

138 FNA, AJS, Applications of female students 1863–1872.

139 E.g. K. G. Leinberg, "Kansankoulu-asioita," *Tieto-Sanomia Suomen Kansalle,* March 22, 1871, 6.

140 FNA, AJS, Applications of female students 1863–1872.

141 Mikkola, Leinonen, and Rekola (1937).

142 Geber (2010), 39.

policy required a positive interest in Finnish and its position was significantly improved compared with earlier decades. This is why it was useful for an elementary school teacher to be able to utilize several languages.

Female professionals' multilingual identities

Asp's linguistic biography, with Finnish as her mother tongue but becoming an accomplished poet in Swedish, shows that for her, learning the Swedish language at an early age was the most significant advantage and immaterial capital for her later studies. For her generation, it was still supposed that a cultivated person or someone who wanted to become a civil servant or work in a public position would have fluent skills in Swedish. One might ask what multilingualism meant in practice for the Finns of the 1860s and 1870s.

Swedish had been the main language of administration, education, the economy and the upper classes for several hundred years; Finnish was just developing. It was still necessary to learn Swedish to be considered educated or to become a civil servant in this bilingual country, where Swedish was still the common language of the elite. This need for multilingual skills should be interpreted and seen in connection with Finland's history as part of the Swedish kingdom and Russian empire. Well before Finland gained independence as a nation, Finnish was an integral part of the national culture and identity; but despite its importance as a medium in many respects, those with only one language would not have been able to work in the multilingual society.

On the other hand, for those who spoke it as a mother tongue, using Finnish in one's studies and future profession meant the ability to fully develop one's professional linguistic identity. Asp benefited from her bilingualism and her early language shift. Her native language was Finnish, and this is why she was so skilful in using it; but Swedish was at first the language of her poetry. This was totally natural because as she grew up there were no Finnish-language poetry or novels, excluding psalms and folklore. The *Kalevala*, the Finnish national epic, was published in 1835, and some poems by the national poet, Johan Ludvig Runeberg, were translated in Asp's day, but practically all the literature published in Finland at that time was in Swedish, and religious in nature.[143]

What of the educational opportunities and multilingual identities among Asp's classmates? Most of them had graduated from private girls' upper secondary schools or had only had some private tutoring at home. Many of these first students whose mother tongue was Swedish had to improve their Finnish to be able to work as elementary school teachers for Finnish-speaking pupils. Their previous private education and the subsequent language shift were significant for women in acquiring teacher training and a public profession of their own, along with the new kind of female citizenship. Many of those who taught in the new elementary schools also become active societal figures in societies and associations, along with their charity work.[144] In these ways they were seen to fulfil the social motherhood role and were expected to influence issues relating to family, children, and education in their society. Unmarried women of the upper-and middle classes were the first to study for a profession of their own and assume this role

143 Kai Häggman, *Paras tawara maailmassa*: *Suomalainen kustannustoiminta 1800-luvulta 2000-luvulle* (Helsinki: Otava, 2008), 114–15; Sulkunen (2004), 62–71.

144 Ollila (1998), 45–49; Tuulio (1950).

outside the private sphere in schools and associations. They provided an example of active, educated women for younger generations and for rural girls.

As with the clergy, who for centuries had taken care of popular education, elementary school teachers in the late nineteenth century often became an appreciated and valued part of their local communities because of their professional skills and knowledge.[145] For women, this new public role in the local community was also a way of achieving a more equal position in decision-making, local politics, and on many social questions in small rural communities where everyone knew the local teachers and they had their own recognized social position in the local hierarchy. It was probably not a coincidence that so many clergy and pastor families sent their daughters to the seminary: in many ways, the career of an elementary school teacher paralleled the status and the immaterial capital held by the clergy in the parishes and rural communities. Women were not accepted as priests in those days, but in their role as teachers they could, in some ways, continue the traditions of vicarages and parsons (and of their home and family) and be helpful and influential among the local population in many cases – not only in elementary education.

In the same way as the clergy had been for centuries, elementary school teachers were socially and linguistically a kind of interface between the lower social groups (who mainly spoke Finnish) and the upper social strata. They could mediate many cultural and social practices, ideas, and knowledge for both sides.[146] They spread new and modern ideas to the surrounding community in the classrooms as well as outside the schoolhouse. The social and cultural capital these women acquired in their childhood or youth and later cultivated at the Jyväskylä seminary became an important resource in their later work among local communities, and as they assumed a more independent position in society as professionals and citizens.

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About the author

Sofia Kotilainen is PhD, Adjunct Professor (Docent) of Family History, and Project Researcher at the Centre for Applied Language Studies, University of Jyväskylä, Finland. She is also Adjunct Professor (Docent) in Cultural History at University of Turku, Finland, and in Onomastics at University of Helsinki.
Email: sofia.p.kotilainen@jyu.fi

145 Nieminen (2022b), 142. The situation was similar almost seventy years later, see Erkko Anttila and Ari Väänänen, "Rural Schoolteachers and the Pressures of Community Life: Local and Cosmopolitan Coping Strategies in Mid-Twentieth-Century Finland," *History of Education* 42, no. 2 (2013), 190, 201.

146 See also Kotilainen (2023), 115.

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What is Suitable Education for Girls? Women's Participation and Statistical Arguments in Sweden's 1888 Girls' School Committee

Sophie Winkler

Abstract • This article delves into the historical context of the second girls' school committee in late-nineteenth-century Sweden, exploring aspects of gendered content and conduct in its formation and operations. Firstly, the study investigates the media representation of the committee's inclusion of women and how it was framed for the public. Secondly, it examines the committee's use of statistics in its 1888 report to advocate for a particular type of education for girls, based on notions of their "female nature." By adopting a feminist approach to historical writing, the article aims to shed light on the committee's significance in terms of breaking the male-dominated pattern of state decision-making. As a result, this article contributes to the field of gender and history of education by examining the groundbreaking inclusion of women in the girls' school committee and the utilisation of statistics to shape educational policies in a society grappling with conflicting notions of female nature and women's expanding roles in education and the workforce.

Keywords • girls' schools, secondary schools, gender, statistics, newspapers, hygiene

Introduction

In late November of 1885, a committee came together in Stockholm for its first session to discuss their allocated task to collect data from Sweden's secondary girls' schools and draft policy recommendations for the government based on their findings. During the two weeks of their meeting, the committee explained in its later published report, they came up with a plan, constructed questionnaires to inquire about the hygienic, pedagogical, and economic circumstances at the girls' schools, and scheduled inspection trips to the schools. Over the next year, the committee collected its data. During 1887 the committee members worked on their drafted report, the final version of which was signed over to the government on January 19th 1888.[1] This was not unusual for a governmental committee; in fact, it was not even the first of its kind as a large-scale investigation of girls' schools. Still, this particular one stands out because it was the first committee commissioned by the Swedish state that had women in its ranks. These two of six members, Sophie Adlersparre (1823–1895) and Hilda Casselli (1836–1903), had previously gained visibility on the state level through their longstanding work in the women's movement and in girls' and young women's higher education, respectively.

This article addresses the following two research questions about this so-called girls' school committee (*flickskolekommitté*). I start by asking how the creation of the committee was reported in Swedish newspapers; specifically, how the inclusion of

1 Einar Löfstedt et al., *Undersökning af Sveriges högre flickskolor: Underdånigt utlåtande afgifvet den 19 januari 1888 af utsedde komiterade* (Stockholm: Ivar Hæggströms boktryckeri, 1888).

women was framed therein for the public. Then, I examine the question how statistics was used in the committee's 1888 report to argue for the kind of education girls should receive in light of their "female nature." The article is situated within a feminist approach to history writing through which allows statistics to be given a gender perspective.[2] A feminist analysis of the state aims to examine the significance of sex and gender relations as constitutive elements of the modern state. Among other aims and findings, feminist state theory analyses the persistence of patriarchal and masculinist patterns in statehood.[3] Statistics as an important practice for seemingly objective modern state policymaking is framed here as an aspect of the masculinist state and is therefore analysed not as a neutral agent of reason, but as a form of argumentative conduct that has a constitutive gendered aspect.

The girls' school committee 1885/1888 is of particular interest for historians of gender and secondary education. First, the novelty of including women in a governmentally appointed organ to draft policy recommendations is relevant. It is interpreted here to signify a break in the purely male domination of state decision-making. Secondly, the report had to find a plausible balance in its situatedness within the socio-political setting in which the secondary school sector rapidly expanded for girls. Although the public and the state had come to somewhat accept women's need and desire to participate in higher education and the work force, very strong notions about "female nature" and its presumed implications for girls' education prevailed.

The remainder of this article is structured as follows. First, I lay out my fundamental theoretical perspectives on thinking the state and its technologies such as statistics as gendered. The section on methods and materials discusses the sources used to answer the two research questions. Based on a brief outline of the emergence of girls' secondary schooling as a contested phenomenon during the mid-nineteenth century, the reporting in public newspapers on the appointment of the girls' school committee is analysed, with particular focus on the framing of the inclusion of Sophie Adlersparre and Hilda Casselli as the first women in a royally commissioned committee. The committee's 1888 report is the subject of the last section, where I go deeper into the use of statistics in the argumentation for the committee's recommendation of policy and funding for Sweden's girls' secondary schools. The conclusion provides a summary of the article's central points.

Theoretical perspectives: Gendering the state – gendering statistics

The present article aims to contribute to the field of history of girls' education with a

2 Sue Morgan, "Writing Feminist History: Theoretical Debates and Critical Practices," in *The Feminist History Reader*, ed. Sue Morgan (London and New York: Routledge, 2006), 1–19; Joan W. Scott, "Gender: A Useful Category of Historical Analysis," *The American Historical Review* 91, no. 5 (1986), 1070–75.

3 Gundula Ludwig, Birgit Sauer, and Stefanie Wöhl, "Staat und Geschlecht: Grundlagen und aktuelle Herausforderungen. Eine Einleitung," in *Staat und Geschlecht: Grundlagen und aktuelle Herausforderungen feministischer Staatstheorie*, ed. Gundula Ludwig, Birgit Sauer, and Stefanie Wöhl (Baden-Baden: Nomos, 2009), 13; Eva Kreisky and Marion Löffler, "Maskulinismus und Staat: Beharrung und Veränderung," in *Staat und Geschlecht: Grundlagen und aktuelle Herausforderungen feministischer Staatstheorie*, ed. Gundula Ludwig, Birgit Sauer, and Stefanie Wöhl (Baden-Baden: Nomos, 2009), 75–77.

critical perspective on statistics as gendered.[4] Based on the feminist state theory, my analysis is framed by a distinction between gendered content and gendered conduct.[5] Distinguishing between the two makes it possible to analyse both the overt and the implicit aspects of gender in the commission's report and its use of statistics specifically, and in the discussion on girls' education in general. Gendered *content* relates to central topics of "female nature" and a "suitable education" for girls, and the types of knowledge and insights that are commonly accepted within the discussion. This content can be expressed overtly and through the use of numbers, as I aim to show. Gendered *conduct* refers to the framework conditions of the debate, specifically how truth and legitimacy are conveyed. This critical perspective is applied to the historical context of statistics as a gendered tool of reasoning and conducting decision-making in the modern state. I argue that content and conduct are both contingent on the dominant bourgeois gender ideology and on the corresponding organisation of the state and social order.

The fundamental theoretical perspective for this article's dual interest in the newspaper reporting of the committee and in the use of statistics in the report is derived from research in the field of feminist state theory. According to feminist theorisation, the modern state is fundamentally a masculine institution.[6] Modern state power systemically constructs and upholds a gendered dichotomy that elevates the masculine in spaces of political negotiation. Male domination appears naturalised. This ideology of male supremacy can be called *masculinism*.[7] During the nineteenth century, following the economic, social, and political shifts of the previous century, the emergence and dominance of bourgeois ideology facilitated the creation and solidification of the conception of ontological gender characteristics. A major factor for this were the changes in the industrialised economy through which the notion of separated gendered spheres evolved. The realm of public life, of breadwinning and politics came to be understood as that of men, while the private home was seen as the natural space of women. This dichotomous thinking permeated the organisation and interpretation of modern society. Corresponding with the gendered spheres, passivity, devotion, and emotionality were coded as feminine, while activity, assertiveness, as well as rationality

4 For previous research on the intersection of statistics and gender, see e.g. Margo Anderson, "The History of Women and the History of Statistics," *Journal of Women's History* 4, no. 1 (1992); Silke Neunsinger, *Die Arbeit der Frauen – die Krise der Männer: Die Erwerbstätigkeit verheirateter Frauen in Deutschland und Schweden 1919–1939* (Uppsala: Uppsala University, 2001), 106–39; Hélène Périvier and Rebecca Rogers, "Women and the Language of Statistics in Late-Nineteenth-Century France: Reading the Graphs of Madame Pégard," *French Politics, Culture & Society* 37, no. 3 (2019); Joan W. Scott, "A Statistical Representation of Work: La Statistique de l'Industrie à Paris 1847–1848," in *Gender and the Politics of History*, ed. Joan W. Scott (New York: Columbia University Press, 2018); Joan W. Scott, "Women in *The Making of the English Working-Class*," in *Gender and the Politics of History*, ed. Joan W. Scott (New York: Columbia University Press, 2018).

5 Gender is here understood as the sex-based assumptions, expectations, and boundaries with which women and men are confronted in certain socio-political, geographical, and historical circumstances, which structure their understanding of each other and the world, and which constitute the relationships of power between them. I base this definition on Scott (1986), 1067–1070; Stephanie Spencer, "Educational Administration, History and 'Gender as a Useful Category of Historical Analysis,'" *Journal of Educational Administration and History* 42, no. 2, 110.

6 Kreisky and Löffler (2009), 76.

7 Arthur Brittain, "Masculinities and Masculinism," in *The Masculinities Reader*, ed. Stephen M. Whitehead and Frank J. Barrett (Malden: Polity Press, 2001), 53.

and logic were coded as masculine.[8] Modern state power, which could no longer legitimise decision-making through the God-given authority of a ruler, came to operate on the assumption of objective and fact-based governing. Thus, this type of governing had to exclude "the feminine" on an ideological basis. In practice, this prevented women from participation in the decision-making process within male circles (*Männerbünde*) because of their assumed ontological "female nature" and destiny as homemakers, and their assumed lacking in the "masculine qualities" of impartiality and reason.[9]

In the establishment of the modern nation-state, statistics became a central tool for decision-making. Statistics – numbers in rigorously labelled tables recording births, lives, deaths, occupation, education, sickness, or poverty – provided a means to create seemingly impartial policies that took standardised circumstances and characteristics into account to shape the future based on past trends and regularities. As a bureaucratised practice, statistics served the scientification and thus legitimisation of politics in the episteme of the modern nation-state.[10] Thus, statistics became "what it is to reason rightly."[11] It came to hold significant persuasive power, not just for statesmen in the positions for policy-making but also for the wider public.[12] Since statistics fundamentally operated on the assumption of the possibility of objectivity, rationalism, and the abstraction of experience, it can be linked to the set of attributes that had become well-connected to assumed male nature. Furthermore, because of its authority over reason and governing, statistics can be considered a powerful agent for upholding and substantiating the masculinist structure of modern statehood. However, there are two sides to this coin. On one side, statistics had the power to shape social reality, how it was perceived, governed, and ultimately lived, and to legitimise the (implicit) ideologies of those in control of statistics. On the other side, statistics provided the promise of a powerful tool, a subversive element, that could potentially be employed to argue for a less accepted contention, precisely because it was not dependent on the authority of its author.[13]

When connoting modern statehood and statistics as its mode of reason with a prevalent image of idealised masculinity, there is a danger of concluding that women are fundamentally the "repressed Other of patriarchal reason."[14] However, this is not the premise nor intention of this article. When studying the debate on female education on a state level in constitutive contrast to male education, it is necessary to analyse its gendered content, the dichotomy between male and female nature invoked by the

8 Karin Hausen, "Die Polarisierung der ‚Geschlechtercharaktere'. Eine Spiegelung der Dissoziation von Erwerbs- und Familienleben," in *Sozialgeschichte der Familie in der Neuzeit Europas*, ed. Werner Conze (Stuttgart: Ernst Klett, 1976), 368.

9 Kreisky and Löffler (2009), 79; see also Hans-Jürgen Heinrichs, "Politik als männerbündnisches Handeln und Verhalten," in *Männerbünde, Männerbande: Zur Rolle des Mannes im Kulturvergleich*, ed. Gisela Vögler and Karin v. Welck (Köln: Raustentrauch-Joest Museum, 1990).

10 Neunsinger (2001), 106.

11 Ian Hacking, "'Style' for Historians and Philosophers," *Historical Ontology*, ed. Ian Hacking (Cambridge: Harvard University Press, 2002), 188; Ian Hacking, *The Taming of Chance* (Cambridge: Cambridge University Press, 1990), 35–36.

12 Hacking (2002).

13 Itay Snir, "'Not Just One Common Sense': Gramsci's Common Sense and Laclau and Mouffe's Radical Democratic Politics," *Constellations* 23, no. 2 (2016), 271.

14 Rita Felski, *The Gender of Modernity* (Cambridge: Harvard University Press, 1995), 7.

participants in the discussion. Despite having considerable obstacles in their way, women actively took part in shaping the political and public discourse on education, professional opportunity, and political rights. Women's agency is not negated by framing the state and its tools as gendered conduct or fundamentally masculinist, nor is "modernity per se" understood as purely masculine. Rather, the kind of epistemology and social configuration within which women's argumentation and participation needed to operate is highlighted.

Methods and materials

This article is based on two source types to answer its two research questions.[15] The central source document is the report of the 1885/1888 girls' school committee, specifically its chapter on hygiene because there the use of statistics is most prevalent. While the report has been acknowledged by previous research on the expansion of female education in the late nineteenth century, it was often mentioned only as an aside in the development of girls' schooling. More room was usually given to the general contemporary public, professional, and parliamentary debates, an earlier girls' school committee, women's activists and organisations, or financial decisions on girls' schooling.[16] Where the committee's report received more attention, for instance in research by Anna-Karin Frih or Marie Nordström, the focus was on the health aspects or on the issue of co-education discussed therein.[17] An often-cited overview of the girls' school committee was provided by Gunhild Kyle, who showed its key aspects as part of her discussion on the historical debate on the definition of girls' educational goals.[18] This existing research on the girls' school committee 1885/1888 makes its report certainly not an obscure source. However, I aim to show that it is worthwhile to analyse the report not only as a documentation of contemporary views on the schoolgirls' constitution and their appropriate education, but also to shed light on how statistics was *used to make* such arguments on girls and women in the male-dominated domain of secondary education in the context of masculinist modern statehood. This is what is conceptualised here as gendered conduct.

The second source type is Swedish newspapers. To find reporting on the girls' school committee's beginnings, I used the digital data base *Svenska dagstidningar* (Swedish daily newspapers) by the Swedish Royal Library and conducted a key word search for "*flickskolekommitté*" (girls' school committee) using different historical spellings of the word.[19] This key word search resulted in 393 hits for the years 1883–1907. I chose 1885, with 48 hits, as the focal period of investigation. This was the year when the committee

15 Both the girls' school committee's report and the newspaper reports are in Swedish, therefore all direct quotes from the sources used in this article are translated by the author.

16 Ingela Schånberg, *De dubbla budskapen: Kvinnors bildning och utbildning i Sverige under 1800- och 1900-talen* (Lund: Studentliteratur, 2004), 97–98, 253; Ingela Schånberg, *Genus och utbildning: Ekonomisk-historiska studier i kvinnors utbildning ca 1870–1970* (Stockholm: Almqvist & Siksell International, 2001), 69; Sara Backman Prytz, *Borgerlighetens döttrar och söner: Kvinnliga och manliga ideal bland läroverksungdomar, ca. 1880–1930* (Uppsala: Uppsala University Library, 2014), 23, 101.

17 Anna-Karin Frih, *Flickan i medicinen: Ungdom, kön och sjuklighet 1870–1930* (Örebro: Örebro University Library, 2007), 118–23; Marie Nordström, *Pojkskola – flickskola – samskola: Samundervisningens utveckling i Sverige 1866–1962* (Lund: Lund University Press, 1987), 44–48.

18 Gunhild Kyle, *Svensk flickskola under 1800-talet* (Gothenburg: Kvinnohistoriskt arkiv, 1972), 88–97.

19 The commonly used version during the nineteenth century appears to be "flickskolekomitén."

was first announced and the members, especially the female ones, were reported to the public. I am interested in the public perception of these women because their inclusion in a state committee can be viewed as a signifier of a change of times, when women were no longer seen as completely incompatible with participation in state-decision making.

Work with a digitised newspaper archive has certain limitations. As Johan Jarlbrink and Pelle Snickars showed, the optical character recognition (OCR) of the digitised Swedish newspaper *Aftonbladet* (The Evening Paper) for the years 1830–1862 is considerably faulty which negatively impacts the word search. The authors warned against relying too much on the digitised version of such sources.[20] Nevertheless, as Joakim Landahl argued, digitised newspaper archives are a great resource for historians because they make it possible to search a large body of material from a wide range of national and local newspapers.[21] For the purposes of this article, the key word search brought satisfactory results to provide an overview of a number of Swedish newspapers' representation of the committee's inclusion of women.

Girls' education as the solution for the political problem "women"

In Sweden, the 1840s and 1850s were marked by intense debates on the issue of schooling. As part of this, discussions around girls' education took place in politics and among the broader public. Middle-class families often found themselves in the difficult situation of having to take care of their adult daughters who were expected to marry and become mothers and homemakers. Due to the demographic circumstances of what was labelled the "surplus of women," making a suitable match was not a reliable option for many. In addition, the families of origin found themselves often in difficult financial situations following the economic crisis that made it difficult to care for their unwed female relatives.[22] As Christina Florin and Ulla Johansson put it: "During the nineteenth century women became an explicit political problem in Sweden."[23]

A perceived solution for this situation was to offer young women education while they waited for marriage. By the mid-1860s, institutions that offered education to become elementary school teachers had been established.[24] This expansion of female secondary education brought up the question of the state's responsibility in the matter. To explore the issue further, in 1866, the Swedish Parliament (*Riksdagen*) first tasked a committee with investigating the need to build and publicly fund further secondary girls' schools and, if this was found to indeed be necessary, how such schools needed

20 Johan Jarlbrink and Pelle Snickars, "Cultural Heritage as Digital Noise: Nineteenth Century Newspapers in the Digital Archive," *Journal of Documentation* 73, no. 6 (2017).

21 Joakim Landahl, "De-Scandalisation and International Assessments: The Reception of IEA surveys in Sweden During the 1970s," *Globalisation, Societies and Education* 16, no. 5 (2018), 568.

22 Kyle (1972), 44; Schånberg (2001), 44; Catherine L. Dollard, *The Surplus Woman: Unmarried in Imperial Germany, 1871–1918* (New York and Oxford: Berghahn Books, 2009).

23 Christina Florin and Ulla Johansson, "Education as a Female Strategy: Women Graduates and State Grammar Schools in Sweden, 1870–1918," *Journal of Thought* 26, no. 1/2 (1991), 10.

24 Agneta Linné, "Lutheranism and Democracy: Scandinavia," in *Girls' Secondary Education in the Western World: From the 18th to the 20th Century*, ed. James C. Albisetti, Joyce Goodman, and Rebecca Rogers (New York: Palgrave Macmillan, 2010), 139.

to be organised.[25] This first girls' school committee recommended that schools be structured with the dual goal of preparing young women for both marriage and for the eventuality of becoming part of the public labour force.[26] It was stressed that the girls should receive an education that would take their intellectual, physical, ethical, and aesthetical development into consideration.[27]

In the decades that followed the 1866 committee's report, the school sector for middle-class women expanded significantly across Sweden. Many institutions were privately run, some of them subsidised by the government, while others were formally established through parliamentary decisions.[28] In 1870, young women formally gained access to the state matriculation exam (*studentexamen*), which opened the possibility of university studies to them, even though it would take many more decades until women could work in their chosen academic fields.[29] Normal schools and other teacher training seminars qualified young women for more viable occupational opportunities and the teacher profession became an attractive field for women – much to the dismay of their male colleagues.[30] Overall, the question of working middle-class women's position in society, girls' schooling, the issue of their "female nature," and the state's role in such educational matters remained a hot topic in Sweden.[31]

Another girls' school committee was to provide clarity in this situation. Signed on February 9th, 1884, a motion to the Swedish Parliament called for another examination of the kind and quality of education at the country's secondary girls' schools. This new committee's findings should lead to the formulation of recommendations as to how these schools should be organised and financed by the state.[32] The motion was granted in March 1884.[33]

Newsworthy: Women in a royally commissioned committee

An examination of Swedish newspapers indicates that the girls' school committee indeed was perceived to be a newsworthy item. The committee and its members were announced in a variety of Swedish newspapers on November 12th, 1885, after a notice with title *Flickskolekomitén* had been sent out via telegram from Stockholm the previ-

25 Adolf Leonard Nordvall et al., *Underdånigt Betänkande afgifvet af den i Nåder tillsatta Kommissionen för behandling af frågor rörande ornadet af undervisningen för qvinlig ungdom* (Stockholm: P. A. Norstedt & Söner, 1870), 1–2, 63.

26 Nordvall et al. (1870), 4–7, 15.

27 Kyle (1972), 87.

28 Linné (2010), 139–141.

29 Greta Wieselgren, *Den höga tröskeln: Kampen för kvinnans rätt till ämbete* (Lund: Gleerups, 1969); Christina Florin, "Kampen om kunskapen," in *Kvinnohistoria i Sverige*, ed. Berith Backlund and Anna Sjödahl Hayman (Gothenburg: Gothenburg University Library, 2011), 20.

30 Christina Florin, *Kampen om katedern: Feminiserings- och professionaliseringsprocessen inom den svenska folkskolans lärarkår 1860–1906* (Stockholm: Stockholms universitet, 2000).

31 Florin (2011).

32 Motion 1844:44, *Om aflåtande af skrifvelse till Kongl. Maj:t med begäran om utredning beträffande undervisning i de enskilda högre skolorna för qvinlig ungdom m.m.* (Motioner i Första Kammaren, 1884).

33 Riksdagens Protokoll 1884:17, *Första Kammaren: Lördagen den 15 Mars, e.m.* (1884), 33.

ous day.[34]At first, most of these reports did not make explicit mention of the novelty of women being part of a state commission, nor were the first names of the committee members mentioned. Nevertheless, it was made clear to the reader that two of the members were female through their grammatically gendered aristocratic and professional titles, respectively.[35]

The committee consisted of Chairman Professor Einar Löfstedt, Baroness Sophie Adlersparre, co-principal of the higher female teachers' seminar (*högre lärarinneseminariet*) Hilda Casselli (also spelled Caselli), principal of a girls' grammar school (*elementarläroverk*) Gustaf Cederschiöld, Lector A. N. Hammar, and physician Dr P. Sigurd Lovén.[36] However, following his application to be freed from his obligations, Lovén was replaced almost immediately by physician Dr August Edvard Goldkuhl (1830–1904).[37] Goldkuhl was praised in the news as a good choice because of his expertise in school hygiene, an area of knowledge that would make up a major part in the committee's report.[38] He had published *Handledning i Skolhygien* (Handbook of School Hygiene) in 1883 where he gave, among other things, precise recommendations on suitable classrooms, lighting, or punishment.[39]

The two female members chosen for their pioneer role in this official state committee were distinguished in the Swedish women's and education movement. Sophie Adlersparre was a central figure for the moderate women's movement.[40] Most notably, she was one of the founders and editor of the first journal to discuss women's issues in Sweden *Tidskrift för Hemmet* (Home Review; established in 1859 and renamed *Dagny* in 1886). Adlersparre also founded and participated her whole life in the women's association *Fredrika-Bremer-Förbundet* (Fredrika Bremer Association; founded in

34 Many of the shorter notices on the girls' school committee were published almost word for word in a plethora of newspapers since they were based on official statements from the capital. In such cases, the footnotes will only give some examples (indicated by "e.g.") to avoid redundance. These examples are not selected according to specific parameters but are intended to reflect a broad range of newspapers reporting on the committee.

35 E.g. Anon., "Flickskolekomitén," *Sundsvalls Tidning*, November 12, 1885, Telegram t. Sundsvalls Tidning; Anon., "Flickskolekomitén," *Nya Wermlands-Tidningen*, November 12, 1885, Telegram; Anon., "Flickskolekomitén," *Smålands-Posten, Kronobergs Läns Tidning*, November 12, 1885, Småland: Staden och länet. Telegram.

36 For a discussion on translating terms of national school systems into English, see Johannes Westberg, "Neither Compulsory nor Public or National? Translating the Swedish Terminology of 19th-Century Primary Schools, Teachers, and Pupils," *Global Education Review* 10, nos. 1–2 (2023).

37 E.g. Anon., "Flickskolekomitén," *Aftonbladet*, November 20, 1885, Stockholm den 20 november; Anon., "Afsägelse af ledamotskap," *Post- och Inrikes Tidningar*, November 20, 1885, Officiellt; Anon., "Till ledamot i flickskolekomitén," *Hernösands-Posten*, November 25, 1885.

38 E.g. Anon., "Flickskolekomitén," *Smålands-Posten, Kronobergs Läns Tidning*, November 24, 1885, Småland: Staden och länet. Telegram.

39 Goldkuhl was against corporal punishment and shaming, and preferred detention. Carl Wilhelm Herlitz, *Skolhygienens historia: En översikt främst av utvecklingen i Sverige* (Stockholm: Bergvalls, 1961), 89–90.

40 The term "moderate" is used in demarcation to the less prominent groups within the Swedish women's movements that were more radical, such as left-wing liberals or socialists. The latter groups demanded fundamental societal changes. The moderates laid their focus on expanding education and women's rights *within* the prevalent framework of society. Ulla Manns, "Historico-political Strategies of Scandinavian Feminist Movements: Preliminary Perspectives of a Research Project," in *The Memory of Labour and Social Movements: A Global Perspective*, ed. Jürgen Mittag and Berthold Unfried (Leipzig: Akademische Verlagsanstalt, 2011), 219–20.

1884 and still active today). *Dagny* functioned as the official mouthpiece of the association, with Adlersparre as the journal's first editor and formative thought leader.[41] The other woman appointed to the committee was Hilda Casselli. She was a reform pedagogue and principle of several institutions for higher girls' education. Furthermore, she was the founder of the so-called girls' school meetings (*flickskolemötena*) that took place seven times between 1879 and 1901 as a national forum for debate around girls' education.

Initially, the appointment of two women as committee members was not stressed in the news. In the numerous reports of November 12th, 1885, the members of the girls' school committee were merely mentioned by last name and title. The conservative newspaper *Stockholms Dagblad* (Stockholm's Daily Newspaper) appears to be the only one to have acknowledged the novelty of women in a royally commissioned committee on the same date. The newspaper stated unmistakably that "[a]mong the members of the committee … there are two *women*."[42] The page on which the report was printed did not show liberal use of italics within the running text, which made the word "women" stand out clearly to the reader. The report continued as follows:

> However natural it may seem that in the investigation of questions such as these female forces should be called upon, it is, if we are not mistaken, the first time ever that women have been appointed to a committee appointed by the Royal Majesty.[43]

Since public debate on girls' schooling had been ongoing in Sweden for decades, the readers were likely familiar with women's presence in the debate on female education, as this formulation indicates. This probably made the "female forces" of the two "*women*" in the investigation on this matter appear "natural" – even if the curiosity of their appointment was stressed. The report went on to inform readers that while it was the first time that women had been part of a royal committee, women had been committee members on the communal level more than once "where it had been found appropriate."[44] This formulation points to the prevalence of a gendered understanding decision-making and the relevance of gendered content for women's inclusion in it. A topic had to be "appropriate" for women to be deemed fit to discuss and investigate it in an official decision-making body, even on the communal level.

A short biographical note on both women followed in the *Stockholms Dagblad* report, even though the names of the "distinguished practicing teacher" or the "active female publicist, who for more than twenty-five years has been the editor of the *Tidskrift för Hemmet*" remained unmentioned for now.[45] The report was continued further down in the column (after two wholly unrelated short reports on the railways) with a description of the committee's task and a list of the members. As if to leave no doubt about the sex of the two female members, they were introduced with their full first names (Carin Sophie Adlersparre, including her maiden name Leijonhufvud, and Hilda Vilhelmina

41 Ulla Manns, *Kvinnofrågan 1880–1921: En artikelbiografi* (Lund: Arkiv förlag, 1992), 19.

42 Anon., "Flickskoleundervisningen," *Stockholms Dagblad*, November 12, 1885, Stockholm (emphasis in original).

43 *Stockholms Dagblad*, November 12, 1885, Stockholm.

44 *Stockholms Dagblad*, November 12, 1885, Stockholm.

45 *Stockholms Dagblad*, November 12, 1885, Stockholm.

Josefina Caselli), while the male members were only listed with their titles, first name initials, and full last names.[46] The two parts of the report can be interpreted to reflect both the understanding that the two women were considered suited for their task based on their sex and their merit, but also indicate the need to emphasise the oddity that was *women* in a state commissioned organ.

On the following day, November 13th, 1885, the novelty of women in the state committee was reported more widely. The liberal newspaper *Göteborgs Handels- och Sjöfarts-Tidning* (Gothenburg's Trade and Seafaring Paper) published a short report with the title "Women in a committee appointed by state." The report repeated the announcement published in *Stockholms Dagblad* that, for the first time, women were instated in a committee commissioned by the king, without italicising the word "women."[47] Other newspapers announced the novelty in a similar yet briefer fashion.[48] A section in Sweden's oldest newspaper *Smålands-Posten* (Småland's Post) from November 26th, 1885, put the committee's female members in line with other women who had successfully taken on roles usually reserved for men. Under the heading "To the history of women," the newspaper reported that the girls' school committee was the first in which "the woman is given a place," without mentioning Adlersparre and Casselli by name. The report went on to list female pioneers of previous centuries by name: the first woman to head a post office, the only woman to have received a nobility title "through her own efforts," and the first woman to have been honoured by the Swedish Academy for eloquence in a historic treatise.[49] By adding the women of the girls' school committee in this line-up of women entering male-exclusive spheres, it appears that the author deemed them pioneers in the realm of male-dominated decision-making.

When the committee began its work with a meeting on November 26th, 1885, *Aftonbladet*'s announcement stressed the current relevance of what was called the "education question." The report reflected on how, not only in Sweden but also in several other "civilized countries," the humanistic *Bildung* had given way to an education that put the focus on modern language and natural science. The report stated that the emerging study load had a "divisive and tiring effect on young people's mind," which manifested itself in "sickliness, nervosity, and hopelessness" in the youth. Other countries, the report continued, had opted to seek compensation in physical activity, gymnastics, sport, and needlework.[50] These questions and issues were indeed a feature of education discussion at the time.[51] The girls' school committee's report would feature an extensive section on "hygiene" which addressed these issues in great detail – supported by statistical tables and argumentation.

46 Notably, Adlersparre signs the 1888 report only with "S. Adlersparre" with the addition of her maiden name.

47 Anon., "Kvinnor i en af staten tillsatt komité," *Göteborgs Handels- och Sjöfartstidning*, November 13, 1885.

48 E.g. Anon., "Två qvinnor," *Härnösands-Posten*, November 14, 1885.

49 Anon., "Till qvinnans historia," *Smålands-Posten, Kronobergs Läns Tidning*, November 26, 1885, Småland: Staden och länet. Telegram.

50 Anon., "Den kungliga Flickskole-komitén," *Aftonbladet*, November 26, 1885.

51 Anna-Karin Frih, "Becoming Healthy, Free and Physically Active: Medical Discourse on Girls in Sweden c. 1880–1930," *Girlhood Studies* 6 no. 2 (2013); Daniel Tröhler, Johannes Westberg, and Anne Berg, ed., "Special Issue: Physical Education and the Embodiment of the Nation," *Nordic Journal of Educational History* 4, no. 2 (2017).

The use of statistics in the girls' school committee's report

The report of the girls' school committee was titled *Undersökning af Sveriges högre flickskolor: Underdånigt utlåtande afgifvet den 19 januari 1888 af utsedde komiterade* (Investigation of Sweden's higher schools for girls: Subservient report issued on January 19th, 1888, by the appointed committee) and was divided into four chapters. The first chapter went into detail about the different school subjects and how they could affect a proper education for girls, often complemented by reform suggestions.[52] The second chapter discussed the hygienic circumstances of the girls' learning environment. Of interest were the school buildings and equipment, the girls' physiological development, their working hours and free time were included, as were numbers related to their sleep and nutrition, and the frequency of illness and mortality. The third chapter listed the economic state of girls' secondary schooling. The fourth chapter was dedicated to school management and teachers. The appendix included essays by some of the committee members who did not fully agree with the report's consensus. These included Sophie Adlersparre, who objected to salary recommendations, and the physician Goldkuhl, who had strong views on the female physical constitution.

The introduction to the report stated that women had the same intellectual capacities (*andliga krafter*) as men and that, therefore, they too were in need of an education that promoted the harmonic formation of their forces and potentials; just because girls were generally speaking more emotional than boys and had less inner resistibility, this could not mean that their other aspects could be neglected.[53] The fact that this had to be stated in the introduction points to the prevalence of gendered content in the political and public debate on girls' education. While common ideas of feminine emotionality and vulnerability were clearly affirmed, girls' intellect was emphasised and developing these capacities through education was declared as the goal of the report. Nevertheless, this education should be tailored to their female constitution and perceived feminine needs. Even though middle-class women had been a strong presence in the labour market for decades by the 1880s, the report still saw the driving force of "female nature" leading girls to take on lives as wives and mothers after their education. It stated stated that schooling should provide education for both ways of life – career and motherhood – which had already been the suggestion of the aforementioned 1866 committee.[54] Thus, despite being ascribed the same intellectual capacities, girls were not to receive the same education as boys; after all, they were perceived as being more delicate and prone to illness when studying too much.[55] Therefore, the girls' curriculum suggested by the committee was less dense than that for the boys. Furthermore, the standard education at girls' schools would not prepare them for the matriculation exam, to which girls had had a right since 1870. Taking the exam could only be considered after taking additional years of advanced courses. Overall, despite the image of women, of their intellect, and their real life having changed since the 1860s, the recommendations of the 1885/1888

52 While these reform suggestions are very interesting, especially when focussing on the gendered content of the report in relation to the wider social debates, it lies beyond the scope of the present article to provide a deeper analysis of the school subjects. For an overview, see Kyle (1972), 93–95.

53 Löfstedt et al. (1888), 12, 22–23.

54 Löfstedt et al. (1888), 15–16.

55 Löfstedt et al. (1888), 179–182.

committee did not reflect this.[56] Its discussion of girls' education recommendations did still operate within the common notions of gendered content.

The report's second chapter about school hygiene is of special interest here since it featured the report's vast majority of statistical visualisation, most notably in the form of tables but also as statistical description of circumstances in the running text.[57] The report's 82-page chapter on hygiene included 14 statistical tables where the results of the statistical investigation in up to 118 secondary girls' schools were displayed. The results mainly concerned the state of health or the overall sickliness of the female students. This was determined by factors such as the mortality rate, as well as emerging and ongoing health problems. The categorisation of the data on school hygiene varied between the tables. This allowed for various comparisons, such as between the investigated schools, which illustrated differences in their respective school equipment; between age groups; between male and female students of the same age; between Swedish and Danish school girls; or between different school committees' results. The use of statistics to discuss the physical condition of girls and the consequences of attending years of secondary school demonstrates the intertwining of gendered content and gendered conduct in the discussion of girls' secondary education. Gendered assumptions of "female nature" and "feminine frailness" measured against the status quo of male-dominated secondary schooling were expressed, discussed, and legitimised through the rationalising and masculine-connoted tool of statistics.

The feature of statistical comparison between the results of different committees on school hygiene is especially interesting regarding the differentiation between boys' and girls' fitness for a study-heavy secondary education. The girls' school committee referred often explicitly to the work of Professor Axel Key (1832–1901), who had been a member of the secondary school's committee (*läroverkskomitén*) and author of its 1885 report on the hygienic circumstances at the different Swedish secondary schools (*läroverk*). Key's statistical numbers focused largely on boys' secondary schools because of their greater number in 1880s Sweden compared to such education institutions for girls. Of the 233 numerical tables Key offered in the report's extensive appendix, only 16 were on girls' health and work hours. The tables on boys also offered significantly more detail.[58] According to Key's findings, boys and girls in secondary schools both suffered from illnesses such as lack of appetite, headaches, nervosity, and anaemia. However, girls were especially affected by the latter two and had even shorter sleep hours than boys, who already slept one to two hours less than recommended.[59] August E. Goldkuhl, the physician of the girls' school committee, had made a similar observa-

56 Kyle (1972), 93–95.

57 Two other multipage tables can be found in the appendix, one on hours per subject and the other illustrating financial and organisational details.

58 Axel Key, *Läroverkskomiténs underdåniga utlåtande och förslag angående organisationen af rikets allmänna läroverk och dermed sammanhängde frågor: Bilaga E. Regogörelse för den hygiensika undersökningen* (Stockholm: Kongl. Boktryckeriet P. A. Norstedt & Söner, 1885). Interestingly, in addition to the numerical tables, Key's report featured 101 so-called graphic tables in which the results of his statistical studies on the health, working hours, and sleep schedule of the male students attending secondary education were depicted in scatter and bar diagrams. Only three tables featured the girls. The focus lied on their change in weight and height, not on their overall health or work hours.

59 Herlitz (1961), 93–94.

tion in his 1883 handbook on school hygiene where he pointed out that anaemia was a common ailment especially among girls and that most sicknesses among secondary students, boys and girls, could be categorised under "illnesses of the nervous system."[60]

These findings were congruent with the overall narrative of the time. The supposed "female nature" of girls was thought to be oriented ontologically towards a domestic life. Thus, if their school environment mimicked that of boys too much, who were thought to be destined for life in the public, secondary education was deemed as inappropriate or even harmful for girls. The assumed weaker constitution of girls would make them especially prone to illnesses if they were over-burdened by heavy study loads. Especially during puberty, which was thought to impact both boys and girls negatively but to have more severe consequences for girls' physical health, the intellectual capacities of girls would suffer. According to the girls' school committee's report, long-term and even incurable damage was to be expected if girls partook in a "prolonged sedentary life and a lot of brain activity."[61] Therefore, questions about an education that would not endanger girls' physical health unnecessarily were of high relevance.[62]

While the committee relied heavily on Key's statistics, despite not containing nearly as much information on girls' than on boys' schools hygiene circumstances, the committee had collected some new statistical information on work and sleeping hours, school buildings – and on the important issue of myopia or near-sightedness.[63] Myopia was a central concern in the context of the expansion of secondary schooling as the long working hours in less than optimal conditions and a substantial reading load over the span of many years was thought to worsen students' eyesight.[64] According to the committee's numbers, among the girls, 11.5 per cent were suffering from myopia, and 5.3 per cent from other eye illnesses.[65] When calculating the different categories of sickliness, the report had to draw the conclusion that among the Swedish female youth, "great sickliness" was statistically proven. Was this an issue of the girls' nature, or one that had its roots more in the environment? A comparison with the same demographics among Danish girls pointed to the latter. The data on Danish girls were taken from a Danish committee's reports on their secondary schools. The following table from the Swedish report (Figure 1) showed that 61 per cent of the investigated Swedish girls had to be considered sickly – and that is without the inclusion of myopia (which would have increased that number to 65.7 per cent), whereas only 39 per cent of Danish girls fell into that category. Boys were also healthier in Denmark than in Sweden, even though this difference was less dramatic.[66]

60 Herlitz (1961), 90.

61 Löfstedt et al. (1888), 182; see also 179–80.

62 Backman Prytz (2014), 25, 101–3; Frih (2013), 104–6; Kyle (1972), 90–91.

63 Löfstedt et al. (1888), 227; Frih (2007), 117. Reasons given for the reliance on Key's work were that his numbers had not yet been outdated by the time the girls' school committee commenced its work, that there had been no significant changes in girls home and school life that would render Key's results obsolete, and that the re-interpretation of Key's raw material would have required more workforce than the committee could muster. They stated to have found no reason to doubt the accuracy of Key's results. Löfstedt et al. (1888), 224–25.

64 Herlitz (1961), 93.

65 Löfstedt et al. (1888), 225.

66 Löfstedt et al. (1888), 229, 225.

Sammanställning af sjukprocenten, närsyntheten frånräknad, för olika åldersklasser vid nedannämnda skolor.

Sjukprocenten för	Fylda år	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Summa
	Danmarks samtliga gosskolor	19	24	28	29	30	29	31	29	29	27	28	34	26	—	29
	Danmarks latinskolor.....	—	—	—	—	—	26	32	33	34	32	30	34	29	—	32
	Sveriges allmänna läroverk	—	—	—	—	—	34	37	38	37	36	34	38	40	36	36
	Danmarks högre flickskolor	23	27	28	39	40	39	42	50	48	40	40	—	—	—	39
	35 högre flickskolor i Sverige	—	28	50	47	55	59	64	64	63	63	62	68	—	—	61

Figure 1. "Compilation of the sickness rate, muopia excluded, for different age groups in the schools mentioned below. *Source*: Löfstedt et al. (1888), 229.

Despite its gendered premises on the different nature of girls and boys, specifically the overall weakness that assumedly befell girls with puberty, the report's conclusion at the end of its hygiene chapter made it very clear that the current data did not make it possible to contribute this overall sickliness solely to schooling. The factors of illnesses were considered too complex to statistically study them satisfactorily. The report claimed that, statistically speaking, only the emergence of myopia and scoliosis in female students could be correlated with their years spent in schools – and even these aliments should be attributed to poor school equipment rather than schooling itself. Thus, the commission concluded, there was no reason to deny girls secondary education on the basis of their perceived sickliness.[67]

However, the roots for Swedish girls' great sickliness could not be ascribed to schooling alone, the report stated, but were grounded in circumstances upon which schools had no influence. A comparative look at Denmark revealed the underlying maladies of girls' worrisome state of health: the lifestyle of a detached middle-class and the weak national sentiments of Swedes. The report showed that while Danish school girls had to work longer hours, had less free time, little social life, and worse school buildings, they still were 22 per cent healthier than the Swedish girls.[68] This was traced back to the simpler, "more natural" and active lifestyle of the Danish middle-class.[69] Notably, the main reason for the overall better health of Danish girls was seen in the fact that Danish men were obligated to several months of military service. The committee assumed that the general military service, this "source of national strength and health" had a positive trickle-down effect on the state of health in Danish schools. In the same line of argumentation, the committee lamented the prevalence of alcoholism in Sweden as a factor that could point to school children's poor health being "an inherited weakness."[70] Consequently, the committee demanded reforms, not only of school buildings, equip-

67 Löfstedt et al. (1888), 231.

68 Löfstedt et al. (1888), 234.

69 Löfstedt et al. (1888), 234.

70 Löfstedt et al. (1888), 234.

ment, and health consultation through public funding, but also of the nation's habits. They appealed for proper ventilation of the homes, encouragement of movement, and adequate recreational activities at home.[71]

The conclusion, that the issue of widespread sickliness among female secondary school students could not be statistically proven to correlate with schooling per se, is significant. Statistics – this established and accepted tool of communicating truths and objective facts – was used here to combat or at least relativise notions that "the female" was physically unsuited to receive higher education. Some restrictions applied, such as the correlation between years of schooling and eye and back problems, but these problems were immediately attributed to unsatisfactory school equipment, lighting, physical activity, and deficiency of the Swedish nation's sentiments and lifestyle. Such conclusions indicate an important tension in how gender was portrayed in the report of the committee. Using statistics, the report reproduced well-known themes about the vulnerable female body. Based on these, recommendations were made to give the female students a less dense curriculum than boys with restricted prospects.[72] At the same time, however, statistics enabled the committee to link the problems that female students suffered at least partly to society, making it a national issue that the Swedish state could and needed to address. Here, the comparison with female students from another, culturally familiar country, showed that not only the government, but society at large had responsibility for their young, middle-class women and thus for the future of their Swedish nation.

Conclusion

In this article, I have shown that the appointment of two women in the 1885/1888 girls' school committee found keen interest in public newspapers. The novelty of women in a governmentally appointed committee was received largely positive. Furthermore, the addition of female members was reported as suitable for a commission tasked to investigate the female sphere of girls' secondary schools. This theme of a gendered field of competence, in other words of gendered content of the debate on female education, continued in the report itself. I have analysed the use of statistics in the committee's report on girls' physical constitution and the conclusions drawn from these numbers. The committee operated based on commonly held gendered assumption on female frailness and a weaker mental resistibility, which they addressed with statistical numbers. Despite the conclusion that the female body was not demonstrably weakened by prolonged secondary education, girls were nevertheless deemed not adequate to the same curriculum as boys and should receive a reduced curriculum with fewer prospects.

In the context of this article, statistics is understood as an instrument of upholding the gendered episteme of the modern nation-state, where attributes connected with statistics such as objectivity, rationality, and impartiality were connoted as masculine, whereas attributes that were supposed to be factored out by statistical methods such as empathy, emotionality, and fickleness were connected with femininity. Applying the

71 Löfstedt et al. (1888), 235, 237–39.

72 Johannes Westberg "Girls' Gymnastics in the Service of the Nation: Educationalisation, Gender and Swedish Gymnastics in the Mid-Nineteenth Century." *Nordic Journal of Educational History* 4, no. 2 (2017).

established definitiveness of statistics onto the female body and deriving therefrom conclusions of suitable feminine education is interpreted as an exercise of masculinist power over the female population that was ideologically excluded from participating in this form of decision-making. The fact that two women were included in the drafting of the report can be viewed as a concession to the work of the moderate women's movement and female educators in their pursuit of improved female education. However, the methods and conclusions of the report indicate that the authority over how the female mind and body were conditioned and how this was legitimately determined and institutionalised remained in the framework of masculinism. As Gunhild Kyle pointed out, the pedagogical premises and aims of the 1885/1888 girls' school committee were not new nor radical. The reformation of girls' schooling had been going on for more than two decades by the time the report was published, and the ideas of the 1885/1888 girls' school committee were largely congruent with those of the 1866 committee.[73]

In conclusion, the limitations of the upheld ideal of objectivity and impartiality that the gendered conduct of statistics and the gendered content of secondary education for girls implicitly imposed can be illustrated by the briefly mentioned reservation by committee member Dr Goldkuhl. In his retention, he predicted catastrophic consequences stemming from the notion of equality between men and women. He warned that, by ignoring their physical frailty, women would suffer weakness, degeneration, and sickness if they were to be educated emulating the male ideal.[74] The statistical results from the hygienic portion of the report, according to which female sickliness could not be attributed easily to education per se but could be traced back to societal and institutional causes, were not enough. They evidently did not convince Goldkuhl to rethink his position on girls' aptitude to keep up with, or even overtake their male counterparts in terms of educational performance under optimised circumstances – and in good health. This line of thinking can serve as an illustration of statistics' premises within masculinist thinking of the supremacy of the male intellect, and its limitations when its ideals of objectivity were to suggest that gendered notions of girls' education and health might need to be reconsidered. Thus, in the late nineteenth century, reason – in this case, statistics – was not always convincing enough.

About the author

Sophie Winkler is PhD student at the School of Humanities, Education and Social Sciences, Örebro University, Sweden.
Email: sophie.winkler@oru.se

73 Kyle (1972), 96–97.

74 Löfstedt et al. (1888), 317.

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A Princess of Science? Becoming the first Woman Professor in Mathematics in Modern Europe

Maria Tamboukou

Abstract • In this paper I look at the process of becoming the first Woman Professor in Mathematics in Modern Europe by reading the personal and literary writings of Sofia Kovalevskaya. The paper emerges from a wider Leverhulme funded project of writing a feminist genealogy of "automathographies," tracing women mathematicians' historical emergence as subjects of scientific knowledge, as well as creators of philosophy and culture. What I argue is that it is essential to throw light onto the social, cultural, and political practices that some women mathematicians deployed in surpassing the restrictions and limitations of their gendered position and excel in the field of mathematical sciences and beyond. In this light, I initiate a process of intense memory work against a wider background within which women mathematicians' figure as exceptional, albeit marginalized, and largely unknown subjects, and not as active agents, whose scientific, philosophical and literary work has had a huge impact on the cultural formations of modernity and beyond. By highlighting the importance of memory work, as a way of understanding the lasting effects of the past into the present, I trace new paths in the field of gender and science studies to confront women mathematicians' marginalization within the archive and beyond.

Keywords • archive, gender science studies, memory work, women mathematicians

Introduction

"Today we are announcing not the arrival of some vulgar member of royalty or another, high-ranking but insignificant person. No, the princess of science, Mme Kovalevskaya, has honoured our city with her visit and will be the first woman *privat docent* [lecturer] in all of Sweden."[1] In November 1883, this is how Sofia Kovalevskaya's arrival in Sweden was celebrated by a "democratic" newspaper in Stockholm, as Kovalevskaya described it in a letter to her brother-in-law, Alexander Kovalevskii, written in December 1883. Kovalevskaya was both pleased and cynical about this exuberant but also immaterial celebration: "You see, I have been made into a princess too! They would be better to assign me a salary. Well, yes, perhaps they will do that too,"[2] she wrote in the same letter, already prefiguring her tenure, which would happen six years later.

Kovalevskaya's disbelief notwithstanding, not everybody in Sweden, shared the joy of having the first woman professor in mathematics in modern history. After all, Stockholm University was a newly founded institution dominated by liberal minds. Kovalevskaya's arrival was very differently received in Uppsala, a competing university, "the conservative centre of orthodox science and old tradition,"[3] as Kovalevskaya

1 Sofia Kovalevskaya, *Memories and Letters* (Moscow: AN SSSR, 1951), 276. All translations from this collection are credited to "Knockhundred translations," generously funded by the Leverhulme Trust.

2 Kovalevskaya (1951), 276.

3 Ibid., 274.

wrote to her friend Maria Jankowska-Mendelson, on 26 December 1883. In the same letter she also wrote about some aggressive events that occurred in Uppsala as a reaction to her academic appointment:

> When the official announcement about my lectures was made in Stockholm, the Upsala mathematics students immediately posted these announcements in their society, and that led to a complete explosion of indignation among the Uppsala professors. One meeting, which went on all evening, was dedicated to vilifying me; they denied that I had any academic merits, hinted at the most monstrous and, at the same time, funny reasons for my arrival in Stockholm, etc.[4]

Kovalevaskaya was both surprised and afraid from the Uppsala professors' attitude, since "I did not expect so much fire from these honest and peaceful Swedes,"[5] as she confessed to her friend, noting that this animosity might have had wider effects: "Unfortunately, among the professors in Uppsala, are people who have great influence in Sweden. The King, who was the patron of the University of Stockholm, is now convinced that this educational institution could become a centre of freethinking and radical aspirations, and has therefore turned his back on it,"[6] her letter concluded.

Moreover, her "princess" status was demoted to a "Lady of Mathematics" by the famous playwright August Strindberg in an article in *Dagens Krönika*, published a year later, after Kovalevskaya was formally appointed as associate professor, on 28 June, 1884: "To invite a Russian Lady to Stockholm was only an expression of old-fashioned gallantry—and did not respond to the need of mathematics for the citizens in Stockholm," he wrote.[7] Not only did Strindberg seem to know about the mathematical needs of his compatriots, but he also knew about what the world needed most: "At this moment the world has far more need of able mothers than professors in mathematics."[8] Kovalevskaya's appointment was thus a monstrosity for Strindberg, since "such abnormalities can be produced at any desired amount if one allows persons with special talent of mathematics to be narrowly educated into mathematical monsters."[9] The worst thing that "a Lady in Mathematics" could do was to "create unnecessary ambitions in the minds of young girls."[10] The Uppsala Professors' sexist attacks and Strindberg's misogynistic and paternalistic arguments are not difficult to deconstruct in the twenty-first century. What I want to focus on in this paper, however, is the slow process of becoming a woman mathematician. In doing so I also consider how the wounding language of sexism, combined with the empty celebration of "gender equality" reaches our days in different modalities and forms.

The paper emerges from a wider Leverhulme funded research project of writing a feminist genealogy of "automathographies," a concept denoting the autobiographical

4 Ibid.

5 Ibid., 274.

6 Ibid.

7 Cited in Jan-Erik Björk, "Sonja Kovalevsky: Her Life and Professorship at Stockholm," *Operator Theory: Advances and Applications* 132 (2002), 36.

8 Cited in ibid.

9 Cited in ibid.

10 Cited in ibid.

desire of becoming a mathematician, which was coined by Paul Halmos in his influential book, *I Want to be a Mathematician: An Automathography*.[11] In Halmos' view, an automathography should not be conflated with an autobiography. But is there such a divide or separation possible? Throughout his book Halmos refers to childhood memories, desires, relations with significant others, impressions of places and spaces, as well as political and cultural events that shaped his desire to become a mathematician. Halmos' automathography is written from the perspective of a male mathematician, who followed the networks and opportunities available to his gender in the long run of the twentieth century. This does not mean that he did not face the prejudices of being a Jewish immigrant and of carrying his Hungarian accent, despite the fact that he was educated in the USA: "Then there was the accent. I was a foreigner, with or without pejorative adjectives, I felt like one, and I sounded like one," Halmos has poignantly noted.[12] And yet, while reading his automathography I often wondered how different things would be for a woman becoming a mathematician in the same period. By thus gendering Halmos' desire, what I argue in this paper, is that it is essential to throw light onto the social, cultural, and political practices that some women mathematicians deployed in surpassing the restrictions and limitations of their gendered position and follow an academic career in the field of mathematical sciences. In this light I enter a process of intense memory work against a wider background within which women mathematicians' figure as exceptional, albeit marginalized, and largely unknown subjects, and not as active agents, whose scientific, philosophical and literary work has had a huge impact on the cultural formations of modernity and beyond.[13]

In focussing on process, the paper draws on Alfred North Whitehead's philosophy of the organism[14] and unfolds in four parts. After this introduction, I briefly sketch Sofia Kovalevskaya's pen portrait, then I look at her academic career between 1874, when she was awarded her doctoral degree, till 1884, the year of her first tenure, a grey period overall in her life and academic work. By way of conclusion, I consider the importance of memory work in understanding the lasting effects of the past into the present. Here it is important to note the well-known fact that Kovalevskaya's academic career took off after the year of her tenure and her hard work was awarded with prestigious prices both from the Paris and the Swedish Academies of Sciences, but scholarly engagement with this period of her life and work goes well beyond the limitations of this paper and has been treated well in the literature.[15]

11 Paul Halmos, *I Want to Be a Mathematician: An Automathography* (New York: Springer, 2013 [1985]).

12 Ibid., 15.

13 There is already a rich body of literature around women's position in mathematics, mostly deriving from feminist historians of philosophy, science, and mathematics. For an overview of this literature see the website of the project: Maria Tamboukou, "A Feminist Genealogy of Automathographies," Numbers and Narratives, https://sites.google.com/view/numbersandnarratives/a-feminist-genealogy-of-automathographies

14 Alfred North Whitehead, *Process and Reality* [Corrected Edition], ed. David Ray Griffin and Donald W. Sheburne (New York: The Free Press, 1985 [1929]).

15 See Pelageya Kochina, *Love and Mathematics: Sofia Kovalevskaya,* trans. Michael Burov (Moscow: Mir Publishers, 1985); Ann Hibner Koblitz, *A Convergence of Lives: Sofia Kovalevskaya: Scientist, Writer, Revolutionary* (New Brunswick and London: Rutgers University Press, 1993[1983]); Don H. Kennedy, *Little Sparrow: A Portrait of Sophia Kovalevskaya* (Athens OH: Ohio University Press, 1983).

A sketch for Sofia Kovalevskaya

Sofia Vasilevna Korvin-Krukovskaia was born in Moscow on 15 January 1850, the second child of a Russian aristocratic family. Her early education was framed within this heteropatriarchal regime, but she was lucky in that her father was persuaded to get her a mathematics tutor, when they moved to their country estate in Palibino[16], when she was eight years old. From her tutor's reminiscences we have some glimpses into Kovalevskaya's creative mind from the very beginning: "But then we came in geometry to the ratio of the circumference to the diameter, which I presented with all the proofs and inferences, and I was amazed when my pupil made her presentation of the material at the next lesson, coming to the same conclusion but in her own way and using special combinations."[17] In her own autobiography, Kovalevskaya has further written that her first interest in mathematics was triggered by the preparatory wall paper of one of the nursery rooms in their house, which consisted of the lithographed lectures of Professor Ostrogradsky on differential and integral calculus that her father had bought when he was young:

> These sheets all speckled over with strange, unintelligible formulas, soon attracted my attention. I remember as a child standing for hours on end in front of this mysterious wall, trying to figure out at least some isolated sentences and to find the sequence in which the sheets should follow one another. From this protracted daily contemplation, the outer appearance of many of these formulas imprinted themselves in my memory; indeed their very text left a deep trace in my brain, although they were incomprehensible to me while I was reading them.[18]

Imagining a little girl being attracted to some "unintelligible" mathematical formulas on the wallpaper of a nursery room, we are presented here with a lively scene of what the mathematician/philosopher Alfred North Whitehead has configured as "prehensions," a concept denoting understanding not necessarily linked to cognition: "I will use the word prehension for uncognitive apprehension: apprehension that may or may not be cognitive."[19] Prehensions for Whitehead are "ways of grasping the world;"[20] they are used to configure how an "actual entity" becomes through the awareness, that is the feeling of its environment.[21] In our case, Kovalevskaya becoming a mathematician through feeling the formulas inscribed on the wallpaper of the nursery room. In this light "prehensions" in Whitehead's vocabulary could be rendered as feelings. However, Whitehead's insistence to use "prehensions" instead of "feelings" derives from the fact that he wants to differentiate his approach from a subject-centred understanding of

16 Palibino is situated about 600 kilometers south of St. Petersburg and close to the border of Lithuania. The estate has been restored and serves nowadays as the Kovalevsky Museum, see "Sophia Kovalevskaya Estate Museum Description and Photos," Useful Travel Articles, https://usefultravelarticles.com/5320-sophia-kovalevskaya-estate-museum-description-and-photos-russia-northwest-velikiye-luki.html.

17 Cited in Kochina (1985), 24.

18 Sofia Kovalevskaya, *A Russian Childhood,* trans. Beatrice Stillman (New York: Springer-Verlag, 1978 [1895]), 122.

19 Alfred North Whitehead, *Science and the Modern World* (New York: Free Press, 1967 [1925]), 69.

20 Alfred North Whitehead, *Modes of Thought* (New York: Free Press, 1968 [1938]), 151.

21 See Whitehead (1985), Chapter 1 in Part III.

feelings. For Whitehead it is not subjects who have feelings—mathematicians, who understand figures and equations. It is actually in the process of feeling the world — being attracted to a wall of "unintelligible" mathematical formulas and symbols— that subjects as actual entities are being constituted.

In this context, Whitehead argues "that every prehension consists of three factors: (a) the 'subject' which is prehending, namely the actual entity in which that prehension is a concrete element; (b) the 'datum' which is prehended; (c) the 'subjective form' which is how that subject prehends that datum."[22] It is within this schema of prehensions that the three factors cannot be considered separately or as pre-existent, irrespective of their relations and entanglements. In this light there are no "subjects" or "objects" in Whitehead's philosophy of organism, which is what makes it distinctive in the philosophical tradition: "The philosophies of substance presuppose a subject which then encounters a datum, and then reacts to the datum. The philosophy of organism presupposes a datum which is met with feelings, and progressively attains the unity of a subject. But with this doctrine, 'superject' would be a better term than 'subject.'"[23] I therefore think that Whitehead's notion of prehensions, can be very well transposed in the wallpaper event, through which Kovalevskaya emerges as a subject, or rather "superject," in mathematics. As she recounts in her autobiography, the memory of the nursery room had long-lasting effects in her mathematical education, learning and understanding:

> Many years later when I was already fifteen, I took my first lesson in differential calculus from the eminent Petersburg professor Alexander Nikolayevich Strannolyubsky. He was amazed at the speed with which I grasped and assimilated the concepts of limit and of derivatives, "exactly as if you knew them in advance." I recall that he expressed himself in just those words. And as a matter of fact, at the moment when he was explaining these concepts I suddenly had a vivid memory of all this, written on the memorable sheets of Ostrogradsky; and the concept of limit appeared to me as an old friend.[24]

Despite her talent and love for mathematics, Kovalevskaya's formal education could not be extended to a university degree of course, since such routes for women were blocked in Russia and around the world in the nineteenth century. But there was an air of freedom in the 1860s in Russia, particularly among the younger generation, who strongly came to believe that scientific knowledge would end the dark ages of humanity and would open up the road to social revolution. Education as a route to equality was at the heart of this movement, and there were many young men in Russia's radical circles, who were committed to support women in their struggle to equality.[25] One way to do this was through consenting to enter white marriages, thus offering their "wives" the opportunity to take control of their lives and pursue university degrees abroad. Vladimir Kovalevskii was among those radical young men.[26] He and Sofia got married

22 Ibid., 23.

23 Ibid., 155.

24 Kovalevskaya (1978), 123.

25 See Ann Hibner Koblitz, "Science, Women, and the Russian Intelligentsia: The Generation of the 1860s," *The History of Science Society* 79, no. 2 (1998).

26 Vladimir Onufrievich Kovalevskii (1842–1883) came from a Russian–Polish landowners' family. He got involved in the Russian radical circles and was the first to translate and publish Darwin's work in Russian. For more biographical details, see Koblitz (1993); Kennedy (1983).

in September 1867, and after a short stay in St Petersburg, they eventually moved to Vienna, taking Kovalevskaya's elder sister Anyuta[27] with them. Kovalevskaya went on to study mathematics and physics, in Heidelberg where she was exceptionally admitted on the grounds of being married into a well-known scientific family in Europe.[28]

On completing her studies at Heidelberg in 1870, Kovalevskaya moved to Berlin, where she followed doctoral studies in private, under the supervision of Karl Weierstrass, a major figure in modern mathematical analysis.[29] Her doctoral thesis was submitted in 1874 to the University of Göttingen, which was known for awarding degrees to foreigners in absentia. Kovalevskaya got her doctoral degree cum laude, and returned to Russia, where personal life took precedence. After three years of emotional tensions, the white marriage was consummated and their daughter, Fufa was born.[30]

Things did not go very well in the couple's professional life, however. While Kovalevskaya started travelling to Europe again, trying to resume her interrupted academic career, her husband made some very bad financial investments that led to bankruptcy and eventually to his suicide in the spring of 1883. Thus, when an invitation to join the newly founded department of Mathematics in Stockholm University came from Gösta Mittag-Leffler[31]— who was among Weierstrass' disciples—Kovalevskaya accepted, despite her reservations around the financial arrangements of her new post. It is her struggle to open a path in the wild male academic world that I will now discuss in the next section.

Academic prehensions

> I was twenty-two years old when I moved to Petersburg. Three months earlier I had graduated from a university abroad and returned to Russia, PhD in hand. After five years of isolated, cloistered existence in a small university town, life in Petersburg immediately enveloped and, as it were, intoxicated me. Putting aside for a while the consideration of analytic functions, space and the four dimensions, which had so recently obsessed

27 Anna Vasilyevna Korvin-Krukovskaya (1843–1887) was a socialist and feminist revolutionary. After following her sister Sofia in Europe, she eventually settled in Paris where she met Victor Jaclard, whom she eventually married. She was an active member of the Parisian commune, but after its demise, she had to leave France with Jaclard. For more biographical details, see Kennedy (1983); Koblitz (1993); Joan Spicci, *Beyond the Limit: The Dream of Sofya Kovalevskaya* (London: Forge Books, 2002).

28 Both Vladimir Kovalevskii and his elder brother Aleksander (1840–1901), also an academic, had studied at the University of Heidelberg.

29 Karl Weierstrass (1815–1897) is often cited as the father of modern analysis. He became a professor of mathematics in Berlin, without finishing his university degree and perhaps his unorthodox academic career might have influenced his willingness to take up Kovalevskaya's supervision outside the formal university procedures. For more details about his life and mathematical work, see "Karl Theodor Wilhelm Weierstrass," MacTutor History of Mathematics Archive, https://mathshistory.st-andrews.ac.uk/Biographies/Weierstrass/.

30 Nickname for Sofia Vladimirovna Kovalevskaya (1878–1952). After her mother's death Fufa lived in Stockholm with family friends, until she finished secondary school and then returned to live with Iulia Lemontova, Sofia's friend, in Russia. She became a doctor and worked for the Red Cross in Russia and abroad. After her retirement, she became a medical librarian and translator, and she got very much involved in publishing her mother's literary work.

31 Gösta Mittag-Leffler (1846–1927) was a Swedish mathematician. He founded the journal Acta Mathematica and the Mathematics Institute of the Swedish Academy of Sciences that bears his name. For biographical details, see Arild Stubhaug, *Gösta Mittag-Leffler: A Man of Conviction,* trans. Tiina Nunnally (London: Springer, 2010).

> me, I threw myself into new interests. I made acquaintances left and right. I tried to penetrate the most varied circles. With greedy curiosity I turned my attention to all the essentially empty but initially so engaging manifestations of the complex hubbub that we call life in Petersburg.[32]

From the very first pages of Kovalevskaya's largely autobiographical novel, *The Nihilist Girl* we can have some glimpses of her life in Russia in the wake of her doctoral degree. The fact that she wrote a novel is partly attributed to her literary interests and talent, but also to the problem that an academic career in Russia was out of the question, even for an aristocratic woman who had got her doctoral degree from a prestigious European University. In any case, the overall ambience in Russia was not conducive to Kovalevskaya's mathematical work, despite her promises to Weierstrass that she would do so. Their correspondence between 1874–1875 shows that Weierstrass had advised her to have a rest first and also that he had somehow anticipated that her new social life in Russia would create a distraction: "I took it for granted from the very beginning that after a period when you had long been deprived of the chance to move in society, you would not start constant and serious work during the first period of your stay in Petersburg"[33] he wrote to her on 16 December, 1874. He did not seem to be concerned about it, since he believed in the strength of her mathematical mind: "I am firmly sure that your serious mind and your attraction to ideal aspirations will not allow you to restrain from research for too long,"[34] he wrote in the same letter. His conviction that Kovalevskaya was a mathematical mind to be trusted is also expressed in his New Year letter, dated 1 January 1875, where he shared his research plans for the future, which included publication of his work, which was gradually becoming unacknowledged by the younger generation:

> At the present moment, since young mathematicians have found that writing large books (by the way, without references) is the most reliable means to win the esteem of the crowd and gain a good place in the field of analysis, to whose thorough investigation I devoted the best part of my life, they have become too outrageous, and it is high time to put an end in it. […] It is too bad that in this country, as in other countries, textbooks are written by incompetent people […] But the highest and most difficult realms of the science, where something can only be attained by those who contribute their every effort, should not be handed over to those who write lightweight books.[35]

Having won her doctorate with flying colours Kovalevskaya was thus much more than Weirstrass' graduate student; she had become his friend and confidante: "forgive me, my sweet friend, this digression in which you would see the proof of how deep I have the habit of making you a confidante in my thoughts, even the most joyless ones,"[36] he wrote in the same letter. What Weierstrass could sense in Kovalevskaya was the poetic beauty of her mathematical mind that in his view, marked high level scientific work:

32 Sofia Kovalevskaya, *Nihilist Girl,* trans. Natasha Kolchevska with Mary Zirin (New York: The Modern Language Association of America, 2001 [1892]), 3.

33 Cited in Kochina (1985), 93.

34 Ibid.

35 Ibid., 94.

36 Ibid.

"The highest point within our science is accessible only to one who is to a certain extent a poet and has prophetic vision and a sense of beauty"[37] he had said to the group of auditors who attended his lessons between 1874–1875. And yet Weierstrass certainty was idealistic rather than pragmatic and it was indeed the materiality of life that temporarily won over Kovalevskaya's spirit. Prehensions worked differently in Russia, in carrying Kovalevskaya's mind away from mathematics. Kovalevskaya's entanglement in the demands of sociality within a heteropatriarchal regime, is a very good example of the constant interplay between negative and positive prehensions in Whitehead's philosophy: "There are two species of prehensions: (a) 'positive prehensions' which are termed 'feelings', and (b) negative prehensions, which are said to 'eliminate from feeling.'"[38] While positive prehensions are processes by which an actual entity takes in or apprehends other entities in its environment —Kovalevskaya taking in mathematical formulas from the nursery wallpaper, as we have seen above—negative prehensions involve the exclusion of certain aspects, experiences or feeling in the becoming of an entity—an academic career in mathematics for Kovalevskaya. In this light, life in Russia triggered negative prehensions, processes in which Kovalevskaya's passion for mathematical work was played down and/or became dormant: "A negative prehension holds its datum inoperative in the progressive concrescence of prehensions constituting the unity of the subject,"[39] as Whitehead has written.

It was in the interplay of positive and negative prehensions that Kovalevskaya's mathematical work took the back seat and a visit to Germany planned for the spring/summer of 1875 never happened. After the death of her father in the fall of 1875, her correspondence with Weierstrass was interrupted for almost three years; it was resumed in the summer of 1878, while Kovalevskaya was expecting a baby and had subsequently reduced her social activities. Her return to science coincided with her forthcoming motherhood, not a usual coincidence, even in our own days. Kovalevskaya was actually pleased that she had resumed her mathematical work during her pregnancy. In her view, the intellectual development of the child was linked to the mental state of the mother: "Thank heavens I had not completely lost my strength in the study of mathematics; now at least, my little girl will inherit fresh intellectual capabilities" she wrote to Elizaveta Litvinova.[40] During her three-year silence, Kovalevskaya had met with Gösta Mittag-Leffler, who had visited her in St Petersburg in 1876 and had written enthusiastically about his first impression of her in a letter to the Swedish mathematician Carl Malmsten:

> What most deeply interested me in St Petersburg was getting to know Madame Kovalewsky. Today [10 February 1876] I spent several hours at her house. As a woman, she is delightful. She is beautiful and when she speaks, her face illuminates with such an expression of feminine kindness and superior intelligence, that the effect is dazzling. Her manner is simple and natural without the slightest trace of pedantry or pretence.

37 Cited in ibid., 118.

38 Whitehead (1985), 23.

39 Ibid, 23–24.

40 Cited in Koblitz (1993), 138. Elizaveta Fedorovna Litvinova (1845–1919) was the second woman to get a doctorate in mathematics from the University of Bern in 1878. She was Kovalevskaya's friend and wrote her biography in 1893. For more biographical details about Litvinova, see Ann Hibner Koblitz, "Elizaveta Fedorovna Litvinova (1845–1919) – Russian Mathematician and Pedagogue," *Association of Women in Mathematics (AWM) Newsletter* 14, no. 1 (1984).

> She is in all respects a complete "woman of the high world." As a scholar she is characterized by her unusual clarity and precision of expression. The depth of her knowledge becomes clear then and I understand fully why Weierstrass considers her the most gifted of his students.[41]

Despite the fact that Kovalevskaya's beauty and aristocratic demeanour seems to take more space than her scholarly spirit in Mittag-Leffler's letter above, their encounter was to become an important event in Kovalevskaya's career. Weierstrass might have foreseen it: when their correspondence was resumed in the summer of 1878, he praised Mittag-Leffler to Kovalevskaya and advised her that "if you continue your friendship with him, it would be a stimulus for you,"[42] in a letter dated 15 August 1878.

Kovalevskaya's awakened interest in mathematical research was further delayed for two more years however, following the birth of her daughter, in October 1878. It was an opportunity to present her work at the Sixth Congress of Natural Scientists and Physicians, held in St Petersburg between January 1–10, 1880, that marked her return to the scientific world. Despite being a young mother and under the shadow of the family's financial disaster, Kovalevskaya accepted an invitation to contribute to the mathematics section of the congress and as Litvinova's memoir records, she prepared her work "with a feeling of joy and pride,"[43] honouring the trust bestowed upon her: "in the morning I delivered my abstract at the congress, made a great impression, merited praise from Chebysev and joined the ranks of scientists again."[44]

Mittag-Leffler was among the congress participants and soon after this event they started a correspondence that eventually took Kovalevskaya to Sweden and lasted till the end of her life. In her first letter to Mittag-Leffler, dated 14 October, 1880, Kovalevskaya asked about his university position vis-à-vis women: "I would be very grateful if you were so kind as to inform me clearly with respect to the attitude your University holds to us: does it open the doors for us without restraints, or does it admit us only in exceptional cases and a special favour, or does it refuse us completely?"[45] We can see how Kovalevskaya's own university experience is summarised in the length of a short epistolary question, interestingly situated herself in the "us," or differently "the women's question" in science. Her overall thoughts on women and science have been recorded in Litvinova's reminiscences:

> My destiny, or if you wish, the main goal of my life, but I like more the word destiny, because the goal of my life is in myself, while destiny is of divine origin. I feel that my destiny is to serve the truth, that is, science, and to blaze the trail for women, because that means to serve justice. I am very glad that I was born a woman, because this gives me a chance to serve both truth and justice at the same time. But it is not always easy to follow your destiny.[46]

41 Gösta Mittag-Leffler, "Weierstrass et Sonja Kowalewsky," *Acta Mathematica* 39 (1923), 172.

42 Cited in Kochina (1985), 104.

43 Ibid. 105.

44 Ibid. Pafnuty Lvovich Chebyshev (1821–1894) was a Russian mathematician and is considered to be the founding father of Russian mathematics.

45 Cited in Kochina (1985), 120.

46 Cited in ibid., 75–76.

But to return to her appointment, in the spring of 1881, Mittag-Leffler wrote again advising Kovalevskaya that his efforts to find a teaching position for her at Helsingfors (Helsinky) University were unsuccessful, not because she was a woman, but because she was considered a Russian intellectual involved in the radical circles of nihilism: "All my university friends know about your outstanding talent, so do not doubt that you would be invited here if you were Finnish or of any other nation except Russian,"[47] he wrote on 18 March, 1881. The fear was that a Russian radical lecturer in Finland would be followed "by some Russian women students, and one can never guarantee that among these there will be none belonging to a revolutionary party." This time it was not her gender, but her politics that created hindrances in her academic career. As Pelageya Kochina has commented, wherever Kovalevskaya went, "government circles feared that she would be accompanied by a penetration of 'nihilism' into the institution she was going to teach in."[48]

Despite his disappointment with the Helsingfors failure, Mittag-Leffler advised Kovalevskaya that he was moving to the newly opened University of Stockholm, and he was hoping that he would invite her there. It took some time for Kovalevskaya to respond, but on 7 June 1881 she wrote: "I have no intention of placing too high hopes on Stockholm; however, I will admit that I would be delighted if I were to have the opportunity to apply my mathematical knowledge to teaching in a higher education institution — the functions of a professor comprise something noble which has attracted me greatly."[49] Mittag-Leffler's response was swift: he wrote on 19 June, 1881, asking Kovalevskaya whether she would be willing to take the position of professor in the new Department of Mathematics of the University of Stockholm, but there would be no salary attached to this proposal, at least in its first stage. Being offered a job without salary would be unimaginable for any male academic and yet Kovalevskaya wrote back from Berlin on 8 July 1881, to confirm that she would accept it:

> I will always accept with joy the position of assistant professor at the university. I have never counted on any other position and, will admit to you openly, will feel less discomfited holding a modest position; I am striving to apply my knowledge and to teach at a higher educational establishment in order to make university accessible to women; at present, as it were, this access is an exception or a dispensation which can always be taken away, as has happened in the majority of German universities.[50]

At the time she was still under the false impression that her finances were in good order: "Although I am not rich, I do possess [enough] funds to live completely independently,"[51] she wrote, emphasizing the fact that her decision was not dependent on the salary, but rather on her determination to work among peer minds, but also "to serve to the best of my ability the cause that is dear to me,"[52] that is women's access to university education.

47 Cited in ibid., 120.

48 Ibid., 121.

49 Kovalevskaya (1951), 258.

50 Ibid.

51 Ibid.

52 Ibid.

Leaving the question of the salary aside, what is important to highlight here is Kovalevskaya's insistence on the fact that she wanted to be accepted not as a woman, but as a mathematician with an important contribution to the discipline of mathematics: "the appearance of a woman in the position of docent at a university chair is so serious a step (which may have serious consequences for the cause that I basically want to serve) that I do not have the right to take it *until I prove my abilities by my purely scientific work*,"[53] she wrote to Mittag-Leffler on 21 November, 1881. It was almost two years later after her husband's suicide, and only when she had finished the paper "On the refraction of light in a crystalline medium"—which she presented at the 7th Congress of Russian Natural Scientists and Physicians, held in Odessa from August 30 to September 9, 1883—that she felt ready to go to Stockholm. "I am deeply grateful to the University of Stockholm, for so kindly opening its doors to me and I am ready with all my heart to love Stockholm and Sweden as I do my homeland"[54] she wrote to Mittag-Leffler on 28 August 1883 from Russia. It was in the same letter however, that she expressed doubts about her academic abilities:

> I do not consider myself entitled to conceal from you that in many aspects, I admit that I am very little prepared to perform the duties of a docent. I doubt myself to such a degree that I am afraid that you, who has always treated me with such benevolence, will be disappointed upon seeing that I am little suited for the occupation I have chosen.[55]

Kovalevskaya's ambivalence about the value of her scientific work is neither surprising, nor unexpected. "This attitude is the exclusive property of women who blaze completely new paths" Litvinova wrote about Kovalevskaya, very much reflecting on her own experiences as well.[56] It is the internalization of prejudices that create such states of mind, Litvinova has persuasively argued, extending Kovalevskaya's impostor feeling to all talented women, while "the thought that he was not well enough prepared to assume the duties of docent would not even pass the mind of the most mediocre man."[57] In this light, Kovalevskaya's lived experiences of her first years in Sweden were crucial in the long process of becoming a professor in mathematics, as I will further discuss.

The researcher superject

Apart from dealing with the daily practicalities of tuning into Stockholm life, meeting the academic community, making new friends, and looking for a flat, Kovalevskaya prepared her lectures carefully. She felt delighted at the opportunity to talk about her own research and scientific contribution to this field,[58] but still she sought her supervisor's guidance and advice, as her only extant letter to Weierstrass, written in December 1883, shows: "It is true that I regret somewhat that I did not choose from the first to

53 Cited in Kochina (1985), 125, (my emphasis).

54 Kovalevskaya (1951), 268.

55 Ibid.

56 Cited in Koblitz (1993), 176.

57 Cited in ibid.

58 See Kochina (1985), 129.

lecture on the calculus of variations […] But please, be so kind, my dear best friend, and help me by giving me your advice in my distress."[59]

But it was not only teaching, but also research and publications that Kovalevskaya needed a mentor for: "I wish to turn to the detailed work [Ausarbeitung] on my last study, as it is most necessary that it appear this winter in *Acta Mathematica*, and without your help I cannot take a step forward,"[60] she wrote to Weierstrass in the December 1883 letter. Her paper was eventually published in the volume 6 of *Acta Mathematica*[61], as Kovalevskaya was keen to publish while waiting for her tenure to come through. Apart from publishing work that was already completed, Kovalevskaya also started a new research project on the problem of the rotation of a solid body about a fixed point, which would eventually become the highlight of her academic career. This is what she wrote to her friend Maria Jankowska-Mendelson on 19 January 1884:

> I am currently very busy and completely wrapped up in my worries about consolidating my position at the university so as to open this path for women in this way. The new mathematical work I have recently embarked upon fascinates me now, and I would not like to die without having discovered what it is I am looking for. If I manage to solve the problem I am currently working on, then my name will be entered among the names of the most eminent mathematicians.[62]

Being in the fever of preparing for her first lectures, Kovalevskaya was also entering the process of establishing herself in the field not as a "woman professor," but as "an eminent mathematician." She knew that the process would be long: "By my reckoning, I need another five years to achieve good results,"[63] she wrote in the same letter, "but I hope that in five years, more than one woman will be capable of replacing me here and I will then surrender myself to the other ambitions of my gypsy nature."[64]

On 30 January 1884 Kovalevskaya delivered her fist lecture,[65] which was received enthusiastically not only in terms of its subject content and lively presentation, but also as an event that opened up a new chapter in the field of gender and science: "the auditorium was full; people were aware of the historic nature of the occasion,"[66] Mittag-Leffler wrote to Weierstrass on 18 February 1884. Her lecture became a public event, since apart from the twelve enrolled students, "professors, university officials, and interested citizens came to see 'the princess of science' begin her teaching career,"[67]

59 Cited in Reinhard Bölling, "… Deine Sonia: A Reading from a Burned Letter," trans. David Rowe, *The Mathematical Intelligencer* 14, no. 3 (1992), 27. Weierstrass burnt all of Kovalevskaya's letters after her death, but this draft letter was found in the Mittag-Leffler Institute Archives by Bölling, in January 1990.

60 Cited in ibid., 27.

61 Sofia Kovalevskaya, "Uber die Brechung des Lichtes in Crystallinischen Mitteln," *Acta Mathematica* 6 (1885), 249–304.

62 Kovalevskaya (1951), 279.

63 Ibid.

64 Ibid.

65 Although Kovalevskaya's diary indicated January 30, it was actually February 11 in the Gregorian calendar.

66 Cited in Kochina (1985), 130.

67 Ibid.

Mittag-Leffler's letter went on, concluding with the claim that "it was clear even from the first class that she would be a good lecturer."[68] Kovalevskaya's diary gives a different taste of "the princess" experience: "Gave the first lecture today. Don't know whether it was good or bad, but I know that it was very sad to go home and feel so lonely in this world. The feeling was extremely strong in those moments. *Encore une étape de la vie derrière moi* [One more stage in my life left behind]."[69]

Her diary goes on with daily entries and all her lectures and preparations for them in February are listed as important events in the process of her becoming an academic.[70] "The actual world is a process and process is the becoming of actual entities" Whitehead has famously written in his major philosophical work *Process and Reality.*[71] Process is a fundamental fact of experience for Whitehead and "involves the notion of a creative activity belonging to the very essence of each occasion"[72]— Kovalevskaya's weekly lectures, meticulously recorded in her diary in our case. Whitehead, however, differentiates his own approach to process from the long philosophical tradition of flows and fluxes that goes back to Heraclitus. There are two kinds of fluency for Whitehead: the fluency of becoming a particular existent, which he calls "concrescence" and the fluency whereby an entity that has already become enters a process of new becomings —what he calls "transition."[73] In marking concrescence and transition as two kinds of fluency in the constitution of reality, Whitehead keeps flux and permanence together in his philosophy of the organism.

Kovalevskaya's diary entries in February leave marks of her "concrescence"—the fluency of becoming a particular existent, which is an academic. Every lecture is "an event," a particular occasion that enters the fluency of becoming as a novelty, an experience that is new and creative in the overall process. As Whitehead has written, "in each concrescent occasion its subjective aim originates novelty [which] in the case of higher organisms amounts to *thinking* about the diverse experiences"[74]— Kovalevskaya *thinking* about the experience of lecturing and thus marking their preparation and occurrence in her diary. Then, after February there is a pause in the recording of her lectures and the last lecture entry is dated 16 April.[75] Were her lectures not prehended as "events" anymore? As entities that had already been realized, her lectures had entered a process of new becomings, not as novelties anymore — and perhaps this why they were not marked or recorded — but rather as what Whitehead calls "the stubborn fact of the past:"

> In the philosophy of organism it is held that the notion of "organism" has two meanings, interconnected but intellectually separable, namely the microscopic meaning and the macroscopic meaning. The microscopic meaning is concerned with the formal constitution of an actual occasion, considered as a process of realizing an individual unity

68 Ibid.

69 Kovaleskaya (1951), 178.

70 Ibid., 178–79.

71 Whitehead (1985), 22.

72 Whitehead (1968), 151.

73 Whitehead (1985), 210.

74 Ibid., 102.

75 Kovaleskaya (1951), 178–79.

> of experience. The macroscopic meaning is concerned with the giveness of the actual world, considered as the stubborn fact which at once limits and provides opportunity for the actual occasion.[76]

In this light "the stubborn fact," which belongs to the past, inheres in the flowing present wherein actualities are being constituted, as such Kovalevskaya's lectures as realized unities of her academic experience, within the microscopic meaning of the "organism," became the part of the macroscopic meaning, the giveness of the academic world. This co-existence of permanence and flux creates conditions of possibility for the future, which is anchored in the present but has not been actualised yet. Each actual entity is thus an organic process that "repeats in microcosm what the universe is in macrocosm [and] although complete as far as concerns its microscopic process, is yet incomplete by reason of its objective inclusion of the macroscopic process"[77]— Kovalevskaya's "complete lectures" included in her yet incomplete future as the first chair in mathematics in modern Europe, her future becomings.

Apart from her lectures delivered twice a week, Kovalevskaya also participated in the mathematical seminars held at Mittag-Leffler's house every other week. Not only did she give talks herself, but also acted as a supervisor and advisor for students' presentations. According to Mittag-Leffler's evaluation in his correspondence with the University authorities: "the work at these mathematical seminars has led to the completion of several investigations of decisive importance for the development of mathematical science."[78] Mittag-Leffler was keen to highlight that "much of this progress has relied on the contributions from Mrs. Kovalevsky's knowledge in different branches of higher mathematics which she has given to the mathematical community at our university, and by her sound judgement and sharp-wittedness when she has helped her pupils in their work."[79] His appraisal was part of his attempt to secure a more permanent position for Kovalevskaya, as will become apparent.

Kovalevskaya gave her last lecture in the spring semester and then returned to Russia. As she wrote to her brother-in-law in early May 1884, the students made an enthusiastic adieu speech and gave her "as a memento of my first lectures their group photograph in a wonderful frame,"[80] which made her feel "terribly happy and touched."[81] Students' reminiscences from her first lectures show that in the beginning she did not feel quite at ease. This is how the astronomer-topographer V.V. Vitkovsky, one of her auditors during her first lectures in Stockholm remembers her:

> Sofya Kovalevskaya was dressed in a black velvet frock and wore no decorations. She armed herself with some chalk and started the lecture before 15 auditors very simply and whole-heartedly, about the Dirichlet principle. But she seemed to feel constrained because she did not once turn from the blackboard and left directly when she finished the lecture.[82]

76 Whitehead (1985), 128–29.

77 Ibid., 215.

78 Cited in Björk (2002), 23.

79 Cited in ibid.

80 Kovalevskaya (1951), 281.

81 Ibid.

82 Cited in Kochina (1985), 130.

In a letter to Alexander Kovalevskii, sent in the autumn of 1884, Kovalevskaya had written that her lectures were "a great trouble,"[83] always fluctuating between success and failure: "I try hard to give them properly and clearly; sometimes I succeed and then I am happy, but sometimes things don't go so smoothly."[84] Kovalevskaya was particularly attentive to her students' expression in understanding whether they were interested or not: "I notice that I don't manage to interest my listeners and to present everything in a clear light, and this makes me very sad," she wrote in the same letter.[85] It took time for Kovalevskaya to "realise" herself as an academic, but she eventually became a lecturer who could see through the eyes of her students, realizing their abilities and indeed awakening and strengthening them. As her friend Ellen Key[86] wrote in her memorial article, published in the Swedish journal *Dagny* in 1892, Kovalevskaya was an outstanding teacher, who took into account the existential uniqueness of her students and thus inspired and triggered their creative abilities.[87] A young woman, who was among her students, wrote after her death: "I felt as if I was completely seen through by Mrs Kovalevsky could, as if I was made of glass."[88] The student further added that she would always feel calm "under this affectionate, confident look," as well as her teacher's conviction that "real mathematics is the least dry of all sciences, opening up a vast field of creative fantasy and speculative views."[89]

Despite the fact that Kovalevskaya remained ambivalent about the quality of her lectures, her successful first course opened the doors of her formal appointment. Securing a position for Kovalevskaya however, was not easy, despite her success, and included a Byzantine form of diplomacy: Mittag-Leffler, the geographer-explorer Eric Nordenskjöld and the astronomer Hugo Gyldén agreed to withdraw their opposition to the promotion of two private docents from Uppsala to a full professorship, in exchange of Kovalevskaya's appointment to a five years' "extraordinary professorship." Kovalevskaya responded with humour to this trade in a letter to her brother-in-law, in early May 1884: "my election didn't pass by without resistance. My friends have also had to pay an extremely high price for me […] Do you see how much I am worth: two full professors!"[90]

Her appointment was officially announced on 28 June 1884, much to Mittag-Leffler's delight who had written to her on 2 June 1884: "God knows I have not accomplished much in life, but one really big thing will always be written in my list of merits. God grant us only strength and health enough to work together long! Maybe we shall achieve

83 Kovaleskaya (1951), 508n287[3].

84 Ibid.

85 Ibid.

86 Ellen Key (1849–1926) was a Swedish feminist and writer, whose ideas on children's education, sex, family, and marriage were largely influential in Sweden and beyond. For her biography, see Louise Nyström-Hamilton, *Ellen Key, Her Life and Her Work*, trans. A. E. B. Fries (New York: G. P. Putnam's Sons, 1913).

87 Ellen Key, "Sofia Kovalevskaya," in Sofia Vasilyevna Kovalevskaya, *Memories and Letters* (Moscow: AN SSSR, 1951), 413.

88 Cited in ibid.

89 Ibid.

90 Kovalevskaya (1951), 281.

much in due course."[91] In her May letter to Alexander Kovalevskii, Kovalevskaya had already written that her salary would be 4000 Swedish Kronor a year, which was far less than her male colleagues' 6000 usual annual income.[92] Moreover, only half of this reduced salary would come from the university; the rest would be generated from private subscriptions, which included Mittag-Leffler and Gyldén, as well as several women who wanted to be Kovalevskaya's students.[93]

Despite the fact that Kovalevskaya's appointment was a struggle and only half of her salary was covered by the university, her appointment was part of Mittag-Leffler's wider attempt to establish mathematical sciences in Sweden, by recruiting *la crème de la crème* in Europe, as far as he could, given that Sweden was a rising centre, but still in the peripheries of the European mathematical circles, mostly revolving around Berlin and Paris. His aspirations were clearly articulated in a letter to Kovalevskaya, dated, 19 June 1881, during the early planning of her appointment: "I do not doubt that with you in Stockholm our faculty will be one of the most advanced in the mathematical world."[94] His enthusiasm and admiration notwithstanding, Mittag-Leffler closely supervised her work: Kovalevskaya had to write her lectures, so that they could be checked in advance, and Mittag-Leffler would always attend the first lecture of her courses. "Please have a look at my lecture for tomorrow and return it no later than noon so that I can look through it once more,"[95] Kovalevskaya wrote in a message, as late as in February 1885, well after her extraordinary professorship had gone through.

But teaching was only a part of Kovalevskaya's contribution to the Swedish world of mathematical sciences. As already noted earlier in this paper, in 1882, Mittag-Leffler founded a new journal, the *Acta Mathematica* and in 1884 he asked Kovalevskaya to join the editorial board first and then take over as editor. As Kochina has commented, Mittag-Leffler was very keen to establish *Acta Mathematica as* a prestigious international journal, attract submissions from well-known mathematicians in Europe, as well as secure institutional subscriptions to the journal for the sake of its financial stability.[96] Kovalevskaya was to oversee all of these objectives not only through publishing her own articles and reviewing the work of her peers, but also through her multifarious connections with the mathematical circles in Russia, Germany and France.

On being a woman professor: the private and the public

As we have seen in the previous section, Kovalevskaya seemed to be defiant of her opponents, although the controversy around her appointment was to colour her overall experience as a woman professor for years to come. But it was not only her position as an academic that was under attack, but also her choices and lifestyle as a single mother that was also continuously under scrutiny. It is thus on the battle between the private and the public in the process of being a woman professor that this section will be focussing. When Kovalevskaya first visited Stockholm, she understood that going

91 Cited in Kochina (1985), 132.

92 See Lars Hörmander, "The First Woman Professor and Her Male Colleague," in *Miscellanea Mathematica* (Berlin: Springer, 1991), 195.

93 See Koblitz (1993), 187.

94 Cited in Kochina (1985), 133.

95 Cited in ibid., 134.

96 Ibid.

there with her daughter would be a huge strain for both of them and thus she decided to leave Fufa with her godmother, Iulia Lermontova, who was also Kovalevskaya's close friend, since their years as science students in Germany.[97]

When her extraordinary professorship was confirmed in the summer of 1884, the question of bringing her daughter to Sweden was raised again, but Kovalevskaya felt that things had not yet settled in Sweden and that it was in the child's best interest to stay in Russia. Although her friend Theresa Gyldén had written to warn her that there were rumours and gossip in Sweden regarding her separation with her daughter, Kovalevskaya's response was swift and determined and she explained that together with Iulia they had decided that it would be better for Fufa to stay in Moscow, where the little girl had a sense of belonging:

> You must also think of how alone we are in the world, my little Sonya and me. Her birth was welcomed by a whole, happy family; only five years have passed and now she has neither a father, nor a grandmother or grandfather, she has no natural support other than me. In these circumstances, it is entirely understandable that the link connecting her to the Lermontov family is doubly precious, and that I am not acting frivolously in not daring not only to sever but even to weaken this link.[98]

Lermontova had also promised that she would bring Fufa personally to Stockholm in the autumn of 1885 and would spend part of the winter there, to make sure that the child would adapt to her new environment. Kovalevskaya added:

> The summer before this, I will have the opportunity to be with Fufa in the Lermontova estate and I can teach her Swedish, so that she doesn't arrive in Sweden completely unprepared. Just think how dreadful she would have felt, in the first two or three months if she had come with me to Stockholm with me this year already![99]

The letter shows clearly how carefully Kovalevskaya had thought about her child's best interest, despite the pain of separation, which after all would not be very long, "since in December I will have the opportunity to visit her again in Moscow"[100] she reassured her correspondent. Kovalevskaya knew that preparing for her first full year as professor in Sweden, would not be easy: "it is vital that I can devote myself this winter to my lectures and mathematical work without interruption."[101] In addition, she was aware that she was inexperienced in housekeeping and at the end of the day she did not care about "the fact that 'people will talk.'"[102] While she had shown Lermontova the content of Gyldén's letter and had explained the prejudices of the Swedish society, they both had "long and serious discussions about what would be better just for the

97 Iulia Lermontova (1847–1919) was the first woman in the world to get a doctoral degree in Chemistry from the University of Göttingen in 1874, the same year as Kovalevskaya. For more details on her life and contribution to chemistry, see Koblitz (1988), 208–26.

98 Kovalevskaya (1951), 283.

99 Ibid.

100 Ibid.

101 Ibid.

102 Ibid.

girl."[103] Kovalevskaya's meticulous and detailed letter, which was articulated in concert with her friend Lermontova, is a testament of how women in science deal with "the personal" and the everyday, detached from empty sentimentalisms of the heteropatriarchal assemblage. As Kovalevskaya boldly put it in her letter:

> I am perfectly content to conform in all the petty details of life to the opinions of Stockholm society, both as regards how I dress, and as regards my lifestyle and my choice of acquaintances, etc., to carefully avoid everything that could offend the strictest judge – or rather, the judge of the female sex. But when the question is one of a matter of such importance to me as the welfare of my daughter, then I have to act entirely as I see fit. For my part, it would be an unforgivable weakness if I were to mix in other considerations here.[104]

Having carefully thought about the welfare of her daughter was not just a whim of the moment for Kovalevskaya. When Fufa eventually joined her in Stockholm in the fall of 1886, she found a new family among Kovalevskaya's circle of friends. In her "Reminiscences," Fufa has written at length about her impressions of her move to Sweden: "At the end of August, after two and a half days by sea, we arrived in Stockholm just before sunset. The view of the beautiful Stockholm raid amazed even me, who still did not know how to appreciate pictures of nature."[105] Kovalevskaya spent a lot of time with her daughter in the beginning, reading her books and taking her to the market "where, through visual learning, she significantly enriched my vocabulary of the Swedish language."[106] It was still summer, and Kovalevskaya's acquaintances were on holidays, but when they came back, little Fufa got to know the Lefflers, but became particularly attached to the the Gyldéns, who had a boy her age and three older children: "I enjoyed going to them […] they lived on the outskirts of the city, in a house with a tower, surrounded by a large garden. I began to live quite like a member of this family, particularly during the time of my mother's frequent absences and vacations."[107]

As has already been seen in the previous section, Kovalevskaya travelled a lot during the academic holidays, mostly to keep in touch with the mathematical circles in France and Germany, but also to have some time for her research writing. Fufa remembered that "during the summer and Christmas holidays my mother always went to France or Germany, while I stayed in Sweden or at Lermontova's. We spent only one summer with my mother."[108] She also wrote that she had not kept early memories of her mother, as "until the age of seven, I saw her for the most part only in fits and starts,"[109] but she clearly remembered her life in her uncle's family as "the happiest period of my early

103 Ibid., 284.

104 Ibid., 283–84.

105 Kovalevskaya, Sofia Vladimirovna (Fufa), "Memories of my mother," in Sofia Kovalevskaya, *Memories and Letters* (Moscow: AN SSSR, 1951), 362.

106 Ibid.

107 Ibid., 363.

108 Ibid., 362.

109 Ibid., 360.

childhood."[110] Throughout the several recollections of her life with her mother that she wrote,[111] it is obvious that they did not have a close relationship : "my feelings to mother, were rather complicated and were not as intimate as those for Iulia Lermontova," she wrote.[112] Fufa could open up to Iulia as "she loved me as I was,"[113] despite the fact that she was always careful not to display her full affection for the child of her friend: "no doubt, she loved me but thought it improper to give vent to her tenderness, and I was almost never caressed, apart from a kiss for the night."[114]

Apparently Kovalevskaya's box as "an ideal mother" cannot be ticked, but the question arises: is there such a thing as "an ideal mother?" Moreover, how are discourses around motherhood constructed and what are their conditions of possibility? Koblitz has written that Kovalevskaya's limited involvement in the life of her child was following the conventions of her culture and social class: "It was the custom for women of the continental European gentry and educated classes to leave the care of their children to nursemaids and other servants."[115] This was the way Kovalevskaya was brought up, and in her autobiography of her childhood her mother appears as a distant and almost fairy-tale figure:

> When I recall my mother during the first phase of my childhood, I always picture her as a quite young and very beautiful woman. I see her always gay and elegantly dressed. Most often I remember her in a low-necked ball gown, with bare arms and wearing a mass of bracelets and rings. She is getting ready to go out somewhere to a party and has dropped in to say goodnight to us.[116]

Kovalevsaya broke the tradition on so many levels and experiences. She did not become the aristocratic woman who would socialize, but the mathematician who had to travel, get involved in scientific networks, teach, prepare for her lectures, and focus on her research, publications, and editorial work. The traditional expectations of motherhood could not harmonize with the life of a scientist, while care seems to have remained a thorny— and as yet unresolved issue, well into the twenty-first century. Care and the political economy of women's work is at the heart of contemporary discussions around the dangerous liaisons between gender and science and an excavation of the past can only reveal how the private and the public are inextricably entangled in women's future becomings, but it also shows how intersectional differences among women have made such a huge difference in their emergence as subjects of science. This is how we come full circle to the genealogical project of interrogating the present, by excavating its

110 Cited in Kochina (1985), 318. Her uncle was Alexander Kovalevskii.

111 After Fufa's death in 1952, several recollections of her life with her mother were found and published and they are now in the Archive of the Russian Academy of Sciences. See Kochina (1983), 318.

112 Sofia Vladimirovna Kovaleskaya [Fufa] (1951), 320.

113 Ibid.

114 Ibid.

115 Ann Hibner Koblitz, "Career and Home Life in the1880s: The Choices of Mathematician Sofia Kovalevskaia," in *Uneasy Careers and Intimate Lives: Women in Science, 1789, 1979*, ed. Pnina G. Abir-am and Dorinda Outram (New Brunswick and London: Rutgers University Press, 1989), 187.

116 Kovalevskaya (1978), 52.

historical conditions of possibility and re-imagining its future. As I have already noted in the beginning of the paper, memory work is crucial in freezing important events in the long process of becoming a woman mathematician.

Memory works

In introducing an excellent volume on memory studies, Susannah Radstone and Bill Schwarz have argued that rather than being a single phenomenon or concept that can be encapsulated in some clear-cut definition, memory should instead be charted as a plane of practices, an open process with complex and diverse histories, epistemological fields and theoretical contexts.[117] Women's diverse histories in the field of science have created a complex assemblage of such diverse practices and open processes. What has been particularly critical in this bursting field of memory studies is its *material turn*, and in this context, it is Whitehead's notion of "causal efficacy" in his overall philosophy of process that I want to deploy, by way of conclusion.

As a mode of perception, "causal efficacy" emerges as "the hand of the settled past in the formation of the present" for Whitehead.[118] It is easy to follow Whitehead's argument that "causal efficacy" anchors experience in the past at the same time of dragging it into the present and throwing it into the future: "the immediate present has to conform to what the past is for it,"[119] in our case women's relation to mathematical sciences. Time is important in the unfolding of this conformation. When we look at Kovalevskaya's becoming a mathematician, we can see how she needed time to realize herself as a scientist, since her immediate present as a young woman was conformed to the prejudices of the past. While she entered a long process of detaching herself from the anchors of the past, she had a very short time to disentangle herself from the constraints of motherhood. Indeed, if she had not died so young, she might have had transformed the image of being a mathematician and a single mother, a process that women scientists after her, have already initiated.

Causal efficacy comes from the outside, revealing the worldly conditions that we emerge from, while the notion of causation emerges not as a logical mode – the way we think about the world – but as a visceral, living mode, the way we live the world. As Michael Halewood succinctly puts it, causal efficacy "points to the manner in which our material being *and* our beliefs and actions are always located within a realm of efficacy, of a passing-on of data, of reasons, of motion, of feeling."[120] It is in this context that memory for Whitehead refers to the persistence of the past in the present through the dynamic interplay of entities in the process of becoming, in short, memory as perception in the mode of causal efficacy: "memory is perception relating to the data from some historic route of ultimate percipient subjects […] leading up to […] the memo-

117 Susannah Radstone and Bill Schwarz, "Introduction: Mapping Memory," in *Memory: Histories, Theories, Debates,* ed. Susannah Radstone and Bill Schwarz (New York: Fordham University Press, 2010), 7.

118 Alfred North Whitehead, *Symbolism: Its Meaning and Effect,* (New York: Fordham University Press, 1958 [1927]), 50.

119 Ibid., 36.

120 Michael Halewood, *A. N. Whitehead and Social Theory,* (London: Anthem Press, 2013), 54–55, emphasis in the text.

rising percipient."[121] Apart from this passing reference in his major work *Process and Reality*, however, Whitehead has not expanded on memory. As I have discussed elsewhere at length,[122] it was Whitehead's student, philosopher Susan Langer, who took up missing threads from her teacher's analysis in bringing forward the notion of "symbolic transformation"[123] that is in my analysis a crucial process in understanding transpositions of material and spatial mnemonic practices and events —the mathematical formulas in the nursery wall paper, or her mother's elegant dresses in Kovalevskaya's case— into language, art and culture. Memory work through excavating, reading, and understanding women mathematician's auto/biographical documents is part of this process of symbolic transformation that can become part of future becomings.

In thus trying to think differently about the problem that well into the twenty-first century women are still marginalized in the field of mathematical sciences, either as students, teachers, researchers and academics, retracing and remembering Kovalevskaya's nineteenth century adventures in becoming the first woman professor in mathematics in modern Europe can enlighten our understanding about the difficulties of past/present entanglements and hopefully help us re-imagine the future.

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About the author

Maria Tamboukou is professor in Feminist Studies at University of East London, UK. Email: m.tamboukou@uel.ac.uk

121 Whitehead (1985), 120.

122 See Maria Tamboukou, *Gendering the Memory of Work: Women Workers' Narratives* (London: Routledge, 2016), particularly Chapter 5.

123 Susanne K. Langer, *Philosophy in a New Key: A Study in the Symbolism of Reason, Rite and Art* (New York: Mentor Books, 1951 [1942]).

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Educating the First Generation of Textile Researchers: The Drawing School for Women and the Development of Textile Research as a Field of Knowledge

Morten Grymer-Hansen & Ulrikka Mokdad

Abstract • This article explores the role of the Drawing School for Women (*Tegneskolen for Kvinder*) in the development of textile research as a field of knowledge, as well as its contribution to women's education and social status in Denmark. Through an examination of the lives and work of early textile researchers associated with the Drawing School for Women, the article first considers the emancipatory potential of knowledge in relation to the professionalization of textile crafts. It then sheds light on the ideals and potentials expressed by the advocates of textile research – as well as how, and to what extent, these were realised. Specifically, it suggests a close relationship between textile research, women's emancipation, and Danish nationalism. It concludes that the proponents of textile research were successful in making women's textile craft – and the study of it – a matter of national pride and interest, furthering the opportunities for women in the field.

Keywords • textiles, women's education, emancipation, applied arts, archaeology, textile research

Introduction

Knowledge is closely linked to power. Like power, knowledge is unevenly distributed in shifting hierarchies that determine restrictions and provide opportunities through exclusions and inclusions.[1] Women in Denmark were explicitly excluded from both knowledge and power until the late nineteenth century, as they were barred from entering higher educations and the professions.

Knowledge may take many forms. Craft knowledge, which has been passed down through example from master to student, can be particularly elusive in leaving scarcely any documentary or archival traces for the historian.[2] In the case of textile craft, its connection to women and the domestic setting may have prevented its inclusion in the fields of artisanry or art.[3] Nevertheless, textile craft has remained an important creative outlet for women over the centuries. The development of textile research at the turn of the twentieth century, in conjunction with the efforts of the Danish Women's Society (*Dansk Kvindesamfund*), therefore provides an interesting case for examination of the emancipatory potential of knowledge.[4]

1 Joel Barnes and Tamson Pietsch, "The History of Knowledge and the History of Education," *History of Education Review* 51, no. 2 (2022), 109–22; Björn Lundberg, "Exploring Histories of Knowledge and Education: An Introduction," *Nordic Journal of Education History* 9, no. 2 (2022), 4–5.

2 Peter Burke, *What is the History of Knowledge?* (Oxford: Polity Press, 2015), 36.

3 Rozsika Parker, "A Naturally Revolutionary Art?" in *The Subversive Stitch* (London: I. B. Tauris, 2010 [1984]), 189–215.

4 Parker (2010); Simone Lässig and Swen Steinberg, "Why Young Migrants Matter in the History of Knowledge," *KNOW: A Journal on the Formation of Knowledge* 3, no. 2 (2019), 215.

Towards the end of the nineteenth century, women gained access to educational institutions hitherto reserved to men. They were accepted into teachers' colleges in 1859, into the University of Copenhagen (*Københavns Universitet*) in 1873, and into the Royal Academy of Fine Arts (*Det Kongelige Danske Kunstakademi*) in 1889. Simultaneously, household tasks associated with women were becoming increasingly professionalized in Denmark with, for example, the introduction of home economics and the systematisation of girls' handicrafts education.[5] In Sweden, a similar process was taking place, but with a greater focus on textile production within the study of home economics and with the establishment of several weaving schools for women.[6] The textile craft education provided in Danish primary schools was focused on mending and the care of existing household textiles, until the introduction of the Schallenfeld-system towards the end of the century shifted the focus to the production of new and complete textiles.[7] Training in more advanced techniques such as weaving could be undertaken at certain folk high schools, such as Askov Højskole, and at weaving workshops, but no formal education in weaving was available to women in Denmark.[8]

Nonetheless, it was textile knowledge that permitted women to take up senior positions in Danish museums in the early twentieth century.[9] Among these women were the first three female curators at the National Museum of Denmark (NMD): Elna Mygdal (1868–1940), the first woman to become a curator at NMD; Ellen Andersen (1898–1989), her successor; and Margrethe Hald (1897–1982), curator at NMD and the first woman to obtain a doctorate in archaeology in Denmark. Besides curators, there were also textile conservators such as Elisabeth Schmedes (1870–1966), who founded and led the textile restoration workshop at Rosenborg Castle for 45 years.[10] Several of these pioneering textile scholars, including Mygdal, Schmedes, and Hald, were alumni of the Drawing School for Women in Copenhagen established by the Danish Women's Society in 1876.

5 Karen E. Andreasen and Annette Rasmussen, "The Development of Home Economics as a Field of Knowledge and its Contribution to the Education and Social Status of Women," *Nordic Journal of Educational History* 9, no. 2 (2022); Minna Kragelund, *Opdragende Håndarbejde* (København: Damarks Lærerhøjskole, 1990); Minna Kragelund, "Kærlighed til kaldet – et tveægget sværd – om håndarbejdsundervisning og lærerindernes professionalism," *Historisk Meddelelser om København* (1993).

6 Åsa Broberg, Viveca Lindberg, and Gun-Britt Wärvik, "Kvinnors yrkesutbildning: En osynlig historia," in *Kunskapstraditioner och yrkeskunnande: Kvinnors yrkesutbildning i historisk belysning*, ed. Åsa Brobert, Viveca Lindberg, and Gun-Britt Wärvik (Göteborg: Makadam Förlag, 2022), 28–30; Annelie Holmberg, "Vävutbildning i Sverige: Kunskap för H(h)emslöjd eller konst, fritid eller arbete," in *Kunskapstraditioner och yrkeskunnande: Kvinnors yrkesutbildning i historisk belysning*, ed. Åsa Brobert, Viveca Lindberg, and Gun-Britt Wärvik (Göteborg: Makadam Förlag, 2022).

7 Kragelund (1990), 57–85, 167–74.

8 Mette Eriksen Havsteen-Mikkelsen, "Omkring Jenny la Cours væveskole i Askov," *Mark og Montre*, no. 30 (1994), 74–81. See also Margrethe Hald, "Mindet lader som ingenting," in *Bjerre Herreds Bogen* (Glud: Glud Museums Forlag, 1963), 319.

9 Kirsten Elizabeth Høgsbro, "Kvinder i musealt regi," in *Clios døtre gennem hundrede år*, ed. Marianne Alenius, Nanna Damsholt, and Bente Rosenbeck (Copenhagen: Museum Tusculanum Press, 1993); A notable exception being the Egyptologist Maria Mogensen (1882–1932), who became the first woman curator at Ny Carlsberg Glyptoteket in 1926 and head of the Egyptian Collection.

10 Rosenborg Castle is a state-run museum exhibiting the crown jewels of Denmark among other objects.

Method and sources

The Danish Women's Society recognized the emancipatory potential of knowledge from the start. The Women's Society founded several schools to bridge the gap between the education available to men and to women.[11] The Drawing School was established with the explicit purpose of educating women so that they might find employment and provide for themselves.[12] At first, the school did not include textile-related courses in the curriculum except for classes in embroidery design. Instead, the school was intended as a counterpart to the Royal Danish Academy of Fine Arts which did not accept female students, although with a focus on applied arts such as porcelain painting, ceramics, and embroidery design. This changed after 1889, when an institute for women was established at the Royal Academy of Fine Arts, prompting a corresponding change to the purpose of the Drawing School. But while the Drawing School is noted for its contribution to the textile craft milieu and the Danish handicrafts movement of the late nineteenth and early twentieth century, its role in the formation of textile research, defined as the study of historical and archaeological textiles, has not previously been treated.[13]

We discovered these connections, as well as the Drawing School's close relationship to the early women's rights movement in Denmark, while employed in a research project on the legacy of Margrethe Hald. Little by little, additional pioneering textile researchers were added to the list of former students and teachers at the school, so that we now may present this first comprehensive study of the Drawing School in Copenhagen and its role in developing textile research as a field of knowledge, as well as its contribution to the education and social status of women in Denmark.

The article presents a narrative based on an empirical study primarily on printed sources such as the Drawing School's annual publications, anniversary publications, and the numerous books and articles in journals and newspapers written by or mentioning the school and its students. In particular the anniversary publication of 1926 by Elna Mygdal, as well as Karin Hoffritz's thesis on the lacemaking milieu at the school have provided much information for the general overview of the school and its personnel. Furthermore, the article is based on archival studies carried out partly in the course of the research project on Margrethe Hald at University of Copenhagen's Centre for Textile Research, supplemented by material from the personal archive of Elisabeth Schmedes at the Danish National Archives.[14]

Through the writings of actors engaged in textile research, we will examine the purpose and relevance of textile research expressed in relation to the education and

11 Gyrithe Lemche, *Dansk Kvindesamfunds Historie gennem 40 Aar* (Copenhagen: Dansk Kvindesamfund, 1912), 26–29.

12 Lemche (1912); Karin Hoffritz, *Det københavnske kniplemiljø i de sidste 100 år: Med særligt henblik på Tegne- og Kunstindustriskolen for Kvinder* (Brugge: Monitricecursus Kantcentrum, 1988); Elna Mygdal, *Tegne- og Kunstindustriskolen for Kvinder 1876–1926: Tilbageblik over Skolens Virksomhed og Udvikling* (Copenhagen: N. C. Roms Officin, 1926), Unpaginated book.

13 Hoffritz (1988). Regarding textile craft in the handicraft movement see e.g., Kristine Holm-Jensen, "Tekstiler – tavs viden mellem hverdagsliv og politik," *Folk og Kultur* 37, no. 1 (2008), 236–47; Carsten Hess, "Sofapuder og klassekamp: En kulturdebat i Husflidsbevægelsen i 1890'erne," *Folk og Kultur* 5, no. 1 (1976), 96–120.

14 Schmedes, Anna Elisabeth (Lisbeth), født Garde (ES), archive no. 07273, box no. 2, Danish National Archives (DNA); Mygdal (1926); Hoffritz (1988).

emancipation of women. Additionally, we will consider the development of textile research in relation to the socio-political movements for women's emancipation and Danish nationalism as they unfolded in the late nineteenth and early twentieth century.

The Drawing School for Women

In 1871, the Danish Women's Society was founded by Matilde Bajer (1840–1934) and her husband, Fredrik Bajer (1837–1922), as a women's rights organisation agitating for women's right to vote, to enter higher education and to become professionals. In its early years, the focus of the Women's Society was on creating opportunities for women through education. Since institutions offering education beyond primary school were generally closed to women, the Women's Society founded several schools to further this goal. In 1872, it opened a training school for women (*Handelsskolen for Kvinder*), followed by a Sunday school for women (*Søndagsskolen for Kvinder*) in 1874 for the education of working-class women; in 1875 they decided to establish an art school for women, which opened the following year under the name The Drawing School for Women (*Tegneskolen for Kvinder*).[15]

Its first principal was Charlotte Klein (1834–1915), who had been involved in the Danish Women's Society since its establishment and had served as the first president of the Women Readers' Association (*Kvindelig Læseforening*) 1872–1874.[16] The board of the Drawing School was composed of Klein's husband, architect Vilhelm Klein (1835–1913), as president and supreme court attorney Frederik Zahle (1842–1930, cousin to educator Nathalie Zahle 1827–1913) and teacher and suffragette Kirstine Fredriksen (1845–1903) as members.[17]

The stated purpose of the Drawing School was: "(…) to provide education to women in drawing and other skills that may be of use to them, should they wish to seek employment in the service of the industry."[18] From the beginning there seems to have been two tendencies among the students, those who wished to pursue a career as a painter and those who wished to work in the industry. The latter were primarily porcelain painters, but also designers of textile patterns. At the time of its establishment, the Drawing School did not include textile or textile related crafts in its coursework – except for embroidery design. In the first 10 years or so of its existence, the school focused on both fine art school and art industry.

Student number varied considerably in the period 1876–1889.[19] In 1876 there were 31 students, in the following year 33, and in 1878, 63. Over the succeeding ten years student numbers stabilised at around eighty, with a peak in 1884 and 1885 of 104 and 113 students respectively attending the Drawing School. The first students were girls and women from wealthy and educated families who had received some private education before attending the school.[20] They were the daughters of government officials, pastors, even of the aristocracy. Of course, it seems that only a fraction went on

15 Lemche (1912), 26–29.

16 Lemche (1912), 30.

17 Mygdal (1926).

18 Lemche (1912), 29.

19 W. Toussieng, "Kort Oversigt over vore tekniske Undervisningsanstalter, med særligt Hensyn til deres økonomiske Stilling," *Den tekniske Forenings Tidsskrift* (1891), 109.

20 Mygdal (1926).

to work independently.[21] For most of these women, marriage meant giving up their education or profession; indeed in the school's annual yearbook of 1884, it was stated that there were three types of students at the school; those who wished to study fine art, those who would work in applied arts, and those who attended the school for the sake of "Dannelse," that is self-cultivation or "Bildung."[22] The school provided several courses on different levels, but the students were not awarded a formal qualification or certificate allowing them to serve in a specific profession.

Following the admission of female students into the Royal Danish Academy of Fine Arts in 1889, the focus at the Drawing School shifted in favour of the applied arts, although fine art retained a presence. This change was seemingly in line with the school's purpose, as well as the opinion of the school's principal, Charlotte Klein, who, according to a former student, "(…) always discouraged students from seeking the life of an artist if they did not possess *distinct* facility. She dreaded a proletariat of artists."[23] An examination for embroiderers was introduced at the Drawing School in the same year, although no embroidery teachers were registered among the staff.[24] The examination did not focus on embroidery itself, but rather on the drawing and designing of embroidery patterns.[25] It was likely Klein herself who was in charge of such courses, as she also supervised the exams, at least until Elna Mygdal joined the teaching staff in 1891, after which several teachers of numerous variants of embroidery are mentioned among the staff members.[26] According to students and staff members, Klein was involved in every aspect of teaching at the school and also practiced new crafts suggested for the curriculum; as the principal, registration of her involvement in specific courses may not have been required.[27]

Charlotte Klein came from a middle-class background in Elsinore. She was a friend of the feminist writer Mathilde Fibiger (1830–1872), whose books sparked the debate on women's rights in Denmark and who, in 1866, became the first female civil servant in Denmark, when she was employed as a telegraphist in Elsinore.[28] Like Fibiger, Klein was both an idealist and a practitioner. She dedicated her life to the education of women and worked several years without a salary as the Drawing School's principal, a post she held for 31 years until her retirement in 1907.[29] Klein died on 9 March 1915, on 22 April in the same year, a new constitution, giving women the right to vote, was passed by the upper and lower houses of the Danish Parliament and signed into law on 5 June.[30]

In 1913, at the age of nearly 80, Klein had published the lecture *Hvad jeg venter af*

21 Mygdal (1926).

22 Tegneskolen for Kvinder, "Tegneskolen for Kvinder: Skolens Formaal," in *Meddelelser fra Tegneskolen for Kvinder* (Copenhagen: Nielsen & Lydiche, 1884), 21–23.

23 Mygdal (1926). Translated by the authors.

24 Hoffritz (1988), 19.

25 Hoffritz (1988), 19.

26 Mygdal (1926).

27 Asta Frisch, "Nogle Erindringer fra Tegneskolen for Kvinder," *Kvinden og Samfundet* 30, no. 19 (1914), 290; Mygdal (1926).

28 Charlotte Klein, "Nogle Erindringer om Mathilde Fibiger," *Kvinden og Samfundet* 31, no. 2 (1915), 19–20.

29 Mygdal (1926).

30 Gyrithe Lemche, "Charlotte Klein," *Kvinden og Samfundet* 31, no. 6 (1915), 88–90.

Kvinderne (What I expect of women), in which she declared her disappointment at what had been gained by the women's rights movement. She argued that women had settled for gaining influence in a flawed system, rather than changing it. In this book, Klein formulated her vision for women's education and suffrage:

> […] now that the woman can obtain the same knowledge as the man has, then the time has come where she must use this knowledge in a *different* way than it has been used for centuries, she must use it to *change* the conditions according to the *essential difference* there exists between her and the man, and she must in her *inner world* find the tools for change and renewal.[31]

This passage reveals Klein's belief in an essential difference between men and women. Rather than arguing for the separation of male and female spheres, she argued that the inclusion of both genders in all spheres had the potential to transform society. In Klein's vision, the perceived inherent difference between men and women offered powerful potential if only women could use the education and professions that had become available to them in a new way rather than reproducing existing hierarchies.

Figure 1. Charlotte Klein. Photo: Mary Steen, The Danish Royal Library

31 Charlotte Klein, *Hvad jeg venter af Kvinderne: Et Foredrag* (Copenhagen: Nationale Forfatteres Forlag, 1913), 12–13. Translated by the authors.

Bronze Age textiles and the (re)discovery of sprang

In 1871, the same year as Danish Women's Society was founded, an oak coffin was uncovered in a mound known as Borum Eshøj a few miles northwest of Aarhus, by farmers digging the mound for its fertile soil. The coffin was manhandled, and its contents thrown about by the workers in search of valuables. It was not until the landowner had tried to sell some of the bronze artefacts to a goldsmith in Aarhus (believing them to be gold) that the Society for the Historical-Antique Collection (*Selskabet for den Historisk-Antikvariske Samling*) was alerted and three members despatched to the site.[32] They were able to secure much of the material from the burial, which was discovered to have been that of a woman in her fifties, who had been buried with numerous bronze goods and an almost intact set of clothes. These latter garnered much attention at the time. The find was published and discussed the following year by antiquarian and museum director J. J. A. Worsaae (1821–1885) in the popular magazine *Illustreret Tidende* alongside illustrations of the woman's clothes.[33] In 1875 ,the National Museum of Denmark carried out excavations at Borum Eshøj, where two more oak coffins containing the bodies of a man aged in his fifties and a young man were excavated – similarly clad in intact textiles though neither of the two burials was as rich in grave goods as the woman's.[34]

A decade passed before the Bronze Age textiles from Borum Eshøj once more entered the limelight. A collaboration between the National Museum of Denmark and the Drawing School began sometime in the 1880s, when Charlotte Klein was given access to the archaeological textiles. It was Klein's analyses that formed the basis of the museum's archaeological exhibition on Bronze Age textiles at the Exposition Universelle (1889) in Paris, as well as the fibre studies carried out by microscopist Bille Gram (1857–1934), published in 1891.[35] The students at the Drawing School were tasked with creating reproductions of the textiles, which were included in the exhibition at the 1889 Exposition. One student in particular, Petra Godskesen (1865–1951), later Petra Rump, stood out among the rest for her reproduction of the hairnet from the woman's grave at Borum Eshøj. The hairnet was made with a technique today internationally known as *sprang*, which had almost completely disappeared and was generally unknown at the time. The technique is carried out on a special frame, with the vertical threads (the warp) stretched between two narrow sticks, just as in weaving, but because the whole system is held in place by a thread inserted in the middle, the pattern of the fabric is the same at both ends[36]. Through careful study of archaeological material, Godskesen discovered that a mistake made in the hairnet appeared on

32 P. V. Glob, *Højfolket: Bronzealderens Mennesker bevaret i 3000 År* (Copenhagen: Gyldendal, 1970), 23.

33 J. J. A. Worsaae, "Dragter fra den ældre Bronzealder i Danmark," *Illustreret Tidende* 13, no. 643 (1872), 168–70.

34 Glob (1970), 26; C. Engelhardt, "Egekister fra Borum Æshøi," *Illustreret Tidende* 18, no. 890 (1876), 25–27.

35 Sophus Müller, "L'archéologie préhistorique du Danemark," in *Exposition universelle de 1889, à Paris: exposition rétrospective du travail et des sciences anthropologiques Danemark* (Copenhagen: Nielsen & Lydiche, 1889), 16–17; Bille Gram, "Undersøgelser af archæologisk Materiale, udførte i Prof. Steins Laboratorium," *Aarbøger for nordisk Oldkyndighed og Historie* 2, no. 6 (1891), 97–123.

36 Morten Grymer-Hansen and Ulrikka Mokdad, "Margrethe Hald og de historiske håndarbejdsteknikker sprang og nålebinding," *Foreningen Haandarbejdets Fremmes Medlemsblad* 1, no. 27 (2022), 26.

both sides at equal distance from the centre, so that from this she could infer how the textile had been produced.

In 1895, the Austrian textile scholar Luise Schinnerer published the book *Antike Handarbeiten*, which describes the sprang-technique along with other ancient methods of textile production.[37] Schinnerer's work would go on to become the reference point for later research on the subject. While her work does not mention the studies carried out by Klein and her students, their preliminary studies predate her work by almost ten years, and as the results were widely publicised at the Paris Exposition of 1889, their influence on this and later works must be considered a possibility, even if difficult to prove. Unfortunately, there are few sources to illustrate how Klein and her students worked with the archaeological material. Klein's analyses were not published in their own right, but simply referenced by scientists and scholars such as Bille Gram and museum director Sophus Müller, besides Godskesen, none of the participating students were mentioned by name.

In the foreword to Bille Gram's study of prehistoric fibres supplied with information from Sophus Müller from 1891, the efforts of the Drawing School for Women are noted:

> […] in the following it will be shown how much particular expertise in female craftsmanship has contributed to the understanding of the costumes of the Bronze Age. The professional knowledge of fabrics and their use and the following uniquely educated ability and expertise to observe, utilizing methods only available to the craftsman, will in many ways add information of great value to the archaeologist.[38]

The contribution of the Drawing School for Women may be viewed as an example of the use of knowledge perceived as female in a new way, in line with Charlotte Klein's hopes for the women's rights movement, to transform or break down the hierarchies separating fields of knowledge. However, although Gram and Müller argue for the inclusion of craftswomen in the study of prehistoric textiles, it is as specialists assisting the (male) archaeologist and not as researchers in their own right, indicating a hierarchy separating craft knowledge from academic knowledge. Rather than writing "textile craftsmanship," they refer to "female craftsmanship," highlighting the close relationship between textiles and women and the influence of gender on hierarchies of knowledge. However, the inclusion of the textile analysis and reproductions carried out by the Drawing School for Women in the Paris Exhibition of 1889 did present historical and contemporary textile craftsmanship as a subject worthy of study on a par with other forms of artisanry.

37 Luise Schinnerer, *Antike Handarbeiten* (Wien: R. von Waldheim, 1895).

38 Gram (1891). Translated by the authors.

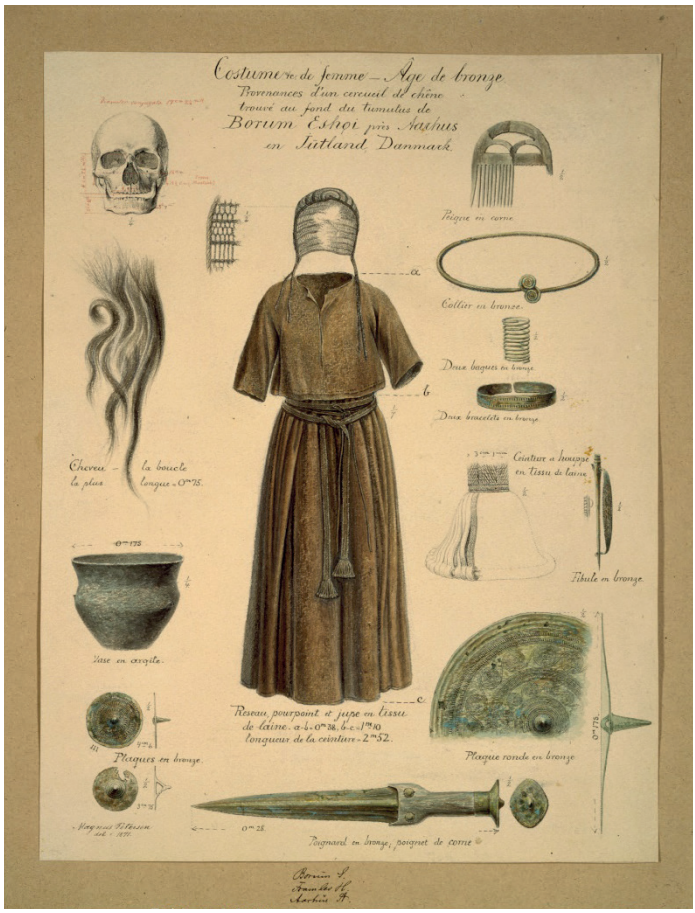

Figure 2. Illustration of the grave goods from the woman's grave at Borum Eshøj by Magnus Petersen. Photo: Kit Weiss. National Museum of Denmark

The first professional textile researchers

In the 1880s and 1890s, Elna Mygdal and Elisabeth Schmedes (née Garde) both attended and taught at the Drawing School. Their background was similar to that of the other students at this time – Mygdal was the daughter of a vicar on Funen, Schmedes the daughter of a naval officer. Both received considerable education before and since their time at the school, where they had excelled in their studies of drawing and textile design. They shared a common interest in embroidery and drawing – Mygdal was especially interested in folk embroidery and made a name for herself as a drawer of embroidery design – while Schmedes focused on gold embroidery.

Mygdal was a student at the Drawing School at the time when Klein undertook her study of Bronze Age textiles at the National Museum, and she may have been one of the unnamed students who partook in the project. She was hired as a teacher at the school in 1891, but she soon left for Sweden to study damask weaving and mathematical drawing at John Lenning's Weaving School in Norrköping, her move indicating

the different emphases in education in weaving in Sweden and Denmark at the time.[39] Mygdal later returned to the school's teaching staff while continuing to produce several award-winning textile designs.[40] By 1915, Mygdal had begun teaching a course on museum studies at the school.[41] In 1919, Mygdal left the permanent staff of the school for a position as curator at the Danish Folk Museum (*Dansk Folkemuseum*). When in the following year the museum became a collection under the National Museum of Denmark, Mygdal became the first woman curator at the institution. She returned to the Drawing School as a board member later in life.[42]

Mygdal published an article on sprang in the ladies' magazine *Vore Damer* as early as 1917.[43] In her article, she mentions Petra Godskesen's reproduction of the Borum Eshøj hairnet for the National Museum's exhibition at the Exposition Universelle of 1889, and she explains where to find other *sprang* objects in museum collections in Denmark and abroad. She also lists the few remote locations in Galicia, Croatia and Norway where *sprang* was still being produced at the beginning of the twentieth century. Mygdal's article in *Vore Damer* seems heavily influenced by Luise Schinnerer's publication and the illustrations are similar to those in Schinnerer's work.[44] Mygdal's article helped to popularise the term *sprang* in Danish to refer to this ancient technique, although other terms had been in use historically.[45]

While still a teacher at the Drawing School, Mygdal had published several scholarly articles on historical textiles and textile techniques in Denmark – and in 1932, she published her magnum opus *Amager Costumes: Woven and Sewn* (*Amagerdragter: Vævninger og Syninger)*, which remains the seminal work on traditional dress on the island of Amager and on Danish folk dress culture.[46] Mygdal was a diligent and energetic collector and registrar of textiles, and it is thanks to her and museum director Bernhard Olsen's (1836–1922) efforts that folk textiles from the Zealand area are well-represented in museum collections today. She was the first person who succeeded in taking the step from textile craftsperson and artist to researcher.

Elisabeth Schmedes, née Garde, came from a family of government officials and received her primary education at a small private school, then at Natalie Zahle's girls' school. Afterwards she studied to become a schoolteacher in 1887–1889. In the 1890s she followed several courses at the Drawing School "since my passion was drawing and

39 "Fra Indland og Udland," *Kvinden og Samfundet* 12, no. 9 (1896). Regarding Swedish weaving schools, see Holmberg (2022).

40 "Fra Indland og Udland," (1896).

41 "Tegne- og Kunstindustriskolen for Kvinder," *40de Aarsberetning og Program for Skoleaaret 1915–16* (Copenhagen: Nielsen & Lydiche, 1916), 11.

42 "Tegne- og Kunstindustriskolen for Kvinder," *57' Aarsberetning og Program for Skoleaaret 1932–33* (Copenhagen: Egmont. H. Petersen, 1932).

43 Elna Mygdal, "Sprang: En Haandarbejdsteknik som er gaaet i Forglemmelse," *Vore Damer*, 5. Aarg., no. 10, Maj 10, 1917.

44 Schinnerer (1895).

45 Margrethe Hald, *Olddanske Tekstiler* (Copenhagen: Gyldendal, 1950), footnote 2, 251.

46 Elna Mygdal, *Amagerdragter: Vævninger og Syninger* (Copenhagen: Schønberg, 1932). Although the "traditional dress" of most Danish regions is generally regarded as creations of nineteenth and twentieth century artists and scholars, Erna Lorenzen has argued for the existence of certain "dress islands" such as Amager where distinct sartorial practices evolved, see Erna Lorenzen, *Hvem sagde nationaldragt?* (Aarhus: Wormianum, 1987), 70–77.

embroidery."[47] Among the teaching staff was the newly employed Elna Mygdal, who is frequently mentioned in Schmedes' diaries from this time.[48] In 1902–1904, Schmedes undertook her first major work in the preservation and reproduction of historical textiles when she was engaged to make a reproduction of the altar cloth for the church on Christansø, an island in the Baltic Sea – where Schmedes' father had been the last commander of the fortress 1861–1863. Her finished work was exhibited in 1904 at the annual exhibition of the Drawing School, where it was described in the newspapers as one of the highlights: "it is so well made that it is almost unbelievable that human eyes and hands have created this piece of art from a worn piece of old altar cloth, which has been lying in the church for hundreds of years."[49] In 1906–1907, Schmedes travelled to Paris for eight months to study gold embroidery funded by the Danish interior ministry.[50] On her return, she was employed at the Drawing School as a teacher.

In 1917, the director and general manager of Rosenborg Castle contracted Schmedes to undertake the restoration of the so-called "Rosenborg Tapestries" from the 17th century. Schmedes established the textile workshop at Rosenborg Castle, where she engaged five of her most promising students as assistants in the painstaking work of restoring and conserving the dilapidated tapestries.[51] Schmedes spent several decades restoring the tapestries, travelling to Stockholm to compare and learn methods and techniques.[52] Besides her pioneering efforts within textile restoration and conservation, Schmedes was involved in the foundation of a number of textile craft societies such as the Danish Handcrafts Guild (*Selskabet til Haandarbejdets Fremme*) in 1928 and the Society for Ecclesiastical Art (*Selskabet for Kirkelig Kunst*).

On their return, Mygdal and Schmedes were hired as teachers by Klein, whereupon they made their newly acquired knowledge available to other women in Copenhagen. They also became driving forces in several societies and institutions established at the time and involved themselves directly in the preservation of traditional textiles, crafts, and history.

However, it was Mygdal's student, Margrethe Hald, who in 1950 was the first woman to attain a doctorate in archaeology with her dissertation on Iron Age textiles – two years before the first woman, Elise Thorvildsen, to obtain a Master of Arts in archaeology.[53] Hald had learned to weave at a local village weaver's workshop in Eastern Jutland and she had also attended classes at Askov Folk High School (*Askov Højskole*), at that time regarded as one of the most important centres for weaving in Denmark. In October 1917, she moved to Copenhagen to study at the Drawing School for Women where she was among Mygdal´s last students.

In the 1920s, Hald studied the prehistoric textiles at the National Museum of

47 Draft for autobiography to the Chapter of the Royal Orders of Chivalry, ES, DNA. Unpaginated.

48 Diary of Elisabeth Schmedes 1898–1899, ES, DNA. Unpaginated.

49 Article titled "Kvindelig Kunsthistorie" from 1904, cutout from unknown newspaper, ES, DNA.

50 Letter from the Danish Foreign Ministry to Schmedes, 1 June 1907, ES, DNA.

51 Draft for autobiography to The Chapter of the Royal Orders of Chivalry, ES, DNA.

52 Though the place is not mentioned, it is highly likely that Schmedes visited Agnes Branting's conservation workshop Pietas in Stockholm that had been established in 1908.

53 Hald (1950); Lise Bender Jørgensen, "The State of Denmark: Lis Jacobsen and Others," in *Excavating Women: A History of Women in European Archaeology*, ed. Margarite Díaz-Andreu and Marie Louise Stig Sørensen (London: Routledge, 1998), 222–25.

Denmark, and in 1930 she published her first scholarly work on tablet-weaving in Danish prehistory. This resulted in her being engaged as assistant and protégé to the Bronze Age specialist H. C. Broholm (1893–1966), with whom she published two major works on Bronze Age dress in the 1930s.[54]

In her research, Hald was particularly concerned with clarifying how and with what tools the National Museum of Denmark's archaeological textiles from both the Bronze and the Iron Age had been produced. Hald's research in textile techniques, analysing historical as well as archaeological textiles and textile fragments, was conducted both at the National Museum of Denmark and at other museums at home and abroad. As with her research on the so-called "tubular loom," she succeeded in several cases in getting in touch with textile artisans living in remote places in the world who were still masters of the techniques and could teach her.[55]

In 1967, the same year Hald retired from her position at the national museum, the Drawing School for Women effectively ceased to exist as it was merged with the Applied Arts School (*Kunsthåndværkerskolen*). Another student at the Drawing School, Erna Lorenzen (1909–2006), followed a path similar to Hald's at the open-air museum *Den Gamle By* in Aarhus from assistant to curator, like Hald in 1975 Lorentzen obtained a doctorate with her dissertation on the clothes of people in and around Aarhus c. 1675–1850.[56]

Figure 3. Elna Mygdal and her colleagues Kai Uldall and Jørgen Olrik in 1926. Photo: National Museum of Denmark. CC-BY-SA.

54 H. C. Broholm and Margrethe Hald, "To sprangede Textilarbejder i danske Oldfund," in *Aarbøger for nordisk Oldkyndighed og Historie* (København: Nordisk Forlag, 1935a), 29–47; H. C. Broholm and Margrethe Hald, *Danske Bronzealders Dragter* (Copenhagen: Det Kgl. Nordiske Oldskriftselskab and Gyldendalske Boghandel, 1935b); H. C. Broholm and Margrethe Hald, *Skrydstrupfundet: en sønderjydsk Kvindegrav fra den ældre Bronzealder* (Copenhagen: Det Kgl. Nordiske Oldskriftselskab and Gyldendalske Boghandel, 1939).

55 Ulrikka Mokdad and Morten Grymer-Hansen, "Margrethe Hald: The Quest for the Tubular Loom," *Archaeological Textiles Review* 63 (2022), 101–12.

56 Erna Lorenzen, *Folks tøj i og omkring Aarhus ca. 1675–1850* (Aarhus: Jysk Selskab for Historie and Universitetsforlaget i Aarhus, 1975).

Textile research between tradition and nationalism

The development of textile research as a field of knowledge coincided with the national romanticism movement of the nineteenth century which considered the Danish peasantry to be the 'true Danes', upholding traditions long forgotten by the privileged and urban classes.[57] This led to the establishment of numerous museums for the preservation of peasant culture, which was now increasingly threatened by industrialisation and urbanisation. Among the first of such museums was the 'Danish Folk Museum' *(Dansk Folkemuseum*) established by Bernhard Olsen in 1881 and opened to the public in 1885. As we have seen, Olsen engaged Elna Mygdal as a consultant, leading eventually to her employment as a curator in 1919. Mygdal's research and collection of peasant dress and household textiles figured prominently in the efforts to preserve crafts traditions, aesthetics, and the cultural history of Danish peasant communities, and her work was influential in forming the perception of "traditional dress" among peasants.[58] From 1920, her efforts were supported by a five-year-grant from the Danish government for the study and collection of Danish folk dress, illustrating the significance attributed to these studies at the time.[59]

The scope of Mygdal's research was however wider than the preservation and documentation of past traditions and craft. She advocated for hese traditions to be revived and to inform contemporary design and production. She expressed this sentiment in an article from 1928 on Danish weaving, regarding the pattern of a cushion from a traditional rural context:

> This weave has been common across the country for clothes as well as blankets and pillows, where the bottom part was white with coloured stripes… There is however no doubt that this could readily be used for pillows and such by a weaver in possession of proper materials and a sense of taste and colour.[60]

In 1913, Mygdal was among the initiators of Anton Rosens Vævestue, later known simply as Vævestuen (*the weaving workshop*) together with architect Anton Rosen, weaver Johanne la Cour Siegumfeldt, and the president of the Danish Handicraft Society (*Dansk Husflidsselskab*) N. C. Rom with the intention of reviving traditional textile crafts.[61] In that same year, Mygdal and Siegumfeldt were engaged in a project to select and produce textile samples based on peasant textiles to be used as patterns for textile designs.[62] Mygdal and Siegumfeldt's samples formed the basis of the textiles produced at the Vævestuen workshop, which proved to be a significant influence on

57 Thorkild Kjærgaard, "Gårdmandslinien i dansk historieskrivning," *Fortid og Nutid* 1 (1980), 178–91; Karin Lützen, "De gode gamle dage ude på landet," *Folk og Kultur* 37 (2008), 154–64. The term "peasant" is used as a general term for people living in the countryside.

58 Lorenzen (1987).

59 Dansk Folkemuseum, "Dansk Folkemuseums Virksomhed i Finansaarene 1920–21 og 1921–22," *Fortid og Nutid* 4 (1923), 220–21.

60 Elna Mygdal, "Dansk Vævning," *Nyt Tidsskrift for Kunstindustri* 1 (1928). Translated by the authors.

61 Birgit Jensen, "Funktionalismens boligtekstiler: eller hvordan en ny stilart blev til," *Folk og Kultur* 15 (1986), 69.

62 Jensen (1986), 69.

the textile patterns produced by Danish modernist designers such as Lis Ahlmann and Gerda Hansen.[63]

Similar arguments were formulated by Mygdal and Schmedes regarding Danish needlework. In the 1930s, they expressed the sentiment that both expertise and taste were lacking in contemporary needlework.[64] The solution, according to them, was to study historical textiles and techniques.

The efforts of Mygdal and Schmedes were continued into the 1940s by Margrethe Hald, by then an assistant at the National Museum of Denmark. In 1940 and 1941, she published two booklets sponsored by the weekly magazine *LANDET* for the instruction of women in needlework alphabets and numbers found in peasant textiles. The instructions were accompanied by Hald's descriptions and arguments for their use in contemporary settings:

> In a modern household, one may be less troubled by the duties of caring for large quantities of linen, but contemporary hygiene demands require us to change and wash the fabrics more frequently than in the past, and the tradition of numbering washcloths and bed linen may still be reasonable to uphold.[65]

The intended audience for Hald's booklets were farmers' wives rather than people with a distinct interest in textiles, and there is a marked difference in the arguments used by Hald and those by Mygdal and Schmedes. Hald's arguments are based on the practicality and usefulness of needlework, rather than the craftsmanship and aesthetics of the designs. Despite this, she reached the same conclusion, that peasant textile craft should be preserved and practised.

Hald was predominantly engaged in research on prehistoric textile techniques based on the textile collections in the National Museum of Denmark. Her studies were closely linked to her background as a weaver, she had taught herself several of the textile techniques used in prehistoric textile production, such as tablet weaving, sprang, and nalbinding. Her research was often combined with outreach to a wider public. Her research article on tablet weaving published in 1930, for example, was followed by a popular instruction book on the technique in 1932.[66]

The powerful nationalistic meaning attributed to textile crafts in the first half of the twentieth century is further suggested by the German Reichsleiter Heinrich Himmler's interest in the subject during the German occupation of Denmark in the Second World War, 1940–1945. In 1940, the National Museum of Denmark had been made aware of a woman, Sigrid Smidt, living in a village close to Ribe in Jutland and still practising the nalbinding-technique known from prehistoric textile finds. Hald was despatched to Jutland to learn the technique.[67] Following Hald's visit and her receiving instruc-

63 Jensen (1986), 70–78.

64 Elna Mygdal, "Om dansk Tekstilkunst," *Haandarbejdets Fremme* 1 (1934), 4–6; Elisabeth Schmedes, "Vor Broderi-Undervisning," *Haandarbejdets Fremme* 2 (1935), 31–32.

65 Margrethe Hald, *Korssting: Navne og Tal* (København: LANDET, 1940), 4. Translated by the authors.

66 Margrethe Hald, "Brikvævning i danske Oldtidsfund," *Aarbøger for nordisk Oldkyndighed og Historie* (1930), 277–301; Margrethe Hald, *Brikvævning* (København: Gyldendal, 1932).

67 Lars Schreiber Pedersen, "Heinrich Hihmmler og oldtidsvanterne fra Hviding," *Levende viden* 7 (2019), 42.

tion in the technique, the museum placed a notice in the newspaper *Nationaltidende* in January 1943 seeking to identify other craftspeople who might still be practising the technique.[68] This caught Himmler's attention, and he prepared to send a delegation from the SS-research institution Ahnenerbe[69] to Jutland to study nalbinding. Twice Himmler engaged weavers to take part in this mission but, despite continued reminders from his office, the German representation in Copenhagen was unable to identify Smidt and consequently nalbinding was never studied by Ahnenerbe.[70]

The efforts by Mygdal, Schmedes, and Hald exemplify the scale of the attempts at this time to preserve and revive textile craftsmanship associated with the peasant way of life, and framed as Danish traditions, for the sake of national taste, industry, and domestic life. These three figures succeeded in framing the study and teaching of textile crafts as a matter of national interest, and they succeeded in aligning their research in textile craft with the ideals of influential nationalist movements of the early twentieth century so as to form societies and institutions for the study, teaching, and application of textile crafts. That this caught the attention of Himmler and Ahnenerbe illustrates the uneasy relationship between the Danish "peasant romance" movement's search for original Danish traditions among a waning peasant culture and Nazi-Germany's search for an original Germanic people and their traditions.

Conclusion

The development of textile research as a field of knowledge was the result of the successful alignment of its advocates and major proponents with powerful movements for women's emancipation and Danish nationalism in the late nineteenth and early twentieth century. The uniquely well-preserved textile finds from the Danish Bronze and Iron Age, provided the Drawing School for Women and Charlotte Klein with the opportunity to demonstrate the importance of women's textile crafts and its application beyond the domestic sphere. The change in the school's curriculum to include several classes on textile crafts following its pioneering study of the Borum Eshøj textiles suggests that this change was not just a reaction to the admission of female students by the Royal Academy of Fine Arts.

The curriculum of the Drawing School for Women remained varying and dependant on the skills of the individual teachers. Subjects that were not taught at the school at first – or indeed in Denmark – were brought into the school curriculum through the employment of former students such as Mygdal and Schmedes, who had studied weaving and mathematical drawing in Sweden and gold embroidery in France respectively. Another notable addition was that of classes on museum studies taught by Mygdal in the 1910s, exemplifying the school's strong connection with the National Museum of Denmark after the collaboration of 1889.

Following Klein's retirement and the assumption by Mygdal and Schmedes of

68 Schreiber Pedersen (2019), 45.

69 The ***Ahnenerbe*** was a *Schutzstaffel* (SS) pseudo-scientific organization which was active in Nazi Germany between 1935 and 1945. It was established by *Reichsführer-SS* Heinrich Himmler in July 1935 as an SS appendage devoted to the task of promoting the racial doctrines espoused by Adolf Hitler and the Nazi Party. The *Ahnenerbe* was composed of scholars and scientists from a broad range of academic disciplines and fostered the idea that the German people descended from an Aryan race which was racially superior to other racial groups.

70 Schreiber Pedersen (2019), 46.

museum positions in the 1910s, the Drawing School gradually lost its position as the centre for textile research. However, Mygdal and Schmedes remained important actors involved in the establishment of societies and institutions for the preservation and application of traditional textile craft. They utilised a nationalistic discourse to argue not just for the preservation, but the revival of historical textile crafts. These efforts continued into the 1940s – when the German occupation of Denmark may both have bolstered Danish nationalist sentiments and opened opportunities for Nazi-German institutions to utilise textile research to their own ends.

The importance of the Drawing School for Women for women's education in Denmark cannot be underestimated. It contributed to the professionalization and revaluation of textile crafts associated with women by demonstrating their wide application and successfully making textile crafts a matter of national interest and widespread appeal. The development of textile research within this arena was highly dependent on individual actors and their networks. Through their work these women facilitated the spread of knowledge through the establishment of societies, workshops, and journals. Their influence on several aspects of Danish society in the first half of the twentieth century was profound.

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About the authors

Morten Grymer-Hansen is an historian employed as an Academic Research Officer at the Centre for Textile Research (CTR), the Saxo Institute, University of Copenhagen, Denmark.
Email: mvg@hum.ku.dk

Ulrikka Mokdad is a weaver and art historian employed as an Academic Research Officer at CTR.

71 Morten Grymer-Hansen and Ulrikka Mokdad, "'… en bitter Kamp for en Plads': Tracking Margrethe Hald's Path from the Loom to the National Museum" (paper presented at the Gender and Education workshop, DPU, Denmark, February 24–25, 2022); Morten Grymer-Hansen, "Køn, kvindehåndværk og emancipation: Tekstilforskningens tidlige historie i Danmark" (presentation given at opening of the exhibition Margrethe Hald – A Textile Pioneer at KUB Southern Campus, UCPH, Denmark, February 10, 2022a); Morten Grymer-Hansen, "Women's Work: Suffragettes and the Early History of Textile Research in Denmark" (paper presented at the Margrethe Hald and the Nordic History of Textile Research seminar, UCPH, Denmark, April 22, 2022b).

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Home Economics in Higher Education 1945–1955: The Academic Home Economics Education at Aarhus University and the Emergence of a Female Figure

Pernille Svare Nygaard

Abstract • In 1945, Aarhus University established the first advanced courses in home economics within the Nordic countries. This reflected the idea of a modern university that provided the blueprint for Aarhus University. However, hidden in the archives are various controversies surrounding the establishment of the courses. Based on 17 applications from 17 women educated within home economics, this article paints a picture of the women who chose to enrol in the academic courses in home economics, as well as the background for its development and the negotiations that took place around higher education for women within the field of domestic services. Sara Ahmed's figures of "the stranger" and "the willful subject" provide a theoretical foundation for examining which female figures emerged due to the early academicisation of a professional education programme for women. By drawing on these figures, the article concludes that a specific female figure emerged as a bridging figure linking notions of the housewife and the female academic.

Keywords • women's educational history, higher learning, home economics, Aarhus University, feminist theory, female figure

Introduction

> For about seven years [I have] been an assistant teacher at the teacher's training college – which I still am – and now I want to go out and learn some more.[1]

The above quote is from a female Norwegian applicant to a course in home economics at Aarhus University in 1946. She was among the first women to apply for and enrol in the "Special Courses in Home Economics at Aarhus University" (*Specialkursus i Husholdning ved Aarhus Universitet*). Her argument for being admitted to the course was short and to the point: she wanted to expand her knowledge within her professional field.

In this article, I argue that with the establishment of the home economics courses in 1945, a female figure emerged at the border between profession and university. While there were already female university students at this point in Danish history, this figure differed from previous generations by combining the role of the female academic with the more traditional role of the housewife. Although Danish women had gained new educational opportunities in the late nineteenth century that allowed a small but growing number of university-educated women to enter various professions, by 1945, the

1 "[…] i ca. 7 år [har jeg] vært assist. lærerinne ved Lærerinneskolen – hvor jeg fremdeles er – og vil nu gjerne ut og lære mer." Norwegian applicant, 24.07.1946. Husholdningshøjskolen: Sager og korrespondance (1933–1992) 2: Kursets første årgange 1946–1947 m.m. Unless otherwise stated, the translations are mine.

proportion of women who completed a higher education was only 15 percent.[2] Hence, the women admitted to the home economics courses were part of a pioneering generation of female university students, who helped link the previously separate fields of professional education and academia in the Nordic countries.

The home economics courses were among the first vocational programmes to be offered at a university in the Nordic countries.[3] Therefore, in addition to Danish applicants, the courses attracted women from Norway, Sweden, Finland, and Iceland.[4] However, reading the archival material, including the university's yearbooks, anniversary publications, and newspaper articles from this period, indicates that the home economics courses were not recognised as an academic programme, and the female students were not considered university students but rather course participants.[5] It is mentioned only as an aside in official accounts of the university's history, and there is no account of the women who applied for and completed the programme and who subsequently had the opportunity to apply for senior positions in the field of home economics.

The aim of the article is to include the women who took part in the special courses in home economics in the history of education in Denmark, including the history of Aarhus University. Applying a micro-historical perspective, I examine who these women were, where they came from, what motivated them and how they encountered the university. I then pan out to a broader perspective that includes the historical development of the home economics courses and the accompanying discussions. This brings me to the question at the core of this article: Which "female figures" emerged in the home economics students' encounter with Aarhus University in 1945/46 following the establishment of the scientific home economics courses?

To pursue this question, I examine applications written by 17 women who were subsequently admitted to the courses in November 1946. These applications were retrieved from the Danish National Archives (*Rigsarkivet*) and, together with other archival material concerning the courses, they can contribute to a better understanding of the female home economics students, the academicisation of their profession and the emergence of a specific "female figure." Hence, the article can be considered a case study of a particular educational initiative that came to play a role in transforming and creating a bridging female figure in the Nordic countries in the mid-twentieth century.

Methodological and theoretical considerations

The article's empirical basis primarily comprises archival material encompassing applications for the first courses, course reports (*kursusbeskrivelser*), written correspond-

2 Birgitte Søland, *Becoming Modern: Young Women and the Reconstruction of Womanhood in the 1920s* (Princeton: Princeton University Press 2000), 4; Danmarks Statistik, "Kvinder og Mænd i 100 år: Fra ligeret mod ligestilling," Rosendahl a/s, 24, https://www.dst.dk/Site/Dst/Udgivelser/GetPubFile.aspx?id=22699&sid=kvind.

3 The first vocational programme to be set up at a university in Denmark was a higher education course for nurses at Aarhus University in 1938.

4 Applications, 1946, Husholdningshøjskolen: Sager og korrespondance (1933–1992) 1: Beretninger 1946–1963 m.m.

5 e.g. H. C. Larsen, "Statens Husholdningshøjskole," *Tidsskrift for Husholdning* (1933), 195–96; Kit, "Set med hendes Øjne," *Jyllands-Posten*, March 25, 1950, 4; Edwin S. Spencer and Ellen Margrethe Hansen, "Om Specialkursus i Husholdning ved Aarhus Universitet," in *Aarhus Universitet 1928–1978*, ed. Gustav Albeck (Aarhus: Universitetsforlaget i Aarhus 1978), 589–96.

ence, official ministerial documents, and university documents, as well as various newspaper clippings. In addition, I have studied several publications marking anniversaries in Aarhus University's history.[6] Another important source for my research has been issues of the Danish journal of home economics (*Tidsskrift for Husholdning*) from the period 1930–1968.

My methodological and analytical approach to this body of material is inspired by Karen Barad's diffractive reading. I employ this analytical strategy to work through the material from multiple perspectives, enabling new patterns to emerge.[7] This approach allows me to extend my findings from analysis of the 17 applications and other material to a broader perspective on home economics within the context of higher education and what it indicates about the changing roles and positions of women within the university and society. According to Barad, who is inspired by the work of Donna Haraway (1992/2004)[8], diffraction refers to a method for mapping interference: "Diffraction is a mapping of interference, not of replication, reflection, or reproduction. A diffraction pattern does not map where differences appear, but rather maps where the effects of differences appear."[9]

With their background as a physicist, Barad refers to the phenomenon of waves passing through a two-slit diffraction grating and forming a diffraction pattern; likewise, diffractive reading is a method that causes the reader to follow the stories or the narratives as they develop, and thus to follow the movements and patterns in the material. Maria Tamboukou, professor in Feminist Studies, explains it as follows: "Understanding, or rather feeling a story is not simply about taking up situated positions, but rather about following the motion of meaning, its leaps, interferences and diffractions, in short, the activation of a story in becoming."[10]

Theoretically, I position myself within a critical, poststructuralist approach to new materialism, inspired by the feminist theorists Sara Ahmed and Maria Tamboukou. In my analysis, I incorporate Ahmed's theoretical figures of "the stranger" and "the willful subject."[11] These figures exist through performative actions; they are constantly *becom-*

6 e.g. Gustav Albeck, ed., *Aarhus Universitet 1928–1978* (Aarhus: Universitetsforlaget i Aarhus 1978); C. F. Møller, *Aarhus Universitets Bygninger*, (Universitetsforlaget i Aarhus 1978), Gustav Albeck, ed., *Student i Aarhus: Femten Erindringsbilleder samlet af Gustav Albeck* (København: Gyldendal, 1979); Johan Fjord Jensen, *En Århus-Historie: Erindringslinjer* (Aarhus: Klim, 2004); Henning Lehmann, *Leopardspor: Kollegierne i Universitetsparken i Aarhus 1935–2010* (Aarhus: Aarhus Universitetsforlag, 2010); Aarskrift for Universitetsundervisningen i Jylland vol. 1–40 (1929–1968).

7 Karen Barad, "Meeting the Universe Halfway: Realism and Social Constructivism Without Contradiction," in *Feminism, Science and the Philosophy of Science*, ed. Lynn Hankinson Nelson and Jack Nelson (Dordrecht: Kluwer Academic Publishers, 1996), 161–89; Karen Barad, "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter," *Signs: Journal of Women in Culture and Society* 28, no. 3 (2003), 801–31; Karen Barad, "Diffracting Diffraction: Cutting Together-Apart," *Parallax* 20, no. 3 (2014), 168–87.

8 Donna Haraway, "The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others," in *The Haraway Reader* (New York and London: Routledge, 2004), 63–124.

9 Barad (2003), 803.

10 Maria Tamboukou, "Narrative Rhythmanalysis: The Art and Politics of Listening to Women's Narratives of Forced Displacement," *International Journal of Social Research Methodology* 24, no. 2 (2021), 155.

11 Sara Ahmed, *On Being Included: Racism and Diversity in Institutional Life* (New York: Duke University Press, 2012); Sara Ahmed, *The Cultural Politics of Emotions* (Edinburgh: Edinburgh University Press 2014a); Sara Ahmed, *Willful Subjects* (Durham: Duke University Press, 2014b); Sara Ahmed, *Et ulydigt Arkiv: Udvalgte tekster af Sara Ahmed* (Copenhagen: Forlaget Nemo, 2020). "Willful" is Ahmed's American spelling.

ing rather than being. According to Ahmed, the stranger is a figure that is invisible, but at the same time recognised as a stranger. Hence, the figure contains an unavoidable anonymity, because it is unknown and could in fact be anyone. However, the stranger is recognised as not being from here or a part of "us," and as someone who comes from outside and invades the space.[12] In extension of the stranger figure another figure emerges: the willful subject. The willful subject has the potential to create change and, besides being self-determining, is a figure that does not always behave as expected. It has its own agenda. Thus, like the stranger, the willful subject is a figure that is noticed because it is bumped into, and because it does not allow the gaze to flow through the room. However, this figure has a strong will and the potential to create change. It is when things move in a different direction than expected that the willful subject becomes and keeps moving.[13] I use these feminist figures to form a picture of the female home economics students at Aarhus University – of their doings and their constant becoming as women at the border between profession and university. As such, the figures of the stranger and the willful subject should not be understood as attributable to the personalities or identities of specific individuals, but rather as a way of outlining forms of womanhood in a particular historical, geographical, and cultural context.

As a supplement to the archival material, I interviewed a woman named Katrin (1951–2021). This interview took place in February 2021, before I began my archival studies. Katrin told me that her mother (1913–1990), who came to Denmark from Iceland, had studied home economics at Aarhus University. Katrin did not remember the exact year of the course, but she did recall that her mother had remained in contact with some of her fellow students. When I began my archival studies, I encountered 17 applications from women who had applied for and were admitted to the advanced courses in home economics in Aarhus. Surprisingly, Katrin's mother was among these applications. I consider such encounters and interferences part of my diffractive approach to the material, where I seek to chart the rhythms and the waving movements of the archive, emphasising the archive as a living organism. With inspiration from Tamboukou, I want to follow the narratives' tracks and traces, and to pay attention to the "serendipities" that occur on my path of investigation.[14]

Structure of the article

The article is divided into three sections: The first section provides an overview of existing research in the field of women's educational history with a focus on higher education and home economics. This overview is divided into three parts, focusing respectively on Danish, Nordic, and international research.

The second section traces the history of home economics in Denmark. Here, I include excerpts from the negotiations that took place between the women's movement, the home economics associations, Aarhus University, and the Ministry of Education (*Undervisningsministeriet*) that reveal some of the challenges associated

12 Ahmed (2012), 13; Ahmed (2020), 10.

13 Ahmed (2020), 176–84.

14 Maria Tamboukou, "Archival Rhythms: Narrativity in the Archive," in *The Archive Project: Archival Research in the Social Sciences*, ed. Niamh Moore et al. (Oxford: Routledge 2017), 71–95; Maria Tamboukou, "Feeling Narrative in the Archive: The Question of Serendipity," *Qualitative Research* 16, no. 2 (2016), 151–66.

with the establishment of an advanced academic programme in home economics in Denmark.

Section three presents analytical findings based on the 17 applications from the home economics students found in the archives. In the analysis, I use the feminist figures of the stranger and the willful subject to argue that the Nordic women who enrolled in the home economics courses at Aarhus University during their first years of existence came to represent a specific but still marginal female figure.

Using feminist theory, I conclude that these women balanced on the border between profession and university where they performed a kind of womanhood that combined the figures of the housewife and the female academic.

Existing research in the field of home economics and other female professions

Danish perspectives

Prior to the early twentieth century, there were limited higher educational opportunities for Danish women. Although women had gained access to university in 1875, only few had the opportunity and support to pursue an academic degree.[15] Therefore, the university continued to be a male-dominated institution throughout the first half of the twentieth century. Bente Rosenbeck has argued that, as late as 1970, it was difficult to reconcile femininity with the student role in a male-dominated academic world.[16]

Overall, there has been greater focus on the development and significance of female professions within Danish research than on the home economics subject. Henriette Buus, Nete Balslev Wingender, Susanne Dietz, and Gunilla Svensmark, among others, have studied the emergence of the nursing profession, and the female authorities, such as health visitors, that came with the training of women as professional nurses.[17]

Bente Rosenbeck has studied Danish female pioneers within higher education, exploring how women fought their way into university as an institution dominated by men, and how they negotiated their femininity along the way. In addition, a few Danish scholars and historians have written about home economics as a female profession with an emphasis on home economics as an issue in the Danish women's movement, and on the importance of home economics for the Danish welfare state and for the modern

15 e.g., Lisbeth Haastrup, *Husarbejde – kvindearbejde, tjenestepiger – husmødre, 1880–1925: en kultur- og bevidsthedshistorisk analyse* (Institut for Nordisk Filologi, 1984); Hanne Rimmen Nielsen and Eva Lous, eds., *Kvinder Undervejs: Dansk Kvindesamfund i Århus 1886–1986* (Aarhus: Håndbibliotekets Veninder, 1986); Bente Rosenbeck, *Kvindekøn: Den moderne kvindeligheds historie 1880–1980* (København: Gyldendal, 1987); Bente Rosenbeck, *Har videnskaben køn? Kvinder i forskning* (København: Museum Tusculanums Forlag, 2014); Karen E. Andreasen and Anette Rasmussen, "Husholdningssagens betydning for den lille bys modernitet – Kvinders uddannelse og erhverv inden for husholdning 1890–1940," *Erhvervshistorisk Årbog* 69, no. 1–2, (2020), 67–91.

16 Rosenbeck (1987), 57–58; Rosenbeck (2014), 112.

17 Nete Balslev Wingender, *Firkløveret og ildsjælene: Dansk Sygeplejeråds historie 1899–1999, 1–2* (Århus: Dansk Sygeplejeråd, 1999); Henriette Buus, *Sundhedsplejerskeinstitutionens dannelse: En kulturteoretisk og kulturhistorisk analyse af velfærdsstatens embedsværk* (København: Museum Tusculanums Forlag, 2001); Susanne Malchau Dietz, *Køn, kald & kompetencer: Diakonissestiftelsens kvindefællesskab og omsorgsuddannelser 1863–1955* (Nyt Nordisk Forlag Arnold Busck, 2013); Gunilla Svensmark, *Kald og profession – sygeplejens historie 1863–2001* (Roskilde: FADL, 2020).

development of small towns in rural areas.[18] However, what has not previously been investigated in a Danish context is *professional* women's encounter with university, and their *becoming* as women through this early process of academicisation. In addition, the development of home economics as an academic discipline at Aarhus University has not previously been explored in depth. It is these gaps in the research field that the article will address.

Nordic perspectives

Throughout the Nordic countries, domestic education has had a significant impact on girls' and women's access to various occupations and positions in society.[19] However, domestic educational programmes have been implemented at different times and with different results across countries. What seems to be a common characteristic is that the desire for education in home economics has been a matter for the women's movements and to some extent also a welfare state project. According to Åsa Broberg, Viveca Lindberg and Gun-Britt Wärvik, domestic education became recognised as a branch of vocational education and training (VET) in Finland and Sweden earlier than in the other Nordic countries, alongside the implementation of agricultural VET for male students. In Helsinki, the first practical school of home economics was established in 1878,[20] while in Sweden, schools for home economics were established during the 1860s.[21] According to Broberg, Lindberg, and Wärvik, this indicates that the relation between national prosperity and the prosperity of the family, including women's contribution to productivity, was considered important in both Sweden and Finland.[22] Education in home economics thus became a responsibility of the state, prioritising women's expertise in the fields of childcare, food preparation, clothing production, cleaning, and keeping livestock. In Denmark, Lisbeth Haastrup, among others, has described a similar rationale, writing about the 1910 proposal to introduce conscription of women to educational programmes within home economics – a proposal that was never implemented.[23] Denmark established its first home economics school in 1895 in Sorø, and the first school kitchen for young schoolgirls was set up in 1898 in Copenhagen at Østre Gasværk School.[24] The first home economics school in Norway

18 Ninna Kiessling, "Kampen for en videnskabelig husholdningsuddannelse," in *Kvinder Undervejs: Dansk kvindesamfund i Århus 1886–1986,* ed. Hanne Rimmen Nielsen and Eva Lous (Aarhus: Håndbibliotekets Veninder, 1986), 124–36; Andreasen and Rasmussen (2020), 67–91; Jette Benn, *Fra kvindelig husgerning over hjemkundskab til madkundskab: Historie, filosofi og didaktik* (København: U Press, 2016); Søland (2000).

19 Åsa Broberg, Viveca Lindberg, and Gun-Britt Wärvik, "Kvinnors yrkesutbildning: en osynlig historia," in *Kunskapstraditioner och yrkeskunnande: Kvinnors yrkesutbildning i historisk belysning*, ed. Åsa Broberg, Viveca Lindberg, and Gun-Britt Wärvik (Göteborg: Makadam, 2022), 22; Gerda Petri and Minna Kragelund, *Mor Magda – og alle de andre: Husholdning som fag fra 1900 til i dag* (København: Forlaget Komma, 1980), 9–15, 19.

20 Åsa Broberg, Viveca Lindberg, and Gun-Britt Wärvik, "Women's Vocational Education 1890–1990 in Finland and Sweden: The Example of Vocational Home Economics Education," *Journal of Vocational Education & Training* 73, no. 2, (2021), 222.

21 Broberg, Lindberg, and Wärvik (2021), 223.

22 Broberg, Lindberg, and Wärvik (2021), 218.

23 Lisbeth Haastrup, "Husmødre og velfærdsstat," *Folk Og Kultur, Årbog for Dansk Etnologi og Folkemindevidenskab* 29, no. 1 (2000), 99–116.

24 Benn (2016), 40.

was established in 1865 in Østre Aker,[25] and the first school of home economics in Iceland was founded in Reykjavik in 1897.[26]

In the Nordic countries, around the turn of the century, education for women in home economics became a means for transforming society. At the same time, the women's movements had a significant influence on the establishment of women's vocational training, including training in domestic work, in all the Nordic countries, as well as in Great Britain (GB) and the United States (US). Brita Åkerman has studied home economics as a feminist project in Sweden in 1930–1960.[27] Among other things, Åkerman describes how women became organised in-home economics associations, how they brought the issue of domestic work to the fore in newspapers and magazines, and how they sought to establish home economics schools. A similar story can be found in a Danish context by Ninna Kiessling in the book about the Danish Women's Society in Aarhus. Here, Kiessling writes about the various women's organizations, which despite their disagreements, stood together in the fight for a scientific home economics education.[28]

International perspectives

Turning to international studies, the field of research within home economics seems to be somewhat broader.[29] Esther H. Stocks, Michael W. Whittier, and Flora Rose have

25 This school is not considered part of VET, as it was established on a private initiative and was closed in 1881 when the founder retired. Stig Kvaal, "'Ud for at lære husholdningsfag': Om etableringen av husstellundervisning i Norge," in *Matens Meglere: Kontroll, kvalitet og kunnskap i den industrielle matens tid*, ed. Terje Finstad et al. (Oslo: Cappelen Damm Akademisk, 2022), 100.

26 Ella B. Bjarnarson, *Kvinder der banede vejen: Den stejle vej til uddannelse 1850–1920*, (B.A. Thesis, University of Iceland, 2020), 77.

27 Brita Åkerman, *Den okända verdagen: om arbetet i hemmen* (Stockholm: Akademikerlitteratur, 1983).

28 Kiessling (1986).

29 Maresi Nerad, "Gender Stratification in Higher Education: The Department of Home Economics at the University of California, Berkeley 1916–1962," *Women's Studies Int. Forum* 10, no. 2 (1987), 157–64; Annemarie Turnbull, "An Isolated Missionary: The Domestic Subjects Teacher in England, 1870–1914," *Women's History Review* 3, no. 1 (1994), 81–100; Sarah Stage and Virginia Bramble Vincenti, eds., *Rethinking Home Economics: Women and the History of a Profession* (Ithaca: Cornell University Press, 1997); Elizabeth Bird, "'High Class Cookery': Gender, Status and Domestic Subjects, 1890–1930," *Gender and Education* 10, no. 2 (1998), 117–31; Nancy K. Berlage, "The Establishment of an Applied Social Science: Home Economists, Science, and Reform at Cornell University, 1870–1930," in *Gender and American Social Science: The Formative Years*, ed. Helene Silverberg (Princeton: Princeton University Press, 1998), 185–231; Megan Elias, "'Model mamas': The Domestic Partnership of Home Economics Pioneers Flora Rose and Martha van Rensselaer," *Journal of the History of Sexuality* 15, no. 1 (2006), 65–88; Megan J. Elias, *Stir it Up: Home Economics in American Culture* (Philadelphia: University of Pennsylvania Press, 2008); Jenny Collins, "Beyond the Domestic Sphere? A Home Science Education at the University of New Zealand 1911–1936," *Journal of Educational Administration and History* 41, no. 2 (2009a), 115–30; Jenny Collins, "Creating Women's Work in the Academy and Beyond: Carnegie Connections, 1923–1942," *History of Education* 38, no. 6 (2009b), 791–808; Marelene Rayner-Canham and Geoff Rayner-Canham, "The Rise and Fall of Domestic Chemistry in Higher Education in England During The Early 20th Century," *Bull. Hist. Chem*. 36, no. 1 (2011); Amanda McCloat and Martin Caraher, "The Evolution of Home Economics As a Subject in Irish Primary and Post-Primary Education from the 1800s to the Twenty-First Century," *Irish Educational Studies* 38, no. 3 (2019), 377–99; Tanya Fitzgerald, "Claiming Their Intellectual Space: Academic Women at the University of New Zealand 1909–1941," *Paedagogica Historica* 56, no. 6 (2020), 819–30; David Philippy, "Ellen Richards's Home Economics Movement and the Birth of the Economics of Consumption," *Journal of the History of Economic Thought* 43, no. 3 (2021), 378–400.

written about home economics at Cornell University, which was the first university to set up a home economics course in 1903.[30] With Cornell University providing a blueprint, home economics proved to be a progressive profession that introduced science to the farmhouse and brought women into higher education and leadership positions in public education, academia, government, and industry. However, looking at other studies, home economics was not well received at the universities. In 1908, the Home Science and Economics Department opened at the Women's Department of King's College, University of London. This new department offered a three-year programme and was aimed at upper-middle-class women, preparing them to teach domestic science at the secondary level. However, a fierce debate arose in England about whether the next generation of young girls should learn "real" chemistry or if they should learn domestic chemistry as a component of domestic science. In most cases, the conclusion was that domestic science could not be considered a real science.[31] At University of California, Berkeley, a department of home economics was established in 1916. The department was dominated by women but, and perhaps because of this, it was also low in power, prestige, and privileges.[32] In England in 1926, minutes from a meeting of the senate at the University of Bristol stated that the Faculty of Science was sympathetic to a proposal to approve a curriculum suitable for candidates wishing to specialise in domestic science. This curriculum involved three years' study in general science at the university with a fourth year at the Gloucestershire Training College of Domestic Science, studying cookery, housewifery and laundry, needlework, hygiene and applied science or household work, home management, and institutional management. The degree was to be awarded by the university's Faculty of Science. However, the faculty was declared only to be *associated* with the university, which separated the "domestic" and academic parts of the education.[33]

These examples from the US and UK testify to the difficulties in including home economics, home science or domestic science as a university subject; when such programmes were established, they were not considered equal to other university subjects. According to Tanya Fitzgerald, the case was somehow quite different in the British colony of New Zealand. Here, the Department of Home Science at the University of Otago formed an intellectual space for female academics from 1909 and onwards. Here, women could define and shape their own disciplinary expertise and professional knowledge about home science – knowledge that was acknowledged and respected by peers without having to compete with men. One explanation for this positive development could be that the women were appointed professors and associate professors, and therefore they were also given exclusive rights over their own research area.[34]

Despite a difficult start, professional home economics became a great success in the

30 In the US, agricultural land-grant colleges, teacher training schools as well as state schools had introduced home science as a subject in the late nineteenth century. In this article, I consider Cornell University as the first academic institution to set up a home economics course. This, because Cornell University initiated three courses relating to home and family life offered with an exam in 1903. Esther H. Stocks, Michael W. Whittier, and Flora Rose, *A Growing College: Home Economics at Cornell University* (New York: Cornell University Press, 1969).

31 Rayner-Canham and Rayner-Canham (2011), 38–40.

32 Nerad (1987).

33 Bird (1998), 123–25.

34 Fitzgerald (2020), 828.

US and functioned as a model for the establishment of university programmes in home economics in many other countries. In the US, education within home economics also played an important role in the consumer marketplace around the mid-twentieth century where the ideal was a rational consumer. Thus, the second generation of home economists understood consumption as a key element in improving people's living conditions and made the issue of standards their central concern.[35]

Two ways of presenting home economics, its development and societal significance are particularly prominent in recent historical research. On one hand, home economics has been portrayed as having an important social purpose, facilitating the empowerment of young women through the knowledge and practical skills required for everyday life. On the other hand, home economics has been criticised by feminists as a subject endorsing a belief that women's primary role is in the home and promoting a middle-class domestic ideology.[36] I choose to situate my research somewhere in between these two interpretations. My material suggests that the home economics courses offered at Aarhus University to a certain extent helped shape well-educated women who, with their university qualifications, attained higher positions in society, for example as headmistresses of home economics teacher training schools. At the same time, my material shows that home economics was never really accepted and recognised as a scientific subject at the university, which is why the female home economics students were in some respects unable to escape traditional ideas of women's domestic role.

My study differs from the previous studies as I start with a micro-historical perspective in the form of the women's applications that I then expand to encompass women's educational history within home economics and higher education. This analytical strategy is inspired by Maria Tamboukou who in several of her scientific works has engaged with the narratives in the archives, mapping storylines based on a matrix of rhythmic vibrations, opening micro-sociological analyses that focus on processes, deterritorialisations, and becomings.[37]

"Women must learn something to be something"

Historically, women's primary areas of expertise in the family and in society were obstetrics, nursing, and domestic work. It was thus also in these areas that the first education programmes for women arose in Denmark with the birth foundation (*Fødselsstiftelsen*) in 1750, teacher training for women in 1859, education as a deaconess in 1863, and the first home economics seminar in 1902. The first *public* school for training home economics teachers was established in 1930.[38] Until that point, such schools were aimed at the daughters of the greater peasants in rural areas as well as the daughters of the bourgeoisie in the cities.[39] However, learning how to manage a house-

35 Philippy (2021), 396.

36 Andreasen and Rasmussen (2020); McCloat and Caraher (2019), Broberg, Lindberg, and Wärvik (2021); Stage and Vincenti (2017).

37 Maria Tamboukou, "'Portraits of Moments': Visual and Textual Entanglements in Narrative Research," *Current Narratives* 3 (2011); Maria Tamboukou, *Women, Education, And the Self: A Foucauldian Perspective* (Houndmills: Palgrave Macmillan, 2003); Maria Tamboukou, "Machinic Assemblages: Women, Art Education and Space," *Discourse: Studies in the Cultural Politics of Education* 29, no. 3 (2008), 359–75.

38 Rosenbeck (2014), 31; Andreasen and Rasmussen (2020): 70, 80–83.

39 Andreasen and Rasmussen (2020), 80–83.

hold was considered essential to the education of any young girl, who were therefore taught home economics as an independent subject at primary and lower secondary schools from 1903 onwards.[40]

In 1893, a teacher at a municipal school, Birgitte Berg Nielsen (1861–1951), proposed the establishment of a scientific education in home economics in affiliation with an academic institution such as the Danish Agricultural University (*Landbohøjskolen*) in Copenhagen.[41] For Berg Nielsen, home economics was an issue for the Danish women's movement. Berg Nielsen did not believe that women were born housewives, arguing that they had to learn something to be something.[42] However, Berg Nielsen was met with a lack of understanding from people in the school system, as well as politicians and granted authorities. In 1901, the Danish Women's Society in Aarhus (*Dansk Kvindesamfunds Aarhuskreds*) stepped in and supported the cause. This women's movement was from 1919 led by another teacher, Hulda Pedersen (1875–1961), who would prove to be a crucial figure at the forefront of establishing an academic programme in home economics. Home economics was an important issue for Pedersen as she was concerned about young women transitioning directly from school to factory or other industrial work without any knowledge of their tasks as housewives. She also believed that developing a scientific approach to home economics would generate more respect for women's work in the home and that young women would then remain within the domestic sphere. Another important purpose of establishing home economics as a university subject, according to Pedersen, was that women should have equal opportunities for higher education.[43] At the same time, societal developments such as women gaining access to the university in 1875, girls being admitted to the municipal secondary upper school (*gymnasium*) in 1903, and women's right to vote in 1915, alongside ongoing industrialisation and urbanisation, led to a growing interest in education among women in Denmark.[44]

From 1901 to 1919, several proposals were made for the establishment of a scientific home economics programme at a higher education institution.[45] All proposals were rejected either by the Danish Agricultural University, the Ministry of Education or when the plans for a business faculty (*Erhvervsfakultet*) at Aarhus University were dropped. However, Hulda Pedersen had gradually developed a strong network of female academics who supported her case. As such, the establishment of home economics as an academic discipline was a cause led by the Danish Women's Society and strengthened, primarily by networks of women within higher education even though also some men supported the case for example the chairman of the University Society of Aarhus (*Universitets-Samvirket, Aarhus*) barrister C. Holst-Knudsen. The emergence of women's networks as seen in the case with home economics is in line with Joyce

40 Rosenbeck (2014), 38.

41 Spencer and Hansen (1978), 589.

42 Kiessling (1986), 124–30.

43 Miss D., "Skal Kvinden betale Krisen med sit Selverhverv?" *Aarhus Stiftstidende*, February 17, 1934, 4; Karen Harrekilde-Petersen, *Landsudvalget til forberedelse af en videnskabelig husholdningsundervisning i tilknytning til Aarhus Universite: Redegørelse for udvalgets virksomhed igennem 25 år* (Aarhus: Aarhus Stiftsbogtrykkerie, 1959), 3–4; Spencer and Hansen (1978), 589–94.

44 Rosenbeck (2014), 38–40.

45 Spencer and Hansen (1978), 589.

Goodman and Sue Anderson-Faithful's conclusion that, throughout history, women have formed strong networks with other women as a strategic way of engaging and being heard in educational debates.[46]

In a letter from the Danish Women's Society to the Danish Ministry of Education in 1926, the argument was made that a scientific programme in home economics could have financial benefits for society, as housewives would encounter the latest knowledge about nutrition and hygiene, leading to improvements in family health.[47] This suggestion was not immediately rejected. When Denmark's second university, Aarhus University, became a reality in 1928,[48] it was suggested that such a programme in home economics be established as part of the business faculty. However, when the plans for such a faculty were put on hold, the plans for a scientific programme in home economics once again fell through.[49]

One of those who opposed the establishment of a scientific programme in home economics at the university was H. C. Larsen (1870–1955), head of department at the Danish Ministry of Agriculture (*Landbrugsministeriet*) from 1916. In an article in the home economics journal in 1933, H. C. Larsen writes as a response to the Danish Women's Society:

> [I find] reason, however, in order to have a clear conscience as the Ministry of Agriculture's representative on the commission, to advise the Danish Women's Society against putting much work into applying to establish state institution for the academic education of home economics teachers in Aarhus or elsewhere at this point in time, just as I believe that it would not be in Aarhus University's interest to take on such a 'dead weight' in addition to, I dare say, an already somewhat heavy load (...). Doing so would probably only lead to even more 'beautiful, wasted efforts' on the Women's Society's long and difficult road in this crucial societal matter.[50]

According to H. C. Larsen, the existing home economics seminars already fulfilled the task of educating women in the field of home economics. He therefore saw no need for additional programmes in this subject. In a letter sent 15 December 1936 to Rebekka la Cour, the chairwoman of the home economics committee of the Jutland farmers' associations (*de jydske landboforeningers husholdningsudvalg*), he wrote: "Above the home

46 Joyce Goodman and Sue Anderson-Faithful, "Turning and Twisting Histories of Women's Education: Matters of Strategy," *Women's History Review* 29, no. 3 (2020), 377–78.

47 Letter from Hulda Pedersen to the Danish ministry of education, 1926. Husholdningshøjskolen: Sager og korrespondance (1933–1992) 4: Oprettelsen af et husholdningsfakultet 1933–1949.

48 In 1928, the University Teaching in Jutland (*Universitetsundervisningen i Jylland*) was established for a period of three years. This was the beginning of what later became Aarhus University. Møller (1978), 16.

49 Kiessling (1986), 125–26.

50 "[Jeg finder] dog Anledning til, for at have min Samvittighed som Landbrugsministeriets Repræsentant i Kommissionen helt i Orden, at fraraade Dansk Kvindesamfund at sætte noget større Arbejde ind paa for Tiden at søge en Statsinstitution til videnskabelig Lærerindeuddannelse i Husholdning oprettet i Aarhus eller andet Sted, ligesom jeg tror, at det heller ikke vil være i Aarhus Universitets Interesse at indtage en saadan 'Dødvægt' i sin i Forvejen vistnok noget tunge last (…). Det vil sikkert kun føre til, at endnu flere 'skønne, spildte kræfter' bliver at finde paa Kvindesamfundets lange og besværlige Vej i denne samfundsvigtige Sag." (H. C. Larsen, *Tidsskrift for Husholdning*, Nr. 17, 06.09.1933).

economics schools and seminars, they are thinking of setting up a scientific institute for the training of such highly modern housewives that it is highly unlikely that many of them will be needed in our time."[51]

Despite several rejections over the years and degrading remarks about the acceptance of home economics at the university in Aarhus, it seems that Hulda Pedersen and the home economics committee relentlessly continued their struggle. Pedersen never publicly complained about the struggles and the degrading comments about her or home economics. However, by reviewing letters to Pedersen, her memoirs, notes, and minutes from meetings held by the Danish Women's Society, the long and tough struggle to establish a home economics programme within higher education emerges. The personal archives of Johanne Appel (1869–1957), chairwoman of the main board of the Danish housewives' associations (*De danske husmoderforeninger*), likewise testify to the huge amount of work involved, with a multitude of initiatives, meetings, correspondence, and applications.[52] These archives also show that there was a strong network, especially women, supporting the proposal, but they did not always agree on the details. For example, there was disagreement about the admission criteria, the length of the courses and the balance between practice and theory.

In 1942, the Danish Women's Society submitted another proposal for a home economics programme affiliated with the university, where students would be awarded the title of *candidatus rerum domesticarum*.[53] The application process was delayed due to the German occupation. In 1945, it was finally decided to establish teaching in home economics at Aarhus University, but as three separate five-month courses instead of the proposed two-year programme. Furthermore, instead of a final examination bestowing a master's degree, the women were only given a statement.[54] Thus, on one hand, home economics became part of the university in terms of physical location and course title. The female students were taught on campus by Aarhus University's (male) professors, as well as by leading women, recruited from the training schools for home economics teachers. Other course lecturers came from Aarhus Municipal Hospital (*Aarhus Kommunehospital*), the Danish Health Commission (*Sundhedskommissionen*), Aarhus Technical School (*Aarhus Tekniske Skole*), Jutland Institute of Technology (*Jydsk Teknologisk Institut*), Jutland School of Business (*Den Jydske Handelshøjskole*) and the University of Copenhagen.[55] On the other hand, home economics was not established as an academic discipline, and participants were not recognised as university students or sit a final exam.

While located within the university campus, the home economics courses were provided by a self-governing institution, separate from the university itself, with its

51 "Ovenover Husholdningsskolerne og Husholdningsseminarerne tænker man paa at sætte det videnskabelige Institut til Uddannelse af saa højmoderne Husholdningskvinder, at der næppe i vor Tid bliver Brug for ret mange af dem." (Letter from H. C. Larsen to Rebekka la Cour, 15.12.1936. UVM Komm. uddan. husholdningslærere, H.C. Larsens embedsarkiv: Embedspapirer (1918–1938) 1.

52 Erhvervsarkivet: Appel, Johanne 1924–1950, Taler mm.

53 This could be translated as "candidate for domestic affairs."

54 Spencer and Hansen (1978), 592–94.

55 Course reports, 1946–1963. Husholdningshøjskolen: Sager og korrespondance (1933–1992) 1: Beretninger 1946–1963 m.m.

own board and its own funds for the construction of buildings.[56] Comparing with experiences from other countries that had established domestic science as a university subject some years earlier, it did not seem to be advantageous that the courses were split between departments. In Aarhus, it was necessary to accommodate the interests of various stakeholders to establish home economics at the university. The women's organisations and home economics associations were dependent on the Danish Ministry of Education, the management of Aarhus University and the University Society of Aarhus. The women were not in charge in Aarhus; the first head of the home economics courses at Aarhus University was Professor of Hygiene, Skuli V. Gudjonsson (1895–1955), who was succeeded in 1955 by Professor of Biochemistry Fritz Schønheyder (1905–1979).

The applicants

In 1946, 48 women applied for the home economics courses at Aarhus University. The call for applications had been printed in Nordic journals targeted at school kitchen teachers and home economics teachers. Danish women had priority but, apart from the first year, all applicants who met the course requirements were admitted. For each year, a small number of course participants dropped out or failed to start their course.[57]

The educational programme was divided into three courses, each with its own thematic focus: Course A focused on dietetics, Course B on home economics technology, and Course C on household economy. Each course initially lasted five months and was free of charge. Later the courses were extended to nine months. Participants had to cover expenses for books, excursions, and the cost of living.[58]

The class enrolled in Course A in dietetics in the winter of 1946 consisted of 17 women: eight from Denmark, six from Norway, one from Sweden, one from Finland and one from Iceland. All the women had an educational background within home economics. The Danish women had either completed a two-year programme at the home economics seminar at Ankerhus in Sorø (*Ankerhus' Husholdningsseminarium*) or from the home economics seminar of Ingeborg Suhr (*Det Suhrske Husholdningsseminarium*). A few had qualifications from the state teacher training school (*Statens Lærerhøjskole*). The foreign students had similar educational backgrounds. Reading the 17 applications that were sent to head of studies Mrs Karen Harrekilde-Petersen (1902-1986), it appears that the female applicants were an average of 34 years old when they submitted their applications. The youngest participant was 22 and the oldest 54.[59] This suggests, in terms of age alone, many of these women differed from other university students, with male students having a mean age of 19 and female students 22 when they began their university studies.[60]

56 Spencer and Hansen (1978), 591.

57 Course reports, 1946–1963. Husholdningshøjskolen: Sager og korrespondance (1933–1992) 1: Beretninger 1946–1963 m.m.

58 Spencer and Hansen (1978), 589–96.

59 Applications 1946. Husholdningshøjskolen: Sager og korrespondance (1933–1992) 1: Beretninger 1946–1963 m.m.

60 Rosenbeck (2014), 59; Else Hansen, *Professorer, studenter og polit.er: Om velfærdsstatens universitetspolitik 1950–1975* (København: Museum Tusculanums Forlag, 2017); Katrine Charlotte Busk, *Den første generation af kvindelige akademikere* (Aarhus: Aarhus Universitet, Historisk Institut, 2000).

The women all appear to be unmarried at the time of their application to the course. Some of the women were living in housing provided by their place of work, for example at a home economics school, while others lived with their parents. About half of the 17 women asked to be allocated a rental room in the city of Aarhus when they applied for admission to the courses. According to her application, Katrin's mother, who came from Iceland to study home economics at Aarhus University, was 35 years old and neither married nor had children in 1946.[61] Shortly after the interview, Katrin wrote me an e-mail where she further explained:

> As I said, she [Katrin's mother] attended the Special Courses in Home Economics at the "Women's University" (Aarhus University) in the winter of 1946–47, where Karen Harrekilde "ruled". My mother was friends with Karen Harrekilde but did not live at the dormitory in the University Park, but in a dormitory on Kløvermarksvej, where she met my father. Upon returning to Iceland, in 1947/48 she became the principal of Kvennaskolen/the home economics school in Blönduós in the North. Then she married my father and moved to Denmark. I think the plan was for her to teach the special course, but [she] was prevented from doing so as my older brother unfortunately suffered brain damage from measles when he was 5.[62]

The Danish applicants came from most of the country, both large cities and provincial towns. The Nordic applicants predominantly came from larger cities.[63] Katrin's mother, for example, had studied home economics in Reykjavik, but returned for a few years to the smaller town of Blönduós after completing the course in Aarhus. In the post-war period, it was not unusual for women to travel alone. Especially unmarried women with the necessary resources and a strong will travelled, sometimes over great distances, for educational purposes. Travelling was for some women a strategy for finding their way into the world of education.[64] What is notable about the women who travelled to Aarhus to study home economics was thus not that they travelled, but rather that they travelled even though they had already obtained an education. They travelled to obtain *further* education. In addition to the physical distance travelled by some of the women, enrolling in the courses also involved moving from a professional setting to enter the world of academia. It must be noted, however, that the students were all privileged in terms of having the means and the opportunity to travel and move around. According to Katrin, her mother paid for the travel to Aarhus herself:

61 Interview with Katrin 18.02.2021.

62 "Hun [Katrins mor] gik, som jeg fortalte, på Specialkursus i Husholdning på 'Kvindernes Universitet' (Århus Universitet) i vinteren 1946–47, hvor Karen Harrekilde 'regerede'. Min mor var ven med Karen Harrekilde, men boede ikke på kollegierne i Universitetsparken, men i et kollegie på Kløvermarksvej, hvor hun mødte min far. Da hun kom hjem til Island, blev hun 1947/48 forstander på Kvennaskolen/husholdningsskolen i Blönduós på nordlandet. Derefter blev hun gift med min far og flyttede til Danmark. Jeg tror, at planen var, at hun skulle undervise på specialkurset, men [hun] blev forhindret, da min storebror desværre blev hjerneskadet efter mæslinger, da han var 5 år." (E-mail from Katrin 31.03.2021).

63 From Denmark, the women applicants came from: Kongens Lyngby, Aarhus, Juelsminde, Hjørring, Vedbæk, Copenhagen, Ranum, and Ribe. From Norway they came from Bergen, Trondheim, Lillesand, and Stabekk. The Swedish applicant came from Stockholm, the Icelandic applicant from Reykjavik, and the Finish applicant from Helsinki. (Husholdningshøjskolen: Sager og korrespondance (1933–1992) 1: Beretninger 1946–1963 m.m.)

64 Goodman and Anderson-Faithful (2020), 377–95.

> The Icelandic students on the special courses paid everything themselves. They saved up, however that was possible. But of course, we must remember that Iceland very suddenly became very wealthy because of the American base in Keflavík. Even ordinary housewives knitted socks, sweaters, and mittens for the soldiers, who were not used to the cold. (...) A cheap way of travelling for Icelanders who wanted to study "abroad" = Denmark, was to travel 2nd or 3rd class on the ship Gullfoss. It took 3 days.[65]

A specific form of womanhood seems to have emerged in step with the founding of home economics schools. Women were recognised not only as housewives but also as a citizen of the nation-state since, from World War I until the 1960s, it was the housewife who united all the central tasks that the state set for family and household.[66] From the perspective of the women's movement, gaining an education in home economics helped to emancipate women, and thus created a different, more intellectual and progressive housewife figure.[67] The historian Birgitte Søland argues that in the first half of the twentieth century, young women tried to create a new, more up-to-date style of housewifery and a more flattering image of the role as housewife. This new image was based on professionalism, scientific knowledge, and rational work processes, among other things.[68]

From profession to university

The Special Courses in Home Economics at Aarhus University were considered a continuation of the basic home economics training provided at the Danish home economics schools and seminars. They had to be scientific in the sense of introducing the students to advanced academic and theoretical content, made possible, among other things, by the students being taught by professors and associate professors at the university.

The subjects that the home economics students were taught at the university varied depending on which of the three courses they attended (A, B or C). Some subjects were common for all three courses while others were specific to the individual course. For example, the subjects "Family Sociology" (*Familiesociologi*) and "Business Geography" (*Erhvervsgeografi*) were only part of Course C, which focused on household economy. After the first course period, the curriculum was adjusted based on evaluations by former students. In the case of Course A, teaching in basic chemistry was increased from six to twelve hours per week, as well as the addition of a further six hours of exercises in physics per week.[69]

65 "De islandske studerende til Specialkurset betalte det hele selv. De sparede op, hvordan det så end kunne lade sig gøre. Men vi skal selvfølgelig huske, at Island meget pludseligt blev meget velhavende på grund af den Amerikanske base i Keflavík. Selv almindelige husmødre strikkede sokker, trøjer og vanter til soldaterne, der ikke var vant til den kulde. (…) En metode til billig rejse for islændinge, der ville studere 'ude' = Danmark, var at rejse med 2. eller 3. klasse på skibet Gullfoss. Det tog 3 dage." (E-mail from Katrin 29.03 2021).

66 Haastrup (2000), 113.

67 Elias (2008), 8–9.

68 Søland (2000), 168.

69 Course report. Beretning fra Specialkursus i Husholdning ved Aarhus Universitet. Omfattende Kursusperioden November 1946–Marts 1947. Husholdningshøjskolen: Sager og korrespondance (1933–1992) 1: Beretninger 1946–1963 m.m.

In a newspaper article in 1946, a home economics student at Aarhus University describes her stay at the university. The woman explains how she is taught physics at the Department of Physics, and microbiology is taught by a veterinarian in a laboratory. She also describes how the students put the knowledge they gain about micro-organisms into practice by studying them under a microscope, helping them understand how butter, cheese and beer are produced with the help of bacteria.[70] This description shows that the courses at Aarhus University were scientifically oriented and that the laboratory, the location of the teaching, was important for the scientific nature of the courses.

In 1950, the home economics students moved into their own dormitory, Dormitory 7, in the University Park in Aarhus, making them more visible to other university students and attracting the public's attention. The dormitory was built using funds raised by the Danish Women's Society, with the rooms reserved for the home economics students. Thus, in popular parlance, the women's dormitory was named the "Faculty of Meatballs" (*Frikadellefakultetet*)[71], which attests to the contrast associated with introducing home economics to an academic setting.

Two images of the female residents are especially prominent in the articles published in newspapers 1945–1950. On one hand, the home economics students are portrayed as pioneers in their field of home economics – as part of something new in Denmark that had already been implemented in countries such as the US and the UK. On the other hand, they were referred to first and foremost as women, with an emphasis on their role as housewives and questioning whether home economics was real science. One example is a drawing by the Danish artist Storm P., depicting a laboratory in which a tall woman stands alongside two much shorter male scientists (Figure 1). One of the scientists is holding a thermometer that is immersed in a pot, with a speech bubble stating: "Right then, now the potatoes are boiling."[72] The other scientist utters something in Latin (the name of a flower). The drawing is subtitled: "The aim is to use science in the service of the household."[73] In addition to the humour in the drawing itself, there is an underlying understanding that rather than making home economics scientific, science is domesticated.

70 Mary Aage Nielsen, "Paa Husholdningsstudium i Aarhus," *Aarhus Stiftstidende,* June 26, 1946, 7.

71 Jytte Mørup, "Om at være pige på kollegium," in *Universitetskollegierne i Århus 1935–1985* (Aarhus Stifts Bogstrykkeri, 1985), 79.

72 "Saa – nu koger Kartoflerne," *Aalborg Stiftstidende,* November 17, 1946.

73 "Man sigter at tage Videnskaben i Husholdningens Tjeneste," *Aalborg Stiftstidende*, November 17, 1946.

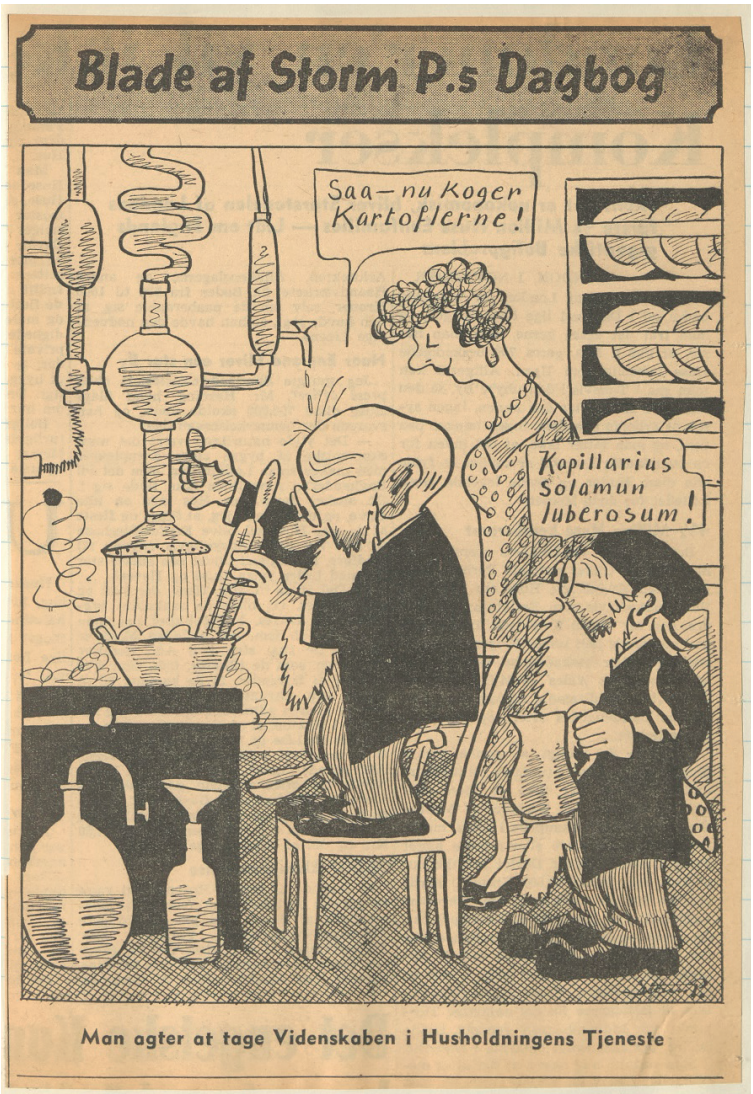

Figure 1. Storm P. drawing. Source: *Aalborg Stiftstidende* 17.11.1946. This version of the drawing is a copy of the original drawing, which today belongs in the Danish Museum STORM.

This portrayal of the female home economics students makes clear a central point in this article: that the women were at the border between profession and university. They practised a traditionally female profession which came to be affiliated with the university without being admitted as part of the academic world. Thus, they were *doing* a different way of being a university student. Being at the border between university and profession may have contributed to the courses appearing "out of place" at the university when reading the archival material. Being "out of place" or being treated as "space invaders" are concepts presented by Sara Ahmed in her work on diversity

in institutions. Based on her own experiences of being pointed out as a stranger, Ahmed writes:

> […] it was an experience of not being white, of being made into a stranger, the one who is recognized as "out of place," the one who does not belong, whose proximity is registered as crime or threat. As memory, it was of becoming a stranger in a place I called home. (…) [I]t led me to think and write about the politics of stranger making; how some and not others become strangers; how emotions of fear and hatred stick to certain bodies; how some bodies become understood as the rightful occupants of certain spaces.[74]

Based on this thinking, the home economics students can be seen as strangers who invaded the space of others, the university. According to Ahmed, it is the activities in and around the institution that define who are included and who are excluded from the institution. Hence, establishing the courses in home economics at the university helped shape a certain type of modern institution. However, by not placing these courses on an equal footing with other university subjects, the institution was for some people more than others. To use Ahmed's words, the activities shaped an institutional sense. Thus, some were more "at home" at the university, while others became "strangers." This did not align with Aarhus University's stated goal of inclusivity in relation to first-generation students and towards women.[75]

As can be seen from the subtitle of Storm P.'s drawing, there was a notion that the women attending the home economics courses had invaded a space that was not meant for them – science was invaded by domesticity. Despite the caricatured nature of the drawing, it is nonetheless the same image of the women that is portrayed in accounts from the dormitory and in newspaper articles from this period.[76]

Home economics students as willful strangers

The home economics students followed a different path to university and completed their course in an academic setting despite being pointed out as strangers. This shows that the home economics students kept on moving against the current. They completed their higher education, the programme continued to exist, and women continued to apply. In a sense, both the women engaged in the women's movement who had fought for the establishment of a home economics programme at the university and the students who later enrolled in this programme were strong-willed women who wanted something *more*. Some were motivated by a goal of gender equality and gaining respect for their profession. Some were motivated by gaining a higher position within the profession. Considering this, I argue that these women possessed the potential to change the academic field in Denmark. Compared to the US, where home economics was recognised as a university subject with its own department at a much earlier stage,

74 Ahmed (2012), 2.

75 Ning de Coninck-Smith, "Gender Encounters University—University Encounters Gender: Affective Archives, Aarhus University, Denmark 1928–1953," *Women's History Review* 29, no. 3 (2020), 416–17, [special Issue: *Turns and Twists in Histories of Women's Education*, ed. Sue Anderson-Faithful and Joyce Goodman]; Albeck (1978); Møller (1978), 11.

76 e.g., Kit, "Hos kvindelige Kollegianere," *Jyllands-Posten,* January 28, 1952, 5–6; Kit, "Dukkestueleg med Perspektiver: Paa Specialkursus uddannes 'Boliglærerinder,'" *Jyllands-Posten,* September 22, 1952, 5.

it is striking that the Special Courses in Home Economics at Aarhus University were not established until 1945. Part of the explanation could be that home economics in the US was implemented at coeducational agricultural land-grant universities in the 1870s, while a similar proposal in Denmark in 1893 by Birgitte Berg Nielsen was rejected. Offering farmers and their wives' information about "scientific farming" seemed to be a strategy that American women engaged in the field of home economics used. By 1900, about 30 colleges in the US had developed domestic science programmes and departments. The American women also met resistance – they were either considered too practical for academia or too abstract for domestic science.[77] However, it seems that the American women found it easier to define common goals within their movement. In Denmark, there was a lack of consensus within the Danish Women's Society and between the Danish Women's Society and the household and housewife associations, among other things regarding the structure of the education and the syllabus. Furthermore, the American women followed a different route – agriculture and scientific farming geared specifically towards farmers' wives – that paved the way to university faster than in Denmark. It is also worth noting that many new universities were established in the US at the beginning of the twentieth century, which led to a rapid expansion in women's educational opportunities, not least because of the growing number of women's colleges. Among other things, this development allowed women to define their field of expertise within the universities to a far greater extent than was the case in Denmark and the other Nordic countries.[78]

The conditions in the US played a role in the home economics case in Denmark. Members of the Danish Women's Society sometimes referred to relations abroad and were inspired by home economics programmes in other countries. For example, in 1931, Mrs Harrekilde-Petersen, who later became the first head of studies at the Special Courses in Home Economics at Aarhus University, travelled to Canada and the US on a scholarship from the Rockefeller Foundation to study the conditions at home economics departments at American universities.[79]

Had the plans for a business faculty at Aarhus University come to fruition, a higher education programme in home economics might have been established earlier. A department of home economics with female professors and lecturers could perhaps have provided a different framing of home economics as a subject within the history of education in Denmark. Nonetheless, the establishment of the home economics courses at Aarhus University was one of the first steps in a more comprehensive shift towards professional and vocational disciplines within Danish higher education. Thus, studying the case of the home economics students contributes to a broader understanding of Danish university history because, as I have argued in this article, the women encountered resistance and obstacles along the way that led them to seek different paths into the academic world. These women were persistent and strong-willed, and they stuck together creating strong female networks. Hence, more broadly, my findings in this article suggest a need to move beyond narrow conceptions of feminist pioneers within the field of education and to pay attention to the women who sought different paths to higher learning.

77 Elias (2008), 18–19.

78 Berlage (1998), 187–95.

79 *Aarhus Stiftstidende,* October 23, 1945.

Concluding remarks

The aim of this article has been to examine which female figures emerged when home economics students encountered Aarhus University in 1946. Based on 17 applications from women who applied for and were admitted to the Special Courses in Home Economics at Aarhus University, I sought to follow the rhythms in the archives, which led me to explore a broader perspective involving the Danish Women's Society, the history of home economics in a national, Nordic and international context, negotiations with government ministries, the structure of the scientific course, and newspaper and magazine coverage of the courses and students. Through a diffractive reading of the empirical material, the analysis started in the archives, where I followed certain storylines, plots, and characters that led me to new encounters, new tracks, new traces. Thus, the empirical material has revealed itself to me in patterns and waves, leading me through narrative assemblages and discursive entanglements to analyse the various components through one another while engaging with previous research.

Through the diffractive method, I encountered specific female figures in the material. In a quest to capture the home economics women analytically, I turned my attention towards Sara Ahmed's feminist figures as a theoretical template. Particularly noteworthy was the appearance of the women as bridging boundary figures, constantly transforming, negotiating their womanhood, and moving at the border between profession and university. The home economics students were first and foremost seen as women and therefore portrayed as strangers at the university, as intruders and as out of place. Alongside the feminist figure of the stranger emerged the figure of the willful subject. My analysis shows that the home economics students, as well as the women engaged in the women's movement, stood out as willful figures because of their will to pursue further education despite the resistance they encountered. The specific female figure that emerged at the border between profession and university was thus the figure of the "academic housewife." What made this female figure specific in the context of post-war Nordic countries was the inclusion at the university without being accepted as a university student, and the status as a pioneer within her field while still being regarded as a housewife. Still, the establishment of a higher education programme within home economics seems to have been an important factor for these women in the post-war period: completing the course improved their job opportunities and allowed them to take up higher positions in society. The home economics courses at Aarhus University also played a symbolic role, showing that women did not necessarily have to settle and could strive for something more than the housewife role.

Also, the article has shown that the Danish Women's Society played a significant role in the struggle for a scientifically oriented home economics programme as also seen in the US. Even though home economics at Aarhus University were more than 50 years in the making, the establishment and the later building of a women's dormitory were considered milestones for the Danish women's movement. However, the structure of the programme in home economics did not live up to the initial hopes and ambitions and home economics did not seem to gain the same recognition as an academic discipline in Denmark as in the US. At Aarhus University, home economics was not seen as equal to other university subjects and unlike in New Zealand, a department of domestic science with female professors was never established. Therefore, it is reasonable to ask

whether the impact on higher learning and women's influence within academia would have been different if home economics had been accepted as a scientific subject at the university at an earlier point in Danish history.

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About the author
Pernille Svare Nygaard is PhD student at the Danish School of Education, Aarhus University, Denmark.
Email: pesv@edu.au.dk

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Female Friendship in the World of Higher Learning: The Entangled Lives of Grethe Hjort/Greta Hort (1903–1967) and Julie Moscheles (1892–1956)

Ning de Coninck-Smith

Abstract • During WW2, the Danish scholar of English literature Grethe Hjort developed a close friendship with the Czech-Jewish geographer Julie Moscheles. Their paths crossed in Melbourne, and afterwards they settled in Prague. When Moscheles died in 1956, Hjort returned to Denmark to become only the second female professor at Aarhus University in 1958. Based on a study of private correspondence, this article has three interlinked intentions. Firstly, I explore the two women's entangled lives and their encounters with the world of academia during peacetime and war. Secondly, I situate their biographies in a historical context in light of the academic paths followed by modern young women of the interwar generation, who experienced education as a gateway to independence from conventional gender norms. Finally, the article offers an affective sensibility that adds to the conceptualization of scholarly personae.

Keywords • history of higher learning, scholarly personae, modern women, female friendship, Julie Moscheles, Grethe Hjort [Greta Hort]

Introduction

In the summer of 1928, two young women applied for a position as lecturer in English at what was then called the University Teaching of Jutland (*Universitetsundervisningen i Jylland*). Neither of them was considered qualified. The board decided to hire a male applicant who, five years later, after the University Teaching had become Aarhus University, was promoted as professor. Shortly after this rejection, the two women left Denmark to travel the world, only returning to Aarhus University in the late 1950s.[1]

One of these young women was Grethe Hjort (1903–1967), who, in 1957, became an associate professor (*docent*) and the following year only the second female professor at Aarhus University. By then, she could look back on an international career within academia. When she died ten years later, it was the image of a diligent and internationally oriented researcher that those who survived her wanted to support when they handed over her papers to the Royal Danish Library. Apart from illustrated drafts of seven short poems from her time as a college president in Melbourne, some business cards from her years studying in Cambridge, a draft of a letter of condolence from her years in Prague, and some congratulatory telegrams to Hjort, everything personal had been weeded out or disappeared. However, it should be noted that a few personal

1 Ning de Coninck-Smith, "Telling Stories Differently," in *Knowledge Actors: Revisiting Agency in the History of Knowledge*, ed. Johan Östling, David Larsson Heidenblad, and Anna Nilsson Hammar (Lund: Nordic Academic Press 2023), 179–200.

belongings, most notably her address book, were donated to AU's archives many years later by a former student of Hjort's.

The discovery of these seven poems in a special folder gave me the feeling that there was more to Hjort's biography than hard work and academic success. There was a life, but how was it connected to her academic endeavours? And could her story serve as a gateway to a narrative of the university as performed by people in the course of their everyday lives, rather than something to be celebrated on anniversaries? As will become clear, it was not long before this account came to include Hjort's relationship with the Czech-Jewish geographer Julie Moscheles (1892–1956).

When Hjort applied for a lecturer (*docent*) position at Aarhus University in 1956, Professor Frans Blatt (1903–1979), with whom she had been in touch, mentioned at the meeting of the faculty that her reason for spending the past ten years in Prague was a project to create an international university. According to the later memoirs of her student, Jørn Carlsen, she had settled in Prague in 1947 to take care of a female friend who was dying of cancer.[2] However, the story was messier, and more surprising than her contemporaries seem to have known or wanted to let the public know. On the one hand, in light of international research, I realized that Hjort and Moscheles' individual journeys into academia shared many similarities with the choices made by other female students of the interwar generations who wanted to lead an independent scholarly life. On the other hand, personal circumstances came to impact the choices the two women made and the consequences of these choices. It is this entangled story that I will tell in the following.

Before presenting these intersecting lives, I will first provide an overview of existing research and discuss my sources and the affective readings that I apply. I then portray the lives of the two women through their travels during periods of both peace and war and through the years they spent together in Prague. I conclude the article by summing up my findings and describing my fascination with the silences and complexities of the archival material, which have sparked my imagination concerning what might have mattered in the lives of my two protagonists.

State of the art

In 1936 Grethe Hjort decided to apply for, and obtained, naturalization as a British citizen. She also decided to change her name to Greta Hort.[3] In the years to come, she was internationally known by this adopted name, while, in a Danish context, she kept her original name. In the following, I switch between her two names, depending on the context. The life of Grethe Hjort has been the subject of short biographical entries and

2 Frans Blatt, Forhandlingsprotokol nr. 6, Det humanistiske fakultetsråd 1955–1958, møde 19.4.1956, 60. Aarhus Universitets arkiv, Rigsarkivet; "Jørn Carlsens erindringer om Grethe Hjort," AU Universitetshistorie, Aarhus Universitet. https://auhist.au.dk/showroom/galleri/personer/grethehjort1903-1967/joerncarlsenserindringeromgrethehjort.

3 Grethe Hjort British naturalization 5.8.1938, National archives Kew, online; Annual Report, 1936, 95, Girton College Archive, University of Cambridge.

she is mentioned in the memoirs of several of her contemporaries.[4] Most is known of her time as president-elect of the Women's College in Melbourne, as described by John Stanley Martin in 2003. In a separate article, the present author followed the academic trajectory of Grethe Hjort and compared it with that of Johanne M. Stochholm, the other of the two female applicants for the position at Aarhus University in 1928.[5]

In recent years, Julie Moscheles has drawn attention from Czech scholars[6] and international historians of science alike, interested in the interplay between empire and geography, and especially in the first generations of female geographers. Like landscape gardening, geography was considered an acceptable subject for young middle-class women, who might already have travelled when accompanying their parents on their annual trips abroad.[7]

Hjort and Moscheles were part of a generation of young women during the interwar years who saw higher learning as a gateway to independence and a way of breaking away from conventional expectations of becoming wives and mothers.[8] This movement was a breath of fresh air at the Anglo-American female colleges and saw to a rise in the number of foreign students.[9] Among them was Grethe Hjort, who visited Cambridge for the first time in the mid-1920s and returned as a PhD student at Newnham College in 1929. In a large-scale prosopographical study, Goodman et al. examined the career trajectories of students at the University of Cambridge's two women's colleges, Newnham and Girton, between 1869 and 1939. Most of the foreign students settled in England, while a small number either returned to their home country or travelled to other countries. Of the five continents, Australia was the least popular destination, meaning that Grethe Hjort went against the grain when seeking employment in Melbourne.[10] Overall, travelling played a key role in not only in the profes-

4 John Stanley Martin, *Greta Hort: Scholar, Educationalist and Pioneer* (Melbourne: Scandinavian Australian Migration Project, 2003); Anna Rutherford, "Why Aarhus?" in *A Shaping of Connections: Commonwealth Literature Studies, Then and Now,* ed. Hena Maes-Jelinek, Kirsten Holst Petersen, and Anna Rutherford (Sydney: Dangaroo Press, 1989), 32; Jorgen Erik Nielsen, "Grethe Hjort," Dansk Kvindebiografisk Leksikon, https://kvindebiografiskleksikon.lex.dk/Grethe_Hjort; Ulla Hoff, "Greta Hort (1903–1967)," Australian Dictionary of Biography, https://adb.anu.edu.au/biography/hort-greta-10549.

5 Martin (2003); de Coninck-Smith (2023).

6 Jiri Martinek, "Woman – Geographer: The Complicated Story of Julie Moscheles," (unpublished paper); Jiri Pesek, "Julie Moscheles (1892–1956): Eine jüdische Geograhin zwischen dem Prager deutchen und tschechischen Milieu," in *Mitteleuropa denken: Intellektuelle, Identitäten und Ideen: Der Kulturraum Mitteleuropa im 20. und 21. Jahrhundert*, ed. Walter Pape and Jiří Šubrt (Berlin: De Gruyter, 2018), 187–200; Pavel Kreisinger, *Češi a Slováci v Austrálii v 1. polovině 20. století a jejich účast ve světových válkách* (Praha: Academia 2018), 333–37; H. J. Fleure, "Dr. Julie Moscheles (Obituary)," *Geography* 41, no. 4 (1956), 273.

7 Ian Klinke, "A theory for the 'Anglo-Saxon Mind': Ellen Churchill Semple's Reinterpretation of Friedrich Ratzels *Anthropogeographie*," *Geographica Helvetica* 77, no. 4 (2022), 467–78; Nicolas Ginsburger, "La féminisation professionelle d'une discipline sous tension: Carrières de femmes dans la géographie germanophone (1897–2017)," *Revue d'historie des sciences humaines* 35 (2019), 25–58.

8 Birgitte Soland, *Becoming Modern: Young Women and the Reconstruction of Womanhood in the 1920s* (Princeton: Princeton University Press, 2000).

9 Joyce Goodman et al., "Travelling Careers: Overseas Migration Patterns in the Professional Lives of Women Attending Girton and Newnham Before 1939," *History of Education* 40, no. 2 (2011), 185.

10 Goodman et al., (2011).

sionalisation and modernisation of academia,[11] but particularly in improving women's chances of gaining employment within higher education. However, as Tamson Pietch has shown, even if they were not rejected outright, women were rarely considered for the many positions at the new universities within the British Empire, also known as "settler universities." Women found themselves excluded from the men's network and their research was often deemed to be of lower quality and less relevance than that of male peers. They were often relegated to pursuing a career at women's colleges, and thus a marginalised position in academia. When they finally got a foothold in academia, it was frequently through marriage and/or as an assistant or administrator – and thus at the less visible end of university life.[12]

In several studies, Joyce Goodman has explored how the financial and social support available to women academics through the International Federation of University Women (*IFUW*) contributed to the emergence of a particular female global citizenship, closely linked to the peace movement under the auspices of the League of Nations.[13] However, Goodman has also pointed out that this cosmopolitan citizenship or humanitarian understanding across borders included some while excluding others through its roots in British/Western European academic culture and the white middle class.[14]

One thing was peacetime; with the onset of World War II, these international women's organisations and networks became crucial to the rescue of the many female academics who, after 1933, were forced to flee the German Reich for political or religious reasons. Studies paint a consistently positive picture of the efforts made by British and American women to assist these refuges with obtaining residence permits and academic work.[15] However, as demonstrated below, not all of the many women who came to the United Kingdom as refugees were received with open arms. Moscheles was among them.

A subdivision of the IFUW (*Kvindelige Akademikere, KA*) was founded in Denmark in 1922. Apart from a statistical study that only extends to 1925 and a very fragmentary essay,[16] there has been no significant study of the organisation, nor of the role of Danish female academics during the German occupation and the rescue of the Danish Jews. In 1925, KA celebrated the 50th anniversary of women's entry to University of Copen-

11 Heike Jöns, "Modern School and University," in *A Companion to the History of Science*, ed. Bernard Ligthmann (Chichester: Wiley-Blackwell, 2016), 310–27.

12 Tamson Pietsch, "Geographies of Selection: Academic Appointments in the British Academic World, 1850–1939," in *Mobilities of Knowledge,* ed. Heike Jöns, Peter Meusburger, and Michael Heffernan (Cham: Springer Open, 2017), 157–79.

13 Goodman et al. (2011), 711; Joyce Goodman, "International Citizenship and the International Federation of University Women Before 1939," *History of Education* 40, no. 6 (2011), 701–21.

14 Joyce Goodman, "Cosmopolitan Women Educators, 1920–1939: Inside/Outside Activism and Abjection," *Paedagogica Historica* 46, no. 1–2 (2010), 69–83.

15 Susan Cohen, "Crossing Borders: Academic Refugee Women, Education and the British Federation of University Women During the Nazi Era," *History of Education* 39, no. 2 (2010a), 175–82; Susan Cohen, "The British Federation of University Women: Helping Academic Women Refugees in the 1930s and 1940s," *International Psychiatry* 7, no. 2 (2010b), 47–49; Christine von Oertzen, *Science, Gender, and Internationalism Women's Academic Networks, 1917–1955* (New York: Palgrave Macmillan US, 2012).

16 Lis Jacobsen, ed., *Kvindelige Akademikere 1875–1925* (Kjøbenhavn: Gyldendal, 1925); Marianne Alenius, "Glimt fra foreningen Kvindelige Akademikeres historie," in *Clios døtre gennem hundrede år,* ed. Marianne Alenius, Nanna Damsholt, and Bente Rosenbeck (Kjøbenhavn: Museum Tusculanums Forlag, 1994), 119–38.

hagen with a dinner party attended by about 360 guests. According to the seating plan, Grethe Hjort did not participate in the celebration. An Aase Hjort did, presumably a relative, sitting next to Grethe's lifelong friend Edith Kalkar.[17] Hjort's absence could of course be deliberate, but it could also be due to a research stay in Cambridge in connection with her master's thesis. Membership lists are unfortunately not preserved, but it seems unlikely that she was not at some point a member of KA. On several occasions, she used the international organisations for female academics. When in London, she always stayed at Crosby Hall, which housed a residential block, meeting rooms, a library, as well as the offices belonging to the British Federation of University Women. It was also here that she also took a course to become a college bursar. Upon her return to Aarhus, she became the chairperson of the local branch of Kvindelige Akademikere.[18]

Whereas Hjort chose to pursue a path through women's colleges early in her career, Moscheles seemed to have closer ties to scientific societies. When she found herself in a precarious situation, it was her male colleagues who rescued her from Prague, although she also turned to IFUW and was assisted by sister organisations in England and Victoria, Australia.

This shows that women used different strategies and means in their endeavours to gain academic recognition and employment, or in other words to become a scholarly persona in gender, body, and action, as Niskanen and Barany, among others, have stated. In this process, travelling, networking, and attending conferences played important roles, as did the acquisition of a particular academic language and composure. Not least, it was important to learn to accept and make use of masculine-defined scientific templates and repertoires.[19]

As the German historian Marti M. Lybeck has pointed out, there is an extra layer to this story of the rise of a new and independent female scholarly persona, namely the relationship between female affective desires and emancipation. Educational settings created a space for homo-sociability among women, provided it was kept within the boundaries of socially acceptable emancipation.[20] How this figure of the modern female scholar was interpreted and negotiated was dependent on the historical moment,[21] as the following micro-historical and source-based mapping of Grethe Hjort and Julie Moscheles' intersecting and connected lives will show.

Sources and affective readings

My study of the relationship between Moscheles and Hjort stems from an ambition to write the history of universities as a narrative about people doing university in the

17 Table plan in Alenius (1994), letter from Julie Moscheles (JM) to Sven Hedin (SH), 15.8.1946, passed on to him through "eine Freudin (Edith Kalkar) meiner Freundin (Grethe Hjort). weil Ich befüchte, dass ein Brief an Ihre Adresse von hier nich befördert werden würde." Sven Hedins arkiv vol. 433, Riksarkivet, Stockholm.

18 Nielsen, https://kvindebiografiskleksikon.lex.dk/Grethe_Hjort; *The Angus*, July 19, 1938.

19 Michael J. Barany and Kirsti Niskanen, eds., *Gender, Embodiment, and the History of the Scholarly Persona: Incarnations and Contestations* (Cham, Switzerland: Palgrave Macmillan, 2021), 5, 338.

20 Marti M. Lybeck, *Desiring Emancipation: New Women and Homosexuality in Germany, 1890–1933*, (Albany, New York: SUNY Press, 2014), chap. 1.

21 Herman Paul, "Scholarly Personae: What They are and Why They Matter," in *How to Be a Historian: Scholarly Personae in Historical Studies, 1800–2000,* ed. Herman Paul (Manchester: Manchester University Press, 2019), 6–7.

course of their everyday lives. I want to explore how the impact of gender on university and vice versa. It is the affective aspects that interest me, and I have therefore been inspired by the affective turn in both sociology and history. In the introduction to the edited volume *Affective Methodologies,* Timm Knudsen and Stage write that affective methodologies imply asking different questions, looking for different answers, and thinking differently about empirical material.[22]

The latter is particularly relevant in this context, where private correspondence is an important source. It raises the question of reading them at many years distance and out of context, placing me in an ethical dilemma when I present a narrative about a female friendship that those concerned might have wanted to keep secret.[23] I have chosen to take this dilemma on my shoulders because the following is not only a private story about two women and their intersecting paths, but also a more general story about encounters between women and academia and how such encounters have been shaped by the body, gender, and sexuality.

From her early youth, Julie Moscheles corresponded with the Swedish adventurer and explorer Sven Hedin (1865–1952); she had met him in London as a child, at the home of her English family.[24] Letters and postcards were sent at Christmas, New Year and Easter, where she wrote about her studies and her professors, her work as a nurse during World War I, her participation in international conferences, the joy of receiving books from Hedin and her desire to follow in his footsteps in Tibet. She came back from time to time to their few meetings, and she frequently invited him to visit her in Prague. Sven Hedin expressed sympathy with the Nazi regime in the 1930s in the hope that it would protect Scandinavia from a Russian invasion. The regime took advantage of this, and Hedin was used as one of their intellectual ambassadors. In return, he gained privileged access to the inner circles of the German government and thereby also opportunities to advance applications from Jewish colleagues who had to flee the Nazi regime. More than 100 Jews were purportedly saved from deportation through Hedin's intervention.[25] Their correspondence was obviously very dear to Moscheles, and in her last letter to him before leaving Prague in July 1939, she mentions that the only things she had brought with her from Prague were his letters.[26] What happened to them later is unknown, while her letters to Hedin – and to his sister – are included in Sven Hedin's huge private archive at the National Archive in Stockholm (*Riksarkivet*).[27]

It is not only Hedin's letters to Moscheles which seem to have been lost, but also

22 Britta Timm Knudsen and Carsten Stage, *Affective Methodologies: Developing Cultural Research Strategies for the Study of Affect* (London: Palgrave Macmillan UK, 2015), 4–19.

23 Erla Hulda Halldórsdóttir, "Fragments of Lives—The Use of Private Letters in Historical Research," *NORA - Nordic Journal of Feminist and Gender Research* 15, no. 1 (2007), 35–49.

24 Postcard from Gladys Mac Dermot and JM to SH 6.1.1939, Sven Hedins arkiv vol. 433, Riksarkivet, Stockholm.

25 Nils Uddenberg: *Drömmaren: En bok om Sven Hedin* (Stockholm: Natur och Kultur, 2023), 256; Axel Odelberg, *Vi som beundrade varandara så mycket: Sven Hedin och Adolf Hitler* (Stockholm: Norstedts, 2012), 181, 215; the number is mentioned on Wikipedia, but not confirmed, email from Håkon Wahlquist 4 July 2023.

26 JM to Miss (Alma) Hedin, 18.11.1939, as above.

27 Sven Hedins arkiv vol. 433, Riksarkivet, Stockholm.

any private papers that she might have had. By contrast, Hjort left a large private archive, mostly consisting of scholarly notes, along with, as mentioned, a few private documents. Newham College Archives hold her application for a scholarship in 1930 and drafts of testimonials, written by presumably, the college mistress.[28] Her address book testifies to an extensive international network, but very few letters, written to acquaintances from her time in Cambridge and Melbourne, have survived, located in the archives of Girton College and University of Melbourne. These letters tell of her journey back to Europe from Australia, about a complicated everyday life in Prague – and about her time in Aarhus, burdened by administrative tasks, academic disagreements, her relationships with colleagues and her health.

The women referred to each other as female friends. In a letter, Moscheles mentioned that 'die Greta' would come to Prague to seek work, and that they planned to live together,[29] while Moscheles' death was the main reason why Hjort returned to Denmark, since there was nothing left to keep her in Prague, as she wrote to a Danish colleague.[30] It is almost unthinkable that there did not (once) exist an extensive correspondence between them. But what happened to these letters – were they lost during the war, destroyed out of fear of the Czech secret police, which kept a vigilant eye on the two women during their co-habitation in Prague,[31] or did somebody else remove them later? Hjort was a keen amateur photographer, but I have only come across a few photos of Australian landscapes – none of Moscheles or photos relating their private lives.[32] None of this is especially surprising. In her seminal text from 2003, *An Archive of Feelings: Trauma, Sexuality and Lesbian Public Cultures*, Ann Cvetkovich compares the silence surrounding lesbian lives in the archives to the lack of words that can adequately describe trauma since it is "unspeakable and unrepresentable … marked by forgetting and dissociation, it often seems to leave behind no records."[33]

Archives can nevertheless be read in ways other than for their imperfections. They can be read affectively, with a focus on their genesis and composite emotional layers. They can be read with an attention to "a female presence and intimacy, beyond reductive reading of their relationship as gay or straight, sexual or otherwise," as Agnes Meadow suggested in her recent interpretation of the correspondence between Anna Freud and Dorothy Burlingham.[34] However, archives are not just words, but also mate-

28 AC/3/2/31 – Research Fellowship and Research Grant Applications, 1930, AC/5/2/8 – Student File (G Hjort); AD/6/1/8 – Roll Office [Alumnae] File (G Hjort), Newham College Archive.

29 Letter from JM to SH 15.8.1946, Letter from GH to SH 10.11.1947, Sven Hedins arkiv vol. 433, Riksarkivet, Stockholm.

30 Det Humanistiske Fakultet, Det humanistiske fakultetsråd 1934–1991, forhandlingsprotokol nr. 6, 1955–1958, 19 April 1956, p. 60, (Rigsarkivet). Only one Czech contact is to be found in her telephone book, which could support her description of not having made many friends during her stay.

31 Martinek, 7–8.

32 A suitcase with 600 negatives had been lost between Cairo and Jerusalem, only to arrive some months later in Prague. Fortunately, she had sent some of her negatives to Dr Moscheles, who was in London. Letter from GH to Lady White, 23.12.1946 and 1.2.1947, Papers of the Derham Family, file 2015.0011.00123, University of Melbourne Archive.

33 Ann Cvetkovich, *An Archive of Feelings: Trauma, Sexuality and Lesbian Public Culture* (Durham: Duke University Press 2023), 7.

34 Agnes Meadows, ""To Destroy': Anna Freud and Dorothy Burlingham in the Freud Archive," *History Workshop Journal* 93, no .1 (2022), 209–24, 222.

rialities where stationery, postcards, ink and pencil, handwriting and typing make a difference and can create openings where affect might be imagined in between the lines of the ordinary.[35]

Lives

Grethe Hjort was born into a middle-class family in Copenhagen in 1903. She went to the prestigious all-girls Natalie Zahle's School, from where she graduated with a high school degree (*studentereksamen*) in 1922. She then enrolled at The University of Copenhagen as a student of English language and literature. In the middle of the 1920s, she visited Cambridge to collect material for her master's thesis on different versions of Shakespeare's Romeo and Juliet. For this study, she gained a gold medal from The University of Copenhagen. In 1929, she left Denmark to enrol at the all-female Newnham College in Cambridge. For her PhD, she chose to study the 14th century allegorical narrative poem Piers Plowman. In 1931, she successfully applied for the Pfeiffer Fellowship at Girton College, another all-female college in Cambridge, to continue these studies.[36] This grant made it possible for her to live and study at Girton College for the following two years. At Girton, she made the acquaintance of the College Mistress, the philosopher Helen Wodehouse (1880–1964). Together, "they investigated the world of the mystics and sought a key to its understanding in extra-sensory perception," as John Stanley Martin describes in his biography of Greta Hort. Such interests were not uncommon among British intellectuals.[37]

When she was asked later in life why she had left Denmark, Hjort explained that there had been nowhere in the world of academia where she could hang her hat. She had tried to follow in the footsteps of her "*Doktorvater*" (her master's thesis supervisor), the internationally renowned linguist Otto Jespersen (1860–1943) but did not finish her dissertation in time to apply for his vacant professorship.[38] According to Jespersen, she was one of his brightest students, but, at 23, was too young to become a professor when he retired.[39] After working as a college bursar at a women's college in Birmingham, England, she arrived in Melbourne in 1938 to take up a position as president-elect of the new women's college. The job had come her way through a recommendation from Helen Wodehouse.[40]

35 Maryanne Dever, "Provocations on the Pleasures of Archived Paper," *Archives and Manuscripts* 41, no. 3 (2013), 173–82.

36 Application in file GCAR 2/5/6/1/4, Girton College Archive.

37 Martin (2003), 3; mail from Joyce Goodman, 11.11.2021.

38 de Coninck-Smith (2023).

39 Nielsen, https://kvindebiografiskleksikon.lex.dk/Grethe_Hjort

40 Martin (2003), 4.

Figure 1. Greta Hort, surrounded by the students at the University of Melbourne, Women's College, after her arrival as president-elect in 1938. Hort sits in the middle of the second row from below.
Source: Papers of the Derham Family, University of Melbourne Archives, UMA-IT-000047103

During her time in Melbourne, Hort developed a new interest in Judaism[41] and chaired the Czech branch of the Australian Red Cross as well as a pro-Palestine committee.[42] Somewhere along the way, she crossed paths with Julie Moscheles. She had been born in 1892 into a wealthy Jewish family in Prague. At a very young age, Julie Moscheles travelled to London to live with her uncle – the painter Felix Moscheles (1833–1917) – and his family. Her mother, who was blind, could not take care of her. Together with her British relatives, she explored North Africa and several European countries. Trained as a geographer, she was one of the first women to graduate from the German University in Prague in 1917.[43] She attended European geographical conferences and became affiliated with the British Le Play Society, named after the French sociologist Fredéric le Play (1808–1882), who had used fieldwork and observation methods to study the living conditions of the working poor.[44] One of her earliest fields of interest was Scandinavian geomorphology. She soon switched her attention to the new field of anthropo-geography, studying the relationships between human communities, cultures

41 Martin (2003), 12.

42 *Australian Jewish Herald,* August 6, 1943, and August 13, 1943; Martin (2003), 12–13.

43 Pesek (2018), 189.

44 S. H. Beaver, "The Le Play Society and Field Work." *Geography* 47, no. 3 (1962), 225–40.

and economies, and their interactions with the environment. In Prague during the interwar years, she became a key representative of the Central European intelligentsia, sent on yearly academic and diplomatic missions by the new Masaryk regime.[45]

After the Munich Agreement and the invasion of Sudetenland by Nazi Germany in October 1938, and later of Prague in March 1939 installing a pro-German government, life became difficult for Moscheles. As the only one in her family, she converted from Judaism to the Evangelical Church of the Augsburg Confession.[46] Her letters to British colleagues and to Sven Hedin became more pleading and desperate. In December 1938, she wrote to Hedin that she was now in London, living with the family of Professor C. B. Fawcett (1883–1952), one of the founders of Le Play Society, since she did not meet the race criteria that would allow her to remain in her native country. She was to deliver an address at the annual New Year's conference of Le Play Society, as well as giving lectures at a number of British universities. "Only the gods would know what my future holds,"[47] she wrote, adding that maybe the Association des Géographes Français "could get her over the water [most likely to Australia]," since Melbourne had come up, but she feared it would take a long time for an official decision to be made. "I have learned over time to look at life from the bright side, and maybe this could be an opportunity to travel to unknown countries," as she finished her letter.[48]

Moscheles decided to return to Prague to take care of a very ill female friend.[49] Here life had become more complicated and dangerous. From the preserved correspondence in Sven Hedin's archive, Moscheles tried at first to get back to England through Sweden. The idea was suggested to Hedin by a mutual acquaintance, living in England, Gladys Mac Dermot. Hedin answered that this was no longer an option, he did not have friends among the Swedish authorities and Sweden had already taken more refugees, than recommended.[50]

She then presented her two British colleagues Professor C. B. Fawcett and another founding member of Le Play Society Professor H. J. Fleure (1877–1969) with a research proposal, that should make it possible for her and her assistant, Josef Fraenkl (1902–) to leave Prague. They planned to make a survey "of the adaptation of immigrants of the various kinds in the countries to which they have gone." The idea was to combine lecture tours in Canada, the French Empire, Brazil, and Australia with research on place in the tradition of Le Play Society. They were both in good health and were not planning on taking work from others, as they wrote in the proposal. There was just one caveat: they were not able to perform manual labour.

On Moscheles' behalf, Fleure send a copy of the plan to Hedin and circulated it in his Anglo-American network.[51] In his reply, Hedin mentioned, that he had already been approached by Moscheles.[52] He had written to the Nazi authorities in Berlin and

45 Pesek (2018), 197.

46 Pesek (2018), 192.

47 All translations from German by NCS.

48 JM to SH, 24.12.1938, Sven Hedins arkiv vol. 433, Riksarkivet, Stockholm.

49 Postcard JM to SH, 16.3.1939, as above

50 SH to Gladys Mac Dermot, 31.3.39, as above

51 H.J.F. to SH 18.4.39, as above

52 Copy of letter to JM from SH 12.4.39, as above

supported her wish to leave Prague as powerfully as possible, explaining her situation in every detail. "She is perfectly brilliant as a Geographer, and she is worthy of every possible assistance that could be given to her." He had asked Moscheles for whom to get in touch within Prague but had no news from her.[53] In June, Hedin received a letter from Julie Moscheles, informing him again about the plan, and her dealings with the Czech authorities and the application for three months exit visa.[54]

Hedin accepted her invitation to write a short recommendation, addressed to "Die Führung der Geheimen Statlichen Polizei, Prag." In the letter, he stated that he had known Moscheles for long and that she was a brilliant and serious scholar.[55] With this in hand, she returned to Gestapo and was granted an exit visa to herself and Fraenkl, so she could return to London and bring him with her. They left Prague 22 July 1939.[56] Legend has it that Moscheles escaped the Protectorate disguised as a beggar.[57] In the end, she had no doubt as to the key role Hedin had played in saving her life and that of her assistant. "Your name will stay with me forever," somebody, maybe her assistant, wrote on her behalf in the hours before leaving Prague, 22 July 1939.[58] Fraenkl spent some time in Switzerland, visiting his fiancée, before arriving in London. Their residence permits and financial guarantee had been assured by Fawcett and Fleure.[59] In London, Moscheles got in touch with the International Association of University Women to set up invitations to hold talks and lectures abroad. She was working at the library at Australia House to prepare herself for the journey while everybody else had gone on holiday. In August 1939, she obtained an Australian visa, but by Christmas that year, she was still in London with Fraenkl who, she wrote to Hedin, had planned to go to bed early and forget which day it was, while she would do what she usually did and sit up late reading.[60] They were burdened by worries about those they had left behind and of whom they had received little news, unable to maintain correspondence out of fear for their mutual safety.[61]

Because of her friendship with Sven Hedin, "whose close Nazi sympathies are known," Moscheles was reported to the MI5 (the British intelligence service) by the former American Commissioner in Prague and Unitarian minister Waitstill Sharp (1902–1983), accused of being a German spy. Suspicions had been aroused among refugee workers in Prague when Moscheles, despite her Jewish background, had received a re-entry permit from the Gestapo that was "good for any time," as well as by her failure to contact the Czechoslovak delegation upon arrival in London, instead of keeping in touch with the German Embassy, which allegedly supplied her with money. Furthermore, she brought with her "a young Jewish lad, presumed to

53 Copy of letter to H.J.F. from SH, 23.4.39, as above

54 JM to SH 5.6.1939, as above; Martinek 6

55 Copy of support letter by SH 8.6.39, as above

56 Letter from JM to SH 22.7.39, as above.

57 Martinek, 6.

58 JM to SH, 22.7.1939, Sven Hedins arkiv vol. 433, Riksarkivet, Stockholm.

59 Letter from JM to SH, 1.8.39, as above What happened to him thereafter, if he left for Australia together with Moscheles, has not been possible to identify.

60 JM to Sven Hedin 12.12.39, as above.

61 JM to Alma Hedin, 16.9.39; Letter from Zdenka Fraenkl (Josef's mother) to SH 5.8.39, as above. Moscheles arrived in Melbourne in February 1940, *The Herald* 23.2.1940.

be her assistant, likewise supported in this odd way." When confronted with these stories, Moscheles claimed that she owned a German passport without the "J" stamp, and that the Czech nation no longer existed.[62] Furthermore, she had turned down an offer to work for the Czech government-in-exile in Paris in favour of an offer she had received from Australia. She argued that being Jewish, Josef Fraenkl, who was travelling with her, had been in danger in Prague and that she was the victim of a heinous smear campaign by a group of sociologists and geographers who were not members of the Le Play Society.

Despite not dismissing all her arguments, the doubts about Moscheles' situation led the Emergence Subcommittee for Refugee of the British Federation of University Women to turn to the Home Office, asking "if you [Home Office] would recommend Dr. Moscheles for assistance. They [the members of the committee] understand that her case has already been brought to the special notice of your department." The reply came within two weeks, advising the Federation to turn to the Czech Refugee Trust Fund for more information. The fund had been created by the British government to assist Czech and German refugees from the Nazi regime.[63] By this point, Moscheles had most likely left for Australia.

While the Australian government had been reluctant to receive Jewish immigrants during the 1930s, attitudes changed after the Munich Agreement and subsequent invasion of Prague. The Czechs were considered victims, sacrificed on the altar of European peace. With the possession of 200 Australian pounds, professional skills, and the ability to have a conversation in English, emigrants could gain a visa to Australia.[64] The new situation made it more realistic that Moscheles' friends 'down under' affiliated with the Victorian Graduate Women's Association could secure her a permit to enter Australia. She arrived in Melbourne in February 1940 to take up a position as a tutor in economic geography at University of Melbourne. According to the list of teaching staff, she was not the only refugee to find employment at the University – two of her new colleagues also came from Central Europe.[65] During her stay, she was granted a six-week leave of absence to work as a cartographer for the Dutch army, compiling a bibliography on the geography of Indonesia and surrounding areas that served as a basis for military operations against Japan.[66]

While Hort seemed to have benefited from her extended female network, as well as her use of the international organisations for university women, Moscheles' experiences were more mixed, maybe because of her Jewishness and her German training and links

62 JM had a passport (not clear if it was German or not) allowing her to give a lecture in London, which was extended for two years in August 1939 to include Australia, Martinek, 6. According to Kreisinger, the passport also allowed travel to New Guinea, Kreisinger (2018), 334.

63 Information of November 28, 1939, about Dr Julie Moscheles, copy of letter to Home Office, 29.12.1939, answer from Home Office, 10.1.1940, Copy of letter from Miss Perkins to Dr Hollitscher, 18.2.1940 British Federation of University Women, refugee subcommittee file Julie Moscheles, London School of Economics and Political Science (LSE) library and archive.

64 Anna Rosenbaum, *The Safe House Down Under: Jewish Refugees from Czechoslovakia in Australia 1938–1944* (Oxford: Peter Lang, 2017), 54, 131, 152.

65 *The Herald* 19.6.1940; University of Melbourne, calendar, 1942; Minutes Victorian Graduate Women's Association, 1939–1940 University of Melbourne Archive.

66 Letter JM to SH 15.8.1946, Sven Hedins arkiv vol. 433, Riksarkivet, Stockholm; Martinek, 6–7; email from Sophie Garrett, University of Melbourne, Archive 22.1.2023 with copy of staff records. JM resigned from University of Melbourne 30.11.45.

to Le Play Society and Sven Hedin. However, female networks were not sufficient in ensuring the work and safety of either woman. At different points in time, they needed to know how to navigate the male-dominated world of academia and the university by asking for testimonials or getting male colleagues to mobilise their networks on behalf of Hort and Moscheles.

Scholarly embodiments

Before leaving Britain, Greta Hort gave an interview to the Melbourne newspaper *the Mercury*. The journalist described her as the essence of a modern academic and sporty woman who not only tolerated but actively encouraged socialisation and camaraderie among young women and men. Despite not using makeup herself, she found its use by young college students natural, if it did not leave marks "which the unfortunate domestic personnel have to deal with."[67] Upon her arrival in Melbourne, the local press commented on how Greta Hort was dressed. When speaking to an audience of 300 people at the all-female Lyceum Club in Melbourne, she wore a fur cape over a burgundy dress.[68] Despite her wish to appear neat and feminine, she was remembered by others from her time in Melbourne as a classic Girton College student – an old bluestocking with a penchant for holed stockings.[69]

This mixed bodily impression is echoed in a series of undated, handwritten, and illustrated vignettes – or poetry hunts, as she named them – from her time in Melbourne. In these, Greta Hort drew a bulgy, simple, half-naked woman in a floral design, or a dainty, clever woman in a green dress, with a smile and coiffured hair. However, she also added a third figure, a woman dressed as a man, who did not believe in "a snag" (difficulties) but knew how to cut "the entangled Gordian knot." All the vignettes ended with a variation of the same theme – that the woman in the poem will once day return to her homeland and show what happens when she "to Australia roam."[70]

The poems evoke a space between the life lived and the life imagined.[71] In a 1960 interview with the popular Danish women's magazine *Alt for damerne,* Grethe Hjort was depicted as the incarnation of a studious professor, surrounded by books, wearing glasses, and dressed in a doctoral gown and hat. As the journalist wrote, she was a professor in her own right, not the wife of a professor. She was clearly also a woman who cared about how her home was decorated, placing value on a vase of flowers, and wearing a nice dress. A female professor dressed as a man such as depicted in Hjort's illustrations, seems an impossibility in this setting.[72]

At a meeting at the Faculty of Humanities at Aarhus University shortly after Hjort's death, the dean, Holger Friis Johansen (1927–1996), said a few words of remembrance. Hjort would be remembered as a dear colleague, strongly influenced by her many years in the world of Anglo-Saxon academia. It had been important for her to share these

67 *The Mercury*, May 11, 1938.

68 *The Angus*, July 19, 1938.

69 de Coninck-Smith (2023).

70 Håndskrift nr. 1185-119, Grethe Hjorts Arkiv, Royal library, læg: Grethe Hjort, 7 vers.

71 Halldórsdóttir (2007).

72 Margrethe Spies, "En stor personlighed," *Alt for Damerne*, November 15, 1960.

experiences with others while maintaining an openness to the values of the Danish university tradition. She could be a harsh critic – even provocative – but one did not have to have known her long to experience her eagerness to help and her desire to collaborate with others.[73] It fell to Professor Torsten Dahl, who had been the successful applicant for the associate professorship in 1928 and who since 1957 had been Grethe Hjort's closest colleague, to write the official Aarhus University obituary. After a summary of Grethe Hjort's academic production – and how her destiny had been sealed when she encountered mysticism – he added a few psychological pencil strokes. Grethe Hjort had put a lot of pressure on herself, often working into the night, and she expected the same of others, colleagues as well as students. This had led to disappointment that she had difficulty shaking off with a smile. He then added that "Her self-centredness, which was undoubtedly part of her character, could partly be explained by the many personal sacrifices she had made along the way. Her energetic self-wanted to acquire a position reflecting her skills and abilities."[74] Grethe Hjort had made an impression, not so much because of her research, on which Torsten Dahl modestly noted that he was no expert, but more because of the ways she embodied her scholarly personae. One of her former students, Jørn Carlsen, recalled that Hjort taught in English, which was unusual in Denmark at the time, and how she stressed the importance of being fluent in other languages. Among other things, she introduced a workshop on English writing and used gramophone records in her classes. She was strongly influenced by her many years living in the British Commonwealth,[75] conservative and very anti-American. She was a lone wolf, with few collegial relationships; considered intriguing by some and scary by others. Torsten Dahl, whose English was not without flaws, must have had to swallow his pride after her arrival, Carlsen suggested. Grethe Hjort never missed an occasion to speak up. Her apartment was small and cluttered, dominated by a giant pillow on which her students sat during tutorials, and she wore dresses dating back to the 1930s. To his mind, she was by no means affluent.[76]

Julie Moscheles left a similarly complex impression on her surroundings. At one point in her dealings with the International Federation of University Women, somebody described Moscheles as "…a queer duck – physically as well," with queer used here in the sense eccentric. It is difficult to know what had caused this impression Seemingly, it was in reaction to Moscheles' defence against accusations of being a German spy and Nazi sympathiser, as well as the fact that she travelled accompanied by her young assistant. It might also reflect the dire circumstances of her stay in London.[77]

73 Det humanistiske fakultet, Det humanistiske fakultetsråd, forhandlingsprokol 1934–1991, kasse 11, meeting 28.8.1967 (Rigsarkivet).

74 Torsten Dahl, "Grethe Hjort, 1903–1967," *Aarhus Universitet, Aarsberetning 1967–68* (1968), 5–10, 10, (translation NCS); Torsten Dahl, letter to Girton College, 20.8.1967 in GCAR 2/5/6/1/4: file: G Hjort (or Hort) 1931.

75 In 1966 Grethe Hjort opposed the writer Thomas Winding, who had published an op-ed about apartheid in Australia. There was no issue with apartheid in Australia, but a social issue, and the indigenous people had the same voting rights as "white Europeans," according to Grethe Hjort. *Aktuelt,* October 18, 1966, December 30, 1966, and January 3, 1967.

76 "Jørn Carlsens erindringer om Grethe Hjort," https://auhist.au.dk/showroom/galleri/personer/grethehjort1903-1967/joerncarlsenserindringeromgrethehjort; de Coninck-Smith (2023).

77 Letter from E. Rosalind Lee to Miss Parkins, 3.12.1939, British Federation of University Women, file Julie Moscheles, LSE library and archive.

The two women both struggled to gain recognition as a scholarly persona – maybe because of their demeanour, their way of dressing, or maybe because of their way of life. When living in Prague, they were under surveillance by the Czech secret police because of their "extravagant lifestyle." Since the file was destroyed in the 1980s, one can only speculate as to what had first roused police interest. Despite the 1950s being a time of sexual liberation in Czechoslovakia – in contrast to the homophobia that characterised the West during the Cold War – the secret police used information about citizens' private lives "as blackmail ammunition."[78] Extravagant spending can most likely be ruled out as a reason for the surveillance. When Moscheles died in 1956, a collection was made among her colleagues to pay for her burial. No traces of her grave have been found – if there ever was one.[79]

Composite might be the best adjective to characterise how the two women embodied their scholarly personae. There are no simple categories in the story of the friendship between Hort and Moscheles or how they were perceived by their peers, only complex, volatile lived lives contained in the archives.[80]

Returns

Julie Moscheles left the southern hemisphere for London at the end of 1945 and was repatriated to Prague.[81] In the meantime, Hort had given up her position as president of the women's college in Melbourne. She embarked on a new journey, which took her to Palestine, England, and Denmark to visit family. Hort explained to an Australian friend that she had left Melbourne due to a lack of intellectual challenges and conversation partners and had no plans to return: "Returning would mean abandoning scholarship for good and all, which neither can or should be done."[82] There were, however, rumours that she had faced criticism for perceived favouritism and poor governance, which may have fuelled her desire to leave.[83]

Somewhere along the way, perhaps due to the turn of events, the two women must have decided to meet in Prague. In August 1946, Moscheles was back living in Prague, and Hort must have joined her shortly thereafter. Moscheles' father had died in the Theresienstadt concentration camp in 1943 and the family home was gone, but somehow, miraculously, her large collection of books had survived thanks to two colleagues.[84]

Moscheles became affiliated with the department of geography at Charles University in October 1950 and was appointed docent in 1953, running most of the lectures on

78 Jaroslava Hasmanova Marhankova, "Voices from Silence? Reflections on 'Coming Out' in Socialist Czechoslovakia," *Journal of Homosexuality* 68, no .13 (2021), 2214–33.

79 Martinek, 8. The file from secret police has been destroyed, mail from Pavel Kreisinger, 9.3.2023.

80 Leila J. Rupp, "'Imagine my Surprise': Women's Relationships in Mid-Twentieth Century America," in *Hidden from History: Reclaiming the Gay and Lesbian Past,* ed. Martin Bauml Duberman, Martha Vicinus, and George Chauncey (New York, N.Y: NAL Books, 1989), 395–410.

81 JM to SH 15.8.46, Sven Hedins arkiv vol. 433, Riksarkivet, Stockholm.

82 GH to Lady White, 23.12.1946, Papers of the Derham Family, 2015.0011.00123, Letters from Greta Hort to Lady White, 1946 University of Melbourne Archives.

83 Martin (2003), 7.

84 Letter JM to SH 15.8.1946, Hjort to Hedin 10.11.1947, Sven Hedins arkiv vol. 433, Riksarkivet, Stockholm; Institut Terezínské Iniciativy, "Dr. Vilém Moscheles," Holocaust, Database of Victims, https://www.holocaust.cz/en/database-of-victims/victim/110090-vilem-moscheles/.

regional geography. In the end, Hort remained in Prague until Moscheles' death in January 1956. In her letters, she hints at difficulties in finding an apartment and explains how she taught Moscheles about Danish Christmas traditions. Moscheles never completed a planned monograph about Australia, most likely due to an eye condition that made it difficult for her to read. She was invited to speak at the Danish International Folk high School in Elsinore in 1948 but was not permitted by the authorities to leave the country, officially because of insufficient funds, and her travel was subsequently limited to trips to Czech spas.[85] In 1946, shortly before leaving Melbourne, Hort had translated and published a collection of essays by the Jewish philosopher Martin Buber. Two years later, these translations were included in a new collection of his essays on Hasidism. In a letter from Prague, Hort mentioned that she needed to work on "her book," which most likely was a historical study of the plagues of Egypt.[86] She also translated several books on a wide range of topics including Gothic women's fashion, the restauration of a Jewish synagogue and prehistoric animals.[87]

After Moscheles' death, Hort decided she wanted to return to Denmark. As a foreigner with a residence permit, she could not easily obtain an exit visa from Czechoslovakia, which was by now part of the Soviet-controlled Eastern Bloc. She therefore had to smuggle a letter out of the country,[88] with Professor Frans Blatt the likely recipient. At a board meeting at Aarhus University's Faculty of Arts, Blatt not only supported her application for a position as an associate professor at the Department of English, against Professor Dahl's candidate, he also admitted that he had been encouraging her to apply.[89]

Together and a joint proposal

As mentioned, almost nothing has been left from the two women's ten years of co-habitation in Prague between 1946 and 1956. The only testimony to their intellectual collaboration is a joint proposal to create an international university of the social sciences.

In April 1948, Greta Hort had participated in a conference in Paris organised by the International Association of University Professors and Lecturers (IAUPL). The organisation had been founded during the Second World War by a group of Polish scholars who had fled to the UK. The founding member and later professor of law at Oxford University, Stephan Glaser, had proposed the creation of an International University of Human Studies, with the dual goals of helping to raise awareness of the humanities and contributing to world peace. His first written proposal had been met

85 Martinek, 8; GH to Ulla Hoff, 15.12.1949 (summary made by University of Melbourne Archives), GH to SH 10.11.1947, as above.

86 Buber, Martin and Greta Hort, *Hasidism* (New York: Philosophical Library, 1948); Greta Hort, "The Plagues of Egypt," *Zeitschrift für die alttestamentliche Wissenschaft* 69, no. 1–4 (1957), 84–103; Greta Hort, "The Plagues of Egypt," *Zeitschrift für die alttestamentliche Wissenschaft* 70, no. 1 (1958), 48–59.

87 Olga Sronková, Greta Hort, and Emil Fiala, *Gothic Woman's Fashion* (Prague: N.p., 1954); Hana Volavková, *The Pinkas Synagogue: A Memorial of the Past and of Our Days* (Praha: Státní Pedagogické Nakladatelství, 1955); Josef Augusta and Burian Zdeněk, *Prehistoric Animals* (London: Spring, 1957).

88 Martin (2003), 14; Martinek, 7–8.

89 No letter from GH in Frans Blatt, private archive at The Royal Library; Det Humanistiske Fakultet, Det humanistiske fakultetsråd 1934–1991, forhandlingsprotokol 6, 1955–1958, (19 Apr. 1956), 60 (Rigsarkivet); de Coninck-Smith (2023).

with enthusiasm by the members, and he was now putting forward a revised version, asking for comments.[90]

For Greta Hort, this must have been a unique opportunity to make use of her extensive experience as not only a long-time student within the Danish and Anglosphere university systems, but also from her time as a college bursar. She might have been motivated by hopes that she would be among the five proposed faculty members if the new institution was in Prague.[91]

She added a few comments to Glaser's proposal and then set out to describe her own visions. The university of her dreams would be a single-faculty university of social sciences, centred around comparative studies in law, history, psychology, geography, sociology, and economics, with students coming from all over the world. She chose the British collegiate university as a model, and the proposal included detailed descriptions of students' food, dress, the importance of gowns and blazers, and suggestions of how to fund the new university through generous donations from the Rockefeller and Carnegie foundations. When it came to the location of the new university, Hort eagerly advocated Prague – a city she found vibrant, with good food and widespread interest in everything related to England and Englishness.[92] Factors in Prague's favour were its location in central Europe, that there was an existing university with a long history (Charles University) with which the new institution could be affiliated, and that food and lodging were cheap compared to Geneva in Switzerland, which had been the suggested home of the new institution. She supported her argument by mentioning that several international conferences had been held in Prague, including conferences organised by UNESCO, which was an important partner for the IAUPL.[93]

The cover of Hort's proposal included the addition of the name Julie Moscheles, handwritten in red pencil along with her title in Czech as an associate professor at the Faculty of Science, Charles University. We can only speculate as to how Moscheles contributed to Hort's proposal – and why. Maybe she also hoped to be part of the new faculty if their visions were realised.

In any case, dreaming about how higher learning or universities could contribute to a better and more peaceful world was nothing new for Moscheles. While growing up in London, she had been introduced to pacifism – and during the interwar years, she had made a proposal to the internationally oriented president of Czechoslovakia Tomas Masaryk of creating "*eine landeskundlichen Arbeitstelle*" (a regional studies centre) with the purpose of informing (in English) about the state of life and industry in Czechoslovakia based on scientific studies – presumably including her own stud-

90 *Communication* no 8 (no year) 40-43, no. 10, 1948, 2-13 (Bodleian library). How GH had got in touch with IAUPL is unclear. It *might* have been through one of its board members, the classical philologist from the University of Copenhagen, Carsten Høeg (1896–1961), a central figure in the Danish resistance movement. While in Australia, GH was involved in Frit Denmark, which supported Danes stranded in Australia and sent help to Denmark after its liberation, Martin, 2003, 12. However, no letter can be found from her among his private papers at The Royal Library, so the above is speculation.

91 Mentioned by Frans Blatt, Det Humanistiske Fakultet, Det humanistiske fakultetsråd 1934–1991, forhandlingsprotokol nr. 6, 1955–1958, (19 Apr. 1956), 60, (Rigsarkivet).

92 GH to lady White, 23.12.1946, Papers of the Derham Family, 2015.0011.00123, Letters from Greta Hort to Lady White, 1946 University of Melbourne Archives.

93 Plan of an International University of Human Sciences, håndskrift nr. 1185.37, Grethe Hjort privatarkiv, Det Kongelige Bibliotek (The Royal Library).

ies of, for instance, Prague's climate. According to one of her biographers, Jiri Pesek, she took this step out of sympathy with the new republican, liberal and democratic government, which had come to power following the collapse of the Austro-Hungarian Empire and the establishment of the new state of Czechoslovakia.[94]

Nothing came of this proposal, and the proposal to create an international university suffered the same fate. In the end, it might have been *too* utopian at a time of new geopolitical tensions between East and West.

Conclusion

Hjort and Moscheles' trajectories were like those of countless other modern women who pursued academic careers in the mid-twentieth century. Female organisations and networks played an important role – especially for Hjort, whereas Moscheles chose to make use of the network of male colleagues, she had met at international conferences and through her connection with the Le Play Society. It is difficult to ascertain whether this was because Moscheles, as a German-educated Jewish woman, was more exposed to exclusion and suspicion than women from other backgrounds or whether it was a personal choice. For both women, travelling became an important tool in obtaining a higher education, life experience, recognition, and employment. The dark clouds that gathered during the interwar years and the subsequent persecution of the Jews and outbreak of World War II had a major impact on their lives and were partly responsible for them meeting and becoming close friends.

To a considerable degree the professional lives of Hjort and Moscheles took place at the margins of universities, within female colleges, female academic networks and in temporary employment. Their connection to male colleagues became of importance at specific situations, paving the way to scholarship and tenure and in some cases, quite literally saving their lives. However, the impression remains, that they were tolerated – and needed as colleagues to take on administrative tasks or teaching, but not necessarily appreciated as scholars, maybe because of their composite personalities, maybe because they were women.

The exploration of gendered scholarly personae – as embodied within a male-dominated world of higher education – has been somewhat pivotal in my search for relevant sources and my affective reading of these sources. I have studied poems and drawings, handwriting, postcards, and stationery to get a sense of the situatedness of these material relics. I have thus been fascinated by the creation of the archives and the establishment of a conversation with the silences and blurred impressions.

I was particularly struck by the near absence of sources from the time Hort and Moscheles spent together in Prague. It brought my imaginative archive to life – a method that Clare Hemmings has suggested to explore "the unsayable and imagine what cannot be retrieved [from the archive]."[95] Crossing paths, the unpredictable and coincidental have pushed me to imagine how the two women's lives unfolded. There are no simple conclusions regarding their entangled life stories or their female friendship. On the contrary, there are blurred lives, connected lives and professional lives. In their creation of a scholarly persona, travel became crucial as an escape from the

94 Pesek (2018), 192.

95 Clare Hemmings, *Considering Emma Goldman: Feminist Political Ambivalence and the Imaginative Archive* (Durham: Duke University Press, 2018), 7, 33.

male-dominated world of universities and from heterosexual expectations, offering an opportunity to find work and friendship.

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About the author
Ning de Coninck-Smith is Ph.D., Professor of the history of education, at The Department of Education, Aarhus University, Denmark.
Email: ning@edu.au.dk

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