Carrie Derick – Botanist and Canada’s first woman professor

T. A. DICKINSON

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and
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Carrie Matilda Derick (1862—1941)

Born Saint-Georges-de-Clarenceville (Eastern Townships) QC, the daughter of an American mother and a Loyalist father.
Carrie Derick – early life

• educated Clarenceville Academy
• began teaching there at age 15
• teacher training, McGill Normal School
• 1881, Principal, Clarenceville Academy
• 1883, return to Montreal to teach there
• 1887-1890, B.A., McGill faculty of arts (a “Donalda”)
  – First class honors, with a cumulative average of 94%, the highest in the university that year

M. Gillett 1990, Carrie Derick (1862-1941) and the Chair of Botany at McGill
Have my horse in good shape so that I can give you a good drive. I think I have a good one I will do part have you any snow in Montreal. we have none here it is all bare ground and the people are going in wagons Carrie is getting along well in her school. she is going to make her marks. Expect she will get to be a Miss Professor. Edna has been to a party to Mr. Hiram Johnson Thursday night we are going to have service on Wednesday as it is Ash Wednesday.
Carrie Derick – botany

• 1892, hired as a part-time demonstrator in botany, and assistant to Prof. David Penhallow for $250 per year (McGill’s first female instructor).

• 1896, M.A. (McGill)

• three summers at Harvard, and seven at the Woods Hole Biological Station

• summer 1898, Royal College of Science, London

M. Gillett 1990, Carrie Derick (1862-1941) and the Chair of Botany at McGill
FLOWERS
OF THE
FIELD AND FOREST.

By C. M. D.

Reprint of a Series of Articles which Appeared in the Family Herald and Weekly Star During the Summer of 1900.

Price Ten Cents.

Published by the Family Herald and Weekly Star, Montreal.

1901.
Derick and McGill

- 1896, recommended for promotion to full-time appointment as lecturer by Penhallow.
- McGill offered $750 per year as Demonstrator, when the same salary was given to a male with only a B.A.
- Derick declined to take the lower salary.
- Sir Donald A. Smith (later Lord Strathcona) provided funds with which to appoint Derick "Lecturer in Botany and Demonstrator in the Botanical Laboratory" at $1,000 per year.

M. Gillett 1990, *Carrie Derick (1862-1941) and the Chair of Botany at McGill*
Derick and McGill

- 1901—1902, 18 months leave of absence for study in Germany. Visited labs and gardens at the Universities of Berlin and Munich, and studied at Bonn for two semesters. Despite Derick having done the research, Bonn did not at that time grant Ph.D. degrees to women
- 1904, Assistant Professor in Botany
- 1912, Professor of Morphological Botany; 1913, Macdonald Professor of Morphological Botany

M. Gillett 1990, *Carrie Derick (1862-1941) and the Chair of Botany at McGill*
McGILL UNIVERSITY

PAPERS FROM THE DEPARTMENT OF BOTANY.

No. 8—Notes on the Development of the Holdfasts of Certain Florideae.

By Carrie M. Derick, M.A.

With Three Plates.

[Reprinted from the Botanical Gazette, Vol. xxxiv, October, 1893, pp. 349-354.]

Montreal, 1900.
A TEXT-BOOK OF BOTANY

by

Carrie M. Derick, M. A.,
Professor of Morphological Botany,
McGill University.

The Educational Book Company,
Toronto,
1912.
Why “Morphological Botany”?

- 1909, Professor Penhallow’s illness led McGill to ask Derick to serve as Acting Chair of Botany until his recovery.
- 1910, following Penhallow’s death McGill asked Derick to continue in charge of Botany, paying her $2,000 per year.
- 1912, Derick surprised to learn McGill would “…throw the appointment of the Chair of Botany open and let it be known on both sides of the Atlantic that we are in search of a professor.”

M. Gillett 1990, *Carrie Derick (1862-1941) and the Chair of Botany at McGill*
Why “Morphological Botany”? 

• Derick was told, “…it will be natural for you to make application in the usual way.”

• Despite support within McGill, and from Sir William Van Horne, the appointment as Macdonald Professor of Botany was given to Francis E. Lloyd, then professor at the Alabama Polytechnic Institute.

• But... “In recognition of Miss Carrie M. Derick’s long and faithful service in the Department of Botany, she is appointed Professor of Morphological Botany, at a salary of $2,000 per annum.”
Derick and McGill

• 1920, Lecturer in Social Service
• 1928, Professor of Comparative Morphology & Genetics
• 1929—1941, Emeritus Professor of Comparative Morphology & Genetics
• Upon retirement in 1929 Derick’s “…former students presented her with a purse of gold.” (Gillett 1990: 86)
Derick and Women’s Issues

• 1889, founding of McGill’s Alumnae Society
• 1891, agreement on a program of social action to help Montreal working women by the 30 graduate “Donaldas” (‘88, ‘89, ‘90, ‘91)
• “...rented a house at 47 Jurors St., hired a cook and housekeeper and organized a “Girls’ Club and Lunch Room.”” (Gillett 1981)
• took turns to purchase food and manage the outfit, so as to serve solid meals at affordable prices to women working in factories, shops, and offices

M. Gillett 1981, We Walked Very Warily – A History of Women at McGill
Corner of Jurors and St. Alexander Streets, Montreal, QC, about 1930
Anonyme - Anonymous
Derick and Women’s Issues

• Campaigned for women’s suffrage; active in the Montreal Council of Women
• MCW invited Emmeline Pankhurst to speak in December 1911; see semi-fictionalized account of Derick’s involvement in *Furies Cross the Mersey: The First British Invasion of Canada*, by Dorothy Nixon
• Franchise granted following the end of WWI, but not in Quebec; Alumnae Society also involved in the Quebec Women’s Suffrage Association together with Francophone women leaders

M. Gillett 1981, *We Walked Very Warily – A History of Women at McGill*
Derick and Eugenics

• introduced a course on “Evolution and Genetics,” and published not only on red algae, but also on “Nuclear changes in growing seeds,” “Nuclear differences between resting and active cells,” and “Heredity and environment” among other things

• advocated for access to birth control information

• and yes, some of this probably reflected WASP concerns about immigration to Canada from southern and eastern Europe

M. Gillett 1990, Carrie Derick (1862-1941) and the Chair of Botany at McGill
Recently there has been a resurgence of interest in Carrie Derick, notably in Montreal, and she is celebrated not only at McGill (two awards named after her) but also in the wider community.

Campo San Angelo by Colleen Curran (excerpt)

1920 Venice. EMILY COONAN is at work, painting in the Campo San Angelo. CARRIE DERICK stops and watches & circles her as she works, finally she speaks.

CARRIE: Multo buona.
EMILY: Grazie.

It takes some effort, CARRIE consults her Baedecker for what she thinks translates to: You have captured it so well, those buildings.

CARRIE: Voi prigionia essa così tanto inquesto modo quelli edificios.
EMILY: No need for that Baedecker.
CARRIE: You speak English?
EMILY: Yes. Do I look Italian to you?
CAUT expects to update this survey with new data later this year.
Issues of equity and inclusion were fought, are fought against

- Persistence
- The women’s movement reborn after WW2
- Little things: covering up “Mrs.” so as to announce yourself by your initials and surname just like the men
- Nancy Dengler comment on the positive role of CBA/ABC (and the Plant Development Workshops) in providing a supportive and welcoming environment regardless of gender
- Providing opportunities for female seminar speakers to discuss life/career choices with graduate students
We organize a series of discussions to promote equality in the Ecology and Evolutionary Biology department, over different types of brews. We hold an informal tea break biweekly for people who identify as female to build confidence and community, as well as monthly.

**Broadening Representation & Equity With Science**

Ecology & Evolutionary Biology, University of Toronto
Looking inward at gender issues

Optimizing participation of different groups in science, technology, engineering, and mathematics (STEM) fields requires a better understanding of how any disparities arise. With regard to gender disparities, several aspects have been analyzed—from looking at degrees awarded in STEM fields to career progression to grant support. Scholarly publishing is not immune to gender imbalance in authorship. We sought to learn how Science is doing on this front.

I previously served on the U.S. National Research Council Committee on Women in Science, Engineering, and Medicine (CWSEM), whose mandate is to support the participation of women in these fields. One valuable resource assembled by the CWSEM is a compilation of data sources relevant to women in science and engineering (http://sites.nationalacademies.org/PGA/cwsem/PGA_049131). For example, one can examine statistics from the U.S. National Science Foundation (NSF) and find that the percentage of women employed in all sectors as a “biological or life scientist” was 41.0% in 2003 and 46.9% in 2011, whereas those employed as “engineer” was 10.4% and 11.7%, respectively.

What does the profile of women authors look like at Science? To start, we were interested in the percentages of women among authors of papers published in Science. Positions were held by women; for the unpublished papers, the numbers were 15% and 30%, respectively. This analysis is described in more detail at Sciencehounds (http://blogs.sciencemag.org/sciencehounds/2017/01/26/gender-analysis-of-science-authors/).

To place these values in context, we examined the percentages of women in scientific fields, weighted to match the balance of fields covered by the NSF through the use of NSF data. We estimated that women held 33% of all academic positions regardless of rank in 2010, 27% of senior faculty positions in 2010, and 47% of graduate programs positions in 2011. Comparison of these results with the percentages of women Science authors reveals that the percentages of women in both the senior and junior author groups are lower among Science authors and submitters by approximately one-third.

The percentages of women authors in published papers are not substantially different from those from the group of papers that were not accepted, with a slightly higher percentage of women in senior positions for published papers and a somewhat lower percentage of women in junior positions for published papers. These differences are not statistically significant given the sample sizes. This suggests that review processes and editorial decisions are not introducing substantial gender disparities.
Extraordinary and poor

Ever since I was in high school, I have dreamed of becoming a neuroscientist. Now a postdoc in a cutting-edge neuroimaging lab, I am proud of the work I have done so far and excited that I am very close to making that dream career a reality. Yet, there’s a problem. As another postdoc in the lab recently said to me, “It is sad that you work in all these top schools, but are worried about money all the time.” And it’s true. I worry about money all the time—because in the end, I may be too poor to achieve my career dreams.

I do not want to complain about my postdoc salary. My institution pays better than most in the country. The website for incoming postdocs notes that the funding is meant to be enough to support a single trainee—and, indeed, the stipend would be sufficient if I were single. The problem is that my stipend must also support my wife, who was only able to start working a few months ago because of visa issues and is now earning a part-time salary; our two daughters, born while I was a Ph.D. student; and my mother-in-law. With the stunning rents in Silicon Valley and the cost of preschool for our older daughter, we are losing money every month. Financial support from my family in China is the only reason I can afford to continue following my dream.

I have explored career options that would offer more financial security. Before I started my postdoc, I interviewed with several management consulting firms, which offered me triple or quadruple my current salary—but I could not bring myself to care about how to make a bank.

The core of the problem is not being poor, but the constant questioning of whether I am making the responsible choice for my family. Am I being selfish? Am I delusional? Or is there something in this pursuit of science that is actually worth holding on to? This mental state does not help my work. Each failed experiment raises the stakes and adds to the stress. But perhaps all these existential doubts are part of the training, part of what I have to endure to explore the unknown.

There is something romantic about disregarding financial realities to push the limit of understanding. At the same time, starting a family dragged me out of this romantic bubble and forced me to think hard about what my heart really wants. I am committed to both my family and my career, and I accept the challenges. To those who are planning a similar course, I hope you will also embrace the burden, and that with all the stress and doubts comes clarity about your choices in life.
MIGRATION

Crossing borders along an endless frontier

Ideas do not carry passports. But lines on maps, as well as policies and pressures that influence who does or does not cross them, can be powerful determinants of whether and how ideas and skills align to advance scientific discovery and technological and economic progress. As headline-grabbing rhetoric and acts stir passions over immigration around the globe, Science invited social scientists to bring evidence to the discussion concerning the role foreign-born talent plays in scientific and technological discovery.
Principal Sources

• The Canadian Encyclopedia
  – www.thecanadianencyclopedia.ca/
• We Walked Very Warily, M. Gillett, 1981
• Despite the Odds, M. Gosztonyi Ainley ed., 1990
• Ingrid Birker, Colleen and Peggy Curran, ...
• Gordon Burr and McGill Archives
• Writing Montreal, D. Nixon
  – flointhecity-aworkinprogress.blogspot.ca/