



Beyond the University: Elite Bostonian Women's Organizations as Sites of Science Learning, 1868-1910

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*Beyond the University:
Elite Bostonian Women's Organizations as Sites of Science Learning, 1868-1910*

A dissertation presented

by

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to

The Department of History of Science

in partial fulfillment of the requirements

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Abstract

This dissertation examines the women-centric science learning opportunities established by Boston-based women's organizations in the Progressive Era. It focuses on two such organizations: the New England Women's Club (NEWC, founded in 1868) and the Woman's Education Association (WEA, founded in 1871). At a time of trenchant opposition to women in science and advanced education for women, these groups were able to establish learning opportunities through which thousands of Bostonian women engaged with science. This dissertation uncovers the strategies deployed by these groups to engender these opportunities, ranging from focusing on feminized sciences to self-funding. It finds that the groups diverged significantly in their political outlooks; the NEWC was distinctly pro-suffrage while the WEA was generally anti-suffrage. These political divergences shaped the character of each group's science offerings and justifications for women's science learning. As such, this dissertation suggests the co-construction of questions surrounding women's suffrage and women in science.

This dissertation also grapples with the shortcomings of the science learning opportunities established by the NEWC and WEA. It argues that these groups often developed science learning opportunities that were short-lived, focused on feminized sciences, and unable to substitute for university-based science educations. Further, it finds that the groups' members were almost wholly white, non-immigrant, and upper

class, and it showcases the manner in which their spaces of science learning reified their worldview. Finally, this dissertation examines the breadth of male support enjoyed by these organizations, pushing back on the historiographical tendency to paint nineteenth century male opposition to women in science as a foregone conclusion.

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¹ Ellen H. Richards, “Waste of Energy in Organization,” *Outlook*, vol. 63, no. 16 (December 16, 1899): 930.

² MHS WEA Records, “Woman’s Education Association,” February 10, 1876, n.p., Box 2, Folder 2.

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Introduction

The “identical education of the two sexes is a crime before God and humanity, that physiology protests against, and that experience weeps over.”¹ So wrote Edward H. Clarke, a Harvard physician, in his notorious 1873 book, *Sex in Education; or, A Fair Chance for Girls*. Clarke’s text investigated women’s education “from the standpoint of physiology” and argued that women’s health would be damaged if they were educated in the same manner as men.² Historians have long since established that Clarke was a vehement opponent of co-education.³ More broadly, they have demonstrated that women’s science education was a highly contentious subject in Progressive Era America.⁴ As many scholars have noted, this was a period in which separate spheres ideology, though not representative of all women’s activities, remained a powerful proscriptive norm.⁵ As such, wealthy white women were typically expected to center their lives on the domestic sphere, managing their homes and overseeing their children. In spite of the extensive literature on Victorian America’s delimited vision of women’s scientific work,

¹ Edward H. Clarke, *Sex in Education; or, A Fair Chance for Girls* (Boston: James. R. Osgood and Company, 1873), 127.

² Clarke, *Sex in Education*, 7.

³ Cynthia Eagle Russett, *Sexual Science: The Victorian Construction of Womanhood* (Cambridge, Mass.: Harvard University Press, 1989).

⁴ The canonical source on this is Margaret Rossiter, *Women Scientists in America: Struggles and Strategies to 1940* (Baltimore: Johns Hopkins University Press, 1982).

⁵ Barbara Welter, “The Cult of True Womanhood: 1820–1860,” *American Quarterly* 18 (1966): 151–74; Nancy Cott, *The Bonds of Womanhood: ‘Woman’s Sphere’ in New England, 1780–1835* (New Haven: Yale University Press, 1977); Mary P. Ryan, *Cradle of the Middle Class: The Family in Oneida County, New York, 1790–1865* (Cambridge: Cambridge University Press, 1981).

there is a puzzling feature of Clarke's work that scholars have not adequately addressed. Just months before publishing, Clarke delivered a lecture on his theories to one of the first women's clubs in America, the New England Women's Club (NEWC). The NEWC had been founded in 1868 by reform-minded women, the majority of whom were suffragists. Its mission centered on developing a female network of learning and reform and it established myriad opportunities for women's science education. Lecturing before this assembly of intellectual women, Clarke presented an argument against women's advanced education, suggesting that mental strain could inflict irreparable physical damage.

How did it come to be that Clarke, a vehement opponent of women's science education, gave this lecture before a body of women whose mission centered on improving women's education? More broadly, how did women's organizations develop opportunities for science learning in the face of such trenchant opposition? This dissertation explores this issue. In so doing, it illuminates a women-centric ecosystem of scientific engagement that was established by elite, native-born, white women's education organizations in Progressive Era Boston. It explores the strategies deployed by, and limitations faced by, these organizations in their efforts to create spaces for women's science learning and work.

Women's Science Education in Progressive Era America

Over the course of the Progressive Era in America, elite white women gained educational opportunities at institutions of higher education and their schooling began to move beyond subjects rooted in the ideologies of separate spheres and Republican Motherhood. In 1861 Vassar Female College was founded in New York, making it the first degree-granting institution for women's higher education in the United States. In the following decades, many more institutions

dedicated to women's education were developed, including Wellesley and Smith colleges in Massachusetts, both of which opened in 1875. During this period a good number of state universities accepted female students, including the Universities of Pennsylvania, Michigan, Nebraska, Wisconsin, Kansas, and Indiana as well as Ohio State.⁶

Science made up a significant portion of the education women received at these institutions of higher education. An 1871 survey of 182 "institutions for the superior instruction⁷ of females" found that about half reported having scientific teaching resources including "a chemical laboratory, a natural history museum, and a philosophical cabinet."⁸ Women began to not only receive, but also provide, science education at universities. In fact, Margaret Rossiter, a preeminent historian of women in science, estimates that by 1873 institutions for women's higher education employed 400 female science instructors.⁹

As notable as the late nineteenth century increase in advanced women's science education and teaching was, it is important to keep it in perspective. Women remained significantly outnumbered by men at institutions of higher education throughout the long nineteenth century, and women's employment opportunities did not grow in parallel with their educational opportunities. According to the National Center for Education Statistics, 13,000

⁶ Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 9-11.

⁷ According to Henry Barnard, the United States Commissioner for Education from 1867 to 1870, the term 'superior instruction' referred to "the highest formal instruction recognized in the system of public schools in each State." Henry Barnard, *Superior Instruction: An Account of Universities and Other Institutions of Superior Instruction in Different Countries*, revised edition (Hartford: Office of the American Journal of Education, 1873), 9.

⁸ Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 8; *Report of the Commissioner of Education for the Year 1872* (Washington, D.C.: Government Printing Office, 1873), table IX, pp. 797-801.

⁹ Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 9.

women were enrolled in institutions of higher education between 1869 and 1870, marking just 0.54% of the population of 18- to 24-year-old women in the United States.¹⁰ During this period, men outnumbered women in institutions of higher learning by a factor of almost 4. In 1909-10, 141,000 women (2.2% of American women) were enrolled at institutions of higher education; men outnumbered women by a factor of 1.5.¹¹

In spite of the shrinking gap between men and women's education, women at the turn of the twentieth century still had relatively few employment opportunities in the sciences. According to Rossiter, this reflects in part the professionalization and specialization of science that occurred in the mid-nineteenth century.¹² During this period, doctoral degrees became an increasingly important professional qualification for men seeking employment as academics and physicians. The doctorate constituted a roadblock to women's participation in these roles; in Progressive Era America it was exceptional for a woman to obtain a doctorate.¹³ Indeed, Rossiter finds that just 228 doctoral degrees were awarded to women in America before 1900; this figure includes degrees in any field.¹⁴ As such, entering the professional world of science was

¹⁰ Thomas D. Snyder, ed., *120 Years of American Education: A Statistical Portrait* (National Center for Education Statistics, U.S. Department of Education, Office of Educational Research and Improvement, January 1993), 76, accessed June 6, 2016, www.nces.ed.gov/pubs93/93442.pdf.

¹¹ Snyder, ed., 76.

¹² Paul L. Farber, *Finding Order in Nature: The Naturalist Tradition from Linnaeus to E. O. Wilson* (Baltimore: Johns Hopkins University Press, 2000), 33; Adrian Desmond, "Redefining the x Axis: 'Professionals,' 'Amateurs' and the Making of Mid-Victorian Biology – A Progress Report," *Journal of the History of Biology* 34, (2001): 14-5; Sally Gregory Kohlstedt, "Parlors, Primers, and Public Schooling: Education for Science in Nineteenth-Century America," *Isis* 81, no. 3 (September 1, 1990): , 444.

¹³ Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 29.

¹⁴ Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 36.

incredibly difficult for women during these years. Women's participation was limited mainly to domestic, amateur and secretarial roles.¹⁵

The university was not the only space in which women's scientific learning was circumscribed. Women also learned science through participation in the burgeoning culture of lectures at natural history museums, lyceums, and libraries. However, these spaces, like universities, often placed clear limits on women's participation. Natural history museums hired predominantly male staffs¹⁶ and featured exhibits that reified race, class, and gender stereotypes.¹⁷ Lyceums were developed in antebellum America with the aim of educating workingmen through mutual education and scattered lectures; although women often attended, many lyceums did not allow women to give or respond to lectures.¹⁸ Additionally, lyceums often discouraged lecturers from discussing controversial topics like women's rights, and women were often restricted to participating through comment boxes.¹⁹

¹⁵ Kohlstedt, "Parlors, Primers, and Public Schooling," 444-5.

¹⁶ Jenna Tonn's scholarship has illuminated the work done by women at Harvard's Museum of Comparative Zoology. Nonetheless, most natural history museum's publicly acknowledged workers were male. Jenna Tonn, "Extralaboratory Life: Gender Politics and Experimental Biology at Radcliffe College, 1894-1910," *Gender & History* 29, no. 2 (2017): 329-58

¹⁷ For examination of the manner in which natural history museums reified race and gender tropes see: Donna Haraway, "Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908-1936," *Social Text*, no. 11 (1984): 20-64; Anne Fausto-Sterling, "Gender, Race and Nation: The Comparative Anatomy of 'Hottentot' Women in Europe, 1815-1817," in *Deviant Bodies: Critical Perspectives on Difference in Science and Popular Culture*, ed. Jennifer Terry and Jacqueline Urla (Bloomington: Indiana University Press, 1995), 19-48; Londa Schiebinger, *Has Feminism Changed Science?* (Cambridge, Mass.: Harvard University Press, 2001).

¹⁸ Kent P. Ljungquist, "Lectures and the Lyceum Movement," in *The Oxford Handbook of Transcendentalism*, eds. Sandra Harbert Petruionis, Laura Dassow Walls, and Joel Myerson (Oxford: Oxford University Press, 2010), 331, 335.

¹⁹ Ljungquist, 336.

Libraries were another space in which women were encouraged to participate in gender-specific ways. Public, tax-funded libraries were developed in the mid-1800s in America. Through the early twentieth century, these libraries were often designed to provide women with their own reading rooms, physically separating women from the visitors in the general reading room. Furnished like sitting rooms and filled with domestically-oriented reading materials, women's reading rooms were considered essential to encouraging upper class women to visit libraries.²⁰ As Alison van Slyck has shown, library reading rooms in late nineteenth century often acted as a physical instantiation of separate spheres ideology, encouraging women to read only about female-gendered topics like fashion and home advice.²¹

Even as women gained opportunities to learn science, the traditional justifications for women's schooling and the gendered character of women's education persisted. For example, Elizabeth Cabot Cary Agassiz, the first President of Radcliffe College, believed that women's education was important largely because of the role women played within the domestic sphere as overseers of children. In 1868 she noted that "[w]omen being, after all, the mothers of men, [are] understood to have some little influence on their education."²² Additionally, she felt that educated women were better companions to their husbands and that solid marital relations, in turn, aided societal progress.²³ As this indicates, even women who were involved in the

²⁰ Abigail A. Van Slyck, "The Lady and the Library Loafer: Gender and Public Space in Victorian America," *Winterthur Portfolio* 31, no. 4 (1996): 221.

²¹ Van Slyck, "The Lady and the Library Loafer," 221–42.

²² Louis Agassiz and Elizabeth Agassiz, *A Journey in Brazil* (Boston: Fields, Osgood, & Co., 1871), 480.

²³ Agassiz, *A Journey in Brazil*, 502.

advancement of female education often justified women's learning by reference to traditional nineteenth century notions of femininity.

In short, Progressive Era American women's opportunities to learn and participate in science were often restrictively defined. The circumscription of women in science had ramifications that extended well beyond the educational realm. As Clarke's lecture indicates, science was, and is, a discipline that has the power to challenge, reinscribe, or reify social, educational, and political agendas. Over the course of the nineteenth century science gained increasing cultural capital as a discipline that could speak to social norms, including questions surrounding women's education and participation in the body politic.²⁴ Like Clarke, many men in the nineteenth century built scientific arguments about women's nature that served to justify their exclusion from science.²⁵ Men argued that the alleged greater intellectual variability of males meant that men were inherently more capable of genius, that women's supposed smaller brains were reflective of their lower intellectual capacities, and that women's reproductive organs necessitated vital energies, thereby depleting the stores available to their higher cerebral functions. The utilization of science as a means of making normative claims about men and women's capabilities made it ever more important for women to have a voice within the field.

Women's Groups as Sites of Science Learning

To augment the existing literature on women's science learning, this dissertation delves deeply into the science learning opportunities fostered by two prominent Boston-based women's

²⁴ Kimberly Hamlin, *From Eve to Evolution: Darwin, Science, and Women's Rights in Gilded Age America* (Chicago: University of Chicago Press, 2014), 59.

²⁵ Russett, *Sexual Science*.

organizations: the New England Women's Club (NEWC), founded in 1868, and the Woman's Education Association (WEA), founded in 1872. These voluntary, subscription-based organizations were each notable players in the national push for greater educational opportunities for women and each devoted significant attention to developing opportunities for women's science learning.

The NEWC and WEA form a relatively coherent unit: both were founded in Boston within a half-decade and their members were typically female, overwhelmingly white, middle and upper class, and active in various charitable organizations and reform efforts. Most were married to prosperous men of the city – lawyers, physicians, academics, and the like. Although some of the NEWC and WEA's members were employed, the majority were of the leisured classes and worked only insofar as they found it personally enriching or beneficial to society. Many of the actors knew each other socially. However, in spite of their demographic and geographic similarities and their shared passion for women's education, the NEWC and WEA diverged in their political orientations. As this dissertation will show, the NEWC was markedly pro-suffrage while the WEA was generally anti-suffrage, and these political viewpoints influenced the justifications they offered for women's science engagement and the kinds of science they encouraged.

The NEWC and WEA each had their own distinct character and mission, as will be discussed in chapters 1 and 2. Nonetheless, taken together they allow insight into an incredible quarter-century of networking and collaboration that enabled the development of myriad forms of women's scientific engagement in Boston. Indeed, both organizations garnered impressive support from male academics, with many elite intellectuals offering the NEWC and WEA classes and public lectures, helping to raise subscriptions, and serving as consultants and directors of

these groups' scientific efforts. This dissertation takes a wholistic, almost ecological, approach to the activities of the NEWC and WEA, showcasing the full range of science learning opportunities these groups fostered.

This dissertation argues that rather than focusing solely on women's colleges as an entering wedge that facilitated women's participation in science, the NEWC and WEA trained their attention on the creation of non-university based, female-centric spaces for female scientific engagement.²⁶ In this manner, they fostered an ecosystem of science learning in which Bostonian women were able to learn from elite intellectuals (male and female alike). As this dissertation will show, between 1868 and 1910 alone, the NEWC and WEA welcomed over 2,000 women, and some men, to their opportunities for science learning. These science learning opportunities ranged in scope, form, and intent, from the establishment of a women's chemistry laboratory at the Massachusetts Institute of Technology (MIT) to the creation of a horticultural school for women. The NEWC and WEA fostered these opportunities by deploying various strategic maneuvers, including: self-funding, hosting lectures and courses within women's groups, leveraging interpersonal connections, highlighting the traditionally feminine aspects of scientific work, and creating women-only spaces for science.

Although the sheer number of women who participated in the NEWC and WEA's science learning opportunities is impressive, it is important to recognize the problematic aspects of the NEWC and WEA's science efforts. To this end, this dissertation suggests that the NEWC and WEA promoted science learning that advanced their own worldviews. The NEWC and WEA occupied a specific social and cultural intellectual milieu in which only particular people –

²⁶ Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 1.

almost²⁷ entirely white, middle- and upper-class women – were welcomed, yet the spaces for scientific engagement they fostered actually targeted women from relatively diverse social backgrounds. On the one hand, the NEWC and WEA helped establish spaces for scientific engagement that were targeted towards women like themselves. For example, they hosted scientific lectures and classes at which science served as the basis for sociability amongst the membership. On the other hand, the NEWC and WEA created women-centric institutions for science learning for women of the lower classes, believing that these women could improve both their station and their health through scientific employments including nursing, cooking, and horticulture. Examples of such spaces include the Horticultural School for Women fostered by the NEWC and the Boston Cooking School and Nursing School that were enabled by the WEA. All of these were formal schools at which literate lower-class women were educated in marketable trades within science. The NEWC and WEA believed that these learning opportunities would enable lower class Bostonian women to productively partake in the industrial order.²⁸ Much as Mechanics' Institutes in Britain were created with the aim of enabling men to better their place in life through the pursuit of productive, industrial scientific knowledge, these women-centric scientific spaces focused on teaching practical and profitable scientific trades to less privileged women.

²⁷ As will be discussed in chapter 1, the NEWC voiced support for the inclusion of black women, but only managed to obtain a few black members through honorary memberships. Similarly, both the NEWC and WEA expressed interest in welcoming schoolteachers to their memberships, but teachers were typically unable to afford the groups' membership fees and unable to attend group meetings, most of which occurred during work hours.

²⁸ Here I am drawing on Steven Shapin's analysis of the Pottery Philosophical Society in industrial Britain. See: Steven A. Shapin, "The Pottery Philosophical Society, 1819-1835: An Examination of the Cultural Uses of Provincial Science," *Science Studies* 2(4): 335, <http://www.jstor.org/stable/284503>.

This dissertation suggests that both the NEWC and the WEA were apparently motivated to develop opportunities for lower class women's science learning by a xenophobic concern with the health and behavior of the city's immigrants. In the mid-to-late nineteenth century, immigration to Boston reached record highs with 35% of the population having been born abroad; it was often a gateway city for American immigrants. Much of this immigration came from Ireland, with almost no immigration from Asia or Africa. As a result, though ethnic minorities were prevalent, the city was almost entirely white.²⁹ Although Boston's black population grew from 2,348 people in 1865 to 11,591 in 1900, even this five-fold increase meant that black people made up only slightly more than two percent of the city's population in 1900. Further, the bulk of the city's black population lived in Boston's West End, not in the Back Bay or Beacon Hill where most NEWC and WEA members resided.³⁰ The bulk of Boston's black population was employed in low-wage occupations, meaning that NEWC and WEA members were more likely to encounter black people as porters than as peers.³¹ This dissertation will suggest that the NEWC and WEA used their spaces of science learning as a means of proscribing and overseeing the behavior of lower-class and immigrant women. Further, in developing these spaces, the WEA (and to a lesser extent, the NEWC) leveraged contemporaneous gender norms to justify women's scientific engagement. As a result, the science education opportunities developed by these groups often served to reinscribe and reify existing social norms.

²⁹ Boston Redevelopment Authority, *Briefing Book: Demographic Profile of the Foreign-Born in Boston*, (Boston: Mayor's Office of New Bostonians, March 1, 2010), 1-9.

³⁰ Millington W. Bergeson-Lockwood, *Race Over Party: Black Politics and Partisanship in Late Nineteenth-Century Boston* (Chapel Hill: The University of North Carolina Press, 2018), 13.

³¹ Bergeson-Lockwood, 15.

This dissertation studies the NEWC and WEA from 1868 until 1910. It begins in 1868 because that is when the NEWC was founded and ends in 1910. 1910 is a logical endpoint because the 1910s marked a shift in the terminology and aims of the women's rights movement. It was during the 1910s that the term 'feminism' arose, displacing the previous term, 'Woman Movement.' As Nancy Cott elucidates, the term 'Woman Movement' used the singular 'woman' to suggest that all women shared a fundamental unity. The new term 'feminism,' on the other hand, encompassed a broad range of activities, encouraged a total revolution in the relation of the sexes, and "presupposed a set of principles not necessarily belonging to every woman—nor limited to women."³² Given this shift in the character of women's rights movements, ending my dissertation in 1910 enables me to center my work squarely upon the period during which the 'Woman Movement' held sway. This centering is important, as this dissertation uncovers crucial links between the push for women's science education and the women's rights movement in the period before 1910. Additionally, 1910 marks the end of the first generation of the women's club movement; by 1910, most founders of the club movement had passed away. Lastly, the periodization of this dissertation has historiographical significance. Rossiter's examination of women's groups focuses predominantly upon the period after 1910. This dissertation adds materially to her analysis by examining science learning in women's organizations before 1910.³³

³² Nancy Cott, *The Grounding of Modern Feminism* (New Haven: Yale University Press, 1987), 3.

³³ Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 100-28.

Justifying Women's Scientific Engagement

In order to understand the NEWC and WEA's efforts to foster women's science learning, it is important to first understand what they considered 'science.' 'Science' was still a somewhat nebulous category in postbellum America; it was only in the 1870s and 1880s that American science specialized, professionalized, and became a profitable form of employment.³⁴ In Progressive Era America, 'science' was often associated with morality, improvement, and progress. As Hyman Kuritz has shown, Americans saw science as a "particular form of useful knowledge that was the key to the growth of a prosperous and democratic society."³⁵ Additionally, science often carried with it a distinctly religious significance. During this period, science was often understood as a means through which people could come to understand God's magnificent creation.³⁶ Given this backdrop, I suggest that in order to understand late nineteenth and early twentieth century women's involvements in science, it is necessary to define 'science' broadly and to recognize all forms of engagement, whether they be academic, educational, or recreational. My method throughout has been to acknowledge women's work not only as 'invisible technicians,' hierarchically subordinated workers, and laborers in sex-typed scientific activities, but also as engaged amateurs who never intended to enter the academy.³⁷ This broad

³⁴ Paul Lucier, "The Professional and the Scientist in Nineteenth-Century America," *Isis* 100, no. 4 (2009): 724-5.

³⁵ Hyman Kuritz, "The Popularization of Science in Nineteenth-Century America," *History of Education Quarterly* 21, no. 3 (1981): 260-1.

³⁶ Kuritz, 261.

³⁷ I am drawing on Steve Shapin's concept of 'invisible technicians' and Margaret Rossiter's notion that women's work in late nineteenth century science was typically hierarchically or disciplinarily distinct from men's work. Steven Shapin, "The Invisible Technician," *American Scientist* 7, no. 6 (1989): 554-63; Rossiter, *Women Scientists in America: Struggles and*

definition of ‘science’ is reflective of the NEWC and WEA’s visions of ‘science,’ a category which for them encapsulated everything from cooking and political economy to physics. While acknowledging the full range of science opportunities fostered by the NEWC and WEA, this dissertation also recognizes the fact that these groups’ science learning spaces were often constructed in the face of rigid gender norms and as such were highly circumscribed in their offerings.

The NEWC and the WEA each used their own distinct rhetoric to argue for opportunities for adult women’s science learning. The NEWC tended to suggest that women should learn and participate in science simply because they could, and because many women found science interesting. In contrast, the WEA pushed for women’s education – both scientific and otherwise – that conformed to conservative visions of a woman’s place. In justifying women’s scientific work, the WEA relied upon language that linked women’s scientific work to their domestic and familial duties.

The NEWC rarely explained the utility of its science lessons and classes. On the rare occasions when the NEWC did argue in favor of women’s scientific engagement, it typically suggested that women should learn science simply because it was of interest to them. For example, in 1885 the NEWC heard a lecture from Harvard botany professor George Lincoln Goodale on insectivorous plants. The NEWC Secretary’s minutes on Goodale’s lecture noted that “no one who heard it could have failed to enjoy it – whether particularly interested in plant

Strategies to 1940, 60-63; Margaret Rossiter, “‘Women’s Work’ in Science, 1880-1910,” *Isis* 71, no. 3 (1980): 394-5.

life or not, so curious were the facts – & so charming the manner of setting them forth.”³⁸ Here we see the NEWC’s typical approach to providing women with scientific lectures and classes. It suggested, quite simply, that such subjects were interesting to women and were worth teaching in a manner that encouraged this interest.

Occasionally, the NEWC suggested that women should learn about science because they were naturally suited to it. For example, in 1878 NEWC member and founder of the New England Hospital for Women and Children Dr. Marie Zakrzewska spoke to the Club on the subject of “Medical Women,” tracing the “progress of women from the position of nurses.”³⁹ In reporting on this lecture, NEWC Secretary Julia Sprague noted that women were naturally inclined towards medicine because “sickness seems ever to have called for the sympathies, and at the same time the abilities of Woman.”⁴⁰ This rhetoric suggests that women and men have different capabilities; it ennobles women’s abilities by suggesting that they are inherently suited to the medical profession.

Unlike the NEWC, the WEA regularly provided justifications for women learning advanced scientific subjects. These justifications took two main forms. First, the WEA argued that women should engage in science because it would improve their ability to serve as educators to children, both as mothers and as teachers. This is reflective of what Linda Kerber has termed ‘the ideology of Republican Motherhood.’ According to this ideology, women in the American

³⁸ Records of the New England Women’s Club, 1843-1970. Schlesinger Library, Radcliffe Institute, Cambridge, Massachusetts, MC 178; M-145 [hereafter: NEWC Records], “Club Journal | 1884-’86,” April 27, [1885], page [12], M-145, microfilm reel 9, folder 41.

³⁹ Julia A. Sprague, “Annual Meeting – New England Women's Club: Report of Discussion Committee,” *The Woman's Journal*, vol. 9, iss. 24 (June 15, 1878): 192.

⁴⁰ Sprague, “Annual Meeting – New England Women's Club: Report of Discussion Committee,” 192.

republic were to be educated in order to rear intelligent boys who would grow up to be virtuous and useful citizens of the republic. This ideology reconciled women's political involvement with their domesticity.⁴¹ The rhetoric of Republican Motherhood was present in much of the WEA's literature. For example, the Association's first annual report, published in 1873, explained that the WEA aimed "to interest and improve those who will come to hear, and so to enlist the sympathy of the mothers, the educators, and all who are called upon to assist and direct the young."⁴² Second, the WEA suggested that women could benefit from scientific knowledge in fulfilling their domestic roles. According to separate spheres ideology, women had two main roles, both of which were domestic: childcare and homemaking. Given the concordance of the anti-suffragists with traditional values, it is perhaps unsurprising that the opportunities for science learning fostered by the generally anti-suffrage WEA typically cohered with these two roles. By suggesting that women's scientific investigations should be domestically oriented, the WEA was able to both encourage women's scientific involvement and reify women's domesticity. In short, the WEA actively pushed for forms of women's education – both scientific and otherwise – that conformed to conservative visions of a woman's place.

⁴¹ Linda Kerber, *Women of the Republic: Intellect and Ideology in Revolutionary America* (Chapel Hill: The University of North Carolina Press, 2014), 12.

⁴² Women's Education Association (Boston, Mass.) Records, Massachusetts Historical Society, Boston, Massachusetts. Ms. N-491 [hereafter: MHS WEA Records], *First Annual Report of the Woman's Education Association*, 7.

Historiography

Women's efforts to gain access to science and medicine via the pursuit of university-level and postgraduate degrees have been well chronicled,⁴³ but much less has been said about the role of women's organizations and clubs in furthering women's science education. In fact, by focusing on women's attempts to enter science within the academy, the existing historiography has perhaps somewhat distorted the true breadth of women's scientific engagement, especially eclipsing the work of those women who established non-university-based opportunities and offered financial support for women's education in the sciences.

While the Progressive Era advent of American women's clubs has received significant scholarly attention from scholars including Maureen Flanagan, Karen Blair, Anne Firor Scott, and Eleanor Flexner, the scientific efforts of women's clubs have not been thoroughly studied.⁴⁴ Further, many of the most detailed histories of the women's club movement were written by prominent women from this movement and tend towards triumphalist narratives.⁴⁵ As such, this

⁴³ See, for examples: Pnina Abir-Am and Dorinda Outram, eds. *Uneasy Careers and Intimate Lives: Women in Science, 1789-1979* (New Brunswick, N.J.: Rutgers Univ. Press, 1987); Regina Morantz-Sanchez, *Sympathy and Science: Women Physicians in American Medicine* (Oxford: Oxford University Press, 1985); Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*.

⁴⁴ For information on the women's club movement in Progressive Era America, see: Maureen A. Flanagan, "Gender and Urban Political Reform: The City Club and the Woman's City Club of Chicago in the Progressive Era," *The American Historical Review* vol. 95, no. 4 (October 1, 1990): 1032-050; Karen Blair, *The Clubwoman as Feminist: True Womanhood Redefined, 1868-1914* (New York: Holmes & Meier Publishers, Inc., 1980); Anne Firor Scott, *Natural Allies: Women's Associations in American History* (Urbana: University of Illinois Press, 1991); Eleanor Flexner, *Century of Struggle: The Woman's Rights Movement in the United States* (Cambridge, Mass.: Harvard University Press, 1959); Jayne Morris-Crowther, *The Political Activities of Detroit Clubwomen in the 1920s: A Challenge and A Promise* (Detroit: Wayne State University Press, 2013); Roberta Frankfort, *Collegiate Women: Domesticity and Career in Turn-of-the-Century America* (New York: New York University Press, 1977).

⁴⁵ For examples, see the following club histories: Julia A. Sprague, *History of the New England Women's Club from 1868 to 1893* (Boston: Lee & Shepard, 1894); Marion Talbot and Lois K.

dissertation adds materially to the existing literature by illuminating the important role women's groups played in engendering women's science learning. It delves into the rich archival records of the NEWC and WEA to uncover the full range of their scientific engagements, situating these efforts within their historical context and recognizing not only their strengths but also their limits.

In studying the science work of the NEWC and WEA, this dissertation builds upon a modest body of literature that has investigated women-centric spaces of science learning at the end of the long nineteenth century.⁴⁶ Marsha Richmond's study of the Balfour Biological Laboratory for Women, which offered students at the all-female Newnham and Girton Colleges in Cambridge England a means of preparing for their Natural Science tripos exams, suggests that during this time period "the social segregations of the sexes was unquestioned in the university."

M. Rosenberry, *The History of the American Association of University Women, 1881-1931* (Boston: Houghton Mifflin, 1931); Jane Cunningham Croly, *The History of the Woman's Club Movement in America* (New York, NY: Henry G. Allen & Co, 1898); *Progress and Achievement: A History of the Massachusetts State Federation of Women's Clubs, 1893-1931* ([Boston]: Massachusetts State Federation of Women's Clubs, 1932).

⁴⁶ Tonn, "Extralaboratory Life," 329–58; Leslie Madsen-Brooks, "A Synthesis of Expertise and Expectations: Women Museum Scientists, Club Women and Populist Natural Science in the United States, 1890–1950," *Gender & History* 25, no. 1 (April 1, 2013): 27-46; Leslie Madsen-Brooks, "Challenging 'Top-Down' Science? Women's Participation in American Natural History Museum Work, 1870–1920," *Journal of Women's History* 21 (2009): 11–38; Helen Lefkowitz Horowitz, *Alma Mater: Design and Experience in the Women's Colleges from Their Nineteenth-Century Beginnings to the 1930s*, 2nd ed. (Amherst, Mass.: University of Massachusetts Press, 1993); Barbara Miller Solomon, *In the Company of Educated Women: A History of Women and Higher Education in America* (New Haven: Yale University Press, 1985); Lynn D. Gordon, *Gender and Higher Education in the Progressive Era* (New Haven: Yale University Press, 1990); Sally Gregory Kohlstedt, "In from the Periphery: American Women in Science, 1830-1880," *Signs* 4, no. 1 (October 1, 1978): 81-96; Mary R. S. Creese and Thomas M. Creese, *Ladies in the Laboratory?: American and British Women in Science, 1800-1900: A Survey of Their Contributions to Research* (Lanham, Md.: Scarecrow Press, 1998).

Richmond explains that, as a result, women's colleges created separate natural sciences clubs.⁴⁷

Jenna Tonn has explored the Radcliffe Zoological Laboratory, a women-centric space within the Harvard Museum of Comparative Zoology through which Radcliffe women gained training in the emergent field of experimental biology.⁴⁸

Estelle Freedman argues that the creation of single-sex spaces for women within the public realm enabled American women at the turn of the twentieth century to engage in the community in enriching ways. As Freedman puts it, from the 1870s to the 1920s American women often “preferred to retain membership in a separate female sphere, one which they did not believe to be inferior to men’s sphere and one in which women could be free to create their own forms of personal, social, and political relationships.” Elaborating on this, Freedman explains that feminism’s achievements during this period “came less through gaining access to the male domains of politics and the professions than in the tangible form of building separate female institutions”; Freedman sees the women’s club movement as a key example of this trend.⁴⁹ The NEWC and WEA’s efforts to encourage a women-centric subculture of scientific work flourished at the same time and for many of the same reasons as the larger women’s club movement; perhaps most notably, both allowed women a separatist path for sustained intellectual engagement. By highlighting the scientific work of the NEWC and WEA, I aim to build upon Marsha Richmond’s call to historians to “revise the means by which the scientific accomplishments of women have traditionally been measured.” I shift the historiographical focus

⁴⁷ Marsha L. Richmond, “‘A Lab of One’s Own’: The Balfour Biological Laboratory for Women at Cambridge University, 1884-1914,” *Isis* 88, no. 3 (September 1, 1997): 440.

⁴⁸ Tonn, “Extralaboratory Life,” 329–58.

⁴⁹ Estelle Freedman, “Separatism as Strategy: Female Institution Building and American Feminism, 1870-1930,” *Feminist Studies* 5 (Fall 1979): 514, 517.

away from women's exclusion from the academy, towards recognition of "the full range of experiences of women in science."⁵⁰

As this dissertation will show, the NEWC and WEA created a number of opportunities for women to engage in science learning. Some of these opportunities were facilitated by the acquisition of physical spaces, such as laboratories, schools, and instruction rooms. Other times, the groups offered financial support, organized lecture series, or enabled women to build their intellectual networks. In this dissertation I designate all of these opportunities 'spaces' for science, using the term both literally and metaphorically.

Spaces for science have generated a great deal of scholarly interest. Taking much of its impetus from Steven Shapin's early work on the Royal Society and subsequently developed by David Livingstone and others, historians of science have paid increasing attention to the physical location of scientific work. Building on this tradition, this dissertation explores the ways in which the NEWC and WEA navigated the social, cultural, and intellectual boundaries between women's groups and male-dominated universities and scientific societies. In so doing, it draws upon the scholarship of Robert Kohler. Kohler emphasizes the centrality of location to the production of scientific knowledge, suggesting that location impacts both the production and consumption of scientific knowledge.⁵¹ Similarly, David Livingstone suggests that the location of scientific work impacts its production and consumption; it affects its circulation and the way in which it is regarded.⁵² Continuing in this vein, this dissertation explores the factors that

⁵⁰ Richmond, "A Lab of One's Own," 425.

⁵¹ Robert Kohler, *Landscapes & Labscapes: Exploring the Lab/Field Border in Biology* (Chicago: University of Chicago Press, 2002); David Livingstone, *Putting Science in its Place: Geographies of Scientific Knowledge* (Chicago: University of Chicago Press, 2003).

⁵² Livingstone, *Putting Science in its Place*, 1, 11, 14, 16.

enabled the NEWC and WEA to obtain access to traditionally male domains of science. It also examines the manner in which these groups created their women-centric subcultures of science and participation by collaborating with male-centric centers of scientific production, particularly universities and scientific societies. I draw specifically on Anne Secord's analysis of the site of the pub, in which she used the physical site of the pub as a means of investigating the role of artisans in the production of botanical knowledge.⁵³ I use the site of the women's organization to uncover a diversity of spaces for scientific engagement. The pub encouraged group coordination and conviviality among artisans, and women's groups provided middle- and upper-class Bostonian women with these same advantages. While the NEWC had private clubrooms, the WEA relied upon members' willingness to open up their homes for club meetings and lectures. Though they obtained access to their physical meeting sites through differing means, both groups' meeting sites served similar functions as the pubs examined by Secord, enabling participants to share ideas and resources.⁵⁴

⁵³ Owen Hannaway, "Laboratory Design and the Aim of Science: Andreas Libavius versus Tycho Brahe", *Isis*, Ixxvii (1986): 585-610; Steven Shapin, "The House of Experiment in Seventeenth-Century England," *Isis* 79, no. 3 (1988): 373-404; Adi Ophir and Steven Shapin, "The Place of Knowledge: A Methodological Survey," *Science in Context* iv (1991): 3-21; Steven Shapin, "Placing the View from Nowhere: Historical and Sociological Problems in the Location of Science," *Transactions of the Institute of British Geographers* 23, no. 1 (1998): 5-12; Robert E. Kohler, "Place and Practice in Field Biology," *History of Science* 40, no. 2 (June 2002): 189-210; Kohler, *Landscapes & Labscapes*; Livingstone, *Putting Science in its Place*; Simon Schaffer, "Physics Laboratories and the Victorian Country House," in *Making Space for Science: Territorial Themes in the Shaping of Knowledge*, eds. Crosbie Smith and Jon Agar, *Science, Technology and Medicine in Modern History* (London: Palgrave Macmillan UK, 1998), 149-80; Tonn, "Extralaboratory Life"; Anne Secord, "Science in the Pub: Artisan Botanists in Early Nineteenth-Century Lancashire," *History of Science; Cambridge* 32, no. 3 (December 1, 1994): 269-315.

⁵⁴ Secord, "Science in the Pub," 277.

Although women's organizations often collaborated with university academics to develop spaces of science learning, the majority of the spaces explored in this dissertation were not intended to provide women with degrees in the sciences or university-based employment. By focusing on the learning enabled by these women's organizations, an interesting liminal space of scientific activity is illuminated. Whereas Margaret Rossiter suggests that "informal learning had given way to academies, and they in turn to colleges" by the end of the nineteenth century, this dissertation will reveal the ongoing prominence of informal learning as a means of fostering women's scientific participation.⁵⁵

It is commonplace in women's history to describe the period from the mid-1890s through 1910 as the doldrums of the women's rights and women's suffrage movements. Scholars including Alexander Keyssar and Rebecca Edwards emphasize the fact that the women's suffrage and women's rights movements reached a standstill during this period.⁵⁶ Nonetheless, the women's groups I examine were active and successful at this time. By studying this period, this dissertation showcases some hitherto underexamined activities in the women's rights movement.

Chapter Overviews

Chapters 1 and 2 explore the founding stories, missions, and memberships of the NEWC and WEA. Chapter 1 focuses closely on the NEWC, examining the manner in which it boldly co-

⁵⁵ Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 1-2.

⁵⁶ Alexander Keyssar, *The Right to Vote: The Contested History of Democracy in the United States*, revised ed. (New York: Basic Books, 2009), 196-7, 200; Rebecca Edwards, *Angels in the Machinery: Gender in American Party Politics from the Civil War to the Progressive Era* (New York: Oxford University Press, 1997), 10.

opted the traditionally male form of the ‘club’ to develop opportunities for the advancement of women’s education and their social and professional networks. The NEWC fostered feminine sociality while encouraging women’s intellectualism and forwarding a progressive educational agenda. In short, the Club sought to create what Estelle Freedman terms a “public female sphere,” that is, a women-led space through which female engagement in the public domain (particularly politics and education) was fostered.⁵⁷ The NEWC’s founders hoped to create a space in which women could take on leadership responsibilities and engage in intellectual debate untrammelled by competition with men, as they recognized that men often had superior education and networking opportunities.

The NEWC was a leader of a tidal wave of club activity among New England women. By closely examining the Club’s archival records, chapter 1 sheds light on the motivations undergirding the women’s club movement. It finds that the Civil War reoriented the work and aims of women’s voluntary associations, and suggests that the NEWC was founded, in part, in response to the dearth of employment and education opportunities women faced in postbellum America. Having enjoyed their publicly impactful wartime work, the founders of the NEWC sought to foster women’s continued public utility through the establishment of women’s groups.

Chapter 2 explores the rigid social norms to which the elite white women of the WEA were subjected. It highlights the strategies the Association deployed to navigate these proscriptive social constructs. It suggests that the WEA sought to further women’s education without publicly challenging contemporaneous notions of womanly behavior. As subsequent chapters explore, the Association’s adherence to gender and class norms shaped the forms of

⁵⁷ Freedman, “Separatism as Strategy,” 513.

scientific engagement for which it fought, and the explanations it offered to justify these learning and work opportunities.

Chapter 3 studies the NEWC and WEA's distinct relationships to the women's rights movements of late nineteenth and early twentieth century America. The NEWC and WEA, though inextricably intertwined in the same Boston social network, held widely divergent relationships with the suffrage movement. While the WEA generally avoided association with the suffrage movement, the NEWC's founding members included prominent suffragists like Julia Ward Howe and Caroline Severance. Chapter 3 explores this seemingly paradoxical situation. It investigates the relationship between the NEWC and WEA's diverging political stances and the rhetoric they used to justify women's science learning, finding that debates over suffrage and science were inextricably intertwined. As this chapter shows, debates about how women should participate in science were intimately connected to debates over whether women should have the vote.

The scientific spaces founded by the NEWC and WEA take center stage in chapter 4. This chapter illuminates the women-centric subcultures of science learning and exploration established by the NEWC and WEA. Building on the scholarship of Estelle Freedman, it explores women's creation of single-sex spaces as a strategy for engendering women's scientific participation.⁵⁸ This chapter highlights both the strengths and weaknesses of the science learning opportunities developed by the NEWC and WEA. These opportunities enabled an impressive number of women to participate in science, but were typically short-lived, focused on feminized sciences, and non-degree oriented. Further, these spaces often offered proscriptive science educations to lower-class women, reflecting the apparent xenophobia of the groups' leaders.

⁵⁸ Freedman, "Separatism as Strategy," 512-29.

Finally, this chapter suggests that these women-centric subcultures of science did, on occasion, serve as an entering wedge for women's participation in university-based, masculine cultures of science.

Chapter 5 interrogates the role men played with regard to the science learning that developed in women's groups. The end of the long nineteenth century in America was marked by fierce pushback on women's advanced science education. Nonetheless, many of the spaces of scientific engagement created by the NEWC and WEA were enabled partly thanks to the aid of academic institutions and male university scientists. Indeed, these groups had significant male allies, many of whom worked within the academy. Ranging from Thomas Wentworth Higginson to Hugo Münsterberg, male allies provided lectures, information, materials, and even full courses to these women's groups. These Bostonian, typically university-based, supporters of women's science learning, like their female counterparts, have not been analyzed as a network. In her study of Cambridge University, Rita McWilliams Tullberg demonstrates the necessity of including male advocates for women's education; I hope to build upon her work by illustrating the importance of Boston's male supporters of female science learning.⁵⁹

Women's Groups as Sites of Science Learning, Production, and Dissemination

It has long been established that many white women's groups in the late nineteenth and early twentieth centuries focused on improving educational opportunities. A 1908 *Journal of Education* article on the work of women's clubs noted: "The interests of the club women range from those of the concentrated life of great cities to those of the sparsely settled frontiers, from

⁵⁹ Rita McWilliams Tullberg, *Women at Cambridge*, revised edition (Cambridge, UK: Cambridge University Press, 1998).

questions of national scope to those of the Country district school, but everywhere the women are evidently meeting the educational problems presented with alert and serious minds, and in the most practically helpful fashion.”⁶⁰ However, little has been said specifically about the myriad ways in which women’s organizations fostered *science* education in particular. Nonetheless, as this dissertation will suggest, science was an important dimension of women’s groups’ intellectual work, even within organizations that did *not* specifically focus upon women’s science education.

By studying the NEWC and WEA, this dissertation sheds light on women’s groups as creators of women-centric subcultures of science engagement in Progressive Era Boston. Though neither the NEWC nor the WEA had a science-focused mission, each offered diverse opportunities for adult women – both their own members and members of the community – to participate in science. Although the twentieth century increasingly saw women pushing for full and equal participation in university science, the separatist culture of women’s scientific work fostered by groups like the NEWC and WEA was hugely significant. The NEWC and WEA alone spawned women-centric opportunities for science learning at which thousands of Bostonian women were educated. Some of these institutions persist to the modern day (i.e., the Marine Biological Laboratory at Wood’s Hole), while others left a lasting impact on university-based science (i.e., the Women’s Laboratory at MIT).⁶¹ Further, through their women-centric spaces of women’s science learning, the NEWC and WEA were able to establish publicly-

⁶⁰ Jane A. Stewart, “The Educational Work of the Women’s Clubs,” *The Journal of Education* 67, no. 20 (1680) (1908): 536-38.

⁶¹ Amy Sue Bix, “Feminism Where Men Predominate: The History of Women’s Science and Engineering Education at MIT,” *Women’s Studies Quarterly* 28, no. 1/2 (2000): 24-46; Elizabeth Durant, “A Lab of Their Own - MIT Technology Review,” *MIT Technology Review* (May 12, 2006); Rossiter, ““Women’s Work’ in Science,” 394-5.

engaged female spheres of activity, enabling women to influence the public realm without transgressing contemporaneous gender norms.

By examining the women-centric spaces of scientific investigation fostered by the NEWC and WEA, this dissertation hopes to explore a path not taken, namely sex separatism in science education. In so doing, it illuminates the strategic manner in which elite Bostonian women's clubs developed a women-centric ecosystem of scientific engagement in Progressive Era Boston. This dissertation showcases both the strengths and limits of women-centric science learning, finding that while it succeeded in enrolling impressive numbers of women, it failed to offer a true alternative to university-based co-education.

Chapter 1

The New England Women's Club: Appropriating the 'Club' Model and Establishing a Publicly Engaged Female Sphere

In 1847 Harriot Kezia Hunt (1805-1875), a self-supporting white Bostonian who had been practicing medicine for over a decade, wrote the Dean of Harvard Medical School, Oliver Wendell Holmes, Sr., “to ask leave to attend medical lectures.”¹ Hunt had received her primary education at home and in private schools. Inspired by her family’s experiences with medical care, Hunt decided to pursue a career as a physician. She received her early training via an apprenticeship with a married couple, Dr. Richard Mott and Elizabeth Mott. In 1835 she opened her own consulting room. In spite of her years of practice, the Board of the Harvard Medical School determined that it would be “inexpedient” for Hunt to attend the school’s lectures.² This decision was based upon a precedent that had been established earlier that year, according to which: “the corporation do not deem it advisable to alter the existing regulations of the Medical School, which imply that the students are exclusively of the male sex.”³ Reflecting on her exclusion from Harvard Medical School in her 1856 memoir, Hunt wrote: “...when civilization is further advanced, and the great doctrine of human rights is acknowledged, this act will be recalled, and wondering eyes will stare, and wondering ears be opened, at the semi-barbarism of

¹ Harriet K. Hunt, *Glances and Glimpses; Or Fifty Years Social, Including Twenty Years Professional Life* (Boston: John P. Jewett and Company, 1856), 217.

² Hunt, *Glances and Glimpses*, 218.

³ “History of Women at HMS,” accessed February 7, 2019, <https://jcswhms.harvard.edu/history>.

the middle of the nineteenth century.”⁴ It was not until September 1945 that Harvard Medical School admitted women on equal footing with men.⁵

When Hunt wrote to Harvard Medical School in 1847, there had never been a female graduate of an American medical school. Medical degrees were not yet required to practice medicine. Indeed, although the first medical school in America opened in 1765, it was not until 1847 that the American Medical Association was established. As this indicates, the medical credentialing system was undergoing a period of professionalization, of which Hunt had hoped to be a part.

Hunt did not give in to the limitations of women’s education. In addition to continuing to practice medicine, Hunt helped found the New England Women’s Club (NEWC) which, as this dissertation argues, worked to further women’s networks and educations and in so doing fostered numerous opportunities for adult women’s science learning. Reporting on the NEWC’s inaugural meeting, the *Boston Daily Globe* noted that the women in attendance – figures like Julia Ward Howe, Ednah Dow Cheney, Caroline Severance, and Abby W. May – were not “the ultra-fashionables of the day...but Boston’s already notable list of thinking, cultivated women.”⁶ Howe was a noted suffragist and author, Cheney was a reformer who held leadership positions in a variety of women’s and philanthropic organizations, Severance was an abolitionist and suffragist who would come to be known as the ‘mother of women’s clubs,’ and May was an

⁴ Hunt, *Glances and Glimpses*, 218.

⁵ “History of Women at HMS,” accessed February 7, 2019, <https://jcswhms.harvard.edu/history>.

⁶ Dinah Sturgis, “LIKE CLUB LIFE: Women Revel in Chats and Tea Parties. Their Association to Observe Its 25th Anniversary. Years Have Proven Plan to Be a Success. Learned Men Have Been Guests on Occasions. Many Suffragists Numbered in Its Membership,” *Boston Daily Globe* (February 6, 1893): 3.

ardent supporter of women's suffrage. The NEWC intended to be a publicly influential organization, focused not only on personal enrichment but also on the improvement of women's education and station more broadly. It also sought to serve as a model for other women's clubs, and therefore published public accounts and histories of its work, invited interested women to meetings, and willfully shared information about its proceedings whenever requested.

“They cannot go back to their tatting and embroidery!”:⁷ The Postbellum Surge in Boston's Women's Clubs

Founded in 1868, the NEWC was one of the first two American women's clubs.⁸ The ascent of women's clubs in late nineteenth century Boston was pronounced. Indeed, in 1895, Julia Ward Howe, longtime NEWC President and author of ‘Battle Hymn of the Republic,’ opined: “It was once eccentric to belong to this club [the NEWC]. Now, the eccentric woman is the one who does not belong to any club. We all belong to a perfect alphabet of them.”⁹ Commenting on this ‘alphabet’ of clubs, Howe was referring to the slew of women's clubs that had arisen through the century and the acronyms by which they had come to be known. The women's club movement, of which the NEWC was a pioneer, represents a change in the intent and quantity of women's organizations, not the genesis of women's organizations. Though

⁷ Mrs. Robert M. Read, “Early Days of the New England Women's Club,” in *Progress and Achievement: A History of the Massachusetts State Federation of Women's Clubs, 1893-1931* ([Boston]: Massachusetts State Federation of Women's Clubs, 1932), 200.

⁸ The other organization was Sorosis, a club for professional women that was founded by Jane Cunningham Croly in New York. Sorosis intended to compensate for the fact that women were often excluded from professional organizations. It remains unclear which group was established first, but the issue of precedence is not significant to this dissertation.

⁹ Julia Ward Howe, quoted in Anonymous, “New England Women's Clubs,” *The Woman's Journal*, vol. 26, iss. 23 (June 8, 1895): 181.

women's *clubs* were unheard of before 1868, women's *organizations* had existed for decades. Indeed, building on the notion that women were inherently moral and religious, some women formed Moral Reform Societies as early as the 1830s.¹⁰ Similarly, the Ladies' Physiological Institute of Boston and Vicinity was founded in 1848 and incorporated in 1850, making it one of the oldest, if not the oldest, women's groups in America.¹¹ And even before the Ladies' Physiological Institute was established, many men's organizations (including men's clubs) had women's branches and many women enjoyed church-affiliated groups and literary circles. During this same time period, antebellum female academies enabled women to attain secondary schooling in a single-sex setting.¹²

Like earlier women's organizations, the women's clubs developed in the late nineteenth century promoted social relations, self-culture, and self-improvement among women. Nonetheless, the women's clubs established in the wake of the Civil War diverged from earlier female organizations in a few key ways. As Judith Becker Ranlett notes, postbellum women's clubs typically had multifaceted missions that were accomplished through the division of a single club into various committees. Their antebellum precursors, by contrast, had generally been

¹⁰ Blair, *The Clubwoman as Feminist*, 8.

¹¹ Though some nineteenth century materials suggest that the LPI was indeed the oldest women's club in America, historians have been more reticent to repeat this statement. Martha Verbrugge, for example, notes that the LPI is "one of the oldest continuous women's organizations of any sort in America"; Martha H. Verbrugge, *Able-Bodied Womanhood: Personal Health and Social Change in Nineteenth-Century Boston* (New York: Oxford University Press, 1988), 51. "Boston Women's Club the Oldest," *The Sunday Herald* (April 4, 1909): 44, America's Historical Newspapers; "This was the Pioneer: The Oldest Organization of Women in the Country: Ladies' Physiological Institute," *The New York Times* (September 1, 1895): n.p., New York Times Archive.

¹² Blair, *The Clubwoman as Feminist*, 8.

content to focus upon the individual enrichment of their participants.¹³ Additionally, unlike antebellum women's groups, postbellum women's clubs were typically reformist; they worked towards social change through their club activities in areas like suffrage and education.¹⁴ Clubwomen sought a means of effecting public change but lacked the vote and the ability to run for office. Further, women were typically excluded from conventional male networks, many of which were established through private school and university connections.¹⁵ As Ranlett's study of Massachusetts women's clubs has found, these groups aimed to enable sorority through which women would improve their self-image. Further, they sought to provide women in the ever-evolving city of Boston (which was experiencing rapid immigration) with a stable community.¹⁶

Looking beyond the specific case of the NEWC, several historians have suggested that upper class women's voluntary employment during the Civil War was an important impetus for the women's club movement of the late nineteenth century.¹⁷ Many NEWC members had served on the Sanitary Commission during the Civil War, raising funds and providing medical supplies and aid to Union soldiers; in the wake of the war they were left without respectable employment. Indeed, as Alice Kessler-Harris has shown, during this period in American history it was widely

¹³ Judith Becker Ranlett, "Sorority and Community: Women's Answer to a Changing Massachusetts, 1865-1895" (PhD diss., Brandeis University, 1974), 79.

¹⁴ Ranlett, 80.

¹⁵ Tonn, "Extralaboratory Life," 329–58.

¹⁶ Ranlett, 20.

¹⁷ Blair, *The Clubwoman as Feminist*, 13; Scott, *Natural Allies*, 79; Silber, *Daughters of the Union*, 284.

held that married women of the upper classes should not work outside the home.¹⁸ Following their wartime employments, the NEWC's founders were left without a clear sense of public purpose. The history of the NEWC provided by the Massachusetts State Federation of Women's Clubs (MSFWC) emphasizes the war's role in the Club's genesis. According to this source, the Club was proposed by founding member Abby May during a walk in Boston Common with Dr. Marie Zakrzewska. This source goes so far as to envision¹⁹ what the conversation between May and Zakrzewska may have looked like, with May questioning what women would do in the wake of the war and exclaiming: "they cannot go back to their tatting and embroidery!" Zakrzewska is imagined to have replied that they could develop a women's club.²⁰ Dramatized dialogue aside, it appears that the women of the NEWC were motivated to pursue club work at least in part because they had been inspired by the publicly influential work opportunities they had enjoyed during the Civil War. The Sanitary Commission had provided the NEWC's founders with a socially acceptable means of working in the public realm; in establishing the NEWC, these women hoped to find a means of continuing their extra-domestic, public engagements. Bored of 'tatting and embroidery,' the women of the NEWC fostered a publicly-engaged female sphere for women-centric reform and networking.

The women's club movement arose not only as a response to women's postbellum desire to maintain their public works, but also as a means of filling the absence women felt as a result

¹⁸ Alice Kessler-Harris, *Out to Work: A History of Wage-Earning Women in the United States* (New York: Oxford University Press, 1982), 142.

¹⁹ Although this conversation is presented without commentary, it is reasonable to read it as historical fiction given that both May and Zakrzewska had passed decades before this book was published.

²⁰ Read, "Early Days of the New England Women's Club," in *Progress and Achievement*, 200.

of women's limited postwar education and employment opportunities. Indeed, mid-nineteenth century women seeking work or training for educated professions often encountered resistance on account of their sex.²¹ Although the nineteenth century saw the advent of greater educational opportunities for women, including women's colleges, it was still rare for women to receive college educations and, when they did, they often lacked networking and employment opportunities. For example, as noted at the outset of this chapter, Harriot Kezia Hunt was rejected from Harvard Medical School in spite of her extensive practice and qualifications. Historians have argued that these experiences with sex-based resistance enabled both women's bonding and women's recognition of the limitations of their sex's second-class status.²²

Because of the difficulties and exclusion they frequently faced, even the exceptional women who managed to obtain higher education in the mid-to-late-nineteenth century often felt the need to develop supportive intellectual networks. Complementing this, women who had been unable to obtain their baccalaureates sought out intellectual networks through which they would be able to supplement their more modest educations.²³ By organizing local bodies, cerebral women were able to build a much needed network at a time when they were often ostracized in both educational and employment settings. Simultaneously, these local bodies enabled women who had grown up before the advent of higher education to create alternative educational ecosystems.

²¹ Blair, *The Clubwoman as Feminist*, 8-10.

²² Blair, *The Clubwoman as Feminist*, 7-10.

²³ Mildred White Wells, *Unity in Diversity: The History of the General Federation of Women's Clubs* (Washington: General Federation of Women's Clubs, 1953): 51.

While the postbellum *women's* club movement was spurred on by women's enjoyment of their wartime employments and by women's frustrations with the state of women's education, the club movement as a whole (both male and female) also experienced a boon. Historians often attribute the growth of Boston's club movement to the city's post-Civil War wealth and to the Boston elite's desire to maintain their status amidst rapid immigration.²⁴ Scholar Nathan Shiverick argues that late nineteenth century Bostonians "created groups or joined them to preserve traditions and values which were good enough to have been taken for granted when the community was more homogenous."²⁵ Shiverick also highlights the importance of legislative developments to the advent of Boston's clubs. As Shiverick explains, in 1829 Massachusetts passed legislation governing the establishment of corporate structures; this legislation made it easier for people to establish limited liability corporations.²⁶ Both the NEWC and WEA took advantage of this legislative option and became incorporated entities, thereby limiting their leaders' personal legal exposures and liabilities.

The NEWC spearheaded an organizational movement among Bostonian women. The surge in Boston women's clubs was enabled by the combined effects of Boston's postwar economic boom, the desire of Boston's elite to both maintain and extend their realm of influence, new legal options for establishing organizations, women's postwar quest for continued public

²⁴ Doris A. Birmingham, "Boston's St. Botolph Club: Home of the Impressionists," *Archives of American Art Journal* 31, no. 3 (1991): 27; Nathan C. Shiverick, "The Social Reorganization of Boston," in Alexander W. Williams, *A Social History of the Greater Boston Clubs* (Barre, MA: Barre Publishers, 1970), 129.

²⁵ Shiverick, "The Social Reorganization of Boston," 143.

²⁶ Shiverick, "The Social Reorganization of Boston," 134.

influence, and the increase – yet continuing incompleteness – of opportunities for the higher education of women.

**“Husbands ... feared the effects of the strange club life upon the home and its duties:”²⁷
The NEWC's Appropriation and Feminization of the ‘Club’ Format**

The first few meetings of the NEWC were small and open only to those who were expected to be supportive of the seemingly radical effort to develop a club for women. When Caroline Severance wrote Ednah Dow Cheney encouraging her to attend the group’s first organizational meeting, she noted that “we expect only about a dozen, of the real workers, & actively interested” to attend.²⁸ According to Severance, the women with whom she corresponded expressed but “one opinion – an urgent desire for these opportunities, & not one unfavorable or discouraging word.”²⁹ On February 18, 1868 “a few ladies met informally at the house of Dr. Harriot Kezia Hunt to consider plans for organizing a Club for Women.”³⁰ This first meeting was a success, and quickly led to other “preparatory meetings” in the houses of early

²⁷ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Caroline M. Severance, “The Genesis of the Club Idea,” newspaper clipping in this scrapbook, M-145, microfilm reel 3, folio box 2.

²⁸ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Letter from Caroline Severance to Ednah Dow Cheney, February 15, 1868, page [2], M-145, microfilm reel 3, folio box 2.

²⁹ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Letter from Caroline Severance to Ednah Dow Cheney, February 15, 1868, page [2], M-145, microfilm reel 3, folio box 2.

³⁰ NEWC Records, “Records of the New England Women’s Club,” sometime after March 10, 1868 and before April 4, 1868, page 1, M-145, microfilm reel 4, folder 22.

members.³¹ By the end of February 1868, these women had determined to meet on a weekly basis.

The NEWC's work quickly came to center on its physical premises. Indeed, in March 1868 the budding organization elected a Board of Directors and laid out its constitution, stating that the "objects of this Association are primarily to supply the daily increasing need of a quiet central resting place and place of meeting for the comfort and convenience of those who may wish to write with us, and ultimately to become an organized social centre for united thought and action."³² The NEWC's desire for private premises is reflective, in part, of pragmatic limitations facing women: at this time, Boston had very few meeting halls and it was not generally socially acceptable for women to meet at hotels without men as their hosts.³³ As a result, the NEWC had two options: meet at members' homes and sacrifice the ability for members to convene informally at times of their choosing, or establish a space of their own. Although women renting a space on their own was uncommon at this time, the NEWC chose the latter approach and in

³¹ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Letter from Caroline Severance to "the N.E.W. Club, -- on its 25th anniversary," [1893], page [2], M-145, microfilm reel 3, folio box 2.

³² As historians of science including Robert Kohler and David Livingstone have illuminated, the situatedness of scientific knowledge is important; sites of knowledge production become intimately imbricated with the information they produce. Therefore, it is important to recognize that the NEWC's mission centered on having a physical club *space* in which members could convene. NEWC Records, "Records of the New England Women's Club," March 10, 1868, page 3, M-145, microfilm reel 4, folder 22; Kohler, *Landscapes & Labs*; Livingstone, *Putting Science in its Place*. Anne Secord's work on artisan botanists also provides an illuminating example of the centrality of a physical space to the production of knowledge. By looking at the production of scientific knowledge from the perspective of the place in which it was carried out (the pub), Secord seeks to shed light on the activities and culture of working-class natural historians. Secord, "Science in the Pub."

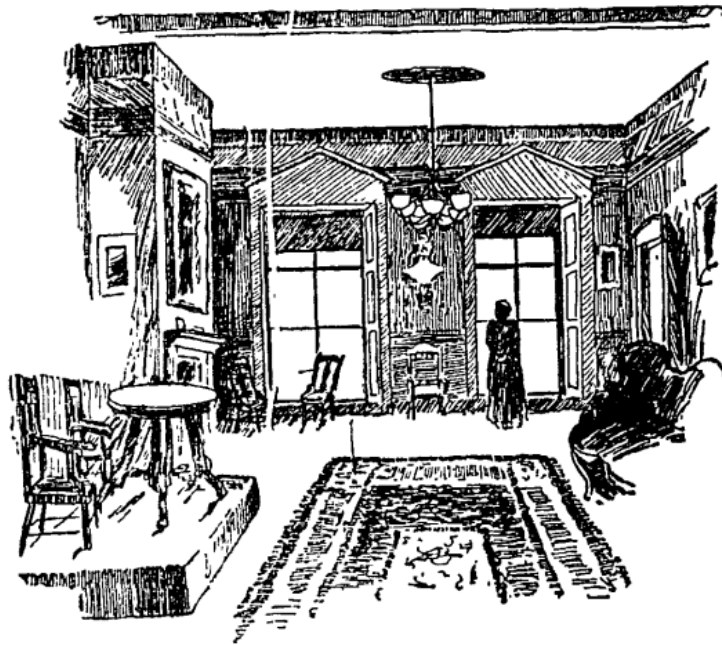
³³ Read, "Early Days of the New England Women's Club," in *Progress and Achievement*, 203.

May 1868 hired rooms at No. 3 Tremont Place in Boston.³⁴ These rooms included “parlors, office, and lodging-rooms for temporary occupancy”, as shown in Figure 1.1.³⁵

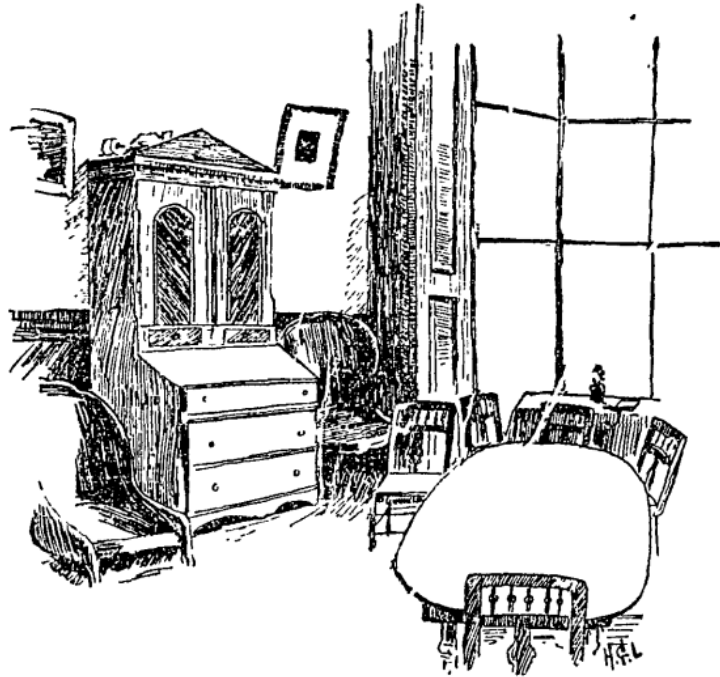
³⁴ In 1876 the Club’s headquarters were relocated to No. 4 Park Street and in 1879 it relocated to No. 5 Park Street. In 1899 the Club left its housing at Park Street as a result of a lack of funds. At this point, the Club began to meet at Tremont Temple, a Baptist Church in downtown Boston. In 1903 the Club relocated to the Woman’s Club House, located at 175-9 Huntington Avenue. In mid-1905 the NEWC again relocated, this time to rooms at Grundmann Studio Building on Clarendon Street. In 1908 they again relocated, moving to rooms in the Chauncey Hall building in Copley Square. Julia Sprague, *A History of the New England Women's Club from 1868 to 1893* (Boston: Lee & Shepard, 1894), 6.

³⁵ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, “New-England Women’s Club” paper introducing the NEWC’s clubrooms and inviting a person to join the club, June 8, 1868, M-145, microfilm reel 3, folio box 2.

Figure 1.1: The NEWC's parlor and tearoom at No. 5 Park Street in Boston, 1893



THE CLUB PARLOR.



WHERE AN EVENING TEA IS SERVED.

The NEWC was one of just two Boston women's clubs that had its own clubrooms in 1893. The NEWC considered clubrooms essential to the development of meaningful relationships amongst members. Members were able to access the clubrooms as they saw fit during daily open hours and were encouraged to attend the Club's weekly teas. In addition to fostering internal camaraderie, the NEWC's clubrooms served as a host site for discussions, classes, and lectures.

Source: Dinah Sturgis, "Like Club Life: Women Revel in Chats and Tea Parties," *Boston Daily Globe* (February 6, 1893): 3.

By maintaining clubrooms, the Club hoped to serve as a launching pad for a powerful women's network. According to an 1877 amendment to the NEWC's 1868 "By-Laws, Rules and Regulations" the clubrooms were required to be open to members from 9am to 9pm daily.³⁶ By keeping its rooms open to members, the Club hoped that its members would be able to frequently meet with one another for intellectual discussions, both formal and informal. Beyond using its clubrooms to encourage internal networking and camaraderie, the NEWC also used them to host lectures, house visitors, hold meetings, and develop plans of action. As this suggests, although the clubrooms were typically only open to members and their guests, the NEWC used them as a site from which it launched a broad array of reform-oriented activities. The clubrooms provided the women of the NEWC with a physical site *outside* of their homes from which they could launch their reform activities and build their networks. Though not a truly public space, the NEWC clubrooms provided a female sphere in which women were encouraged to engage with public issues.

Having physical premises was common practice among contemporaneous men's clubs. In developing its clubrooms, the NEWC was co-opting a traditionally male institutional structure. Unlike the NEWC, however, men's clubs typically used these their clubrooms to foster an elitist, masculine culture that would not have suited, or appealed to, the founders of the NEWC. For example, an 1891 *Harper's Weekly* article on Boston clubs featured the following picture of a "smoke talk" at the St. Botolph Club. Even a casual glance at the image in Figure 1.2 reveals the prevalence of cigarettes and alcohol.

³⁶ An earlier amendment that was also dated January 6, 1877 listed the opening hours as 8am through 10pm. NEWC Records, "By-Laws, Rules and Regulations," January 6, 1877, pages 4 and 8, M-145, microfilm reel 1, folder 1.

Figure 1.2: “A Smoke Talk at the St. Botolph,” a Boston Gentlemen’s Club, 1890



As this image indicates, smoking and drinking were common pastimes at the elite, all-male gentlemen’s clubs of nineteenth century Boston.

Source: Edmund H. Garrett, “A Smoke Talk at the St. Botolph,” in Henry Loomis Nelson, “The Clubs of Boston,” *Harper’s Weekly* XXXIV, no. 1726, supplement (January 25, 1890): 59.

Unlike the NEWC, men’s clubs were typically satisfied to enrich their own member’s lives, serving primarily as sites for fraternal socialization and networking. Boston’s Somerset Club provides a worthy example. The Somerset is a (still active) private all-male club that was characterized as a “reservoir of Boston blue blood” by *Kings Dictionary of Boston* in 1883.³⁷ According to the *Harper’s Weekly* feature, the Somerset was “not intellectual or literary or artistic” but rather “a place where its members spend their idle hours; where they have the

³⁷ Edwin M. Bacon, “Club-Life in Boston,” in *King’s Dictionary of Boston* (Cambridge, Mass.: Moses King, Publisher, 1883), 128.

comforts of an excellent restaurant; where a man can be pretty sure of a good game of whist; where one may lounge to his heart's content, and listen to and share in talk which engaged the minds of the men about Boston town."³⁸ Although men's clubs hosted talks, they did so primarily with the aim of entertaining their own members and broadening their social spheres, not improving the larger state of men's education. The Somerset Club's member-centric description of its work is in keeping with the traditions of male clubs from this period. At this time, men's clubs were in the process of improving their pre-Civil War reputation as dens of iniquity. As noted in a 1914 article, antebellum men's clubs were "...institutions which mothers, wives, and sisters would not care to visit." Known for smoking and drinking, it was not until after the war that "men in considerable numbers realized the necessity of squaring their conduct in the club and their conduct in the home."³⁹

Though the postbellum period saw some improvement in the behavioral norms of men's clubs, they remained bastions of elitism and masculinity. In describing the relative moderation and mannered comportment of the Boston men's clubs (as compared to those of New York), *King's Dictionary of Boston* explained that if a club member: "happens to partake too generously of wine, he does not careen over or run desperately aground on some piece of furniture" but rather "plants himself finally in a receptive arm-chair...and waits till meditation and the economy of his digestive organs restore his mental equilibrium."⁴⁰ As this indicates, though Boston's clubmen may have behaved less lewdly than their New York counterparts, their clubs

³⁸ Henry Loomis Nelson, "The Clubs of Boston," *Harper's Weekly* XXXIV, no. 1726, supplement (January 25, 1890): 59.

³⁹ "Use of Men's Clubs by Women," *The Christian Science Monitor* (May 21, 1914): 24.

⁴⁰ Bacon, "Club-Life in Boston," 128.

were still known as sites for festive sociality. Historian Robert Nye notes that “male circles and societies” in the nineteenth century enjoyed “...the unholy trinity of smoking, drinking, and profanity, which were salient expressions of male exclusivity if not aggression.”⁴¹ Nye’s history is transnational, and he cites a nineteenth-century French men’s club as an example of this culture, noting that one club member “...could think of nothing more praiseworthy to say about his club than that it was ‘a pseudonym for divorce, like the cigar.’”⁴²

In direct contrast to the character of men’s clubs, the NEWC’s meetings typically centered around tea, not smoking or alcohol. The feminized culture of the NEWC’s clubrooms is perhaps best illustrated by an anecdote from the Club’s 1880 meeting minutes. As will be further explored later in this chapter, the NEWC hosted hundreds of lectures from respected intellectuals and lecturers during the period under investigation. The bulk of these lectures were provided by male academics. At a meeting on April 3, 1880, the NEWC’s Board addressed “[t]he question of ladies sewing at the Club meetings ... as it seems to be an annoyance to some of our speakers.”⁴³ Although it was moved to request that members who wished to sew not sit in the front row, this motion was lost.⁴⁴ As this indicates, the NEWC provided a space in which women could enjoy canonically feminized activities alongside lectures and discussions that were traditionally gendered male. This reflects the manner in which the NEWC blended women’s traditional,

⁴¹ Robert A. Nye, "Medicine and Science as Masculine 'Fields of Honor'," *Osiris* 12 (1997): 76.

⁴² Nye, 76.

⁴³ The exact character of this sewing is not detailed in the Club Records; it is possible that it was recreational embroidery or household economy work. NEWC Records, “Records of the New England Women’s Club,” April 3, 1880, page [228], M-145, microfilm reel 5, folder 23v.

⁴⁴ NEWC Records, “Records of the New England Women’s Club,” April 3, 1880, page [229], M-145, microfilm reel 5, folder 23v.

feminine pastimes with intellectual pursuits. The Club established a *feminine* subculture of learning, and in the process negotiated the boundaries between norms of feminine sociality and masculine traditions of intellectualism. At the NEWC, both sewing and scholarship were considered suitable activities for women. This feminized club culture would become typical of women's clubs; even *King's Dictionary of Boston* noted that women's clubs "are rather reformatory or educational than social...[they] are not of the convivial character which stamps their masculine rivals."⁴⁵

Co-Opting the 'Club': A Name with Political Resonance

In a bold move, the NEWC was the first American organization to title itself a 'women's club.' Given the culture of men's clubs, it is perhaps unsurprising that the NEWC initially encountered significant public anxiety when it debuted its moniker; people expressed alarm that women's "clubs might be built on the model of the existing clubs for men!"⁴⁶ Similarly, it met "opposition...from the outside public and in the press, from the husbands who feared the effects of the strange club life upon the home and its duties."⁴⁷ Similarly, NEWC founding member Lucia M. Peabody's recollection of the Club's beginnings noted: "many women who were naturally in favor of this new [women's club] movement, were deterred from joining the

⁴⁵ Bacon, "Club-Life in Boston," 129.

⁴⁶ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Caroline M. Severance, "The Genesis of the Club Idea," newspaper clipping in this scrapbook, M-145, microfilm reel 3, folio box 2.

⁴⁷ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Caroline M. Severance, "The Genesis of the Club Idea," newspaper clipping in this scrapbook, M-145, microfilm reel 3, folio box 2.

association by the violent opposition of the masculine members of their families.”⁴⁸ As one of the first women’s clubs, people were unsure what to expect from the NEWC. As Peabody explained, “[m]en knew what Men’s Clubs were, and not unnaturally, supposed that Women’s Clubs would be of the same nature” and therefore gave “[m]uch sarcastic advice as to the quantity and quality of the liquors and tobacco to have provided.”⁴⁹

In selecting its name, the NEWC was deemed a *women’s* club because although men could become associate members (as will be discussed later in this chapter), it was to be run entirely by women.⁵⁰ The selection of the term ‘club’ was more fraught. At a March 1868 meeting, the members imbued the word ‘club’ with political valence, claiming that it relayed a “combination of sociability and freedom, with a degree of exclusiveness.” However, some participants at this meeting expressed reservations about the fact that “clubs were masculine only.”⁵¹ Reflecting on the NEWC’s use of the term ‘club’ in 1893, Severance noted that the founding members had searched for “a name descriptive, but neither aggressive, nor boastful.”⁵² The NEWC recognized the resonances of this term, and given its connotations with masculine

⁴⁸ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Typed explanation of the NEWC’s founding written by Lucia M. Peabody in the early 20th century, M-145, microfilm reel 3, folio box 2.

⁴⁹ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Typed explanation of the NEWC’s founding written by Lucia M. Peabody in the early 20th century, M-145, microfilm reel 3, folio box 2.

⁵⁰ Sprague, *History of the New England Women’s Club*, 3.

⁵¹ Sprague, *History of the New England Women’s Club*, 3.

⁵² NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Letter from Caroline Severance to “the N.E.W. Club, -- on its 25th anniversary,” [1893], page [3], M-145, microfilm reel 3, folio box 2.

debauchery sought to “redeem the title from its past abuses.”⁵³ Thus, though the founders of the NEWC appropriated a traditionally masculine term and model, they sought to adapt it to their own ends. Like men’s clubs, the NEWC promoted networking and internal socialization, but unlike men’s clubs, it held an externally-focused mission and was not a space of lascivious behavior of any sort: there was little drinking, no smoking, and no talk of abandoning one’s spouse or home life.

Although the NEWC developed a feminized club culture, the decision to use the previously wholly masculine term ‘club’ made a clear political statement about women’s role. By deploying this term, the NEWC cast itself as a counterpart to men’s clubs. Given that most of its leaders were suffragists, which is the subject of chapter 3, the NEWC’s use of this term appears to have been politically strategic, suggesting that women and men deserved the same public privileges.

Unsurprisingly, the NEWC encountered significant resistance. As detailed in Peabody’s history of the NEWC, “men in general seemed unfriendly to the proposed plan [of establishing a women’s club].” Nonetheless, “many of the best men in the community favored it and were ready to pledge their aid and support” including “[s]uch men as Ralph Waldo Emerson, Thomas Wentworth Higginson, Oliver Wendell Holmes, James Freeman Clarke, John Greenleaf Whittier, and many others.”⁵⁴ These men were intellectual and theological leaders in the community; Emerson and Clarke were famed transcendentalists and authors, Holmes was a medical reformer

⁵³ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Caroline M. Severance, “The Genesis of the Club Idea,” newspaper clipping in this scrapbook, M-145, microfilm reel 3, folio box 2.

⁵⁴ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Typed explanation of the NEWC’s founding written by Lucia M. Peabody in the early 20th century, M-145, microfilm reel 3, folio box 2.

and poet, and Higginson and Whittier were, among other things, active supporters of abolition who wrote influential tracts devoted to this cause. Emerson, Higginson, Clarke, and Whittier were also public supporters of women's rights, including suffrage.⁵⁵ In short, they were reform-minded luminaries, and the NEWC, as a reform-minded organization, valued their opinions and support.

In an effort to ensure public acceptance of its radical choice of name, the NEWC presented its work as a continuation of the domestic realm. At the Club's opening meeting, founding member Abby May stated: "Our ideal for the Club is, that it shall be a pleasant extension of home-life, never a substitution for it."⁵⁶ May likened the Club to a "large family circle," reinforcing its ties to the domestic sphere.⁵⁷ Similarly, founding member Julia Sprague

⁵⁵ In 1869 Whittier was invited to a suffrage convention in Rhode Island. Though his health and schedule prevented him from partaking, he wrote to the convention "to express my general sympathy with the movement" and note his belief that there was "no good reason why mothers, wives, and daughters should not have the same right of person, property, and citizenship which fathers, husbands, and brothers have." In 1888, a pro-suffrage letter from Whittier was read at a convention of the Woman's Suffrage Association in Washington, D.C. In a like vein, Freeman Clarke published a pro-suffrage pamphlet for the AWSA. Similarly, Emerson and Higginson were both editors of the *Woman's Journal*, the journal of the American Woman Suffrage Association. Interestingly, although Emerson was publicly known as a supporter of suffrage, his private views towards women appear to have been less progressive. Todd Richardson has published on this subject: Todd H. Richardson, "Publishing the Cause of Suffrage: The Woman's Journal's Appropriation of Ralph Waldo Emerson in Postbellum America," *The New England Quarterly* 79, no. 4 (2006): 578–608; John Greenleaf Whittier, *The Works of John Greenleaf Whittier*, vol. 3 (Boston: Houghton, Mifflin and Company, 1892), 227; John Greenleaf Whittier, *The Letters of John Greenleaf Whittier* (Cambridge: Harvard University Press, 1975), 554; James Freeman Clarke, "Woman Suffrage: Reasons For and Against," American Woman Suffrage Association, 1888, *Nineteenth Century Collections Online*.

⁵⁶ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Kate Field, "The New England Women's Club," *The Woman's Advocate*, [1869], 28, M-145, microfilm reel 3, folio box 2.

⁵⁷ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Kate Field, "The New England Women's Club," *The Woman's Advocate*, [1869], 28-9, M-145, microfilm reel 3, folio box 2.

noted that the Club hoped to serve as a “home for those who love and labor for the great human family” and to encourage “a womanly interest in all true thought and action in behalf of women, and of social life in general, for which women are so largely responsible.”⁵⁸ As this indicates, in describing the NEWC in public, members used language that reconciled women’s engagement in club life with traditionalist nineteenth century notions of womanly nature. By appealing to ideals of domesticity, the NEWC suggested that its activities cohered with women’s traditional roles. Indeed, members frequently characterized club work as part of the social sphere and justified their club activities by highlighting the longstanding tradition of feminine control over social activities.

Although the NEWC’s publicly printed materials emphasized its coherence with traditional notions of femininity, its private materials reveal a more complicated relationship with the rhetoric of domesticity. In 1875, ardent suffragist, author of *Little Women*, and early NEWC member Louisa May Alcott wrote a humorous poem for a Club Tea entitled “An Advertisement” in which she presented the NEWC as a remedy to the monotony of traditional feminine duties:

An Advertisement

Ho! all you nervous women folk
Who sigh that you were born,
Come try a sovereign remedy
For half the ills you mourn.
I lately have discovered it
And proved its potency,
By testing at the fountain head,
Tremont Place, Number Three.⁵⁹

⁵⁸ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Julia A. Sprague, “New England Women’s Club – Historical Sketch,” [1882], 1, M-145, microfilm reel 3, folio box 2.

⁵⁹ This was the location of the NEWC’s headquarters at this time.

Here at this moral restaurant
Our sex may always find,
When weary of domestic stews,
Nice lunches for the mind.
Essays are served at certain hours,
Gossip of course is free;
Discussion always is on tap,
And once a month, Club Tea.⁶⁰

This humorous poem suggests that although the NEWC publicly used the language of domesticity as a means of reconciling women's public engagement with their domestic duties, the club members privately satirized this strategy. This poem suggests that, domestic language aside, the members of the NEWC saw their club as a space in which women could enrich themselves by partaking in tasks beyond the domestic. It satirizes the NEWC's tendency to cast club life as coherent with the domestic realm, and provides a humorous reflection on the NEWC's feminization of the traditionally male 'club' model.

The Elite, Reform-Oriented, Intellectual Membership of the NEWC

The NEWC was a hub for groundbreaking, intellectual New England women of varied interests. In 1869 journalist Kate Field noted that the NEWC's officers "compris[e] the names of women of the best intellectual as well as social standing."⁶¹ An 1869 *Chicago Tribune* article noted that many NEWC members "have names quite well known in literature, social science and

⁶⁰ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Louisa May Alcott, "An Advertisement," January 1875, M-145, microfilm reel 3, folio box 2.

⁶¹ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Kate Field, "The New England Women's Club," *The Woman's Advocate*, [1869], 26, M-145, microfilm reel 3, folio box 2.

philanthropy.”⁶² Pioneering female physician Harriot Kezia Hunt was at home amongst the membership, which included not only other female doctors, but also science educators, scientists, reformers, activists, and authors.⁶³ NEWC members were generally actively engaged in various intellectual and charitable pursuits. As will be further detailed in chapter 2, they were geographically clustered around the Back Bay, a wealthy Boston neighborhood, although the Club welcomed members from further afield.

Most NEWC members had received their secondary educations through private schools and tutors but had *not* received college educations or advanced degrees.⁶⁴ For example, as discussed at the outset of this chapter, Harriot Kezia Hunt received her early education both at home and in private schools, and obtained her medical training through an apprenticeship with a

⁶² Revere, “BOSTON: Three Boston Notions,” *Chicago Tribune* (June 13, 1869): n.p.

⁶³ Prominent early members included Julia Ward Howe, philanthropist and founding President of the New England Hospital for Women and Children Lucy Goddard, women’s rights activist and abolitionist Lidian Jackson Emerson, astronomer Maria Mitchell, Association for the Advancement of Science member and Boston Natural History Society council member Cora Clarke, science education reformer Lucretia Crocker, abolitionist Cornelia Grinnell Willis, reformer and women’s rights activist Abby W. May, founding member of the WEA and the Massachusetts Society for the Prevention of Cruelty Anna Cabot Lodge, WEA member and writer Mary Bucklin Claflin (wife of the then-Governor of Massachusetts), pioneering female physicians like Hunt and Dr. Marie Zakrzewska, and Ednah Dow Cheney, a leader in the Massachusetts Woman Suffrage Association and the Freedman’s Aid Society. NEWC Records, “Records of the New England Women’s Club,” March 7 and March 10, 1868, May 28, 1870, pages 2, 3, 67, M-145, microfilm reel 4, folder 22. Phebe Mitchell Kendall, ed., *Maria Mitchell: Life, Letters, and Journals* (Boston: Lee and Shepard Publishers, 1896), 261; Sturgis, 3; *Massachusetts Society for the Prevention of Cruelty to Children: Thirteenth Annual Report* (Boston: Wright & Potter Printing Company, 1893), n.p.

⁶⁴ For example, longstanding-president Julia Ward Howe was educated by private tutors and at private schools until she was sixteen. Founder Caroline Severance received a secondary education at the Elizabeth Ricord Seminary in upstate New York, from which she graduated with honors. Similarly, Ednah Dow Cheney was taught at a series of private school. This sort of private education was typical for upper class white women during this time period. Stephen H. Norwood, “From ‘White Slave’ to Labor Activist: The Agony and Triumph of a Boston Brahmin Woman in the 1910s,” *The New England Quarterly* 65, no. 1 (1992): 65.

Bostonian physician.⁶⁵ Of course, the NEWC did have a few exceptional female members who had managed to obtain college or professional degrees. For example, Dr. Marie Zakrzewska received an M.D. at Western Reserve College in Cleveland.⁶⁶ Additionally, some NEWC members took non-university-based paths to higher education. For example, member and famed astronomer Maria Mitchell received her schooling at a private school on Nantucket but would go on to teach at Vassar College even though she had never received a college degree.⁶⁷ In short, in spite of their intellectual ambitions, few NEWC members obtained university degrees. It therefore appears that NEWC members' passion for women's education was in part reflective of the obstacles and inadequacies they faced in their own schooling experiences.

The NEWC's membership policies were intended to encourage public school teachers and intellectual luminaries alike to join. However, due to the Club's workday-centric activity schedule, Back Bay location, and fees, the majority of its membership hailed from New England's intellectual elite. The fee to join the Club was set at \$5 along with an annual subscription fee of \$5.⁶⁸ If, after paying the ten dollars necessary to establish membership in the first year, a member paid an additional \$40, they were granted "Life membership."⁶⁹ Reflecting on these fees, NEWC Vice President Cheney noted that "[w]e have placed our admission-fee

⁶⁵ Roberta Hobson, "Hunt, Harriot Kezia," *American National Biography* (1999).

⁶⁶ Arleen Marcia Tuchman, "Zakrzewska, Marie Elizabeth," *American National Biography* (1999).

⁶⁷ Sally Gregory Kohlstedt, "Mitchell, Maria," *American National Biography* (1999).

⁶⁸ NEWC Records, "Records of the New England Women's Club," March 10, 1868, page 4, M-145, microfilm reel 4, folder 22.

⁶⁹ NEWC Records, "Records of the New England Women's Club," June 25, 1868, page 20, M-145, microfilm reel 4, folder 22.

very low, because we know that to many whom we most value a small sum is of consequence.”⁷⁰

Though Cheney felt these fees were low, female teachers working between 1870 and 1900 typically received salaries below \$500 annually.⁷¹ Further, in 1870, the NEWC’s Board of Directors decided to equalize the fee for associate membership and membership, making both \$10 annually.⁷² This marked a doubling of the fee for members, and a \$15 decrease in the (previously \$25) fee for associate members.⁷³ As this indicates, membership may indeed have been cost-prohibitive for teachers.

Though the NEWC provided honorary and complimentary memberships at no charge, these were not often given to public school teachers. It appears that the Club generally used these memberships to align itself with New England women who were reputed for their intelligence, accomplishments, chutzpa, and connections.⁷⁴ For example, in 1883 the NEWC voted to invite

⁷⁰ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Undated scrap of an article entitled “New England Women’s Club,” M-145, microfilm reel 3, folio box 2.

⁷¹ Department of Research of the Women’s Educational and Industrial Union, Lucile Eaves, dir., “Old-Age Support of Women Teachers: Provisions for old Age Made by Women Teachers in the Public Schools of Massachusetts,” special issue, *Studies in Economic Relations of Women XI* (Boston: 1921), 24.

⁷² NEWC Records, “Records of the New England Women’s Club,” May 7, 1870, page 63, M-145, microfilm reel 4, folder 22.

⁷³ NEWC Records, “Records of the New England Women’s Club,” March 10, 1868 and May 7, 1870, pages 4 and 63, M-145, microfilm reel 4, folder 22.

⁷⁴ In 1887 the NEWC’s Board of Directors formalized the reasons for providing honorary memberships, deciding that they ought to be gifted both to “those who have been members in active service in the Club for at least ten years, & who otherwise wd be lost to the Club” and to “those who in the judgment of the Directors honor the Club -- & whose names wd be an honor to it.” NEWC Records, “Rec Sec 1881 to 1891,” November 5, 1887, page [224], M-145, microfilm reel 5, folder 24v.

Maria Bray to attend meetings while she was in Boston for the winter.⁷⁵ In 1864 Bray had famously taken over for her husband as lighthouse keeper on Cape Ann in Massachusetts when her husband was, due to sickness and stormy weather, stuck on the mainland.⁷⁶ She had also published a scientific text about her observations of the tide-pools on Cape Ann.⁷⁷ The Club also extended complimentary membership to Cora Clarke, a botanist and daughter of James Freeman Clarke.⁷⁸ In short, in spite of the NEWC's stated desire to include women of diverse economic backgrounds, the reality was that it drew predominantly from elite Bostonian women. This likely reflects the nature of human networks (it was easier to recruit members from their own social groups), the cost of membership, and the fact that many of the Club's activities occurred on weekday afternoons, when most working women would be unavailable.

Interestingly, men were allowed to become associate members of the Club if they paid \$25 and were "accepted by the board of Directors."⁷⁹ As associate members, men were not permitted to vote at meetings or hold leadership positions within the Club and were only given

⁷⁵ NEWC Records, "Rec Sec 1881 to 1891," February 3, 1883, page [59], M-145, microfilm reel 5, folder 24v.

⁷⁶ At this point, all lighthouses in the United States were run by men, except in exceptionally rare cases where male lighthouse keepers had passed away and been succeeded by their wives.

⁷⁷ Maria H. Bray, "The shores of Pigeon Cove...", in *Pigeon Cove and Vicinity* by Henry C. Leonard (Boston: F. A. Searle, 1873), 183-190.

⁷⁸ NEWC Records, "New England Women's Club: Board of Management, Committees, By-Laws, Regulations, Calendar, and List of Members," (Boston: Geo. H. Ellis, 1894), n.p., M-145, microfilm reel 1, folder 4.

⁷⁹ NEWC Records, "Records of the New England Women's Club," March 10, 1868, page 4, M-145, microfilm reel 4, folder 22.

“privileges as the Directors may decide.”⁸⁰ As Julia Sprague explained in her history of the NEWC, “men, it is true, might become members, but it was to be officered and controlled by women.”⁸¹ An 1869 article in *The Woman’s Advocate* contended with the role of men in the NEWC:

... New England women have shown a proper appreciation of genus as well as species, in doing their best to remove the false barriers built up by conventionality between fathers and mothers, husbands and wives, brothers and sisters, lovers and sweethearts ... the good women of Boston are trying to lend a helping hand to their sex.⁸²

According to this article, by letting men join, the NEWC was helping dismantle artificial divisions between the sexes. As will be shown in chapter 5, the NEWC also leveraged its male membership as a means of obtaining support and access to services.

The NEWC’s male membership had carefully delimited privileges. In an 1871 article, NEWC President Caroline Severance articulated the Club’s relationship to men. She noted that the Club did “not exclude men” but rather admitted “our husbands, sons, and friends, as associate members...welcom[ing] their counsel and sympathy, and receiv[ing] most valuable and generous help from them.”⁸³ However, the Club centered its activities on women. Per Severance, the NEWC excluded men from leadership because “women preëminently need the benefits of such an organization, and of practice in directing it.” As Severance explained, women needed the

⁸⁰ NEWC Records, “Records of the New England Women’s Club,” March 10, 1868, page 4, M-145, microfilm reel 4, folder 22.

⁸¹ Sprague, *History of the New England Women’s Club*, 3.

⁸² NEWC Records, Historian’s records, Disassembled scrapbook, 1857-1919, Kate Field, “The New England Women’s Club,” *The Woman’s Advocate*, [1869], page 25, M-145, microfilm reel 3, folio box 2.

⁸³ Caroline Severance, “Letter: From the New England Women’s Club to the English Woman’s Associations and Gatherings,” *The Woman’s Journal*, vol. 2, iss. 29 (July 22, 1871): 226.

Club to be “free...from the constraining presence of those so much more experienced.”⁸⁴ As this indicates, the NEWC’s policy with regard to men was established in large part because the Club’s founders felt it was important for women to have an opportunity to exercise authority.⁸⁵ From its founding, the NEWC was developed with the vision of enabling women to develop leadership and public speaking skills. Its female-centric membership policy was created with the specific political agenda of enabling women to run their own organization. As Sarah Deutsch notes in her history of women’s relation to public spaces in Boston, the NEWC was established with an eye towards enabling women to “practice[e] their debating skills on each other before venturing into a heterosocial political arena.”⁸⁶ The NEWC’s adoption of the club model was a direct political act – by developing a *women’s* club the NEWC hoped to encourage and enable women to pursue public leadership.

Unitarians were prevalent in both the NEWC and WEA. The high incidence of Unitarianism makes sense given the faith’s beliefs and the general characteristics of its congregants. Unitarianism was especially prevalent amongst religious liberals of high social and intellectual standing who were uncomfortable with the rigidity of Calvinism and its belief that most congregants would go to a literal, burning hell.⁸⁷ In contrast with Calvinist notions of

⁸⁴ Severance, “Letter,” 226.

⁸⁵ Sprague, *History of the New England Women’s Club*, 3; NEWC Records; “Records of the New England Women’s Club,” March 10, 1868, page 4, M-145, microfilm reel 4, folder 22.

⁸⁶ Sarah Deutsch, *Women and the City: Gender, Space, and Power in Boston, 1870-1940* (Oxford: Oxford University Press, 2000), 15.

⁸⁷ Douglas C. Stange, *British Unitarians Against American Slavery, 1833-65* (Rutherford, NJ: Fairleigh Dickinson University Press, 1984), 19; Nathan S. Rives, “‘Is Not This a Paradox?’ Public Morality and the Unitarian Defense of State-Supported Religion in Massachusetts, 1806-1833,” *The New England Quarterly* 86, no. 2 (2013): 256; Ethan J. Kyle, *Romantic Reformers*

predestination, Unitarians emphasized individual agency and liberty, believing in the universal potential for moral improvement and thus in redemption conditional upon individual morality.⁸⁸ By the early 1800s, Harvard Divinity School was overseen by Unitarians.⁸⁹ New England Unitarians typically felt that education was a critical pathway to moral improvement.⁹⁰ As generally elite, education-focused Bostonians, NEWC and WEA members fit the demographics of this faith. Given the prevalence of Unitarians amongst these groups' memberships, and the Unitarian belief in education as a means of improving morality, it is plausible that these groups' religious groundings provided the basis for their shared emphasis on improving women's education.

It appears that the NEWC's mission resonated with reform-minded, intellectual women; the Club rapidly acquired members. As of November 6, 1868, the club had 118 members and 17 associate members.⁹¹ By 1878, the Club had roughly 200 members and by 1894 the Club had 318 members, 21 life members, and nine honorary members.⁹² It experienced roughly 5-15% attrition annually, but does not appear to have struggled to fill the vacancies left by departing

and the Antislavery Struggle in the Civil War (Cambridge, UK: Cambridge University Press, 2014), 119.

⁸⁸ Rives, 257-8.

⁸⁹ Rives, 238.

⁹⁰ Rives, 260.

⁹¹ Sprague, *History of the New England Women's Club from 1868 to 1893*, 9.

⁹² Sprague, *A History of the New England Women's Club from 1868 to 1893*, 60; Abby W. May, "Annual Meeting – New England Women's Club: Address of Miss Abby W. May," *The Woman's Journal*, vol. 9, iss. 24 (June 15, 1878): 192.

members.⁹³ Club events were well attended, regularly drawing half of the overall membership.⁹⁴ For example, at a social meeting on November 7, 1868, over seventy-five percent of the Club's 118 members were present, as were 18 invited guests.⁹⁵ Although the NEWC directors advertised Club activities to the public via newspapers and often sold tickets to individual Club events, membership was exclusive; at an early Board meeting it was decided that "[t]o become a member it is necessary to be proposed by a member and accepted by the board of Directors."⁹⁶ In expanding its membership, the group specifically targeted other prominent reform-minded women. For example, abolitionist, women's rights activist, and author Maria S. Potter was proposed as a potential director and extended an invitation to join the organization.⁹⁷ In a like vein, the NEWC regularly "express[ed] its respect to distinguished persons who had shown their interest in woman's work in literature or art, philanthropy or reform, by inviting them to meet the Club members in a social, informal manner, and tendering them a simple lunch."⁹⁸

⁹³ NEWC Records, "Rec Sec 1881 to 1891," December 1, 1883; June 7, 1884 and October 7, 1888, pages [86-7, 109, 256], M-145, microfilm reel 5, folder 24v; NEWC Records, "Rec Sec 1891 to 1901, December 1, 1900, page 406, microfilm reel 5, folder 25v.

⁹⁴ NEWC Records, "Club Journal | 1887," May 21, [1888], page [20], M-145, microfilm reel 8, folder 41.

⁹⁵ NEWC Records, "Records of the New England Women's Club," November 6, 1868, pages 25-6, M-145, microfilm reel 4, folder 22.

⁹⁶ NEWC Records, "Records of the New England Women's Club," March 10, 1868, page 4, M-145, microfilm reel 4, folder 22.

⁹⁷ NEWC Records, "Records of the New England Women's Club," July 11, 1868, page 22, M-145, microfilm reel 4, folder 22.

⁹⁸ Sprague, *History of the New England Women's Club from 1868 to 1893*, 35.

“Against a Color Line”:⁹⁹ The NEWC’s Views on Race

As one of the earliest women’s clubs, and as a group that aspired to serve as a model for future women’s groups, the NEWC’s decisions about membership merit attention. As has been shown, the Club was composed largely of intellectual women of the upper classes, but the overwhelmingly white composition of the Club remains to be explored. This study will reveal that while the NEWC voiced support for the inclusion of black women, it did not actually manage to obtain *any* black members through means other than honorary memberships. Thus, although the NEWC’s formal policy was to “refuse to admit any drawing of caste or class lines”, in reality it failed to achieve significant engagement with, or inclusion of, the broader Boston community.¹⁰⁰ Further, the Club’s records show limited evidence of engagement with black women’s (or men’s) education, and no evidence of the Club having interrogated its relationship to any minorities other than blacks.

As a Boston-based organization, the NEWC’s views on race were likely influenced by the demographics of Boston at large. As noted in the introduction, Boston was a gateway city for American immigrants, particularly from Ireland. The city had a relatively small black population, and the elite women of the NEWC typically lived and worked in neighborhoods and positions where black people’s presence would have been exceptional. The rarity of the NEWC members’ encounters with black people is apparent in the Club’s archival records. Indeed, when the NEWC hired a special caretaker to “take charge of the [Club] rooms through the summer” of 1889, the Club Secretary explicitly noted that the Board had voted to allow their usual caretaker to

⁹⁹ NEWC Records, “Rec Sec 1900 to 1902,” January 14, 1901, pages [38], M-145, microfilm reel 9, folder 42v. Capitalization added.

¹⁰⁰ NEWC Records, “Rec Sec 1891 to 1901,” June 1, 1895, page 155, M-145, microfilm reel 5, folder 25v.

“employ Lee – the colored man.”¹⁰¹ The Secretary likely only bothered to note the fact that this man was “colored” because it was unusual. Further, as Bostonians, it is likely that the women of the NEWC adhered to the prevailing racial attitudes of the day. As noted in Millington Bergeson-Lockwood’s recent history of black and Irish politics in nineteenth century Boston, “racism in employment kept black Bostonians in lower economic employment and in lower quality, primarily rented, houses” and meant that blacks “faced racial discrimination in places of public accommodation.”¹⁰²

In spite of the racially segregated character of Boston during this period, NEWC members generally supported abolition as well as the education of southern blacks and freedmen. These stances were commonplace for reform-minded Bostonians of the Progressive Era. Additionally, the Club occasionally hosted black people at its meetings. For example, in 1869 a male “colored teache[r] from S. Carolina” was invited to attend a meeting to discuss the state of the southern schooling of freedmen and to stay afterwards for the Club tea.¹⁰³ In 1890 the Club hosted Booker T. Washington, a well-known African American educator who had been born into slavery, for a lecture. Washington spoke on his work as the founder of the Tuskegee Institute, a teachers’ training school in Alabama at which students studied both learned subjects and trade work; members were impressed by the Institute and raised \$50 towards a scholarship at

¹⁰¹ NEWC Records, “Rec Sec 1881 to 1891,” May 4, 1889, page [283], M-145, microfilm reel 5, folder 24v.

¹⁰² Bergeson-Lockwood, 16.

¹⁰³ NEWC Records, “Social Meetings 1869 to 1871,” June 12, [1869], page [100], M-145, microfilm reel 8, folder 39v.

Tuskegee.¹⁰⁴ Then, in 1892 the NEWC granted Cheney the “authority to offer the use of our rooms for a meeting to consider the expedience of establishing a home for colored children.”¹⁰⁵ As this indicates, the Club occasionally attempted to engage with causes that were important to black Americans, but these meetings were few and far between.

The NEWC also played a nominal role in fostering the founding of the New Era Club,¹⁰⁶ the first standalone black women’s club in Boston. Established in 1893, the New Era admitted white and black women alike, but was predominantly composed of black women. This club focused on charitable issues that were of particular interest to black women, including raising awareness of the atrocities of lynching and supporting women’s suffrage. It is said that the New Era Club’s founder, Josephine St. Pierre Ruffin, was inspired to found the New Era Club by her occasional attendance at NEWC meetings.¹⁰⁷ According to a 1902 article in the *Los Angeles Herald*, Ruffin attended NEWC meetings and “invite[d] friends to attend these meetings” and thus became interested in “the formation of a new club, which was not intended necessarily to be a colored club, as it had three or four white women as members.”¹⁰⁸

¹⁰⁴ NEWC Records, “Rec Sec 1881 to 1891,” January 4, 1890, page [304], M-145, microfilm reel 5, folder 24v; NEWC Records, L. M. P. “Club Journal | 1889 – 90,” January 27, [1890], page [8], M-145, microfilm reel 9, folder 41.

¹⁰⁵ NEWC Records, “Rec Sec 1891 to 1901,” December 31, 1892, page 58, M-145, microfilm reel 5, folder 25v.

¹⁰⁶ This club would come to be known as the Woman’s Era Club, named for the *Woman’s Era* paper.

¹⁰⁷ Gerda Lerner, “Early Community Work of Black Club Women,” *The Journal of Negro History* 59, no. 2 (1974): 161.

¹⁰⁸ This article also claimed that Ruffin was a member of the NEWC before she was inspired to create the New Era Club, but the NEWC’s records indicate that she wasn’t proposed for membership until 1902. NEWC Records, “Rec Sec 1901 to 1910,” April 6, 1901; January 4, 1902, pages 16, 62, M-145, microfilm reel 6, folder 27v.

NEWC Board Member Ednah Dow Cheney attended an early meeting of the New Era Club on behalf of the NEWC. Cheney reported back to the NEWC Board that the club “promised to be a power for good to the members, & the community.”¹⁰⁹ The New Era Club changed its name not long after its establishment, adopting the name of the first African American women’s newspaper, *The Woman’s Era*, which Ruffin edited and published. In 1894 the NEWC subscribed to the *Woman’s Era* and voted to send the Woman’s Era Club a calendar of NEWC activities as well as a list of women’s clubs.¹¹⁰ These forms of outreach suggest that the NEWC was, at least at face value, encouraging of black women’s engagement in its club activities and supportive of black women’s organizations. The NEWC also appears to have been modestly supportive of native women’s organizations; in 1903 the NEWC “voted to send from the Treasury the sum of five dollars to the Pioneer Club of Atoka” as a means of supporting this club’s efforts to erect a library.¹¹¹ The Atoka Club was the first women’s club established in Indian Territory.

Beyond providing a modicum of institutional and financial support to aid the establishment of separate clubs for minority women, the NEWC voiced support for the inclusion of black women’s clubs within white women’s club networks. In 1890 the General Federation of Women’s Clubs was founded with the aim of uniting the hundreds of women’s groups that had

¹⁰⁹ NEWC Records, “Rec Sec 1891 to 1901,” June 10, 1893, page 79, M-145, microfilm reel 5, folder 25v.

¹¹⁰ The Directors renewed their subscription to *Woman’s Era* in 1895. NEWC Records, “Rec Sec 1891 to 1901,” April 7, 1894 and June 8, 1895, pages 111, 159, M-145, microfilm reel 5, folder 25v.

¹¹¹ NEWC Records, “Rec Sec 1901 to 1910,” May 2, 1903, page 149, M-145, microfilm reel 6, folder 27v; NEWC Records, “Rec Sec 1902 to 1904,” May 4, 1903, page [73], M-145, microfilm reel 9, folder 43v.

sprouted up across America. The Federation sought to promote women's clubs' "common interest in education, philanthropy, public welfare, moral values, civics and fine arts."¹¹² The NEWC was quickly granted Federation membership. The Federation was an immense institution; by 1910 it had over a million members.¹¹³ Although it welcomed black women to its meetings if they came as representatives of predominantly white clubs, the General Federation did not admit black women's clubs.¹¹⁴ The Federation did not want to risk losing the membership of white Southern women's clubs and, as Mary Jane Smith has shown, Southern clubs actively fought against the admission of black women's clubs.¹¹⁵ As Smith puts it, Southern clubs argued against the admission of black women's clubs and were confident that the Federation would prioritize ensuring that it represented women's clubs nationwide over obtaining interracial membership.¹¹⁶

At meetings of the General Federation, the NEWC voted in favor of including racially, economically, and socially diverse clubs. For example, in 1895, the NEWC's Board "vote[d] to instruct our delegate [to the General Federation], if the question of color comes up at the next meeting of the Gen[eral] Federation, to stand firmly by the principles of our Club & refuse to

¹¹² Mildred Carlson Ahlgren, "Foreword," in Mildred White Wells, *Unity in Diversity: The History of the General Federation of Women's Clubs* (Washington: General Federation of Women's Clubs, 1953): vii.

¹¹³ Freedman, "Separatism as Strategy," 517.

¹¹⁴ Mary Jane Smith, "The Fight to Protect Race and Regional Identity within the General Federation of Women's Clubs, 1895-1902," *The Georgia Historical Quarterly* 94, no. 4 (2010): 479.

¹¹⁵ Smith, "The Fight to Protect Race and Regional Identity within the General Federation of Women's Clubs, 1895-1902," 480.

¹¹⁶ Smith, "The Fight to Protect Race and Regional Identity within the General Federation of Women's Clubs, 1895-1902," 480.

admit any drawing of caste or class lines.”¹¹⁷ In spite of this, the New Era Club was not admitted to the General Federation. Reflecting on this outcome, the NEWC decided that the New England clubs ought not push the issue lest Southern women’s clubs leave the General Federation.¹¹⁸ Additionally, some NEWC members decided it was important to maintain their membership in the Federation in order to vote “against a color line” within the Federation.¹¹⁹ Reflecting on this, we can see that the NEWC framed its decision to remain within the Federation in the most inclusive light possible. Nonetheless, it is clear that the NEWC prioritized the inclusion of white Southern women’s clubs over black women’s clubs. Though the Club initially attempted to leverage its own racial privilege to benefit black women, the women of the NEWC ultimately focused more staunchly upon ensuring the unity of white women’s clubs than on fostering racial diversity within the Federation. Indeed, although the NEWC internally voted that clubs should extend “equal opportunity to all, without regard to race, religion, color or politics,” the Club failed to foster this ideal within its networks.¹²⁰ In response to the Federation’s decision not to admit black women’s clubs, African American women established the National Association of

¹¹⁷ NEWC Records, “Rec Sec 1891 to 1901,” June 1, 1895, page 155, M-145, microfilm reel 5, folder 25v.

¹¹⁸ NEWC Records, “Rec Sec 1900 to 1902,” January 14, 1901, pages [34-7], M-145, microfilm reel 9, folder 42v.

¹¹⁹ NEWC Records, “Rec Sec 1900 to 1902,” January 14, 1901, pages [38], M-145, microfilm reel 9, folder 42v.

¹²⁰ Myra B. Lord, *History of the New England Woman’s Press Association: 1885-1931* (Newton, Mass.: The Graphic Press, 1932), 139.

Colored Women in 1896 as the first nationwide black organization. This Association focused on social reform, particularly on fighting racial discrimination.¹²¹

The NEWC's failure to transgress the racist attitudes of its time period was echoed in other women's groups. For example, as Ruth Bordin has shown, the Women's Christian Temperance Union had both black and white members yet remained unwilling to fully undermine the racist attitudes of its southern white members. Instead, like the NEWC, it attempted to satisfy both northern advocates of civil rights and white southern women, endeavoring to maintain propriety among whites while also attempting to encourage reform.¹²² For example, the Women's Christian Temperance Union voiced its support for anti-lynching efforts while also accepting the problematic notion that lynching occurred in an effort to protect white women from potential sexual criminals.¹²³ As a result of the Women's Christian Temperance Union's failure to condemn lynching outright, Union President Emma Willard was criticized in the English press in the mid-1890s. Interestingly, NEWC President Julia Ward Howe and NEWC associate member William Lloyd Garrison defended Willard on the grounds that the Women's Christian Temperance Union admitted women regardless of race.¹²⁴ This incident suggests that the NEWC felt strongly that by avoiding a 'color line' in its membership policies it was adopting progressive policies, even as peers across the Atlantic questioned this view.

¹²¹ Beverly W. Jones, "Mary Church Terrell and the National Association of Colored Women, 1896 to 1901," *The Journal of Negro History* 67, no. 1 (1982): 20.

¹²² Ruth Bordin, *Frances Willard: A Biography* (Chapel Hill: The University of North Carolina Press, 1986), 216-8.

¹²³ Bordin, 216-7.

¹²⁴ Bordin, 221-2.

Issues of racial inclusion were also politicized on a smaller scale within the NEWC's own membership. In spite of the NEWC's expressions of support for racial diversity and minority women's clubs, the Club had very few black members. In 1901 Cheney suggested that the Board propose three black women for honorary membership – Maria L. Baldwin, Josephine Ruffin, and Margaret Murray Washington. Baldwin was an educator who had served as principal of the Agassiz Grammar School in Cambridge since 1889.¹²⁵ Ruffin was the founder of the New Era Club (later the Woman's Era Club), editor of the *Woman's Era*, and organizer of the First National Conference of Colored Women in Boston in 1895. Washington was the director of women's education at the Tuskegee Institute, founder and President of the Tuskegee Women's Club, founder and President of the National Federation of Afro-American Women, and was married to Booker T. Washington.¹²⁶ The proposal of these women for honorary membership came soon after the General Federation had decided not to admit the New Era Club. At the Club's 1901 annual meeting, these women were suggested for membership; Washington was granted honorary membership by a vote of acclamation.¹²⁷ Soon thereafter, Washington wrote the NEWC to "[express] her pleasure at being elected."¹²⁸ At its very next meeting, the NEWC Board voted that only people who received unanimous Board approval for honorary membership

¹²⁵ Dorothy B. Porter, "Maria Louise Baldwin, 1856-1922," *The Journal of Negro Education* 21, no. 1 (1952): 94-6.

¹²⁶ NEWC Records, "Rec Sec 1901 to 1910," April 6, 1901, page 16, M-145, microfilm reel 6, folder 27v; Lerner, 158-67.

¹²⁷ NEWC Records, "Rec Sec 1901 to 1910," June 1, 1901, page 33, M-145, microfilm reel 6, folder 27v.

¹²⁸ NEWC Records, "Rec Sec 1901 to 1910," October 5, 1901, page 44, M-145, microfilm reel 6, folder 27v.

should be put to the Club as a whole for vote.¹²⁹ Apparently on these grounds, Ruffin and Baldwin's candidacies had been reconsidered and therefore had not been presented to the Club at the annual meeting. However, it appears that the Board later came to unanimously support Ruffin and Baldwin's election; both were "unanimously elected to Club membership" in a 1902 special vote.¹³⁰ As the NEWC's election of these women to honorary membership indicates, the Club was eager to ally itself with leading black female intellectuals. In spite of this apparent eagerness, the NEWC nonetheless failed to enlist any black members through its standard membership processes and engaged only rarely in issues relating to racial discrimination. In short, though the Club publicly presented itself as racially progressive, its actual daily functions did little to change the racist status quo.

The NEWC's failure to transgress the prevailing racism of its period is perhaps best indicated by a casual social event that the Club hosted in 1902. At this event NEWC member Frances Eaton entertained the Club with character sketches. A newspaper report on the spectacle noted that Eaton introduced "Yankee, Irish and Negro dialects" and lauded the "wit, humor, and felicity of her impersonation of race characteristics," explaining that Eaton's act "elicited the applause of a large and critical audience."¹³¹ This incident, along with the Club's lack of action with regard to the General Federation's exclusion of black women's clubs and the Club's limited

¹²⁹ NEWC Records, "Rec Sec 1901 to 1910," May 20, 1901, page 28, M-145, microfilm reel 6, folder 27v.

¹³⁰ The notion that Ruffin was approved for membership is supported by the fact that Karen Blair's *Clubwoman as Feminist* characterizes Ruffin as the NEWC's only black member (108). NEWC Records, "Rec Sec 1901 to 1910," January 4, 1902, page 62, M-145, microfilm reel 6, folder 27v.

¹³¹ NEWC Records, "Rec Sec 1900 to 1902," undated newspaper clipping, likely dating from April 1902, inserted on top of page [161], M-145, microfilm reel 9, folder 42v.

inclusion of black members, showcases the limits of the NEWC's written support for diversity. The early club movement in America was starkly divided along class and race lines, and though the NEWC wrote of its support for diversity it failed to break free of this larger trend. As this indicates, the racial divide in the early women's movement was a product of even those women's clubs that saw themselves as racially progressive.

The Finances of the NEWC

In spite of the NEWC's ability to rapidly acquire high-achieving, elite members, it struggled to maintain financial solvency. Club historian Julia Sprague's history of the NEWC explicitly notes that a "want of financial strength...fettered the Club sorely in its early days."¹³² Members did not always pay their dues in a timely fashion, and the expenses associated with maintaining clubrooms were not entirely predictable. These issues were most pronounced in the Club's early years and were compounded by poor financial record keeping. Tellingly, in the NEWC archives, full financial records are entirely absent for the period before 1892, scattered from 1892-1900, and more robust from 1900 onwards. For the Club's early years, the only financial records that remain are the Treasurer's brief reports as they were noted in the Club and Board of Directors' meeting minutes.

The unpredictability of the NEWC's financial flows was exacerbated by the Treasurer and Board of Director's very short-term view of the Club's financial situation. Indeed, the Treasurer's assessments of the NEWC's financial wellbeing varied immensely even over short periods of time. For example, in November 1888 the Treasurer "reported no money in the treasury, it going out as fast as it comes in, but all bills were paid, & there would be enough to

¹³² Sprague, *History of the New England Women's Club from 1868 to 1893*, 7.

pay any wh[ich] might come in.”¹³³ At the very next meeting of the Board of Directors, in December 1888, she reported that the Club finances were “in a very comfortable condition” and that they had even been able to repay money that had been withdrawn from a reserve fund in the previous year.¹³⁴ This suggests that the NEWC operated on a hand-to-mouth basis, relying entirely on member dues and the occasional sale of lecture and class tickets to cover its costs. This approach, unsurprisingly, resulted in a treasury that regularly approached bankruptcy.

The NEWC’s financial situation came to a head in 1898 as a result of poor financial management and recordkeeping. As the NEWC’s historian reported in 1901: “In 1898 we reached, I think the height of our prosperity; the future beckoned us onward and upward; the sky looked smiling and bright upon us; but ... the ground was trembling beneath us, felt by a very few only.”¹³⁵ In early 1898 the NEWC appointed a new Treasurer – Sibylla Bailey Crane – who found that “the finances of the Club ... are not in a satisfactory condition.”¹³⁶ On February 15, 1899 the NEWC held a general business meeting to share the news of the Club’s finances with its members. As recorded in the meeting minutes, the Board reported that it “had learned to its surprise & consternation that the Club had been living beyond its income for some time & was

¹³³ NEWC Records, “Rec Sec 1881 to 1891,” November 3, 1888, page [258], M-145, microfilm reel 5, folder 24v.

¹³⁴ NEWC Records, “Rec Sec 1881 to 1891,” December 1, 1888, page [262], M-145, microfilm reel 5, folder 24v.

¹³⁵ NEWC Records, Julia Sprague, “Historian’s Rept.: Annual Meeting – May 20, 1901,” page 2, M-145, microfilm reel 3, folder 9.

¹³⁶ NEWC Records, “Rec Sec 1891 to 1901,” October 1, 1898, page 265, M-145, microfilm reel 5, folder 25v.

now materially in debt.”¹³⁷ An auditor concluded that the NEWC “was living beyond its means, and must of necessity run behind \$1,200 or \$1,500 every year.”¹³⁸ It was determined that this dire financial situation was not the result of intentional malfeasance, but rather of inaccurate bookkeeping. As Sprague reported, “[n]o blot or stain under the keenest investigation falls on any club-member.”¹³⁹ Rather, the Club as a whole was blamed for carrying on its business “blindly, trustingly, living without questioning, in a manner too expensive, too extravagant.”¹⁴⁰ To pay off its existing rent and debts, the NEWC raised funds through subscriptions from individual members.¹⁴¹ Covering existing debts did not remedy the fact that the NEWC operated at a financial deficit. Therefore, to lower its ongoing costs, the NEWC relinquished its clubrooms in the spring of 1899 and found itself “forlorn, homeless, but not hopeless.”¹⁴²

After vacating its clubrooms, the NEWC decided to meet in members’ parlor rooms and to rent space at a local church as needed until they could return to a clubhouse.¹⁴³ Given the

¹³⁷ NEWC Records, “Club Journal | 1898 – ’99,” February 15, [1899], page [14], M-145, microfilm reel 9, folder 41.

¹³⁸ NEWC Records, “The adjourned meeting of the N. E. W. Club was...” March 3, [1899], page II, M-145, microfilm reel 3, folder 12.

¹³⁹ NEWC Records, “The adjourned meeting of the N. E. W. Club was...” March 3, [1899], page II, M-145, microfilm reel 3, folder 12; NEWC Records, Julia Sprague, “Historian’s Rept.: Annual Meeting – May 20, 1901,” page 4, M-145, microfilm reel 3, folder 9.

¹⁴⁰ NEWC Records, Julia Sprague, “Historian’s Rept.: Annual Meeting – May 20, 1901,” page 4, M-145, microfilm reel 3, folder 9.

¹⁴¹ NEWC Records, “Rec Sec 1891 to 1901,” April 15, 1899, pages 304-5, M-145, microfilm reel 5, folder 25v.

¹⁴² NEWC Records, Julia Sprague, “Historian’s Rept.: Annual Meeting – May 20, 1901,” page 5, M-145, microfilm reel 3, folder 9.

¹⁴³ NEWC Records, Julia Sprague, “Historian’s Rept.: Annual Meeting – May 20, 1901,” page 5, M-145, microfilm reel 3, folder 9.

centrality of a physical location to the NEWC’s mission, the lack of an established, permanent physical site was a devastating blow. It meant that the Club was unable to foster spontaneous conversations; without a physical site at which they could drop in whenever they saw fit, members were required to organize all gatherings in advance. However, by renting a space for meetings only as needed (rather than renting a space on a permanent basis), the Club was able to increase its cash reserves by almost a thousand dollars in just a year, as shown in Figure 1.3; given that it had previously been running at a *deficit* of \$1,200 to \$1,500 annually, this was a marked improvement in financial condition.

Figure 1.3: NEWC Treasurer’s Report for the 1900-1 Club Year

TREASURER'S REPORT.		EXPENDITURES.	
RECEIPTS.		From May 21, 1900, to May 20, 1901.	
From May 21, 1900, to May 20, 1901.			
Balance May 21, 1900	\$830.20	Rent Tremont Temple	\$659.04
Membership Fees	2,190.00	Annual Dues Mass. State Federation	11.20
Admission Fees	115.00	Art and Literature Committee	95.00
Absentee Fees	30.00	Work Committee	120.00
Guests' Tickets	55.00	Education Committee	25.00
Interest	7.00	Discussion Committee	25.00
Sundry Sources	4.65	Entertainment Committee	55.00
		House Committee	162.35
		Printing	110.67
		Stationery, Postage, and Record Book	63.91
		Storage	27.00
		Subscription for "The Club Woman"	2.00
		Reserve Fund	60.00
Total	<u>\$3,231.85</u>	Total	<u>\$1,416.17</u>
		Balance May 20, 1901	1,815.68
			<u>\$3,231.85</u>
		ASSETS.	
		Five Shares Club House Corporation Stock valued at	\$250.00
		Reserve Fund	120.00
			<u>\$370.00</u>
		ANNIE J. E. PERKINS, Treasurer.	

In the wake of its 1898 financial crisis, the Club began printing Treasurer’s reports, like the above, on an annual basis. The Club’s earliest financial records either do not exist or are not included in the group’s archival records.

Source: NEWC Records; “New England Women’s Club Treasurer’s Report: From May 21, 1900, to May 20, 1901,” M-145, microfilm reel 17, folder 148.

The NEWC quickly regained its financial footing. By 1903 the Club was once again able to rent clubrooms, though initially on a more modest scale. Then, in early 1909 the NEWC relocated

The Club never again reached quite such dire financial straits. Nonetheless, through 1910, the NEWC remained generally cash flow neutral, often resorting to hosting extra events as a means of raising funds. The Club's finances for the 1908-9 Club year, pictured in Figure 1.4 above, give a reasonable indication of the ongoing cash flows of the Club, but for the fact that the Club spent almost \$400 on moving expenses that year.

Work Undertaken by the NEWC

Although the NEWC's formally stated mission – “to supply ... a quiet central resting place and place of meeting ... and ultimately to become an organized social centre for united thought and action” – was fairly opaque, the NEWC's work during the period under investigation focused on enabling women to network, heighten their influence in the public sphere, and improve their station and education.¹⁴⁶ The Club's work quickly took on four dimensions: hosting visiting speakers for one-off lectures, fostering internal dialogue and socialization, advocating for public reform, and organizing standalone courses. This section will examine each dimension in turn, after which it will explain how they contributed to the NEWC's overall body of work.

The first dimension of the Club's work – its standalone lectures – was a critical means through which the Club fostered women's education and encouraged relationships between its members and elite, often male, intellectuals. In her history of the NEWC's first 25 years (1868-

¹⁴⁶ NEWC Records, “Records of the New England Women's Club,” March 10, 1868, page 3, M-145, microfilm reel 4, folder 22.

1893), Club historian Julia Sprague included a “List of Speakers Not Members of the Club.”¹⁴⁷ This list comprises a whopping 301 lecturers, some of whom lectured before the NEWC on multiple occasions.¹⁴⁸ Club member Kate Gannett Wells was in charge of obtaining lecturers for the NEWC. Writing about this work, she noted that the “potent name, ‘New England Women’s Club,’ always brought, if not a hearty acceptance, at least sincere regrets that the lecturer could not address this most remarkable body of women, esteemed nay dreaded more by the world outside, than venerated by its own members.”¹⁴⁹ Continuing in this vein, Sprague wrote that the NEWC gained a reputation thanks to “the known character” of its leading members which “would warrant [the Club] in inviting the best thinkers to present their views before it.”¹⁵⁰ As this indicates, the NEWC leveraged its members’ reputations to attain lectures from preeminent intellectuals. These lectures were intended to enable NEWC members to learn about a wide array of subjects and to practice intelligently conversing about diverse topics. Lectures covered a broad range of subjects, from the political status of women in India to domestic economy. Appendix 1 lists the over 160 science lectures hosted by the NEWC between 1868 and 1910; it features preeminent male intellectuals such as Irish physicist John Tyndall, John Hopkins psychologist G. Stanley Hall, and Harvard botanist George Lincoln Goodale. The majority of the Club’s visiting lecturers were male academics; as such, these lectures served as a critical means through which academic knowledge circulated beyond the academy and into women’s realms. These lectures

¹⁴⁷ Sprague, *History of the New England Women’s Club from 1868 to 1893*, 87.

¹⁴⁸ Sprague, *History of the New England Women’s Club from 1868 to 1893*, 87-96.

¹⁴⁹ Kate Gannett Wells, “New England Women’s Club—Report of Committee on Art and Literature,” *The Woman’s Journal*, vol. 6, iss. 26 (June 26, 1875): 208.

¹⁵⁰ Sprague, *History of the New England Women’s Club from 1868 to 1893*, 14.

were the main focus of Club activities – they occurred at least weekly during the academic year and regularly drew as much as half of the membership in addition to guests.

The NEWC's second prong of activity was its internal lectures and informal socializing. The NEWC encouraged members to give talks on, and converse about, intellectual topics. As founding member and physician Dr. Marie Zakrzewska reflected in an 1896 letter to Sprague, “[s]mall talk is the most injurious exertion to our brains, both for the talker and for the one who listens, because no strengthening discipline accompanies the waste caused both in talking and listening.”¹⁵¹ Similarly, in an 1882 Historical Sketch of the NEWC, Sprague noted that the Club sought to be “a place where women should have the opportunity for culture in dignified and deliberative discussion, in which they are so lamentably deficient.”¹⁵² Thus, the NEWC's social meetings were not intended to foster idle socialization but rather skilled lecturing by, and discussion among, Club members. As indicated by Appendix 1, NEWC members who were employed in the sciences, including Zakrzewska and astronomer Maria Mitchell, gave lectures on their research before the club. So did NEWC members who engaged in the sciences as amateurs, like Alice Brown, Caroline Kennard, Mary A. C. Livermore, Miss S. H. Talbot, Henrietta L. T. Wolcott, Mrs. M. R. Wilmarth, and Caroline A. R. Whitney, each of whom lectured on botany before the club.¹⁵³ Through these internal lectures, the NEWC fostered opportunities for women to develop skills in debate, discussion, and presentation. In this manner,

¹⁵¹ NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Letter from M. E. Zakrzewska to Julia A. Sprague and the NEWC's historian, September 6, 1896, M-145, microfilm reel 3, folio box 2.

¹⁵² NEWC Records, Historian's records, Disassembled scrapbook, 1857-1919, Letter from M. E. Zakrzewska to Julia A. Sprague and the NEWC's historian, September 6, 1896, M-145, microfilm reel 3, folio box 2.

¹⁵³ NEWC Records, “Club Calendar, 1888 – 89,” M-145, microfilm reel 1, folder 4.

the female-centric realm of the women's club provided women with an intellectual network and an engaged forum in which to present their work.

The third center of the Club's activity was reformist, philanthropic work that sought to aid the wider community. As then-NEWC President Abby W. May explained in her 1878 reflection on the Club's tenth anniversary, the NEWC "was not formed for purposes of general philanthropy, or for active work in any direction" but members quickly realized that they "could not be satisfied to limit [the NEWC's] benefits to themselves."¹⁵⁴ Reminiscing on the NEWC's achievements in 1908, Severance expressed glee that her Club had enabled women to partake in "outside effort" beyond "'the sewing circle' and the profitless formalities of miscalled 'society.'"¹⁵⁵ The NEWC's reform activities were broad in scope, encouraging the improvement of high school, college, and postgraduate education and the development of profitable and healthful employments for women. As will be shown in subsequent chapters, many of the Club's externally directed activities aimed to foster adult women's science education. This is striking; the existing literature on women's clubs has shown that they were important sites for the improvement of women's education broadly speaking but has not fully explored the important role these organizations played in advancing women in science.¹⁵⁶

¹⁵⁴ Abby W. May, "Annual Meeting – New England Women's Club: Address of Miss Abby W. May," *The Woman's Journal*, vol. 9, iss. 24 (June 15, 1878): 192.

¹⁵⁵ "Woman's Onward March," *Boston Daily Globe* (May 24, 1908): 43.

¹⁵⁶ Margaret Rossiter's seminal study *Women Scientists in America* (1982) explicitly suggests that the WEA is worthy of further exploration as a developer of spaces for women's science learning. Anne Firor Scott and Karen Blair's studies of the nineteenth century club movement each illuminate important dimensions of the club movement, but neither contends centrally with women's clubs' roles in generating opportunities for adult women's science learning. Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 345n28; Scott, *Natural Allies*; Blair, *The Clubwoman as Feminist*.

The Club's fourth prong of activity was the courses it organized. These courses covered topics including: botany, cooking, English Literature, literature more broadly, painting porcelain and china, Greek, Latin, elocution, and physiology.¹⁵⁷ Instructors for these courses included both Club members and external authorities. These classes generally aimed to provide enriching learning opportunities for NEWC members; they were typically not directed towards the professionalization of women in these subject areas. The NEWC's Botany Group exemplified this model. It ran for over 20 years and included about a dozen members at any given time (some of whom attended faithfully for this whole period).¹⁵⁸ This group met regularly and provided its members with instruction as well as with opportunities for botanical research.

The one professionalizing effort established by the NEWC was the Horticultural School for Women. The Club began developing this school in 1869; it only operated for one year, from 1870 to 1871, and will be further explored in chapter 4. By founding this school, the NEWC hoped to open "a new and profitable, as well as ennobling, occupation...to women...enabling them to support themselves by the sale of potted plants, fruits, and flowers" and "to become teachers of Horticulture."¹⁵⁹ The Horticultural School for Women taught a broad array of

¹⁵⁷ Lucia M. Peabody, "Report of the Education Committee of the New England Women's Club," *The Woman's Journal*, vol. 10, iss. 27 (July 5, 1879): 209; Sprague, *History of the New England Women's Club from 1868 to 1893*, 22.

¹⁵⁸ NEWC Records, "Club Calendar, 1888 – 89," M-145, microfilm reel 1, folder 4.

¹⁵⁹ Sprague, *History of the New England Women's Club from 1868 to 1893*, 10; NEWC Records, "New England Women's Club," March 7, [1870], page [7], M-145, microfilm reel 15, folder 114.

agricultural skills, including the “raising of flowers, both in greenhouses and out of doors, of small fruits, and the care of hot-beds for forcing early vegetables for the market.”¹⁶⁰

The workhorses powering the Club’s four dimensions of activity were its committees, which managed all of the work it undertook. The NEWC had the following committees: business, membership, art and literature, and work (“Including Discussions of Subjects of a practical character”).¹⁶¹ Each committee was given full control over selecting and organizing the NEWC’s programming within its area of expertise.¹⁶² As the Club matured, these committees evolved and additional committees were added.¹⁶³ In addition to its committees, the NEWC had

¹⁶⁰ NEWC Records, “The Annual Meeting of the New England Women’s Club,” May 29, 1869, page 9, M-145, microfilm reel 12, folder 54.

¹⁶¹ NEWC Records, “Records of the New England Women’s Club,” June 13, 1868, pages 17-8, M-145, microfilm reel 4, folder 22.

¹⁶² This approach was questioned by Lucia M. Peabody in an undated letter in which she suggested that the NEWC might attract a broader range of speakers if it assigned every member to a committee and encouraged them to take ownership of the club’s activities. NEWC Records, Historian’s records, Disassembled scrapbook, 1857-1919, Undated autograph from Lucia M. Peabody to the NEWC, pages [1-2], M-145, microfilm reel 3, folio box 2.

¹⁶³ For example, in an 1869 pamphlet the addition of a Committee on Health was suggested, but it does not appear that this committee ever came into existence. In May 1869 the Board of Directors decided to add a Hospitality Committee with the aim of welcoming new members; this committee was dissolved in 1873 after deciding that they had no work to do. In mid-1869 a Printing Committee was also established. In 1871 a Committee on Entertainment was added to the list, but this Committee did not last even a year because “[e]ntertainments simply as such do not seem to meet the wishes of this Club.” In 1872 the Club established a committee on advertising, and a Committee on Correspondence had been established by 1873. By 1874 the NEWC had a Committee on Dress Reform. In June 1877 the NEWC decided to “fix the number of members” in each committee at 7, but for the Printing Committee which was to have just 3 members. NEWC Records, “Records of the New England Women’s Club,” May 22, 1869; [June 8], 1869; June 10, 1871; March 2, 1872; pages 45-6, 101, 117, M-145, microfilm reel 4, folder 22; NEWC Records, “Records of the New England Women’s Club,” June 7, 1873 and February 7, 1874; pages 7, 10, [25], M-145, microfilm reel 5, folder 23v; NEWC Records, “By-Laws, Rules and Regulations,” June 9, 1877, page 9, M-145, microfilm reel 1, folder 1. NEWC Records, “The Annual Meeting of the New England Women’s Club,” May 29, 1869, page 4, M-145, microfilm reel 12, folder 54.

a Board of Directors that oversaw all Club engagements; the Board was elected by the NEWC's membership and composed largely of founding members. At the head of the Board of Directors stood the NEWC's President. Founder Caroline Severance was unanimously elected to this position in March 1868 and held it until 1871, at which point she moved to California.¹⁶⁴ Julia Ward Howe took the helm from 1871 until her death in 1910 with but two gaps: one in 1877 when Howe was travelling abroad for a year, and once for two years while she travelled in Europe.¹⁶⁵ For the first gap in her Presidency, the NEWC voted for Ednah Cheney to serve as President for the year. During the second gap in her Presidency, which spanned from 1878-1880, Abby W. May filled in.¹⁶⁶ The Club's esteemed Presidents (Severance, Howe, Cheney, and May) were all founding members of the NEWC, noted intellectuals, and suffragists with elite connections.

The NEWC leaders' public support of suffrage is emblematic of one of the starkest contrasts between the NEWC and the WEA: the groups' approaches to reform. Indeed, as chapter 3 will explore, in contrast to the NEWC's generally pro-suffrage outlook, the WEA was broadly anti-suffrage. As I turn now to an explanation of the WEA's founding, mission, and membership, it is important to keep the diverging political orientations of these organizations in mind. This divergence, which will be explored throughout this dissertation, illuminates the richness and diversity of aspirations motivating the early women's club movement in Boston.

¹⁶⁴ NEWC Records, "Records of the New England Women's Club," March 10, 1868, pages 2, 3, 5, M-145, microfilm reel 4, folder 22.

¹⁶⁵ Sprague, *History of the New England Women's Club from 1868 to 1893*, 20.

¹⁶⁶ NEWC Records, *New England Women's Club: One Hundredth Anniversary, 1868-1968* (Boston, MA [1968]), page 13, M-145, microfilm reel 4, folder 16.

Conclusion

Inspired by the publicly influential work they had achieved during the Civil War, the founders of the NEWC boldly appropriated a traditionally male space – the exclusive, elite, single sex club – and adapted its culture to encourage women’s public work. Though the NEWC’s culture integrated traditionally feminine activities, its members were reform-minded intellectuals who sought to demonstrate that women ought not be confined *solely* to such activities. Indeed, by excluding men from full membership, the NEWC sought to create a space in which women could practice their leadership skills without facing direct male competition. In developing a publicly-engaged female sphere, the NEWC encouraged intellectualism and forwarded progressive reforms and educational agendas. In so doing, the Club worked toward creating what Estelle Freedman has termed a “public female sphere,” that is, a female-dominated space in which women were able to lead and engage in non-domestic activities.¹⁶⁷

Through the ‘club’ format, the women of the NEWC were able to establish intellectual, public-facing networks of activity. As Anne Scott has shown, voluntary associations enabled women to bypass some of the constraints imposed upon them by laws and customs; through associations women were able to imbue the concept of ‘woman’s place’ with a public dimension.¹⁶⁸ Single-sex associations gave women opportunities “to conduct business, carry on meetings, speak in public, [and] manage money” and to build vital community institutions, ranging from libraries to kindergartens to, as this dissertation will show, scientific discussion spaces, labs, and more.¹⁶⁹ Whereas upper class men developed these sorts of networks through

¹⁶⁷ Freedman, “Separatism as Strategy,” 513.

¹⁶⁸ Scott, *Natural Allies*, 2.

¹⁶⁹ Scott, *Natural Allies*, 2-3.

school, university, and men's clubs, social norms mandated that upper class women white avoid cerebral activities in favor of maternal and domestic ones.¹⁷⁰ By establishing the model of a 'woman's club,' the NEWC challenged this mandate and showcased women's ability to take on public leadership.

¹⁷⁰ Stephen H. Norwood, "From 'White Slave' to Labor Activist: The Agony and Triumph of a Boston Brahmin Woman in the 1910s," *The New England Quarterly* 65, no. 1 (1992): 68-9; Susan M. Cruea, "Changing Ideals of Womanhood During the Nineteenth-Century Woman Movement," Bowling Green State University: *General Studies Writing Faculty Publications*, Paper 1, 2005, 194.

Chapter 2

“The whole atmosphere was kept as womanly as possible”:¹ Establishing the Woman’s Education Association

After receiving her Bachelor of Arts in chemistry from Vassar Female College in 1870 Ellen Swallow Richards² applied to various apprenticeships in industrial chemistry. She was uniformly rejected from these posts. Determined to pursue a career in the field, Richards applied to the Bachelor of Science program at the Massachusetts Institute of Technology (MIT), which had been founded in 1861.³ MIT’s founding President, William Barton Rogers, envisioned MIT as ““a polytechnic school”” that would provide for “...the teaching, not of the manipulations and minute details of the arts, which can be done only in the workshop, but the inculcation of all the scientific principles which form the basis and explanation of them.”⁴ As such, the school featured extensive, hands-on lab-work and technical training. MIT had an all-male faculty and admitted only men. Nonetheless, recognizing the paucity of comparable opportunities for women, Richards put forth her application. In December 1870, she received a letter from MIT’s President

¹ Ellen H. Richards, “Waste of Energy in Organization,” *Outlook*, vol. 63, no. 16 (December 16, 1899): 930.

² Ellen Swallow Richards was known as Ellen H. Swallow until she married engineer Robert Richards, an MIT faculty member, in 1875. However, in this dissertation I refer to her by her married name for the sake of consistency and because that is the name by which she is best known.

³ “Ellen H. Swallow Richards (1842–1911),” *American Chemical Society*, accessed June 19, 2019, <http://www.acs.org/content/acs/en/education/whatischemistry/women-scientists/ellen-h-swallow-richards.html>.

⁴ William Barton Rogers to Henry Darwin Rogers, March 13, 1846, accessed at: “Founding of MIT, 1861,” *Exhibits: Institute Archives & Special Collections: MIT*, accessed June 19, 2019.

congratulating her “and every earnest woman” on her admission as a “special student in Chemistry.”⁵

Richards’s admission to MIT happened in a somewhat subversive fashion. She was not charged tuition, and would later learn that this was done so that MIT could: “say I was not a student, should any of the trustees or students make a fuss about my presence.”⁶ Indeed, even as it admitted Richards, the Faculty resolved “that the admission of women as special students is as yet in the nature of an experiment, that each application should be acted on upon its own merits”, that is, the Faculty was not yet willing to admit women to the Institute on equal footing with men.⁷ As the MIT Corporation’s meeting minutes stated, Richards’s “admission did not establish a precedent for the general admission of females.”⁸ According to a later account of her experience, she “would not have gone” to MIT had she “realized upon what basis I was taken.”⁹

Given her experiences with the limitations surrounding women’s science education, it is perhaps unsurprising that Richards devoted significant time and resources to the development of opportunities for adult women’s science learning. Richards was involved in founding and furthering various institutions that sought to improve women’s science education. For example, in 1876 she advocated for the development of a chemistry laboratory for women at MIT, as will

⁵ John D. Runkle and MIT faculty, quoted in Caroline L. Hunt, *The Life of Ellen H. Richards* (Boston: Whitcomb & Barrows, 1912), 87.

⁶ Ellen Swallow Richards, quoted in Hunt, *The Life of Ellen H. Richards*, 88.

⁷ MIT faculty, quoted in Hunt, *The Life of Ellen H. Richards*, 87.

⁸ “Ellen Swallow Richards & MIT,” *Institute Archives & Special Collections: MIT*, accessed June 19, 2019, <https://libraries.mit.edu/archives/exhibits/esr/esr-mit.html#corp>.

⁹ Richards, quoted in Hunt, *The Life of Ellen H. Richards*, 88; Sarah Stage, “Richards, Ellen Henrietta Swallow,” *American National Biography* (1999).

be further discussed in chapter 4. In 1881 she helped establish the Association of Collegiate Alumnae (an organization devoted to improving the station of female college graduates). And in 1890 she worked to develop the New England Kitchen in Boston with the dual aims of providing healthful, tasty food for reasonable prices and providing a space for experiments in domestic economy.¹⁰ The first institution through which Richards pursued the improvement and development of women's science education was the Woman's Education Association (WEA).¹¹ Indeed, it was this Association that enabled Richards to establish the chemistry laboratory for women at MIT. Therefore, this chapter explores the establishment of the WEA.

Founding the Woman's Education Association

The WEA was founded in 1872 by a group of women who had come together just a few months earlier under the moniker 'Committee on the Better Education of Women' (CBEW). For its part, the CBEW was formed by five women who gathered at a Beacon Hill home on December 22, 1871 to discuss the state of women's education. The CBEW's first action was to "call a meeting at which men respected in the community as possessing knowledge and wisdom on the subject, should speak on the present education of women – its defects and the way to improve it." Though the CBEW specifically sought *men's* advice at this inaugural meeting, it

¹⁰ Richards had reported on this kitchen to the WEA in December 1893. Elizabeth M. Howe, "The New England Kitchen," *The Chautauquan; A Weekly Newsmagazine* (May 1892): 222; MHS WEA Records; General Meeting Records, 1893-1896, December 14, 1893, p. 25, Box 2, Folder 7.

¹¹ Richards served on the WEA's Executive Committee from 1877 to 1878. MHS WEA Records, *Annual Report of the Woman's Education Association for the Year Ending January 16, 1878* ([Boston]: n.p., [1878]), [3], Box 12, Folder 4; *Annual Report of the Woman's Education Association for the Year Ending January 16, 1879* (Boston: Cochrane & Sampson, Printers, 1879), [3], Box 12, Folder 5.

hoped that this knowledge would be but “the initiation of a serious movement among *women themselves* in behalf of a better education.”¹² Thus, the CBEW’s efforts to obtain men’s insight can be viewed as a strategic maneuver: by encouraging men to offer their opinions, the CBEW demonstrated that it did not intend to transgress contemporaneous social mores. Over the following weeks, the CBEW’s membership grew and the group planned to propose founding a movement for women’s education at its inaugural public meeting. The CBEW hoped to lead this movement by establishing a women’s organization entitled the Woman’s Education Association (WEA) in which CBEW members would partake.¹³

The public meeting at which the WEA was founded was advertised as a “Conference of ladies and gentlemen interested in the better education of women.”¹⁴ This meeting occurred in January 1872 at Wesleyan Hall in Boston.¹⁵ By founding the WEA at this meeting, the women of the CBEW sought to publicly respond to the “great and crying want, which, as each woman felt it in her own life she knew existed for all women, of more and better, wider and higher education in every direction, physical and spiritual, intellectual and artistic, the education of the whole being into what the poet calls -- | ‘A perfect woman, nobly planned.’”¹⁶

¹² MHS WEA Records, “General Meeting Records, 1871-1929,” December 22, 1871, p. 1, Box 2, Folder 1. Emphasis added.

¹³ MHS WEA Records, “General Meeting Records, 1871-1929,” 4th meeting [Jan 22. 1872], p. 7, Box 2, Folder 1.

¹⁴ MHS WEA Records, *First Annual Report of the Woman’s Education Association* (Boston: W. L. Deland, 1873), page [5], Box 12, Folder 1.

¹⁵ MHS WEA Records, “THE WOMAN’S EDUCATION ASSOCIATION | THE ANNUAL MEETING – ORGANIZATION FOR THE COMING YEAR – THE ANNUAL REPORT,” newspaper clipping, dated 16 January 1873 by archivist, box 1, folder 2.

¹⁶ MHS WEA Records, *First Annual Report of the Woman’s Education Association*, 5.

Given the successes and similarities of the NEWC and WEA, it would be reasonable to ask why both organizations were necessary. Why did the women of the WEA feel the need to establish a standalone organization? This question will be more fully addressed in chapter 3, but the crux of the answer appears to rest on the somewhat different political orientations of these two organizations.¹⁷ As chapter 3 will demonstrate, the NEWC was pro-suffrage while the WEA was generally anti-suffrage. Further, though the two groups were composed of women of largely similar social statuses, the women of the NEWC were intellectually active and reform-minded, while the women of the WEA were generally well-heeled elites who were eager to advance the cause of women's education. Even academic Ellen Swallow Richards, who did not come from the upper echelons of Boston society like many of her peers at the WEA, was ambivalent towards the cause of women's suffrage throughout her life.¹⁸

The Constraints of Elite Womanhood in Progressive Era America

Though its stated mission – “the better education of women” – was broad, the WEA's vision of ‘women’ was limited: although the Association's educational efforts targeted socioeconomically diverse women, it does not appear that it made any efforts to include racial, religious, or ethnic minorities in its membership.¹⁹ As such, the group's membership remained almost entirely white, affluent, and socially elite throughout the period under consideration.

¹⁷ Zina Fay Pierce, “Harvard Examination for Women Exposed,” *The Woman's Journal* 6, no. 16 (April 17, 1875): p. 124.

¹⁸ Barbara Richardson, “Ellen Swallow Richards: ‘Humanistic Oekologist,’ ‘Applied Sociologist,’ and the Founding of Sociology,” *The American Sociologist* 33, no. 3 (2002): 31.

¹⁹ MHS WEA Records, *First Annual Report of the Woman's Education Association*, 5.

The Association's members were often what is termed 'Boston Brahmin,' a term coined by Oliver Wendell Holmes, Sr. in his 1861 novel *Elsie Venner*. Holmes's novel included an entire chapter about the "Brahmin Caste of New England," in which he described the Brahmin class as a "harmless, inoffensive, untitled aristocracy" with the "character of permanence."²⁰ Using the language of positive eugenics, Holmes suggested that "a series of felicitous crosses" had resulted in "an improved strain of blood" among Boston Brahmin.²¹ Women of the Boston Brahmin were expected to marry within their rarified social echelon. These women were considered part of the 'leisure class'; their work was expected to consist predominantly of overseeing their children's tutors and nannies and managing a team of domestic servants.²² For Brahmin women, employment in the public realm was generally taboo. During this time period, the term "public woman" was used to refer to prostitutes, and public visibility was associated with sexual promiscuity.²³ Further, women of the elite classes were not expected to be particularly intellectual. Divorce records from Boston courts during this period include cases like that of Brahmin couple Lois and Edward Rantoul. In this divorce, Lois Rantoul claimed that her husband had worked to suppress her intellectual interests, objecting to her literary tastes.²⁴ Further, she testified that her husband resented her social work, and her husband explained that

²⁰ Oliver Wendell Holmes, *Elsie Venner: A Romance of Destiny*, vol. 1 (Boston, Ticknor & Fields, 1861), 17, 15.

²¹ Holmes, *Elsie Venner*, 18.

²² Stephen H. Norwood, "From 'White Slave' to Labor Activist: The Agony and Triumph of a Boston Brahmin Woman in the 1910s," *The New England Quarterly* 65, no. 1 (1992): 68-9.

²³ Susan M. Cruca, "Changing Ideals of Womanhood During the Nineteenth-Century Woman Movement," Bowling Green State University: *General Studies Writing Faculty Publications*, Paper 1, 2005, 194; Norwood, 69.

²⁴ Norwood, 72-3.

he feared this work was too strenuous for her and would cause her to be both physically poorly and distracted from her own children.²⁵ As these records indicate, Brahmin women faced limiting social proscriptions; this chapter explores how the women of the WEA effected social change without transgressing the constraints of the social mores they were expected to uphold.

As scholars including Frank Prochaska, Christine Stansell, and Susan Marshall have illustrated, upper class women have often managed to circumnavigate social norms by engaging in philanthropic work. In his foundational study of women's philanthropic activity, Frank Prochaska shows that women in Victorian Britain used philanthropy as a means of gaining access to public activities.²⁶ Similarly, Christine Stansell demonstrates that middle-class New York women's philanthropic involvement reflected their own desire to find a voice and articulate their importance – it was a means of self-empowerment as much as an attempt to better the conditions of the poor.²⁷ Susan Marshall shows that anti-suffragists often held significant influence in the private realm of individual philanthropy, and therefore saw opposing the vote as a means of ensuring their continued control over this domain.²⁸ In a like vein, Robyn Muncy's examination of Progressive Era women's reform work demonstrates that middle class women were best able to obtain public influence in areas coherent with contemporaneous notions of

²⁵ Norwood, 73.

²⁶ F. K. Prochaska, *Women and Philanthropy in Nineteenth-Century England* (Oxford: Oxford University Press, 1980).

²⁷ Christine Stansell, *City of Women: Sex and Class in New York, 1789-1860* (New York: Knopf, 1986), 37.

²⁸ Susan E. Marshall, *Splintered Sisterhood: Gender and Class in the Campaign against Woman Suffrage* (Madison, Wis.: University of Wisconsin Press, 1997), 5, 220.

femininity – that is, jobs in which women tended to the poor, women, or children.²⁹ The NEWC and WEA relied upon similar strategies – engaging in philanthropic work centered on feminized areas of interest – to achieve influence in the public domain. Additionally, as will be further explored in chapters 4 and 5, in many cases, the NEWC and WEA were able to use money to engender power, and to work alongside men to participate in science learning spaces that might otherwise have been foreclosed to them.

The WEA’s Maternalist Justifications of its Work

The WEA’s work took on two key dimensions. First, it aimed “by addresses, discussions, etc., from the best talent discoverable, to interest and improve those who will come to hear, and so to enlist the sympathy of the mothers, the educators, and all who are called upon to assist and direct the young.”³⁰ By this, the WEA meant that it aimed to educate those who would serve as educators (via their stations as teachers or mothers), such that they would better be able to fulfill this role. The WEA envisioned that its internal Association activities would serve this purpose. The second tenet of the WEA’s work centered on “improv[ing] the present methods of education” of women.³¹ At an 1878 meeting it was explained that the WEA hoped to achieve “the better education of woman, not only the higher, so called.”³² By this, the WEA meant that it sought to improve both industrial and intellectual education, and to further the education of

²⁹ Robyn Muncy, *Creating a Female Dominion in American Reform, 1890-1935* (New York: Oxford University Press, 1991), 36.

³⁰ MHS WEA Records, *First Annual Report of the Woman’s Education Association*, 7.

³¹ MHS WEA Records, *First Annual Report of the Woman’s Education Association*, 7.

³² MHS WEA Records, General Meeting Records, 1876-1878, October 10, 1878, n.p., Box 2, Folder 3.

women of all classes. To achieve this work, the WEA relied on the externally directed efforts of its committees, the structure of which will be discussed in the next section.

Unlike the NEWC, the WEA never had a physical space of its own; as such, it met on a monthly basis in a variety of private spaces, predominantly members' homes.³³ This reflects a difference in the organizations' missions. Whereas the NEWC sought to foster intellectual connections and professional networks within its internal membership, the WEA was more squarely focused on using its members' existing networks to foster external opportunities for women's intellectual enrichment. Further, the WEA was particularly eager to avoid any suggestion of impropriety; by hosting its meetings within members' homes, the Association cast its work in a distinctly domestic light.

The WEA's justification for its educational efforts rested squarely on the domestic realm, with the Association emphasizing women's role as educators of children. In the above-quoted mission, the WEA referenced mothers' central role in raising and educating children.³⁴ This rhetoric fit with the traditionalist notion of Republican Motherhood, according to which women should be educated in order to better rear their sons to become the nation's future citizens.³⁵ This strategic approach – using domestic rhetoric to justify female public engagement – was oft utilized by women's associations and groups as early as the eighteenth century, as has been

³³ "Woman's Work in Philanthropy: Woman's Education Association, Boston," in *Lend a Hand*, vol. 2, ed. Edward Everett Hale (Boston: Lend a Hand Publishing Co., 1887): 347.

³⁴ MHS WEA Records, *First Annual Report of the Woman's Education Association*, 7.

³⁵ Kerber, *Women of the Republic*, 12.

described by historians including Karen Blair, Nancy Cott, Estelle Freedman, and Mary Ryan.³⁶ The WEA's extensive deployment of the rhetoric of Republican Motherhood, and its alignment with the group's anti-suffrage stance, will be further discussed in chapter 3. For the moment it is sufficient to note that the WEA took a tripartite approach to improving women's education. First, the WEA felt that it was necessary to supply better teachers, both in the formal sense of trained educators and in the informal sense of mothers. To this end, the WEA sought "[t]o be a real means of practical communication between the women teachers and the mothers of the community."³⁷ Second, the WEA worked to improve the methods of schoolgirl education, and third, to strengthen the education of schoolteachers. Indeed, writing of the importance of better educating teachers, the WEA argued that "to extend and improve the education of our normal [teachers'] schools is to plant a seed-grain from which luxuriant harvests may in time be gathered."³⁸ As this indicates, whereas the NEWC focused on both internal member enrichment and broad reform, the WEA centered its work on education, and justified its work by referencing women's maternal role and drawing on the rhetoric of domesticity.

Organizational Structure of the WEA

The WEA was structured similarly to the NEWC, with a Board of Directors overseeing all activities and individual committees providing hands-on management of each project. The

³⁶ Blair, *The Clubwoman as Feminist*; Cott, *The Bonds of Womanhood*; Freedman, "Separatism as Strategy," 512-29; Mary P. Ryan, "The Power of Women's Networks: A Case Study of Female Moral Reform in Antebellum America," *Feminist Studies* 5 (Spring 1979): 66-85.

³⁷ MHS WEA Records, [C. S. Pierce], "An account of the Early Formation of the WOMAN'S EDUCATION ASSOCIATION," 2, Box 1, Folder 20.

³⁸ MHS WEA Records, *First Annual Report of the Woman's Education Association*, 10.

WEA's Board of Directors was comprised of a President, a handful of Vice-Presidents, an Executive Committee (which typically had around 10 members), a Corresponding Secretary, a Recording Secretary, and a Treasurer. The Association was organized into the following committees: industrial, intellectual, aesthetic, and moral and physical education.³⁹ In 1891 the WEA reorganized and created new committees that it felt better suited its needs: College Education and Scholarships, Fine Arts, Public Schools, Libraries, Domestic Economy, and Science Lessons.⁴⁰ Each committee had its own budget but was also able to draw on the central funds of the Association if granted approval. The committees were each composed of a handful of members who were tasked identifying and undertaking relevant work.

Unlike the NEWC – which had Howe as its president for well over 30 years – the WEA rotated its officers; the Association believed fresh perspectives were essential to effective work.⁴¹ To this end, women could only serve on the Association's Executive Committee for two years. However, committees could have the same secretary or chairman for a longer period. By rotating its officers, the WEA hoped to avoid becoming representative of any individual woman's opinions. The WEA believed that rotation amongst its leadership would better allow the Association to be an agent in "the formation of public opinion."⁴² As WEA member Ellen Swallow Richards put it, "[v]ery often individual leadership untrammelled by committees and

³⁹ Richards, "Waste of Energy in Organization," 928.

⁴⁰ In 1900 the WEA voted to rename the Committee on Science Lessons, opting for the simpler title of 'Committee on Science.' Richards, "Waste of Energy in Organization," 929; MHS WEA Records, General Meeting Records, 1888-1893, April 9, 1891, n.p., Box 2, Folder 6; MHS WEA Records, General Meeting Records, 1896-1903, January 18, 1900, p. 127, Box 3, Folder 1.

⁴¹ Richards, "Waste of Energy in Organization," 930.

⁴² Richards, "Waste of Energy in Organization," 930.

rules accomplishes far more than organization; but if it is necessary to have a large body of influence, then co-operation is effective.”⁴³ However, as will be discussed below, the WEA was composed of elite, white women; given this demographic composition it appears that the organization did not seek to truly become representative of the diversity of the women of Boston. Rather, it seems that the WEA sought to maintain a leadership board that was representative of its own elite social group and hoped that through internal collaboration and cooperation the group would be able to extend its members’ influence, particularly within the realm of women’s education.

The Members of the WEA: Influence Through Wealth and Connections

Like the NEWC, the WEA was composed of elite women. However, whereas the NEWC sought out members who were publicly active and eager to make their mark on their own terms, the WEA was initially more focused upon having members of the leisured classes, often women who were connected to preeminent men through blood or marriage. In an 1899 article, Ellen Swallow Richards explained that the WEA’s early membership was composed entirely of women of the “leisure class” and that the Association had conducted its early work in private to maintain a womanly reputation; thus, the group avoided meeting in public places and shunned reporters.⁴⁴ As Richards explained, the Association was founded by “a few women who worked as they felt that women should work, in quiet, unheralded ways,” with meetings held only in private homes and no press permitted to attend.⁴⁵ Even Richards, who ultimately became a

⁴³ Richards, “Waste of Energy in Organization,” 930.

⁴⁴ Richards, “Waste of Energy in Organization,” 930.

⁴⁵ Richards, “Waste of Energy in Organization,” 930.

faculty member at MIT, focused her scientific work on the domestic realm. Unlike the NEWC, the WEA initially avoided including suffragists in its membership in an effort to maintain social acceptability. This discrepancy is significant and will therefore be the subject of chapter 3.

The WEA had five founding members: Charlotte Frances Buck Brooks (1828-1907), Mary Tileston Hemenway (1820-1904), Anna Cabot Lodge (1821-1900), Fanny Cabot Paine (1812-1878), and Melusina “Zina” Fay Peirce (1836-1923). Each of these founders was influential, intellectual, and extraordinarily affluent.⁴⁶ As subsequent chapters will show, the interpersonal connections and wealth of the WEA’s founders and members remained essential to the group’s efficacy throughout the period under examination.

In discussing how best to expand the Association’s membership, Brooks and Peirce suggested that “the larger number of persons they could interest in being members of the Association, the better.”⁴⁷ In particular, they felt that “money and influence would both be needed to carry out any plan that the Ass. might resolve upon and they could best get at the

⁴⁶ Charlotte Brooks was the wife of Benjamin Franklin Brooks, a partner at the legal firm of Brooks & Ball. Mary Hemenway was the daughter of wealthy merchant Thomas Tileston and wife of successful merchant Edward Augustus Holyoke Hemenway. She would go on to sponsor the 1886-1894 Hemenway Southwestern Archaeological Expedition and to encourage cooking courses for girls in public schools. Her daughter-in-law, Harriet Lawrence Hemenway (1858-1960), would become a member of the WEA and a founder of the Massachusetts Audubon Society. Anna Cabot Lodge was the granddaughter of George Cabot, who served as Massachusetts Senator from 1791 to 1796. She was the mother of the honorable George Cabot, who would go on to serve in the Massachusetts House of Representatives, the United States House of Representatives, and the United States Senate. Lodge was married to wealthy merchant John Ellerton Lodge and was definitively a Boston Brahmin. Fanny Cabot Paine was the wife of lawyer Charles Cushing Paine and mother of General Charles Jackson Paine. General Paine made his fortunes in the railroad industry before serving as a general for the Union during the Civil War. Zina Peirce was the founder of the Cambridge Cooperative Housing Association. She was married to Charles Sanders Peirce of the Harvard Astronomical Observatory and the American Academy of Arts and Sciences.

⁴⁷ MHS WEA Records, “General Meeting Records, 1871-1929,” March 22, 1872, n.p., Box 2, Folder 1.

Community through a large and influential membership.”⁴⁸ As this indicates, the WEA was centrally concerned with the wealth and public reputation of its members. Whereas the NEWC, at least on paper, hoped to attract a diverse membership and used its (funded) honorary memberships to include women who had made their own intellectual marks, the WEA was more concerned with ensuring the reputability of its membership and its ability to fund diverse projects.

To advertise the Association’s inaugural public meeting, the WEA’s founding members recruited other well-connected women as members and publicly advertised their membership in the budding organization. The WEA’s first annual report contained the following list of the women who were included in the Association’s early advertisements:

⁴⁸ MHS WEA Records, “General Meeting Records, 1871-1929,” March 22, 1872, n.p., Box 2, Folder 1.

Figure 2.1: Advertised Early Members of the Woman's Education Association

Two ladies are especially prominent among the early members of the Association, Mrs. CHARLES S. PIERCE and Mrs. B. F. BROOKS. They secured the co-operation of other ladies, whose names are given in the circular inviting to the public conference. They are as follows :—

Mrs. ALEXANDER AGASSIZ.	Mrs. JOHN E. LODGE.
Mrs. J. I. BOWDITCH.	Mrs. CHARLES G. LORING.
Mrs. B. F. BROOKS.	Mrs. F. C. PAINE.
Mrs. SAMUEL CABOT, Jr.	Mrs. CHARLES S. PIERCE.
Mrs. WILLIAM CLAFLIN.	Mrs. J. P. QUINCY.
Mrs. WILLIAM ENDICOTT.	Mrs. GEORGE R. RUSSELL.
Mrs. AUGUSTUS HEMENWAY.	Mrs. R. C. WATERSTON.
Miss MARY ANNE WALES.	

These ladies, with others who immediately joined them, formed the WOMAN'S EDUCATION ASSOCIATION, with its present Constitution, having four

The WEA advertised its preeminent founding members, thereby highlighting its connections to prominent Bostonian women.

Source: *First Annual Report of the Woman's Education Association*, 6.

In addition to the Association's five founding members, this advertisement includes the wives of intellectuals like Harvard geologist Alexander Agassiz and Charles Greely Loring, Jr., an Egyptologist who would go on to be appointed as the first curator of the Museum of Fine Arts and then as its director. Also included are the wives of politicians like William Claflin, the then-current Governor of Massachusetts, Josiah Quincy IV, a then-former Mayor of Boston, and William Crowninshield Endicott, a Supreme Justice in the Massachusetts State Court who would go on to become President Grover Cleveland's first Secretary of War.⁴⁹ The preeminence of the

⁴⁹ "Chamberlain, Mary Crowninshield Endicott," in *Woman's Who's Who of America: A Biographical Dictionary of Contemporary Women of the United States and Canada, 1914-1915*, ed. John William Leonard (New York: American Commonwealth Company, 1914): 169; MHS WEA Records, "WOMAN'S EDUCATION ASSOCIATION," April 21, 1921, Box 1, Folder 21.

women chosen to publicly represent the WEA is indicative of the Association's desire to market itself as an elite and influential group. This approach quickly attracted significant interest and the group rapidly acquired new members. Indeed, the Association elected as many as 46 new members in a single monthly meeting.⁵⁰ By the end of its first year, the WEA had 107 members.⁵¹ The WEA's efforts to attract well-heeled women with elite connections worked; during the period under investigation the WEA boasted many members with family ties to elite male intellectuals, politicians, and religious authorities.⁵²

⁵⁰ MHS WEA Records, "General Meeting Records, 1871-1929," January 24, 1872, n.p., Box 2, Folder 1.

⁵¹ There are a few members whose signatures on the charter are unclear or whose names are listed differently between the charter and the first annual report.

⁵² For example, WEA member Emma Savage Rogers was married to Massachusetts Institute of Technology (MIT) founder and inaugural president William Barton Rogers. WEA member Mrs. Lucien Carr was married to the assistant curator of the Peabody Museum at Harvard. Abby M. Storer's brother was a professor of chemistry at Harvard and her father was David Humphreys Storer, a physicist and naturalist. The wife of Joseph S. Cabot, President of the Massachusetts Horticultural Society, was another member. Elizabeth Cabot Cary Agassiz, wife of Harvard naturalist Louis Agassiz, was also a WEA member. Elizabeth was a significant academic figure in her own right; she was a teacher in the Society to Encourage Studies at Home, a member of the NEWC, and an author of two natural history texts: *A First Lesson in Natural History* (1859) and *Seaside Studies in Natural History* (1865). She would go on to become the founding president of Radcliffe College. Her daughter-in-law, Anna Russell Agassiz (wife of Alexander Agassiz) was also a member. Another family pair with ties to Harvard was Mary L. Ware and her mother Elizabeth Ware. Elizabeth was married to Harvard graduate and prominent Boston physician Dr. Charles Eliot Ware. In the late 1880s and early 1890s, the Wares worked with the director of Harvard's Botanical Museum, George Lincoln Goodale, to coordinate the production of more than three thousand glass flower models by Leopold and Rudolph Blaschka. These glass flowers remain a treasured part of Harvard's natural history collections, and Goodale remained connected to the WEA through the 1880s thanks to the botanical courses he hosted through the Association. In 1880 the WEA welcomed Goodale's wife as a member.

The WEA's political and religious connections were as impressive as its academic ones. The wife of William Claflin, the 27th Governor of Massachusetts (1869-72), was a member. So was Henrietta Perkins Baldwin Foster, wife of then-former Massachusetts attorney general Dwight Foster and daughter of Roger Sherman Baldwin, the 32nd Governor of Connecticut from 1844-6 and a US Senator from 1847-51. In addition, the wife of theologian and author James Freeman Clarke and the daughter of William Reed Deane, a regular correspondent for the

Although the WEA's earliest members were recruited with an eye towards their elite connections and wealth, over the following decades the Association changed its tone. As Richards noted in 1899, the WEA came to include "such leaders of thought and of public opinion as ex-college presidents and professors, school supervisors, and members of the school committee, trained teachers, and women with public experience."⁵³ Richards herself was the first American woman to receive a chemistry degree. She utilized this degree as an instructor and lecturer at MIT and as a founder of the field of domestic science, which encouraged women to apply scientific knowledge to the management and maintenance of their homes. Furthermore, the WEA came to include women who were elected to the local school committees and the state Board of Education.⁵⁴ The WEA's membership also boasted educational leaders like Katherine Peabody, niece of Asa Gray and a founder of, and teacher for, the Society to Encourage Studies

Christian Inquirer, were both members. Priscilla Cushing Stearns, the wife of Harvard-educated Unitarian preacher George Batchelor and the daughter of Unitarian Harvard Divinity School teacher Oliver Stearns, was also a member.

MHS WEA Records, Woman's Education Association charter; MHS WEA Records, *First Annual Report of the Woman's Education Association*, 16-7; "Lucretia Crocker | Boston Women's Heritage Trail," accessed June 2, 2016, <http://bwht.org/lucretia-crocker/>; MHS WEA Records, *First Annual Report of the Woman's Education Association*, 16; Sturgis, 3; "Harvard University Herbaria - Botany Libraries Archives The Rudolph and Leopold Blaschka Glass Flower Archives," accessed June 2, 2016, <http://botlib.huh.harvard.edu/libraries/glass.htm>; MHS WEA Records, General Meeting Records, 1878-1882, between May and October 1880, n.p., Box 2, Folder 4; *The New England Historical and Genealogical Register*, Vol. 42 (Boston: The House of the New England Historic Genealogical Society, 1888), 414; George Batchelor, "Personal Reminiscences," *The Unitarian Register* 95 (January 20, 1916): 247-48.

⁵³ Richards, "Waste of Energy in Organization," 930.

⁵⁴ MHS WEA Records, *First Annual Report of the Woman's Education Association*, 16; Albert B. Southwick, "Ann Earle's Pioneering Ways," *Telegram.com* (February 20, 2014), accessed June 2, 2016.

at Home.⁵⁵ Fellow WEA member Lucretia Crocker was the head of the science department of Loring's Society to Encourage Studies at Home and was renowned for her encouragement of first-hand study of the natural world.⁵⁶ Given that the WEA only had about two hundred members at any given time, it is clear that the organization drew from an academically, politically, and philanthropically engaged swath of Boston.

The WEA, unlike the NEWC, did not make any effort to diversify the composition of its membership. The group never made any public statements about racial policies. Its membership appears to have been entirely white and the group never made any efforts to foster greater inclusion of minority groups in its own membership.

Like the women of the NEWC, the women of the WEA were passionate about women's education yet most had not obtained higher degrees. Ellen Swallow Richards was a notable exception to this general rule. However, the fact that Richards is renowned for having received an MIT degree is indicative of the rarity of this accomplishment; the WEA was founded at a time when most women were unable to access university educations. This is not to say that Richards was the only WEA member with an advanced degree, but it is worth noting that the majority of the WEA's members had received secondary education only, typically through some combination of private schools and tutors.⁵⁷ These women's drive to enhance women's education was in part a response to the institutional obstacles they themselves had encountered.

⁵⁵ Charles Henry Pope assisted by Katharine Peabody Loring, *Loring Genealogy* (Cambridge, Mass.: Murray and Emery Company, 1917), 264; Woman's Education Association charter, 11 January 1877, box 1, folder 1, Woman's Education Association (Boston, Mass.) Records, Massachusetts Historical Society.

⁵⁶ "Lucretia Crocker | Boston Women's Heritage Trail," accessed June 2, 2016, <http://bwht.org/lucretia-crocker/>.

⁵⁷ Sally Gregory Kohlstedt, "Crocker, Lucretia," *American National Biography* (1999).

Throughout the period being examined, the WEA worked fastidiously to maintain a positive public image. The WEA's logic on the importance of this was circular: the Association recognized that a good reputation would enable the group to more easily offer quality programs, and that quality programs were necessary to maintaining its reputation. In 1899, Richards suggested that the WEA's history to date demonstrated that "an organization of *standing* in the community, composed of trained persons accustomed to working together, may be in a position to undertake new and difficult problems with a greater prospect of success than one formed of heterogeneous elements for a special purpose."⁵⁸ Because each committee needed Board approval before it could undertake new work, all activities of the Association were centrally overseen. As a result, Richards felt that there was "great confidence in whatever bears the name of this body [the WEA]."⁵⁹ This reputation was recognized well beyond the organization and its members; for example, an 1892 *Chicago Daily Tribune* article noted that the WEA had consistently been "composed of some of the cleverest and the most refined women in this part of the world."⁶⁰

Although the WEA focused more centrally upon recruiting women for their wealth and interpersonal connections than the NEWC, these two groups were broadly similar in terms of their overall wealth and social class. The generally comparable wealth of these groups' members is indicated by the fact that NEWC and WEA members lived in largely overlapping geographic regions. Figure 2.2 depicts the home locations of NEWC and WEA members as of 1893. In this

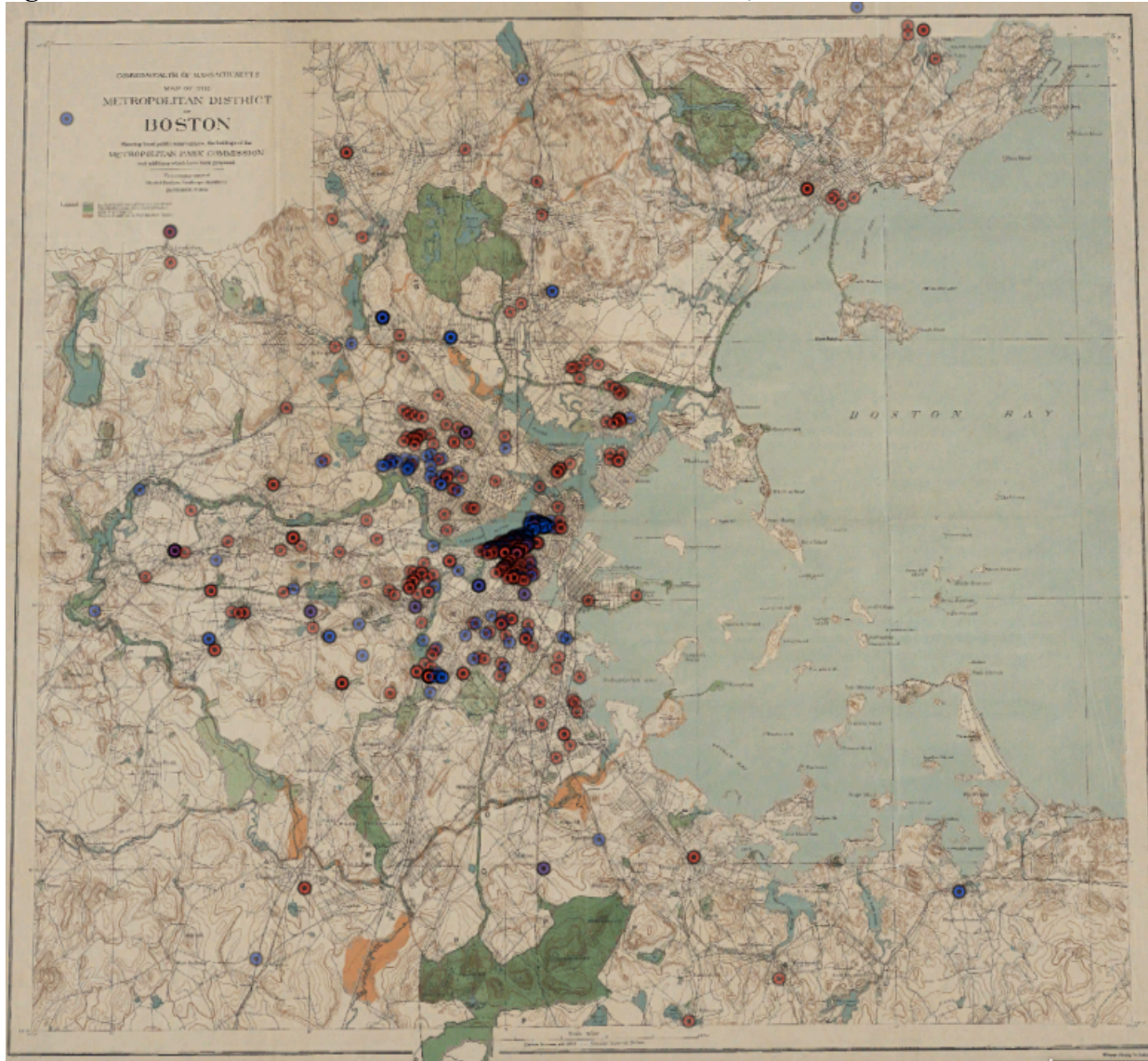
⁵⁸ Richards, "Waste of Energy in Organization," 930. Emphasis added.

⁵⁹ Richards, "Waste of Energy in Organization," 930.

⁶⁰ Arlo Bates, "CHARITY IN BOSTON: TIMES WHEN THE THRIFTY OPEN THEIR POCKETBOOKS," *Chicago Daily Tribune* (February 21, 1892): 25.

figure, each red dot indicates the home address of a NEWC member, and each blue dot indicates that of a WEA member.

Figure 2.2: Home Addresses of NEWC and WEA members, 1893



Each red dot represents a NEWC member's home address; each blue dot represents a WEA member's home address. As this figure indicates, the members of these two groups lived in overlapping geographic regions, suggesting that they were often of similar backgrounds and financial means.

This map suggests that these groups' members lived in the same physical spaces, spaces that were wealthy and geographically centered around Boston's Back Bay. The geographic overlap of these two organizations' memberships is significant. It highlights the fact that although each

organization developed its own distinctive vision and tactics for improving Bostonian women's opportunities, the two groups' members were generally part of the same broad social class.

Geographic clustering of members notwithstanding, this figure also suggests that the NEWC and WEA were each able to pull some members from more distant regions of Massachusetts. Indeed, as noted in the NEWC Secretary's 1887 Annual Report, many members "live outside of the city & find it difficult to come in" for anything other than the regular Monday meetings.⁶¹ Although these more geographically distant members may not have been able to attend each meeting of the NEWC or WEA, their membership is reflective of these groups' abilities to engage women in their missions. Further, it showcases the power of distinctly local organizations; both of these groups were confined to a relatively narrow geographic sphere and a limited network of women and yet, as this dissertation will show, they were able to harness their local resources to generate immense and wide-reaching opportunities for adult women's science learning.⁶²

Finances of the WEA

The WEA's finances were less tight than the NEWC's. Indeed, Ellen Swallow Richards noted that although the Association had "very little money" in its own name, it was able to

⁶¹ NEWC Records, Lucia M. Peabody, "N. E. W. Club: Sec's Report," May 28, 1887, page 9, M-145, microfilm reel 12, folder 52.

⁶² Mary P. Ryan has similarly described the power of local women's networks in the moral reform movements of antebellum Utica. Ryan, "The Power of Women's Networks," 66-85. In the history of science, Martin Rudwick has elaborated on the significance of geography to the advent of Charles Darwin's theory of natural selection (which he famously kept private for 20 years, limiting its geographic spread). Martin J. S. Rudwick, "Charles Darwin in London: The Integration of Public and Private Science," *Isis* 73, no. 2 (1982): 186-206.

sustain classes and activities via contributions made to its committees.⁶³ Annual membership fees were \$3 per person, the Association typically had north of 200 members annually, and the central body of the WEA had annual expenses ranging from \$300 to \$1,000. The Association's expenses and membership fees were lower than the NEWC's. This makes sense given that the Association did not pay to rent long term clubrooms, instead relying on members to open their homes for meetings and events. Further, the WEA's committees were able to solicit funds so long as they received a vote of approval from the WEA as a whole. In this manner, the WEA's committees regularly raised a few thousand dollars annually.⁶⁴ Examples of WEA committees garnering external funds abound. For example, in 1890 Harriet Lawrence Hemenway (a WEA member who would go on to establish the Massachusetts Audubon Society) agreed to cover the expenses associated with procuring ferns for a series of classes by Mary Gilbreth that the committee on science lessons had organized.⁶⁵ And in 1903 the WEA received \$1,000 from the estate of a Mrs. Elizabeth Lewis.⁶⁶ In addition to raising funds through solicitations, WEA committees often hosted lecture courses that drew crowds of 70 to over 100 women. A single ticket to a course of lectures hosted by the WEA typically cost around \$10; high attendance at lectures was a significant source of funds for the Association even after accounting for the associated costs. In short, the WEA stood on financially solid ground largely thanks to its low operating costs, profitable lecture courses, and ability to rapidly raise funds.

⁶³ Richards, "Waste of Energy in Organization," 929.

⁶⁴ Richards, "Waste of Energy in Organization," 929.

⁶⁵ MHS WEA Records, "W.E.A. Committee on Science Lessons | 1890," February 28, 1890, Box 6, Folder 16.

⁶⁶ MHS WEA Records, Executive Committee Records, 1900-1904, November 14, 1903, p. 169, Box 5, Folder 1.

“A Nursery of Institutions for the Benefit of Women”⁶⁷: Work Undertaken by the WEA

The WEA was broadly interested in the improvement of women’s education. As such, it used varied means of furthering women’s education. For its own members’ edification, the WEA hosted prominent Boston intellectuals for lectures and discussions, as shown in Appendix 2. Review of the WEA’s archival materials from 1871 to 1910 suggests that the WEA hosted over 40 scientific lectures during this period, including Harvard psychologist Hugo Münsterberg, Boston University biologist Alpheus Hyatt, and Harvard botanist George Lincoln Goodale. The WEA also fought to encourage Boston Public Schools to bolster their course offerings in what was then termed ‘domestic science,’ the scientific study of household arts like cooking and cleaning. In addition, the Association established a number of training schools, among them: a training school for nurses, carving schools, a school for art needlework, cooking schools, a training school for household workers to learn domestic science, and emergency lessons in First Aid.⁶⁸ The WEA also pushed for the establishment of industrial education at the Horace Mann School for the deaf.⁶⁹ Additionally, the WEA offered fellowships to female scholars eager to advance their formal training.

The WEA effected change mainly by creating, endorsing, and funding an array of plans to better women’s education. Some of these plans were generated internally, by WEA members, while others were brought to the WEA by outsiders seeking support. The WEA provided aid to

⁶⁷ MHS WEA Records, Executive Committee Records, 1900-1904, November 14, 1903, p. 169, Box 5, Folder 1.

⁶⁸ “Woman’s Work in Philanthropy: Woman’s Education Association, Boston,” 347-8.

⁶⁹ “Woman’s Work in Philanthropy: Woman’s Education Association, Boston,” 348.

existing organizations very rarely, preferring instead to help develop the institutions it supported.⁷⁰ The WEA's support took myriad forms, including financial aid, intellectual oversight, and consulting. Additionally, the WEA sometimes aided plans simply by publicly endorsing them – the Association enjoyed a stellar public reputation and purposefully lent its name to plans it deemed worthwhile. The WEA took pride in its ability to serve as an influencer of public opinion. As the Association's 1880 annual report put it: the WEA “stands ready to further with its influence and pecuniary aid any new project which may be approved by its members.”⁷¹ Reflecting on its approach to work in 1884, the WEA's annual report explained:

The Association is not a public society. Its meetings are held in private houses, and its discussions are not made public. It carries on no schools and no charities. Its method is to welcome any plan or any thought that can benefit women; to consider it, and, if it is practicable, to give it a fair trial; to assist it with money and influence until it no longer needs assistance, but stands on its own merits, an independent power for good. If, after a fair trial, an experiment does not succeed, it is given up, and a useful lesson is learned, of what assistance women do need, and what they do not need.⁷²

Through this approach, the WEA became “a nursery of institutions for the benefit of women.”⁷³ By describing itself as a ‘nursery,’ the Association emphasized the maternalism of its work. The Association did not present itself as an entrepreneur boldly developing new institutions, but rather as a maternal figure enabling its educational opportunities to mature until they are able to flourish on their own footing.

⁷⁰ MHS WEA Records, *Annual Report of the Woman's Education Association for the Year Ending January 29, 1891* (Boston: R. H. Blodgett, Printer, 1891), [5], Box 12, Folder 17.

⁷¹ MHS WEA Records, *Annual Report of the Woman's Education Association for the Year Ending January 10, 1889* (Boston: R. H. Blodgett, Printer, 1889), [5], Box 12, Folder 15.

⁷² MHS WEA Records, *Annual Report of the Woman's Education Association for the Year Ending January 11, 1884* (Boston: Cochrane & Sampson, Printers, 1884), 8, Box 12, Folder 10.

⁷³ MHS WEA Records, *Annual Report of the Woman's Education Association for the Year Ending January 11, 1884*, 8, Box 12, Folder 10.

The WEA developed, nurtured, and ultimately proudly divested numerous spaces for women’s scientific engagement. The Association’s display at the 1893 Columbian World’s Fair in Chicago (Figure 2.3) was composed of a poster of the group’s “objects, methods, and results,” that listed not only the diverse projects the WEA had founded but also the manner in which these projects had been spun off:

Figure 2.3: WEA’s Display at the 1893 Columbian World’s Fair

<i>Work of the Association.</i>	RESULTS.	
		<i>Independent Organizations.</i>
Harvard Examinations,	Adopted by	The Harvard Annex.
Chemical Work for Women,	Adopted by	The Institute of Technology.
Biological Laboratory,	Developed into	Marine Biological Laboratory,
<i>(In connection with Boston Society</i>		<i>At Woods Hall.</i>
<i>of Natural History.)</i>		
Lectures on Natural Science, Political Economy and Greek Art.		
Emergency Lectures,	Developed into	Mass. Emergency and Hygiene Asso’n.
Training of Nurses,	Developed into	Training School for Nurses.
Instructive District Nursing,	Developed into	Instructive District Nursing Associat’n.
Cooking Classes,	Developed into	Boston Cooking School.
Diet Kitchen,		Diet Kitchen.
Industrial Training for Deaf Mutes.		
Art Needle Work Class,	Incorporated by	School of Decorative Art.
College Fellowships.		

This display emphasizes the WEA’s role as a nursery for institutions; it highlights the fact that the Association developed and then spun off numerous organizations.

Source: MHS WEA Records; *Twenty-Second Annual Report of the Woman’s Education Association for the Year Ending January 18, 1894* (Boston: R. H. Blodgett, Printer, 1894), 6, Box 12, Folder 20.

Given the frequency with which the WEA founded and supported efforts to foster women’s science learning, it is worth examining how the WEA defined ‘science.’ In an 1897 article entitled “The Place of Science in Woman’s Education,” Ellen Swallow Richards noted that “[b]y *science* we mean all *knowledge*—of all things material.”⁷⁴ The WEA’s Committee on

⁷⁴ Ellen H. Richards, “The Place of Science in Woman’s Education,” *The American Kitchen Magazine: A Domestic Science Monthly*, vol. 7, no. 1 (Boston: The Home Science Publishing Company, 1897), 226.

Science Lessons also took a relatively broad view of the meaning of ‘science.’ Indeed, in February 1891 a committee member expressed interest in hosting General Francis Amasa Walker, the then-President of MIT, for a course of lectures on political economy.⁷⁵ This course came to fruition; in 1892 Walker provided a course of ten lessons on political economy, overseen by the WEA’s Committee on Science Lessons.⁷⁶

The nurse training school at Massachusetts General Hospital was the first standalone institution for women’s science learning developed by the WEA. During this period, women’s participation in nursing was justified on the grounds that female knowledge of physiology was important for the health of one’s homestead. The WEA was a generator of, and incubator for, the idea for the nursing school, rather than an ongoing supporter or overseer. The school was first discussed at a parlor meeting of the WEA in March 1872.⁷⁷ On November 1, 1873 the Massachusetts General Hospital nursing school opened “in a comfortable house near the Massachusetts General Hospital, in which the pupils are to receive their training.”⁷⁸ Six students were admitted to the first class. The experiment was “so successful” and the physicians and trustees at Massachusetts General were said to be “so well satisfied” that by 1874 “another ward

⁷⁵ MHS WEA Records, “W.E.A. Committee on Science Lessons | 1890,” February 6, 1891, Box 6, Folder 16.

⁷⁶ MHS WEA Records, “Woman’s Education Association | 1892,” pamphlet, 1892, Box 1, Folder 7.

⁷⁷ MHS WEA Records, *Second Annual Report of the Woman’s Education Association of Boston, 1873-74* (Boston: Alfred Mudge & Son, Printers, 1874), [3], Box 12, Folder 2.

⁷⁸ MHS WEA Records, *Second Annual Report of the Woman’s Education Association of Boston, 1873-74*, 7.

[was] already opened to the directors of the school.”⁷⁹ The WEA felt that the nursing school illustrated “the great help which may be given by the position and influence of this Association – even when no actual work or aid of money is required.”⁸⁰ In 1895 the training school was absorbed into Massachusetts General. By this point, it had graduated 398 nurses, 58 of whom took on supervisory roles in other hospitals, 186 of whom became private nurses, and the remainder of whom “either died or returned to other occupations.”⁸¹ According to Susan Reverby, the Massachusetts General nursing school was one of the six leading training schools for nurses in the United States between 1873 and 1945.⁸²

The WEA remained interested in training women as nurses in the decades that followed. At an October 1885 meeting of the Association, WEA member Abbie C. Howes “asked the attention of the ladies for the extreme need of more and better nursing among the sick poor.”⁸³ Howes’s interest in this issue had been sparked during her recent travels in England, during which she had witnessed the English system of in-home nursing of the poor. The Association took interest, and at the next meeting Howes “presented letters and papers relating to district-nursing among the poor, the need of it, and the plans for it that have been successfully carried out

⁷⁹ MHS WEA Records, *Second Annual Report of the Woman’s Education Association of Boston, 1873-74*, 7.

⁸⁰ MHS WEA Records, *Second Annual Report of the Woman’s Education Association of Boston, 1873-74*, 7.

⁸¹ Mrs. Curtis and Miss Denny, “Early History of the Boston Training-School,” *The American Journal of Nursing* 2, no. 5 (1902): 335.

⁸² Susan M. Reverby, *Ordered to Care: The Dilemma of American Nursing, 1850-1945* (Cambridge: Cambridge University Press, 1987), 124.

⁸³ MHS WEA Records, General Meeting Records, 1882-1887, October 8, 1885, n.p., Box 2, Folder 5.

in New York, Rochester, & Liverpool.”⁸⁴ According to the WEA’s meeting minutes, Howes’s presentation was “listened to with great interest” and the WEA began discussing “the possibility of bringing such work within the scope of this Association.”⁸⁵

The WEA’s Industrial Education Committee took charge of the project of in-home nursing. The Committee estimated that establishing an organization for in-home nursing care of the poor would cost at least \$1,000 a year.⁸⁶ In spite of this hefty estimate, the WEA voted to “approve this work.”⁸⁷ In December 1885, the Industrial Education Committee took up this project “under the name of ‘Instructive District Nursing.’”⁸⁸ The term ‘district’ was included for two reasons. First, district was a term for ‘community,’ and therefore suggested the at-home, instructive nature of the care to be provided. Second, it reflected the manner in which the project of Instructive District Nursing organized the care it provided. To ensure efficiency, Instructive District Nursing was structured to complement the Boston Dispensary’s existing system for in-home care. The Boston Dispensary was a philanthropic organization. Founded in 1796 and incorporated in 1801, it aimed to provide medical relief to the poor by supplying physicians to

⁸⁴ MHS WEA Records, General Meeting Records, 1882-1887, November 12, 1885, n.p., Box 2, Folder 5.

⁸⁵ MHS WEA Records, General Meeting Records, 1882-1887, November 12, 1885, n.p., Box 2, Folder 5.

⁸⁶ MHS WEA Records, General Meeting Records, 1882-1887, November 12, 1885, n.p., Box 2, Folder 5.

⁸⁷ MHS WEA Records, General Meeting Records, 1882-1887, November 12, 1885, n.p., Box 2, Folder 5.

⁸⁸ MHS WEA Records, General Meeting Records, 1882-1887, December 10, 1885, n.p., Box 2, Folder 5.

treat patients within their homes.⁸⁹ The Dispensary divided Boston into ten geographic districts, each of which was overseen by a physician.⁹⁰ To complement this system, each Instructive District nurse was assigned to a particular district (and therefore to a specific physician). In addition to providing hands-on nursing care and loaning medical supplies, Instructive District Nursing emphasized the importance of instructing familial caretakers about “cleanliness, food, medicine [and] cooking.”⁹¹ The WEA took pride in the fact that its nurses not only cared for the sick but “also instructed their families how to care for them.”⁹²

By April 1887 the WEA had employed four nurses and felt that “the call still comes for more.”⁹³ At this point, the WEA considered the project ready to become a standalone organization. To this end, the WEA’s Executive Committee voted “that the Committee on Instructive District Nursing be discharged if they desire it” while also making special note of “the pleasure which the Association had received from its work.”⁹⁴ By 1888, Instructive District Nursing had become a formally incorporated standalone organization with the mission of “caring

⁸⁹ *Institution of the Boston Dispensary, for the Medical Relief of the Poor* (Boston: Eastburn’s Press, 1851), [3].

⁹⁰ C. E. M. Somerville, “District Nursing,” in Isabel Hampton, ed., *Nursing of the Sick, 1893* (New York: McGraw-Hill Book Company, Inc., 1949), 120; Mary K. Sedgwick, “Instructive District Nursing,” *The Forum*, vol. 22 (New York: The Forum Publishing Co., 1896), 302.

⁹¹ MHS WEA Records, General Meeting Records, 1882-1887, March 11, 1886, n.p., Box 2, Folder 5.

⁹² MHS WEA Records, Executive Committee Records, 1886-1893, April 9, 1887, p. 49, Box 4, Folder 4.

⁹³ MHS WEA Records, General Meeting Records, 1882-1887, April 14, 1887, n.p., Box 2, Folder 5.

⁹⁴ MHS WEA Records, Executive Committee Records, 1886-1893, April 9, 1887, p. 49, Box 4, Folder 4.

for the sick poor at their homes and for instruction in home nursing.”⁹⁵ As an incorporated entity, Instructive District Nursing took on the name ‘Instructive District Nursing Association.’ Even after its incorporation, its President, Secretary, and Treasurer were all WEA members, as were five of its remaining twelve board members.⁹⁶ In this manner, the WEA remained connected to the Instructive District Nursing Association well after it became an independent legal entity.

The Instructive District Nursing Association remains active to the present day. By 1924, this association cared for a remarkable 68 patients per 1,000 Bostonians. As noted in Karen Buhler-Wilkerson’s history of public nursing, this meant that the association was in a position to extend its nursing services to the entire city.⁹⁷ A 1951 report on the association (which had, in 1942, changed its name to the Visiting Nurse Association, or VNA), explained that the organization had “grown from a staff of 2 nurses and expenses of \$1224. [sic] in 1886, to a staff in 1950 of over 125 making over 173,000 visits, with a budget of \$429,000.”⁹⁸ The Visiting Nurse Association of Boston, as it is now known, prides itself on being “the oldest organized Visiting Nurse Association in the country.”⁹⁹

⁹⁵ Schlesinger WEA Records, Eleanor W. Allen, “Review of the Instructive District Nursing Ass.: 1886 --- 1951.”

⁹⁶ These figures are based on a comparison between members listed in the WEA’s annual reports and the *Third Annual Report of the Instructive District Nursing Association* (1889).

⁹⁷ Karen Buhler-Wilkerson, *False Dawn: The Rise and Decline of Public Health Nursing, 1900-1930* (New York: Garland Publishing, Inc., 1989), 201.

⁹⁸ Schlesinger WEA Records, Eleanor W. Allen, “Review of the Instructive District Nursing Ass.: 1886 --- 1951.”

⁹⁹ “VNA of Boston | Home Care Boston | Boston Senior Home Care,” accessed August 16, 2017, <https://www.kintera.org/site/c.frLJKYPJLuF/b.3881795/k.BF12/Home.htm>.

The MIT women's laboratory was another important space for women's science learning that was enabled by the WEA. This lab defies a general trend in the nineteenth century sciences, according to which, as Elizabeth Hanson explains, "the gap between professional and amateur scientific activities widened"; the lab was a professionalizing space for women that was enabled by the philanthropic work of a woman's organization.¹⁰⁰ The lab was the passion project of Ellen Swallow Richards. In 1875 Richards lectured before the WEA on the state of women's chemistry instruction. Richards expressed her hope that the WEA might be able to aid her in the establishment of a space for women to pursue chemical investigations at MIT.¹⁰¹ Richards believed MIT would be willing to devote space to the cause but felt that funds for stocking and running the laboratory would need to be raised by an outside source. She therefore asked the WEA to "lend its interest and influence...toward the plan."¹⁰²

The WEA was quick to support Richards's proposal. In a pamphlet that likely dates to 1876, the WEA explained its rationale for establishing the MIT women's laboratory. The WEA viewed the lab as a bridge between women's science educations, which were generally of only an elementary level, and the employment opportunities available in chemistry. As the pamphlet put it: "In consequence of the increasing advantages offered to women for the elementary study of the Natural Sciences by the high schools, colleges, summer schools for teachers, and winter courses of lectures, a desire to study these sciences further has been developed in the minds of

¹⁰⁰ Elizabeth Hanson, *Animal Attractions: Nature on Display in American Zoos* (Princeton: Princeton University Press, 2002), 6.

¹⁰¹ MHS WEA Records, "Woman's Education Association," November 10, [1875], n.p., Box 2, Folder 2.

¹⁰² MHS WEA Records, "Woman's Education Association," November 10, [1875], n.p., Box 2, Folder 2.

those who have taken the first steps.”¹⁰³ In short, the WEA hoped the MIT women’s laboratory would meet “this great need of strictly higher education and professional study.”¹⁰⁴ Beyond suggesting that the lab would enable women to obtain a professionalizing higher education in the chemical sciences, the WEA also argued that women were fit to receive this sort of schooling. As the pamphlet explained, “[m]any branches of Chemistry, Mineralogy, and Zöology have special attractions for women,” as women’s “tastes incline them” to this work.¹⁰⁵

The MIT women’s laboratory required massive fundraising support from the WEA. Initially, the WEA believed that \$25,000 would be needed for the lab, as a result of the need to acquire a space. However, MIT President John Daniel Runkle soon proposed “to fit up the south end of the Gymnasium building for woman’s work”, enabling the costs to be greatly reduced. With MIT providing the physical site for the lab, the WEA only needed to raise funds to equip the space to function as a laboratory. It was estimated that it would cost \$1,000 for the space to be “portioned off and fitted with tables and desks” and “\$1,000 more” for “[t]he necessary instruments (microscopes, spectroscopes, etc.) and apparatus.”¹⁰⁶ Within a month “the sum required ... ha[d] been in great measure raised.”¹⁰⁷ The WEA’s fundraising success was noted in

¹⁰³ MHS WEA Records, “Woman’s Education Association,” pamphlet about the MIT women’s laboratory [1876], n.p., Box 2, Folder 3.

¹⁰⁴ MHS WEA Records, “Woman’s Education Association,” pamphlet about the MIT women’s laboratory [1876], n.p., Box 2, Folder 3.

¹⁰⁵ MHS WEA Records, “Woman’s Education Association,” pamphlet about the MIT women’s laboratory [1876], n.p., Box 2, Folder 3.

¹⁰⁶ MHS WEA Records, “Woman’s Education Association,” pamphlet about the MIT women’s laboratory [1876], n.p., Box 2, Folder 3.

¹⁰⁷ MHS WEA Records, “Woman’s Education Association,” May 11, [1876], n.p., Box 2, Folder 2.

the MIT President's 1876 *Annual Report*, which explained that the "Woman's Educational Association of Boston...[had] appl[ied] to this Institute to furnish advanced chemical instruction to women," and their proposition had been accepted on the condition of obtaining sufficient funds.¹⁰⁸ As the report stated: "The Association promptly performed its part by raising for this purpose about \$2000"; this amount was roughly equivalent to 20 years of college tuition at an elite university during this time period.¹⁰⁹

MIT's 1876-7 course catalogue announced the women's lab's November 1876 opening as follows:

At the request of the Woman's Education Association of Boston, and with their generous cooperation, new laboratories have been recently provided for the special instruction of women. The design is to afford every facility for the study of Chemical Analysis, of Industrial Chemistry, of Mineralogy, and of Chemistry as related to Vegetable and Animal Physiology. These courses are intended for such as may be able to devote their whole time to the work, as well as for those who, by reason of other engagements, can spend only a few hours a week in these exercises.

The laboratories, which are in the Annex to the main building, are open from 8:30 A.M., till 5:30 P.M.

Students in these laboratories will pay the same fees as other students of the Institute.¹¹⁰

Strikingly, this announcement characterized the women who would use the MIT women's lab as "students" and noted that they would "pay the same fees as other students of the Institute," thus indicating MIT's sense that these women were indeed MIT students. However, the women who

¹⁰⁸ John Daniel Runkle, *Massachusetts Institute of Technology President's Report for the Year Ending September 30, 1876* (Boston: Press of A. A. Kingman, 1877), xi.

¹⁰⁹ Runkle, *Massachusetts Institute of Technology President's Report for the Year Ending September 30, 1876*, xiii.

¹¹⁰ "Ellen Swallow Richards: Women's Laboratory: Institute Archives & Special Collections: MIT," August 1999, accessed March 6, 2017, <https://libraries.mit.edu/archives/exhibits/esr/esr-womenslab.html>.

worked at the lab did not go through the MIT admissions process, nor did they receive a diploma at the end of their studies.¹¹¹ At the women's lab, the traditionally academic, all-male culture of MIT melded with the feminized, non-degree oriented, educational work of the WEA.

In the lab's first six months, 23 women had made use of it and Richards anticipated that 15 women would enroll the following year.¹¹² Richards found that the lab had been of use first and foremost to teachers. In its first year it had enrolled teachers from Smith, Wellesley, Bradford Academy, the "Girls High School," and Framingham Normal. In addition, the lab had hosted seven women who were "looking forward to becoming teachers of science."¹¹³ The lab also housed two women who were "engaged in original research" and one woman who hoped to become a physician. Three lab students were studying primarily for self-enrichment. Among the students were four married women, three of whom had children under age 18. Richards was particularly proud of the involvement of these married women, noting that: "The aid that the Laboratory has been able to give them has been to me its pleased feature, the proof of its truly broad and liberal character."¹¹⁴ As this indicates, through the women's lab the WEA sought to

¹¹¹ In some senses, the MIT women's lab acted as what Robert Kohler would describe as a 'border-zone' between the scientific cultures and norms of MIT and those of the WEA. Kohler presents boundaries as culturally constructed, broad zones that serve to distinguish between different political, ecological, and economic groups. Kohler, *Landscapes & Labscapes*, 15-17.

¹¹² The lab enrolled 21 "mostly skilled" pupils in the lab for the summer of 1881; "Ellen Swallow Richards: Women's Laboratory: Institute Archives & Special Collections: MIT," August 1999, accessed March 6, 2017.

¹¹³ "Ellen Swallow Richards: Women's Laboratory: Institute Archives & Special Collections: MIT," August 1999, accessed March 6, 2017.

¹¹⁴ "Ellen Swallow Richards: Women's Laboratory: Institute Archives & Special Collections: MIT," August 1999, accessed March 6, 2017.

educate not only professional scientists but also engaged amateurs. At this lab, the WEA hoped to engender a hospitable atmosphere in which even married women could healthfully participate.

By 1882 Richards felt that the MIT women's lab had proven that women were both physically and mentally capable of scientific work. As she noted in a report before the WEA, "all the young women who have taken the regular courses have more than held their own."¹¹⁵ Four of the lab's students had "been steadily at work for at least three years" with minimal vacation time.¹¹⁶ Richards specifically detailed that three of these four students had not lost even "one day in the whole time on account illness" while "the other one lost one day only on account of a cold and ear ache."¹¹⁷ A mid-1880s report on women's work at MIT noted that the lab's students had "proved that the most severe training does not make women repulsive and does not unfit them for housewifely duties."¹¹⁸ This preoccupation with the physical fitness of women for serious scientific work is a reflection of the contemporaneous anxiety (as espoused by people like Dr. Edward Clarke) that women's participation in strenuous mental activity would render them unwell, infertile, or unattractive.¹¹⁹ In keeping with the WEA's emphasis on social propriety, the

¹¹⁵ Collection on the Massachusetts Institute of Technology Women's Laboratory, 1867-1922. Massachusetts Institute of Technology, Institute Archives and Special Collections, Cambridge, Massachusetts, AC.0298 [hereafter: MIT Women's Lab Records], Box 1, Folder 11, Ellen Swallow Richards, "Report for the April [1882] meeting of the Woman's Education Association," p. [7].

¹¹⁶ MIT Women's Lab Records, Box 1, Folder 11, Ellen Swallow Richards, "Report for the April [1882] meeting of the Woman's Education Association," p. [7].

¹¹⁷ MIT Women's Lab Records, Box 1, Folder 11, Ellen Swallow Richards, "Report for the April [1882] meeting of the Woman's Education Association," p. [8].

¹¹⁸ MIT Women's Lab Records, Box 1, Folder 13, "Report of Women's Laboratory graduates, ca. 1883."

¹¹⁹ For the prototypical text espousing this view see Edward Clarke's 1873 *Sex in Education*.

MIT women's lab was eager to demonstrate that women could maintain their femininity while also engaging in academic work. As this indicates, even as it forwarded seemingly radical educational agendas (ergo, the development of a chemistry lab for women), the WEA was eager to reconcile its work with contemporaneous gender norms.

The lab was considered a great success; it was open for seven years during which over 500 women studied there. Even after the lab closed, MIT continued to utilize the aid of the WEA. For example, even after the Institute agreed to admit women, its female students remained in need of “a study, a library, and a rest room.”¹²⁰ These spaces were provided for through fundraising by Georgiana Smith, Ellen Frothingham, and Eliza Homans (who, combined, were WEA Presidents from 1876-1885) alongside NEWC member Abby W. May. This fundraising raised “about \$40,000” which was placed “in the hands of the Institute for the use of women exclusively.”¹²¹ As this indicates, even after the lab shuttered its doors, the WEA continued to play a critical role in enabling women's scientific studies at MIT.

The Boston Cooking School was another immensely successful training school for women in science. The WEA's Industrial Committee established this school in 1879 and oversaw it through its incorporation in 1882. During this period, approximately a thousand women received instruction at the school. Though cooking does not fall within all modern visions of ‘science,’ the WEA clearly saw it as such. Before founding the school, the WEA's Industrial Committee had considered the possibility of establishing “a Technological Institute for Girls, in which all the branches of woman's Industrial Art might be thoroughly taught”,

¹²⁰ MIT Women's Lab Records, Box 1, Folder 21, “Unidentified writing Re: Women's Laboratory,” p. i.

¹²¹ MIT Women's Lab Records, Box 1, Folder 21, “Unidentified writing Re: Women's Laboratory,” p. i.

including photography, telegraphy, cooking, and sewing.¹²² However, “[a]fter some consideration of cost, locality, etc.” the committee refined the scope of activity.¹²³ The committee felt it best “to begin in a modest way in some one department and gradually work upward and outward procuring money as the need of it should be made manifest by the work.”¹²⁴ The committee settled on cooking as the focus of this initial effort. This decision was made on the basis that sewing was likely to be taught in public schools; therefore, the WEA felt that cooking “was the art in which instruction was most needed” and also a skill that “would be sure of immediate remuneration.”¹²⁵ As this indicates, the WEA considered cooking an important technological skill.

The WEA’s decision to develop a cooking school proved prudent. When it opened, the Boston Cooking School had 40 students, which was “as many as could be received at present.”¹²⁶ Within two months, the school had enrolled 110 students.¹²⁷ In the 1881-2 school year, 200 normal and 50 special students attended classes, 226 students attended demonstration lessons,

¹²² Women's Education Association Records. Simmons College Archives, Boston, MA, USA, MS 28 [hereafter: Simmons WEA Records], Boston Cooking School Committee Minutes of Meetings, February 15, 1872, p. 3.

¹²³ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 15, 1872, p. 3.

¹²⁴ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 15, 1872, p. 3.

¹²⁵ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 15, 1872, p. 3.

¹²⁶ MHS WEA Records, General Meeting Records, 1878-1882, March 14, 1879, n.p., Box 2, Folder 4.

¹²⁷ MHS WEA Records, General Meeting Records, 1878-1882, May 8, 1879, n.p., Box 2, Folder 4.

and a total of 362 lessons were given.¹²⁸ The school's offerings ranged from individual lessons on preparing a particular dish to normal school courses through which students could become certified cooking instructors.¹²⁹

The Boston Cooking School had multiple locations. Its main location was on Tremont Street and had space for students taking paying courses, including the Normal School courses. The other locations were in the South End and North End, neighborhoods in which Irish, Jewish, and Italian immigrants were prevalent and living conditions were poor; these were "Free Schools" which were supported wholly by voluntary contributions.¹³⁰ In April 1881 the school's main branch had between 200 and 300 students, the South End branch had between 60 and 70 students, and the charitable North End branch had an unspecified total of additional students.¹³¹ The free classes drew enormous attendance – in the winter of 1881-2 roughly 650 students (all female) attended.¹³²

In addition to its more informal offerings, the Boston Cooking School offered degree-granting normal school courses; the Normal School of the Boston Cooking School had nine

¹²⁸ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, May 9, 1882, n.p.

¹²⁹ Simmons WEA Records, "The Boston Cooking School," pamphlet inserted in Boston Cooking School Committee Minutes of Meetings, after entry for November 8, 1880, n.p.

¹³⁰ MHS WEA Records, "The Boston Cooking School," October 31, 1881, n.p., Box 2, Folder 4.

¹³¹ MHS WEA Records, General Meeting Records, 1878-1882, April 14, 1881, n.p., Box 2, Folder 4.

¹³² MHS WEA Records, General Meeting Records, 1878-1882, April 13, 1882, n.p., Box 2, Folder 4.

students enrolled in December 1880.¹³³ Its courses cost “\$20.00 for twenty-four lessons” and were designed to instruct students “in the science and art of culinary lore” through “both theoretical knowledge and practical training.”¹³⁴ By 1896 roughly 20 women were enrolled. Upon graduating, these students were “awarded certificates of graduation and qualification as teachers of cookery.”¹³⁵ The Normal School was such a success that its attendance quickly outstripped the physical capacity of the instruction rooms. As noted in an October 1881 pamphlet, “[l]ast winter it was necessary to turn away a large number of applicants, for want of sufficient accommodation.”¹³⁶

Beyond providing Normal School classes and demonstration lectures, the Boston Cooking School provided instruction to nurses. These courses aimed to teach nurses to prepare nutritious meals that would aid their ailing patients. In March 1880 the course for nurses attracted “four nurses from the Mass. Genl. Hospital.”¹³⁷ By April 1880 some nurses from the New England Hospital for Women and Children had also joined the lessons.¹³⁸ The nursing

¹³³ MHS WEA Records, General Meeting Records, 1878-1882, December 9, 1880, n.p., Box 2, Folder 4.

¹³⁴ Simmons WEA Records, “The Boston Cooking School,” pamphlet inserted in Boston Cooking School Committee Minutes of Meetings, after entry for November 8, 1880, n.p.; Janet McKenzie Hill, “The Boston Cooking School: Its Present Work and Future Aims,” *Boston Cooking School Magazine*, Vol. 1, no. 1 (June, 1896), 3.

¹³⁵ Hill, “The Boston Cooking School: Its Present Work and Future Aims,” 3.

¹³⁶ MHS WEA Records, “The Boston Cooking School,” October 31, 1881, n.p., Box 2, Folder 4.

¹³⁷ MHS WEA Records, Executive Committee Records, 1878-1882, March 6, 1880, n.p., Box 4, Folder 2.

¹³⁸ MHS WEA Records, Executive Committee Records, 1878-1882, April 3, 1880, n.p., Box 4, Folder 2.

classes continued to grow; by May 1881, 24 students had enrolled.¹³⁹ The nurses' classes were such a success that the WEA decided to expand its targeted offerings. In April 1880 a separate course was established for six deaf-mute students.¹⁴⁰ Similarly, in March 1882 the school received a letter from Dr. Minot, “inquiring if a class of students from the Harvard Medical School could be taught sick-room cookery, at the rate of \$10.00 per lesson.”¹⁴¹ The Boston Cooking School agreed to these terms; in April 1882 a course of 12 medical students was formed.¹⁴²

In short, the Boston Cooking School provided women with the opportunity to teach cooking, to gain teaching credentials, and to learn the art and science of cooking for use in hospitals and homes alike. Its instructors included cookbook authors Maria Parloa, Mary Lincoln, and Joanna Sweeney. Because the school was – through its Normal School – a degree-granting body, the women who taught there deserve to be recognized as teachers at an academic institution.

In coordination¹⁴³ with the Boston Society of Natural History, the WEA opened the Annisquam Seaside Laboratory in the summer of 1881. The laboratory aimed “to afford

¹³⁹ MHS WEA Records, Executive Committee Records, 1878-1882, May 7, 1881, n.p., Box 4, Folder 2.

¹⁴⁰ MHS WEA Records, Executive Committee Records, 1878-1882, April 3, 1880, n.p., Box 4, Folder 2.

¹⁴¹ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, March 14, 1882, n.p.

¹⁴² Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, March 14, 1882, n.p.; MHS WEA Records, Executive Committee Records, 1878-1882, April 8, 1882, n.p., Box 4, Folder 2.

¹⁴³ The details of this collaboration will be discussed further in chapter 5.

opportunities for the study and observation of the development, anatomy, and habits of common types of marine animals.”¹⁴⁴ It was a summer operation, opening in late June and running until early September.¹⁴⁵ The lab’s intended audience included “teachers and others *who have already made a beginning in the study of Natural History*”; the lab was open to men and women alike.¹⁴⁶ The lab was not designed to provide any precise course of study and was limited in the number of students it could accommodate. As noted in an 1885 *Science* article about the lab: “There are comfortable accommodations for about eighteen persons when all the seats are filled, and this is considered the extreme limit in numbers at any one time.”¹⁴⁷ Nonetheless, during its first summer, the lab welcomed 22 students, 13 of whom were teachers in Boston’s public schools.¹⁴⁸ As teaching was a widely accepted career for women, the WEA’s advancement of women’s preparation for work in this field did not transgress contemporaneous gender norms.

Although its enrollment numbers were relatively modest, the Annisquam Seaside Laboratory was considered a great success. In 1886 the WEA began discussing the possibility of placing it on permanent footing. The WEA began fundraising to support this effort, and by

¹⁴⁴ “Science and Discovery,” *Western Christian Advocate*, vol. 48, no. 23 (June 8, 1881): 179.

¹⁴⁵ “Notes on Education,” *New - York Tribune* (April 17, 1884): 6.

¹⁴⁶ MHS WEA Records, Alpheus Hyatt, “New Sea-Side Laboratory,” n.p., Box 2, Folder 4; emphasis in original.

¹⁴⁷ “The Annisquam Seaside Laboratory,” *Science* 5, no. 110 (1885): 213.

¹⁴⁸ In its second summer, the lab welcomed 14 students (8 women, 6 men). By its fourth summer, the lab had 15 students (10 women, 5 men) enrolled for an average attendance of 33 days each, 11 of whom were teachers of zoology. In 1886 the lab welcomed 26 students (13 women, 13 men). MHS WEA Records, General Meeting Records, 1878-1882, October 12, 1882 and October 13, 1881, n.p., Box 2, Folder 4; MHS WEA Records, Executive Committee Records, 1878-1882, October 8, 1881, n.p., Box 4, Folder 2; MHS WEA Records, General Meeting Records, 1882-1887, October 9, 1884 and December 9, 1886, n.p., Box 2, Folder 5.

November 1887 had raised “[b]etween four and five thousand dollars” for this purpose.¹⁴⁹ In 1890, the lab was transferred 120 miles south to the Marine Biological Laboratory at Wood’s Hole. The Marine Biological Laboratory remains a preeminent center for training and research in biology.¹⁵⁰

In addition to serving as a nursery for standalone institutions of women’s science learning, the WEA developed numerous science courses for women. These courses boasted eminent instructors like Harvard professors William James (psychology) and George Lincoln Goodale (biology) and were advertised in newspapers including the *Post*, *Transcript*, and *Advertiser*.¹⁵¹ Goodale’s classes are exemplary of this model. Goodale provided the WEA’s first science course, on botany, in 1879. This course consisted of eight classes on common plants; each followed by an hour or two of laboratory practice.¹⁵² The course was “elementary” and targeted towards mothers and others who had an interest in educating children about botany.¹⁵³ This emphasis on the course’s utility to its attendees’ children is clear instantiation of the WEA’s eagerness to maintain a ‘womanly’ atmosphere. The WEA placed immense weight on the utility women’s science education offered to their children. In so doing, the WEA upheld the ideology

¹⁴⁹ MHS WEA Records, Executive Committee Records, 1886-1893, November 5, 1887, p. 53, Box 4, Folder 4.

¹⁵⁰ Richards, “Waste of Energy in Organization,” 929.

¹⁵¹ MHS WEA Records, “W.E.A. Committee on Science Lessons | 1890,” February 14, 1890, Box 6, Folder 16.

¹⁵² MHS WEA Records, “Woman’s Education Association,” pamphlet, [1879], Box 1, Folder 7.

¹⁵³ MHS WEA Records, “Woman’s Education Association,” pamphlet, [1879], Box 1, Folder 7.

of Republican Motherhood, presenting women's education as necessary not for their own good, but rather for the benefit of the sons they would rear to be virtuous citizens of the republic.¹⁵⁴

Conclusion

The women of the NEWC and WEA sought public influence at a time when women's employment and educational options were limited; by organizing, these women were able to bypass many sex-based obstacles and create female-centric networks of sociality, study, and scientific learning. This chapter has argued that the WEA relied on appeals to contemporaneous gender norms to a much greater extent than the NEWC. Whereas the NEWC appropriated the masculine 'club' structure and adapted it to suit its needs, the WEA was eager to avoid transgressing gender norms. As such, the Association avoided labelling itself a 'club' and presented its work as maternal and domestic. The WEA sought to further women's education without publicly challenging contemporaneous notions of womanly behavior. To this end, the Association leveraged the rhetoric of Republican Motherhood and separate spheres ideology to justify female engagement in the public realm. As Richards explained in an 1899 retrospective, "the whole atmosphere was kept as womanly as possible."¹⁵⁵ Indeed, the Association worked to maintain a domestic atmosphere – rather than renting clubrooms it held its meetings in members' private parlors, away from the public eye. Operating from positions of privilege as wealthy, educated, non-immigrant white women, the women of the WEA leveraged the proscriptions attached to their role as society women to develop a powerful association devoted to the cause of women's education.

¹⁵⁴ Kerber, *Women of the Republic*, 12.

¹⁵⁵ Richards, "Waste of Energy in Organization," 930.

Additionally, this chapter suggests that the WEA was able to attain influence thanks in large part to the social status and connections of its members. The WEA's membership was carefully selected to maximize the utility of its connections. Whereas the NEWC focused on admitting reform-minded, intellectual women, the WEA was eager to admit women of high social standing. This chapter concludes by introducing the myriad spaces of science learning fostered by the WEA, ranging from a women's chemistry lab to a cooking school. It suggests that just as the WEA relied upon maternal, domestic rhetoric in justifying its own establishment, so too it used the rhetoric of Republican Motherhood to describe the women's scientific spaces it fostered.

Chapter 3

Suffrage and Science at the NEWC and WEA

In 1875 Zina Fay Peirce, a founding member of the WEA, left the group because of its decision to avoid admitting suffrage women. Peirce poignantly detailed her experience in *The Woman's Journal*:

No one can be more opposed to the extension of manhood suffrage to women than I am ... But surely I never should have thought of such a thing as organizing a woman's education association in the city of Boston, wherein Mrs. JULIA WARD HOWE, Mrs. CAROLINE DALL, Mrs. EDNA CHENEY, Mrs. ELIZABETH PEABODY, Mrs. HORACE MANN, Miss ABBY MAY, and various others, were not to find a place because they were 'Suffrage women'.¹

Howe, Cheney, Peabody, Mann, and May were all founding officers of the NEWC and, as Peirce indicates, ardent suffragists.² Peirce's exposé in *The Woman's Journal* highlights a marked divergence between the NEWC and the WEA: their views on women's suffrage. Indeed, while the WEA would not even consider admitting these pro-suffrage women as members, the NEWC put them in leadership positions.

This divergence between the NEWC and WEA's views on suffrage is worth analyzing in light of their attitudes towards women's science education. How did these groups reconcile their widely diverging political orientations with their support of women's science learning? And how did their political orientations impact the kinds of science they supported and the arguments they made to justify them? In answer to these questions, the next two chapters will argue that the NEWC and WEA's political orientations impacted both the kinds of science work they pursued

¹ Zina Fay Pierce, "Harvard Examination for Women Exposed," *The Woman's Journal*, Vol. 6, no. 16 (April 17, 1875): p. 124.

² NEWC Records, "Rec Sec 1904 to 1907," February 20, 1905, page 38, M-145, microfilm reel 9, folder 44v.

and the ways in which they justified women's science learning. This chapter assesses these groups' political viewpoints, while chapter 4 examines how their diverging political orientations impacted their science offerings.

Given the coexistence of debates about women in science and women's suffrage it is difficult to disentangle cause and effect – did pro-suffrage women advocate for a broad vision of women in science on account of their pro-suffrage views, or did their faith in women's ability to participate in science and other intellectual pursuits cause them to endorse suffrage? The question of directionality is beyond the scope of this chapter; rather, this chapter suggests that debates over suffrage and science were interrelated, that is, that contentions about how women should participate in science were co-constructed with debates about women's suffrage.

The link between science and suffrage extends well beyond the NEWC and WEA. In Progressive Era Boston, questions of who could participate in the body politic were intimately related to questions of who could, and should, produce science. The categories of 'citizen' and 'scientist' were both contested at this time, and arguments for women's participation in one category frequently overlapped with arguments for their participation in the other. For example, in mid-to-late nineteenth century America, suffrage advocates regularly referenced women's scientific achievements as evidence of women's ability to partake in the public realm. By showing that women had contributed to science, suffragists argued that women's work should not be confined to the domestic realm. In short, they suggested that women's ability to undertake scientific work was indicative of their ability to responsibly manage the vote. For example, the canonical *History of Woman Suffrage* (1881) includes numerous references to the scientific works of astronomer and NEWC member Maria Mitchell. Mitchell was held up as an example of

women's ability to achieve success within scientific professions.³ Her work in astronomy was characterized as having illuminated a "new truth...that the State is but the larger family, the nation the old homestead, and that in this national home there is a room and a corner and a duty for 'mother.'"⁴ Using the language of domesticity, this quote suggests that the nation is but an extension of the home, and that just as women are capable of working within the home, so too they are capable of contributing professionally to their larger 'home,' the nation state. Later in *History of Woman Suffrage*, Mitchell was credited with having achieved scientific renown without having lost her knack for domestic work: "History shows what [woman] has done, in a Vespasia, Vittoria Colonna, De Staël, Bremer, Evans, Somerville and Maria Mitchell. [Woman] does not go out of her sphere when she is so highly educated. She can darn her stockings just as well if she does know the word in half-a-dozen languages."⁵ As this indicates, suffrage advocates used female scientists as examples of women's ability to handle intellectual tasks without sacrificing the quality of their home lives.

The intersection of debates about women's participation in science and debates about women's suffrage was particularly fraught during the period under investigation; women's ability to vote *and* women's ability to produce science were both hotly contested. Indeed, after her admission to MIT as a special student in 1871, Ellen Swallow Richards hypothesized that her

³ Elizabeth Cady Stanton, Susan Brownell Anthony, and Matilda Joslyn Gage, eds., *History of Woman Suffrage*, vol. 1 (New York: Fowler & Wells, Publishers, 1881), 22, 42.

⁴ Elizabeth Cady Stanton, Susan B. Anthony, and Matilda Joslyn Gage, eds., *History of Woman Suffrage*, vol. 3 (Rochester, NY: Susan B. Anthony, 1881), 78-9.

⁵ Mr. Godwin, quoted in Stanton, Anthony, and Gage, eds., *History of Woman Suffrage*, vol. 3, 433-4.

political outlook might have aided her acceptance. In 1871 Richards reflected on her admission to MIT:

Perhaps the fact that I am not a Radical or a believer in the all powerful ballot for women to right her wrongs and that I do not scorn womanly duties, but claim it as a privilege to clean up and sort of supervise the room and sew things, etc., is winning me stronger allies than anything else.⁶

This chapter explores Richards's contention by examining the manner in which the NEWC and WEA's political viewpoints shaped the character of their work. Given the coexistence of debates about women in science and women's suffrage, it is unsurprising that arguments about who should vote were palpable in arguments about who was capable of producing science. Indeed, to this day, scholars in feminist science studies continue to push for a widening of the category of 'scientist,' such that it can more readily include participants of all classes, races, and genders. Additionally, they push for scientists to evaluate all scientific contributions and criticisms equally, regardless of the race, gender, or socioeconomic status of their proponents.⁷

This chapter contributes to the literature on turn-of-the-twentieth-century American women's suffrage, women's clubs, and women's scientific engagements. It most closely builds upon the scholarship of Kimberly Hamlin and Penelope Deutscher, who have shown the myriad ways in which Gilded Age American women appropriated scientific language, particularly Darwinian evolutionary theory, to argue for expanded visions of women's rights.⁸ Both Hamlin

⁶ Richards, quoted in Hunt, *The Life of Ellen H. Richards*, 91.

⁷ Helen Longino, "Essential Tensions -- Phase Two," in *A Mind of One's Own: Feminist Essays on Reason and Objectivity*, eds. Louise Antony and Charlotte Witt (Boulder: Westview Press, 1992), 267; Maralee Mayberry, Banu Subramaniam, and Lisa Weasel, eds., *Feminist Science Studies: A New Generation* (New York: Routledge, 2001).

⁸ Hamlin, *From Eve to Evolution*; Kimberly Ann Hamlin, "Beyond Adam's Rib: How Darwinian Evolutionary Theory Redefined Gender and Influenced American Feminist Thought, 1870-1920," PhD diss., The University of Texas at Austin, August 2007. My senior thesis explored the ways in which Eliza Burt Gamble, Charlotte Perkins Gilman, and Antoinette Brown Blackwell

and Deutscher highlight the work of American author and teacher Eliza Burt Gamble as well as that of American scholar and minister Antoinette Brown Blackwell. As Deutscher puts it, “Gamble and Blackwell revisit[ed] Darwin's data with the aim of locating, amidst his ostensive conclusions to the contrary, his implicit ‘defense’ of either the equality (Blackwell) or the superiority (Gamble) of women.”⁹ Similarly, Evelleen Richards has explored the impacts of not only gender norms, but also contemporaneous understandings of race and class on Darwin’s development of the theory of sexual selection.¹⁰ Training her attention across the pond, Patricia Fara has shown that British suffragists working in the era of World War I reinterpreted Darwinian theories in a manner that demonstrated women’s ability to manage the vote.¹¹ Examinations of women’s uptake of science to make arguments for women’s rights extend well beyond Darwinian proto-feminist arguments. For example, Susan Marshall has demonstrated that anti-suffragists defended their viewpoints using scientific arguments about women’s innate abilities.¹²

appropriated evolutionary theory to make proto-feminist arguments. Katherine Ana Ericksen, *Eliza Burt Gamble and the Proto-Feminist Engagements with Evolutionary Theory*, senior thesis, Harvard College, 2011.

⁹ Penelope Deutscher, “The Descent of Man and the Evolution of Woman,” *Hypatia* 19, No. 2, Women in the American Philosophical Tradition 1800-1930 (Spring 2004): 35.

¹⁰ Evelleen Richards, “Darwin and the Descent of Woman,” in *The Wider Domain of Evolutionary Thought*, ed. David Oldroyd and Ian Langham (Dordrecht: Springer Netherlands, 1983), 57–111; Evelleen Richards, *Darwin and the Making of Sexual Selection* (Chicago: University of Chicago Press, 2017).

¹¹ Patricia Fara, “Women, Science and Suffrage in World War I,” *Notes and Records* 69, no. 1 (20 March 2015): 11–24.

¹² Marshall, *Splintered Sisterhood*, 87–90, 120, 124–6.

In spite of the burgeoning literature on the manner in which reform-minded people appropriated scientific data and language to make arguments about women's rights, little has been said about the flip side of this equation, that is, how arguments for women's scientific participation were inflected by political arguments about women's station. Even less has been said about the impact of the suffrage and anti-suffrage movements on the development of spaces for women's scientific engagement. This chapter suggests that arguments for women's increased science education were embedded in larger debates about women's public role. As women fought to gain the vote, they also fought to gain access to science. The next two chapters suggest that the strategies used to argue for women's scientific participation were reflective of larger political debates about women's place in the body politic. In studying the myriad ways in which the WEA achieved public influence *without* suffrage, this chapter also adds richness to our understanding of the ways in which anti-suffragists achieved public influence. It will argue that while the NEWC sought to effect public change through direct political action, the WEA leveraged private channels (enabled by the wealth and social connections of its members) to effect public change. Lastly, this chapter pulls apart the categories of 'elite Bostonian women' and 'women in science' by illustrating the divergence of opinions on suffrage that existed even within groups as demographically similar as the NEWC and WEA.

The NEWC and WEA: Competing Views on Suffrage

In order to historically locate the NEWC and WEA's attitudes towards women's suffrage, it is important to first briefly review the history of the suffrage movement. Although many individual women's movements, associations, and groups aided the pursuit of women's rights, it was not until the July 1848 Seneca Falls "Woman's Rights Convention" in New York that the

disparate American women's rights activists gained clear aims and leadership.¹³ In preparation for the convention, organizer Elizabeth Cady Stanton created a Declaration of Sentiments, the structure of which was based on the Declaration of Independence.¹⁴ This Declaration included barely modified excerpts of the Declaration of Independence itself, such as: "We hold these truths to be self-evident: that all men and women are created equal; that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty, and the pursuit of happiness."¹⁵ The Declaration of Sentiments plainly noted the Convention's intent for women to "demand the equal station to which they are entitled," explaining that throughout history there had been "repeated injuries and usurpations on the part of man toward woman, having in direct object the establishment of an absolute tyranny over her."¹⁶ One such 'injury and usurpation' was women's inability to vote, and this issue became a focal point for women's rights activists for more than seven decades.

The Seneca Falls convention established the groundwork for the suffrage movement, and the movement gained increasing attention in the decade that followed. However, with the outbreak of the Civil War, activists' attention was redirected towards the war effort. In the wake of the war, the women's rights movement faced an important divide: would women support universal male enfranchisement, or would they only support this cause in conjunction with women's enfranchisement? In 1869 Elizabeth Cady Stanton, Susan B. Anthony, and Lucretia Mott founded the National Woman Suffrage Association in New York City. This association

¹³ Flexner, 71, 74; Stanton, Anthony, and Gage, eds., *History of Woman Suffrage*, vol. I, 70.

¹⁴ Flexner, 71, 74; Stanton, Anthony, and Gage, eds., *History of Woman Suffrage*, vol. I, 70.

¹⁵ Stanton, Anthony, and Gage, eds., *History of Woman Suffrage*, vol. I, 70.

¹⁶ Stanton, Anthony, and Gage, eds., *History of Woman Suffrage*, vol. I, 70.

prioritized women's suffrage; it opposed any effort to grant suffrage to black men that did not also grant it to women. It pressured the federal government to enfranchise women nationwide.¹⁷ In this same year, NEWC founding member Julia Ward Howe founded the American Woman Suffrage Association in Boston in collaboration with Lucy Stone. This organization approached women's suffrage on a state-by-state basis, pressuring state legislatures and constitutional conventions to change state constitutions.¹⁸ It was supportive of black men's citizenship, even without a parallel endorsement of women's suffrage.¹⁹ In 1870, the 15th Amendment was passed, granting men the vote regardless of "race, color, or previous condition of servitude."²⁰

While the debate over equal suffrage was ongoing, women were *partially* enfranchised in various states. Historian Alexander Keyssar notes that partial enfranchisement of women was most common in education-related votes because legislatures frequently recognized women's central role in childrearing.²¹ Women's oversight of schools was coherent with women's traditional role overseeing children; this made justifying women's participation in school elections relatively simple. In addition, women's school enfranchisement was relatively easy to instate: unlike general suffrage, it did not require a constitutional amendment.²² By the turn of the twentieth century 33 of the 48 states had given school suffrage to at least some classes of

¹⁷ Keyssar, 184.

¹⁸ Keyssar, 184.

¹⁹ Sara Evans, *Born for Liberty: A History of Women in America* (New York: Free Press Paperbacks, 1997), 124.

²⁰ U.S. Const., 15th Amendment.

²¹ Keyssar, *The Right to Vote*, 186.

²² Keyssar, *The Right to Vote*, 186.

women.²³ As this chapter will show, the NEWC and WEA were actively involved in the debates over women's school enfranchisement in Massachusetts.

In spite of various victories and partial enfranchisements, the women's suffrage movement was struggling to maintain momentum by the end of the nineteenth century. In 1890 the National Woman Suffrage Association and the American Woman Suffrage Association united, forming the National American Woman Suffrage Association. In 1900 the president of this organization, Carrie Chapman Catt, began campaigning to recruit women's club leaders to the suffrage movement. Catt recognized the immense power and networks of women's clubs and sought to rally these groups to the suffrage cause.²⁴ Many women working within the club movement came to support the suffrage movement. Catt and the National American Woman Suffrage Association worked at both state and national levels – making appeals to both local delegations and to the President and Congress. A discontented member of the National American Woman Suffrage Association, Alice Paul, felt that more militant strategies were necessary. Thus, she founded the National Woman's Party in 1913²⁵ to focus on gaining nationwide women's suffrage. Paul and the Party organized pickets of the White House, nonviolent demonstrations, and petitions. Adding to the force of women's rights activists, women's participation in World War I helped make the argument for women's suffrage.

The suffrage movement received marked pushback from women and men alike. As Susan Marshall shows in *Splintered Sisterhood*, female anti-suffragists – often referred to as 'Antis' –

²³ Nicholas, "Reexamining Women's Nineteenth-Century Political Agency," 469.

²⁴ Patricia Miller, "GFWC and Suffrage | Turning Point Suffragist Memorial," accessed June 6, 2019, <https://suffragistmemorial.org/gfwc-and-suffrage/>.

²⁵ The group was initially called the Congressional Union. It was renamed the 'National Woman's Party' in 1916.

defended their own gendered class interests, most notably their power in the realm of traditional private philanthropy.²⁶ Antis were predominantly wealthy women of high social standing and political power; they were politically active even beyond the suffrage movement and sought to maintain their influence.²⁷ As Marshall puts it: “Already under siege by new wealth, immigration, and labor unrest, this group feared that progressive reforms such as woman suffrage would further diminish its power and endanger particularly women's status as political appointees, society volunteers, and custodians of propriety.”²⁸ The WEA’s membership fit this demographic profile and, as this and the next chapter will show, the Association’s efforts to encourage women’s scientific education cohere with Marshall’s description of the realms of power that Antis were attempting to defend; the WEA’s scientific spaces enabled members to maintain political oversight, to act as volunteers and, perhaps most strikingly, to foster and further their traditionalist vision of female propriety.

In spite of the efforts of the Antis, the 19th amendment was finally passed and women were granted suffrage in 1920, more than 70 years after the Seneca Falls convention. As this brief overview indicates, this dissertation investigates a period of time during which the suffrage question was still very much outstanding.

The NEWC: A Generally Pro-Suffrage Organization

The NEWC was not a suffrage organization, nor did it limit its membership to suffragists. It did not mention suffrage in its mission nor did it formally endorse any such movement.

²⁶ Marshall, *Splintered Sisterhood*, 220.

²⁷ Marshall, *Splintered Sisterhood*, 5.

²⁸ Marshall, *Splintered Sisterhood*, xi.

However, it was composed of – and led by – many suffragists. Further, it devoted significant energy to reform-oriented exploration of women’s rights, women’s suffrage, and women’s abilities. The Club hosted suffragists for discussions of women’s rights, loaned its clubrooms to pro-suffrage organizations,²⁹ and published its meeting minutes in the official organ of the American Woman Suffrage Association (*The Woman’s Journal*). Even the NEWC’s adoption of the term ‘Club’ was a radical move that some interpreted as reflective of the group’s pro-suffrage stance. Indeed, a 1906 article noted that “[t]here was much public criticism of the title of club on the part of the Anti[suffragists]. It was regarded by them as an ‘unwomanly’ assumption of what had been, until then, an exclusively masculine designation.”³⁰

The NEWC presidents during the period under investigation were all known supporters of suffrage and, perhaps more importantly, often brought their pro-suffrage stances to bear on Club activities. For example, in an 1871 article in *The Woman’s Journal*, Severance wrote to English women’s associations on behalf of the NEWC. Severance noted “that many of us hail with delight the earnest, and dignified, and successful work done by you in the cause of the political enfranchisement of women; and rejoice that to this cause large numbers of noblest and best men and women have given their names.”³¹ Writing even more directly, she stated:

...we see how much the present civil and political status of women affects injuriously their characters, their interests, and their influence. And how much the State needs their

²⁹ For example, in early 1871 the NEWC rooms were used for a suffrage bazaar. In August of 1871 the NEWC decided to allow the suffrage bazaar organizers to meet in the clubrooms so long as the rooms were not otherwise engaged. At an 1873 meeting, the directors voted to let a suffrage committee make use of the club’s parlor rooms. NEWC Records, “Records of the New England Women’s Club,” March 4, 1871, October 7, 1871, and January 4, 1873, pages 87, 106, and 137, M-145, microfilm reel 4, folder 22.

³⁰ NEWC Records, Historian's records. Disassembled scrapbook, 1857-1919. Untitled article scrap dated Friday July 21, 1906, M-145, microfilm reel 3, folio box 2.

³¹ Severance, “Letter,” *The Woman's Journal*, 226.

moral force, organized into the most direct representation and protest against the evils of society. And we believe that when the divine instincts and powers of woman,—the wife, sister, and mother,—come to their full freedom and recognition, the grand causes of peace, of temperance, of human rights and human brotherhood, will find their most helpful allies.³²

This endorsement of woman's suffrage, coming from the NEWC President and written on behalf of the NEWC using the "we" pronoun, serves as a clear public statement of the Club's supportive attitude towards suffrage.

Upon Severance's resignation in 1871, suffragist Julia Ward Howe was elected President of the NEWC. Howe spoke openly of her pro-suffrage stance both in public and at NEWC meetings. At the Club's first public meeting in May 1868, Howe encouraged the Club to "preserve the remembrance of the universal sisterhood, which is the basis of our present action."³³ This notion of a 'universal sisterhood' is coherent with the ideals of the early women's rights movement; the singular 'Woman' was used to denote the fact that women shared a fundamental unity.³⁴ Similarly, Howe began her 1873 Presidential address by acknowledging that the meeting fell "[a]t the end of a week crowded with occasions of effort and interest ... which began for some of us with a Woman's Suffrage Convention."³⁵ Howe's openness about her pro-suffrage views within Club meetings reflects the NEWC's acceptance of this position. Further, as President of the NEWC, Howe encouraged pro-suffrage Club activities, ranging from

³² Severance, "Letter," *The Woman's Journal*, 226.

³³ Sprague, *History of the New England Women's Club from 1868 to 1893*, 8.

³⁴ Cott, *Grounding of Modern Feminism*, 3.

³⁵ NEWC Records, Julia Ward Howe's opening address, "Report of the Annual Meeting of the New England Women's Club," May 31, 1873, page [3], M-145, microfilm reel 12, folder 54.

receiving lectures from visiting suffragists to providing support to local suffrage organizations.³⁶

As such, the NEWC's pro-suffrage speakers during Howe's tenure were numerous, including suffrage advocates Lucy Stone, Henry Blackwell, Lydia Marie Child, Susan B. Anthony, Anna Garlin Spencer, and Kansas Governor E. W. Hoch.³⁷

³⁶ For example, in 1871 the NEWC's Committee on Work proposed to "take up some political subjects bearing especially upon the relation of woman to politics." The committee arranged for Lucy Stone "to speak on the legal position of women in Massachusetts" in November 1871. In 1873, the directors voted to invite Emily Faithfull, an English women's rights activist, to partake in the Club's entertainments during her time visiting the region. They also invited Faithfull to lecture the Club on any topic of her choosing. According to the Club's annual report, Faithfull's lunch gave the NEWC "the desired opportunity to meet this brave worker, and to hear from her own lips an account of her labors in England, in the employment of women." In 1873 Howe also suggested "some action on the part of the Club in reference to the proposed celebration by the Suffragists of the Centennial Tea Party in Faneuil Hall." Similarly, in 1894 she presented a paper before the NEWC entitled "Representation, and How to Secure it." NEWC Records, "Records of the New England Women's Club," May 30, 1874, page [38], M-145, microfilm reel 5, folder 23v; NEWC Records, untitled notebook from the "Season of 1877 - '78," April 3, [1882], page [59], M-145, microfilm reel 9, folder 40.; NEWC Records, "Rec Sec 1881 to 1891," January 7, 1888, page [227], M-145, microfilm reel 5, folder 24v; NEWC Records, untitled notebook from the "Season of 1877 - '78," November 4, [1878], page [12], M-145, microfilm reel 9, folder 40; NEWC Records, "Rec Sec 1891 to 1901," December 2, 1893, page 93, M-145, microfilm reel 5, folder 25v.; NEWC Records, "Records of the New England Women's Club," June 2, 1877, page [140], M-145, microfilm reel 5, folder 23v; NEWC Records, "Club Journal | 1887," June 2, [1888], page [23], M-145, microfilm reel 8, folder 41; NEWC Records, "Rec Sec 1891 to 1901," April 2, 1892, page 29, M-145, microfilm reel 5, folder 25v; NEWC Records, "Rec Sec 1901 to 1910," article clipping inserted between pages 459 and 460, [May 1910], M-145, microfilm reel 6, folder 27v.

³⁷ NEWC Records, "Records of the New England Women's Club," May 30, 1874, page [38], M-145, microfilm reel 5, folder 23v; NEWC Records, untitled notebook from the "Season of 1877 - '78," April 3, [1882], page [59], M-145, microfilm reel 9, folder 40.; NEWC Records, "Rec Sec 1881 to 1891," January 7, 1888, page [227], M-145, microfilm reel 5, folder 24v; NEWC Records, untitled notebook from the "Season of 1877 - '78," November 4, [1878], page [12], M-145, microfilm reel 9, folder 40; NEWC Records, "Rec Sec 1891 to 1901," December 2, 1893, page 93, M-145, microfilm reel 5, folder 25v.; NEWC Records, "Records of the New England Women's Club," June 2, 1877, page [140], M-145, microfilm reel 5, folder 23v; NEWC Records, "Club Journal | 1887," June 2, [1888], page [23], M-145, microfilm reel 8, folder 41; NEWC Records, "Rec Sec 1891 to 1901," April 2, 1892, page 29, M-145, microfilm reel 5, folder 25v; NEWC Records, "Rec Sec 1901 to 1910," article clipping inserted between pages 459 and 460, [May 1910], M-145, microfilm reel 6, folder 27v.

In addition to counting noted suffragists among its leadership and welcoming pro-suffrage lectures, the NEWC was publicly known for being pro-suffrage. For example, an 1869 *Chicago Tribune* article noted that NEWC members were particularly cordial to Robert Carter Pitman, then-President of the Massachusetts State Senate, because he had “just distinguished himself by a hearty declaration in favor of universal suffrage.”³⁸ Describing the NEWC to women in San Francisco in 1890, Severance characterized it as having accomplished “great good work...in promoting liberal ideas regarding women throughout the country.”³⁹ Speaking in 1892, suffragist and regular NEWC meeting attendee Mary Livermore explained that if she “were twenty years younger” she would found a “suffrage association in Melrose”, but, recognizing that this was not a possibility, she noted that the NEWC and a few other existing clubs were “solid for suffrage.”⁴⁰ Finally, an 1893 *Boston Daily Globe* article stated that “[t]he club, though not committed in any way to woman suffrage as a body and rarely having a set discourse upon the subject, [c]ontains [m]any [s]uffragists.”⁴¹ As this suggests, although the Club was not exclusively open to pro-suffrage women, it was publicly recognized for its generally pro-suffrage attitude and many of its leaders and members were deeply invested in the suffrage movement.

³⁸ Revere.

³⁹ “New England Women,” *San Francisco Chronicle* (September 28, 1890): 20.

⁴⁰ “Massachusetts Annual Meeting,” *The Woman's Journal*, vol 23, iss. 50 (December 10, 1892): 402.

⁴¹ Sturgis, 3.

The WEA: A Generally Anti-Suffrage Organization

As an Association, the WEA did not publicly take a stance on suffrage. However, on the whole, its leadership and members were skewed towards anti-suffrage. For example, between 1868 and 1910 the NEWC appointed eleven Presidents, of whom ten served terms.⁴² Of these eleven women, five were avid anti-suffragists, one was likely an anti-suffragist although she did not publicly support the cause,⁴³ two had unknown views toward the suffrage question, and two were modestly pro-suffrage but did not prioritize the movement. As indicated by Zina Fay Peirce's (very public) decision to withdraw from the WEA on account of the organization's unwillingness to consider admitting suffrage women, the Association was eager to maintain its anti-suffrage orientation. The WEA appears to have remained broadly anti-suffrage throughout the period under investigation. As noted by member Katherine P. Loring in her 1929 review of the Association's work, "[n]ot even an echo was heard at the meetings of the great discussion of the time – 'Women's Rights' ... although representatives of both parties were among the members, none of the suffrage leaders joined the Association."⁴⁴

Historian Sally Schwager attributed the WEA's decision to dissociate from suffrage women to the Association's desire to maintain amicable negotiations with Harvard and like

⁴² In 1886 the WEA nominated Susan Heard Swett (née Winthrop) for the Presidency and she accepted this request, but she died before she could formally take up the post. The WEA's Executive Committee did refer to her as 'President' in their October 1886 meeting minutes on her death. MHS WEA Records, General Meeting Records, 1882-1887, May 27 and October 14, 1886, n.p., Box 2, Folder 5; Executive Committee Records, 1886-1893, October 9, 1886, p. 7, Box 4, Folder 4.

⁴³ This President was Ellen Peabody Endicott. Her daughter, Mary Chamberlain, is thought to have been anti-suffrage. It seems likely that Endicott was anti-suffrage; she served as WEA President from 1872 to 1879, during which time the WEA experienced pushback for its intense rejection of suffrage. "Chamberlain, Mary Crowninshield Endicott," 169.

⁴⁴ MHS WEA Records, Loring, "A Review of Fifty-Seven Years' Work," 15.

institutions as it fought to secure greater opportunities for women's education.⁴⁵ However, this chapter will suggest that the WEA was doing more than just ensuring its continued relations with powerful men and male-dominated institutions. Indeed, as this dissertation will argue, the Association's anti-suffragism is visible in the forms of education for which it fought, in the modes of political engagement it sought, and in the means by which it justified women's science education. Thus, in addition to potentially furthering the Association's relationships with elite men and institutions, the WEA's avoidance of suffrage women was reflective of its desire to further its members' own political ends.

“Without bringing the Association into politics in any way”:⁴⁶ The NEWC and WEA's Diverging Visions of Women's Public Influence

Though the suffrage, and increasingly the anti-suffrage, movements have rich historiographies,⁴⁷ the focus of this literature has typically been on these movements' attitudes and approaches to women's full enfranchisement. Much less has been written about the forms of partial enfranchisement that women in various states were able to secure before the passage of the 19th Amendment in 1920. However, in a recent article, Kathryn Nicholas works to broaden our understanding of women's political agency by illuminating women's pre-1920 public office

⁴⁵ Sally Schwager, ““Harvard Women’: A History of the Founding of Radcliffe College,” PhD diss., Harvard University, 1982, 112.

⁴⁶ MHS WEA Records, *Twenty-Third Annual Report of the Woman's Education Association for the Year Ending January 17, 1895* (Boston: Press of R. H. Blodgett & Co., 1895), 11, Box 12, Folder 21.

⁴⁷ For studies of the suffrage and anti-suffrage movements, see: Marshall, *Splintered Sisterhood*; Ellen DuBois, *Feminism and Suffrage: The Emergence of an Independent Women's Movement in America, 1848-1869* (Ithaca: Cornell University Press, 1978); Keyssar, *The Right to Vote*; Jane Camhi, *Women Against Women: American Antisuffragism, 1880-1920* (Brooklyn, N.Y.: Carlson Publishers, 1994).

holding and partial enfranchisement.⁴⁸ Building on Nicholas's work, this section investigates the NEWC and WEA's approaches to effecting political change in the realm of public education.

In the early 1870s, the NEWC worked to enable women to serve on Massachusetts's public school committees. The NEWC was inspired in this effort by a Club lecture given by ardent suffragist Lucy Stone on the subject of "Woman Suffrage."⁴⁹ According to the NEWC's meeting minutes, Stone's lecture "aroused much interest" and "...a plan was formed for making up a woman's ticket for town officers."⁵⁰ The NEWC's Education Committee made this work its central task. It canvassed the city in search of women in each ward who would be willing to serve if elected, made sure that local newspapers reported favorably on this effort, and worked to ensure that women could legally be elected.⁵¹ According to NEWC Secretary Sprague, "[g]reat tact and skill were needed in order not to arouse opposition in advance."⁵²

While the NEWC was working to ensure women's election to the Boston School Committee, the WEA discussed "the proper means of introducing women on the School Committees."⁵³ Three options were discussed. First, appointing "a large committee of ladies...to oversee the sewing in the Public Schools." Second, nominating and electing women to the

⁴⁸ Kathryn A. Nicholas, "Reexamining Women's Nineteenth-Century Political Agency: School Suffrage and Office-Holding," *Journal of Policy History* 30, no. 3 (July 6, 2018): 452–89.

⁴⁹ NEWC Records, "Social Meetings 1869 to 1871," "Early in Feb 1870...", page [203], M-145, microfilm reel 8, folder 39v.

⁵⁰ NEWC Records, "Social Meetings 1869 to 1871," "Early in Feb 1870...", pages [203-4], M-145, microfilm reel 8, folder 39v.

⁵¹ Sprague, *History of the New England Women's Club from 1868 to 1893*, 17.

⁵² Sprague, *History of the New England Women's Club from 1868 to 1893*, 17.

⁵³ MHS WEA Records, "General Meeting Records, 1871-1929," February 8, [1872], n.p., Box 2, Folder 1.

School Committee through a public election. Third, creating a committee composed of WEA members or delegates chosen by the WEA “to exercise a right of supervision over all the Public Schools in the city.”⁵⁴ The WEA felt that the third approach was most suitable. The question then became how best to ensure that this one advisory board could oversee *all* of Boston’s schools. The possibility of obtaining 100 women to oversee the schools was discussed, but the WEA felt that it would be better to start small and gradually enlarge its efforts. The Association also considered the possibility of assigning women from each district to visit and oversee their own district’s schools, but dismissed this idea on the grounds that “[l]adies would do most good in the very district where the proper kind of women could not be found.”⁵⁵ This quote is telling: the WEA was concerned about ensuring that only “the proper kind of women” would gain public influence. This concern is in keeping with the motivations of the anti-suffragists at large, who were eager to maintain the elite status of their own privileged social group. Further reflecting the WEA’s preferential vision of its own class and gender group, the WEA felt strongly that it should oversee the selection of this board, noting that: “It would be in every way unsafe to leave the selection of this advisory and visiting Committee to the S. Committee men.”⁵⁶ As this example indicates, the WEA sought to preserve its members’ ability to effect public change through philanthropic efforts.

⁵⁴ MHS WEA Records, “General Meeting Records, 1871-1929,” February 8, [1872], n.p., Box 2, Folder 1.

⁵⁵ MHS WEA Records, “General Meeting Records, 1871-1929,” February 8, [1872], n.p., Box 2, Folder 1.

⁵⁶ MHS WEA Records, “General Meeting Records, 1871-1929,” February 8, [1872], n.p., Box 2, Folder 1.

As this indicates, while the NEWC encouraged women to serve on the school committee, the WEA sought to engender opportunities for women to influence the committee *without* engaging directly in political elections. Though they differed in their approach to obtaining it, it is crucial to recognize that both the NEWC and WEA sought public influence, and both privileged the viewpoints of women like themselves – women who were wealthy, white, and well-connected.

The NEWC's efforts were successful; in 1874 four women were elected to the Boston School Committee. This is particularly impressive given that only men could vote in this election.⁵⁷ The election of women to the Boston School Committee was not without controversy; a contemporaneous newspaper article noted that some of these women had “used masculine electioneering arts to secure success.”⁵⁸ Further, in spite of their election, the legality of women serving on the Boston School Committee was questioned. This issue was even brought before the Massachusetts Supreme Court and the Massachusetts Legislature, both of which determined that women could indeed serve.⁵⁹

The women elected to the Boston School Committee in 1874 were all NEWC members: Abby W. May, Lucia M. Peabody, Lucretia Crocker, and Ann Adeline Badger.⁶⁰ The heavy representation of NEWC women on the Boston School Committee continued in subsequent years

⁵⁷ For further insight into the relationship between school office-holding, school suffrage, and full suffrage, see: Nicholas, “Reexamining Women’s Nineteenth-Century Political Agency,” 452–89.

⁵⁸ “Mail Summary,” *The Sun* (December 17, 1874): 4.

⁵⁹ Sprague, *History of the New England Women's Club from 1868 to 1893*, 18.

⁶⁰ Sprague, *History of the New England Women's Club from 1868 to 1893*, 17; “Mail Summary,” 4.

– the first six women elected to serve were NEWC members.⁶¹ The overrepresentation of NEWC women on this committee is, in part, reflective of the widespread influence of the Club and its members. However, it also indicates that advocates of the suffrage movement – like these NEWC members – were motivated in their pro-suffrage efforts not simply by a pure-hearted desire to ensure that all women could vote and hold office. Rather, they appear to have been motivated at least in part by a drive to advance their own viewpoints and gain power through public office-holding. Indeed, historians have established that the suffrage movement often resorted to racist, nativist, and elitist rhetoric in an effort to curry favor for white women’s enfranchisement.⁶² As this section will show, the pro-suffrage NEWC was no stranger to using politics as a means of elevating and amplifying the impact of its own viewpoints.

One of the first women elected to the Boston School Committee, science educator Lucretia Crocker (1829-1886), was a member of both the NEWC and the WEA. However, only the NEWC was active in the campaigns for Crocker’s election and school suffrage. Indeed, the WEA’s 1873 annual report explained that the Association had discussed the “admission of ladies to the Boston school committee” and expressed the Association’s “hope that we shall soon see the influence of the vigilant yet tender guardianship of woman in the direction of our public schools.”⁶³ As this quote indicates, the WEA was aware of the movement to enable women to serve on the school committee, but did not take direct action to support it. Further, the rhetoric

⁶¹ NEWC Records, “Rec Sec 1902 to 1904,” November 30, 1903, page [91], M-145, microfilm reel 9, folder 43v.

⁶² Rebecca J. Mead, “The Woman Suffrage Movement in the United States,” *Oxford Research Encyclopedia of American History* (2018).

⁶³ MHS WEA Records, *First Annual Report of the Woman’s Education Association for the Year Ending January 16, 1873* (Boston: Press of W. L. Deland, 1873), 10, Box 12, Folder 1.

the WEA used to describe the potential gains from women's involvement in the school committee – “vigilant yet tender guardianship of woman” – is distinctly traditionalist, presenting women as maternal guardians.

Interestingly, though the WEA (unlike the NEWC) did not advocate for Crocker's participation on the Boston School Committee, the Association did work to further Crocker's work by establishing a scholarship to fund opportunities for study at the Marine Biological Laboratory in Crocker's honor. By 1890 this endowment amounted to \$2,500, the interest of which was to be spent enabling people, especially public school teachers, to study at the Laboratory. Writing about these scholarships in its 1890 annual report, the WEA noted that this was “a fitting memorial of Miss Lucretia Crocker” as it would “continue a work dear to her heart, – the promotion of the study of natural science in the Boston public schools.”⁶⁴ This scholarship is illustrative of one of the WEA's key approaches to education reform; as this section will suggest, the WEA typically favored private action, enabled by its funds and elite connections, over public political activism.

While the WEA remained on the sidelines of the school committee elections, the NEWC pushed on. The Club was not satisfied to simply let women serve on school committees – it also wanted women to be able to vote in school committee elections. This was important because, as Kathryn Nicholas highlights, suffrage and public office holding are distinct citizenship rights. Before the passage of the 19th Amendment, “seventeen states and territories gave women the right to hold school offices without granting them the right to vote.”⁶⁵ In an effort to enfranchise

⁶⁴ MHS WEA Records, *Annual Report of the Woman's Education Association for the Year Ending January 23, 1890* (Boston: R. H. Blodgett, Printer, 1890), 10, Box 12, Folder 16.

⁶⁵ Nicholas, “Reexamining Women's Nineteenth-Century Political Agency,” 452, 456.

women in school committee votes, the NEWC held a conference on the subject in 1879, the outcome of which was a petition to the Massachusetts Legislature.⁶⁶ Later that year, the Legislature voted to enfranchise women in these votes. The NEWC worked to disseminate news of this newly gained right by hosting a lecture from Massachusetts Legislature Judge Thomas Russell about “the right newly conferred upon women, of voting for members of school committees.”⁶⁷

Massachusetts’s 1879 enfranchisement of women in school committee votes only applied to women who paid a poll tax or who owned property on which real estate taxes were paid.⁶⁸ As such, this partial enfranchisement did not extend political influence to women writ large. Strikingly, there is no record that the NEWC ever expressed any desire to extend the vote to women who did not meet these criteria. This absence is suggestive of the Club’s elitism; though eager to ensure that wealthy women (like themselves) could vote and hold office, the Club’s concern apparently did not extend to women of the poorer classes.

As noted in this chapter’s overview of the suffrage movement, Massachusetts’ enfranchisement of women in school committee votes but *not* in general elections had precedent. A handful of states preceded Massachusetts in enfranchising women in school committee votes: Minnesota and Michigan in 1875, Colorado in 1876, and New Hampshire and Oregon in 1878.⁶⁹

⁶⁶ Harriet H. Robinson, *Massachusetts in the Woman Suffrage Movement: A General, Political, Legal and Legislative History from 1774, to 1881*, 2nd ed. (Boston: Roberts Brothers, 1883), footnote on page 105-6.

⁶⁷ Abby W. May “Annual Meeting of the New England Women's Club: Report of the Work Committee,” *The Woman's Journal*, vol. 10, iss. 24 (June 14, 1879): 188.

⁶⁸ Nicholas, “Reexamining Women’s Nineteenth-Century Political Agency,” 458.

⁶⁹ Marshall, 23.

In many cases, women's enfranchisement in school votes was justified on the grounds that women were naturally suited to decisions surrounding the education of children.⁷⁰ This logic was indeed present in the Massachusetts Legislature's 1879 decision. According to a NEWC report, Judge Russell had explained that "this right was granted ... because serious and thoughtful men feel the need of calling women to aid in the cause of education, the weightiest interest in any state or community" due to the fact that "thinking and educated women ... have so much at stake in this matter, not only as citizens but as mothers and teachers."⁷¹

With women enfranchised in Massachusetts school committee votes, the NEWC spearheaded efforts to encourage women to utilize this new right. NEWC President Abby W. May dedicated a portion of her speech at the Club's 1879 Annual Meeting to expressing her hope that Club members would lead the way with voter registration, serving as a "center of illumination" for the women of Massachusetts.⁷² She worried that although clubwomen would find the process of registering relatively simple, the process might appear "formidable" to other women.⁷³ May urged NEWC members to register quickly such that they could share the news that doing so was "as simple as the buying of a yard of cloth, or a pair of gloves."⁷⁴ May further prodded her fellow clubwomen, noting that "this opportunity to influence our schools for good,

⁷⁰ Keyssar, *The Right to Vote*, 186.

⁷¹ Peabody, "*Report of the Education Committee of the New England Women's Club*," 209.

⁷² May "Annual Meeting of the New England Women's Club: Report of the Work Committee," 188.

⁷³ May "Annual Meeting of the New England Women's Club: Report of the Work Committee," 188.

⁷⁴ May "Annual Meeting of the New England Women's Club: Report of the Work Committee," 188.

is a very large thing; and I think we owe to the men and the women who have secured for us the right, to use it to the uttermost.”⁷⁵

May’s desire to ensure that the NEWC women registered to vote is reflective of the logistical and pecuniary hurdles that early women voters faced. As noted in an opinion piece by NEWC honorary member Thomas Wentworth Higginson in *The Woman’s Journal*, women needed to fulfill various bureaucratic requirements before they could partake in these elections. As Higginson explained, “instead of making women voters in the same way in which men are voters, [the law] demands that they shall come forward and create themselves as such, by the individual application of each one; and this will of itself deter the timid, the inert, the stupid”, thereby both “purify[ing]” and “restrict[ing]” the list of women who would vote.⁷⁶ Further, women were required to pay the same poll tax as men, even though they were only allowed to vote in the school committee election.⁷⁷ Higginson’s suggestion that these restrictive voting requirements could “purify” the vote is, once again, indicative of the NEWC’s elevation of the viewpoints of its own members and social stratum over those of the general female public.

In December 1879 Massachusetts women partook, for the first time, in school committee votes. Reporting on this election, the *Chicago Daily Tribune* noted that less than 1,000 women had taken advantage of the opportunity, while more than 50,000 men had registered for the

⁷⁵ May “Annual Meeting of the New England Women's Club: Report of the Work Committee,” 188.

⁷⁶ Thomas Wentworth Higginson, “A New Departure for Massachusetts,” *The Woman's Journal*, vol. 10, iss. 18 (May 3, 1879): 137.

⁷⁷ Thomas Wentworth Higginson, ““We told you so,”” *The Woman's Journal*, vol. 10, iss. 41 (October 11, 1879): 321.

vote.⁷⁸ The NEWC was disappointed in this outcome. At a Club Tea less than a week after the vote, the NEWC's Secretary recorded that "...instead of the lively fun & nonsense proper to this Club rite, the ... conversation was very grave & earnest, turning on the results of the city election just over, & on the causes of the apparent defeat of the movement for women, every one being more full of this than of lighter & more trifling subjects."⁷⁹

In spite of its disappointment in women's lackluster turnout at the 1879 election, the NEWC continued to support school suffrage in the decades that followed. Through the 1880s, 1890s, and 1900s, the Club hosted regular meetings at which school enfranchisement was discussed.⁸⁰ At a March 1888 Club Tea the NEWC made special efforts "to congratulate ourselves on the election of our member Dr Hastings to the School Board."⁸¹ Similarly, in 1888 and 1891 the NEWC lent its clubrooms to the Massachusetts School Suffrage Association, and NEWC Board member Ednah Dow Cheney oversaw the meetings.⁸² In 1905 the Club voted that

⁷⁸ "WOMEN WITH THE BALLOT: Exercising a Limited Right of Suffrage In Massachusetts," *Chicago Daily Tribune*, December 17, 1879.

⁷⁹ NEWC Records, untitled notebook from the "Season of 1877 – '78," December 15, [1879], page [27], M-145, microfilm reel 9, folder 40.

⁸⁰ For examples of meetings, see the following NEWC meeting minutes: NEWC Records, "New England Women's Club: Board of Management, Committees, By-Laws, Regulations, Calendar, and List of Members," (Boston: Geo. H. Ellis, 1898), page 17, M-145, microfilm reel 1, folder 4; "1899-1900: Year Book of the New England Women's Club," pages 10, 11, M-145, microfilm reel 1, folder 4; "New England Women's Club of Boston: 1901-1902," pages 25, 27, and 28, M-145, microfilm reel 1, folder 4; "Rec Sec 1902 to 1904," article clipping that likely dates to 1904, inserted on page [156], M-145, microfilm reel 9, folder 43v; "Rec Sec 1904 to 1907," November 14, 1904 and December 11, 1905, pages 3, 73-4, M-145, microfilm reel 9, folder 44v.

⁸¹ NEWC Records, "Club Journal | 1887," March 19, [1888], page [14], M-145, microfilm reel 8, folder 41.

⁸² "SCHOOL SUFFRAGE: Annual Meeting of the Massachusetts Association," *Boston Daily Globe* (November 20, 1891): 10; "SCHOOL SUFFRAGISTS MEET: Hopeful Prospects of the Association --Officers Elected," *Boston Daily Globe* (January 27, 1888): 6.

it would be appropriate for the NEWC create an official list of the candidates it recommended for the Boston School Committee and to publicly share the news that “a majority of the club favored those candidates.”⁸³ As these efforts indicate, the NEWC sought to be a leader both in fostering women’s enfranchisement and in directing women about how to utilize this right; the Club used its influence to support particular candidates, many of whom were NEWC members. Thus, the school suffrage work of the NEWC can be seen, at least in part, as an effort to further club members’ sphere of influence.

The NEWC’s efforts to enable women’s participation in the governance of Massachusetts’ schools reflect its pro-suffrage stance. As Kathryn Nicholas has shown, in the 1870s and 1880s the acquisition of even partial suffrage was seen as an opening wedge to women’s full enfranchisement and citizenship.⁸⁴ However, by the 1890s, some suffragists became wary of school suffrage. After myriad setbacks in the suffrage movement at large, some suffragists worried that school suffrage could actually interfere with women’s full enfranchisement, serving as an incomplete means of appeasing suffragists.⁸⁵ However, given the NEWC’s generally pro-suffrage outlook and early endorsement of school office holding and school suffrage, it appears that the NEWC optimistically hoped that securing these rights would indeed serve as a step towards women’s full enfranchisement.⁸⁶ Nonetheless, these hopes did not come to fruition, and women’s enfranchisement in school committee votes did not translate to

⁸³ NEWC Records, “Rec Sec 1904 to 1907,” December 11, 1905, pages 73-4, M-145, microfilm reel 9, folder 44v.

⁸⁴ Nicholas, “Reexamining Women’s Nineteenth-Century Political Agency,” 453.

⁸⁵ Nicholas, “Reexamining Women’s Nineteenth-Century Political Agency,” 468.

⁸⁶ Nicholas, “Reexamining Women’s Nineteenth-Century Political Agency,” 461.

women's full enfranchisement. Indeed, as Nicholas shows, only 12 of the 32 states that adopted school suffrage went on to fully enfranchise women before the 19th Amendment was passed in 1920; Massachusetts was not one of them.⁸⁷ Further, support of school suffrage did not always imply support of full womanhood suffrage, and by the last decades of the nineteenth century some anti-suffragists supported not only elite women's appointments to school boards, but also school suffrage for women.⁸⁸

In the 1890s, as pro-suffrage enthusiasm for women's school enfranchisement ebbed, the WEA began working on this issue. The WEA's 1894-5 annual report described the Association's approach, noting the Association's hope that school governance "can be kept free from politics."⁸⁹ Going further, the report noted that the WEA had tried "to influence the nomination of two candidates for the Boston School Board" who they felt were particularly qualified.⁹⁰ These candidates were not elected, but the report stated that the Association remained convinced that its involvement had awakened increased general interest in public schools. In explaining this work, the WEA emphasized the fact that the Association had not been visibly involved in political activity. Indeed, the report explained that the candidates endorsed by the WEA "...were presented quietly and informally, and the work was done through the regular organizations without bringing the Association into politics in any way."⁹¹ The WEA's meetings noted the

⁸⁷ Nicholas, "Reexamining Women's Nineteenth-Century Political Agency," 470.

⁸⁸ Nicholas, "Reexamining Women's Nineteenth-Century Political Agency," 472-3.

⁸⁹ MHS WEA Records, *Twenty-Third Annual Report of the Woman's Education Association for the Year Ending January 17, 1895* (Boston: Press of R. H. Blodgett & Co., 1895), 9, Box 12, Folder 21.

⁹⁰ MHS WEA Records, *Twenty-Third Annual Report of the Woman's Education Association*, 10.

⁹¹ MHS WEA Records, *Twenty-Third Annual Report of the Woman's Education Association*, 11.

Association's expectation that its "influence will be moral only as there is no danger of any political meaning being attached to the Ass'n's action."⁹² These quotes are indicative of the WEA's desire to avoid being perceived as having engaged in politics. Rather than directly campaigning on behalf of its desired candidates, the WEA sought to leverage the influence and connections of its members. This subversive approach to political engagement is reflective of the tactics of anti-suffragists. Indeed, as Susan Marshall has illustrated, Antis avoided visible involvement in political matters yet worked tirelessly behind the scenes to engender reform.⁹³ In spite of the WEA's desire to avoid being visibly involved in political matters, the Association did petition the city government about public schooling on a few occasions.⁹⁴

The WEA's Modes of Effecting Change: Private Channels and Petitions

Rather than pursuing reform through direct political lobbying, the WEA favored using private channels to engender public influence. This approach is reflected in the WEA's efforts to foster sewing instruction in public schools. Sewing had been introduced to Boston schools in 1835. Following the advice of educator Catherine Beecher's canonical *Domestic Economy* (1841), Boston's public schools taught sewing as a means of preparing young girls for the domestic work they would encounter in their households. In the 1830s and 1840s, sewing was

⁹² MHS WEA Records, General Meeting Records, 1893-1896, June 7, 1894, p. 53, Box 2, Folder 7.

⁹³ Marshall, *Splintered Sisterhood*, 4.

⁹⁴ In addition to the petitions I examine, the WEA also petitioned the Board of Superintendents of Boston's public schools in 1907 to encourage the continuation of instruction in clay modeling for boys. I have chosen not to focus on this event because it was centered primarily on boys' education, which is not the focus of this dissertation. MHS WEA Records, *Thirty-Sixth Annual Report of the Woman's Education Association (Incorporated) for the Year Ending January 16, 1908* (Boston: Industrial School for Crippled and Deformed Children, 1908), 11, Box 13, Folder 6.

taught not with an eye towards enabling women to establish businesses as dressmakers, but rather as a pragmatic domestic task.⁹⁵ By the 1850s, however, several American cities (including Boston) had developed schools of design through which women could learn the artistic skills needed to work in the commercial arts. Thus, by the mid-nineteenth century, the teaching of sewing in Boston's public schools paved the way for girls to pursue remunerative careers.⁹⁶ By supporting sewing, the WEA was encouraging girls to not only learn the skills necessary for keeping their homes, but also enabling them to acquire the foundational skills necessary for a remunerative and socially respectable profession.⁹⁷ During this period, sewing was both an intensive part of household labor⁹⁸ and a respectable trade for lower and middle class women.

In 1872 the WEA's Industrial Committee began working to ensure that sewing was thoroughly taught in public schools. This Committee sent two WEA members "to see [Delano] Goddard and other editors and writers and request them to write in favor of it in the public papers."⁹⁹ Goddard had been promoted to editor of the *Daily Advertiser* in 1868 and his wife was a WEA member. The WEA's decision to reach out directly to Goddard, with whom the Association enjoyed a personal connection, in order to influence public opinion, is reflective of

⁹⁵ Elizabeth Randolph, "A Brief History of the Teaching of Home Economics in the Public Schools of the United States," MA thesis, Butler University, 1942, 15-6, 25.

⁹⁶ Margaret A. Nash, "A Means of Honorable Support: Art and Music in Women's Education in the Mid-Nineteenth Century," *History of Education Quarterly* 53, no. 1 (2013): 59.

⁹⁷ Marshall, *Splintered Sisterhood*, 127.

⁹⁸ Alice Kessler-Harris, *Women Have Always Worked: A Concise History*, second ed., The Working Class in American History (Urbana: University of Illinois Press, 2018), 43; Anne Firor Scott, *The Southern Lady: From Pedestal to Politics, 1830-1930* (Chicago: University of Chicago Press, 1970), 33-34.

⁹⁹ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, April 15, 1872, p. 4.

the group's social status and political strategies.¹⁰⁰ Rather than taking visible public action, the WEA leveraged its social connections to advance its viewpoints.

In addition to leveraging personal connections to effect change, the WEA regularly developed and submitted petitions to Boston politicians. Petitions were one of few formal, governmentally-sanctioned, tools available to women for effecting political change before the 19th amendment.¹⁰¹ The WEA's reliance on the petition provides evidence of one way in which Antis were able to engage in politics even without the vote. Indeed, as Marshall shows, women's anti-suffrage mobilization actually began in 1871 with a petition arguing against women's suffrage, which they published in *Godey's Lady's Book and Magazine*.¹⁰²

The WEA's petitions typically centered on what were then considered feminized areas of work, most notably sewing and education. For example, on April 2, 1879 the WEA called a special meeting "to prepare a petition to the school committee in regard to the teaching of sewing in the public schools."¹⁰³ At this meeting, members drafted a statement to the Mayor of Boston, urging against allowing regular schoolteachers to oversee sewing instruction. The statement emphasized the WEA's conviction that "instruction in sewing [was] of the greatest advantage in public schools for girls, and that this department requires teachers specially fitted for the

¹⁰⁰ Egbert C. Smyth, *Recent Excavations in Ancient Christian Cemeteries* (Worcester: Press of Charles Hamilton, 1882), 6.

¹⁰¹ "'Congress Took No Further Action': Women and the Right to Petition," *US House of Representatives: History, Art & Archives* (June 5, 2017), accessed June 17, 2019, https://history.house.gov/Blog/2017/June/06_05_2017/.

¹⁰² Marshall, *Splintered Sisterhood*, 19-21.

¹⁰³ WEA Records, "The Work of a Volunteer Organization for the Benefit of the Public Schools," undated, 3, Box 1, Folder 5.

work.”¹⁰⁴ Further, it requested “that the present efficient method be continued” whereby sewing was taught by specialized teachers rather than “regular class teachers.”¹⁰⁵ This petition was successful; the WEA’s 1884 annual report proudly noted that: “Through the influence of the Association, sewing was more systematically taught in grammar schools, and the result is that nice needlework, cutting, and dressmaking are now a part of the education of girls in some of the schools.”¹⁰⁶

In 1889 noted anti-suffragist Kate Gannett Wells brought two petitions before the Association, suggesting that the President and Secretary sign them on behalf of the Association. The petitions “were to be presented to the Mayor of Boston, requesting that he appoint one or more women upon the Board of Directors of Public Institutions -- & upon the Board of Overseers of the Poor.”¹⁰⁷ The WEA agreed to have the President and Secretary sign the petitions on behalf of the Association.¹⁰⁸ In 1894 the WEA again submitted a petition, this time to encourage the Mayor of Boston, the Honorable Nathan Matthews, Jr., to purchase the Old West Church and transform it into a Public Library. The WEA “pledge[d] itself to raise a sum of money sufficient to purchase three to four thousand books.”¹⁰⁹ This petition was printed in a

¹⁰⁴ MHS WEA Records, General Meeting Records: 1878-1882, April 2, 1879, Box 2, Folder 4.

¹⁰⁵ MHS WEA Records, General Meeting Records: 1878-1882, April 2, 1879, Box 2, Folder 4.

¹⁰⁶ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 11, 1884* (Boston: Cochrane & Sampson, Printers, 1884), 5, Box 12, Folder 10.

¹⁰⁷ MHS WEA Records, General Meeting Records, 1888-1893, January 10, 1889, n.p., Box 2, Folder 6.

¹⁰⁸ MHS WEA Records, General Meeting Records, 1888-1893, January 10, 1889, n.p., Box 2, Folder 6.

¹⁰⁹ MHS WEA Records, General Meeting Records, 1893-1896, article clipping, “Purchase of West Street Church,” May 1894, p. 48, Box 2, Folder 7.

local paper and signed by the Association's President and Secretary.¹¹⁰ The Association suggested that the provision of this library would have "an important educational and moral influence on a community."¹¹¹ The WEA's efforts were successful, and the Old West Church served as a branch of the Boston Public Library system beginning in 1894. By February 1895 the WEA had raised \$3,372 and had received donations of approximately 1,000 books to support this cause.¹¹² By April 1895 these figures had reached \$4,600 and 2,300, respectively.¹¹³ By November 1895 the WEA's work to establish a library at the Old West church was "completed and the gift formally made."¹¹⁴ The WEA further supported this effort by creating a committee from its own membership to vet the books that were provided to, and purchased for, this library.¹¹⁵ The WEA's work to establish this library reflects its melding of philanthropy and politics: by leveraging its wealth and garnering donations, the women of the WEA were able to effect political change and shape educational offerings without relying on the vote.

In 1895-6 the WEA further encouraged the formal instruction of household arts, petitioning the city of Boston to establish a school of Household Arts for Girls. In its petition, the

¹¹⁰ MHS WEA Records, General Meeting Records, 1893-1896, "Purchase of West Street Church," p. 48.

¹¹¹ MHS WEA Records, General Meeting Records, 1893-1896, "Purchase of West Street Church," p. 48.

¹¹² MHS WEA Records, General Meeting Records, 1893-1896, January 17, 1895, p. 67, Box 2, Folder 7.

¹¹³ MHS WEA Records, General Meeting Records, 1893-1896, April 18, 1895, p. 81, Box 2, Folder 7.

¹¹⁴ MHS WEA Records, General Meeting Records, 1893-1896, November 21, 1895, p. 87, Box 2, Folder 7.

¹¹⁵ MHS WEA Records, General Meeting Records, 1893-1896, January 17, 1895, p. 67, Box 2, Folder 7.

WEA argued that household arts were worthy of instruction on the grounds that “the development and improvement of home life tends directly toward the making of good citizens.”¹¹⁶ This is a direct deployment of the rhetoric of Republican Motherhood; the WEA used this rhetoric to suggest that women’s education is useful in large part because of their maternal role as overseers of the nation’s future citizens. In 1898 the WEA’s Committee on Public Schools decided to work towards providing “two classes of Home Science Lessons in the Public Schools during the winter” and the WEA voted to supply \$150 to support this effort.¹¹⁷ The classes were apparently a success; in the winter of 1899 this committee again hoped to host two courses on home science.¹¹⁸ In 1907, the WEA resubmitted this petition to the Boston School Committee, urging it to further “the training of girls in the science underlying household arts.”¹¹⁹

The WEA’s various petitions provide evidence of the Antis’ deployment of the petition as a means of effecting political change. They are also suggestive of the WEA’s sense of its own exceptionalism. While the Association, as a generally anti-suffrage body, worked to discourage women at large from partaking in politics, it had no issue with its own elite class of Bostonian women effecting political change through petitions. It is also worth noting that the WEA’s

¹¹⁶ MHS WEA Records, General Meeting Records, 1893-1896, clipping of WEA “Petition presented to the School Committee of the City of Boston by the Woman’s Education Association,” November 26, 1895: 349, inserted on page 86 of the meeting record notebook, Box 2, Folder 7.

¹¹⁷ MHS WEA Records, General Meeting Records, 1896-1903, November 17, 1898, p. 85, Box 3, Folder 1.

¹¹⁸ MHS WEA Records, General Meeting Records, 1896-1903, November 16, 1899, p. 117, Box 3, Folder 1.

¹¹⁹ MHS WEA Records, *Thirty-Sixth Annual Report of the Woman’s Education Association*, 14.

reform efforts frequently centered on furthering traditionalist forms of female education, like sewing and domestic science. This can be seen as a reflection of the group's anti-suffrage orientation. Indeed, as Susan Marshall has argued, anti-suffragists forwarded the mantle of scientific motherhood in an effort to counter the appeal of reformist notions of new womanhood.¹²⁰

Conclusion

Though the NEWC was pro-suffrage and the WEA was anti-suffrage, both organizations were supportive of women's education and scientific engagement. Additionally, both were politically active, with each working to advance its own political viewpoints. The NEWC directly engaged in politics and encouraged the extension of women's rights, envisioning itself as a leader shaping women's political engagement. By endorsing its members as candidates in school elections, the NEWC promoted its own worldview through its pro-suffrage activities. In contrast with the NEWC's visible political activism, the WEA seems to have preferred leveraging the interpersonal connections of its members to effect change. Additionally, the WEA's petitions served as a means of forwarding their own political agendas without encouraging the extension of women's political activity.

Though they took different approaches to effecting change, both the NEWC and the WEA privileged their own members' opinions and sought to create political systems in which their views would be influential. As such, the WEA's anti-suffrage stance should not be taken as an indication that its members did not seek public influence. Rather, the political divergence between these groups appears to indicate a difference in opinion about how best to maintain and

¹²⁰ Marshall, *Splintered Sisterhood*, 127.

amplify public influence. In short, it appears that the women of the NEWC felt that their influence would be magnified through suffrage, while the women of the WEA believed that suffrage would destabilize the influence they enjoyed as a result of their powerful social positions.

Chapter 4

Women-Centric Subcultures of Science Learning

“We are women studying together”, remarked astronomer Maria Mitchell (1818-1889) in an 1873 address to astronomy students at Vassar, then an all-female college.¹ By studying among other women, Mitchell felt that her students gained not only a formal college education but also, “unconsciously, that higher teaching which comes to you, all unknown to the givers, from daily association with the noble-souled women who are around you.”² Mitchell was immensely successful within the male-dominated realm of academic science. As such, it is striking, as Sally Gregory Kohlstedt has shown, that Mitchell “... chose to work directly with women rather than to defy male hegemony” within science.³ Kohlstedt has illuminated Mitchell’s efforts to advance female scientific participation, arguing that by the end of her career Mitchell “... found homo-social society congenial and a more useful vehicle for change than any direct challenge to male bastions.”⁴ Mitchell was not alone in this approach. In fact, both the NEWC – of which Mitchell was an early member – and the WEA can be seen as exemplars in the creation of homo-social scientific networks and spaces for women.

This chapter builds on Estelle Freedman’s recognition of the centrality of female separatism as a strategy undergirding women’s movements from the 1870s to the 1920s.⁵ It

¹ Unnamed pupil quoting Maria Mitchell in Phebe Mitchell Kendall, *Maria Mitchell: Life, Letters, and Journals* (Boston: Lee and Shepard Publishers, 1896), 178.

² Maria Mitchell in Kendall, *Maria Mitchell*, 186.

³ Kohlstedt, “Maria Mitchell,” 40.

⁴ Kohlstedt, “Maria Mitchell,” 63.

⁵ Freedman, “Separatism as Strategy,” 512-29.

sheds light on the NEWC and WEA's women-centric subcultures of science, building on Marsha Richmond's historiographic call to explore "'female subcultures' in science...the social systems women created apart from as well as in connection with the male-dominated scientific community."⁶ In so doing, it provides the historical groundwork for examining the efficacy of sex separatism as a strategy for encouraging women's scientific study and work.

The NEWC and WEA as Generators of Science Learning Opportunities

The NEWC and WEA established science learning opportunities through which thousands of Bostonian women were able to gain instruction, employment, and experience in scientific fields ranging from cooking to biology. The NEWC and WEA's spaces of scientific engagement vastly outstrip universities in terms of their number of female participants. Indeed, Margaret Rossiter finds evidence of just 439 female science baccalaureates before 1920 in the entire United States and identifies only 107 female scientists employed in American academies in 1920. Meanwhile, in just the period from 1868 to 1910, the science programs fostered by the

⁶ Richmond, "'A Lab of One's Own,'" 423.

NEWC and WEA hosted over 2,400 women, as documented in Figure 4.1.⁷ Even this estimate is conservative.⁸

⁷ In compiling this Figure, I was conservative in my estimates in order to avoid overstating my claims. For example, Annisquam hosted 102 students, and in this table, I assume that half of these students were female. In the years for which I have data on enrollment and gender, between half and two-thirds of Annisquam's students were female. Similarly, in estimating the total attendance of women at the WEA's science lectures, I listed just 100 women. Approximately 100 women attended an 1881 lecture series given by George Lincoln Goodale, and this was but one of many lectures given by the WEA. However, given the lack of attendance lists, I cannot definitely say that these same 100 women were not the women attending all of the WEA's scientific lectures. In estimating the number of women who attended the NEWC's lectures, I was able to benefit from meeting minutes which indicated that their lectures regularly drew as much as half of their membership. Given that their membership reached as high as 339 in 1894 (excluding honorary, male members), it is reasonable to assume that around 170 female NEWC members attended one of the Club's scientific lectures during their tenure. In reality, it is likely that more than 170 women attended, given that there were multiple scientific lectures per year, the Club welcomed guests, and there was turnover in the membership. In my estimate of attendance at the Boston Cooking School I combined figures for its main branch at Tremont Street, its South End branch, and its charitable branch in the North End. In April 1881 the main branch had between 200 and 300 students and the South End branch had between 60 and 70 students. In the winter of 1881-2 approximately 650 female students attended the Boston Cooking School's charitable North End branch. In calculating my figures, I assumed the midpoint of these enrollment figures (250 and 65). I assumed no overlap between the North End attendance of 1881-2 and the main branch and South End attendances of 1881 given the starkly different demographics they targeted.

⁸ See above footnote.

Figure 4.1: Women Participating in Science Through the NEWC and WEA

Form of Science Participation	Years of Operation	Conservative Estimate of Female Participants
Women attending NEWC science lectures, lessons, and classes	1868-1910	>170
Horticultural School for Women	1870-1871	5
Massachusetts General Hospital Nursing Training School	1872-1895	398
Harvard Examinations for Women ⁹	1874-1881	107
MIT Women's Laboratory	1876-1883	~500
Boston Cooking School	1879-1882	>965
Women attending WEA science lectures, lessons, and classes	1879-1910	>200
Annisquam Seaside Laboratory	1881-1888	~51
Instructive District Nursing	1886-1888	4 (who taught hundreds more caretakers about in-home nursing)
TOTAL	1868-1910	>2,400 women

In addition to providing firsthand scientific instruction to over 2,000 women, the scientific organizations founded by the NEWC and WEA impacted the lives of countless more; many of the women educated in science through the NEWC and WEA worked as nurses, teachers, and cooks, sharing their skills and knowledge with the wider public. As this indicates, the NEWC and WEA acted as a major axis through which Progressive Era Bostonian women were able to learn about science. By creating spaces for women's science learning, the NEWC and WEA gave women access to a portion of the educational opportunities and scientific knowledge from which they were excluded in the academy proper. In this manner, the NEWC and WEA enabled what

⁹ These exams have been thoroughly discussed in the existing literature. For further information on these exams, see: Sally Schwager, "Taking up the Challenge: The Origins of Radcliffe," in *Yards and Gates: Gender in Harvard and Radcliffe History*, Laurel Thatcher Ulrich, ed. (New York: Palgrave Macmillan, 2004), 146-9; Patricia M. King, "The Campaign for Higher Education for Women in 19th-Century Boston," *Proceedings of the Massachusetts Historical Society* 93 (1981): 68-71.

Stephen Pumfrey and Roger Cooter termed “communicative processes”; they developed robust channels through which scientific knowledge was distributed from the academy to women’s networks.¹⁰ By studying the NEWC and WEA’s spaces of science learning we gain insight into women’s groups’ roles in the popularization and dissemination of science.

These groups created women-centric subcultures through which women could study and gain credentials in diverse scientific fields without needing to enter traditional universities. Rather than pursuing science through the male-dominated, mainstream path of university accreditation, the NEWC and WEA’s spaces enabled women to learn science in spaces created, funded, and supported by women, for women. Within these spaces, women did not need to compete directly with men for resources. Indeed, as noted in chapter 1, the NEWC was specifically established with an eye towards developing a space in which women could exercise their leadership abilities untrammelled by competition with men.

Although the NEWC and WEA were immensely successful at enrolling and engaging women, their scientific offerings were not a true alternative to the university-based educational system. As the rest of this chapter will show, the NEWC and WEA often focused their scientific spaces on those areas of science in which women’s participation was most likely to be accepted: botany, nursing, and cooking. Further, the science learning opportunities developed by these groups were often short-lived and typically did not offer degrees.

¹⁰ Roger Cooter and Stephen Pumfrey, “Separate Spheres and Public Places: Reflections on the History of Science Popularization and Science in Popular Culture,” *History of Science; Cambridge* 32, no. 3 (December 1, 1994): 239.

Feminine Sciences at the NEWC and WEA: Nursing, Cooking, Botany

Both the NEWC and WEA felt that women could enable improvements in public health. The approaches these groups took towards fostering women's ability to improve public health reflect their attitudes towards women's suffrage as well as the social and political constraints facing elite white women in Progressive Era Boston. The WEA encouraged women to participate in areas of science that cohered with women's role as homemakers, especially domestic science. Ellen Swallow Richards was a founder of the field of domestic science, which she felt offered a "golden opportunity to emphasize the fundamentals of wholesome living."¹¹ The WEA felt that domestic science education was important to ensuring that women were both excellent at, and satisfied by, their domestic duties. Further, the Association felt that women could improve public health through domestic work. The WEA's encouragement of women's participation in feminized sciences is reflective of what Margaret Rossiter has termed "territorial segregation."¹² As Rossiter explains, this type of segregation occurred when women's work was confined to "a specific, highly sex-typed, field or location", most frequently "home economics and hygiene."¹³ In contrast, in keeping with its pro-suffrage orientation, the NEWC often encouraged women to better public health through direct legislative actions, including petitions and public testimonies.

The WEA's public health efforts centered on educating women on the ways in which domestic science could be applied to public health issues. Although women's participation in medicine writ large was still the subject of heated debate, maintaining cleanliness and physical health were considered socially acceptable areas of women's work; they were carved out as

¹¹ Ellen H. Richards, *The Art of Right Living* (Boston: Whitcomb & Barrows, 1904), 7.

¹² Rossiter, "'Women's Work' in Science, 1880-1910," 389.

¹³ Rossiter, "'Women's Work' in Science, 1880-1910," 389, 390.

feminized areas within medicine.¹⁴ Under this paradigm, women were seen as naturally suited to caring for the diet, exercise, and environment of their families and communities. As such, women were considered naturally suited towards nursing. In keeping with the feminization of the sanitary sciences, the WEA was active in promoting women's education in nursing; in 1872 it helped establish the nurse training school at Massachusetts General Hospital and in 1886 it debuted the project of Instructive District Nursing. The WEA's efforts to encourage women's professionalizing educations within nursing were not particularly radical; nursing was considered a womanly art, and in encouraging women to work within this field the WEA was not transgressing contemporaneous gender norms.

The WEA-sponsored MIT women's lab particularly encouraged investigations into domestic topics within science. Like the sanitary sciences, domestic science was a highly feminized field by the turn of the twentieth century. Rossiter attributes this feminization to "men's aversion and possibly their inability to advise women on domestic matters and their willingness to let the women do it instead."¹⁵ WEA Member Ellen Swallow Richards is often considered the mother of this field. Her work at the MIT women's laboratory enabled some of her earliest publications in this discipline.¹⁶ For example, in 1882 Richards published *The Chemistry of Cooking and Cleaning: A Manual for Housekeepers*, in which she explained that this "applied science" could "enlighten the mind, and lighten the burden of care, of every

¹⁴ Elaine Thomson, "Physiology, Hygiene and the Entry of Women to the Medical Profession in Edinburgh c. 1869–c. 1900," *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 32, no. 1 (January 1, 2001): 105–26; Morantz-Sanchez, *Sympathy and Science*; Buhler-Wilkerson, *False Dawn*.

¹⁵ Rossiter, "'Women's Work' in Science, 1880-1910," 394-5.

¹⁶ Rossiter, "'Women's Work' in Science, 1880-1910," 393.

housekeeper.”¹⁷ By ‘housekeeper’ Richards meant housewife, not domestic servant.¹⁸ She felt that women would be better able to oversee their staffs if they had a knowledge of chemistry. As she explained: “When American girls will learn to apply Chemistry and Physics to every-day life, we may hope for a speedy solution of the servant-girl question.”¹⁹ In her book, Richards covered food chemistry and provided an analysis of cleaning chemicals. Richards felt that this knowledge was “a necessity for every housekeeper who would not be cheated of her money and her time.”²⁰

With guidance from Richards, students at the MIT women’s lab also pursued investigations into domestic chemistry. The WEA encouraged these studies. A WEA bulletin that likely dates to 1879 noted that the lab was “now in a position to undertake some investigations in the direction of household Chemistry and Economy.”²¹ The lab’s efforts in this direction were again discussed in the Association’s 1881 annual report, which stated that the lab had “been for some time desirous of proposing an extensive and thorough examination of articles of common household use” and therefore sought to raise funds to enable this research project.²² The WEA offered a subscription to support this project and established a committee tasked with “soliciting

¹⁷ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 12, 1882*, 7; Ellen H. Richards, *The Chemistry of Cooking and Cleaning: A Manual for Housekeepers* (Boston: Estes & Lauriat, 1882), vii.

¹⁸ Richards, *The Chemistry of Cooking and Cleaning*, 8.

¹⁹ Richards, *The Chemistry of Cooking and Cleaning*, 79.

²⁰ Richards, *The Chemistry of Cooking and Cleaning*, 4.

²¹ MHS WEA Records, “CHEMICAL LABORATORY | WOMAN’S EDUCATION ASSOCIATION,” pamphlet, [1879?], Box 1, Folder 9.

²² MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 13, 1881* (Boston: Cochrane & Sampson, Printers, 1881), 10, Box 12, Folder 7.

subscriptions.”²³ The WEA succeeded in raising \$462.25 for these investigations.²⁴ The domestic science work done at the lab resulted in the publication of a twelve article series in the *New England Farmer* on subjects ranging from “Sanitary Science and Preventative Medicine” to “Food Adulterations.”²⁵ The WEA linked these domestic investigations to public health. For example, a pamphlet advertising the lab noting that the lab was working to respond to public “...demands that all the materials for food, the water and milk we drink, the wall-papers and the dyes of the fabrics we use, should be free from any injurious element.”²⁶

One of the WEA’s most visible and influential forays into public health was its March 1879 establishment of the Boston Cooking School. The WEA was encouraged in this plan of action by the fact that a cooking school “formed part of the plan of the gentlemen of the [Massachusetts Public Health Association] about to be incorporated.”²⁷ The Massachusetts Public Health Association was incorporated in March 1879 with the mission of “taking measures for protecting and improving the health of the people from the Commonwealth.”²⁸ According to *Harper’s Weekly*, the Public Health Association’s immediate plans were to investigate

²³ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 13, 1881*, 10.

²⁴ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 11, 1884*, 5.

²⁵ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 11, 1884*, 11.

²⁶ MHS WEA Records, “CHEMICAL LABORATORY | WOMAN’S EDUCATION ASSOCIATION,” pamphlet, [1879?], Box 1, Folder 9.

²⁷ MHS WEA Records, General meeting records, February 13, 1879, n.p., Box 2, Folder 4.

²⁸ “An Act to Incorporate the Massachusetts Public Health Association,” in *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1879* (Boston: Rand, Avery, & Co., Printers to the Commonwealth, 1879), Chap. 153, p. 510.

“improvements in house drainage, ventilation, diet kitchens and cookery schools, and efforts to suppress the adulterations of food.”²⁹ The WEA felt that the gentlemen of the Public Health Association “would probably be pleased to have [a cooking school] under the charge of the W.E.A.”³⁰ As this indicates, the WEA’s cooking school was established with a clear eye towards its public health implications.

The Boston Cooking School forwarded a canonically feminine approach to science, encouraging women to learn about “scientific cooking.”³¹ By promoting women’s education in cooking, the WEA ennobled a task that was (and is) often considered domestic drudgery. One of the school’s instructors, Mary Lincoln, felt that by publishing on cookery she could improve women’s enjoyment of it. As she noted in her book, the fact that “any true woman can see anything degrading in any labor necessary for the highest physical condition of her family, would be incredible if the truth of it were not daily manifest.”³² The instruction offered at the cooking school mixed the art of cooking with the science of chemistry.

The Boston Cooking School received laudatory coverage in which its public health implications were recognized. As an 1879 article in the *Boston Daily Globe* noted, “[n]o woman’s education is complete without a knowledge of cooking.”³³ This article went on to

²⁹ “Home and Foreign Gossip,” *Harper’s Weekly*, vol. 23, no. 1169 (May 24, 1879): 407.

³⁰ MHS WEA Records, General meeting records, February 13, 1879, n.p., Box 2, Folder 4.

³¹ MHS WEA Records; *Annual Report of the Woman’s Education Association for the Year Ending January 13, 1881* (Boston: Cochrane & Sampson, Printers, 1881), p. 12, Box 12, Folder 7.

³² Mary Lincoln, *Mrs. Lincoln’s Boston Cook Book: What To Do and What Not to Do in Cooking* (Boston: Roberts Brothers, 1891), v-vi.

³³ “GOOD VICTUALS: Proposal for a Cooking School in the City of Boston,” *Boston Daily Globe* (29 November 1879): 4.

suggest that the school would “bring about one of the greatest reforms needed by us” with regard to the “health in our community” by “put[ting] upon our tables good bread, well-cooked meats, and other appetizing food.” The article even suggested that the school might lessen the “temptation to intemperance” by “mak[ing] our homes comfortable, [such] that outside attractions may be less formidable.”³⁴ By providing cooking lessons, it was anticipated that women would be enabled “to substitute good for unhealthy stimulants” and “bring economy into their kitchens.”³⁵

Maria Parloa was the school’s founding instructor. In 1879 Parloa published *First Principles of Household Management and Cookery: A Text-Book for Schools and Families*. Examination of this book provides insight into the types of instruction that were likely offered at the Boston Cooking School. Additionally, this book showcases Parloa’s melding of cooking, household management, and health. Parloa argued that knowledge of household management and cookery were essential to health, stating: “Physicians, and others qualified to give an opinion, testify that the foundation for disease, intemperance, and crime is nearly always impure air and water, food improperly cooked, or uncleanly and disorderly homes.”³⁶ *First Principles* included chapters on sick room cookery, digestion, the physiological and chemical classification of food, and the human body; as this content suggests, Parloa saw the domestic sphere as a critical axis through which women could improve public health.

³⁴ “GOOD VICTUALS,” 4.

³⁵ “GOOD VICTUALS,” 4.

³⁶ Maria Parloa, *First Principles of Household Management and Cookery: A Text-Book for Schools and Families* (Boston: Houghton, Osgood and Company, 1879), [iii].

Parloa left the school in 1880 and was succeeded by one of her former students, Mary J. Lincoln. Lincoln remained in this role until 1885, and in 1884 she published *Mrs. Lincoln's Boston Cook Book: What To Do and What Not to Do in Cooking* based on her experiences.³⁷ This book was dedicated to the Boston Cooking School's students and to Mrs. Samuel T. Hooper, chairman of the WEA subcommittee tasked with overseeing the school.³⁸ As with Parloa's book, Lincoln's writings illustrate that the WEA's cooking school sought to teach women about issues of public health significance, such as the science of nutrition. In the Preface, Lincoln explained that she had written the book "at the urgent request of the pupils of the Boston Cooking School, who have desired that the receipts and lessons given during the last four years in that institution should be arranged in a permanent form."³⁹ Lincoln aimed to provide both "sufficient clearness for the beginner" as well as "the chemical and physiological knowledge that is necessary for a clear understanding of the laws of health, as far as they are involved in the science of cookery."⁴⁰ In short, through this book Lincoln hoped to enable women "to apply the principles of science upon which the health and welfare of her household largely depend."⁴¹ Lincoln believed that instruction in scientific cooking was eminently practical for women, unlike

³⁷ In 1885 Fannie Merritt Farmer succeeded Lincoln and stepped into the role of principal. She would go on to revise Lincoln's cookbook, publishing a revision in 1896 that became one of the most popular cookbooks published in the United States. Mary Lincoln, *Mrs. Lincoln's Boston Cook Book: What To Do and What Not to Do in Cooking* (Boston: Roberts Brothers, 1884).

³⁸ MHS WEA Records, Kate Gannett Wells, "Records of the Industrial Committee of the Women's Education Association: copied from the record book now in the possession of the Committee on Cooking School," February 7, 1879, 47-8, Box 6, Folder 12.

³⁹ Lincoln, *Mrs. Lincoln's Boston Cook Book*, [v].

⁴⁰ Lincoln, *Mrs. Lincoln's Boston Cook Book*, [v], vii.

⁴¹ Lincoln, *Mrs. Lincoln's Boston Cook Book*, vii.

the scholarly opportunities afforded at universities. As she wrote, “nine tenths of the women who go through a scientific course in the seminaries never put any of the knowledge gained into practical use.”⁴² The Boston Cooking School worked to ensure that its courses complemented women’s socially proscribed role. Instead of educating women in science as a means of challenging the status quo, the WEA often furthered women’s science education in ways that reified it.

By the early 1880s, the Boston Cooking School – led by Lincoln – was such a success that it offered classes for cooks, nurses, ladies, public school students, and teachers, as well as courses of instruction for preparing particular dishes.⁴³ In addition to the private cooking school, where classes were offered for fees ranging from three to six dollars, in 1880 the WEA established a free cooking school in Boston’s North End with the help of the Industrial Aid Society.⁴⁴ By January 1881 this free cooking school had accrued a total attendance of over three thousand pupils.⁴⁵ In 1882 the WEA spun off the Boston Cooking School and it became its own incorporated organization, operating out of 158 Tremont Street in Boston.⁴⁶

⁴² Lincoln, *Mrs. Lincoln’s Boston Cook Book*, vii.

⁴³ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 11, 1883* (Boston: Cochrane & Sampson, Printers, 1883), 9, Box 12, Folder 9; MHS WEA Records, General meeting records, March 4, 1879, n.p., Box 2, Folder 4.

⁴⁴ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 13, 1881*, 13.

⁴⁵ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 13, 1881*, 13.

⁴⁶ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 12, 1882*, 10.

The WEA's provision and encouragement of domestic science learning for girls and women alike can be seen as a response to the anti-suffrage concern that homemaking was becoming less socially desirable.⁴⁷ As Susan Marshall shows, anti-suffragists advocated for scientific motherhood as a preferable alternative to reformist notions of new womanhood.⁴⁸ Through its domestic science classes, the WEA presented domestic work as a virtuous and intellectual pursuit. By emphasizing the public health implications of homemaking, the WEA ennobled women's traditional domestic role.

Interestingly, by the turn of the twentieth century, domestic science had gained support from pro- and anti-suffragists alike. In fact, suffragists deployed domestic science in arguments for the vote in three key ways. First, they argued that women's scientific work within the home served as evidence of their ability to intelligently manage the vote. For example, in 1917 Nathaniel C. Fowler, Jr. argued in favor of women's suffrage by highlighting the paradoxical fact that women "successfully, and with every handicap of their times, manage their households ... [yet] are considered by altogether too many men, and by far too many women, as incompetent to cast a ballot."⁴⁹ This rhetoric is reflective of the Progressive Era Municipal Housekeeping movement, according to which women's housekeeping skills ought to be deployed not only within the home but also within the civic sphere.⁵⁰ Second, suffragists emphasized women's domestic talents to suggest that the public sphere could benefit from female participation.

⁴⁷ Marshall, *Splintered Sisterhood*, 127.

⁴⁸ Marshall, *Splintered Sisterhood*, 127.

⁴⁹ Nathaniel C. Fowler, Jr., "Women, Yesterday, Today and Forever," *Journal of Education*, vol. 86 (January 18, 1917): 65.

⁵⁰ Margaret Mary Finnegan, *Selling Suffrage: Consumer Culture & Votes for Women* (New York: Columbia University Press, 1999), 33-6.

Suffrage cartoons built on this notion, frequently depicting ‘suffrage’ as a woman cleaning out undesirable aspects of society, or women deploying their knowledge in political decisions that affected the domestic arena.⁵¹ Third, suffragists deployed domestic science in a bid to show that women’s participation in politics would not lead to the disintegration of women’s traditional role. For example, in 1910 suffragists ran a booth at the Domestic Science and Pure Food Exhibition in Madison Square Garden, New York City. The *New York Tribune* reported that the suffragists running the booth were “versatile” as they were offering “preserves and jams and jellies, canned by suffragists” as well as “baskets of suffrage buttons.”⁵² By emphasizing their homemaking skills, suffragists worked to suggest that suffrage would not disrupt the domestic sphere.

Given that suffragists engaged significantly with (and even encouraged) domestic science, it would be unwise to suggest that domestic science as a discipline was inherently anti-suffrage. Rather, examination of the WEA’s materials suggests that the Association’s justifications for domestic science were reflective of the organization’s generally anti-suffrage outlook. The Association’s writings contain no suggestion that women’s domestic prowess should be taken as an indicator of their ability to handle the vote or duties beyond caring for the home and raising and teaching children. Rather, the WEA suggested simply that women’s domestic skills indicated that they were well-suited to homemaking and childrearing. This is in

⁵¹ For examples of this trope in suffrage cartoon illustrations, see: “She’ll Clean ‘Em Out,” cartoon, *Seattle Star*, vol. 12, no. 209, October 24, 1910; “Dirty Pool of Politics,” cartoon, Votes-for-Women-Publishing, San Francisco, California Women and the Vote Collection, The Bancroft Library, University of California; “Give Mother the Vote We Need It,” Rose O’Neill, postcard, 1915.

⁵² “THE ANCIENT WAY: Suffragists Coax Tyrant Man with Jam and Jelly,” *New - York Tribune* (September 18, 1910): 4.

stark contrast to the approach to domestic science taken by the NEWC. Indeed, although the NEWC occasionally fostered spaces for women to engage in domestic science, the NEWC never suggested that science was useful to women *primarily* because of the roles as wives, mothers, or homemakers.

The divergence between the NEWC and WEA's strategies for encouraging women's scientific engagement is underscored by examination of the NEWC's writings about domestic science and public health. The NEWC, unlike the WEA, encouraged women to engage directly in public political action in these areas. For example, in April 1908 the NEWC took direct political action with regards to the public health concerns surrounding tuberculosis. The Club endorsed a bill that was about to be introduced into the United States Senate "for the investigation of the methods of treating tuberculosis."⁵³ The Club voted that "the members of the executive board be instructed to write senators and congressmen requesting them to vote for the bill."⁵⁴ This bill, proposed to the House and the Senate on May 13, 1908, required: "... every physician in the District of Columbia to report in writing ... the name, age, sex, color, occupation, and address of every person under his care in said District who, in his opinion, is afflicted with pulmonary or other communicable form of tuberculosis."⁵⁵ It also provided for the

⁵³ NEWC Records, "Rec Sec 1907 to 1910," April 13, 1908, page [48], M-145, microfilm reel 10, folder 45v.

⁵⁴ NEWC Records, "Rec Sec 1907 to 1910," April 13, 1908, page [48], M-145, microfilm reel 10, folder 45v.

⁵⁵ "An Act To provide for registration of all cases of tuberculosis in the District of Columbia, for free examination of sputum in suspected cases, and for preventing the spread of tuberculosis in said District," 35 Stat. 126, Chapter 165, Bill number 60 S. 29; S. 29, P.L. 60-114, presented before the Sixtieth Congress, Session 1 (May 13, 1908): 126.

“free examination of sputum in suspected cases.”⁵⁶ The NEWC’s decision to support this bill by writing to governmental representatives reflects the Club’s support of women taking direct political action.

The NEWC’s policy-oriented approach to the tuberculosis problem was not inevitable. Just a few years earlier, *Good Housekeeping*, a Massachusetts-based magazine devoted to “the higher life of the household”, had published an article suggesting that “parents and teachers” could help prevent tuberculosis by educating children “in the simple life” and “the laws of nature and of health.”⁵⁷ As this indicates, female contemporaries of the NEWC were encouraged to take action to prevent tuberculosis within the domestic sphere; by approaching the problem of tuberculosis via direct political intervention, the NEWC once again showcased its generally pro-suffrage outlook.

In 1910 the NEWC again urged women to take civic action with regards to a public health issue, this time the healthfulness of milk in Massachusetts. In January 1910 the NEWC hosted a conference of the Massachusetts State Federation of Women’s Clubs at which Massachusetts’ food laws were discussed.⁵⁸ The NEWC’s concern with milk hygiene was reflective of a larger movement to ensure milk’s proper sanitation; during this period in Boston

⁵⁶ “An Act To provide for registration.”

⁵⁷ “The Movement Toward Health,” *Good Housekeeping*, vol. 40, no. 1 (February 1905): 3, 229.

⁵⁸ “DEMAND SAFER FOOD: Women’s Club Committees Dissect Statutes,” *Boston Daily Globe* (January 6, 1910): 16.

there was a push for milk companies to ensure the safety of their products, particularly for the sake of infant health.⁵⁹

Figure 4.2: Advertisement for H. P. Hood & Sons Milk, *Boston Daily Globe* (1907)

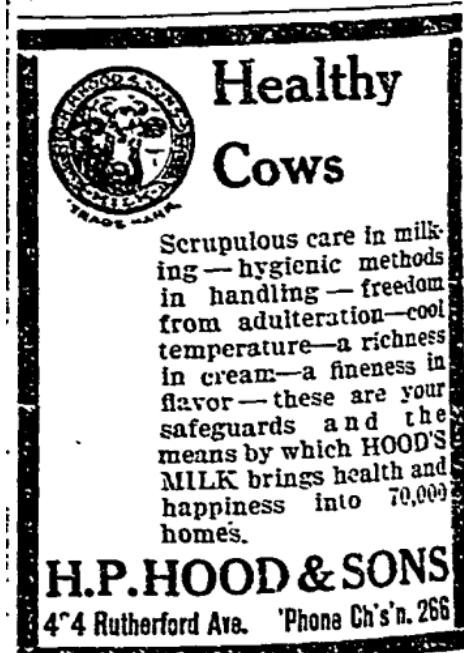


Figure 4.2 shows a 1907 advertisement for milk from H. P. Hood & Sons from the *Boston Daily Globe*. This advertisement is reflective of the widespread public health concern surrounding milk hygiene; it focuses on the cleanliness of Hood’s milk, emphasizing both Hood’s “healthy” cows and the company’s “hygienic” preparation processes.⁶⁰

The NEWC remained engaged in the issue of milk hygiene in the months following this conference. In March 1910, the Club hosted a “large assemblage” of women for a “conference

⁵⁹ Philip Van Ingen and Paul Emmons Taylor, eds., *Infant Mortality and Milk Stations: Special Report Dealing with the Problem of Reducing Infant Mortality* (New York: New York Milk Committee, 1912), 101-2.

⁶⁰ “Display Ad 22 -- No Title,” *Boston Daily Globe* (September 11, 1907): 10.

on legislative affairs.”⁶¹ The bills under discussion ranged from a bill to protect stage children under the age of 15 to a bill that worked to “promote cleanliness of the milk supply” by requiring that milk quality be monitored by state agencies rather than by local boards of health.⁶² In April 1910 the NEWC received an “invitation ... to visit the H. P. Hood & Sons Chemical & Bacteriological Laboratory.”⁶³ The Hood laboratory was run by the still-extant dairy company, and was the site at which Hood pasteurized and treated its products. It appears that Hood extended this invitation as part of a larger effort to ensure that women in the local community appreciated the cleanliness of their facilities. Indeed, in 1908 Hood had hosted a “large company of women residents of the Back Bay, Roxbury and Lawrence” for a tour of their “very excellent system of safeguarding [their] milk supply and making it of the highest standard.”⁶⁴ The NEWC’s Board accepted Hood’s invitation and planned a visit for May 1910.⁶⁵

The Hood laboratory visit and the NEWC’s discussion of milk hygiene struck a chord. In May 1910 Club President Julia Ward Howe testified “before the Massachusetts legislative committee which is investigating the milk situation” and made a “plea for pure milk.”⁶⁶ Howe suggested that pure milk was critical in the rearing of children and that food safety surrounding

⁶¹ “CLUBWOMEN CONFERENCE: Proposed Statutes on Child Labor, Clean Milk and Other Measures at the State House Considered,” *Boston Daily Globe* (March 20, 1910): 32.

⁶² “CLUBWOMEN CONFERENCE,” 32.

⁶³ NEWC Records, “Rec Sec 1901 to 1910,” April 2, 1910, page 452, M-145, microfilm reel 6, folder 27v.

⁶⁴ “HOW MILK IS SAFEGUARDED: Women of the Back Bay, Roxbury and Lawrence Visit H. P. Hood & Sons’ Laboratory in Charlestown,” *Boston Daily Globe* (April 3, 1908): 2.

⁶⁵ NEWC Records, “Rec Sec 1901 to 1910,” April 2, 1910, page 452, M-145, microfilm reel 6, folder 27v.

⁶⁶ “Women Who Are Doing Things,” *Detroit Free Press* (June 12, 1910): D2.

milk was essential. Howe emphasized the fact that she had “convers[e]d with scientific people” in coming to her conclusion “that there is no possible substitute for good milk.”⁶⁷ In making her statement, Howe (who was 91 at the time and would die within six months) “refused the chair offered by the committee and remained standing at the head of the witness table.”⁶⁸ Reporting on this, *The Hartford Courant* dramatically noted that the heat on that day “made inroads upon the energy and vitality of even the youthful and robust citizens” but “did not prevent the appearance of this remarkable woman before the legislative committee at the Boston State House.”⁶⁹ Though her “steps were uncertain as she entered the large hearing room,” the *Courant* presented her testimony as reflective of “her usual public spirit.”⁷⁰

Although the NEWC encouraged women to partake in the politics of public health, not all of its public health efforts were politically radical. In fact, the NEWC, like the WEA, fostered opportunities for women to participate in feminized science, most notably botany. The NEWC’s Botany Group and its Horticultural School for Women both capitalized on the acceptance of botany as a field for women; because plants could be collected from one’s own backyard without the use of specialized equipment and were often considered women’s domain (floral arrangements, cookery), botany had long been considered a field to which women were naturally suited.⁷¹ Botany was so completely the domain of women that by 1887 *Science* reprinted an

⁶⁷ “GIVE THEM PURE WHOLESOME MILK,” *Boston Daily Globe* (May 25, 1910): 4.

⁶⁸ “GIVE THEM PURE WHOLESOME MILK,” 4.

⁶⁹ “MRS. JULIA WARD HOWE: APPROACHING HER 91st MILESTONE She Pleads For Justice at the State House HER ACTIVITIES EXTRAORDINARY,” *The Hartford Courant* (May 30, 1910): 16.

⁷⁰ “MRS. JULIA WARD HOWE,” *The Hartford Courant*, 16.

⁷¹ The feminization of botany is discussed at length by Ann B. Shteir, *Cultivating Women, Cultivating Science: Flora's Daughters and Botany in England, 1760-1860* (Baltimore: Johns

article entitled “Is Botany a Suitable Study for Young Men?”⁷² The NEWC’s Botany Group was led by botanist Cora Huidekoper Clarke, who received her formal training at both the Horticultural School for Women and the Bussey Institute, both of which will be discussed later in this chapter. In the Botany Group NEWC members “culled, and dissected, and microscoped, and arrived at correct conclusions.”⁷³

The instruction offered at the NEWC’s Horticultural School for Women emphasized the domestic applications of horticulture. A typical day at the school began with breakfast at 7:30am and included work in the garden or greenhouse, a lecture accompanied by blackboard illustrations, record keeping, and a class on bouquet-making, flower packing, or the like.⁷⁴ By September 1870 the students had potted 1,500 plants, most of which had been sold in advance.⁷⁵ Reviewing this work, the school’s Board concluded that women had a “natural fitness” for horticulture and that the field had a “healthful charm, which will in every way be a source of profit, mentally, physically, and pecuniarily.”⁷⁶ Similarly, the school’s *First Annual Report*

Hopkins University Press, 1996). The nineteenth century American dimensions of this issue are examined by Emanuel D. Rudolph, “Women in Nineteenth Century American Botany; A Generally Unrecognized Constituency,” *American Journal of Botany* 69, no. 8 (1982): 1346–55; Emanuel D. Rudolph, “Almira Hart Lincoln Phelps (1793-1884) and the Spread of Botany in Nineteenth Century America,” *American Journal of Botany* 71, no. 8 (1984): 1161–67; Tina Gianquitto, *Good Observers of Nature* (Athens: University of Georgia Press, 2010).

⁷² J. F. A. Adams, M.D., “Is Botany a Suitable Study for Young Men?,” *Science*, 1887, 9: 117-118; Rossiter, “‘Women’s Work’ in Science, 1880-1910,” 387.

⁷³ “New England Women’s Club,” *The Woman’s Journal*, vol. 24, iss. 23 (June 10, 1893): 178.

⁷⁴ “New England Women’s Club,” *The Woman’s Journal*, vol. 24, iss. 23 (June 10, 1893): 178.

⁷⁵ NEWC Records; “New England Women’s Club,” September 2, [1870], page [54], M-145, microfilm reel 15, folder 114.

⁷⁶ *First Annual Report of the Horticultural School for Women*, 8.

explained that “the raising of fruits and vegetables is closely connected with pickling, canning and preserving them” and that the “arrangement of bouquets and floral decorations constitutes a business by itself”; through these statements, the school emphasized the connection of horticultural work to the domestic arts and suggested that this work was naturally suited to women.⁷⁷ As the NEWC’s efforts to encourage women’s participation in horticulture and botany indicate, the Club did share areas of overlap with the WEA. Although the NEWC was, on the whole, more encouraging of women’s public activism and co-education than the WEA, this is not to say that the Club never capitalized on gender norms as a means of encouraging support for women’s scientific participation. The political divergence between the NEWC and WEA molded, but was not wholly determinative of, these groups’ approaches to developing spaces for women’s science learning.

As this section indicates, the NEWC and WEA’s modes of enabling women to engage with public health questions often reflected their attitudes towards suffrage. The WEA encouraged women to investigate public health concerns within their own, largely domestic, realms. Further, the Association used its public influence to establish institutions and learning opportunities (i.e., the MIT women’s lab and the Boston Cooking School) that encouraged women to improve public health through individual domestic pursuits. In this manner, the WEA’s public health work correlates with anti-suffrage strategies and approaches to women’s work; Antis defended the ability of their particular social group to remain publicly engaged but did not encourage women more broadly to become politically involved.⁷⁸ In short, the WEA engaged deeply in questions of public health significance but did not take governmental action

⁷⁷ *First Annual Report of the Horticultural School for Women*, 8.

⁷⁸ Marshall, *Splintered Sisterhood*, 13.

on these issues as an Association. Meanwhile, the NEWC took public action with regard to issues of public health, even going so far as to lobby – and have club members speak before – governmental bodies. This is reflective of the NEWC’s encouragement of female political activism; just as it endorsed women’s suffrage, so too it encouraged its members to effect political change in the realm of public health. Thus, this comparison of these two groups’ approaches to public health once again indicates that their visions of women’s scientific engagement mirrored their attitudes towards suffrage.

Teaching Science in Feminine Ways

The meetings of the NEWC and WEA were squarely centered on attentive listening to lectures, followed by active discussion about the content presented. At the NEWC and WEA, it was women who chose and organized speakers, and it was women who responded to the content of the lectures in public forums as they saw fit. Further, women were able to present both their own interpretations of existing scientific knowledge and their own scientific findings. By providing women with an intellectual audience to whom they could freely lecture, the NEWC and WEA helped legitimate women’s scientific participation. Through their lectures, courses, writings, and clubrooms, the NEWC and WEA fostered a dialogic culture in which women’s scientific participation was not only accepted but encouraged.

The NEWC and WEA’s women-centric lecture culture was a necessary corrective to the masculinized mainstream lyceum culture. As noted in this dissertation’s introduction, lyceums often did not allow women to engage publicly in the discussions and debate that followed lectures.⁷⁹ The NEWC and WEA’s lecture culture intentionally diverged from that of the lyceum

⁷⁹ Ljungquist, 336.

and lecture circuit. As NEWC Historian Peabody put it, "...it is not the object of Clubs to reconstruct the old courses of Lyceum lectures under a new name."⁸⁰ Peabody further explained that the NEWC hoped that its lecturers would generally not be "those who make a profession of lecturing" but rather those whose work might otherwise "remain secluded in private portfolios."⁸¹ The NEWC and WEA's goal in hosting these lectures was not to provide women with a degree or even a full course of instruction, but rather to enrich women's lives and improve their rational minds. At a time when women were denied entrance not only to many universities but also to most scientific societies, the regularity of the NEWC and WEA's science lectures is impressive.

One notable aspect of the science lectures given by NEWC and WEA members was their tendency to draw on domestic subjects as a means of communicating dense scientific subjects. For example, in 1869 NEWC board member Ednah Dow Cheney gave a lecture on the physics of the color spectrum before the Club. Cheney had been educated at various private Boston schools and then, when she proved disruptive in the classroom, received her schooling through private tutors.⁸² Cheney forged diverse intellectual connections (including men such as Ralph Waldo Emerson and Amos Branson Alcott) through her involvement in Theodore Parker's

⁸⁰ NEWC Records, Lucia M. Peabody, "Club N.E.W. Sec. Report: 1894-5," 1895, page 8, M-145, microfilm reel 12, folder 53.

⁸¹ NEWC Records, Lucia M. Peabody, "Club N.E.W. Sec. Report: 1894-5," 1895, page 8, M-145, microfilm reel 12, folder 53.

⁸² Ednah Dow Cheney, *Reminiscences of Ednah Dow Cheney (Born Littlehale)* (Boston: Lee & Shepard, Publishers, 1902), 9, 15, 19, 20-1.

Transcendentalism,⁸³ and would go on to help found the Boston School of Design for women and lecture at the Concord School of Philosophy.⁸⁴

When lecturing at the NEWC, Cheney noted that she spoke with “no expectation of making any original contribution to Science, and no intention of taking sides on any disputed points as to its physical origin and composition.”⁸⁵ Cheney proceeded to exult in the poetic and artistic beauty of color. She then turned to the scientific understanding of color, highlighting “the recent marvellous [*sic*] achievement of the Spectrum Analysis.”⁸⁶ Rather than explaining this subject in dense scientific terms, Cheney brought spectral analysis into the domestic sphere, using chandelier crystals as a means of illustration: “Who would believe that in the pretty toy which we hung around our chandaliers [*sic*] to fill our parlors with brightness, the philosopher should find the means to analyze the very composition of the Sun and Stars and to solve the most difficult problems of Astronomy? It seems to me Science has never achieved a greater triumph.”⁸⁷ Here we see Cheney making the esoteric scientific topic of spectral analysis relatable to clubwomen who, like herself, likely had little formal scientific training. Her use of a chandelier as an example grounds the study of spectral analysis by emphasizing its domestic applications and indicates the elite social status of Cheney and her audience.

⁸³ Cheney, *Reminiscences*, 99-100.

⁸⁴ Cheney, *Reminiscences*, 72, 68, 121

⁸⁵ NEWC Records, “Social Meetings 1869 to 1871,” December 6, [1869], page [122], M-145, microfilm reel 8, folder 39v.

⁸⁶ NEWC Records, “Social Meetings 1869 to 1871,” December 6, [1869], page [122], M-145, microfilm reel 8, folder 39v.

⁸⁷ NEWC Records, “Social Meetings 1869 to 1871,” December 6, [1869], page [122], M-145, microfilm reel 8, folder 39v.

Through lectures, the NEWC and WEA were able to move academic knowledge into their female-centric spaces and networks and to create a distinct subculture of female scientific engagement. As noted in chapters 1 and 2, the NEWC and WEA developed feminized learning atmospheres in which tea was sipped and sewing was permitted. As this section has shown, they also taught science in feminized ways, drawing on the domestic realm for examples. Thus, rather than simply re-presenting lectures that might have been offered at lyceums, the NEWC and WEA encouraged their own members to present, and to do so in ways that were accessible to women.

Science Education as a Means of Spreading Elite Class and Gender Norms

The NEWC and WEA both promoted various opportunities for lower-class women to learn sciences that were considered to be of practical utility. This was not uncommon; as Margaret Rossiter has shown, scientifically-engaged women in the late nineteenth century were often encouraged to apply their knowledge to help the working classes and to “help solve the social problems around them.”⁸⁸ Robyn Muncy has examined the tendency of elite reformers to enforce their own class and gender norms on the women upon whom their reforms centered.⁸⁹ As Muncy’s work indicates, middle and upper class women remained enmeshed in efforts to improve working class women and children’s health, living, and working conditions from the Progressive Era through the New Deal. Female reformers were able to more readily claim professional dominion over areas that were coherent with traditional areas of women’s work,

⁸⁸ Rossiter, “‘Women’s Work’ in Science, 1880-1910,” 394-5.

⁸⁹ Muncy, *Creating a Female Dominion in American Reform, 1890-1935*.

such as when their jobs tended to the poor, women, or children.⁹⁰ Though Muncy's work centers on Progressive Era child welfare reformers in Chicago, the same thread – of elite women using reform as a means of policing the behavior of subaltern women – is visible in the NEWC and WEA's explanations of the science learning they fostered for lower-class women.

The NEWC felt that by improving women's educations it could strengthen their moral character. Indeed, Louisa May Alcott's 1875 satirical poem about the Club referred to it as a "moral restaurant."⁹¹ Additionally, one of the WEA's committees was devoted to 'moral and physical education.'⁹² The WEA sought to influence women's education in a broad sense – not only of its own class group, but also of working women. While this emphasis on improving morals among the lower classes may, at first brush, seem altruistic, more detailed analysis suggests that these learning spaces enabled the women of the NEWC and WEA to extend their sphere of influence and, in some cases, to proscribe and even police the behavior of lower-class women.

The Horticultural School for Women is perhaps the best example of the manner in which the NEWC used science education as a means of influencing the activities of lower-class women. The NEWC's 1869 annual report sought donations to the school and emphasized the benefits the school would provide, asking: "Are you not willing to contribute, or help to secure from those interested outside of the club, the few thousands of dollars needed to put many a young life into

⁹⁰ Muncy, 36.

⁹¹ NEWC Records; Historian's records. Disassembled scrapbook, 1857-1919. Louisa May Alcott, "An Advertisement," January 1875, M-145, microfilm reel 3, folio box 2.

⁹² Richards, "Waste of Energy in Organization," 928.

the path that shall mean success and salvation in the end, instead of ruin?”⁹³ Framing the school’s establishment as a moral good, the report went on to suggest that women who attended might, “without such a helping hand...become just so many hindrances to the progress of the world.”⁹⁴ In framing the Horticultural School’s education in this manner, the NEWC suggested that a botanical education could serve as the groundwork for working women’s participation in profitable, moral, and healthful employment. By suggesting that this type of education could prevent women from becoming burdens on society, the NEWC cast science education as a means of overseeing the behavior of lower-class women. The NEWC’s explanations of the Horticultural School’s utility were apparently well-heeded; in its first year the Horticultural School raised almost \$7,000 in donations.

In spite of the Horticultural School for Women’s success at raising awareness and funds, it struggled to enroll students. This difficulty reflected, in large part, a mismatch between the cost of the education and the expected earnings in the field. Tuition was \$100 per year, equivalent to that of Smith College, yet work in the horticultural field was often a lower middle-class job.⁹⁵ As a result, many of the women the NEWC aimed to help educate were unable to attend. The Horticultural School’s Board was well aware of this issue when, in May 1871, it received a letter from Harvard President Charles Eliot highlighting the impending opening of an agricultural school, likely the Bussey Institution. Eliot explained that the school’s lectures would be open to

⁹³ NEWC Records, “The Annual Meeting of the New England Women’s Club,” May 29, 1869, page 11, M-145, microfilm reel 12, folder 54.

⁹⁴ NEWC Records, “The Annual Meeting of the New England Women’s Club,” May 29, 1869, page 11, M-145, microfilm reel 12, folder 54.

⁹⁵ Room and board at Smith cost an additional \$250 annually. *First Annual Report of the Horticultural School for Women*, 5; *First Annual Report of the Horticultural School for Women*, 5; MHS WEA Records, General Meeting Records, 1876-1878, April 1877, n.p., Box 2, Folder 3.

women.⁹⁶ Writing in the Club's 1873 annual report, NEWC Board member Abby W. May characterized Bussey's decision to admit women as "a larger result than we had dared to expect."⁹⁷ As this suggests, May sought to imply that Bussey's willingness to admit women was, at least in part, a result of the efforts of the Horticultural School for Women. However, there is no evidence that Bussey saw the Horticultural School for Women as a source of inspiration. In fact, the Horticultural School was struggling gravely by this point. As noted in NEWC meeting minutes from September 1871, the school's "lack of pupils & funds [were] a difficulty not easily to be got over."⁹⁸ Discussing this situation, the schoolboard opined that it was "very hard to give up what has been done & spent so far" but noted that "carry[ing] on a school without scholars was a problem beyond [our] power of solution."⁹⁹

Though few, the Horticultural School's 1870-1 students did go on to work within the horticultural field. According to the Horticultural School's 1873 annual report, former pupil Miss Jordan was employed as the caretaker of WEA founding member Harriet Hemenway's greenhouse and received an annual salary of \$600.¹⁰⁰ Another former pupil was said to be

⁹⁶ NEWC Records, "New England Women's Club," May 5, [1871], page [17], M-145, microfilm reel 16, folder 115.

⁹⁷ NEWC Records, Abby W. May's report, "Report of the Annual Meeting of the New England Women's Club," May 31, 1873, page 11, M-145, microfilm reel 12, folder 54.

⁹⁸ NEWC Records, "New England Women's Club," September 1, [1871], page [34], M-145, microfilm reel 16, folder 115.

⁹⁹ NEWC Records, "New England Women's Club," September 8, [1871], page [35], M-145, microfilm reel 16, folder 115.

¹⁰⁰ In 1896 Hemenway would establish the Massachusetts Audubon Society. NEWC Records, "Act of Incorporation," January 14, 1873, page [13], M-145, microfilm reel 16, folder 115.

working in a flower shop for a weekly salary of six dollars.¹⁰¹ Cora Clarke, who founded the NEWC's long-standing Botany Group, received her initial training at the Horticultural School, and then went on to study at Bussey.¹⁰² Like the Horticultural School, Bussey struggled to enroll students. By 1873, the Horticultural School¹⁰³ reported that the Bussey School had "not a single pupil this year."¹⁰⁴ The enrollment difficulties faced by the Horticultural School for Women and the Bussey were likely at least partly reflective of the prescriptive nature of the scientific work being conducted. In establishing horticultural education for women, the NEWC did not seek out the opinions of the women it sought to educate. Rather, the Club offered the types of education it considered necessary for lower-class women, but in this case the NEWC clearly failed to identify an area that was both financially tenable and of interest.

In 1880 the WEA's Executive Committee examined a few plans for improving the health of working-class girls. The committee presented two of these plans to the membership at large during a general meeting. The first plan centered around giving "a course of lectures...on the laws of Health" to working-class girls. The WEA felt that these girls were "ignorant" of physiology and as such would benefit from this course. The WEA had found several physicians, including Dr. Marie Zakrzewska and Dr. Sewall (both members of the NEWC) who would be

¹⁰¹ NEWC Records, "Act of Incorporation," January 14, 1873, page [13], M-145, microfilm reel 16, folder 115.

¹⁰² "Miss Clarke is Winning Fame as 'Plant Doctor,'" *Boston Sunday Post* (January 9, 1910): 40.

¹⁰³ Although the school had disbanded by this point, the Horticultural School for Women's Board of Directors remained active; they were needed to oversee the funds that the school had acquired.

¹⁰⁴ NEWC Records, "Act of Incorporation," January 14, 1873, pages [12-3], M-145, microfilm reel 16, folder 115.

willing to provide these lectures.¹⁰⁵ The other plan aimed to provide girls with “a course of lessons at the gymnasium” to be instructed by a Miss Allen. The Miss Allen referred to here was likely Mary E. Allen, who also lectured before the NEWC and owned ‘The Ladies’ Gymnasium’ (also known as the Gymnasium for Ladies and Children) on Washington Street in Boston.¹⁰⁶ This gymnasium was taken seriously by the physicians of Boston. The *Boston Medical and Surgical Journal* announced its relocation in 1880, explaining that patients sent to the gym “by physicians will receive careful attention” and that “some of our best physicians testify to the care exercised by Miss Allen over the women and children intrusted [*sic*] in her charge.”¹⁰⁷ Under the auspices of the WEA, Allen was willing to provide “ten lessons for forty dollars” to a class of twenty or more girls.¹⁰⁸ The WEA ended up combining the two plans; Allen both provided lectures on health to working class girls and offered them gymnasium classes. The WEA considered Allen’s courses a success and arranged for Allen to provide them again the following year.¹⁰⁹ As this illustrates, the WEA’s science lessons extended beyond its own membership, reaching into the larger community in an effort to improve the health of the masses. Attempting

¹⁰⁵ MHS WEA Records; General Meeting Records, 1878-1882, February 12, 1880, n.p., Box 2, Folder 4.

¹⁰⁶ Allen would go on to publish a book entitled *Health and Strength for Girls* alongside fellow NEWC lecturer Dr. Mary Safford.

¹⁰⁷ “The Gymnasium for Ladies and Children...” *Boston Medical and Surgical Journal*, vol. CIII, no. 14 (September 30, 1880): 327.

¹⁰⁸ MHS WEA Records; Executive Committee Records, 1878-1882, February 7, 1880, n.p., Box 4, Folder 2.

¹⁰⁹ MHS WEA Records; Executive Committee Records, 1878-1882, October 9, 1880, n.p., Box 4, Folder 2.

to remedy the ‘ignorance’ of working-class girls, the WEA was not only providing them with an education but also ensuring that they adhered to contemporaneous ideals of health.

The science fostered by the WEA sometimes had a distinctly racist, xenophobic air. Ellen Swallow Richards applied chemistry to concerns surrounding racial and immigrant cleanliness.¹¹⁰ She developed the field of *euthenics*, which she defined as “the betterment of living conditions, through conscious endeavor, for the purpose of securing efficient human beings.”¹¹¹ She saw this field as a precursor to *eugenics*, which she suggested required generations to improve racial health and required further “careful investigation.”¹¹² During this time period, eugenics was gaining ground as a result of the advent of Darwinian evolutionary theory. As people came to understand natural selection, concern arose that evolution in modern society could result in the devolution of mankind as a result of the social supports provided for the ‘degenerates’: the poor, the disabled, the mentally unwell. In America, immigrants were often the target of this evolutionary concern.¹¹³ Richards felt that “race improvement” could be more immediately achieved through the careful control of the environment engendered by euthenics.¹¹⁴ Indeed, Richards argued that “the application of science to daily life must now come into the curriculum of all the higher education for women if we are to see the best

¹¹⁰ Kristen R. Egan, “Conservation and Cleanliness: Racial and Environmental Purity in Ellen Richards and Charlotte Perkins Gilman,” *Women’s Studies Quarterly* 39, no. 3/4 (2011): 77–92.

¹¹¹ Ellen H. Richards, *Euthenics, the Science of Controllable Environment: A Plea for Better Living Conditions as a First Step Toward Higher Human Efficiency*, second ed. (Boston: Whitcomb & Barrows, 1912), vii.

¹¹² Richards, *Euthenics, the Science of Controllable Environment*, viii.

¹¹³ Daniel J. Kevles, *In the Name of Eugenics: Genetics and the Uses of Human Heredity* (New York: Alfred A. Knopf: 1985).

¹¹⁴ Richards, *Euthenics, the Science of Controllable Environment*, viii.

development of the race.”¹¹⁵ Thus, Richards suggested that the careful application of science to domestic matters could improve the healthfulness of the population, particularly the immigrant population. As Kristin R. Egan shows, Richards’s 1910 *Euthenics: The Science of Controllable Environment* presented immigrants as a threat to the home and the nation as a result of both their germs and their bloodlines.¹¹⁶

Another WEA-led educational effort that was marked by prejudice was the Domestic Science Committee’s 1903 development of a training school for domestic servants. This training school aimed to address the ‘domestic service problem,’ that is, the fact that domestic service was becoming “increasingly unpopular” as a profession.¹¹⁷ The training school was located in Boston’s wealthy Back Bay. Living at the training school, female servants were trained “for a month or six weeks in various household duties, after which they will be hired out by the hour to householders.”¹¹⁸ This effort was entitled the Household Aid Company. The school had space for twenty Aids, all of whom were required to be at least 17 years old and to have the equivalent of a grammar school education.¹¹⁹ Aids received their training for free as well as a small stipend. At the end of their training, the Aids were “graded according to skill and experience” and were

¹¹⁵ Ellen H. Richards, “The Place of Science in Woman’s Education,” *The American Kitchen Magazine: A Domestic Science Monthly*, vol. 7, no. 1 (Boston: The Home Science Publishing Company, 1897), 226.

¹¹⁶ Egan, “Conservation and Cleanliness,” 77.

¹¹⁷ “The Domestic Service Problem,” in *Special Reports on Educational Subjects*, vol. 15 (London: Wyman & Sons, Limited, 1905), 251.

¹¹⁸ “HIRING SERVANTS BY HOUR: Boston Woman’s Education Association Will Try to Solve Old Problem by New Methods,” *St. Louis Post - Dispatch* (May 25, 1903): 2.

¹¹⁹ “The Household Aid Company,” *Congregationalist and Christian World*, vol. 88, no. 31 (August 1, 1903): 159.

expected to “receive salaries ranging from five to fifteen dollars a week.”¹²⁰ The house was overseen by Ellen A. Huntington, who had graduated from the Pratt Institute and received her baccalaureate from Illinois University with a focus on Home Economics. Huntington also had experience as an instructor at the School of Housekeeping in Boston.¹²¹ In its first six months, the Household Aid Company received five thousand requests for aid, half of which it was able to fill, and earned \$2,269.¹²²

The motivations undergirding the Household Aid Company were blatantly xenophobic. As explained in contemporaneous coverage of the Household Aid Company, the WEA developed the school with hopes of “attract[ing] American girls into household service again” by making its working conditions similar to those of competing occupations.¹²³ As this indicates, the WEA pursued domestic science in a manner that forwarded its members’ prejudices, presenting American workers as superior to immigrants and suggesting that domestic science could be used as a means of improving the health of the lower-classes.

When examining the NEWC and WEA’s efforts to alter women’s education, it is important to always keep in mind the racial, ethnic, and class dimensions of their work. As the examples in this section suggest, the NEWC and WEA’s educational programs often forwarded their own class interests and worldviews. Through developing opportunities for lower-class

¹²⁰ “The Household Aid Company,” *Congregationalist and Christian World*, 159-60.

¹²¹ “The Household Aid Company,” *Congregationalist and Christian World*, 160.

¹²² Priscilla Leonard, “Boston’s Housework Experiment,” *Harper’s Bazaar*, vol. 39, no. 3 (March 1905): 226.

¹²³ Leonard, “Boston’s Housework Experiment,” 225.

women's education, the women of the NEWC and WEA broadened their own spheres of influence in part by enforcing their social norms upon lower-class women.

“The wisdom of serpents with the harmlessness of doves”:¹²⁴ Leveraging Women's Scientific Subcultures to Access University-Based Science Education and Employment

Although this dissertation seeks to shift the history of women's science learning *beyond* the university, it would be remiss to ignore the role of women's organizations in enabling women to enter the academy. Indeed, the NEWC and WEA's spaces of scientific learning did occasionally serve as a launching pad for women's academic careers. Further, both the NEWC and the WEA provided scholarships and fellowships for women seeking advanced degrees. Women's ability to leverage these groups' learning spaces to enter the academy is indicative of these spaces' strengths, but also of their limits. In some cases, the NEWC and WEA's female-centric subcultures of science allowed women to bypass the obstacles they typically faced in male-dominated or coeducational spaces.¹²⁵ However, women's entrance into the academy was only necessary because the NEWC and WEA's spaces were not, in themselves, considered adequate alternatives to the university.

The WEA-sponsored MIT women's lab provides an excellent case study for examining the relationship of the academy to the women-centric learning spaces established by the NEWC and WEA. As detailed in chapter 2, the WEA financed the lab's equipment while MIT provided

¹²⁴ Bates, 25.

¹²⁵ Sally Kohlstedt has argued that Maria Mitchell deployed similar tactics in her own work. See: Kohlstedt, “Maria Mitchell,” 39-63, especially page 63. Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 56-7, 65, 100-1.

its physical space. Its staff operated largely on a volunteer basis. The lab therefore represents an interesting melding of university culture with women's group culture.

In both 1881 and 1882 the MIT women's lab had "two students graduate."¹²⁶ The language of 'graduate' is striking and was used by both the WEA and Richards; neither the WEA nor Richards ever detailed what was required to 'graduate' from the women's lab and MIT did not formally admit female students until 1882. It therefore appears that both Richards and the WEA used the language of 'graduation' informally to indicate the completion of a satisfactory research program, not the receipt of an MIT degree. The appropriation of the term 'graduate' suggests that the WEA and Richards viewed the women's laboratory as a legitimate alternative to formal university degrees. Employers appear to have felt likewise; each of the lab's four female graduates obtained employment that utilized their chemistry education. One went to work at MIT. Another went to work in Brooklyn as a chemist for a Dr. Squibb, "a large manufacturer of pharmaceutical chemicals."¹²⁷ This 'Dr. Squibb' is almost certainly Edward Robinson Squibb (1819-1900) whose pharmaceutical business would go on to become part of Bristol-Myers Squibb, a major American pharmaceutical company. Another graduate became an assistant at the MIT women's lab, and the remaining graduate became a high school chemistry teacher in Denver, Colorado.¹²⁸ Additionally, the lab's charismatic founder – Richards – advanced her academic career thanks to the lab. In 1878, after five years of teaching at MIT without

¹²⁶ MHS WEA Records, General Meeting Records, 1878-1882, May 12, 1881, n.p., Box 2, Folder 4.

¹²⁷ MIT Women's Lab Records, Box 1, Folder 11, Ellen Swallow Richards, "Report for the April [1882] meeting of the Woman's Education Association," p. [10].

¹²⁸ MHS WEA Records, Executive Committee Records, 1878-1882, October 9, 1882, n.p., Box 4, Folder 2.

appointment or salary, Richards was formally recognized as an MIT instructor in chemistry.¹²⁹

The WEA felt that this “recognition of Mrs Richards’ services is no more than due as these services have always been gratuitous.”¹³⁰

In spite of these successes, the lab was only open for seven years. Interestingly, the lab’s closure appears to have been considered a success. In 1883 the WEA reported that its collaboration with the lab had “been brought to a successful termination” because MIT was planning to “provide in its new buildings suitable accommodations for women students” and to “give them instruction through its regular professors.”¹³¹ As noted in an undated WEA retrospective on the women’s lab, in 1884 MIT opened “all courses” to women and did “away with a separate laboratory.”¹³² As this indicates, the WEA felt that MIT’s admission of women was a satisfactory alternative to the education offered at the women’s lab; the lab had served as a temporizing measure, and was disbanded once MIT welcomed women. This suggests that the women of the WEA felt that the women-centric culture of the MIT women’s lab was not a necessary feature of its educational mission. The all-female character of the lab therefore appears to have been a strategic move – by creating a women-centric space of learning, the WEA was able to showcase women’s ability to undertake scientific research without radically defying

¹²⁹ “Ellen H. Swallow Richards (1842–1911),” *American Chemical Society*, accessed May 5, 2017, <https://www.acs.org/content/acs/en/education/whatischemistry/women-scientists/ellen-h-swallow-richards.html>; MHS WEA Records, General Meeting Records, 1878-1882, February 13, 1879, n.p., Box 2, Folder 4.

¹³⁰ MHS WEA Records, General Meeting Records, 1878-1882, February 13, 1879, n.p., Box 2, Folder 4.

¹³¹ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 11, 1883* (Boston: Cochrane & Sampson, Printers, 1883), 7, Box 12, Folder 9.

¹³² MIT Women’s Lab Records, Box 1, Folder 21, “Unidentified writing Re: Women’s Laboratory,” p. i.

contemporaneous gender norms. Yet, once MIT opened its doors to women, the WEA no longer felt that this women-centric space was needed.

The NEWC and WEA's scholarships were another visible axis of their engagement with universities. Both groups helped women enter the academy by providing scholarships for baccalaureate and doctoral degrees. The NEWC's longest-standing scholarships for women's scientific education were the Joy Scholarships.¹³³ These scholarships were initially endowed to provide for women's instruction at the Horticultural School for Women. This school's 1872 closure left the Joy Scholarships with nothing to fund. On Ednah Dow Cheney's motion, the NEWC Board voted to transfer the Joy Fund to MIT "for the founding of scholarships for women seeking instruction in Natural Science."¹³⁴

The WEA made scholarships and fellowships a more central part of its work than the NEWC. In December 1891 WEA President (and former president of Wellesley College) Alice Freeman Palmer urged the WEA to consider providing fellowships, "especially Fellowships in Botany, Classics & Mathematics."¹³⁵ In so doing, Palmer attempted to mobilize the WEA's women-centric subculture of scientific engagement to respond directly to universities'

¹³³ In 1880 the NEWC established a "College Scholarship for Women" in response to a speech by Mrs. Woolson. Abby W. May, "New England Women's Club," *The Woman's Journal*, vol. 11, iss. 25 (June 19, 1880): 198.

¹³⁴ It appears that the Joy Fund was successfully transferred to MIT. A 1914 *Catalogue of the Officers and Students* of MIT includes the "Joy Scholarship" among its list of available scholarships and fellowships. The catalogue explains that the "money by which these scholarships are sustained was given by Miss Nabby Joy" and that the scholarships were "created ... for the benefit of one or more women studying natural science in the Institute." NEWC Records, "Act of Incorporation," January 8, 1884, page [39], M-145, microfilm reel 16, folder 115; "Joy Scholarship," in *Bulletin of the Massachusetts Institute of Technology: Catalogue of the Officers and Students*, vol. 50, no. 1 (December 1914): 440.

¹³⁵ MHS WEA Records, General Meeting Records, 1888-1893, December 17, 1891, n.p., Box 2, Folder 6.

widespread lack of fellowships for women's advanced scholarship.¹³⁶ The WEA took speedy action. Within a month, it had raised \$400 and promised \$100 of its own funds to support a "European Fellowship for women for one year" beginning in the summer of 1892.¹³⁷ As noted in an 1892 *Chicago Tribune* article, the WEA felt that these fellowships were important because: "while the educational advances now open to women in America are sufficient to fit them for taking places in the ranks of ordinary teachers, there is difficulty in their holding their own in any contest for the higher places, such as professorships, against the men who have been trained abroad."¹³⁸ By January 1892 the WEA had decided to collaborate in this effort with the Association of Collegiate Alumnae (ACA), a nationwide organization of female college graduates that sought to improve women's education. The WEA and ACA advertised widely; they "sent out 1700 circulars to applicants for our Fellowships" in 1892.¹³⁹

In 1892 the WEA established its fellowships for women on a permanent basis.¹⁴⁰ In December 1907 the WEA hosted a general meeting and tea to introduce members to previous

¹³⁶ The lack of scholarships for women has been especially acknowledged in England, which is perhaps unsurprising given that many of the WEA's own scholarships were directed at enabling women to study at European universities. For further information on this lack of fellowships, see: Richmond, "A Lab of One's Own," especially p. 446, n. 59.

¹³⁷ MHS WEA Records, General Meeting Records, 1888-1893, February 18, 1892, n.p., Box 2, Folder 6.

¹³⁸ Bates, 25.

¹³⁹ MHS WEA Records, General Meeting Records, 1888-1893, March 17, 1892, n.p., Box 2, Folder 6.

¹⁴⁰ MHS WEA Records, General Meeting Records, 1888-1893, November 17, 1892, n.p., Box 2, Folder 6.

recipients of its fellowships.¹⁴¹ Fellowship recipients included professors and teachers, the most famous of whom was psychology researcher, teacher, and lab assistant Ethel Puffer.¹⁴² Puffer is among the most canonical examples of female psychologists in nineteenth century America. After receiving her fellowship, Puffer studied psychology at Harvard and, in 1898, completed the requirements for a doctorate but was denied a degree on account of her sex.¹⁴³ Puffer was appointed as an ‘assistant’ in the psychology department but was not formally acknowledged as part of the faculty. It was not until the 1902 establishment of the Radcliffe Graduate School as a coordinate institution to Harvard that Puffer was granted a doctorate, though from Radcliffe, not Harvard.¹⁴⁴

By funding university fellowships, the NEWC and WEA encouraged women’s participation in university-based science. In this manner, the NEWC and WEA leveraged socially acceptable structures of female sociability (the women’s group) to engender access to the increasingly professionalizing, male dominated field of science. As a *Chicago Tribune* article on the WEA’s fellowships for women acknowledged, the Association’s strategies for encouraging women’s professional work showcased “the wisdom of serpents with the harmlessness of doves.”¹⁴⁵

¹⁴¹ MHS WEA Records, General Meeting Records, 1903-1908, December, 1907, pp. 169-71, Box 3, Folder 2.

¹⁴² MHS WEA Records, General Meeting Records, 1903-1908, December, 1907, pp. 171-7, Box 3, Folder 2.

¹⁴³ Margaret W. Rossiter, "Doctorates for American Women, 1868-1907," *History of Education Quarterly* 22, no. 2 (1982): 173.

¹⁴⁴ Rossiter, "Doctorates for American Women," 173.

¹⁴⁵ Bates, 25.

The NEWC and WEA's eagerness to fund fellowships indicates their sense that the women-centric spaces of science learning they established were not a satisfactory replacement for university-based science learning. Rather, these were spaces of enrichment and learning, but not always formal accreditation. Notable exceptions to this include the Boston Cooking School and the Horticultural School for Women. However, as noted in the previous section, these institutions centered on highly feminized areas of science. Thus, this section suggests that the NEWC and WEA were unable to offer an alternative to the university as a credentialing system for women in non-feminized sciences. Focusing on developing opportunities for 'women studying together' may have enabled the NEWC and WEA to create opportunities for women's science learning in feminized subjects, but both the NEWC and the WEA welcomed co-education within universities when it was available.

Conclusion

The NEWC and WEA's women-centric, alternative subcultures of women's scientific learning enabled over two thousand Bostonian women to learn about the natural world at a time when women in academic science numbered in the low hundreds. Given that this was a period during which women's scientific work was a subject of heated debate, the prevalence and success of these women-centric learning spaces is impressive. Nonetheless, this chapter has also recognized the limits and political implications of these women-centric spaces.

This chapter suggests that the NEWC and WEA's plans for, and approaches to encouraging, women's science education and participation were reflective of their views on suffrage. As Marshall has shown, Antis promoted the joys of scientific motherhood as a means of countering reformers' endorsement of new womanhood and pushing back on the widespread

discontent among women with their domestic work.¹⁴⁶ By fostering opportunities for women's education in domestic science, the WEA enabled women to engage in science without challenging their proscribed social role. This chapter has suggested that the WEA's efforts to foster women's science engagement were successful, in large part, because the Association strategically focused on feminized areas of the sciences. In so doing, the science learning opportunities it fostered often served to reify the existing gender system; rather than training women in traditionally masculine trades, the WEA centered its science education work on fields where women's participation was more readily accepted. Therefore, these spaces not only offered women the opportunity to learn about science, but also further codified existing notions of female aptitudes. In this manner, the WEA's science education efforts were double-edged: though challenging the exclusion of women from science, their emphasis on feminized sciences implicitly upheld the notion that women were most capable of contributing to particular scientific disciplines. In contrast, the NEWC encouraged women to improve public health via direct political interventions, such as lobbying and speaking before governmental bodies. Nonetheless, even the NEWC occasionally capitalized on the acceptance of women's participation in feminized scientific fields, as indicated by the Club's establishment of the Horticultural School for Women.

In spite of their diverging attitudes towards suffrage, both the NEWC and WEA fostered systems of science learning that codified their worldviews. Both groups were composed largely of well-to-do white women, and both offered science instruction to lower-class and immigrant women in a manner that reified their own class and gender norms. The NEWC and WEA's efforts to educate immigrant and lower-class women are reflective of the massive immigration

¹⁴⁶ Marshall, *Splintered Sisterhood*, 127.

Boston was experiencing. By the end of the nineteenth century, immigration reached unprecedented levels; over a third of the city's population had been born abroad. Though the city was almost entirely white, it had an abundance of ethnic minorities, especially immigrants from Ireland.¹⁴⁷ By educating subaltern women, the NEWC and WEA saw themselves as improving the moral and physical health of the city. Indeed, Ellen Swallow Richards went so far as to envision that her work could improve the bloodlines of immigrants.¹⁴⁸

The NEWC and WEA's efforts to improve the lower classes are unsurprising; as Judith Ranlett's study of Boston women's clubs has shown, women's groups often sought to establish a community for women who felt unsettled amidst the city's rapid immigration.¹⁴⁹ Through the creation of women-centric spaces of science learning, the NEWC and WEA were able to shape the character of lower-class women's learning. For example, as this chapter has argued, the NEWC's Horticultural School was established with an eye towards employing women who might otherwise become societal 'burdens.' Similarly, the WEA emphasized domestic science not only because it was a feminized field in which women's work was accepted, but also because some of its members viewed it as a means of improving the health of immigrants and the lower classes.

The NEWC and WEA's women-centric spaces of science learning did not offer a true alternative to university degrees. However, in some cases, women were able to leverage the learning opportunities offered by these groups to gain entrance to the university. Working from a

¹⁴⁷ Boston Redevelopment Authority, *Briefing Book: Demographic Profile of the Foreign-Born in Boston* (Boston: Mayor's Office of New Bostonians, March 1, 2010), 1-9.

¹⁴⁸ Egan, "Conservation and Cleanliness," 77.

¹⁴⁹ Ranlett, 20.

space of feminine respectability (the women's group), the NEWC and WEA edged their way in from the margins to foster opportunities for women to pursue science within the academy, both as students and as teachers. Interestingly, when women entered the academy by leveraging female structures of sociability, they were often excluded from full participation by male structures of sociability, as Jenna Tonn has shown. In particular, Tonn argues that 'after hours' male cultures of sociability impacted the study of biology at Harvard and Radcliffe in the late nineteenth and early twentieth centuries.¹⁵⁰ Thus, while male cultures of sociability contributed to the inequality of women's access to academic science, female structures of sociability served as a means of generating spaces for women to learn science and as an opening wedge for women in the academy.

¹⁵⁰ Tonn, "Extralaboratory Life," 329-58.

Chapter 5

“To confer with the ladies upon the subject of a laboratory”¹: Male Supporters of Women-Centric Subcultures of Scientific Learning

The NEWC and the WEA were established at a time when women’s scientific engagement was the subject of intense debate among medical and scientific authorities.² As Dr. Marie Zakrzewska, a NEWC member and leader of the New England Hospital for Women and

¹ MHS WEA Records, “Woman’s Education Association,” February 10, 1876, n.p., Box 2, Folder 2.

² For examples of the pushback against female participation and employment in science and medicine see: Edward H. Clarke, *Sex in Education; or, A Fair Chance for Girls* (Boston: James. R. Osgood and Company, 1873); N. Williams, “A Dissertation on ‘Female Physicians,’” in *The Boston Medical and Surgical Journal* 43, No. 4 (August 1850): 69-75; Dr. Harriot Hunt’s memoir provides insight into Harvard Medical School’s unwillingness to admit women: Harriot Kezia Hunt, *Glances and Glimpses: Or, Fifty Years Social, Including Twenty Years Professional Life* (Boston: John P. Jewett and Company, 1856), especially pages 215-9; Henry Maudsley, “Sex in Mind and Education,” in *Popular Science Monthly* 5 (June 1874): 198-215; Ely van de Warker, “The Relations of Women to the Professions and Skilled Labor,” in *Popular Science Monthly* 6 (February 1875): 455-70; A. Hughes Bennett, “Hygiene in the Higher Education of Women,” *The Popular Science Monthly* 16 (February 1, 1880): 519-30; T. S. Clouston, *Female Education from a Medical Point of View: Being Two Lectures Delivered at the Philosophical Institution, Edinburgh, November 1882* (Edinburgh: Macniven & Wallace, 1882).

For examples of those arguing in favor of female participation and employment in science see: Samuel Gregory, *Doctor or Doctress?* (Boston: Published by the Trustees, 1868); Samuel Gregory, *Female Physicians* (Boston: New England Female Medical College, 1864); Samuel Gregory, *Letter to Ladies, in Favor of Female Physicians for Their Own Sex* (Boston: Published by the [Female Medical Education] Society, 1854); William Hosmer, *Appeal to Husbands and Wives in Favor of Female Physicians* (New York: George Gregory, 1853), U.S. National Library of Medicine Digital Collections.

For secondary sources that examine this debate see: Russett, *Sexual Science*; Nye, “Medicine and Science as Masculine ‘Fields of Honor’”; Tonn, “Extralaboratory Life”; David Tyack and Elisabeth Hansot, “King Canutes Attack the Perils of Coeducation and Women Teachers,” in *Learning Together: A History of Coeducation in American Schools* (New York: Russell Sage Foundation, 1992), 146-64; Claire G. Jones, “‘All Your Dreadful Scientific Things’: Women, Science and Education in the Years around 1900,” *History of Education* 46, no. 2 (March 4, 2017): 165.

Children, wrote: “the most strenuous efforts were needed to create confidence in the city, as well as among professional men, that a woman could be a physician, an obstetrician, a surgeon” in the latter half of the nineteenth century.³ Harriot Hunt’s 1847 rejection from Harvard Medical School, discussed in chapter 1, demonstrates that contemporaneous debates about women’s ability to participate in science had direct impacts upon members of the NEWC and WEA.

A significant body of literature has portrayed women’s struggle to enter scientific and medical professions as an uphill battle in which individual women struggled against both trenchant critiques of their participation and an overwhelmingly masculine culture within science. As Sally Gregory Kohlstedt shows, nineteenth century Victorian women often faced “disapproval” if they were deemed “too learned.” Further, as American science professionalized and men established exclusive scientific associations, organizations, and credentials, women’s participation was further circumscribed.⁴ As Kohlstedt details, women were typically socialized to serve as helpmates to male intellectuals, not to enter academia.⁵ Female scientific intellectuals were often treated as oddities and were not expected to seek public recognition of their work.⁶

Debates about women’s participation in academic science came to a head at the NEWC’s clubrooms in December 1872 when the Club welcomed Dr. Edward H. Clarke for a lecture on the subject of women’s education. Clarke was a member of the Massachusetts Medical Society

³ NEWC Records, Historian's records. Disassembled scrapbook, 1857-1919. 1901 letter from Marie Zakrzewska quoted in an article cut out: “Memorial Meeting for Dr. Zakrzewska,” *The Woman’s Journal* (November 8, 1902): n.p., M-145, microfilm reel 3, folio box 2.

⁴ Kohler, *Landscapes and Labscapes*, esp. pp. 23–59; Margaret Rossiter’s *Women Scientists in America* is the canonical series for information on American women’s efforts to gain access to university-based science education; Kohlstedt, “In from the Periphery,” 81.

⁵ Kohlstedt, “In from the Periphery,” 81.

⁶ Kohlstedt, “In from the Periphery,” 90.

and the American Association for the Advancement of Science as well as a professor emeritus of *materia medica* at Harvard. At the time of this lecture, Clarke's views on women's education were little known; it was not until a year later, in 1873, that Clarke published his (now infamous) *Sex in Education*.

Clarke was accompanied to the NEWC by a Dr. Holmes, likely Oliver Wendell Holmes Sr., the Dean who had rejected Hunt's application to Harvard Medical School.⁷ Clarke was also joined by Harvard President Charles William Eliot. Clarke began the lecture by reading "part of a paper on the fitness of Woman for regular training – as influenced by the peculiarities of their physical training."⁸ Clarke's lecture explained his belief that women were unsuited for advanced academic work as a result of their physiology, highlighting "the mischief that college education would do to women."⁹ By this, Clarke meant that college education would damage women's health; in *Sex in Education* Clarke argued that extended, intensive education could render women sickly, frail, and infertile.¹⁰ He felt that advanced education would over-stimulate women's brains and thereby risk depleting the energy needed to sustain their large and complex "reproductive apparatus."¹¹ After Clarke's lecture, Holmes and Eliot are said to have given "their

⁷ Clarke quoted Oliver Wendell Holmes in an epigraph in *Sex in Education* (1873) and Holmes would go on to write an introduction and memorial to Clarke in Clarke's *Visions: A Study of False Sight, Pseudopia* (1878).

⁸ NEWC Records, Untitled dark notebook from 1872-1874, December 16, [1872], page [8], M-145, microfilm reel 9, folder 40.

⁹ Sturgis, 3.

¹⁰ Clarke, *Sex in Education*, 137.

¹¹ Clarke, *Sex in Education*, 137.

fullest assent & approbation to the views advanced by him.”¹² As noted in an 1893 *Boston Daily Globe* article, “Holmes followed with a medical argument, supporting Dr. Clarke’s theory that nature meant women to be weak and inferior.”¹³

Examining the NEWC’s archives demonstrates the intensity with which club members contested Clarke’s conclusions. This is striking; the existing literature has not recognized the NEWC’s willingness to publicly disagree with Clarke. For example, Sue Zschoche’s 1989 article on Clarke’s lecture suggested that the club members had likely “failed to grasp the radical implications of Clarke’s speech”, excusing them by suggesting that their “misapprehension was understandable.”¹⁴ Zschoche even claimed that “if the assembled reformers were either disappointed or alarmed by Clarke’s remarks, they left no record of it.”¹⁵ In direct contrast with Zschoche’s conclusions, detailed examination of the Club’s archives reveals an extensive record of club members’ alarm at Clarke’s argument. Indeed, as this section will argue, the women of the NEWC understood Clarke’s meaning and contended with his views on coeducation issue repeatedly and passionately.

According to later newspaper coverage of Clarke’s lecture, the NEWC members “felt too much delicacy to discuss their health before the learned gentlemen” but after the lecture “kept right on making the way clear to send their daughters and their nieces and their grandchildren to

¹² NEWC Records, Untitled dark notebook from 1872-1874, December 16, [1872], page [9], M-145, microfilm reel 9, folder 40.

¹³ Sturgis, 3.

¹⁴ Sue Zschoche, “Dr. Clarke Revisited: Science, True Womanhood, and Female Collegiate Education,” *History of Education Quarterly* 29, no. 4 (1989): 550.

¹⁵ Zschoche, 546.

college.”¹⁶ This view is borne out by investigation of the NEWC’s archives. The NEWC’s meeting minutes highlight the Club’s disagreement with Clarke’s lecture. Member Lucia Peabody, who took the minutes, noted that Clarke’s lecture was “very interesting” and “was heard with great attention by an audience as large as the rooms could contain.”¹⁷ Peabody highlighted the fact that the “discussion wh[ich] followed was not as full as the subject called for, or as the Club desired.”¹⁸ Going further, the minutes note that the members present at this lecture “were largely of a contrary opinion & regretted that the subject was not more fully treated & considered.”¹⁹ They therefore hoped “to resume so important a theme...on some future occasion.”²⁰

Writing about Clarke’s presentation in the NEWC’s 1873 Annual Report, member Abby W. May noted that “[t]he sad fact of great physical weakness among our women is beyond dispute” and that she therefore had “no room for difference of opinion” on that point.²¹ However, May explained that “we [the NEWC members] thought Dr. Clarke did not sufficiently recognize

¹⁶ Sturgis, 3.

¹⁷ NEWC Records, Untitled dark notebook from 1872-1874, December 16, [1872], page [8], M-145, microfilm reel 9, folder 40.

¹⁸ NEWC Records, Untitled dark notebook from 1872-1874, December 16, [1872], page [8], M-145, microfilm reel 9, folder 40.

¹⁹ NEWC Records, Untitled dark notebook from 1872-1874, December 16, [1872], page [9], M-145, microfilm reel 9, folder 40.

²⁰ NEWC Records, Untitled dark notebook from 1872-1874, December 16, [1872], page [9], M-145, microfilm reel 9, folder 40.

²¹ NEWC Records, Historian's records. Disassembled scrapbook, 1857-1919. Cut out of the following article: Abby W. May quoted in “Report of the Annual Meeting of the New England Women’s Club” (Boston: Rand, Avery, and Company, May 31, 1873): 12, M-145, microfilm reel 3, folio box 2.

the gain which has been made in some respects within the last few years” and that the “majority [of members] could not agree with Dr. Clarke, in charging much of the misery upon high education, or the co-education of the sexes.”²² According to May, the NEWC felt that Clarke’s work lacked evidence. In particular, she noted that there were “many other deep and clear causes” for women’s situation and suggested that the statistics on the subject, rather than substantiating Clarke’s point, actually “seem to prove that mental training is not only good but requisite for physical health.”²³ Going further, May wrote that the fact “that many women are feeble seems a poor reason for depriving those who are strong of any advantage that the world can offer them.”²⁴ Indeed, she believed that a lack of physical vigor was an impediment to higher education for both sexes, not just for women.²⁵

The NEWC’s disagreement with Clarke was actually part of his impetus for publishing *Sex in Education*. The preface to the first edition noted that Clarke’s talk at the NEWC had “excited an unexpected amount of discussion.”²⁶ In *Sex in Education* Clarke extended the lecture he gave before the NEWC, arguing that the identical coeducation of the sexes was physiologically dangerous. By ‘identical coeducation’ Clarke meant the practice of teaching boys and girls “the same things, at the same time, in the same place, by the same faculty, with the

²² Abby W. May quoted in “Report of the Annual Meeting of the New England Women’s Club,” 12.

²³ Abby W. May quoted in “Report of the Annual Meeting of the New England Women’s Club,” 12.

²⁴ Abby W. May quoted in “Report of the Annual Meeting of the New England Women’s Club,” 12.

²⁵ Abby W. May quoted in “Report of the Annual Meeting of the New England Women’s Club,” 13.

²⁶ “Preface,” in *Sex in Education*, 5.

same methods, and under the same regimen”; that is, using “age and proficiency, but not sex” to place students in their classes.²⁷ Drawing on the notion that each sex had a finite amount of energy to sustain their intellectual, social, and reproductive functions, Clarke argued that girls (particularly those between the ages of 14 and 18) needed to preserve their energy for the womanly task of developing healthy reproductive organs. He suggested that during puberty (what he termed “the period of rapid development”) “a girl should not study as much as a boy.”²⁸ Clarke argued that most girls could spend a maximum of four hours daily on their studies while maintaining “sufficient margin for the physical growth that she must make in common with a boy, and also for constructing a reproductive apparatus.”²⁹ Clarke also felt that girls’ schooling should feature a “remission” every fourth week to accommodate their hormonal cycles.³⁰ In short, Clarke argued that boys and girls were suited to different structures and quantities of schooling and work, and that consistent intellectual strain would impair women’s reproductive abilities.

Publishing provided a means for Clarke to address the controversy his lecture had aroused, but his writing did not quell the NEWC’s concerns. Well after the publication of *Sex in Education*, NEWC members continued to push back on Clarke’s conclusions. Indeed, at a January 1874 meeting of the NEWC Ednah Dow Cheney read an essay she wrote in response to “Dr. Clarke’s book on Sex in Education – the same thing in the main wh[ich] he gave as a paper

²⁷ Clarke, *Sex in Education*, 122.

²⁸ Clarke, *Sex in Education*, 155.

²⁹ Clarke, *Sex in Education*, 157.

³⁰ Clarke, *Sex in Education*, 157.

to the Club, on Dec 16th 1872.”³¹ Cheney’s paper gave “a different view from that presented by Dr. Clarke” and the NEWC’s Recording Secretary noted that it “was greatly enjoyed by all who heard it.”³² Continuing her work, in 1874 Cheney published an essay endorsing coeducation, explaining that she had not seen “the first proof in man or woman, that well-regulated activity of the brain injures the health.”³³ Analogizing the rearing of children to the production of crops, Cheney argued that “Nature has her own boundaries, which she does not pass over, but they are always delicate and nicely adjustable” as when “the gardener wishes bleached celery, or seedless bananas, or monster squashes.” Cheney therefore felt that divisions between the sexes were more a product of “[f]alse culture” than of human nature.³⁴ Cheney would remain a passionate advocate for coeducation in the decades to come. In the 1891-2 *Report of the Commissioner of Education* Cheney expressed wholehearted support for “the coeducation of boys and girls in high and grammar schools...believing it to be for the advantage of both sexes to mingle freely in all departments of education.”³⁵ Going further, Cheney declared: “I should entirely approve of the principle of coeducation, from the lowest primary school to the highest university or professional school.”³⁶

³¹ NEWC Records, Untitled dark notebook from 1872-1874, January 13, [1874], page [21], M-145, microfilm reel 9, folder 40.

³² NEWC Records, Untitled dark notebook from 1872-1874, January 13, [1874], page [21], M-145, microfilm reel 9, folder 40.

³³ Ednah Dow Cheney, “A Mother’s Thought,” in *The Education of American Girls, Considered in a Series of Essays*, ed. Anna C. Brackett (New York: G. P. Putnam’s Sons, 1874), 136.

³⁴ Cheney, “A Mother’s Thought,” 126.

³⁵ Cheney, “A Mother’s Thought,” 126.

³⁶ Cheney, “A Mother’s Thought,” 126.

Cheney was not the only NEWC member who vocally opposed Clarke's work. In 1874, NEWC President Julia Ward Howe edited, contributed an article, and wrote the introduction to *Sex in Education: A Reply to Dr. E. H. Clarke's "Sex in Education."*³⁷ This book includes articles lambasting Clarke's views, many of which were written by NEWC members and associate members. In fact, NEWC affiliates Howe, Abby W. May, Thomas Wentworth Higginson, and Mary Tyler Peabody Mann each contributed essays.³⁸ Howe, like Cheney, remained active in her advocacy of coeducation in the years that followed. Indeed, at a December 1880 NEWC meeting, Howe "read a very valuable essay on Education in regard to Sex."³⁹

In short, NEWC members publicly pushed back on Clarke, Eliot, and Holmes's views of coeducation by sharing their own, oppositional views on the subject at Club meetings and in publications. As this illustrates, NEWC members not only organized and attended scientific lectures at the Club, but also engaged – publicly and privately – with the scientific material they learned through these lectures. This case study suggests that the female-centric subcultures of science engendered at women's groups like the NEWC and WEA enabled women to be active interlocutors with scientific men, among them elite academics.

As indicated by the NEWC's responses to Clarke's views on coeducation, members of the NEWC not only read and conversed about science that entered the popular sphere, but also contributed to the dialogue surrounding academic science and shared their own scientific

³⁷ Julia Ward Howe, ed., *Sex in Education: A Reply to Dr. E. H. Clarke's "Sex in Education"* (Boston: Roberts Brothers, 1874).

³⁸ Howe, ed., *Sex in Education*, [3].

³⁹ NEWC Records, untitled notebook from the "Season of 1877 – '78," December 20, [1880], page [27], M-145, microfilm reel 9, folder 40.

findings. In contrast to Kohlstedt's finding that women's scientific societies "had little contact with practicing research scientists," this section shows that the women of the NEWC had not only contact, but also public engagement and debate, with prominent scientists.⁴⁰ Indeed, Clarke's lecture showcases NEWC members' willingness to contend with debates surrounding women's education and participation in science.

Clarke's lecture raises an important question: given ongoing debates about women's ability to healthfully and productively learn science, how did the NEWC and WEA obtain male support? Indeed, as this chapter will show, in spite of ongoing debates surrounding women's science learning, the NEWC and WEA's spaces of science learning were supported by hundreds of men. Men provided one-off lectures, help with manual labor, aid in creating scientific institutions like the Horticultural School for Women, scientific course offerings, and financial support.

In recognizing the male support received by the NEWC and WEA, this chapter builds on a budding historiographic trend. Scholars have begun to investigate the men and labs that included women in scientific work in the long nineteenth century. For example, Marsha L. Richmond explores the Balfour Laboratory at Cambridge, England, illuminating its role not only as a teaching laboratory, but also as the center of a scientific subculture of sociality for women and a significant site of female employment in science teaching.⁴¹ Richmond examines men's willingness to support the cause of women's scientific instruction, including intellectual leaders like Henry Sidgwick, Coutts Trotter, Francis Balfour, and William Bateson.⁴² Further, she shows

⁴⁰ Kohlstedt, "In from the Periphery," 92.

⁴¹ Richmond, "'A Lab of One's Own,'" 422–55.

⁴² Richmond, "'A Lab of One's Own,'" 429, 431, 445.

that “prominent scientific educators” including Amos Eaton, Louis Agassiz, and David Starr Jordan “encouraged women to be teachers and assistants, but not peers.”⁴³ Rita McWilliams Tullberg studied women’s education at Cambridge University, showcasing male and female supporters alike.⁴⁴ Margaret Rossiter, Dava Sobel, and Darwin Correspondence Project have also examined particular instances of men encouraging women’s scientific work.⁴⁵

The existing literature on men’s support of women in late nineteenth and early twentieth science has tended to explore the manner in which *individual* men supported women in particular circumstances, or the manner in which *individual* women garnered the support of specific men. As yet, the scholarship has not fully addressed and historicized the nature of male support of female scientific investigation at a broader level; this chapter therefore seeks to showcase the diverse forms of support offered by men to the women-centric scientific subcultures developed by the NEWC and WEA. It suggests that while many men may have been reticent to back women’s entrance into historically male-dominated spaces of science learning, research, and work, substantial numbers of men were indeed supportive of women’s scientific engagements within the feminine subcultures of science fostered by the NEWC and WEA.

⁴³ Kohlstedt, “In From the Periphery,” 90.

⁴⁴ Rita McWilliams Tullberg, *Women at Cambridge*, revised edition (Cambridge, UK: Cambridge University Press, 1998).

⁴⁵ Rossiter, “‘Women’s Work’ in Science, 1880-1910,” 383-7. Others have also recognized the prevalence of women’s employment in astronomy, including: Sobel, *Glass Universe*; Warner, “Women Astronomers,” 12-26; Levin, *Defining Women’s Scientific Enterprise*.

Acquiring Male Support: Drawing on Social Status, Leveraging Connections

The NEWC and the WEA both relied significantly upon male aid. This reliance is reflective of the limits facing women during this time period. Put simply, the NEWC and WEA could not have established the varied scientific spaces they did without the help of men. In Progressive Era Massachusetts, women had only recently gained legal control over their finances, and it was still considered uncouth for an elite woman to work outside the home or to engage in public activities without an appropriate male escort.⁴⁶ Until 1839, women were legally subordinate to their husbands throughout the United States. Laws enabling married women to control their property and earnings were only passed in Massachusetts in 1845 and 1874, respectively. Massachusetts women gained the right to establish contracts and partake in business without needing their husband's consent in 1860.⁴⁷ Massachusetts's 1879 enfranchisement of women in school committee votes only applied to women who paid a poll tax or who held ownership over property on which real estate taxes were paid.⁴⁸ The right to vote was not granted until 1920. Women's public engagements were limited not only by legal obstacles, but also by social constraints. For example, as noted in chapter 1, it was not generally socially acceptable for women to meet at hotels without men as their hosts.⁴⁹

⁴⁶ Susan M. Cruea, "Changing Ideals of Womanhood During the Nineteenth-Century Woman Movement," Bowling Green State University: *General Studies Writing Faculty Publications*, Paper 1, 2005, 194.

⁴⁷ B. Zorina Khan, *The Democratization of Invention: Patents and Copyrights in American Economic Development, 1790–1920* (Cambridge, UK: Cambridge University Press, 2005), 167.

⁴⁸ Nicholas, "Reexamining Women's Nineteenth-Century Political Agency," 458.

⁴⁹ Read, "Early Days of the New England Women's Club," 203.

The NEWC and WEA took somewhat different approaches to obtaining and encouraging male support. This section will demonstrate that much of the male aid received by the NEWC came from its male affiliates, many of whom were related to its female members. As noted in chapter 1, men were allowed to become associate members of the NEWC if they paid a fee and were accepted by the Board.⁵⁰ However, the NEWC's male associate members were not permitted to hold leadership positions or to vote in Club elections; the NEWC sought to engender a female network of opportunity through its club activities, in which women would not need to compete directly with men for leadership. The WEA, on the other hand, was entirely composed of women. Nonetheless, the WEA incorporated men in its activities as one-off lecturers, course leaders, overseers, directors, and helpers. Both groups drew from family and social networks and leveraged their own elite statuses to encourage men's participation.

In its first 25 years, the NEWC had a cumulative total of 41 male associate members, with an average of roughly ten active male members per annum. The NEWC's male associate members and honorary members were socially prominent and active in an array of progressive social causes including abolition, pacifism, women's rights, and anti-imperialism. They included such men as reformist author Amos Bronson Alcott, Transcendentalist author James Freeman Clarke, author Ralph Waldo Emerson, abolitionist William Lloyd Garrison, novelist Henry James, and poet John Greenleaf Whittier.⁵¹ Over the years, the NEWC's male membership

⁵⁰ NEWC Records, "Records of the New England Women's Club," March 10, 1868, page 4, M-145, microfilm reel 4, folder 22.

⁵¹ NEWC Records, Historian's records. Disassembled scrapbook, 1857-1919. Cut out of the following article: "Quite a Grown-Up Girl: N. E. Woman's Club Celebrates Its 25th Birthday," *Boston Herald* (February 17, 1893), n.p., M-145, microfilm reel 3, folio box 2.

shrank; by 1894 the Club only had five male members.⁵² NEWC historian Julia Sprague suggested that this change was “minor” and reflected an overall increase in clubs of all kinds; that is, with the development of an increasing number of organizations and clubs, the NEWC faced greater competition for male membership.⁵³

Perhaps in response to the shrinkage of its male associate membership, in 1896 the NEWC’s Board voted to establish honorary memberships for those “gentlemen who have shown themselves as friends & sympathizers” of the NEWC.⁵⁴ Whereas members – even male associate members – were expected to pay an annual fee (\$15 in the first year and \$10 each subsequent year), honorary members were affiliated without any personal pecuniary cost.⁵⁵ In response to the creation of this membership category, the Board put forth the names of 21 men and decided it would be appropriate for the Club to admit ten of them.⁵⁶ The Board elected the following ten men unanimously, and “referred [the vote] to the Club for action”: Thomas Wentworth Higginson, Gamaliel Bradford, Edward Atkinson, William L. Garrison, Edwin D. Mead, Sylvester Rosa Koehler, Frank Sanborn, Joshua Kendall, Charles Malloy, and Henry B. Blackwell.⁵⁷ As one might expect given the NEWC’s priorities, these men were reform-minded

⁵² Sprague, *History of the New England Women's Club from 1868 to 1893*, 48.

⁵³ Sprague, *History of the New England Women's Club from 1868 to 1893*, 48.

⁵⁴ NEWC Records, “Rec Sec 1891 to 1901,” March 7, 1896, page 184, M-145, microfilm reel 5, folder 25v.

⁵⁵ NEWC Records, “Rec Sec 1891 to 1901,” May 30, 1891, page 3, M-145, microfilm reel 5, folder 25v.

⁵⁶ NEWC Records, “Rec Sec 1891 to 1901,” April 4, 1896, page 187, M-145, microfilm reel 5, folder 25v.

⁵⁷ NEWC Records, “Rec Sec 1891 to 1901,” May 2, 1896, pages 190-1, M-145, microfilm reel 5, folder 25v.

leaders in their community: for example, both Henry Blackwell and William Lloyd Garrison were widely known to be steadfast abolitionists, champions of women's suffrage, and authors. The Board agreed to place the remaining 11 proposed names on a list "for action at some future time."⁵⁸ At the Club's annual meeting, the ten elected names were approved and noted to have "shown a marked interest in our Club."⁵⁹

In obtaining male associate and honorary members the NEWC was aided by its female members' social and familial connections. Indeed, writing in 1906, May Alden Ward (who would go on to serve as NEWC President in 1913) highlighted the club members' elite social statuses and willingness to leverage their connections for the sake of the Club:

The club women are closely related, by communal and family ties to the most influential men in all our communities. They may be the busy American men who have little time for anything outside their immediate responsibilities, but so much the greater is the opportunity to influence them directly through the members of their own family and their own community.⁶⁰

The veracity of this statement is borne out by a comparison of the 41 men who were members of the NEWC in its first 25 years to NEWC membership lists from this period. Of the 41 male members, 15 (or slightly less than 40%) can be positively identified as husbands or fathers of female members, and an additional eight (slightly less than 20%) share surnames with at least one female member although I was unable to definitively identify a relationship.

⁵⁸ NEWC Records, "Rec Sec 1891 to 1901," May 2, 1896, page 191, M-145, microfilm reel 5, folder 25v.

⁵⁹ NEWC Records, "Rec Sec 1891 to 1901," May 2, 1896, page 194, M-145, microfilm reel 5, folder 25v.

⁶⁰ May Alden Ward, "The Influence of Women's Clubs in New England and in the Middle-Eastern States," *The Annals of the American Academy of Political and Social Science* 28 (1906): 19.

The NEWC's leaders regularly sought advice from the Club's male associate and honorary members. For example, associate member Amos Bronson Alcott (father of author and NEWC member Louisa May Alcott) was one of the people with whom Caroline Severance had discussed the possibility of establishing a women's club, and he was noted to be incredibly supportive of the idea.⁶¹ It also appears that the NEWC contacted its male associate members for insight in determining Club procedures. For example, in 1887 the NEWC Board reached out to Boston lawyer, staunch abolitionist, and devoted NEWC associate member Samuel Sewall to get his input on allowing honorary members to vote.⁶² Sewall again acted in an advisory role for the NEWC when the Club was advocating for women's school enfranchisement.⁶³ Furthermore, Sewall provided the Club with legal advice about its finances.⁶⁴ Sewall was not alone in sharing his professional expertise with the Club. When the NEWC faced financial ruin in 1898-9, it appears that the Club again reached out to a male associate member for advice. The Club invited Mr. Tuttle⁶⁵ to review its financial records; it is likely that this 'Mr. Tuttle' was NEWC associate member Julius Herbert Tuttle, an author and member of the Massachusetts Historical Society.

⁶¹ Sprague, *History of the New England Women's Club from 1868 to 1893*, 2.

⁶² NEWC Records, "Rec Sec 1881 to 1891," May 7, 1887, page [203], M-145, microfilm reel 5, folder 24v.

⁶³ Sprague, *History of the New England Women's Club from 1868 to 1893*, 17.

⁶⁴ In 1883, the Club reached out to Sewall for help in determining whether it could raise funds by assessing each of its members. After consulting Sewall, it was determined that the Club had no legal right to assess its members if it had sufficient funds in the Treasury. NEWC Records, "Rec Sec 1881 to 1891," February 3, 1883, page [58], M-145, microfilm reel 5, folder 24v.

⁶⁵ It is difficult to make out this man's surname.

Tuttle found that “the Treasurer’s books had been kept very imperfectly.”⁶⁶ He also concluded that the club “was living beyond its means, and must of necessity run behind \$1,200 or \$1,500 every year.”⁶⁷ This sort of male support is evident throughout the NEWC’s archival records, suggesting that the Club was regularly able to draw on male expertise, particularly in disciplines where women’s professional participation was rare.

In addition to consulting its male associate members for advice on an *ad hoc* basis, the NEWC asked them take up formal positions in support of the Horticultural School for Women. To this end, James Freeman Clarke served on its Board; Clarke had been a supporter of the school since it was first publicly proposed, endorsing it before the Massachusetts Horticultural Society.⁶⁸ Edward W. Hooper, then-steward of Harvard College, served as the school’s Treasurer. Hooper was incredibly loyal to this post. He remained as Treasurer and continued to attend the school’s board meetings even after the school closed in 1872. Further, he pledged to cover \$250 of the school’s closing debt of \$700 even though Board members were not required to make up the school’s financial deficit.⁶⁹ Well after he was appointed Treasurer of Harvard

⁶⁶ NEWC Records, “The adjourned meeting of the N. E. W. Club was...” March 3, [1899], page I, M-145, microfilm reel 3, folder 12.

⁶⁷ NEWC Records, “The adjourned meeting of the N. E. W. Club was...” March 3, [1899], page II, M-145, microfilm reel 3, folder 12.

⁶⁸ NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], pages [24-5], M-145, microfilm reel 8, folder 39v.

⁶⁹ NEWC Records, Loose paper in which benefactors pledge fixed amounts to cover the Horticultural School for Women’s debt, likely dates to October 1871, M-145, microfilm reel 16, folder 115.

College in 1876, Hooper continued to oversee the Horticultural School for Women; he helped formally dissolve the Horticultural School for Women's Corporation in 1885.⁷⁰

Another visible axis of male associate members' activities was their participation in the culture of intellectual sociability fostered by the Club. As noted by Julia Sprague in her history of the Club, male associate members including Garrison, Whittier and Alcott visited the clubhouse on occasion, while Samuel Sewall "loved most to be with us."⁷¹ Sewall was said to feel "at home among us", finding "sympathy and social enjoyment" in the NEWC clubrooms.⁷² Sewall was a true part of the NEWC; the Club historian characterized him as "quietly and constantly...with us."⁷³ In several of the Club's "earlier years", Sewall and his wife Harriet (also a NEWC member) hosted the clubwomen in their gardens for strawberry festivals as an amusement.⁷⁴

⁷⁰ NEWC Records, "Act of Incorporation," January 8, 1878, January 8, 1884, January 13, 1885, pages [23, 37, 41], M-145, microfilm reel 16, folder 115; "OBITUARY: Edward W. Hooper '59," *The Harvard Crimson* (September 28, 1901), accessed February 17, 2017, <http://www.thecrimson.com/article/1901/9/28/obituary-pbedward-w-hooper-59b-pedward/>; NEWC Records, loose letter from Lucia M. Peabody to Ropes, Gray, and Loring, January 29, 1885, page [1], M-145, microfilm reel 16, folder 115.

⁷¹ Sprague, *History of the New England Women's Club from 1868 to 1893*, 75.

⁷² Sprague, *History of the New England Women's Club from 1868 to 1893*, 75.

⁷³ Sprague, *History of the New England Women's Club from 1868 to 1893*, 39-40.

⁷⁴ Sprague, *History of the New England Women's Club from 1868 to 1893*, 48-9.

Figure 5.1: Undated photograph from NEWC albums, 1868-1908



Source: NEWC Records; "Photographs: New England Women's Club, 1868-1908," photograph 97, n.p., M-145, microfilm reel 4, folder 19vf.

The picture in Figure 5.1 is featured in the NEWC's photo album for the period from 1868 to 1908. It includes many of the Club's leading members alongside prominent male associate members, among them: William Lloyd Garrison, Henry Blackwell, Theodore Weld, and Judge Samuel Sewall. Though its provenance is unclear, the photograph, and its inclusion in the NEWC's photo album, provides a sense of the intellectual conviviality the NEWC female

members and male associate members. Sewall and his wife are seated in the center of the image, next to one another. In this portrait, the men are generally positioned such that they flank the women. In a sense, these men are portrayed as the book-ends of the female Club members; men's parallel positioning at the edges of this image holds the group together. Similarly, as this chapter will suggest, these male supporters provided aid that helped to buttress these women's work. Further, although this portrait is staged, the stances adopted are casual, suggesting the friendly relationships enjoyed among this group of intellectuals and reformers.

Reaching beyond its associate members, the Club fostered this culture of intellectual sociability through the inclusion of esteemed experts as guests at regular meetings. Male scientific luminaries including Alfred Russel Wallace, Benjamin Apthorp Gould, and Edward Pickering attended the Club's lectures and meetings on a friendly basis.⁷⁵ In 1872 Irish physicist John Tyndall delivered a series of lectures in America, and the NEWC was among his lecture sites.⁷⁶ As this indicates, the Club welcomed both local and visiting intellectual luminaries. Just over a quarter of the male associate members provided the NEWC with lectures during its first 25 years of existence.⁷⁷ These lectures covered topics ranging from love and marriage to

⁷⁵ Sprague, *History of the New England Women's Club from 1868 to 1893*, 40; NEWC Records, "Club Journal | Nov '86 to," November 15, [1886], page [2], M-145, microfilm reel 9, folder 41.

⁷⁶ NEWC Records, "Records of the New England Women's Club," October 3, 1872, page 129, M-145, microfilm reel 4, folder 22; Sturgis, 3.

⁷⁷ Amos Bronson Alcott, Charles G. Ames, Thomas Cushing, Reverend Narcisse Cyr, William Lloyd Garrison, Jr., Henry James, Samuel Sewall, Reverend Francis Tiffany, Reverend John Weiss, and the poet John Greenleaf Whittier gave speeches and papers before the NEWC, many of them on multiple occasions. NEWC Records, "Records of the New England Women's Club," January 2, 1869; February 6, 1869; pages 30-1, 32, M-145, microfilm reel 4, folder 22; "Personal," *Harper's Bazaar* (October 10, 1868): 787; NEWC Records, "Club Journal | 1898 – '99," May 24, [1899], page [40], M-145, microfilm reel 9, folder 41; Sprague, *History of the New England Women's Club from 1868 to 1893*, 27, 41, 88, 89, 98.

Transcendentalism and ‘woman.’ Famed author and associate member Ralph Waldo Emerson spoke before the Club on at least four occasions.⁷⁸ James Freeman Clarke addressed the NEWC on at least five occasions, including at its second annual meeting.⁷⁹

The NEWC’s lectures took on an informal, dialogic character, in which women were encouraged to converse about a range of academic subjects. For example, in October 1868 the Club’s upcoming lectures were advertised in *Harper’s Bazaar* as follows:

Mr. Emerson, Mrs. Julia Ward Howe, Henry James, and other prominent people of similar tastes, are to read articles of interest to the Boston “New England Women’s Club,” during the coming winter. These entertainments are to be social as well as intellectual; talk-y and tea-y; a pleasant mixture of food, fancy, and fun.⁸⁰

As this indicates, the NEWC managed to not only hear from many preeminent male intellectuals and reform-minded community leaders, but also to engage with them in a colloquial, familiar manner. Similarly, an 1869 *Chicago Tribune* article on a lecture given by Reverend William Henry Harrison Murray at the NEWC noted that his “address was delivered sitting, and of a decidedly conversational character.”⁸¹ The article also explained that after half an hour of this informal lecture, Murray “invited questions, which were readily put by the ladies.”⁸² As this suggests, male support of the NEWC often came in the form of amicable dialogue and companionship.

⁷⁸ Sprague, *History of the New England Women’s Club from 1868 to 1893*, 87.

⁷⁹ NEWC Records, “Records of the New England Women’s Club,” May 29, 1869, page 44, M-145, microfilm reel 4, folder 22; Sprague, *History of the New England Women’s Club from 1868 to 1893*, 3, 97.

⁸⁰ “Personal,” *Harper’s Bazaar* 787.

⁸¹ Revere, n.p.

⁸² Revere, n.p.

Like the NEWC, the WEA was able to garner support for its work thanks in large part to the social connectedness of its membership. As explored in chapter 2, many WEA members were Boston Brahmin, while others were thought leaders with roles on school committees and universities. The WEA enjoyed a remarkable breadth of connections to elite men, connections that they were ready and willing to leverage for the good of the Association.

The founding story of the MIT women's lab exemplifies the manner in which the WEA leveraged its reputation and its members' social connections to foster men's support for female scientific work. WEA member Emma Savage Rogers was married to MIT's founder and first president, William Barton Rogers, while WEA member and MIT chemistry graduate Ellen Swallow Richards was married to an MIT professor. After hearing from Richards about the possibility of establishing a women's lab in 1875, the WEA's Executive Committee decided "to inquire of the President of the School of Technology what is likely to be done."⁸³ The WEA's apparent confidence in obtaining a response from MIT's President, Dr. John Daniel Runkle, is likely reflective of the Association's strong connections to the Institute. Runkle had succeeded William Barton Rogers as president in 1870 and remained connected to his predecessor.⁸⁴ Runkle did indeed reply, noting that "every opportunity to pursue advanced chemistry" would be available to women and men alike once the Institute obtained sufficient laboratory space.⁸⁵ A few months later, he updated the WEA, noting that he had appointed a committee consisting of

⁸³ MHS WEA Records, "Woman's Education Association," November 10, [1875], n.p., Box 2, Folder 2.

⁸⁴ A membership list from 1875 does not exist. However, Mrs. William Barton Rogers signed the WEA's 1877 handwritten charter. MHS WEA Records, "WEA Charter," June 27, 1877, n.p., Box 2, Folder 2.

⁸⁵ MHS WEA Records, "Woman's Education Association," December 9, 1875, n.p., Box 2, Folder 2.

himself, William Barton Rogers, and George B. Emerson (a known advocate of women's education) to "confer with the ladies upon the subject of a laboratory."⁸⁶ Reporting on an early meeting with these men, the WEA noted that they were all "well known to be in favor of womans [*sic*] education" and "not only appreciated the need of such opportunity as much as the members of the Ass[ociation] – but even went beyond them in their hopes of what might be accomplished."⁸⁷

Men's willingness to support the women's lab extended past Runkle's agreement to found the lab. John Morse Ordway, Professor of Metallurgy and Industrial Chemistry at MIT from 1869-1884 and Chairman of the Faculty at MIT from 1880 to 1882, offered his instructional services to the lab.⁸⁸ The minutes of an 1877 general meeting of the WEA characterized Ordway as "giving all the time at his disposal to teaching there, without compensation."⁸⁹ The WEA noted that, in addition to providing instruction at no cost, Ordway had "given \$280 to fit up the laboratory."⁹⁰ Ellen Swallow Richards had also provided \$240 to fund the lab's instruments, as well as \$50 for cleaning expenses.⁹¹ At an April 1877 meeting, the WEA discussed the possibility of covering some of these expenses for the coming year "as a slight expression of our sense of what these friends are doing for the better education of

⁸⁶ MHS WEA Records, "Woman's Education Association," February 10, 1876, n.p., Box 2, Folder 2.

⁸⁷ MIT Women's Lab Records, Box 1, folder 19, Unidentified manuscript concerning Women's Educational Association.

⁸⁸ "Ordway, John Morse," MIT Museum, accessed March 6, 2017.

⁸⁹ MHS WEA Records, General Meeting Records, 1876-1878, April 1877, n.p., Box 2, Folder 3.

⁹⁰ MHS WEA Records, General Meeting Records, 1876-1878, April 1877, n.p., Box 2, Folder 3.

⁹¹ MHS WEA Records, General Meeting Records, 1876-1878, April 1877, n.p., Box 2, Folder 3.

women.”⁹² There is no record of any action being taken, and in May 1877 the WEA again discussed repaying some of the expenses that Ordway and Richards had incurred, but this vote was postponed because a quorum was not present.⁹³ Some members thought that repayment made sense given the “value of a love and knowledge of the natural sciences” and the centrality of chemistry to all natural sciences.⁹⁴ Others felt it would be an unwise precedent for the WEA to repay expenses that were independently undertaken by friends in support of its projects.⁹⁵ As a compromise, WEA members decided “to raise as much money as possible ... and to appropriate not more than 200.”⁹⁶ In 1880 Runkle resigned as president of MIT and Ordway became chairman of the faculty at a time when faculty and assistant positions and salaries were being reduced; as a result he was no longer “able to give his time” to the lab.⁹⁷ By 1882 Richards felt that Ordway’s inability to provide his full support left the lab’s future uncertain.⁹⁸ Ordway was critical to the lab’s operations; his support enabled hundreds of women to study chemistry at a time when only a few dozen women in America had been granted baccalaureates in science.⁹⁹

⁹² MHS WEA Records, General Meeting Records, 1876-1878, April 1877, n.p., Box 2, Folder 3.

⁹³ MHS WEA Records, General Meeting Records, 1876-1878, May 1877, n.p., Box 2, Folder 3.

⁹⁴ MHS WEA Records, General Meeting Records, 1876-1878, May 1877, n.p., Box 2, Folder 3.

⁹⁵ MHS WEA Records, General Meeting Records, 1876-1878, May 1877, n.p., Box 2, Folder 3.

⁹⁶ MHS WEA Records, General Meeting Records, 1876-1878, May 1877, n.p., Box 2, Folder 3.

⁹⁷ MIT Women’s Lab Records, Box 1, Folder 10, “Report of Mrs. Richards to the Women’s Education Association: 1881-1882.”

⁹⁸ MIT Women’s Lab Records, Box 1, Folder 10, “Report of Mrs. Richards to the Women’s Education Association: 1881-1882.”

⁹⁹ Margaret Rossiter finds a total of 35 female graduates of American B.A. programs in the United States in the period before 1920. Rossiter, *Women Scientists in America: Struggles and Strategies to 1940*, 11.

Ordway's work merits recognition both for its role in facilitating women's chemistry education at the MIT women's laboratory and because it served as a starting point for women's full and equal admission to MIT. In an October 1878 report on the women's lab, the WEA noted that the lab itself was not the "only fruit" of the WEA's labors at MIT.¹⁰⁰ In particular, the report highlighted the fact that MIT's advertisements had come to include a note that "WOMEN STUDENTS WERE ADMITTED TO CERTAIN COURSES."¹⁰¹ The report explained that the faculty at MIT were widely supportive of women's enrollment, stating: "Lest there should be a misunderstanding as to the attitude of the faculty from the fact that onlo [*sic*] certain courses are mentionned [*sic*] in the notice, I will state that several members were not accessible when it was necessary to print the list and of course nothing would be done without their consent."¹⁰² As an example, the report cited MIT geology professor Thomas Sterry Hunt's statement "... to Prof Ordway, that he trusted he should not be slighted by the ladies, but that some of them would find it worth while [*sic*] to attend his lectures."¹⁰³ As this indicates, the MIT women's lab – and the support it received from Ordway – provided an opening wedge for greater female participation in MIT's regular classes. Having a faculty chairman (Ordway) who had freely given his labor to the women's lab set an important precedent at MIT.

¹⁰⁰ MIT Women's Lab Records, Box 1, Folder 2, "Report October 1878 | Money spent on Little Laboratory," p. 1.

¹⁰¹ MIT Women's Lab Records, Box 1, Folder 2, "Report October 1878 | Money spent on Little Laboratory," p. 1.

¹⁰² MIT Women's Lab Records, Box 1, Folder 2, "Report October 1878 | Money spent on Little Laboratory," p. 1.

¹⁰³ MIT Women's Lab Records, Box 1, Folder 2, "Report October 1878 | Money spent on Little Laboratory," p. 1.

Although the MIT women's laboratory received much male support, it is important to acknowledge that even its male associates did not entirely transcend societal norms; indeed, their visions of women scientists often reflected contemporaneous stereotypes about women in science. In searching for employment for lab graduates, Richards claimed to find "an absence of prejudice on the part of business men [*sic*]" which she felt boded "well for the future employment of skilled women."¹⁰⁴ As an example, Richards explained that "One manufacturer from the western part of the state asked to be taken through the Laboratory as he wished to see how a woman chemist looked" and "afterward remarked that he didn't see that they looked any different from any other women."¹⁰⁵ Though Richards framed this story in a positive light, in retrospect it is clear that this manufacturer's inquiry was reflective of the larger scientific and educational culture of the time period, according to which women who worked in science were expected to be masculine.¹⁰⁶

As this investigation indicates, men were willing to support women's professional scientific work within the gender-segregated space of the MIT women's laboratory. Men taught, funded, and employed graduates of the MIT women's lab. Although men often had distinct expectations for women in science, they did indeed see a role (and help create a space) for them. Further, this case argues that the WEA leveraged its social connections to develop spaces for female scientific engagement. Because WEA members had personal connections to leading men

¹⁰⁴ MIT Women's Lab Records, Box 1, Folder 11, Ellen Swallow Richards, "Report for the April [1882] meeting of the Woman's Education Association," p. [9].

¹⁰⁵ MIT Women's Lab Records, Box 1, Folder 11, Ellen Swallow Richards, "Report for the April [1882] meeting of the Woman's Education Association," p. [9].

¹⁰⁶ James A. Secord, *Victorian Sensation: The Extraordinary Publication, Reception, and Secret Authorship of Vestiges of the Natural History of Creation* (Chicago: University of Chicago Press, 2000), 44-6.

within the MIT faculty and administration, its efforts received full consideration. While many men in the late nineteenth century may have been opposed to the specter of women's full and equal scientific participation, this analysis shows that at least some men were willing to support elite women in their efforts to foster spaces for female scientific engagement and work. In short, women at both the NEWC and the WEA were able to leverage their own reputations and elite contacts to engender male support. The women of the NEWC and WEA were connected to many leading intellectuals, politicians, and businessmen, and they were not shy about calling upon these connections to gain support for female scientific engagements.

Financial Leverage as a Means of Securing Male Support

Although the NEWC and WEA were not primarily philanthropic organizations, their members regularly acted philanthropically in supporting their groups' projects through individual donations, fundraising, and membership dues. Because of this, the NEWC and WEA were typically able to self-fund, or independently fundraise to support, their scientific spaces. As a result, these groups' male associates were often able to support women's scientific work without risking their own finances, seeking out grants, or locating university-based funding. This is not to say that men were never willing to fund women's scientific work – as has been shown, men like John Ordway personally helped finance women's scientific investigations. Nonetheless, the fact that the NEWC and WEA were often able to provide or raise their own funds certainly bolstered men's willingness and ability to support these efforts, as this chapter will illustrate.

The WEA was excellent at fundraising. The WEA's 1893 campaign for the Harvard Annex (which would eventually become Radcliffe College) provides an excellent example of the Association's skill in this arena. Although women were not admitted to Harvard College, the

project of the Harvard Annex, through which women would be educated separately from men, received widespread support. After hearing from Harvard's President Eliot and Elizabeth Cary Agassiz about the project to establish the Harvard Annex, the WEA voted to "undertake to raise a proper & large endowment." To raise these funds, the WEA created the Annex Special Fund committee, which was composed of twelve WEA members; the Association authorized this committee to use up to \$100 from its own treasury to cover the expenses of their fundraising efforts. By January 1893 this committee had raised \$61,835. By December of this year, they had raised a whopping \$75,000, which they promised to the Annex provided that "Harvard University would take charge of the instruction of the students and would grant the academic degrees."¹⁰⁷ Impressively, this amount was the equivalent of 500 years of tuition at Harvard. As this indicates, the Association was able to rapidly raise incredible sums of money to support its programs.

The Association also deployed its fundraising skills in 1881 when it collaborated with the Boston Society of Natural History (hereafter referred to as "Society") to formally establish the Annisquam Seaside Laboratory, as discussed in chapter 2.¹⁰⁸ Society curator and Boston University biology and zoology professor Alpheus Hyatt collaborated intimately with the WEA

¹⁰⁷ MHS WEA Records, General Meeting Records, 1888-1893, November 17, 1892; December 15, 1892; January 19, 1893, n.p., Box 2, Folder 6; MHS WEA Records, General Meeting Records, 1893-1896, December 14, 1893, p. 23, Box 2, Folder 7.

¹⁰⁸ The Boston Society of Natural History's 1883 annual report characterizes the Annisquam laboratory as having been "opened and supported by the Woman's Education Association." However, the Society's 1882 annual report portrays the WEA as a collaborator in the Society's project of opening the lab. Regardless of the exact division of labor between the WEA and the Society, it is clear that the two organizations worked together to fund, advertise, and run the laboratory. "Annual Meeting: May 2, 1883," in *Proceedings of the Boston Society of Natural History: 1882-1883*, vol. XXII (Boston: Printed for the Society, 1884), 353; "Annual Meeting: May 3, 1882," in *Proceedings of the Boston Society of Natural History: 1882-1883*, 11.

to establish the lab. In fact, as explained in an 1885 article in *Science*, the lab was “the outgrowth of a small private laboratory which Professor Hyatt had in his own house at Annisquam.”¹⁰⁹

According to this article, students reached out to Hyatt expressing their interest in studying at his lab, but he had been unable to meet their demands due to “the limited accommodations” at his disposal.¹¹⁰ As a result:

Some of the members of the Woman’s educational association [*sic*] of Boston who were interested in this branch of education, and knew these facts, took the matter in hand, and, though uninfluenced by any direct solicitation from Professor Hyatt or others, offered to found a laboratory for the use of both sexes, provided its departments of instruction could be carried on by the officers of the Boston society of natural history [*sic*], of which Professor Hyatt is curator.¹¹¹

As this suggests, Hyatt had been informally running a lab at Annisquam prior to the WEA’s involvement, but in 1881 he began to collaborate with the WEA to fund, advertise, organize, and promote it.¹¹² The *Science* article’s account of the lab’s growth is confirmed by the *Proceedings of the Boston Natural History Society*. Indeed, at the Society’s 1880 annual meeting it was reported that some members had spent the summer of 1879 at Annisquam and had success collecting but felt the need for “still a larger boat and greater facilities in every direction.”¹¹³ The Society hoped to enlarge the capacity of the Annisquam lab such that public school teachers from Boston would be able to experience firsthand seaside learning and thereby improve their

¹⁰⁹ “The Annisquam Seaside Laboratory,” *Science* 5, no. 110 (1885): 212.

¹¹⁰ “The Annisquam Seaside Laboratory,” *Science*, 212.

¹¹¹ “The Annisquam Seaside Laboratory,” *Science*, 212.

¹¹² Ralph W. Dexter, “The Annisquam Sea-Side Laboratory of Alpheus Hyatt,” *The Scientific Monthly*, vol. 74, no. 2 (Feb., 1952), 113.

¹¹³ “Annual Meeting: May 5, 1880,” in *Proceedings of the Boston Society of Natural History: 1880-1882*, vol. XXI (Boston: Printed for the Society, 1883), 9.

methods of instruction.¹¹⁴ As noted in its 1881 annual report, the Society had raised \$300 to support the lab before the WEA stepped in, “though neither urged or even solicited...courageously offered”, to help fund the experiment of a seaside laboratory.¹¹⁵ As this illustrates, the WEA did not generate the idea for the Annisquam lab, but rather offered to help Hyatt enlarge his efforts in the hopes of ensuring that female and male teachers alike would be able to improve their knowledge and methods of scientific instruction.

In 1881 the WEA supported the Annisquam lab by providing it with a \$400 stipend, distributing circulars advertising the lab, and, as noted in the Boston Society of Natural History’s 1882 annual report, “providing suitable boarding places for students.”¹¹⁶ Feeling that the lab’s first year was a success, the WEA decided to give similar aid for the summer of 1882, as well as to provide the lab with a windmill that could pump fresh seawater into its indoor aquaria.¹¹⁷ In the lab’s early years, the Society and the WEA each helped raise public awareness of its existence by publishing literature on it.¹¹⁸ However, the WEA’s funding, oversight, and advertising of the Annisquam lab came to the fore, and the Society and the WEA both quickly came to see the lab as a project of the WEA. For example, according to the WEA’s 1882

¹¹⁴ “Annual Meeting: May 3, 1882,” in *Proceedings of the Boston Society of Natural History: 1882-1883*, vol. XXII (Boston: Printed for the Society, 1884), 9.

¹¹⁵ “Annual Meeting: May 4, 1881,” in *Proceedings of the Boston Society of Natural History: 1880-1882*, vol. XXI (Boston: Printed for the Society, 1883), 185.

¹¹⁶ “Annual Meeting: May 3, 1882,” in *Proceedings of the Boston Society of Natural History: 1882-1883*, 11.

¹¹⁷ “Annual Meeting: May 3, 1882,” in *Proceedings of the Boston Society of Natural History: 1882-1883*, 11.

¹¹⁸ See for example: MHS WEA Records, Alpheus Hyatt, “New Sea-Side Laboratory,” n.p., Box 2, Folder 4.

Executive Committee minutes, the Society was showing “a growing interest in the school”; this phrasing suggests that the Society was looking to the WEA for information about the lab, even though the Society had originated the idea for its founding.¹¹⁹ This same year, the WEA paid Hyatt \$500 for his services at Annisquam.¹²⁰ Treating Hyatt as an employee, it is clear that the WEA had established oversight of the Annisquam lab.

In the public realm, the Annisquam lab came to be intimately associated with the WEA, at times to the exclusion of the Boston Society of Natural History. For example, an 1897 article in *Science* about the conversion of the Annisquam lab into the Marine Biological Laboratory at Wood’s Hole explicitly stated that the lab had been “founded by the Woman’s Education Association, in cooperation with the Boston Society of Natural History.”¹²¹ The WEA’s ability to financially support scientific projects appears to have given it authority over these projects. Thus, this case highlights the importance of funding to the process of apportioning credit within scientific spaces. Further, it showcases the manner in which the WEA was able to leverage its pecuniary solidity to encourage male support; by funding the Annisquam lab, the WEA was able to create an important alliance with both Hyatt and the Boston Society of Natural History, and to aid the development of a space for coeducational biology exploration and instruction. In leveraging its financial solidity to gain influence over scientific spaces, the WEA was replicating a commonplace strategy of philanthropic women; as noted in chapters 2 and 4, it has been widely

¹¹⁹ MHS WEA Records, Executive Committee Records, 1878-1882, May 6, 1882, n.p., Box 4, Folder 2.

¹²⁰ MHS WEA Records, Executive Committee Records, 1882-1885, November 4, 1882, n.p., Box 4, Folder 3.

¹²¹ Samuel H. Scudder, William G. Farlow, Anna P. Williams, Laurence Minot, Charles S. Minot, Georgiana W. Smith, and Sidney I. Smith, “A Statement Concerning the Marine Biological Laboratory at Wood’s Holl, Mass,” *Science* 6, no. 145 (1897): 529.

established that women often using philanthropy as a means of gaining (or maintaining) influence over the public realm.¹²²

Forms of Male Support

Having argued that the women of the NEWC and WEA leveraged their social connections and funds to acquire male support, this section examines the forms this male support took. It will demonstrate that men provided intellectual, physical, financial, and strategic support as well as information and supplies. Much of this help focused on areas in which men – but not women – were readily able to obtain training, education, and knowledge. Therefore, by acquiring male supporters, the NEWC and WEA were able to overcome some of the sex-based limitations they faced, such as a lack of advanced training in science and money management.

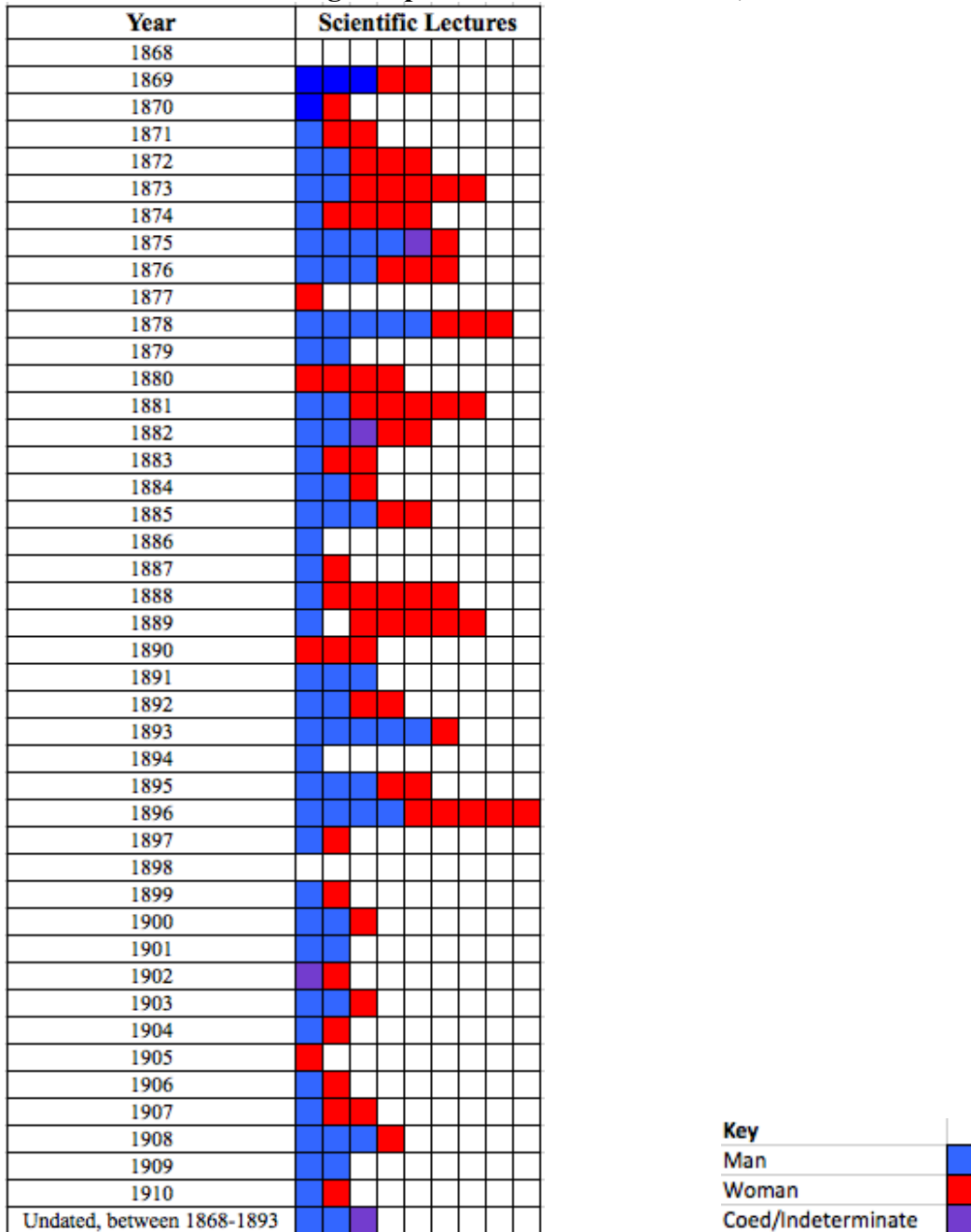
The NEWC and WEA benefitted immensely from men's willingness to lecture before them. As indicated in chapter 1, in its first 25 years, the NEWC hosted 301 external lecturers. Of these, approximately 198 were male, and many of these lecturers spoke on multiple occasions.¹²³ A survey of the NEWC's Club Calendars, meeting minutes, and Sprague's club history suggests that the Club hosted roughly 162 lectures on scientific subjects or by scientific thinkers during

¹²² F. K. Prochaska, *Women and Philanthropy in Nineteenth-Century England* (Oxford: Oxford University Press, 1980); Stansell, *City of Women*, 37; Muncy, *Creating a Female Dominion in American Reform*.

¹²³ The number of men is an estimate based on the names listed by Sprague. Some of the names included initials only; in these cases I did my best to research the person in question to ascertain their gender. There were six names with initials that I was unable to sex – I have assumed that half of these names were male because Sprague used initials when writing about both men and women.

the period from 1868-1910. Men provided approximately 79 of these lectures, as indicated in the diagram below:¹²⁴

Figure 5.2: Sex of lecturers who gave speeches before the NEWC, 1868-1910



¹²⁴ In the few cases where the sex of the lecturer was not clear I assumed that that the lecturer was just as likely to be male as to be female; this assumption is borne out by the overall sex ratio of the NEWC's ratio, which is very close to 50/50. In cases where multiple men presented at one lecture, I have only counted them as one lecture.

The men who gave scientific lectures at the NEWC included Harvard professors and affiliates Thomas Jaggar, Alfred Tozzer, Louis Agassiz, Edward H. Clarke, Frederic Ward Putnam, John Fiske, George Lincoln Goodale, and B. M. Watson. Affiliates of other Massachusetts universities also gave a significant number of lectures. Charles Fay and Amos Dolbear visited from Tufts, Charles Edward A. Winslow visited from MIT, Alpheus Hyatt came from Boston University, and so on. As this indicates, the NEWC was largely dependent upon the predominantly male academic system for the provision of its scientific lectures. This reliance is further evidenced by the fact that the NEWC's club year mirrored both the social season and the academic year, running from late October or early November to late May or early June; the NEWC was best able to offer programming when universities were in session and professors were in town. During the summers, the NEWC Board met occasionally and the clubrooms typically remained open, but regular Club meetings and lectures did not occur.

In spite of the dominance of academic lecturers on the NEWC's calendar, the Club also occasionally hosted male lecturers from non-academic backgrounds. For example, in 1908 L. D. Gibbs visited from the Edison Electric Luminating Company to speak about "Modern Uses of Electricity" and J. Leonard Mason came from the Brookline Municipal Gymnasium to talk about "Scientific Physical Training." The willingness of men to lecture before the NEWC on scientific topics suggests that there was an elite culture of scientific sociability that welcomed both sexes. Women's organizations came to serve as a meeting space for female-dominated, coeducational intellectual discussions. Even as science professionalized and university-based programs increasingly excluded women, scientific discussion remained accessible to upper class white

women. As Eric L. Fox notes, Brahmin women were often educated with the aim of cultivating their ability to engage in intellectual conversations.¹²⁵

The regularity with which the NEWC was able to obtain male lecturers is all the more impressive given that the Club was unable to compensate its lecturers. Writing in 1875 about the process of soliciting lecturers for the NEWC, Kate Gannett Wells explained that her “only difficulty in writing to our speakers was, unless known beforehand, to insinuate our impecuniosity, and to plant myself squarely on the high moral ground that gratitude was a rich return for all literary benefits.”¹²⁶ Further reflecting the Club’s tight finances is a satirical song entitled “Ye doleful Threnodic of ye Business Committee” written in January 1871 that appears in a NEWC scrapbook. A representative stanza from the song opines: “Who with ambitious hopes elate, | Of costly club-house buildings prate, | Though well they know our bankrupt state? | The Business Committee.”¹²⁷

By 1885 the Club had begun to reimburse its lecturers for travel expenses and to provide them with refreshments as needed.¹²⁸ This likely reflects the fact that the NEWC had increasing competition for lecturers; whereas it had begun as the sole women’s club in Boston, by the 1880s

¹²⁵ Eric L. Fox, “‘Clever Boston Sisters, Eminent and Trenchant’: Class, Gender, and the Role of Women among the Nineteenth-Century Boston Brahmins,” Ph.D. dissertation, Northern Illinois University (2011): 201-2.

¹²⁶ Kate Gannett Wells, “New England Women’s Club—Report of Committee on Art and Literature,” 208.

¹²⁷ NEWC Records, Historian’s records. Disassembled scrapbook, 1857-1919. “Ye doleful Threnodic of ye Business Committee,” January 19, 1874, [1], M-145, microfilm reel 3, folio box 2.

¹²⁸ NEWC Records, Mary H. Ladd, “The Second Quarter Century,” [1918], [2], M-145, microfilm reel 4, folder 15; NEWC Records, “Rec Sec 1881 to 1891,” December 5, 1885, page [159], M-145, microfilm reel 5, folder 24v.

it was one of dozens of similar organizations. Writing in 1895, Club Secretary Lucia M. Peabody reflected on the increasing difficulty of obtaining lecturers. As she explained, “[w]hen ours was almost the only organization of the kind, it was easy to find friends who were willing to come to us & give us their help, & were often very glad of an opportunity to bring some subject in wh[ich] they were interested to the notice of an audience of thoughtful women.”¹²⁹ With the proliferation of women’s clubs, Peabody found that members came to “hesitat[e] to ask such favors” and that “busy men are obliged to refuse most such invitations.”¹³⁰ In spite of this, Peabody explained that the Club did not want to hire paid lecturers, noting both that the Club did not have the financial means and that this would not cohere with the Club’s aims. Peabody anticipated that the solution to the difficulty of obtaining lecturers would be a greater reliance upon its own members as lecturers.¹³¹ Notwithstanding these efforts, the NEWC’s supply of scientific lectures dwindled (as suggested by Figure 5.2) and by 1900 the NEWC began to compensate its lecturers.¹³² Even with compensation, the NEWC provided fewer scientific lectures after 1900 than it had in its earlier decades.

As with the NEWC, the most visible and regular and visible support men provided to women’s science learning at the WEA came in the form of lectures. As noted by WEA member

¹²⁹ NEWC Records, Lucia M. Peabody, “Club N.E.W. Sec. Report: 1894-5,” 1895, page 7, M-145, microfilm reel 12, folder 53.

¹³⁰ NEWC Records, Lucia M. Peabody, “Club N.E.W. Sec. Report: 1894-5,” 1895, page 7, M-145, microfilm reel 12, folder 53.

¹³¹ NEWC Records, Lucia M. Peabody, “Club N.E.W. Sec. Report: 1894-5,” 1895, page 8, M-145, microfilm reel 12, folder 53.

¹³² NEWC Records, Mary H. Ladd, “The Second Quarter Century,” [1918], [2], M-145, microfilm reel 4, folder 15; NEWC Records, “Rec Sec 1881 to 1891,” December 5, 1885, page [159], M-145, microfilm reel 5, folder 24v.

Katherine P. Loring in her 1929 “Review of Fifty-seven Years’ Work”: “[d]uring all these years most interesting lectures by experts have been given on every imaginable subject to the members of the Association.”¹³³ These lectures were “always freely given by the men and women who so generously interested us.”¹³⁴ In the WEA’s early years, lectures were provided monthly during the academic year, meaning that there were typically seven lectures per annum. For these lectures, the WEA hosted intellectuals including Harvard professor and psychologist Hugo Münsterberg, Boston University professor Alpheus Hyatt, Simmons College President Henry Lefavour, Harvard professor George Lincoln Goodale, Boston Society of Natural History arachnologist James Henry Emerton, and Harvard graduate William Powell Wilson. Records of the WEA’s solicitations for these lectures do not appear to exist, however the regularity with which men provided lectures is a testament to their willingness to share scientific knowledge with women. This is particularly true given that, like the NEWC, the WEA did not typically compensate its lecturers. However, the Association did reimburse relevant expenses on an as-needed basis.¹³⁵

Men were also active supporters of the NEWC and WEA through their participation on the boards of the scientific institutions founded by these organizations. In 1870 the NEWC

¹³³ MHS WEA Records, Katherine P. Loring, “A Review of Fifty-Seven Years’ Work,” in *Fifty-Seventh and Final Annual Report of the Woman’s Education Association* (1929), 14, Box 13, Folder 24.

¹³⁴ Loring, “A Review of Fifty-Seven Years’ Work,” in *Fifty-Seventh and Final Annual Report of the Woman’s Education Association*, 14,

¹³⁵ In 1881 the WEA’s Executive Committee formalized the procedure for lecturer reimbursements, voting that the Committee in charge of organizing lecturers could “pay a sum not exceeding \$5.00, unless by a special arrangement, for the travelling expenses of those who speak at the Parlor Meetings.” MHS WEA Records, Executive Committee Records, 1878-1882, October 8, 1881; March 6, 1880, n.p., Box 4, Folder 2.

established a Board of Directors for the Horticultural School for Women, specifically stipulating that at least half of the directors needed to be female.¹³⁶ As this indicates, the NEWC anticipated that a good portion of the directors would be male. In building its list of directors, the NEWC reached out to various intellectuals who were known to be interested in horticulture, women's education, or the like. The NEWC received several rejections. Nonetheless, it was ultimately able to enlist a Board that included women such as Ednah Dow Cheney, philanthropist Lucy Goddard, and Sarah Emery Hooper, a WEA member who would go on to serve as President of the Boston Cooking School. The Board also included men such as Massachusetts Lieutenant Governor Simon Brown, James Freeman Clarke, and Mayor of Chelsea, Massachusetts Frank B. Fay and his wife Rebekah.¹³⁷ In addition, the Board included Edward Sprague Rand, Jr., a horticulturalist, author, and member of the Massachusetts Horticultural Society who taught at Harvard's agricultural school and served as chair of the library of the Massachusetts Horticultural Society.¹³⁸ Judge Henry Flagg French, a graduate of Harvard Law School, former president of the MAC and author of *Farm Drainage* (1859), was another member of the

¹³⁶ NEWC Records, "New England Women's Club," March 7, [1870], page [7], M-145, microfilm reel 15, folder 114.

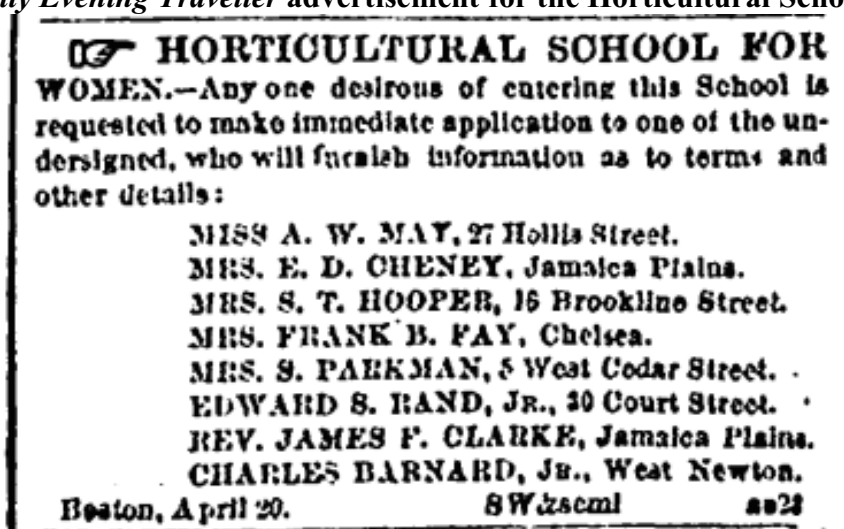
¹³⁷ NEWC Records, "New England Women's Club," January 10, [1871], page [85], M-145, microfilm reel 15, folder 114; NEWC Records, "Act of Incorporation," [1871], page [1], M-145, microfilm reel 16, folder 115.

¹³⁸ "The Growth and Glory of the Massachusetts Horticultural Society Library," *Massachusetts Horticulture Society*, accessed February 15, 2017.

Board.¹³⁹ Further, as previously noted, Edward W. Hooper served faithfully as its Treasurer from 1871 to 1885.¹⁴⁰

The Horticultural School's directors (both male and female) were publicly visible and regularly involved in the school's proceedings. The NEWC's early advertisements for the school featured the names of male and female Board Members and Overseers alike. One such advertisement is below:

Figure 5.3: *Daily Evening Traveller* advertisement for the Horticultural School for Women



Source: *Daily Evening Traveller*, Boston (April 23, 1870), 3.

This advertisement urges women interested in obtaining a horticultural education to contact any of the listed people, three of whom are men. This suggests the central role men played in overseeing the Horticultural School for Women. Two of these men (Rand and Clarke) were members of the school's inaugural Board. The third, Charles Barnard, Jr., had been appointed to manage the school's daily operations. Barnard was a horticulturalist with a track record of being

¹³⁹ NEWC Records, "New England Women's Club," December 2, [1870], page [73], M-145, microfilm reel 15, folder 114.

¹⁴⁰ NEWC Records, "New England Women's Club," March 7, [1870], pages [4-5], M-145, microfilm reel 15, folder 114.

supportive of women's employment in horticulture. In 1869 he had published *Gardening for Money: How it Was Done*, which featured various accounts of peoples' successes in profitable gardening. Among them: Maria Gilman's "successful experiment" in becoming a florist, John and Kate Wellson's victory in profiting "financially and sentimentally" from a strawberry garden, and Mr. and Mrs. Robert Nellson's achievement in creating a profitable vegetable garden.¹⁴¹

Male advisors were also central to the WEA-founded Boston Cooking School. As early as 1879, the WEA sought male advisors for the school's Committee of Overseers. The first group of men asked to serve on this Committee included hotelier Henry (Harvey) D. Parker, railroad commissioner Ellerton E. Pratt, and Judge Dwight Foster, who had served as the Massachusetts Attorney General and as an Associate Justice on the Massachusetts Supreme Court.¹⁴² In determining who they wished to serve as Overseers, the Boston Cooking School made note of which WEA members would be in charge of reaching out to which men. For example, Parker was to be recruited by Sarah Emery Hooper, Pratt by Lucretia Peabody Hale, and Judge Foster by Maria Tevis Towne. This suggests that women were assigned to recruit those men with whom they already had a connection, thereby showcasing the manner in which WEA members leveraged their personal networks for the benefit of the Association's scientific spaces.¹⁴³ The women of the WEA were quite successful in recruiting male board Overseers:

¹⁴¹ Charles Barnard, *Gardening for Money: How it Was Done* (Boston: Loring, Publisher, 1869), 5, [121], [225].

¹⁴² Charles Fairchild and Charles G. Wood were also asked to serve on this committee. Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, November 15, 1879, n.p.

¹⁴³ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, November 15, 1879, n.p.

Wood, Parker, and Fairchild accepted their invitations and were quickly listed on school circulars. Henrietta Perkins Baldwin Foster, a member of the WEA, became an Overseer, apparently in lieu of her husband. However, her name was listed on school circulars as “Mrs. Dwight Foster,” thereby lending his prestige to the school.¹⁴⁴ Pratt initially declined his invitation but was nonetheless actively attending committee meetings as an Overseer by December 1879.¹⁴⁵ In this same month Thomas C. Amory was added to the Board.¹⁴⁶ Amory was the President¹⁴⁷ of the Industrial Aid Society, an organization that was incorporated in 1847 with the aim of alleviating pauperism in the city of Boston through the provision of employment opportunities.¹⁴⁸ As this indicates, in creating advisory boards, the NEWC and WEA sought to align themselves with men who held prominent positions within the community and might therefore be able to lend both prestige and expertise to their efforts.

In addition to serving on boards for many of the NEWC and WEA’s scientific spaces, many men helped manage the financial dimensions of these groups’ work. Men’s financial

¹⁴⁴ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, pamphlet entitled “The Boston Cooking School,” inserted before entry for November 16, 1880.

¹⁴⁵ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, November 19, November 26, and December 2, 1879, n.p.

¹⁴⁶ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, December 2, 1879, n.p.

¹⁴⁷ Although I was unable to identify who was the President of the Industrial Aid Society in 1879, I was able to find records indicating that Amory was its President in 1877 and 1880. “Industrial Aid Society,” in *Documents of the City of Boston for the Year 1877 in Three Volumes*, vol. 2 (Boston: Rockwell & Churchill, City Printers, 1878), Appendix p. 33; *First Annual Report of the Associated Charities of Boston: November 1880* (Boston, Tolman & White, Printers, 1880), 78.

¹⁴⁸ “Industrial Aid Society,” in *Documents of the City of Boston for the Year 1877 in Three Volumes*, vol. 2 (Boston: Rockwell & Churchill, City Printers, 1878), Appendix p. 33.

support took a few key forms, including: advice, fundraising, and direct contributions. Men often helped the NEWC and WEA develop fundraising plans and strategies. For example, Boston Cooking School Overseer Charles Fairchild helped the WEA's Industrial Committee raise funds to support the school; in December 1879 he "sent a subscription paper that he had prepared, & on which was pledged from various gentlemen \$400.00."¹⁴⁹ As this indicates, not only did Fairchild provide the groundwork for this fundraising, he also obtained donations from other gentlemen – this suggests that he leveraged his personal network to obtain support for the school. Meanwhile, Overseer Charles Wood suggested that the school should send "circulars ... to business gentlemen, making an appeal for the School, and soliciting subscriptions & donations."¹⁵⁰ The school created a committee of board members to fulfill this suggestion.¹⁵¹

Men also aided women's scientific spaces through direct monetary contributions. For example, although the Horticultural School for Women's directors were not officially obliged to cover its debts, following the school's bankruptcy in 1871, Edward Hooper pledged \$250, while Henry Flagg French and Henry D. Parker pledged \$50 each.¹⁵² Prior to its demise, men had offered the school aid in the form of horticultural supplies and land. Harvard's Asa Gray, the famed botanist and advocate of Darwin's theory of evolution by natural selection, helped the

¹⁴⁹ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, December 9, 1879, n.p.

¹⁵⁰ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, September 28, 1882, n.p.

¹⁵¹ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, September 28, 1882, n.p.

¹⁵² NEWC Records, Loose paper in which benefactors pledge fixed amounts to cover the Horticultural School for Women's debt, likely dates to October 1871, M-145, microfilm reel 16, folder 115.

school by providing it with plants upon request.¹⁵³ Similarly, at the NEWC's 1870 annual meeting, it was announced that an "eminent horticulturalist of New York offered at once to furnish the plants needed to start the horticultural school, so great was his interest in the plan."¹⁵⁴ In November 1870 Marshall Pinckney Wilder, a member of the Massachusetts Horticultural Society and President of the Massachusetts Agricultural College, gave "a generous donation" to the school; he also served as one of its directors.¹⁵⁵

Additionally, men helped women locate and rent the physical spaces in which to do their work. William Emerson Baker, Esquire, who made his fortune through the Grover & Baker Sewing Machine Company, was one such patron. In July 1871 Baker offered the Horticultural School a tract of land in Wellesley as a gift.¹⁵⁶ In August 1871 a NEWC subcommittee reported to the Board that they had inspected the land offered by Baker but felt that the grounds were of a poor quality and were located too far from the city to be of use.¹⁵⁷ Additionally, the Board felt that the expenses of relocating the school would be too significant to justify the move.¹⁵⁸

¹⁵³ Asa Gray's wife was not a member of the NEWC. In fact, she became a member of the WEA in 1882. MHS WEA Records, General Meeting Records, 1878-1882, January 12, 1882, n.p., Box 2, Folder 4.

¹⁵⁴ NEWC Records, "Social Meetings 1869 to 1871," May 28, [1870], page [199], M-145, microfilm reel 8, folder 39v.

¹⁵⁵ NEWC Records, "New England Women's Club," November 4, [1870], page [67], M-145, microfilm reel 15, folder 114.

¹⁵⁶ NEWC Records, "New England Women's Club," July 7, [1871], page [29], M-145, microfilm reel 16, folder 115.

¹⁵⁷ NEWC Records, "New England Women's Club," August 4, [1871], page [31], M-145, microfilm reel 16, folder 115.

¹⁵⁸ NEWC Records, "New England Women's Club," August 4, [1871], page [32], M-145, microfilm reel 16, folder 115.

Nonetheless, the Board was appreciative of Baker's offer. Baker further supported the school by agreeing to purchase all the flowers the school raised over the winter of 1870-1871.¹⁵⁹ Strikingly, Baker also assisted the WEA with the development of the Boston Cooking School, impressively covering the entirety of its first year of rent.¹⁶⁰ The WEA continued to lease space from Baker in the years that followed. Men continued to support the WEA with this rental, even helping the Association establish the terms of its rental. For example, in 1882 Boston Cooking School Board member William Matchett contacted Baker on behalf of the Boston Cooking School to inquire about the "price of the third & fourth floors at 158 ½ Tremont St."¹⁶¹ Matchett was informed that these floors could be rented at an annual cost of \$1,200 for a three-year term.¹⁶² The school agreed to these terms.¹⁶³ As this indicates, men helped the NEWC and WEA finance, obtain, and manage the scientific spaces they established. This male support enabled the NEWC and WEA to overcome the fact that turn-of-the-twentieth century elite Bostonian women were rarely experienced in this sort of financial work.

The NEWC and WEA also relied on physical support from men in developing their scientific efforts. For example, the Horticultural School for Women employed a man to manage

¹⁵⁹ NEWC Records, "New England Women's Club," September 9, [1870], page [58], M-145, microfilm reel 15, folder 114.

¹⁶⁰ MHS WEA Records, General Meeting Records, 1878-1882, May 8, 1879, n.p., Box 2, Folder 4.

¹⁶¹ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, September 28, 1882, n.p.

¹⁶² Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, October 19, 1882, n.p.

¹⁶³ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, October 19, 1882, n.p.

some of the more physically strenuous tasks associated with the school.¹⁶⁴ In fact, the NEWC considered hiring a second man to act as a labor hand in May 1871.¹⁶⁵ The WEA was also reliant upon male aid, both corporeal and intellectual, in a long-term project it undertook beginning in 1890¹⁶⁶ to label the trees of the Boston Common with their scientific names. In November 1893 the Committee on Science Lessons voted to express its thanks to two men who had helped label the trees and shrubs of the Public Garden with their scientific names.¹⁶⁷ These same two men continued to aid the WEA in this project through at least 1895.¹⁶⁸ In addition to these two men, the Committee received aid from Charles Faxon, John George Jack, and Professor Charles S. Sargent, all of the Arnold Arboretum.¹⁶⁹ Writing of the aid received from Faxon and Jack in 1896, the WEA noted that these men had “generously decline[d] to receive any remuneration”, having done the work “with a special view to its educational character.”¹⁷⁰

¹⁶⁴ NEWC Records, “New England Women’s Club,” December 2, [1870], page [73], M-145, microfilm reel 15, folder 114.

¹⁶⁵ NEWC Records, “New England Women’s Club,” May 5, [1871], page [14], M-145, microfilm reel 16, folder 115.

¹⁶⁶ This project continued at least through 1910. MHS WEA Records, *Thirty-Ninth Annual Report of the Woman’s Education Association* (Boston: Industrial School for Crippled and Deformed Children, 1910), p. 19, Box 13, Folder 8.

¹⁶⁷ MHS WEA Records, “WEA Committee on Science Lessons | 1890,” April 12, 1895 [p. 43], Box 6, Folder 18 “Science Committee: Miscellaneous Papers, 1892-1906.”

¹⁶⁸ MHS WEA Records, “WEA Committee on Science Lessons | 1890,” October 30, 1894 [p. 61], Box 6, Folder 18 “Science Committee: Miscellaneous Papers, 1892-1906.”

¹⁶⁹ MHS WEA Records, *Annual Report of the Woman’s Education Association for the Year Ending January 14, 1886* (Boston: Cochran & Co. Printers, 1886), 7, Box 12, Folder 12.

¹⁷⁰ MHS WEA Records, *Twenty-Fourth Annual Report of the Woman’s Education Association for the Year Ending January 16, 1896* (Boston: Press of R. H. Blodgett & Co., 1896), 20, Box 12, Folder 22.

Finally, and perhaps most obviously, men shared their scientific expertise with the women of the NEWC and WEA. This aid was truly essential to the NEWC and WEA because their members, as women, were typically excluded from university-based science learning. Men's sharing of expertise came in many forms. As noted throughout this dissertation, men provided hundreds of scientific lectures and classes to the NEWC and WEA. Men also provided scientific instruction to women at the Horticultural School for Women, the Annisquam laboratory, and the MIT women's laboratory. And men provided the scientific groundwork for the WEA's project of tree labeling: as noted in the WEA's 1899 annual report: "[t]he man who labels trees must be a scientific specialist."¹⁷¹ Because women did not have full and equal access to the academic system of scientific specialization, the NEWC and WEA were often dependent upon men's willingness to share their own scientific knowledge.

As this section has indicated, many men generously shared their skills, time, and knowledge to help the women of the NEWC and WEA establish women-centric spaces of scientific engagement. However, it is important to remember that the records of the NEWC and WEA's accomplishments come predominantly from their own archives, and these organizations were probably more likely to record the successes they had in working alongside men than the failures. For example, although the NEWC archives do record the fact that some men rejected offers to serve on the Horticultural School for Women's Board, the archives contain no indication of why they rejected these spots. Were they simply too busy, or did they have objections to the project? Therefore, although this section has demonstrated that men helped the NEWC and WEA by providing financial and scientific advice as well as general managerial

¹⁷¹ MHS WEA Records, *Twenty-Seventh Annual Report of the Woman's Education Association for the Year Ending January 19, 1899* (Boston: Press of R. H. Blodgett, 1899), 25, Box 12, Folder 25.

support and oversight, it is possible that the NEWC and WEA also encountered many men who were unwilling to support their efforts. In spite of the limitations of the archival record, the prevalence of male support that *can* be found within the extant archival record is impressive; it suggests that while women faced resistance when attempting to gain access to university-based science education, they were often supported in their efforts to create a female-centric culture of scientific learning. It appears that by organizing scientific learning through a feminine site (the women's organization), focusing on feminized sciences, and framing their science as socially prudent, the NEWC and WEA managed to gain access to, and men's support of, myriad science learning opportunities.

Men's Motivations for Supporting the Scientific Efforts of the NEWC and WEA

Having established that dozens of men supported the NEWC and WEA's women-centric scientific spaces, it is worth investigating *why* they did so. This analysis suggests that men supported these efforts for two main reasons. First, they felt that women had a special skillset that was distinct from that of men. Many men believed that women's different skillset and characteristics could enable them to participate meaningfully and healthfully within particular areas of the sciences. Second, men often received benefits in exchange for their support of the NEWC and WEA, including payment, synergies with existing charities, and an increased audience for their own work. This section will examine each reason in turn, using select cases to uncover the character of male motivations for supporting female scientific engagement.

The Horticultural School for Women provides a rich example of men's willingness to support women's work in 'feminine' scientific fields. As detailed in chapters 1 and 4, beginning in 1869, the NEWC worked to establish the Horticultural School for Women. Men supported the

NEWC throughout this project. In establishing their plan for the school, the NEWC quickly decided that it would be wise to consult with “the gentlemen of the [Massachusetts] Horticultural Society, knowing that their aid and sanction will be invaluable to us.”¹⁷² The Massachusetts Horticultural Society was an organization of male horticulturalists and horticultural enthusiasts that was established in 1829 to advance the discipline of horticulture and to disseminate information on horticulture and related sciences.¹⁷³ As noted in its Incorporation Act, the Society was founded “for the purpose of encouraging and improving the science and practice of Horticulture, and promoting the amelioration of the various species of trees, fruits, plans, and vegetables, and the introduction of new species and varieties.”¹⁷⁴

In mid-January 1869 NEWC members presented their plan for the Horticultural School for Women before the Massachusetts Horticultural Society.¹⁷⁵ At this meeting, men including James Freeman Clarke, Reverend J. L. Russell, George B. Emerson, Mr. Hovey, Reverend David P. Muzzey, and Frank Sanborn endorsed the school.¹⁷⁶ Reverend Russell “spoke in favor of women turning to Horticulture” on account of his belief “that it would benefit their health and open the most elevating and attractive field to their minds for study.” Russell suggested that

¹⁷² NEWC Records, “The Annual Meeting of the New England Women’s Club,” May 29, 1869, page 10, M-145, microfilm reel 12, folder 54.

¹⁷³ Massachusetts Horticultural Society, *History of the Massachusetts Horticultural Society: 1829-1878* (Boston: The Society, 1880), 55.

¹⁷⁴ Massachusetts Horticultural Society, *History of the Massachusetts Horticultural Society: 1829-1878*, 475.

¹⁷⁵ Sprague, *History of the New England Women's Club from 1868 to 1893*, 10; NEWC Records, “Records of the New England Women’s Club,” February 6, 1869, page 33, M-145, microfilm reel 4, folder 22.

¹⁷⁶ NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], pages [24-5], M-145, microfilm reel 8, folder 39v.

“Dress and Fashion would pale before Nature – when once her infinite & varied forms sprang into existence by the charmed industry which such a school might introduce.” He therefore argued that the Society “need ask no higher honor than to aid in its establishment.”¹⁷⁷ Reverend Muzzey, a Unitarian minister best known for his work as a lawyer, also felt that the school would “benefit the health of women to labor in the open air – and elevate & cultivate – heart & mind to be thus brought in relation with Nature.”¹⁷⁸

Building off this enthusiasm, Hovey, a florist and horticulturalist, suggested that horticulture was suited to women and that “there were many branches which [women] could undertake & carry on even better than men”, such as the cultivation of small fruits, plant trimming, and bouquet making.¹⁷⁹ Hovey noted his observation that most successful horticulturalists and florists relied on their wives for assistance in these areas; the Horticultural School for Women could provide a professional supply of such labor.¹⁸⁰ He therefore promised his counsel to the school, noting his belief that women, once supplied with “a scientific training” would be a great addition to the discipline.¹⁸¹

¹⁷⁷ NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], page [25], M-145, microfilm reel 8, folder 39v.

¹⁷⁸ NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], page [26], M-145, microfilm reel 8, folder 39v.

¹⁷⁹ NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], page [25], M-145, microfilm reel 8, folder 39v.

¹⁸⁰ NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], page [25], M-145, microfilm reel 8, folder 39v.

¹⁸¹ NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], page [26], M-145, microfilm reel 8, folder 39v.

Mr. Denney then endorsed “the idea of having a farm attached to the school – not only because the farm would help to support the School but also that it would bring women into relation with the Cows – that kind & valuable animal being now turned over to men who could not give it the affection which women could.”¹⁸² Denney felt that dairy was a “remunerative branch of Industry which women could attend to” thanks to their simpatico nature with cows.¹⁸³ In closing this meeting, the Massachusetts Horticultural Society “promis[ed] their scientific direction” to the ladies of the NEWC in establishing the Horticultural School for Women.¹⁸⁴ Further, the Massachusetts Horticultural Society provided the NEWC with “official sanction” to establish the Horticultural School for Women.¹⁸⁵ As these men’s views indicate, men publicly supported this school on the grounds that it would provide useful and healthful work for women in an area in which they felt women were naturally adept. Believing that men and women had distinct characteristics, these men suggested that women’s scientific participation could be tailored to suit the special abilities of their sex.

In addition to supporting women’s pursuit of ‘feminine’ areas of scientific inquiry, men appear to have supported women’s scientific work at least partially because it was of benefit to themselves. For example, the WEA’s project of Instructive District Nursing relied intensively on a cooperative relationship with the Boston Dispensary. Indeed, the Dispensary lent this project a

¹⁸² NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], page [26], M-145, microfilm reel 8, folder 39v.

¹⁸³ NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], page [26], M-145, microfilm reel 8, folder 39v.

¹⁸⁴ NEWC Records, “Social Meetings 1869 to 1871,” January 11, [1869], page [27], M-145, microfilm reel 8, folder 39v.

¹⁸⁵ Sprague, *History of the New England Women's Club from 1868 to 1893*, 10.

temporary office space in its early days, and provided it with the district structure of nursing and oversight from physicians.¹⁸⁶ As a reminder, nurses for the project of Instructive District Nursing each covered one Dispensary district and were assigned to work under a particular physician.¹⁸⁷ In November 1866, the project of Instructive District Nursing moved its headquarters, loan room, and nurses' station from the Boston Dispensary to a nearby suite at 34 Bennett Street.¹⁸⁸ Nonetheless, the two organizations remained on excellent terms. Dr. W. H. H. Hastings, Superintendent of the Dispensary, wrote Phebe Adam, Chair of the Board of Instructive District Nursing, in February 1887 to celebrate the project's accomplishments in its first year of existence. Hastings expressed his belief "that the time is not far distant when the wonder will be how the oldest charitable institution of this city [the Boston Dispensary] ever did so much good without the aid of the youngest and one of the best of all the good charities of Boston [the project of Instructive District Nursing]." ¹⁸⁹ The project remained affiliated with the Dispensary even after it became a standalone, incorporated entity (the Instructive District Nursing Association) in 1888. Indeed, in 1889 Hastings again expressed his support for the Instructive District Nursing Association, writing: "I do not know what the district physician... would do now without" the aid of a Nursing Association nurse.¹⁹⁰ An 1896 retrospective on the Nursing Association noted the continued relationship between the Instructive District Nursing Association and the Boston

¹⁸⁶ Adam, *First Annual Report of Instructive District Nursing*, 6.

¹⁸⁷ Adam, *First Annual Report of Instructive District Nursing*, 6.

¹⁸⁸ Adam, *First Annual Report of Instructive District Nursing*, 7.

¹⁸⁹ Dr. W. H. H. Hastings to Phebe G. Adam, February 28, 1887, in Adam, *First Annual Report of Instructive District Nursing*, 10.

¹⁹⁰ Dr. W. H. H. Hastings to Phebe G. Adam, February 27, 1889, in Adam, *Third Annual Report of the Instructive District Nursing Association*, 21.

Dispensary, observing that “each would now feel itself seriously handicapped if forced to work alone.”¹⁹¹

By working with the project of Instructive District Nursing, the Dispensary was able to provide thousands of patient visits that would not have otherwise been possible. Reflecting on the 25th anniversary of its work with instructive district nurses, the Boston Dispensary characterized them as “a vital adjunct” and “[a] most important factor” in its work, explaining that the nurses enabled the Dispensary to provide hands-on, “trained care which the family of the patient are unable to bestow.”¹⁹² In 1911 alone the Instructive District Nursing Association made 112,018 visits to 9,932 patients at a total cost of \$49,126.¹⁹³ As this indicates, through its cooperation with the project of Instructive District Nursing, the Boston Dispensary gained access to independently funded, well-trained nurses that facilitated the Dispensary in extending and deepening the care it provided.

The Boston Dispensary was not the only male-run organization that enjoyed a symbiotic relationship with the women-centric scientific spaces founded by the NEWC and WEA. In fact, the Industrial Aid Society and the Boston Cooking School also shared a mutually beneficial relationship. In December 1879 the President of the Industrial Aid Society, Thomas C. Amory, joined the Committee of the Boston Cooking School. Explaining his decision to join this committee, Amory noted that he hoped to create an alliance between the two organizations. In particular, Amory hoped that the Boston Cooking School would provide “practical instruction

¹⁹¹ Hastings to Adam, February 27, 1889, in Adam, *Third Annual Report of the Instructive District Nursing Association*, 21.

¹⁹² *Boston Dispensary*, 8, 16.

¹⁹³ “District Nurses’ Work,” *The Journal of the American Medical Association* 53, no. 15 (April 13, 1912): 1124.

such as will benefit the poorer class.” If the school were able to aid the poorer classes in this manner, Amory felt that he might be able to find funds “to defray the expenses of their instruction.”¹⁹⁴ In February 1880 Amory told the Boston Cooking School that the Industrial Aid Society was willing to offer the school “\$100.00 to establish another cooking school in N Bennett St.”¹⁹⁵ He noted that this money could be used to cover rent, incidental expenses, or payment for 33 students to attend a \$3.00 course of twelve lessons at the Tremont Street School.¹⁹⁶ In response to this suggestion, the school decided to go out on a limb and “accept the sum of \$100.00 offered by the Ind. Aid Soc. for the purpose of trying the experiment of a Cooking School in the Bethel Building [on] N. Bennett Street, the school to continue as long as the money lasts.”¹⁹⁷ The school voted that the food prepared at these classes (unlike the food prepared at their regular classes) would be given to the pupils.¹⁹⁸ The classes were a success. Within the first month, a Saturday morning lesson attracted between 30 and 40 children, while a Saturday afternoon class garnered a whopping 96 youthful attendees.¹⁹⁹

¹⁹⁴ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, December 16, 1879, n.p.

¹⁹⁵ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 5, 1880, n.p.

¹⁹⁶ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 5, 1880, n.p.

¹⁹⁷ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 5, 1880, n.p.

¹⁹⁸ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 5, 1880, n.p.

¹⁹⁹ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 27, [1880], n.p.

After just a few weeks of operation, the Boston Cooking School was so enthused by the North Bennett Street school's performance that it began to consider opening the school in a larger building specially "adapted to its wants."²⁰⁰ By May 1880, the Boston Cooking School had extended the North Bennett Street school's term from one month to three, and felt that it had been a "gratifying success," noting that "as many as 150" students attended a single lecture.²⁰¹ Additionally, the Committee decided to send its members to visit "other head quarters of Ass[ociated] Charities with a view to interest their managers in the formation of cooking classes."²⁰² In the spring of 1880 various Boston Cooking School Committee members provided lectures to the North Bennett Street School without compensation; these lectures were widely popular, each drawing up to 150 students.²⁰³ As this case demonstrates, the Boston Cooking School and the Industrial Aid Society enjoyed a synergistic relationship; by working with and supporting the Cooking School, Amory was able to create new opportunities for his own charity.

Compensation was another, perhaps more obvious, benefit enjoyed by some of the men who supported the NEWC and WEA. For example, in 1879 the WEA began offering a course of botany lessons from Harvard's Professor George Lincoln Goodale, who also provided lectures to the NEWC. By December 1879, after just one course of lessons, the WEA had received \$880

²⁰⁰ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 27, [1880], n.p.

²⁰¹ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, May 11, [1880], n.p.

²⁰² Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, February 27 and March 2, [1880], n.p.

²⁰³ Simmons WEA Records, Boston Cooking School Committee Minutes of Meetings, L. P. Hale note inserted, May 11, 1880, n.p.

(having sold 88 tickets at a cost of \$10 per ticket) from which Goodale was paid \$700.²⁰⁴

Goodale continued giving, and being compensated for, lectures at the WEA in the years that followed. Further, the WEA often advertised his lectures in elite publications like *Science*, thereby helping bolster his public reputation.²⁰⁵

The publicity and compensation Goodale received for his lectures paled in comparison to the aid he obtained through the WEA for his project of developing a glass flower collection for Harvard's Museum of Comparative Zoology. While many historians have acknowledged the centrality of Mary and Elizabeth Ware to the funding of this project, the role of the WEA in establishing the Ware-Goodale collaboration has not been adequately highlighted. Goodale's desire to establish a glass flower collection was born of his concern to ensure that botany could be taught at Harvard with the same level of precision as other scientific fields. As he put it: "In the Zoölogical Department of our Museum the synoptic room exhibits in an almost faultless manner the principal features of the great classes of animals. In the Mineralogical Department the illustrations are equally typical. But what can be utilized by Botany?"²⁰⁶ Recognizing the instructional limits of dried flowers, illustrations, and wax models (none of which readily maintain elaborate botanical forms, dimensions, and colors), Goodale felt the need to turn to a different artistic medium for his collection. Inspired by the Museum of Comparative Zoology's glass models of marine invertebrates, which had been crafted by German artists Leopold and

²⁰⁴ MHS WEA Records, Executive Committee Records, 1878-1882, December 5, 1879, n.p., Box 4, Folder 2; General Meeting Records, 1878-1882, December 12, 1879, n.p., Box 2, Folder 4.

²⁰⁵ See, for example, an April 1886 ad for Goodale's lectures at the WEA here: "Notes and News," *Science* VII, no. 168 (April 23, 1886): 370.

²⁰⁶ George Lincoln Goodale, "The Blaschka Glass Flower Collection" in *The Harvard Graduates' Magazine*, vol I (Boston: Harvard Graduates' Magazine Association, 1892-3), 602.

Rudolf Blaschka, Goodale visited the Blaschkas in Dresden in 1885. While there, he saw glass orchids the Blaschkas had made in 1862 and was impressed by the quality and permanence of their work; the orchids stood lifelike, colorful, and pristine after over twenty years.²⁰⁷ Goodale was quick to express his enthusiasm to the Blaschkas, and to inquire about the possibility of their creating glass flower models for the Museum of Comparative Zoology.

In the fall of 1887 the Blaschkas sent Goodale samples of their botanical work, but the samples arrived broken. Goodale brought this “box of broken glass” to a meeting of a WEA botany class. According to Goodale: “In that class were many who, after examination of the specimens, broken as they were, suggested that they should be willing to guarantee the purchase of such specimens as might be needed by the College”, among them Mary L. Ware.²⁰⁸ At Goodale’s suggestion, Mary Ware and her mother, Elizabeth C. Ware, would go on to provide \$3,000 in funding for this project in memory of their father and husband, the then-recently deceased Charles E. Ware (Harvard College Class of 1834 and a faculty member at Harvard Medical School).²⁰⁹ The glass flowers remain one of the most cherished exhibits in the Museum.²¹⁰ Reflecting on the aid received from the WEA in 1890, Goodale opined: “Without

²⁰⁷ Goodale, “The Blaschka Glass Flower Collection,” 603.

²⁰⁸ Goodale, “The Blaschka Glass Flower Collection,” 603.

²⁰⁹ In the 1888 financial year Mary L. Ware gave \$1,000 and Elizabeth C. Ware gave \$2,000. The Wares were established donors at Harvard before the initiation of the glass flowers project. In the 1886 financial year, Elizabeth and Charles Ware had given \$200 in support of the Divinity School. “Treasurer’s Statement: 1888,” in *Annual Reports of the President and Treasurer of Harvard College, 1885-86* (Cambridge, Mass.: Harvard University, 1887), 9; “Treasurer’s Statement: 1886,” in *Annual Reports of the President and Treasurer of Harvard College, 1885-86* (Cambridge, Mass.: Harvard University, 1887), 9. [Note: In the *Annual Reports of the President and Treasurer*, the pagination for the Treasurer’s reports is distinct from that for the President’s reports].

²¹⁰ For further information on the glass flowers, see: Walter Deane, “The Ware Collection of Blaschka Glass Models of Flowers at Harvard,” *Botanical Gazette* 19, no. 4 (1894): 144-48;

the cooperation and hearty sympathy of the Curator of the Museum and the Overseers' Committee, and the active assistance of many members of yearly botanical classes held by me in Boston, under the auspices of the Woman's Educational Association, the raising of these large amounts would have been simply hopeless."²¹¹ As this incredible story of patronage indicates, men were occasionally able to leverage their connections with the eminent women of the WEA to benefit their own scientific undertakings.

The relationship of Alpheus Hyatt and the Boston Society of Natural History to the WEA provides numerous examples of the varied benefits men received for supporting female scientific spaces. In addition to gaining funding for the Annisquam lab through collaboration with the WEA, Hyatt also occasionally received payments and fundraising support for the Boston Society of Natural History's projects from the Association. For example, in 1891 Hyatt needed help acquiring funding to establish a "Natural History Garden" in Boston.²¹² Although Hyatt was curator of the Society, the Society was unable to fund this project. Therefore, the WEA agreed to host "a special meeting to which representatives of the Natural History Society should be invited to address the Association on this subject."²¹³ The WEA decided to give Hyatt \$200 "in aid of the New Natural History Garden of Boston" as well as to create a committee of five WEA members whose aim was "to work with the Boston Natural History Society in the interest of the

Susan M. Rossi-Wilcox, "A Brief History of Harvard's Glass Flowers Collection and Its Development," *Journal of Glass Studies* 57 (2015): 197-211.

²¹¹ George Lincoln Goodale, "The Botanic Garden" in *Annual Reports of the President and Treasurer of Harvard College, 1889-90* (Cambridge, Mass.: Harvard University, 1890), 156.

²¹² MHS WEA Records, General Meeting Records, 1888-1893, February 12, 1891, n.p., Box 2, Folder 6.

²¹³ MHS WEA Records, General Meeting Records, 1888-1893, February 12, 1891, n.p., Box 2, Folder 6.

Natural History Garden.”²¹⁴ At the “suggestion” of the Society’s President, the WEA “agreed to try to raise \$2,000 for the initial expenses of the establishment of Zoological Gardens & Aquaria.”²¹⁵ Within a month, the fundraising committee had raised \$1,961.²¹⁶ Unfortunately, the plan for these gardens was “reluctantly abandoned” by January 1894.²¹⁷ The WEA hoped that those who had donated to the cause “would feel ready to have the money used for making the collections of Nat. Hist. Soc. more useful.”²¹⁸ The Society suggested redirecting the funds towards developing a guide to the collections with the aim of making the museum more instructive to visitors.²¹⁹ Additionally, the WEA anticipated that some of the funds would be redirected towards heating the Boston Society of Natural History’s building.²²⁰ In February 1894 the WEA discharged the committee it had assembled to fundraise for the Natural History Garden and Aquaria.²²¹ In spite of the failure to establish the gardens, this episode demonstrates the

²¹⁴ MHS WEA Records, General Meeting Records, 1888-1893, April 9, 1891, n.p., Box 2, Folder 6.

²¹⁵ MHS WEA Records, General Meeting Records, 1888-1893, March 17, 1892, n.p., Box 2, Folder 6.

²¹⁶ MHS WEA Records, General Meeting Records, 1888-1893, January 19, 1893, n.p., Box 2, Folder 6.

²¹⁷ MHS WEA Records, General Meeting Records, 1893-1896, January 18, 1894, p. 33, Box 2, Folder 7.

²¹⁸ MHS WEA Records, General Meeting Records, 1893-1896, January 18, 1894, p. 33, Box 2, Folder 7.

²¹⁹ MHS WEA Records, Executive Committee Records, 1893-1895, December 9, 1893, p. 25, Box 4, Folder 5.

²²⁰ MHS WEA Records, Executive Committee Records, 1893-1895, December 9, 1893, p. 25, Box 4, Folder 5.

²²¹ MHS WEA Records, General Meeting Records, 1893-1896, February 15, 1894, p. 39, Box 2, Folder 7.

mutuality of Hyatt and the Society's relationship with the WEA. By working with and supporting the WEA in its scientific spaces, Hyatt and the Society gained a powerful fundraising ally.

Ellen Swallow Richards's uncompensated work for MIT provides yet another example of the benefits men received by supporting women in science. Richards provided instruction at the MIT women's laboratory for eight years without a salary, during which time she was listed in the MIT course catalogue and considered a member of the MIT community. When MIT began admitting women to all of its courses in 1883 it disbanded the women's lab, leaving Richards without a post. In response, MIT President Francis Amasa Walker wrote Richards on behalf of the MIT Corporation to express his regret that the reorganization of women's schooling at MIT had left Richards (at least temporarily) without employment. He nonetheless requested Richards's consent to leave her name "...as heretofore upon the [MIT] Catalogue, for the current year."²²² In response, Richards graciously thanked Walker for "informing me of the very kind and appreciative sentiments of the Executive Committee." She consented to his request and expressed her desire to "assure you that I shall hold myself ready for any special duties which it may seem to you best to require of me."²²³ By supporting the women's lab and women's admission to the Institute, MIT was able to claim Richards as a faculty member without compensating her. By this point in her career, Richards had distinguished herself as the first female graduate of MIT, lead instructor of the women's laboratory, and a forerunner in the burgeoning field of domestic science. She had presented before the American Association for the

²²² MIT Women's Laboratory Records, Box 1, Folder 29, Francis Amasa Walker to Ellen Swallow Richards, November 8, 1883.

²²³ MIT Women's Lab Records, Box 1, Folder 28, Ellen Swallow Richards to Francis Amasa Walker, November 7, 1883, pp. [2-3].

Advancement of Science twice and had published in *The American Journal of Science and Arts*.²²⁴ By listing her in their course catalogue, MIT was able to claim association with this notable woman of science without incurring any financial cost.

This analysis suggests that men frequently profited from their support of the NEWC and WEA. These benefits came in myriad forms, from enjoying symbiotic working relationships with women to obtaining substantial funding for their own projects. This is not to say that men's support of women in science was entirely self-serving. Indeed, as noted in this chapter, much of the support that men provided to the NEWC and WEA was given free of charge, including hundreds of lectures, active oversight, and membership on many NEWC and WEA boards. However, it would be misleading to ignore the myriad benefits men received in exchange for their support of these extra-academic spaces of scientific engagement.

Men Supporting Women in Science Beyond the Confines of Clubs: Hyatt, Goodale, and Ordway

Much of the male support garnered by the NEWC and WEA appears to have been site-specific, reflective of contemporaneous gender norms, and motivated by funding and interpersonal connections. Nonetheless, it is important to highlight the existence of a small group of men whose support for women in science extended beyond these narrow confines. Indeed, men like Alpheus Hyatt, George Lincoln Goodale, and John Ordway championed women's scientific participation at a broad range of sites, including universities.

²²⁴ Cheney and Richards, "ART. XXIII. – A New and Ready Method for the Estimation of Nickel in Pyrrhotites and Mattes"; Richards and Palmer, "Art. XVIII – Notes on Antimony Tannate" and "Art. XLIII – Notes on Antimony Tannate, no. 11."

As has been examined in this chapter, Boston University zoologist Alpheus Hyatt encouraged women and men alike to conduct zoological studies at the Annisquam Seaside Laboratory. Even before the Annisquam Lab, Hyatt had championed women's participation at the Teachers' School of Science in Boston, which he had founded in 1870 while working as custodian of the Boston Society of Natural History.²²⁵ Through the Teachers' School of Science, Hyatt gave coeducational science lectures and lab-based lessons to teachers in the hopes of improving their scientific knowledge and methods of instruction.²²⁶ Through this school, Hyatt was able to provide what the Boston Society of Natural History characterized as "a scientific preparation equal to that of an ordinary college or scientific school."²²⁷

²²⁵ A. S. Packard, "Alpheus Hyatt," *Proceedings of the American Academy of Arts and Sciences* 38, no. 26 (1903): 717.

²²⁶ Arthur C. Boyden, "Address of Mr. Arthur C. Boyden," in *Proceedings of the Boston Society of Natural History: Memorial of Professor Alpheus Hyatt* 30, no. 4 (June 1902): 429-30.

²²⁷ Boyden, 430.

Figure 5.4: Boston Society of Natural History laboratory used by Professor Hyatt for the Teachers' School of Science



LABORATORY OF THE BOSTON SOCIETY OF NATURAL HISTORY USED BY CLASSES OF THE TEACHERS' SCHOOL OF SCIENCE.

Source: Frances Zirngiebel, "Teachers' School of Science," *Appleton's Popular Science Monthly* (August 1, 1899), 458.

As Figure 5.4 indicates, the students of the Teachers' School benefited not only from Hyatt's instruction, but also from his affiliation with the Boston Society of Natural History; classes at the Teachers' School often used the Society's spaces and scientific collections. As a result, students at the Teachers' School were able to obtain hands-on natural history instruction and investigational opportunities. Impressively, lessons at the Teachers' School's frequently

welcomed audiences of up to a hundred students.²²⁸ Though the sexes of these lessons' attendees were not noted, the vast majority of teachers in Boston during this time period were women, and contemporaneous coverage of the school indicates that many of its students were women.²²⁹

Despite the financial and institutional support Hyatt garnered through his sustained work with the WEA, it seems unlikely that Hyatt worked with the WEA for the sole purpose of raising and earning money. In 1889 Hyatt offered a course on insect life at the WEA which was profitable. Hyatt donated his profits from this lecture series to the Synoptic Collection at the Boston Society of Natural History.²³⁰ Further, he provided instruction at the Annisquam lab without receiving regular compensation from the WEA for his services. Given his willingness to donate or even forego his compensation, it seems unlikely that Hyatt's motivation for instructing women in science was purely financial.

As this chapter has shown, George Lincoln Goodale provided hands-on, experiential botanical instruction to hundreds of Bostonian women through his WEA-organized lectures. However, his willingness to engage women in science did not end there. In fact, Goodale also taught botany at Harvard's coeducational summer schools (which aimed primarily to educate public school teachers) and at Hyatt's Teachers' School of Science. Further, he worked to ensure reasonable accommodations for Radcliffe students studying geology and botany at the Museum of Comparative Zoology.²³¹

²²⁸ Boyden, 452, 454.

²²⁹ See, for example: Boyden, 429-30.

²³⁰ MHS WEA Records, Executive Committee Records, 1886-1893, November 16, 1889, pp. 79-81, Box 4, Folder 4.

²³¹ *Private Collegiate Instruction for Women in Cambridge, Mass.: Courses of Study for 1880-81 with Requisitions for Admission and Report of the First Year* (Cambridge, Mass.: William H. Wheeler, 1880), 5, 14; Professors and Other Instructors of Harvard College, *Reports of the*

Figure 5.5: Harvard Summer School Botanical Class, 1886



Asa Gray is the man with the white beard pictured in profile in the second row. George Lincoln Goodale sits to Gray's right, resting his head on his hand.
Courtesy of Gray Herbarium Archives, Harvard University, Cambridge.

As indicated by Figure 5.5, Goodale also instructed women at Harvard's Summer School. Harvard's Summer School was established in 1871 as the Summer School of Botany by famed Harvard professor and botanist Asa Gray.²³² The Summer School included women from its

Treasurer and Secretary of The Society for the Collegiate Instruction of Women (Cambridge, Mass.: William H. Wheeler, 1886), 8-9, 12; Correspondence from George Lincoln Goodale to Alexander Agassiz, 15 June 1908, George L. Goodale papers (unprocessed), "George L. Goodale; Correspondence, A. Agassiz, 1906-8," folder, to be processed as part of the Harvard University Botanical Museum records, Cambridge, Massachusetts.

²³² Donald H. Pfister, "Asa Gray and Harvard Summer School," *Harvard Papers in Botany* 15, no. 2 (December 2010): 305-8.

outset, and remains active to the present day.²³³ Goodale was also an eager and ambitious instructor of students at the Society for the Collegiate Instruction of Women, the precursor to the Harvard Annex and Radcliffe College. In an 1886 report on class offerings, the Society for the Collegiate Instruction of Women noted that the school's "most pressing need is more ample accommodation for scientific work", explaining that "classes in this department have heretofore been small, limited almost always to an enthusiastic division under Professor Goodale in Botany, and to Freshmen taking their required work in Physics."²³⁴

In the decades that followed, Goodale continued to instruct the female students of the Society for the Collegiate Instruction of Women (which incorporated and adopted the name 'Radcliffe College' in 1894), and to ensure that they were accommodated within science departments. For example, in May 1908 Goodale corresponded with Harvard professor Alexander Agassiz, then-director of the Museum of Comparative Zoology, to discuss "a disputed point in regard to the occupation of parts of the Museum by Radcliffe students."²³⁵ The contention centered on Radcliffe's use of Museum space for its courses.²³⁶ Goodale was concerned that the existing arrangements were overcrowded, did not adequately address the question of rent, and provided "inadequate toilet accommodations [*sic*] for so large a number of

²³³ Pfister, 305-8.

²³⁴ *Reports of the Treasurer and Secretary of The Society for the Collegiate Instruction of Women* (1886), 8.

²³⁵ George Lincoln Goodale to Alexander Agassiz, 26 May 1908, George L. Goodale papers (unprocessed).

²³⁶ Tonn, "Extralaboratory Life," 329-58.

women.”²³⁷ Working with Agassiz and other professors, Goodale reached the following solution for these issues: “to permit the elementary students of Radcliffe to use the Nash Lecture-room ... and to have all of their laboratory work on the Radcliffe premises; further, the advanced students in Botany, (three), to be allowed to use tables in the second-floor laboratory.”²³⁸ Goodale felt that this resolved “the question of overcrowding.”²³⁹ After investigating the question of women’s limited bathrooms, Goodale advocated for the establishment of “a public toilet accessible to women, in the middle section of the University Museum, if room there be found.” Justifying this request, Goodale explained that “the number of visitors is large, and a toilet at the very end of the building is far off and hard to find.”²⁴⁰ As this suggests, Goodale was eager to ensure that the needs of Radcliffe students were taken into account, and that the Museum’s facilities were satisfactory to students and visitors of both sexes. In short, Goodale’s willingness to support women’s scientific work was not circumscribed solely to women-centric spaces. Rather, Goodale encouraged women’s science learning within women’s associations and fostered coeducational and university-based opportunities for women’s scientific instruction.

Perhaps the most devoted supporter of women’s science work highlighted by this chapter is MIT Professor John Morse Ordway. Ordway’s support of women in science was widely recognized even in his own time. The introductory paragraph of his 1916 biographical notice in

²³⁷ George Lincoln Goodale to Alexander Agassiz, 15 June 1908, George L. Goodale papers (unprocessed)

²³⁸ George Lincoln Goodale to Alexander Agassiz, 15 June 1908, George L. Goodale papers (unprocessed).

²³⁹ George Lincoln Goodale to Alexander Agassiz, 15 June 1908, George L. Goodale papers (unprocessed).

²⁴⁰ George Lincoln Goodale to Alexander Agassiz, 19 June [1908], George L. Goodale papers (unprocessed).

Proceedings of the American Academy of Arts and Sciences noted that: “He was much interested in the promotion of education of women in science.”²⁴¹ Similarly, a 1933 history of chemistry at MIT characterized Ordway as “much interested in the education of women in science.”²⁴²

Ordway oversaw, instructed, and provided funds for the women’s lab, and also employed female scientists in his own laboratory research. Prior to the advent of the women’s lab, Ordway had retained Ellen Swallow Richards as a research assistant, beginning when she was an undergraduate.²⁴³ In an 1871 journal entry Richards noted: “They say I am going ahead because Prof. Ordway trusts me to do his work for him which he never did anybody else – the dear good man – I am only too happy to do anything for him.”²⁴⁴ Richards’s connection with Ordway continued to pay dividends in the years that followed; it was through this relationship that Richards was hired as a chemist for the Manufacturers’ Mutual Fire Insurance Company in 1885.²⁴⁵

Ordway’s willingness to instruct, work alongside, and promote women in science carried on after his time at MIT. In 1884 he moved from MIT to the all-male Tulane University, where

²⁴¹ H. P. Talbot, "John Morse Ordway (1823-1909)," *Proceedings of the American Academy of Arts and Sciences* 51, no. 14 (1916): 911.

²⁴² Tenney L. Davis, “Chemistry at M.I.T.: A History of the Department from 1865-1933,” *Technology Review* (April 1933): 264.

²⁴³ “Ellen Swallow Richards: Tributes: Institute Archives & Special Collections: MIT,” accessed September 21, 2018, <https://libraries.mit.edu/archives/exhibits/esr/esr-tributes.html>; Samuel A. Goldblith, *Of Microbes and Molecules: Food Technology, Nutrition, and Applied Biology at M.I.T., 1873-1988* (Trumbull, CT: Food & Nutrition Press, Inc., 1995), 18.

²⁴⁴ Hunt, *The Life of Ellen H. Richards*, 91.

²⁴⁵ Ordway had conducted scientific studies on behalf of the Manufacturers’ Fire Insurance Company. George Rosen, “Ellen H. Richards (1842-1911), Sanitary Chemist and Pioneer of Professional Equality for Women in Health Science,” *American Journal of Public Health* 64, no. 8 (August 1974): 817; Hunt, *The Life of Ellen H. Richards*, 107.

he served as a professor of applied chemistry and the director of Tulane's manual training department.²⁴⁶ Ordway returned to instructing women, this time in biology, in 1886 with the founding of Newcomb College as a women's coordinate institution to Tulane. In 1897, at the approximate age of 74, Ordway decided to lighten his workload by ceasing work at Tulane, yet he continued to teach women biology at Newcomb until 1904.²⁴⁷

Ordway's endorsement of women in science is also evident on a more personal level: his third wife, Evelyn M. Walton Ordway (1853-?), whom he married in 1882, had graduated with a B.S. from MIT in 1881, having conducted research at the MIT women's lab and worked as an assistant in Ordway's lab.²⁴⁸ Evelyn Ordway would go on to become a professor of chemistry and physics at Newcomb College, as well as a vocal public advocate of women's suffrage.²⁴⁹ Together, the Ordways worked to ensure that the sciences were a central component of women's education at Newcomb.²⁵⁰ As this indicates, Ordway supported women's science instruction throughout his life – he taught and employed women, used his own connections to help women obtain scientific jobs in industry, and was a keen and supportive mentor of women. In short,

²⁴⁶ *The National Cyclopaedia of American Biography: Being the History of the United States*, Volume 7, s.v. "Ordway, John Morse" (New York: James T. White & Company, 1897), 259.

²⁴⁷ "Class of 1844: John Morse Ordway," *The Dartmouth Alumni Magazine* 2, no. 1 (October 1909): 39.

²⁴⁸ *The National Cyclopaedia of American Biography: Being the History of the United States*, 259; Goldblith, 28.

²⁴⁹ Jane Miller, "A Female-Dominated Field: Chemistry at Newcomb College, 1887-1970s," in *Newcomb College, 1886-2006: Higher Education for Women in New Orleans*, Susan Tucker and Beth Willinger, eds. (Baton Rouge: Louisiana State University Press, 2012), 197; Evelyn W. Ordway, "How the Women of New Orleans Discovered Their Wish to Vote," *Political Science Studies Series* 4, no. 4 (1900): n.p.

²⁵⁰ Miller, 199.

Ordway encouraged women's university-based and professional pursuits in science, not only their study of science as an intellectually stimulating hobby, or as a means of better educating their children.

Conclusion: Male Support of Women in Science, and its Limits

As this chapter has shown, the NEWC and WEA's women-centric spaces of scientific learning often enjoyed intellectual, physical, and advisory support from men. To obtain this support, the NEWC and WEA offered men a range of benefits, including: compensation, an audience for their work, and even support for their own scholarship, projects, and charities. In garnering male support, the NEWC and WEA relied significantly upon social connections, their groups' elite reputations, and their ability to fundraise. However, this chapter suggests that the breadth of the male support obtained by the NEWC and WEA cannot be explained simply via reference to the benefits the NEWC and WEA provided, nor to the class or interpersonal connections of these groups' members. Indeed, if the benefits offered, or the class of women involved, were sufficient motivation for men to support women's participation in science, similarly positioned women would have regularly obtained entrance into university-based science programs.²⁵¹ Given that this was distinctly *not* the case, this chapter suggests that men's support of women in science was often site-specific; that is, it was contingent upon a host of

²⁵¹ Though elite white women *did* fare better than other social and ethnic groups when applying to elite universities, men did not support them to the same degree as they did at the scientific programs developed by the NEWC and WEA. Indeed, many well-heeled, accomplished white women attempted to enter university-based science programs and were rejected. For a particularly poignant and relevant example, see Harriot K. Hunt's account of her applications to Harvard Medical School in *Glances and Glimpses*. As noted in Chapter 1, Hunt was a founding member of the NEWC. Hunt, *Glances and Glimpses*, especially pages 215-9.

local characteristics, including the class and connections of the participants and organizers, the type of science being taught, the location, and the provision of funding.

As historians including Robert Kohler and David Livingstone have shown, *location* is a significant factor in the forms of knowledge that are produced and the manner in which that science is consumed.²⁵² It appears that men's objections to women's scientific learning were at least partly site-based: many men expressed discomfort with women's participation in science in universities, yet were comfortable encouraging women to pursue science within women's groups. Indeed, even Edward Clarke, perhaps the most widely-cited critic of coeducation, considered the NEWC a worthy lecture site. Additionally, men's willingness to support science at the NEWC and WEA appears to have often been reflective of the *kind* and *degree* of science being sought – the NEWC and WEA's science learning opportunities often focused on feminized scientific fields and were not generally directed towards educating women to become academic scientists with university degrees.

This chapter also sheds light on a few hitherto underacknowledged male supporters of women in science. Men including Alpheus Hyatt, George Lincoln Goodale, and John Ordway encouraged women to participate in science not only within women's groups, but also at broader sites of science education, including universities. Thus, this chapter works to avoid painting all male supporters of women in science with the same brush. Instead, examining men ranging from Edward Clarke to John Ordway, it sheds light on the breadth of male opinions surrounding women in science, showing that when it came to the 'women in science' question, the answer was never as simple as a 'yay' or 'nay.'

²⁵² Kohler, *Landscapes & Labscales*; Livingstone, *Putting Science in its Place*.

Conclusion

1910, The End of an Era

In 1910, 230 members of the NEWC gathered to celebrate Julia Ward Howe's 91st birthday. Taking command of the gathering, Howe advised the members to: "Live in your own time; don't lag behind, but be up and doing." She reflected on the "great changes in the opportunities and environment of women" that had occurred in her lifetime, musing that in her youth all women were "shut-ins" who "had no business outside the home, unless we chose to go to the market."¹ Just months later, Howe passed away, having served as NEWC President for almost forty years.

Howe's death coincides with the end of the first generation of the women's club movement. At the time of her death, the NEWC reaffirmed its commitment to her values, writing that Howe would continue to serve as an "influence & inspiration as long as the New England Women's Club continues in existence."² However, by 1910 the Club had entered a new chapter; its founders had passed on and the Club had gone from being one of a kind to being one of a vast sea of women's groups. The Club itself was aware of the evolution in its character and significance. In 1918, the NEWC celebrated its 50th anniversary. In honor of this event, former Club President Mary H. Ladd gave a report on the club's second quarter century (the period from 1893-1918). Ladd noted that the NEWC had become less of a pioneering organization in its

¹ "MRS JULIA WARD HOWE'S 91ST BIRTHDAY OBSERVED: Guest of the New England Women's Club, She Brought a Special Message, Urging the Members 'Not to Lag Behind,'" *Boston Daily Globe* (May 26, 1910): 16.

² NEWC Records, "Rec Sec 1901 to 1910," November 5, 1910, page 473, M-145, microfilm reel 6, folder 27v.

second quarter century, presenting this shift as a simple function of the fact that many women's clubs had arisen in recent decades.³ As Ladd put it, "as the brilliant and homogenous set of founders has left us, the Club has become more and more like those which have grown up around her" and the "energy and progressiveness which found joyful outlet in this one early club is now diffused among her younger sisters and her daughters."⁴ The NEWC remained active for many decades to come – it wasn't until 1970 that it officially shuttered its doors – but for most of the twentieth century it focused on social and cultural activities rather than on the advancement of opportunities for women's education.

The WEA disbanded in 1929. Reflecting on this, charter member Katherine P. Loring (the Association's longest standing member) suggested that there were two key reasons for the Association's close.⁵ First, much like the NEWC, the WEA experienced a generational shift: "young women do not join and the older members are falling out."⁶ Loring attributed the dearth of younger members to the fact that "[t]he Junior League and the many other leagues, national, state and municipal, the great foundations and the numberless women's clubs are taking over what we might do."⁷ As she explained, these organizations had greater financial backing than the WEA: "Where we handled hundreds of dollars, they spend thousands and speak lightly of

³ NEWC Records, Mary H. Ladd, "The Second Quarter Century," [1918], page [1], M-145, microfilm reel 4, folder 15.

⁴ NEWC Records, Mary H. Ladd, "The Second Quarter Century," [1918], page [1], M-145, microfilm reel 4, folder 15.

⁵ MHS WEA Records, Loring, "A Review of Fifty-Seven Years' Work," 14.

⁶ Loring, "A Review of Fifty-Seven Years' Work."

⁷ Loring, "A Review of Fifty-Seven Years' Work."

millions.”⁸ By the close of 1929, the Association had “a shrinking membership” of eight life members, three honorary members, and 182 active members.⁹ Second, Loring felt that there had been a marked change in the condition of women’s education, with increased access to a wealth of educational options.¹⁰ As Loring put it, the “woman of this age requires an education practical, professional and political, and has every opportunity at hand for what she wants.”¹¹ As a result of this perception that women’s educational opportunities had greatly improved, by 1921 the WEA had broadened its mission of “promot[ing] the better Education of Women” by adding the words: “and to initiate and carry on educational work in any field.”¹²

Although Loring and the WEA felt that the Association’s original mission was no longer necessary, in hindsight it seems clear that this assessment was remarkably rosy. Indeed, women’s education in this period was still largely sex-segregated and focused on domestic tasks and women were still confined to a relatively limited number of occupational opportunities. Nonetheless, as a result of the rise of the women’s club movement and the growth of women’s educational opportunities the WEA disbanded. Its records were “presented to the Library of Radcliffe College, others to the Boston Public Library,” and the remainder to the Massachusetts Historical Society, where the vast majority of the WEA’s records still reside.¹³

⁸ MHS WEA Records, Loring, “A Review of Fifty-Seven Years’ Work,” 14.

⁹ MHS WEA Records, Eleanor W. Allen, “Annual Reports,” in *Fifty-Seventh and Final Annual Report of the Woman’s Education Association* (1929), 19, Box 13, Folder 24.

¹⁰ MHS WEA Records, Allen, “Annual Reports,” 14-5.

¹¹ MHS WEA Records, Allen, “Annual Reports,” 15.

¹² Schlesinger WEA Records, Elizabeth Putnam, “Woman’s Education Association,” [1921].

¹³ MHS WEA Records, MHS WEA Records, Allen, “Annual Reports,” 19.

Although the NEWC and WEA are no longer active, their legacies persist. As chapter 1 established, the NEWC served as an inspiration and model for the broader women's club movement of the late nineteenth century. Julia Ward Howe and Caroline Severance are widely recognized as 'mothers' of the women's club movement. By examining the founding of the NEWC, this dissertation has uncovered the manner in which postbellum women's groups appropriated the traditionally male format of the *club*, altering it to suit women's needs. Chapter 2 further highlighted the political significance of the NEWC's adoption of the term 'club' by illuminating the very different approach taken by the more conservative WEA. It shows that the Association sought to present its work as womanly, and to forward educational opportunities that enriched women's domestic role rather than challenging it.

Beyond exploring the manner in which the NEWC helped launch the women's club movement, this dissertation has used the NEWC and the WEA as the foundation for making a handful of interventions into the history of women in science. This dissertation has highlighted the complex relationships of women's rights to vote and to partake in science. In particular, chapter 3 examined the impact of arguments about women's political station on arguments for women's scientific participation. This examination found that the NEWC and WEA's strategies for arguing in favor of women's scientific participation were reflective of their views on political debates about women's place in the body politic. Indeed, the NEWC, which was supportive of suffrage, urged women to participate directly in the politics of education and encouraged educational reform for women without reference to women's traditionally domestic role. In contrast, the generally anti-suffrage WEA leveraged the language of domesticity and womanhood when making arguments for women's science learning, often suggesting that women should learn science because it would improve their domestic abilities.

Chapter 4 continued to explore the relationship of science and suffrage. It examines the impacts of the NEWC and WEA's political views on their development of opportunities for women to improve public health. It finds that the NEWC's pro-suffrage outlook meant that it encouraged women to effect change in public health via direct political interventions, while the WEA fostered opportunities for women to improve public health via improvements in domestic science.

Chapter 5 contributes to the literature on Progressive Era men's relationships to women's scientific learning. It deepens the existing historiography by examining the characteristics of male support, suggesting that men's willingness to provide aid depended upon the class and connections of the participants and organizers, the kinds of science being taught, the location, and the provision of funding. It highlights the varied benefits men could gain from supporting science learning at the NEWC and WEA, including money, wealthy and influential connections, and an intellectually engaged and supportive audience.

This dissertation also contributes to the existing historiography's recognition of Boston as a pioneering city for women in science. As Miriam Levin notes in her history of Mount Holyoke's female science faculty, New England was a locus of American higher education in the late 1800s. It boasted numerous prominent universities and male academics who worked to professionalize American science, as well as some that were supportive of the higher education of women in science.¹⁴ This dissertation has augmented the existing literature on women's science learning in Boston by exploring the efflorescence of women's science learning opportunities that were fostered by the NEWC and WEA. It has moved beyond the literature's tendency to focus on the exceptional achievements of women like Ellen Swallow Richards and

¹⁴ Levin, 7.

Sarah Whiting (two of MIT's first female science students), instead studying the science learning that occurred in more quotidian spaces – women's clubs and homes. Further, this dissertation reorients the existing historiography on women's relationship to university-based science learning by uncovering the important women-centric networks that the NEWC and WEA built and leveraged to help women gain entrance to these institutions.

In sum, this dissertation pushes *beyond* the university to explore the women-centric science learning opportunities that were created and supported by women's groups in Progressive Era Boston. By moving our attention away from university-based science, this dissertation has uncovered an incredible moment of coordinated networking and engaged scholarship that generated influential female-centric scientific subcultures of scientific learning. This dissertation finds that both the NEWC and the WEA frequently relied on sex separatism within science as a means of garnering acceptance. It argues that the NEWC and WEA were able to make *significant, yet problematic*, gains using this strategy. These gains were *significant* because they enabled over two thousand Bostonian women to partake in science learning at a time when women in science faced trenchant opposition. Additionally, a handful of the NEWC and WEA's science learning spaces remain active, or have legacies that persist, to this day. For example, women's successes at the MIT women's laboratory were used to help justify women's 1888 admission to MIT courses. The WEA's project of Instructive District Nursing lives on as the Visiting Nursing Association of Boston.¹⁵ The modern Marine Biological Laboratory at Wood's Hole had its start in the Annisquam laboratory, which was overseen and funded largely by the WEA. The NEWC and WEA also provided funding for diverse science learning activities;

¹⁵ "VNA of Boston | Home Care Boston | Boston Senior Home Care," accessed August 16, 2017, <https://www.kintera.org/site/c.frLJKYPJLuF/b.3881795/k.BF12/Home.htm>.

some of the scholarships they funded – including the NEWC’s Joy Fund at MIT and a NEWC scholarship for graduate women’s studies at Boston University – remain active to the modern day.¹⁶ Additionally, the storied glass flowers exhibit at Harvard’s Museum of Comparative Zoology received much of its initial funding thanks to the WEA. As this indicates, by adopting a female-centric, separatist approach to science education, the NEWC and WEA were able to generate a handful of long-lasting scientific learning opportunities and organizations. Nonetheless, these spaces were *problematic* because they often focused on feminized sciences, engendered rigid visions of women’s social role, and failed to offer a true alternative to the university. Thus, though sex separatism enabled the NEWC and WEA to enroll impressive numbers of women in their scientific programs, this strategy resulted in scientific offerings that were typically unable to advance women in science on equal terms with men.

¹⁶ NEWC Records, “Act of Incorporation,” January 8, 1884, page [39], M-145, microfilm reel 16, folder 115; “Joy Scholarship,” in *Bulletin of the Massachusetts Institute of Technology: Catalogue of the Officers and Students*, vol. 50, no. 1 (December 1914): 440; “Boston University Women’s Council,” accessed April 8, 2019, <https://www.bu.edu/buwc/scholarships.html>.

Appendices

Appendix 1: Standalone Science Lectures Given at the NEWC, 1868-1910

1868: N/A

1869: Maria Mitchell, Vassar College; Ednah Dow Cheney, Color; Dr. Henry Ingersoll Bowditch, Consumption; Rev. C. F. Barnard, Horticulture for Women; Count Zaba, Mental Culture or Memory

1870: John L. Russell, The Science of Botany; Fanny L. McDaniel, Flowers

1871: Dr. Mary Thompson, Chicago Hospital for Women and Children; Dr. Henry Ingersoll Bowditch, Tenement Houses; Ednah Dow Cheney, Horticulture for Women

1872: John Tyndall, lecture subject not listed; Dr. Mary Safford, Progress of Women in Europe; Dr. Marie Zakrzewska, Hospitals for Women Conducted by Women; Dr. Edward H. Clarke, Woman's Intellectual Capacity; Eva Kellogg, Woman's Capacity for Higher Education

1873: Maria Mitchell, Popular Uses of Science; Julia Ward Howe, Comparison of Masculine and Feminine Intellect; Discussion Committee, Hygiene in Our Schools; Dr. Mary Safford, Health in Relation to Work (especially as regards women); Dr. Mary Safford-Blake (née Safford), General Hygiene; Dr. B. Joy Jeffries, Defects of Vision; Ednah Dow Cheney, Color (given for a second time); Louis Agassiz, Our Common School System

1874: Antoinette Brown Blackwell, Work in Relation to the Home; Dr. Mary Safford-Blake (née Safford), Health and its Relation to Dress; Ednah Dow Cheney, Response to Edward Clarke's 'Sex in Education'; Miss Lee, Training of Nurses in England; Rev. Edward E. Hale, Cholera Infantum

1875: Dr. Mary Safford-Blake, Disposal of the Body; Benjamin Pickman Mann, Insect World; Rev. Bolles, The Microscope; Dr. [Edouard], The Heliotype Process; Thomas Gaffield, Effect of Sunlight on Glass; Dr. Henry Lincoln, Thoughts in Relation to Health

1876: Dr. Marie Zakrzewska, Domestic Help; Rev. E[dward] C[hipman] Guild, Domestic Economy; Professor Edward Morse, Classification in Natural History & Methods of Study; Thomas Gaffield, Effect of Sunlight on Glass [possibly a repetition of his 1875 lecture]; Mrs. George H. [Honison], The Science of Government

1877: Charlotte P. Hawes, Influence of Music (including discussion of its utility as a therapeutic agent)

1878: Dr. Marie Zakrzewska, Medical Women; Charles Henry Hitchcock, Ice Age of America; Professor Henry F. Walling, Origin and Maintenance of Mountains; NEWC Discussion Committee, Women's Health; Frederic Ward Putnam, Brazilian Tribes and their Pottery; Edward Morse, Japanese Life; Isa Gray, Health; George Lincoln Goodale, Color in Botany

1879: Alpheus Hyatt, Science in Education; Dr. Clarence J. Blake, The Ear

1880: NEWC Member Papers, Women in Science, Women in Medicine, Women in Business; Isa Gray, Health [possibly a repetition of her 1878 lecture]; Ellen Swallow Richards, Chemistry in Relation to Domestic Economy; Julia Ward Howe, Education in Regards to Sex

Appendix 1 (Continued)

1881: Adaline B. Jackson, Commercial Chemistry; Lucia M. Peabody, Report on Work of the MITWL; Dr. Mary Safford-Blake, Health from a Point of View Peculiar to Women; T. T. Underwood, Survival of the Fittest in Society and Literature; Dr. G. Stanley Hall, The Religious Training of Children; M. A. Hardaker, Intellectual Inferiority of Woman from Physical Conditions

1882: John Fiske, Influence of Darwin on Modern Education; Dr. Sarah W. Devoll, Diseases Peculiar to Women; Dr. Caroline E. Hastings, Mechanism of the Foot; B. Joy Jeffries, Color Perception & Color Blindness; Mrs. M. S. W. Brown and Dr. Brown, Children's Hospitals

1883: Samuel Langley, Experiences on Pikes Peak, Mt Etna & Mt Whitney; Mary M. Whitney, Scientific Occupations for Women; Dr. Caroline E. Hastings, Effects of Alcohol in the System as Scientifically Investigated

1884: John Fiske, Darwinism -- & the Origin of Man; Dudley Allen Sargent, Physical Basis of Education [Sargent gave two lectures on this topic to the NEWC in 1884]; Dr. Caroline E. Hastings, Effects of Alcohol in the System as Scientifically Investigated (repeat of her 1883 lecture)

1885: Paulina 'Alla' Foster, Sanitary Science; Professor Edward Morse, Theory of Evolution; Dr. Charles G. Minot, Psychical Research; George Lincoln Goodale, Insectivorous Plants; Mrs. Electa N. L. Walton, Caves

1886: Alpheus Hyatt, Effort as a Factor in Evolution

1887: Dr. Marie Zakrzewska, Climatic Hygiene; Rev. William C. Winslow, Recent Excavations in Egypt and the Egypt Exploration Society

1888: Discussion Committee, Darwin's Life; Mariana Porter, Leaves from the Land of the Lotus; John Robinson, Forest Conservation; Caroline Kennard, The Life and Works of Dorothea Dix; Mrs. A. A. Claflin, Life of Darwin; Dr. Marie Zakrzewska, Coffee Houses

1889: Symposium on Botany, Short Papers by the Botany Class; Annie P. Call, Conservation of Human Energy; Mrs. Starbuck, Mrs. Cheney, Mrs. Richards, Miss Spaulding, Miss Forster, Meeting in Memory of Maria Mitchell; Reception in honor of archaeologist Amelia B. Edwards; Memorial to Maria Mitchell, featuring comments on her scientific work by Professors Gould and Pickering; Alice Cooke (paper read by Frank Sanborn), Treatment of Insane Women; William Cranston Lawton, The Proposed Excavation at Delphi

1890: Miss O. M. E. Rowe, Heredity of Character & Ability; Mary E. Allen, Physical Education; Maria Mitchell (read by Phebe Kendall), Some Strong Minded Women

1891: Edward Spring, Changes in Human Face with Age; John Jack, Predaceous Insects; Dr. F. W. Russell, Mental Health and the Newspapers

1892: Dr. Helen Putnam, Medical Supervision of School Gymnastics; Dr. Myra DeNormandie and the Discussion Committee, The Aid Woman Physicians Can Give to the Cultivation of Moral Purity in Schools & Society; Samuel Scudder, Zoological Gardens in Boston; Rev. Minot J. Savage, Psychical Research

Appendix 1 (Continued)

1893: Professor B. M. Watson, Herbaceous Plants; Professor B. M. Watson, Landscape Gardening, or Flower Culture; Professor Tuckerman, Bacteriology; Amos Dolbear, Electricity; Ellen Swallow Richards, Boston Drinking Water; J. Warren Smith, Some Peculiar Phases of our New England Weather

1894: E. H. Forbush, Gypsy Moth Commission

1895: George J. Pierce, Scope of Botany; Hamilton Mabie, Nature and Culture; NEWC Discussion Committee short papers, Are the Effects of Bicycling for Women Good or Bad; Samuel Appleton, Hygiene of the Feet; Mabel Loomis Todd, Ascent of Fuji-san

1896: Dr. W. E. D. Scott, The Work of an Ornithologist; Amadeus Grabau, Scenic Geology; Amadeus Grabau, Factors of Evolution; Mabel Loomis Todd, Eclipse of the Sun in Japan; Dr. Marie Zakrzewska, Dr. Harriot K. Hunt; Caroline Kennard, Sketch of the Life of Dorothea Dix; Charles Fay, Alpine Climbing; Lucy Wheelock, The Child Study Movement; Amos Dolbear, Science and Theism

1897: Mrs. F. B. Hornbrooke, The Destruction of Birds for Ornamentation; Dr. Edward [Pisk], Memory Culture

1898: None

1899: Alpheus Hyatt, Value of Science Study for the Young; Ellen Swallow Richards, Work for Women in Sanitary Science

1900: Professor William Sedgwick and General A. A. Bancroft, The Streets of Boston: How to Improve Them; Dr. Dwight M. Clapp, The X-Ray; NEWC Discussion Committee, Rest: What It Is and How to Obtain It

1901: Amos Dolbear, Wireless Telegraphy; Dr. G. Stanley Hall, The Higher Education of Women; Dr. E. B. Cahill, Miss Winslow, Sallie Joy White, Alice Barker Lesser, Reverend Florence Kollock Croaker, What Profession Offers the Best Opportunities for Women Today?

1902: Mrs. Electa N. L. Walton, Man's Evolution; Drs. Emily P. Howard, Fernald, and Downing, How the State Takes Care of its Feeble Minded Wards

1903: Thomas A. Jaggar, Destruction of St. Pierre and St. Vincent by 1902 Mt. Pelée Eruption; NEWC Discussion Committee, Forestry; Dr. David Peck Todd, Recent Progress in Astronomy; Discussion Committee, "Five Minutes Talks on Something in Which I am Interested," feat. Mrs. Wilmarth on the Protection of Native Plants

1904: Theodore F. Borst, Why Our Forests Should be Perpetuated, A Concern of the Body Politic; Dr. Yamei Kim, Condition of Women in China; J. Mackintosh Bell, "Fireside Stories of the Chippenyans," featuring discussion of his geological work in Canada

1905: Harriet A. Boyd and Alice Walton, What Women are Doing in Archaeology; Florence Howe Hall, The Life Work of Dr. Samuel G. Howe

1906: Mrs. W. E. Alden, National Park Reservations; Dr. Colin A. Scott, The Psychology of Social Progress

1907: Ellen Swallow Richards, Clean Foods From Field to Table; Professor Frank Rane, Economics of Forestry

Appendix 1 (Continued)

1908: Mr. L. D. Gibbs, Modern Uses of Electricity; J. Leonard Mason, Scientific Physical Training; Professor Elizabeth F. Fisher, The Life History of a River; Alfred Tozzer, Archaeological Ruins of the Yucatan

1909: Charles Edward A. Winslow, Our Debt to Darwin; Edward Little Rogers, Massachusetts Mount; Alice Dinsmoor, From an American Farmers' Point of View

1910: Jeanette Tyler, Food Sanitation; Joseph G. Ray, Pure Milk and How the Public Can Help Produce It; Ellen Swallow Richards, Civic Responsibilities; Papers from the Botany Class, including: Mosses, Some Interesting Plant Deformities, The Life of the Botany Class, and A Plea for the Protection of Native Plants

Undated, between 1868-1893: Maria Mitchell and Benjamin Pierce, The Meaning of Science; Dr. Conrad Wesselhoeft, School Hygiene; Dr. Henry Lincoln, Gymnastics for Women

Appendix 2: Standalone Science Lectures Given at the WEA, 1871-1910

1871: none

1872: Edward H. Clarke, comments upon education of the sexes

1873: Louis Agassiz, Elementary Education; Unnamed lecturer, Need of a Training School for Nurses

1874: Edward H. Clarke, 'The Building of a Brain'

1875: none

1876: none

1877: none

1878: Miss Wales, Training School for Nurses

1879: Eliot Clarke, The New Sewerage System of Boston; Alpheus Hyatt, The Advantages of the Natural Method of Teaching

1880: Mrs. Smith, Gems and the Stone-Cutters of Oberstein; Ellen Swallow Richards, The Educational Value of Scientific Investigation

1881: none

1882: none

1883: Presentation of Mary H. Hinckley's Illustrations of Batrachians

1884: Francis Amasa Walker, Opportunities for Women at MIT; Mrs. A. C. Martin, Introduction of Science Teaching into English Schools; Ellen Swallow Richards, Visit to the Health Exhibition in London and Visits to Board Schools

1885: Ellen Swallow Richards, Methods of Teaching Natural Science

1886: Mrs. Martin, Ellen Swallow Richards's Book: *Household Manuals, No. II -- Food Materials and their Adulterations*

1887: none

1888: none

1889: none

1890: Mary Gilbreth, Ferns; James Henry Emerton, Entomology; Mary E. Allen, Health and Gymnastics

1891: Professor William Morris Davis, Geographical Appliances Belonging to the Brooklyn Institute

1892: Dr. E. N. Hartwell, The Relation of Physical Training to Education

1893: none

1894: Dr. G. Stanley Hall, Relations of Physical and Mental Training

Appendix 2 (Continued)

1895: none

1896: Professor Davis, A Plea for the Better Teaching of Geography in the Schools; Mrs. Barns, Results of her Study on the Health of College Women; Dr. Royce, Value of Psychology to the Mother; Ellen H. Richards, Domestic Art

1897: Ida Hyde, Zoölogical Station at Naples

1898: Professor John Williams White, Formation of the Archaeological Institute of America and Explanation of its Current Excavations

1899: James Crafts, Some Reasons Why We Should Study Science; Dr. Hugo Münsterberg, Electric Studies from the Point of View of a Psychologist and a German

1900: Discussion of Technical Training for Women, featuring: Caroline B. Weeks on 'The Technical Training of Girls at the Pratt Institute,' Edith Howes on 'Industrial Training for Girls,' Selma Wesselhoeft on 'Schools for Gardening and Kindred Subjects in Germany,' Ellen Swallow Richards, on 'Legal Status of Technical Training for Girls in the United States'; Dr. Theodore Hough, Some Aspects of Physical Education in Secondary Schools

1901: John Dewey, Industrial Training for Girls

1902: Sarah Scoville Whittelsey, PhD, Women and the Study of the Social Sciences; Ellen Swallow Richards, Nutrition in the Light of a Social Obligation

1903: Richard T. Fisher, Some Conditions of Forestry in New England; Marian C. Jackson, The Society for the Protection of Native Plants

1904: none

1905: Dr. Alfred Worcester, The Outlook in Nursing

1906: Dr. Richard C. Cabot, The Tyranny of the Patent Medicine Concerns & of the Manufacturers of Adulterated Food

1907: Charles F. Warren, Technical Education for Girls

1908: Sarah Goodwin, A Domestic Science Experiment in a Private School

1909: none

1910: Dr. Richard C. Cabot, The Hygienic Aspect of Out of Town Schools; Mr. Hollis Godfrey, The Creation of a Center for the Scientific Study of Home-Makin

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