

know how to produce notes on Nelson's chapter. I wondered if note-taking evoked the same energy as the initial writing. I decided to circle the letter "M" for each uncomfortable quotation. Despite my hesitation, Nelson skillfully examines Anishinaabeg hydromyth, suggesting that these stories contain clues for establishing a sustainable relationship with the water world. Her analysis allows Anishinaabeg hydromyth to speak to climate change. Nelson's work *must* be read. It illuminates the socio-scientific value of myth and stories to environment studies and it creates space to discuss community taboos. Do we contribute all our stories to decolonizing work?

"Stories as Resistance," the fifth gift, reveals that stories are "acts of survival, innovation, and growth" (p. 235). Here, Heidi Kiiwetinepinesiik Stark highlights the importance of destabilizing Western sources, arguing that "[f]ederal Indian law contains many of the creation stories of the nation-state" (p. 259). Federal laws are awarded transformative powers; they make up our legal landscape. Stark writes, "The courts have erected theoretical mountains that often prove difficult to pass" (p. 267). Stark explores two competing stories of "trust" (and, by extension, "protection") through the 1846 treaty negotiations between the United States and the United Nation of Potawatomie, Odaawa, and Ojibwe. Under treaty, the United Nation's trusted that the United States would protect them "from U.S. citizens, from state interference, and from parties that seek to disrupt treaty commitments" (p. 271). How did *protection* come to erode tribal sovereignty? Through legal stories like *Oliphant v. Suquamish* (1978) Stark questions the validity of sources found in courtrooms, museums, and archives.

This edited collection is a must-read for Anishinaabeg and non-Anishinaabeg scholars alike. It encourages us to question the stories we, Anishinabek scholars, tell about ourselves. What contributions can urban Anishinaabeg writers make to the academy? And, English-speaking Anishinaabeg? It is also a call to affirm our intellectual heritage. It is a reminder that we are not only community teachers, but community healers (p. 321). The stories we tell — and, how we tell them — are shaping the world of our children, of our grandchildren. We can reclaim and validate Anishinaabeg epistemological frameworks. Anishinaabeg stories are not supplementary; they are central. In reclaiming our stories, we are responding in concrete ways to recurrent calls to "indigenize the academy."

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A History in Sum: 150 Years of Mathematics at Harvard, 1825-1975, by Steve Nadis and Shing-Tung Yau. Cambridge, Harvard University Press, 2013. xviii, 249 pp. \$39.95 US (cloth).

This lively and accessible book traces the lives and work of some of the most eminent and influential mathematicians associated with Harvard over the 150-year period from 1825 to 1975. As the authors, science writer Steve Nadis and

Harvard mathematician Shing-Tung Yau acknowledge, those dates are, however, somewhat arbitrary. Benjamin Peirce (1809-1880), arguably the first research mathematician to serve at Harvard, entered what was then Harvard College as a member of the 1825 freshman class and began a career on the faculty there six years later that would end only with his death. By 1975, Harvard had established itself as one of the leading mathematics departments internationally both by fostering American-born mathematical talents and, ultimately, by opening its doors to foreign-born mathematicians of recognized strength. The stories of thirteen mathematicians shape a narrative that is both biographical and mathematical.

Although the seventeenth- and eighteenth-century history of mathematics at Harvard is very briefly sketched, the book opens in the nineteenth century with the story of Benjamin Peirce, a home-grown scholar who personally embraced the research ethos at a moment in the history of American higher education when that ethos was not widely shared. Peirce, in fact, was a member of a loosely knit group at midcentury that worked to orient American science toward research and publication and, more generally, toward professionalization as it had been institutionalized in Europe. It is a missed opportunity that the authors failed to contextualize Peirce within these broader trends within the history of science in the United States. It would have made a rich story even richer while also providing meaningful historical explanations for why it was actually perfectly natural that “[t]he ‘publish or perish’ ethic,” which came to be so dominant by the closing decades of the twentieth century and with which the authors are well aware, “evidently, had not yet taken hold” (p. 7) in mid-nineteenth-century America. In the telling of their story, the authors fall more than once into this trap of judging and interpreting the past by the present.

From Peirce (whose son, the mathematician, geodesist, and philosopher, Charles Sanders Peirce, is incorrectly portrayed in the images that appear between pages 140 and 141 of the book), the narrative moves to the turn of the twentieth century when William Fogg Osgood (1864-1943) and Maxime Bôcher (1867-1918) brought their German training and research ideals back to a Harvard by then under the leadership of Charles Eliot. Over the course of his forty years as president, Eliot labored to transform colonial Harvard College into modern Harvard University, largely in response to developments in American higher education taking place at the Johns Hopkins University and somewhat later at the University of Chicago and elsewhere. Osgood and Bôcher had both studied at Göttingen University in the 1890s under the leading German mathematician, Felix Klein, and had both continued actively to pursue and to publish the fruits of their mathematical labours after their return to American shores. They, but most successfully Bôcher, worked to reorient mathematics at Harvard toward research and the training of future researchers.

In the twentieth century, George David Birkhoff (1884-1944) built on the foundation they had laid to animate what we would recognize as a “modern” research department with a faculty that covered many of the key areas of contemporaneous research, that was encouraged to contribute meaningfully to and

publish in those areas, that actively trained a strong cadre of graduate students, and that participated in the activities of the national organization for mathematicians, the American Mathematical Society. Birkhoff's work in, among other areas, dynamical systems, drew on and extended ideas developed by some of Europe's best mathematicians and established his international reputation. The authors succeed admirably in giving the flavour of this work and in explaining its import. Indeed, in this and the four remaining chapters, they treat mathematics of ever-increasing theoretical difficulty with hands that manage deftly (with only a minor slip or two) to reveal the spirit, the excitement, and the dynamics of the mathematical endeavor at the cutting edge of research.

The subjects of those final chapters are all "household names" of twentieth-century mathematics: Marston Morse (1892-1977), Hassler Whitney (1907-1989), and Saunders Mac Lane (1909-2005) in various brands of topology; Lars Ahlfors (1907-1996) in complex analysis; Andrew Gleason (1921-2008) and George Mackey (1916-2006), some of whose work met as the authors cleverly put it "in Hilbert space"; and the Europeans Oscar Zariski (1899-1986), Richard Brauer (1901-1977), and Raoul Bott (1923-2005), in algebraic geometry, abstract algebra, and topology, respectively. The latter three mathematicians all ultimately found a mathematical home at Harvard after the geopolitical events of the first four decades of the century forced them from their respective homelands. Together, these mid-twentieth-century mathematicians, all with a Harvard connection, contributed fundamentally to the preeminence achieved by American mathematics after the Second World War.

It might be easy to come away from this triumphal story with the impression that Harvard was the centre of the American — if not, indeed, the international — mathematical firmament. It might be easy to assume as well that all of the truly transformational mathematical research was being done there. These perceptions, however, would be mistaken. Harvard's department of mathematics was a leader in the United States and internationally, but it was not *the* leader. A number of key departments both at home and abroad boasted transformational programs and transformational figures.

While there is no reason a priori that the story of Harvard mathematics over the course of the 150 years from 1825 to 1975 could not have been better conveyed in the context of that wider perspective, the authors freely admit that they aimed, in their book, to "celebrat[e] this department's storied past" (p. x) while taking on the difficult task of trying to render intelligible to the lay reader "a broad swath of modern mathematics" (p. xi). The result is less an informed historical analysis and more an appreciative tribute to a department, of which one of the authors is a member, which does a very nice job of bringing a baker's dozen of mathematicians to life and of giving the flavor of modern mathematics to non-specialists.

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