Stanford, Rockefeller, and Carnegie: Redefining the Classical University in the Gilded Age

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To the

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It was a Sunday at Stanford University in the early 1890s when Leland and Jane Stanford came upon a machine shop newly built, its steel tools in disarray. As Jane recounted, "I shall never forget the sad look that came over [Leland's] face… 'I have spent over 60,000 dollars in equipping this department – would you think it? Is there any evidence of care here?'"[1] The care Leland was talking about was more serious than simply rearranging the tools of the machine shop, and there is more to this story than carelessness and mismanagement.

One of a handful of buildings on campus at the time, the machine shop would have likely been located near the Main Quad. Leland and Jane would have been walking through a technical workhouse of the University just steps from what would in 1903 become the spiritual center of the University—Memorial Church.[2] Leland wanted students to have a practical education in the sciences, but he also wanted graduates who were spiritually minded with a strong moral ethic. The machine shop demonstrated the practical side of Stanford, but, in surveying it, Leland seemed to question the state of the institution itself.

Why would Leland express these doubts? On the one hand, this moment speaks to some of Leland's aspirations for the University; in the early 1890s, Stanford was primed for technical innovation, with advanced equipment and machinery. Its infrastructure resembled a well-funded technical school, such as Rensselear Polytechnic Institute (RPI). Yet the University was also unusual in that it was founded during a time of national upheaval and uncertainty, when spirituality seemed ineffective in easing class conflict.

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[1] Jane Stanford Archive. $60000 in 1891 is the equivalent of more than $1.5 million in 2014. http://www.davemanuel.com/inflation-calculator.php Accessed Feb. 22 2015.

[2] Construction on Memorial Church began in 1899 and the Church opened in 1903. http://web.stanford.edu/group/religiouslife/cgi-bin/wordpress/memorial-church/history/memorial-church-history-overview/ Accessed Dec. 17 2014.

In 1891, the year of Stanford's founding, socio-economic inequality divided the nation. It was in response to this "Gilded Age," a time from the 1870s until the early 1900s when the top decile of the US population controlled more than 40 percent of national income,[3] that cooperative association developed as a means to organize and an ideology. The Farmers' Alliance and the Knights of Labor formed cooperative associations of laborers[4] to "secure to the workers the full enjoyment of the wealth they create [and]… all of the benefits… of association."[5] Both groups emphasized the cooperation of labor to protect its political and economic welfare. Today, we link cooperative association largely with insurgent farmers and workers, but it had quite different and perhaps less radical connotations in the 1890s. Corporations led by men such as Stanford used the language of cooperative association to describe their own business practices.

Stanford's corporation—the Southern Pacific Railway—profited from the cooperative association of its suppliers—California farmers. In *Sunset Limited*, the historian Richard Orsi explained that "[i]n 1885, Stanford… played a major role in the calling of a series of growers' meetings across the state [where he] exhorted the farmers to form a statewide fruit cooperative."[6] These calls to action reflected selfish and selfless aims. In calling for a cooperative, Stanford aimed to bolster his struggling Southern Pacific. The railway lacked lucrative transcontinental cargo such as wheat or wine, as these items could be shipped much more cheaply by sea. Instead, Stanford recognized that his railway could transport perishable fruit most competitively. This fruit had to be supplied reliably, though, and in bulk.

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[3] The top decile refers to the richest ten percent of the American population by income. Thomas Piketty, *Capital in the Twenty-First Century*, 24.
[4] These associations were not socialist. As Lee Altenberg points out in a 1990 article on Leland Stanford entitled "Beyond Capitalism," "[c]ooperatives were seen not as an end to free-enterprise, but as a freeing of enterprise for common people from domination by the 'plutocracy' of wealthy industrialists."
[5] "Labor: Its Rights and Wrongs," accessed February, 25, 2013, 30-31.
[6] Richard Orsi, *Sunset Limited*, 320.

To generate enough supply, Stanford tried to combine many small producers into cooperatives. These cooperatives would also benefit the farmers, as they would be more secure and have more bargaining power in larger groups. Stanford recognized that the Southern Pacific could profit from a social movement—cooperative association—vehemently critical and suspicious of capital. He not only realized that he could adopt a movement to better himself, but he also translated and transformed cooperative association into an educational philosophy that aimed to better higher education and the nation as a whole.

Stanford founded his University to emphasize ideals of cooperative association in higher education. At his founding address on the opening of the University, Stanford proclaimed "that… co-operation shall be freely taught. It is through co-operation that modern progress has been mostly achieved. Co-operative societies bring forth… the best influences of the individual for the benefit of the whole, while the good influences of the many aid the individual."[7] These words could have been drafted by the Knights of Labor or Farmers Alliance. Instead, one of the richest men in America had agreed on the need to organize not just farmers collectively, but also his students. In referring to co-operative societies, Stanford articulated how he wanted students to organize: in cooperation with one another in their classes and on campus in their residences.

Through these societies, Stanford did not want students to do away with the upper class. He instead wanted them to help ease social unrest between labor and capital. Stanford was probably well aware of the strikes that Andrew Carnegie suppressed in Homestead, Pennsylvania. Over the course of nearly five months in 1892, just a year after Stanford opened, hundreds of armed Pinkerton agents and National Guard troops violently quashed a labor

[7] Opening Day, 1891 and Program of Exercises, 1891, Leland Stanford Papers, Box 5a, Dept. of Special Collections, Stanford University Libraries, Stanford, California.

uprising by steel workers against the Carnegie Steel Company. Carnegie delegated control to Henry Clay Frick to break the strike, retreated to Scotland, and later supported Frick's actions by saying that "'[t]he handling of the case on the part of the company has my full approval and sanction.'"[8] Though Stanford never made a public statement on Homestead, the strike dominated national news. As a man whose image the public closely linked to that of Carnegie, and someone the media increasingly publicized for his opening of Stanford, Leland would have been aware of and concerned about distancing himself from both Homestead and labor strife in general.[9]

In founding his University, Stanford wanted to placate class relations.[10] Historian Peter Hall generalized that "[a]s tycoons such as [Stanford], Rockefeller… and Carnegie were struggling to bring order to the nation's turbulent economy, they were all keenly aware of the broader dimensions of the economic challenge."[11] Class relations needed to be tempered for the safety and continued success of capital, and people such as Stanford realized that the schools could help. Transforming the economy meant transforming the schools. That Stanford would want to associate his University with populist social movements reflected a paradigm shift in higher education in the late 19th century.

Stanford, Rockefeller, and Carnegie responded to the Gilded Age and class conflict with the belief that higher education could better serve the nation if it focused on "practical learning:" an axiology that said the best form of education involved students applying the theories they learned in classrooms to real life. Alongside Stanford, John D. Rockefeller and Andrew Carnegie

[8] Samuel Yellen, *American Labor Struggles: 1877-1934,* 1980, 76.
[9] Stanford had an abusive record as a manager of the Central Pacific, and he was probably fearful that details of this management would have come out around the time of Homestead. See the "Chinese Railroad Workers in North America Project at Stanford University," and *The Silent Spikes: Chinese Laborers and the Construction of the North American Railroads,* 2006.
[10] Stanford was not completely successful in placating the working class. In 1894, the Pullman Strikes convulsed the Southern Pacific. By then, Stanford was dead, but he had been a major part of the management that workers rebelled against.
[11] Peter Hall, "Business Philanthropy and Education in the United States*," Theory Into Practice*, 1994, 1.

shaped the evolution of higher education through the University of Chicago and the Carnegie Technical Schools.[12] At the time, these schools represented fairly radical and novel departures from the norms of higher education.

Up until the late 19th century, higher education remained styled on the English and French models of the university. Schools such as Harvard, Yale, and Columbia emphasized classical learning and theoretical knowledge, accepted an exclusively male student body, and remained acutely hierarchical and unresponsive to class conflict.[13] As Caroline Winterer explained in *The Culture of Classicism*, "[f]rom the founding of Harvard College in 1636 to the 1880s, when colleges across the nation began to drop their Greek and Latin requirements, classical learning formed the core of college education in America."[14] In requiring Greek and Latin, colleges made students spend around half of their time on classical studies.[15] In *The Emergence of the American University*, historian George Veysey wrote that "academics gloried in exertion for its own sake,"[16] not for the sake of the country's advancement as a whole. Increasingly, the country seemed to be moving away from the Ivy League university. Outside its walls, an industrial economy rent by class conflict did not need graduates to have a refined knowledge of Greek or Latin.[17]

Amid this charged political and economic environment, classical colleges such as Harvard did not wholly ignore the realities of the time. Ivy League schools introduced elective courses in the late nineteenth and early twentieth centuries. Students found themselves "[f]reed

[12] Stanford opened its doors in 1891, the University of Chicago in 1892, and the Carnegie Technical Schools in 1905.
[13] For more information on this, consider Caroline Winterer's *The Culture of Classicism*, Baltimore: Johns Hopkins UP, 2002.
[14] Winterer 1.
[15] Ibid., 2.
[16] Laurence Veysey *The Emergence of the American University*, Chicago: University of Chicago Press, 1965.
[17] See Jurgen Herbs work.

from the prescribed curriculum that had characterized the colleges for about 250 years."[18] With greater freedom, students took more classes in the sciences and social sciences. At Harvard, Greek and Latin were required courses in 1883. By 1900, fewer than a third of students took Latin, while just 16 percent studied Greek.[19] While reforms to the classical curriculum allowed for new electives, these electives did not diverge from classical education as a whole.

Ivy League responses to the changing political economy were modest in comparison to the founding of schools such as Stanford, Chicago, and the Carnegie Technical Schools. By the late 19th century, an increasing number of universities emphasized practical knowledge. These institutions did not do away with theoretical knowledge, nor did they minimize the goal of higher education to vocational training for its students. The purposes of higher education remained multifaceted, and garnering a job was just one of the reasons Americans went to school in higher numbers in the late nineteenth century. Yet for the three protagonists in this story, classical education proved inadequate to their goal of redefining the university.

Stanford initially went to Harvard to learn about the Ivy League university from its president Charles Eliot. Eliot told Stanford that in order to found a university he would need five million dollars, but Eliot said little about what kind of ideals should permeate the institution.[20] Stanford saw cooperative education as a remedy for class inequality.[21] He explained "[t]hat this remedy has not been seized upon and adopted by the masses of laboring men is due wholly to the

[18] Winterer 100.
[19] Ibid., 101.
[20] Margo Baumgarten Davis, and Roxanne Nilan. *The Stanford Album : a Photographic History, 1885-1945*. Stanford, Calif.: Stanford University Press, 1989. 11-12.
[21] The Leland Stanford Junior University: Circular of Information No. 1 and 2, 1891, Leland Stanford Papers, Box 5b, Dept. of Special Collections, Stanford University Libraries, Stanford, California.

inadequacy of educational systems."[22] Its inadequacies stemmed from an inability to graduate students who could ameliorate labor-capital relations. The Gilded Age economy needed students who could cooperate with labor, and hence Stanford proclaimed that "[i]t will be the aim of the university to educate those who come within its atmosphere in the direction of cooperation."[23] Instead of reforming course requirements, Stanford aimed to rethink the relationship between his University and America's political economy.

Stanford, Rockefeller, and Carnegie modified and, in Carnegie's case, rejected the Ivy League system. In an 1889 speech to steel laborers in Braddock, Pennsylvania, Carnegie bemoaned that "men have sent their sons to colleges to waste their energies upon obtaining a knowledge of such languages as Greek and Latin, which are of no more practical use to them than Choctaw... [and that t]hey have been 'educated' as if they were destined for life upon some other planet than this."[24] Carnegie condemned the colleges for teaching students useless and arcane subjects. For him, college needed to be a training ground for a student's career—not a place for theoretical learning. It is uncertain how much Carnegie knew about the Ivy League he criticized. Though he respected and cultivated British writers and intellectuals, and likely read about these colleges, he never attended nor visited them. Thus, one has to compare these schools with the actual courses they offered—courses which, by the early 1900s, increasingly emphasized practical learning through electives.[25] Nevertheless, these colleges proved slow to change, something that irked Carnegie to no end.

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[22] The Leland Stanford Junior University: Circular of Information No. 1 and 2, 1891, Leland Stanford Papers, Box 5b, Dept. of Special Collections, Stanford University Libraries, Stanford, California.
[23] Ibid.
[24] Andrew Carnegie, Dedication of the Carnegie Library at the Edgar Thomson Steel Rail Works, Braddocks [sic]: Address to the Workmen by Andrew Carnegie (Pittsburgh, 1889), 20-21.
[25] Previous courses of instruction can be found through the Harvard University Presidents' Reports here: http://hul.harvard.edu/lib/archives/refshelf/AnnualReportsSearch.htm Accessed Feb. 22 2015.

In part, Carnegie and some of his compatriots were critical of higher education because they had bypassed it and still become wealthy. Ironically, later in life they had the agency to redefine universities, spaces that they had largely avoided as young men. Carnegie never went to college, while Rockefeller's collegiate education consisted of a ten-week business course at Folsom's Commercial College.[26] Stanford studied law at Cazenovia Seminary in upstate New York, but, at the time, this was seen less as graduate school and more as vocational training.[27] From young ages, all three men pursued business. Carnegie explained this choice in 1889 when he wrote that "the future captain of industry is hotly engaged in the school of experience, obtaining the very knowledge required for his future triumphs… [while] college education as it exists is fatal to success in that domain."[28] While studies from the 1970s and 80s actually point to the opposite—that many of the wealthy in America around 1900 did have some collegiate education—, this trajectory certainly proved profitable for these three men.[29] At 40, Carnegie was quickly becoming one of the wealthiest steel men in the United States, Rockefeller had grown rich off Standard Oil, and Stanford was making a fortune off the Central Pacific Railway's Contract and Finance Company.[30] Their inclination towards business instead of graduate school had a profound effect on their visions for what colleges should look like. Instead of creating English-styled universities as cores for classical learning, all three founded colleges

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[26] Folsom's Commercial College is in Ohio and later became what is now Chancellor University. Ellen Greenman Coffey, *John D. Rockefeller, empire builder*, Silver Burdett, 1989, 18.
[27] *Dictionary of American Biography*, Vol. XVII,. New York: Charles Scribner's Sons, 1935, 501.
[28] Veysey 14.
[29] A series of studies and books from the 1950s through the 80s found that many wealthy Americans did, in fact, have some collegiate education: consider Stephan Thernstrom's *Progress and Poverty: Social Mobility in a Nineteenth Century City*, Herbert Gutman's *Work, culture, and society in industrializing America: essays in American working-class and social history*, 47-49, 211-16, 216-233, William Miller's *Men in Business: Essays in the History of Entrepreneurship*, and J Tomisch's 1971 *A Genteel Endeavour: American Culture and Politics in the Gilded Age.* However, Carnegie was part of a crop of millionaires who went straight into business from primary education and profited off of burgeoning industries such as the railroads, oil, and steel.
[30] A helpful source on the Central Pacific Railroad is the CPRR Online Bibliography: http://cprr.org/Museum/Life_and_Times_CPRR/ accessed Nov 10, 2014. The Contract and Finance Company was responsible for linking the Central Pacific Railway with the Union Pacific Railway.

which looked more like German research universities with an American focus on the hard sciences. Established by Wilhelm von Humboldt, the German university emphasized a freedom from religious control characterized by seminars, laboratories, and research, mostly in the social sciences.[31] Winterer described the German university as "specialized training in independent research."[32] Today, Stanford's unofficial motto— *Die Luft der Freiheit weht (The Wind of Freedom Blows)*, a quote from the 16th-century humanist Ulrich von Hutten—reflects this influence.[33]

In focusing on Stanford, Rockefeller, and Carnegie, I have necessarily excluded some colleges which also responded to the Gilded Age by moving away from classical education. Millionaires founded colleges well before Stanford, Rockefeller, and Carnegie. Cornelius Vanderbilt donated $1 million to found Vanderbilt University in 1873.[34] Nor were these three people the first to create technical schools. In 1891, businessman Amos Gager Throop founded what is today the California Institute of Technology.[35] Other schools such as Rensselear Polytechnic Institute, founded in 1824,[36] represented earlier iterations of the technical college. I have so restricted my study because these three men founded colleges all around the same time,

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[31] http://en.wikipedia.org/wiki/History_of_European_research_universities Accessed April 7, 2015.
[32] Winterer 176.
[33] The story of how "The Wind of Freedom Blows" became Stanford's unofficial motto is complex. University materials explain that "Stanford's first president, David Starr Jordan, embraced von Hutten's words and included them on his presidential seal." Stanford Facts 2014. http://facts.stanford.edu/pdf/StanfordFacts_2014.pdf. Accessed Nov. 27, 2014. Stanford President Gerhard Casper offers a more thorough discussion of the origins and history of the motto in his essay "Die Luft der Freiheit weht - On and Off." http://web.stanford.edu/dept/pres-provost/president/speeches/951005dieluft.html. Accessed Nov. 27, 2014. For an excellent book on German influence on the social sciences in America, consider Thomas Haskell's *The Emergence of Professional Social Science: The American Social Science Association and the Nineteenth-Century Crisis of Authority*.
[34] http://www.vanderbilt.edu/about/history/ accessed Nov 5, 2014
[35] http://archives.caltech.edu/about/fastfacts.html Accessed Nov. 5, 2014.
[36] http://www.rpi.edu/about/history.html Accessed Nov. 5, 2014

between 1891 and 1905,[37] and were directly and indirectly influenced by each other and the social movements of the time. This project is further limited to their particular decisions to found universities—and not any of their other financial, educational, or social projects—because many historians have already focused on these three figures' economic interests.[38] Conventional wisdom suggests that these men were pure businessmen, unconcerned with anything other than balance sheets and profits; to be sure, they were certainly focused on industry for much of their lives. But the realm of education also intrigued each of these men for extended periods of time. Much less research has been done on the motivations of these men in the context of their founding of universities. To fully understand these people, we must acknowledge both their business careers and their educational dreams—and how the two interrelated.

I argue that Stanford, Rockefeller, and Carnegie all diverged from existing models of the "university" and higher education in different ways, but, in their first two decades, Stanford and Chicago resembled the very schools they tried to distance themselves from more so than they did new kinds of institutions. Stanford aimed to bridge the gap between practical and theoretical knowledge with an emphasis on cooperative association while maintaining spiritualism. Rockefeller, to an even greater extent than Stanford, emphasized the need for religiosity in a school which would focus on practical knowledge. Carnegie, meanwhile, moved the farthest from the classical model in founding a technical school designed for the workingmen of Pittsburgh to create a new generation of skilled laborers and managers for the industrial age. Each of these men consciously formulated and promulgated distinct interpretations as to why and how the university should move beyond its classical origins to graduate students who would ease

[37] The scope of my studies of these schools will extend from their founding documents to their first decades as institutions.

[38] For a brief glimpse into this well-researched and documented literature, consider two recent biographies, Ron Chernow's *Titan* and David Nasaw's *Andrew Carnegie.*

class conflict and create a new set of industrial relations in early 20th century America, but, for Stanford and Chicago and, to a lesser extent, Carnegie, the schools ultimately replicated and reinforced the liberal arts curriculum of the Ivy League. The machine shop at Stanford symbolized not only the need for practical knowledge, but also the complicated hopes and dreams of men trying to redefine the University in America at the turn of the twentieth century.

Stanford as a Cooperative Association of Laborers

Today, student tour guides tell a mythic story of the founding of Stanford for tourists, prospective students, and their parents: Leland and Jane's only son died in 1884,[39] and in the grief-stricken months that followed they decided to found a university as a memorial to their beloved child. The story has two versions. In the first, soon after his son died, "Mr. Stanford awoke one night with these words on his lips, 'the children of California shall be my children!'"[40] This comes from David Starr Jordan's memory of something Jane Stanford told him; there is no record of Stanford saying this himself.

A 1929 *San Francisco Chronicle* article conceived a second version of the tale. In "Proposal to Build University in Memory of Son Prompted by Crying Child," the *Chronicle* reported that "[o]n a train to Livermore, a child started crying, Jane Stanford noticed the baby and held it in her arms and it stopped crying. Leland then announced to the train that he was going to build a university for 'the youth of California of modest means.'"[41] As the Stanford's always traveled in their private railway car,[42] the story is dubious. While it is certainly heart-

[39] http://en.wikipedia.org/wiki/Leland_Stanford,_Jr. Accessed Nov 5, 2014
[40] A History of the Stanford University Curriculum, A Thesis Submitted to the Department of Education and the Committee on Graduate Study of Leland Stanford Junior University in Partial fulfillment of the requiremetns for the degree of Master of Arts, by James William Kerr, October 1927. 18.
[41] George T. Clark Papers, Box 3, Folder 1. Stanford University Special Collections.
[42] Lecture. Prof. Richard White. Nov 24, 2014.

warming to think that Stanford was borne out of the cries of a baby, the University was not founded due to the cries of a child or due to a child's death. These origin stories fail to explain how ideas about cooperative association and practical learning influenced the University as a whole.

The University was not founded immediately following Leland, Jr.'s death, and it took Stanford many years to reconcile and understand how his beliefs in cooperative association could redefine higher education. For a long time, Stanford likely had no interest in creating a university. As president of the Central Pacific Railroad from 1863 until 1893 and as the first president of the Southern Pacific Company from 1884 until 1890, Stanford earned the dubious distinction of "robber baron."[43] Yet as early as the 1860s, while profiting from the railroads, Stanford also "evidenced a belief in a cooperative vision for the corporation with links to his later dream for the university."[44] Though Stanford probably was not thinking about endowing a university during these years, his beliefs in cooperative association began to take shape around the railroads.

For the farmers who provided the cargo for the Southern Pacific's railway cars, Stanford believed that cooperative association could increase their collective economic profit. Similar to how he would later idealize the relationship between one student and another, Stanford thought that labor and capital could relate symbiotically. In *Sunset Limited*, the historian Richard Orsi explained that in 1885 Stanford implored farmers to form a statewide fruit cooperative.[45] In calling for a fruit cooperative, Stanford signaled his support for a new kind of relationship

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[43] "Robber baron" was coined around 1870 and was a derogatory term used to describe wealthy American businessmen. Richard White, *Railroaded: The Transcontinentals and the Making of Modern America* New York: W.W. Norton & Company, 2012, 254. "Robber Baron (industrialist)." Wikipedia.org. http://en.wikipedia.org/wiki/Robber_baron_%28industrialist%29 Accessed April 22, 2015.
[44] Cole Manley, "Cooperative Association, the Individual, and the "Robber Baron:" Leland Stanford," 2013.
[45] Orsi 320.

between farmers and capital—one in which labor had a greater say. He knew that labor would only continue to supply the Southern Pacific if it felt secure in its relationship with the railways. A fruit cooperative gave farmers more organizational security, and for Stanford it ensured that his railway cars remained stuffed with fruit. There was no contradiction between his call for fruit cooperatives and his beliefs in cooperative association. Stanford recognized that capital needed to negotiate, as social conflict was not good for business. This 1885 call to action, then, was both a form of self-preservation and an evolution in Stanford's thinking. Stanford had supported previous social movements of farmers, such as the Grange, in the 60s and 70s.[46] Now, he saw the need for more widespread organization.

Stanford as Senator: Affirming a Belief in Cooperation through Legislation

The cooperative beliefs Stanford developed as a railroad magnate extended to his political career.[47] As Senator, Stanford developed a vision about cooperative association that greatly influenced his founding of the University. In 1886, he introduced a bill in the Senate to create worker cooperatives across California to grant workers the "necessary legal structure and sources of credit in order to flourish."[48] These cooperatives developed at a time when organizations such as the Farmers Alliance and Knights of Labor called for similar measures nationwide. To the Knights in 1878, worker cooperatives had a heady mission: to "secure to the toilers a proper share of the wealth that they create,"[49] and, more broadly, to make "industrial and moral worth, not wealth, the true standard of individual and national greatness…. [through

[46] Sunset Limited, 320.
[47] Ironically, Stanford bought his way into the Senate, and, once there, espoused cooperative values. White, *Railroaded*, 254.
[48] Lee Altenberg, "Beyond Capitalism: Leland Stanford's Forgotten Vision." *Sandstone and Tile*, Vol. 14 (1): 8-20, Winter 1990, Stanford Historical Society, Stanford, California.
[49] Timothy Patrick McCarthy and John McMillian. *The Radical Reader: A Documentary Tradition of the American Radical Tradition*, The New Press, 2003, 244.

the] establishment of co-operative institutions…."[50] The Knights called for a more militant trade union, one with a refined political vocabulary and clear aims. They saw this as fundamental to eventually eliminating wage labor altogether, so that labor could control its work collectively without relying on capital.

Leland largely agreed with the spirit of the Knights, if not some of the substance. In an 1891 address on the opening of Stanford, he even used the Knights' rhetoric. He argued that "the great masses of the toilers now are compelled to perform such an amount of labor as makes life often wearisome. An intelligent system of education would correct this inequality [and]… achieve a bloodless revolution and establish a Republic of industry, merit, and learning."[51] Both the Knights and Leland thought of labor as toilers by the late 19th century whose work went unfairly compensated for by capital. Stanford had direct experience in seeing labor's toil as a manager of the railroads. In 1891, he recognized this injustice, and he believed that a cooperative system of education could act as a panacea.

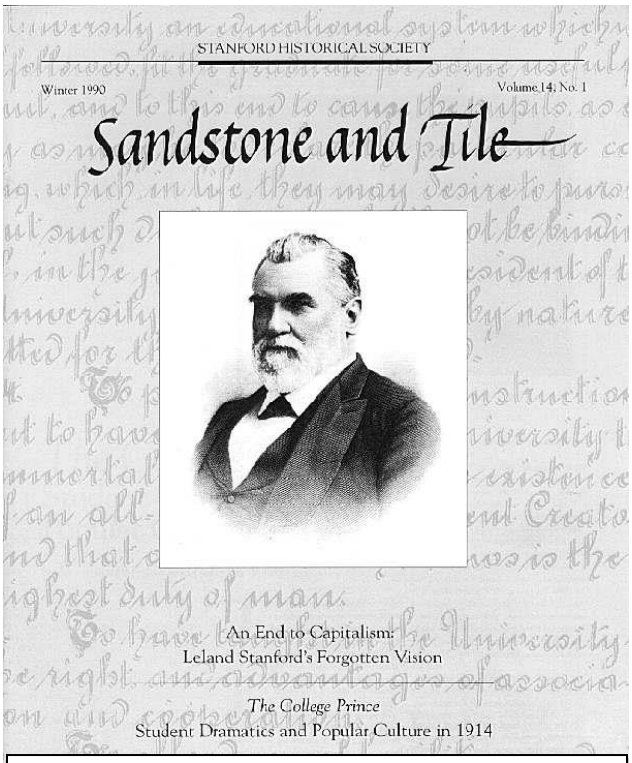

Fig. 1. "An End to Capitalism: Leland Stanford's Forgotten Vision."

[50] Timothy Patrick McCarthy and John McMillian. *The Radical Reader: A Documentary Tradition of the American Radical Tradition*. 244.
[51] Opening Day, 1891, Box 5a.

In his 1886 bill, Stanford lacked the precise political vocabulary of the Knights, or as he would later develop, but he certainly agreed with the underlying principle of the need to organize labor. For instance, he wrote in the bill that a cooperative represents "the absolute protection of the people against the possible monopoly of the few, and renders offensive monopoly, and a burdensome one, impossible."[52] By 1886, Stanford felt that the monopolies of the day needed to be overturned by labor cooperatives which he aimed to legally protect. Lee Altenberg explored the 1886 bill in his helpful article "Beyond Capitalism" and found that Stanford theorized employment as "a service that the worker pays for, in the form of profits kept by the employer, and that providing this service for themselves is the key to workers being able to keep the profits of their labor."[53] To Stanford, cooperatives would give workers the necessary organizational power to keep more of the profits of their labor.

He further explained how he thought workers could organize in an 1887 interview with *The New York Tribune.* In the interview, Stanford hypothesized that "voluntary association of labor into co-operative relation secures to itself both the wages and the premium which, under the other form of industrial organization would be paid to the enterprise directing it and to the capital giving it employment."[54] Labor could enjoy higher wages through cooperatives, and, most importantly, keep the premium, or surplus labor, capital would otherwise take. The point of cooperatives, Stanford explained, was for labor to become "its own master," the owner of its work.[55] Stanford thus theorized that labor needed to organize not only to reap more profit, but also to displace the role capital—people such as Stanford—played in the labor market itself. His was a fairly radical vision for how labor could best relate to capital—and eventually subsume it.

[52] Lee Altenberg. 3.
[53] Ibid.
[54] Ibid.
[55] Ibid.

He continued in the interview that "[t]he numbers belonging to this surplus class would be constantly diminished, and would eventually disappear under the operation of the co-operative principle."[56] Stanford believed in greatly reducing class inequality, and he felt that cooperative association was the way towards that goal. To be sure, he did not want a class revolution; instead, he thought cooperative association would lead to a bloodless revolution. However, in what would become a trope, his convictions about legal protections for cooperatives met little success in the Senate. The Senate Judiciary Committee favorably reported the bill to the Senate, but it was dropped from the calendar when Stanford became ill. When he re-introduced the bill in 1891, the Senate defeated it.[57]

Even as Stanford supported his vision for cooperatives on the Senate floor, some thought that this remained a political stunt. In an 1891 editorial, soon after Stanford re-introduced his 1886 bill for cooperatives, the *Los Angeles Times* belittled this "scheme for… how the laboring millions may avoid work and grow rich… [as] nearly as rose-hued as Bellamy's… Mr. Stanford had no expectation that [this]… would be crystallized into law; he only desired to get before… the laboring masses who have votes to give, his alluring project for their amelioration."[58] The editorial presented no evidence or testimony backing up its claims. Most agree that Stanford wanted to become president, and he undoubtedly thought his plan for cooperatives would feature in any sort of presidential campaign. However, the idea the *Times* puts forth, that Stanford peddled cooperatives to capture political votes from the Farmer's Alliance and the Knights of Labor, is delusional. The cooperatives of the Southern Pacific that Stanford supported aligned

[56] Altenberg 3.
[57] Ibid., 17.
[58] "Mr. Stanford and the Presidency," *Los Angeles Times*, January 17, 1891, Accessed March 1, 2013.

themselves with the Populist Party of California—not Stanford.[59] That the Populist Party of California would then endorse Stanford for President is very unlikely given that Stanford was one of the richest and most powerful capitalists in the country.

Stanford's motivations for introducing the cooperative bill were likely complex, but they cannot be boiled down to political gambits. For one, this was the second time—the first earlier in 1886—that Stanford had publicly supported cooperatives on the Senate floor. Further, the editorial offered no rebuttals to Stanford's long-time support for fruit cooperatives during his tenure with the Southern Pacific, nor did it cite the 1887 interview with the *Tribune.* Moreover, "[t]he 1891 editorial also overlook[ed] the vital role Stanford thought cooperative association should play as the founder of a university."[60] While Stanford pushed for worker cooperatives in the Senate, on campus he explained how cooperative association could shape the University and its students, as well.

Stanford as Founding Trustee: Students and Cooperative Association

In both speeches and correspondence, Leland wanted his University to represent students working together for the betterment of themselves and society. In his first address to the trustees on November 14, 1885, Stanford explained that through cooperative "principles… there will be found the greatest level to elevate the mass of humanity, and… to [grant] the poor man complete protection against the monopoly of the rich… Hence it is that we have provided for thorough

[59] Lecture. Richard White. November 10, 2014. Orsi does demonstrate that the cooperatives did also work in collaboration with the Southern Pacific, so they were not political enemies. The cooperatives would have identified with the Populist Party, however, more so than with Stanford.
[60] Cole Manley.

instruction in the principles of cooperation."[61] Stanford expressed Gilded Age concerns over economic inequality in America, and he saw universities as providing a solution.

He believed that if the students of his University cooperated with labor they could co-create a better world. He "did not want students to see themselves as distinct from or superior to labor. Rather, through cooperation Stanford hoped that students could elevate themselves and, in the process, the masses of humanity."[62] In 1927, James William Kerr's found that the students at Stanford were probably mostly wealthy, with some working and middle-class students able to attend due to the University's free tuition.[63] Yet Stanford hoped that these students would go on to directly aid in the advancement of the working class in their various careers. Inequality had rendered the "poor man"[64] prisoner to corporate monopolies. The irony of the speech was undeniable. Stanford, a corporate success who profited off of railway monopolies, now condemned monopolies in favor of cooperation with labor. Still, Stanford probably thought that his long-time support for cooperatives shielded him from some of the criticism other millionaires faced.

Stanford believed that the field of agriculture—where he had first voiced his support for cooperatives—could teach students much about the virtues of cooperative association. The Horticulture degree epitomized both Leland Stanford's cooperative dream for the University and its shortcomings. Today, "horticulture" is generally known as the "art or practice of garden

[61] The Leland Stanford Junior University: Circular of Information No. 1 and 2, 1891, Leland Stanford Papers, Box 5b, Dept. of Special Collections, Stanford University Libraries, Stanford, California.
[62] Cole Manley.
[63] James William Kerr 20.
[64] The Leland Stanford Junior University: Circular of Information No. 1 and 2, 1891, Leland Stanford Papers, Box 5b, Dept. of Special Collections, Stanford University Libraries, Stanford, California.

cultivation and management."[65] In 1891, the Horticulture department taught a wider variety of skills and emphasized experimentation and research as well as cultivation. It was an interdisciplinary degree—with courses ranging from the history of agriculture to lab courses to work in the fields on campus.[66] Horticulture was so important to Leland and the University for a number of reasons. First, California's economy was based on agriculture, and Stanford's corporation—the Southern Pacific—depended on carrying agricultural products to market. Moreover, fruit cooperatives had been the most profitable venture for the Southern Pacific.

Thus, the Horticulture Department occupied a symbolically prominent place on the campus map. Stanford's first course register boasted that "[a] plot of choice land near the [main] quadrangle, together with a tract of diversified hill land, has been allotted the Department for experimental and illustrative purposes."[67] Students would work the fields right next to the main quad itself—beautifying the center of the campus as well as the hills surrounding it. In his 1927 thesis, Kerr explained that "Senator and Mrs. Stanford were very anxious to include in the curriculum studies a rather extensive pursuit of Agriculture."[68] More so than any other degree, Horticulture epitomized the Stanford's love for agriculture. Agriculture was where Stanford made part of his fortune and where he was first introduced to the idea and the profit of the cooperative. It was agriculture, then, where students would also learn the benefits of cooperative association.

According to Stanford's first course register, in 1891 the University offered ten courses on horticulture, from laboratory work to work in conservatories to work on fruit fields. In

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[65] Google. https://www.google.com/search?q=horticulture&oq=horticulture&aqs=chrome.0.0l6.1267j0j7&sourceid=chrome&es_sm=93&ie=UTF-8. Accessed Dec. 26 2014.
[66] The Leland Stanford Junior University, First Annual Register, 1891-92, Published by the University June 1892.
[67] Ibid., 70.
[68] James William Kerr 57.

introducing horticulture as a degree, the Register explained that "[s]tudents… will be required to perform a certain amount of labor in the field."[69] By requiring that students work on newly plotted agricultural land, the Horticulture Department linked cooperative association and practical learning. Students were to work together to maintain the health of the land that they lived on. Leland wanted his students to understand the importance and value of agricultural work as a way of bonding with one another, supplanting theoretical knowledge about plants with practical skills, and beautifying the University in their study. Stanford had seen the value of cooperative associations of farmers as a railroad manager; he likely hoped that he would see the same with the students of his University.

Stanford's horticulture reflected both cooperative and practical aims. At its most basic level, Horticulture at Stanford was a cooperative program: the fields could not be maintained and experiments could not be conducted if students and professors did not actively collaborate to water, plow, and fertilize the land. If students did not associate as teams of laborers and learners, the new fields planted for their edification right next to the Main Quad would lie barren. Horticulture required that Stanford students get their hands in the dirt. It was an example of cooperative association in action. Where Stanford likely differed from some of the land grant universities, which also taught students about farming, was in research. Students in Horticulture researched agricultural techniques and did experiments, something that other schools may not have emphasized as much.

For a few students, the cooperative model Horticulture presented had long-term effects on their careers and lives. Around six students majored in Horticulture from its start in 1892 until

[69] First Annual Register, 1891-92, Published by the University, 70.

the degree was disbanded in 1896.[70] Among these, Edgar Ewing Jack, who graduated in 1896, married Mary Lettie Mossman, had four children, and raised his children on a large farm in Arizona.[71] For him, the Horticulture degree became a way for his family to live sustainably as farmers for the next four decades. Their "citrus groves and livestock" became well-known in Iron Springs, Arizona, where Mary maintained the farm after Jack's death.[72] While it is unclear if Jack formed a fruit cooperative with his farm, at the very least he took to heart the practical applications of the Horticulture degree.

Frederick George Krauss also took the cooperative ideals of the Horticulture major and applied them to his life. Born in San Francisco, Krass came to Stanford in the early 1890s and was one of the first Horticulture majors. After graduating in 1895 or 1896, he pursued graduate studies at Berkeley and then traveled to Hawaii—where he set up a farm which doubled as a research institution and model for cooperative education. A Professor of Agriculture at the College of Hawaii beginning in 1911, Krauss set up this farm as the "New Era Homestead Farm" in Maui two years later, in 1913.[73] The Farm was much more than a place for research. It acted as a school, research institution, and model for how farming could be a collaborative endeavor—students and professors working together to diversify agriculture, treat the land with respect, and sow its fruits. As the University of Hawaii reported, "[m]any people had given up on diversified agriculture by this time, and he was determined to show that it had a future. New Era Homestead became a research and demonstration farm for crop and animal production. By 1914, Krauss had initiated formal extension work territory-wide."[74] Across Maui, Krauss helped educate farmers in how they could work together to diversify their crops and learn from one another. Krauss, like

[70] *Stanford Alumni 1891-1955 Vol. 1. Stanford Alumni Association 1956.*
[71] http://records.ancestry.com/edgar_ewing_jack_records.ashx?pid=25892695 Accessed Feb 7, 2015
[72] Ibid.
[73] http://libweb.hawaii.edu/names/krauss.html accessed Feb 7, 2015
[74] http://www.ctahr.hawaii.edu/dnn/Portals/76/downloads/extension.pdf accessed Feb 7 2015

Leland, wanted to educate all of Maui, not just his students, in the values of cooperative farming. The extension work Krauss facilitated had students and community members and teachers learning from one another. It helped break down the ivory walls between the University and the public, and it represented an early form of continuing studies for Hawaii as a whole. Before Krauss, farming on Hawaii had been a more individualistic and less environmentally-friendly process. After his efforts on Maui, farming had become a more diversified endeavor, just like the crops themselves. Krauss' activities on the Farm showcased numerous things that he had first learned at Stanford.

For one, the Horticulture degree provided Krauss with a solid scientific understanding of how to diversify agriculture and reap more from the land. For his efforts, Krauss received numerous honors. His Homestead Farm became the "Pineapple Research Institute" at the University of Hawaii and was later renamed in his honor.[75] In recognition of how he improved agriculture across Hawaii, he received the first honorary doctorate awarded by the University of Hawaii in 1923, just a decade after he began his Farm.[76] The Horticulture program at Stanford deserves partial credit for these honors. In its short five-year existence, it helped produce one of the most influential farmers and educators in Hawaii's history—someone who deeply valued cooperative efforts at education and farming.

Horticulture depended on practical learning. Similar to Botany, the Horticulture Department wanted students to learn by application and experimentation. The first course register explained that as part of the degree "students may during the course [of study] have the advantage of a brief season of practical work in nearby orchards, canneries, nurseries, [and]

[75] http://www.ctahr.hawaii.edu/dnn/Portals/76/downloads/extension.pdf accessed Feb 7 2015
[76] Ibid.

floral establishments."[77] The first "study abroad" program at Stanford was likely at a nearby nursery or orchard. There, students could apply what lessons they learned on the fruit fields and hills of Stanford to some of the finest agricultural land in America. While there are no official records as to where students worked off campus, or how many students did, students could have worked at orchards run by the early Del Monte food company.[78] In its desire to get students outside the classroom and off campus, Horticulture showed how Leland wanted to connect his university to the Bay Area community—his former constituents in the Senate—as well as its economy. Stanford was not meant to be the kind of ivory tower that Harvard or Yale had become on the East Coast. Instead, Stanford wanted his "Farm" to collaborate with the farms of the Bay. The students were to learn by working in cooperation with their fellow classmates and with nearby fields and farmers.

In practice, however, the horticultural degree did little to advance cooperative association as an ideal for the University as a whole, in part because so few students majored in it. In the first year of classes, very few students took the ten courses offered in the department. It is unclear, in fact, if all of the courses were even offered. Of students interested in the sciences, thirty percent of the students—or 169 students out of a total undergraduate body of 559—enrolled at Stanford in 1891 majored in Chemistry, Physics, civil, mechanical, or mining engineering.[79] In 1892-93, just 8 students majored in Botany, including those studying the separate fields of "Agriculture" and "Horticulture."[80] The prospect of working in the fields probably did not appeal to students who wanted to escape agricultural labor for more prestigious careers. Perhaps if the University

[77] Stanford First Register, 70
[78] http://en.wikipedia.org/wiki/Del_Monte_Foods Accessed Feb. 22 2015.
[79] Stanford First Register, 70.
[80] James William Kerr.

had made a course on cooperative association—or even a more specialized course in Horticulture—mandatory for incoming freshmen, the degree would been more popular.

The lack of student interest in horticulture indicated that Stanford's enthusiasm about the program did not transfer to the student body. The University's second annual course register, in 1892-93, listed just eight courses in Horticulture, down from ten the year before. Out of a larger undergraduate body of 764 students, twenty-seven percent, or 176 students, majored in Chemistry, Physics, civil, mechanical, or mining engineering. Despite these enrollments, in the short term the University continued to fund Horticulture. The register explained that "[a] horticultural museum is in process of formation."[81] The University aimed to cement Horticulture as a field by designing a museum to herald its accomplishments. Probably, this museum would have showcased the latest agriculture tools and machinery—technology wedded to farming. It also likely would have housed the university's extensive collection of dried plants—its herbarium. The herbarium was the library for the Botanists of Stanford. However, the museum never took shape. Sara Timby explained in 1998 that following Leland Stanford's death and the financial strains on the university, a "planned botany building in the outer quadrangle would not be built for some time. Instead, systematic botany occupied the attic of the furthest shop building near the geology corner."[82] The Horticultural Museum likely met the same fate as the botany building, its artifacts relegated to corners of the geology corner. There was likely no horticultural museum ever constructed, though the Dudley Herbarium was granted space on the second floor of the south wing of the Stanford Museum—now the Cantor Arts Center.[83]

[81] Second Annual register, 90.
[82] The Dudley Herbarium, Including a case study of Terman's restructuring of the biology department, Sara Timby, Sandstone and Tile, 1998. 4.
[83] Ibid., 6.

Eventually, the University ceased to advertise and publicize a degree that students refused to take. By 1896, the University no longer listed the Horticulture Department,[84] although some courses in Horticulture continued to appear on the register, including "Applied Horticulture" and "Nursery and Fruit Culture," both taught by Assistant Professor E.E. Smith.[85] Horticulture had not attracted enough students or faculty to remain as a department, and cooperative association declined with it.

Cooperative association did permeate other areas of campus. In 1891, students formed "the Leland Stanford Junior University Cooperative Association… which operated the first campus bookstore for seven years."[86] The Board of Directors of the bookstore included none other than George Crothers, future Trustee and legal advisor to Leland. Charles David Marx was also on the Board. Later on, he served as president of the Board of Palo Alto High School, which he began as a parent-run cooperative. The student newspaper, *The Daily Palo Alto,* the precursor to *The Stanford Daily,* also reported on some of Leland's ideas. A January 1893 article entitled "Senator Stanford's Views on Cooperation" cited that "[i]n his speech before the Senate he said that in a large sense civilization itself rests and advances on the great principles of co-operation; that the weak by its means are strengthened, and the one in least capacity is brought up in advantages to the level of the best, and the result brings all closer to the entire fruits of the united industries."[87] According to Altenberg, the *Daily* re-published excerpts from Stanford's 1886 speech on cooperatives in November of 1893, five months after he died. Stanford's words also influenced activism on campus. Sometime in the early 1890s, a group of low-income students "took over the barracks that had housed the University's construction workers and ran it, in the

[84] Third Annual Register
[85] Ibid.
[86] Altenberg.
[87] Ibid.

description of one writer, as a 'self-managed democratic co-operative' known simply as 'The Camp.'"[88] Some students apparently thought that the housing of the University also had to reflect cooperative values. "The Camp" was the first cooperative on campus, predating Columbae and Synergy by around 80 years, and Jane Stanford allowed the students to stay there until 1902 because she felt they were honoring Leland's cooperative ideals.[89]

However, "The Camp" lasted longer on campus than did any formal instruction in cooperative association. By 1897, the Association governing the Bookstore had disbanded. Perhaps more importantly, by 1900 E.E. Smith was no longer listed as an assistant professor. Not only had students ignored Horticulture, but also the University no longer supported its teaching. Altenberg found no evidence that Jane Stanford ever supported the teaching of worker cooperatives to students. [90]

The decline in Horticulture and the challenge to Stanford's thinking that cooperative association could be taught at his University cannot solely be tied to student apathy; structural changes in the economy—namely, industrialization, specialization, and pre-professionalism—meant that there were far more job opportunities available in industry as compared to agriculture for Stanford graduates. In his thesis on Stanford, James Kerr made a similar point, writing in 1927 that "[t]he trend of the Stanford University curriculum has been definitely toward the professional subjects—toward specialization in certain definite fields of human endeavor."[91] The movement towards specialization and pre-professionalism began in the 1890s, and fields such as

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[88] Altenberg.
[89] Columbae and Synergy were some of the first co-operative houses on campus. Columbae began in 1970 with the theme: "social change through non-violent action." http://web.stanford.edu/group/columbae/history.html Synergy began in 1972 with an "alternative living" theme. http://cgi.stanford.edu/~group-synergy/pmwiki/pmwiki.php?n=Main.SynergyHistory Accessed April 14, 2015.
[90] Altenberg.
[91] James William Kerr, 50.

Horticulture were simply not as valued as they may once have been given the changing economy and job opportunities available. Increasingly, even in the early years of the institution, Stanford students looked at a degree as a stepping stone towards a job. Today, there is ongoing debate about the over-emphasis of pre-professionalism among Stanford students. In fact, a similar debate could be had about Stanford students in the 1890s.

Practical Learning at Stanford

In some ways, Leland Stanford did not disagree with students as to the importance of pre-professionalism. He phrased this desire slightly differently by wanting the University to emphasize practical learning alongside cooperative association. The machine shop, open to all students, aimed to expose students to the tools they could use to master skills in machinery and construction. The emphasis on practical learning did not come at the exclusion of classical subjects. The opening of Stanford saw traditional majors—such as the Classics, English, and History—offered alongside seemingly more practical degrees—such as Mechanical Engineering. In fact, the Classics major proved one of the more popular degrees on campus in the first decade of the University. Leland Stanford aimed to move away from the classical university by emphasizing practical learning, and yet classical influences still penetrated the institution. In this section, I will explore Stanford's goals for the institution as they related to practical learning, and then how this looked in practice: the actual courses that were offered and what they taught.

George Crothers, close legal advisor to Leland and 1895 alumnus of the University, argued in a 1931 article that Stanford's career as a railroad manager influenced his beliefs about education. Crothers expounded that "Stanford's views as to the inefficiency of college education were confirmed… by his experience with graduates of the leading universities of the country,

who applied to him as president of the… railway companies for employment."[92] Ostensibly recalling from memory stories Leland told him more than 30 years before, the details of Crothers' recollections are probably inaccurate, but they seem generally believable. Crothers knew Leland quite well since he was his legal advisor and would have had close conversations with him. Stanford found these Ivy League candidates disappointing not because they lacked intelligence, but because they had few practical skills. As a railroad manager, Leland needed workers who knew the intricacies of the railroad economy—from how its trains functioned to how its fruit supply fluctuated. Crothers' record also seems correct because it parallels Leland's own statements. In an October 1892 issue of *The Daily Palo Alto*, the precursor to *The Stanford Daily*, Stanford complained that prospective employees were "generally prepossessing in appearance and of good stock, but… they have no definite technical knowledge of anything. They have no specific aim, no definite purpose."[93] In decrying their technical knowledge, Stanford implicitly critiqued the Ivy League's emphasis on classical studies. Even as these institutions slowly reformed their ways, they produced graduates whom Stanford hesitated to hire.

The public face of the railroad, Stanford needed to depend on others to run the Southern Pacific, as he had little role in the day-to-day management of the railroad or in the training of its employees. His associates, people such as Collis P. Huntington, constantly complained about this detachment, and, indeed, absence from the management of the railroad for long stretches of time.[94] Management of the railroad was not Stanford's strong suit. During a national recession in 1873, Stanford responded to the debt-ridden Central Pacific as he usually did: by doing nothing.

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[92] Crothers, George. *Founding of the Leland Stanford Junior University*. *Americana* XXVI (2), American Historical Society, New York. Reprinted by the Stanford Historical Society, 1985, 2.
[93] Stanford Daily October 19, 1892 Issue Volume I, Issue 23 Interview with Leland Stanford condensed by the Palo Alto daily quoted from an interview from the New York Post.
[94] White 80.

White explained that "Stanford's preference in any crisis was to do nothing."[95] Huntington and other associates put up with Stanford as a manager of the Southern Pacific mainly out of factionalism and a personal history, not because Stanford was in any way skilled at his job. Stanford depended on others to manage and lead his company—applicants whom he increasingly found unfit for the work he could not do himself.[96]

Ironically, he preferred Ivy League applicants. By "good stock,"[97] Stanford probably meant that candidates were native born, white, and Protestant. If these applicants came from the Ivy League, as he insinuated, they also almost certainly came from the upper-class that filled elite institutions.[98] Only when some of these graduates failed to demonstrate practical skills did Stanford reconsider his presumptions. At the time, this kind of thinking was widespread.

In founding a university, Stanford wanted to redefine it as a space for practical learning for all who entered, regardless of socio-economic class. This was in part due to Stanford's personal experience with higher education. Crothers pointed out that, similar to the applicants he interviewed, Leland received education "not adequately related to practical life."[99] His law degree did not correspond to a nuanced understanding of the railroad economy. Stanford hoped

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[95] White 80.

[96] Though Stanford found Ivy League graduates lacking, they did occupy important positions in the management of the railroads. Charles Francis Adams, a graduate of Harvard, oversaw the Union Pacific Railroad from 1884 until 1890. While Adams "regarded the men who ran railroads in the 1870s and 1880s [Leland included] as his social, intellectual, and professional inferiors," he proved no more successful. Michael Kazin in his review of *Railroaded* summarized that "[w]hen the Union Pacific neared bankruptcy in 1890, Adams had to resign his post. On his way out, he ridiculed the looks and clothes of Jay Gould, his more cunning successor." First quote from Railroaded 188. Second quote from Michael Kazin, "How the Robber Barons Railroaded America," New York Times July 15, 2011. Accessed Dec. 18 2014. Gould did not come from the Ivy League.

[97] "Interview with Leland Stanford." *The Daily Palo Alto*

[98] Stanford came from the middle-upper class, as well. He grew up on a large farm in upstate New York where his father was a successful farmer. "Leland Stanford." Wikipedia. Accessed Nov. 30, 2014.

[99] Crothers 2

that graduates would learn the practical skills that he had overlooked, but he conceived of "practical life"[100] in ways slightly different than Carnegie or Rockefeller or others of his time.

Practical life to Stanford was never completely synonymous with "technical education," meaning the study of engineering and medicine.[101] Instead, practical learning represented a pedagogy that could convince students of the virtues of applying theory to practice. In his 1885 address to his Trustees, Stanford argued that the object of the university should be "not alone to give the student a technical education."[102] The historian Hubert Bancroft in his 1952 *History of the Life of Leland Stanford: A Character Study* explained that a technical education was just part of Stanford's vision for the University.[103] For students "already well educated in other [more theoretical] directions,"[104] a technical education remained a necessary component of Stanford's curriculum. However, more broadly, Stanford wanted to expand the object of the university so that students learned practical tools in all fields.

For students majoring in the sciences, learning practical tools took the form of laboratory requirements. Chemistry, one of the more popular majors in the first fifteen years of Stanford, required that students take laboratory courses in addition to theoretical classes such as the "History of Chemistry," and it offered five laboratory courses in the 1893-94 school year.[105] Among these five, students could choose "Quantitative Analysis" to supplement the qualitative skills they garnered in their history course. While a much less popular degree than Chemistry—

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[100] Crothers 2
[101] A "technical education" is better represented by the Carnegie Technical Schools, which were designed to instruct students in practical sciences and skills such as carpentry and machinery.
[102] The Leland Stanford, Box 5b.
[103] Norman Tutorow's 2004 study of Stanford—*The Governor*—lacked any kind of critical analysis of Stanford's educational philosophy, but it also reached this verdict. Tutorow wrote that "Stanford believed that purely technical education limited the imagination" (721).
[104] Bancroft, Hubert H., 1952. *History of the Life of Leland Stanford* . Biobooks, Berkeley, 90.
[105] The Leland Stanford Junior University, Third Annual Register, 1893-94, published by the University, April 1894, 75.

only 8 students majored in it in 1892-93[106]—, Botany also reveals Stanford's emphasis on practical learning in the sciences. In 1893-94, the course register explained that "[i]n stating the requirements for… botany, the main thing had in mind was that the work should be of a practical nature; that is the study should be mainly from specimens and not from books."[107] Botany in the late 19th century was an evolving field at Stanford, one heavily influenced by German universities. According to Sara Timby, trained in anthropology and ethnobotany at UC Berkeley, "[t]he 1870s… brought the 'new botany' from Germany, an experimentally rigorous and laboratory-oriented science seeking to understand the individual organism, its chemistry and physiology."[108] Instead of simply describing and categorizing plants, students would study the biological and chemical makeup of the organisms with experiments. Practical learning at Stanford meant slightly different things for different majors. For some, it meant welding and machining in the machine shop. For others, such as Chemistry majors, it meant performing experiments in the laboratories. For Botany majors, it meant studying organisms, and not just theory. Stanford formalized how important practical learning was to its mission as a University in its course registers—the documents that students would have used to pick courses. The preference for hands-on learning was written into the founding documents of the University that students saw each year.

Specifically, Stanford emphasized the importance of invention, which in 1891 meant the improvement of existing tools and machines and not the creation of new knowledge altogether. Today, the University's infatuation with innovation traces back to Stanford's musings about the importance of a mechanical engineering department. Through this "mechanical department…

[106] James William Kerr.
[107] Leland Stanford 1893-94 Course Register, 29.
[108] The Dudley Herbarium, Sara Timby.

inventive genius will be enlarged and educated."[109] He wanted graduates to be inventors and tinkerers, quick on their feet to pose practical solutions to the problems of the day. The mechanical engineering department, of which the machine shop was a part of, was much different in 1900 than the mechanical engineering program on campus today; however, even in 1900, it focused on the practical application of theoretical knowledge. For instance, the first course register cites that "the work… is mainly carried on in the physical and testing laboratories and in the workshops."[110] A "Machine Shop Work" course is listed in the register for 1891; the machine shop Stanford fretted over did see use by students even during the first year of courses. Practical knowledge was attractive to students, mechanical engineering in particular, so much so that 76 students majored in it in 1891, making it the most popular major on campus.[111] While mechanical engineering would decline in popularity over the next ten years—just 21 students majored in it in 1900[112]—, the major increased in popularity once again in the early 1900s in what would become a permanent trend: 49 students majored in mechanical engineering in 1904, and 85 more in civil engineering.[113] New buildings accommodated the influx of students, with two new mechanical engineering buildings built in 1902.[114] Over the first fifteen years of Stanford, students continued to value practical learning and applications of theoretical knowledge using tools such as laboratories and the machine shop. In contrast to the ideology of cooperative association, practical learning cemented itself as a central part of the Stanford education. While students were not learning through the fields, they were doing so in the labs.

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[109] Bancroft 110
[110] First Course Register 90.
[111] Ibid.
[112] Ninth Course Register.
[113] Thirteenth Course Register.
[114] According to *The Stanford Daily*, two new buildings were built in 1902: http://stanforddailyarchive.com/cgi-bin/stanford?a=d&d=stanford19020304-01.2.2&srpos=24&e=--1892---1905--en-20--21--txt-txIN-mechanical+engineering+department------ accessed march 24 2015

Stanford's vision for inventive genius harkened back to Thomas Edison's tinkering, but, even by 1900, individual inventors were losing money and ground to the patent system of invention. Steven Ussellman, a historian who has studied the development of the patent system extensively, pointed out that by 1900, "[t]he age of the independent inventor was passing; the age of corporate research and development had begun."[115] Railroads aimed to monopolize and internalize invention within the corporation through patents. Through the patent system, invention became bureaucratized and centralized. Increasingly, corporations, not individuals, lay claim to inventions. The railroads—ironically the industry Stanford made his fortune off of—increasingly dissuaded the exact kind of personalized invention that Stanford aimed to inculcate in his University. Stanford's mechanical department was a reaction against the corporate trend that internalized invention and an attempt to personalize invention once more.

His emphasis on this mechanical department echoed his larger aims for his institution as a whole in regards to practical life. In the sentence after stressing the importance of "inventive genius,"[116] Stanford generalized that "this university ideal differs from that which is obtained in other and measurably similar institutions… The university ideal of the past has been the acquirement of theoretical knowledge. The university I have in contemplation joins the theoretical to the practical."[117] Other institutions similar to Stanford—by this Leland undoubtedly meant the Ivy League—did not adequately stress practical learning.[118] They

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[115] Steven W. Usselman and Richard R. John. "Patent Politics: Intellectual Property, the Railroad Industry, and the Problem of Monopoly." http://www.journalism.columbia.edu/system/documents/444/original/S0898030600002037a.pdf Accessed Dec. 8 2014.
[116] Bancroft 110
[117] Ibid.
[118] The Massachusetts Institute of Technology (MIT) was a notable exception, but Stanford did not see MIT as comparable to Stanford because, especially in the 1890s, it was wholly dedicated to laboratory research and engineering. To Stanford, it probably emphasized practical learning to the detriment of other areas of the institution, such as the humanities.

certainly emphasized classical learning, but Stanford aimed to do both. In joining the theoretical and practical, Stanford argued that practical learning deserved the same status as theoretical learning.

Indeed, for a time in the early years of Stanford, classical learning remained quite popular on campus. Course registers from the first fifteen years of Stanford show that classical majors—defined as Latin, Greek, German, and Romanic Languages—increased in number from 8.6% of the class in 1891 to 13.5% of the class in 1904.[119] As many as 70 students majored in Latin in 1904, more than the number of students studying Physics and Mechanical Engineering combined.[120] Instead of doing away with classical learning, Leland, and subsequently Jane following Leland's death in 1893, wanted students to see the benefit in learning with their hands and their minds in concert.

In the broadest sense, Stanford's convictions about practical learning underscored his assessment of the state of the nation as a whole and related to his beliefs in cooperative association. He explained that "[i]t has been my aim to found an institution of learning which will more nearly conform to the progressive spirit of the age, and more nearly subserve the necessities of modern civilization."[121] The necessities Stanford referred to—industrial innovation and class amelioration—reflected economic and political goals. Given the new industrial age in America, he felt that the University had to respond more adroitly to the political-economy. In referring to "the progressive spirit of the age,"[122] Stanford called for material and social progress. At the time, progressive reformers wanted America to use scientific methods to advance practical and theoretical learning as applied to economics, government, and, in Stanford's case,

[119] First Course Register, Thirteenth Course Register.
[120] Thirteenth Course Register.
[121] Bancroft 105
[122] Ibid.

education.[123] With the industrialization of America came the need to school students in how to further economic progress with the requisite training. To dialogue with this new America, graduates needed practical and theoretical learning that existing universities did not provide.

Stanford still saw the value in "business life."[124] Such a life propelled Stanford to great riches and fame, however it is clear that personal success was not enough for Stanford. The object of the University stated in its 1885 founding grant remained to "qualify students for personal success and direct usefulness in life."[125] Stanford wanted graduates of the University to be useful to society. He wanted them to play a direct and active role in the reshaping of America, a process that he had attempted to jumpstart in his founding of the University. David Starr Jordan agreed with these notions of utility: the ideology of the post-Civil War era which maintained that the college needed to unite a student's studies with a student's adult work. Jordan agreed with Stanford that '"reality and practicality' should shape the undergraduate college."[126]

It is slightly unclear, however, as to whether Stanford wanted graduates to focus on their personal advancement first and then that of the nation, or if this process should be dialogical and concurrent. This is a question he never adequately answered and complicates our understanding of his views on practical learning. For all of Stanford's talk about cooperation, he neglected similar conversations about the specific role of the graduate of his University. If students were to engage cooperatively inside and outside the classroom, how should they relate to their fellow citizen after graduation? Though Stanford never directly answered the question, he did tie his vision for practical learning to cooperative association while students were on campus.

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[123] http://en.wikipedia.org/wiki/Progressive_Era#cite_ref-8 Accessed Dec. 8 2014.
[124] The Leland Stanford, Box 5b.
[125] "The Leland Stanford Junior University: The Opening Ceremonies," *San Francisco Chronicle*.
[126] Winterer 104.

Jane Stanford, Spiritualism, and Managing the University

Stanford University emphasized practical learning as a necessary subset of cooperative association. In the early decades of Stanford, however, after Leland died, cooperative association failed to emerge as an ideal of the University. Jane Stanford's contradictory statements on the central aim of the University—sometimes emphasizing spiritualism[127] and other times practical learning—diluted Leland's cooperative dream and limited whatever student support there was for Horticulture or cooperative association. When Leland died in 1893, Jane became the de facto manager of the University, a position she held until her own death in 1905.[128] Jane fit nicely into the mold of late nineteenth-century university reformers that Julie Reuben analyzed in *The Making of the Modern University.* Reuben generalized that these "reformers did not reject the ideal of the unity of truth. They did not intend to abolish morality or religion from higher education, nor did they subscribe to a mode of scientific knowledge that emphasized value-neutrality."[129] In carrying on her husband's wishes, Jane had every intention of emphasizing the importance of religion, even if Stanford remained non-sectarian. This reflected both a trend among university reformers around 1900, who wanted to create new institutions of learning while still holding onto religion in the school, as well as Jane's personal inclinations. Jane grew up in a strict Christian household. Especially following the death of her only son, her religiosity permeated her management of the University and its core values.

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[127] In this context, spiritualism is defined as a non-sectarian sense of religiosity that Leland, and, to a greater extent, Jane, wanted to instill in each graduate of Stanford. Above all else, Jane wanted students to have a strong moral ethic grounded in a belief in God.

[128] Technically, in fact, Jane was not a co-founder of the University. The first historian of the University, Orrin Leslie Elliott, wrote in *Stanford University: The First Twenty-five Years* that "'in law Mrs. Stanford had not been a 'co-founder' of the university, and the power of mending provisions of the Founding Grant could not be reserved to a surviving wife (or anyone else) who was not at the same time a 'co-founder.'" Norman Tutorow 711.

[129] Julie A Reuben, *The Making of the Modern University: Intellectual Transformation and the Marginalization of Morality*. Chicago: U of Chicago, 1996. 3.

Even before Jane became the sole founding trustee of the University, she helped shape Stanford's spiritualism: meaning the particular kind of religiosity and moral edification that Leland and Jane wanted to inculcate at the University. During the construction of Stanford, Jane insisted that Memorial Church both occupy the physical center of the campus and be its most elaborate building.[130] This kind of thinking paralleled that of John D. Rockefeller at the University of Chicago, who around the same time insisted on an extravagant Chapel at the heart of the Chicago campus.[131] These efforts on the part of Stanford and Rockefeller symbolized the trend Reuben studied. University reformers did not want to do away with the religiosity of the Ivy League, just its sectarianism.[132] Jane wanted Stanford to continue the tradition of universities existing as places of both scientific and moral education. For this to happen, she thought religion had to be grounded into the very architecture and ambience of Stanford.

Memorial Church remained at the center of the architectural plan precisely because of what it symbolized. Jane wrote that no creed or "church itself is capable of making saints of some folks… men and women should be sound at the core, whatever their doctrines may be.'"[133] The Church remained non-sectarian, but it symbolized the morality of the institution. Students had to be solid in not just their school work but also in their spirit.

The very walls of Memorial Church featured selections from Jane Stanford's notebooks that she wanted to impart to students. They still cover the walls of the Church, some lettered in gold, all surrounded by great stone frames. On the North wall of the Nave of the Church, an inscription reads, "[t]here is no narrowing so deadly as the narrowing of man's horizon of

[130] Reuben 124
[131] Ibid.
[132] Rockefeller established the University of Chicago under Baptist auspices, however the University quickly became less sectarian, something he realized was necessary for the institution to continue to draw students.
[133] Jane Lathrop Stanford and the Domestication of Stanford University 1893-1905 by Roxanne Nilan. 19. From John C. Branner's book *One of Mrs. Stanford's Ideals.*

spiritual things."[134] It goes onto include a selection from Mark 8:37 in the Bible: "For what will a man give in exchange for his soul?"[135] The inscription is notable for a number of reasons. Jane quoted it upon her inauguration as the President of the Board of Trustees in 1893. She thought it could edify both the Trustees and her students. The quote also reads that "[n]o widening of science… can indemnify for an enfeebled hold on the highest and central truths of humanity."[136] Distrustful of science, Jane believed that students had to couple a scientific understanding of the world with a spiritual one. Truth came not from mere scientific exercises, but from spiritual exploration. Speaking more directly to students, an inscription on the Nave reminds that "[a] noble ambition is among the most helpful influences of student life… [and] this leads to the greatest of all safeguards… the power of personal religion."[137] The quote comes from Jane Stanford's musings on the Gospel of Peter. To avoid inciting sectarian sympathies, Jane Stanford does not specify what kind of religion would be most edifying, but she does explain to students that spiritualism can safeguard their lives.

In some ways, Leland agreed with Jane. Spiritualism and non-sectarianism did not suddenly emerge as ideals upon Leland's death; they had a history tracing back to the founding of the University itself. In the late 1880s, Leland "resisted the offers of the Methodists to conduct the university under their auspices. Instead [Leland and Jane]… instructed the trustees 'to prohibit sectarian instruction, but to have taught in the University the immortality of the soul, the existence of an all-wise and benevolent Creator, and that obedience to His laws is the highest

[134] Jane Stanford's Inscriptions on the Interior Walls of Memorial Church. Publication. April 11, 2015.
[135] Ibid.
[136] Ibid.
[137] Ibid.

duty of man.'"[138] Leland and Jane agreed on the necessity for a monotheistic religiosity to imbue Stanford and its student body.

In his autobiography, Jordan explained that Stanford had a deeply religious character, and that he believed in the benevolence and existence of God.[139] With Leland's approval, Jordan placed an epigram on the front of the University Course Register reading that "[t]he benevolence of the Creator toward men on Earth, and the possibilities of humanity, are one and the same."[140] Partly, Stanford had such an optimistic and grand vision for his University because he believed in a benevolent God and in the progress of humanity over time. Through the Course Register, a document every Stanford student would have had to read to pick courses each term, Leland called for spiritualism. At the time, this marked a departure from the more specific and formal sectarianism of the Ivy League—colleges which were founded under the auspices of various Protestant denominations, the Congregationalists and Unitarians for Harvard.[141]

Nevertheless, it is clear from the founding documents of the University that Leland and Jane wanted students to not only value and believe in God, but also to have these beliefs transmute into their lives. First President David Starr Jordan modeled this thinking in writing that "[r]eligion must form the axis of personal character and its prime importance the university cannot ignore."[142] This thinking represented the common 19th-century belief that religion was essential to morality. With Leland and Jane as its founders and Jordan as its first President, the University did not ignore religion; it embraced it. Where Jane diverged from Leland was not in

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[138] Reuben 84.
[139] James William Kerr, October 1927. 42. From
David Starr Jordan. *The Days Of A Man.* *https://archive.org/details/daysamanv00jordgoog* Accessed Feb. 23, 2015.
[140] Ibid.
[141] Harvard University. http://en.wikipedia.org/wiki/Harvard_University Accessed April 11, 2015.
[142] Reuben 76.

valuing religion at Stanford, but in emphasizing it without connection to cooperative association and practical learning.

The distance between Jane Stanford's rhetoric and the actual courses offered on campus highlighted a fundamental disconnect in her management of the University. Just as the University never truly institutionalized cooperative association, it also offered little in the way of formal religious instruction. Unlike many of its peer institutions, in its first years, the University's only course related to religion was an ethics course offered through the Philosophy department.[143] In 1903, the University, probably pressured by Jane, created a Biblical History & Literature degree. However, just two years later, no students had declared the major and it is unknown what if any courses were offered to fulfill it.[144] While the cooperative dream remained just a few courses upon Leland's death, Jane did little to institutionalize it any further, and did little to help institutionalize courses in religion, as well.

The University's pastor, as well as its courses, highlighted some of the difficulties Jane had in trying to emphasize spiritualism on campus. Memorial Church's first pastor, Heber Newton, worked for just four months in 1903, before leaving the University. He resigned "because he disagreed with Mrs. Stanford on some aspects of church management."[145] Newton was an outspoken Episcopalian who believed in the "Social Gospel," applying lessons from the Bible to solving social ills such as poverty and inequality. The chaplain could have been a quite influential member of campus. Indeed, in later years, chaplains during the Vietnam War helped stoke anti-war sentiment. A disconnect between Newton and Jane apparently resulted in his resignation, and the Biblical History & Literature degree may have been the reason for this rift.

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[143] Reuben 169.
[144] James William Kerr 62.
[145] http://www.oac.cdlib.org/findaid/ark:/13030/kt4d5nf0q6/entire_text/ Guide to the Stanford University, Memorial Church, Records. Accessed April 11, 2015.

Newton favored "historical criticism" of the Bible, meaning he believed in interrogating the historical context of the writings of the Bible to understand their original meaning.[146] Perhaps the degree Jane initiated adopted a different approach to Biblical scholarship. In any regard, Newton had little effect on the Biblical History & Literature degree, and, more broadly, on spiritualism on campus.

David Charles Gardner replaced Newton and was the first chaplain of Memorial Church. In teaching courses about Biblical History, Gardner emphasized a Christian spiritualism that Jane agreed with, and his approach was perhaps less sectarian and less concerned about the Social Gospel than that of Newton. Chaplain from 1903 until 1936, Gardner was Episcopalian and was known by students as "the Padre."[147] He resurrected Biblical History by teaching courses on the subject for many years—though no major ever reappeared. His philosophy as Chaplain fit into the University's, and Jane's, spiritualism as a whole. He once wrote of Memorial Church that "[b]eing an undenominational church, it must avoid the things which divide, and exalt the principles upon which we can all agree. Thus, we say no creed. We know nothing of ceremonial--except the necessary rule of reverence and dignity."[148] Such spiritualism paralleled what Jane Stanford wanted to inculcate at the University, and it followed the 19th-century conviction that religion was a necessary part of a person's morality. While Jane Stanford can be lauded for hiring Gardner, her sudden death in 1905 meant that she had little to do with his career as a whole. Gardner helped resurrect Biblical History courses, but this was largely his doing, and not that of Jane Stanford.

[146] American National Biography Online. http://www.anb.org/articles/08/08-01090.html. Accessed April 11, 2015.
[147] "Memorial Resolution. David Charles Gardner." Accessed April 19, 2015.
[148] Ibid.

When Jane communicated with the Trustees or the public about the purposes of Stanford, she did not adequately link either practical learning or cooperative association to the spiritualism she so valued. In an address to the Trustees, she clarified that she wanted to see "work in the machine shops and wood working departments… made major subjects."[149] Jane Stanford was not calling for the University to become a purely technical institute, nor did she want students to study carpentry or machinery alone. She wanted students in popular majors such as English or Chemistry to use the machine shops that would otherwise be populated by Mechanical Engineering students alone. It is quite possible that the encounter between Leland and the machine shop left a lasting imprint on Jane's understanding of her husband's wishes for the University.

Still, in her statements on wood-working, Jane did not connect the importance of practical learning with the cooperative association Leland highlighted. She did not explore how students working in the machine shops would benefit from close contact and cooperation, or how these team-building skills could translate into their lives as a whole. These are connections Leland would likely have emphasized had he been alive. Still, it is unfair to link declining interest in Horticulture and cooperative association to Jane alone. Even if Leland had not died and he had continued to promote Horticulture and cooperative association, it is unlikely that students would have taken to the degree or the ideology in much greater numbers. Forces beyond the administration, such as the rise of pre-professionalism, were changing the university and its students.

Nevertheless, the confusion Jane created as to the direct purpose of the University had real effects on its student body and its first years as an institution. One class in the 1891 course

[149] Veysey 399.

catalogue entitled "Co-operation: Its History and Influence" disappeared from the record in later years.[150] It is unclear as to what exactly this course taught, but its title leads one to believe that it offered a history of labor-capital relations and the cooperative association movement. The University, however, never required the course for students, and this weakened its influence.

The history of Stanford's founding is complex and contingent on individual actors. But despite, or perhaps because, of this complexity, it is also clear how the University attempted to move away from the classical college. Leland and Jane did want to create a new kind of university. In contrast to the Ivy League's sectarianism, Jane Stanford promoted a brand of non-sectarian religiosity novel to the University. Yet, similar to Leland Stanford's promotion of cooperative association, this left little tangible effect on the institution as a whole outside Memorial Church. By 1905, Stanford was beginning to resemble existing institutions of higher learning, institutions that it had tried to distance itself from.

The University of Chicago

Founded a year after Stanford, in 1892, the University of Chicago represented another attempt by a millionaire—John D. Rockefeller—to redefine the university in America. Much has been written on the evolution of Standard Oil and Rockefeller's business interests. Less scholarship has been dedicated to Rockefeller's relationship with the University of Chicago. Similar to Stanford, Rockefeller saw philanthropy as a way to ease labor relations and bridge the gap between his career as a business mogul and his desire to promote higher education. Shaped by a similar political environment as Stanford, in part Rockefeller turned his attention to education to alleviate some of the social anger directed at him. Unlike Stanford, though,

[150] Altenberg.

Rockefeller grounded his philanthropy in his religiosity, and he expected that donations reflect that religiosity, as well. In explaining why Rockefeller founded the University of Chicago, we have to focus not only on the broader social environment, but also Rockefeller's particular religiosity. It is important to keep in mind that Rockefeller actually had quite modest aims for his donation. At first, he wanted to found a small, Baptist college; in time, that desire changed, but, initially, it was a hallmark of his philanthropic beliefs. First, I will explore the years of discussion and debate between Rockefeller and his advisors that influenced his decision to found a college in Chicago. Then, I will explore how this small college became a major research university, its sectarianism weakening, and its ties to the Ivy League model strengthening.

Like Stanford, Rockefeller grew up in Upstate New York, where he attended private school at Owego Academy. At the age of fourteen, however, after his father abandoned the family, Rockefeller and his mother moved near Cleveland, Ohio.[151] At Cleveland, Rockefeller demonstrated a lust for money, great thrift in spending it, and an attention to minute detail.[152] He began his business career in produce, of all fields, but quickly moved to refining. By the age of 25, Rockefeller bought one of the largest refineries in the world for $72000—equivalent to more than $1 million in 2014—and became one of the wealthiest men in Ohio.[153]

Moving quickly to consolidate ever-larger chunks of the oil industry, Rockefeller incorporated Standard Oil in 1870.[154] Standard Oil's economies of scale out-produced and out-priced competitors. In developing Standard Oil as the industry leader in oil refinement, Rockefeller reaped the benefits of monopoly capitalism. Ron Chernow, in his recent biography of Rockefeller, pointed out that "when he railed against cutthroat competition and the vagaries of

[151] Ron Chernow. *Titan: The Life of John D. Rockefeller, Sr.* New York: Random House, 1998, 31.
[152] Ibid., 60.
[153] Ibid., 87.
[154] Ibid., 130.

the business cycle, Rockefeller sounded more like Karl Marx than our classical image of the capitalist."[155] Certainly, Rockefeller was no Karl Marx. In later letters, he decried the idea of labor unions and the collective power of the worker. At the time, though, Rockefeller realized that a competitive oil industry would simply squeeze profits away from Standard Oil. What he wanted was an oil monopoly, and, in time, he largely succeeded.

Interestingly, though, Rockefeller never had any ambitions to monopolize higher education or the university itself. His entry into the world of higher education came much more slowly and cautiously than his forays into oil refining. Before Rockefeller thought about founding a university, he considered how philanthropy in general could shape society. Paramount in Rockefeller's education about philanthropy was Carnegie's 1889 "Gospel of Wealth."

The research institution of Stanford, Rockefeller, and Carnegie's imagination revolved around an idea Carnegie promoted in the Gospel: scientific philanthropy. Scientific philanthropy was the belief that capital could best analyze the problem of the unequal distribution of wealth in America and determine the most appropriate fields for philanthropy. The goal of Carnegie's philanthropy was not to do away with economic inequality. To the contrary, Carnegie believed that an unequal distribution of wealth was inevitable and beneficial. Scientific philanthropy invoked like-minded industrialists to "place within the reach of the community 'the ladders upon which the aspiring can rise.'"[156] Members of the working and middle classes could aspire to greater wealth if they proved industrious. A Social Darwinist, Carnegie would not have thought that all of the working class was fit for education. He argued that capital lay down ladders in the

[155] Chernow 148.
[156] Hall 1.

form of libraries or museums or colleges, and that capital then pick and choose who could attend college. Carnegie was particularly effusive about donating to institutions of knowledge creation such as the university, and this idea resonated with Rockefeller. When the Carnegie Library in Pittsburgh opened in 1896 he wrote to Carnegie that "'I would that more men of wealth were doing as you are doing with your money; but, be assured, your example will bear fruits, and the time will come when men of wealth will more generally be willing to use it for the good of others.'"[157] Rockefeller agreed with Carnegie that donations had to made scrupulously and scientifically, and that, if made wisely, such benefactions could help lift up the entire American economy.[158] Rockefeller did not divorce his philanthropic vision from his managerial experience. In part due to the thrift he had developed as a young man, Rockefeller proved calculating in his donations. Partly, this came from his perfectionism as a manager of Standard Oil, and his attention to every transaction, but it also came from a keen—if not readily expressed—awareness of the political reality of the time.

In the 1880s, Rockefeller recognized the public mistrust and hatred of the rich. Philanthropy represented a way for him to disassociate from corporate greed by placating society. A 1980 dissertation on Rockefeller explored these ideas in greater detail, and it concluded that Rockefeller's inner circle of advisors "endeavored to employ the philanthropies in such a manner as to maintain the social equilibrium in the face of a rising tide of social protest."[159] Rockefeller's inner circle of advisors were groomed by Rockefeller himself, and, generally speaking, he agreed with them wholeheartedly. The Homestead Strikes of 1887 affected not only Carnegie's actions, but also those of Rockefeller, as well. Though there is little

[157] Chernow 313.
[158] Ibid., 100.
[159] Dissertation 19.

evidence that Rockefeller publicly commented on the labor strife of the 1880s when the strikes were happening, he made his position clear in interviews later in life. In a 1919 interview with one of his biographers, William O. Inglis, during a protracted period of labor strikes across the country, Rockefeller told Inglis that "things cannot go on as they have been going for the last few years: a small minority in organized labor constantly demanding more and more pay and less work. They are oppressing the people of this country as relentlessly as any other monopoly ever oppressed them. It is time for the rest of us… to organize a movement of back-to-the-work."[160] It is amusing that Rockefeller considered the strikes an example of monopoly power—considering that they represented the power of workers united by the thousands, and more so considering that at the time Rockefeller held a steadfast monopoly in oil refining. But Rockefeller saw striking workers as lazy: that what the country needed was not for workers to receive better pay or conditions, but that workers simply quiet down and get back to doing their jobs.[161]

Before endowing a university, Rockefeller made smaller gifts to Denison University, a Baptist school in Ohio,[162] and the Atlanta Baptist Female Seminary, which renamed itself Spelman Seminary in 1884.[163] These benefactions, however, proved minor in comparison to Rockefeller's enormous wealth, and, up until the late 1880s, he remained noncommittal and even dismissive of the idea of founding a university by himself. In a December 31, 1886 letter to Dr. Josiah Goodspeed, one of the leading members of the American Baptist Education Society and one of Rockefeller's closest advisors, Rockefeller wrote that "[t]here is hardly a chance that I

[160] Rockefeller Archive Center. Interview with Inglis. Dec 17., 1919. Box 3 Folder 8
[161] This took place amid worker-led campaigns for eight-hour days. Mark Hendrickson's 2013 book *American Labor and Economic Citizenship: New Capitalism from World War I to the Great Depression* explores these efforts in greater detail.
[162] Chernow 239.
[163] The school renamed itself after contributions from Rockefeller and in honor of Laura Spelman Rockefeller's parents, Harvey Buel and Lucy Henry Spelman, longtime activists in the antislavery movement.

could give the least encouragement for assistance in respect to the university."[164] The letter was a major rebuke to Goodspeed's efforts to have him do so, and the wider efforts of the Society, to win over Rockefeller's support for a college in Chicago. Earlier in 1886, Goodspeed had told Rockefeller that he had persuaded Dr. William Rainey Harper—a religious scholar and professor at Yale University—to assume the presidency of "our wrecked and ruined University [the old University of Chicago]."[165] In the letter, Goodspeed did not directly appeal for Rockefeller's benefaction, but the letter amounted to a strong request. Rockefeller's hastily and poorly written response months later must have stung.

To Goodspeed's credit, though, and with the help of Dr. Henry Morehouse, secretary of the American Baptist Home Mission Society, they persisted in pursuing Rockefeller.[166] Morehouse's involvement proved critical in persuading Rockefeller that Baptists should support a university in Chicago—and that founding a school would not rest on Rockefeller's bank account alone. He chaired the fundraising arm of the Baptist Education Society and helped organize a committee that reported on the state of Baptist education in America in the mid-1880s. The report of the committee issued a clarion call for a Baptist university in Chicago.[167] But probably more important to Rockefeller, Morehouse enlisted 150 Baptists in Chicago to raise funds for a new university. Though the campaign did not generate much interest at first, it laid a network that Morehouse, Rockefeller, Goodspeed, and Harper could later draw upon in their

[164] Rockefeller Archive Center, Page 1. Letter from Rockefeller to Goodspeed, dec 31 1886, Box 102, Office of the Messrs Rockefeller Educational Interests, Folders 700 to 708
[165] April 7, 1886 letter Box 102 Folderes 700 to 708 from Goodspeed to Rockefeller page 1.
[166] http://en.wikipedia.org/wiki/Morehouse_College Accessed Jan 25. , 2014.
[167] Rockefeller Archive Center, Box 102, folder 701.

plans for a school.[168] Chicago had the financial resources and Baptist lineage that made a university possible.

While Morehouse continued to appeal to the Baptists of Chicago, Goodspeed wrote to Rockefeller directly. In a January 7, 1887 letter to Rockefeller, Goodspeed bemoaned that "[a] Baptist who wishes to give his children a good education must [go]… into colleges of other denominations."[169] Increasingly, Goodspeed appealed to Rockefeller's strong Baptist conviction. He used Rockefeller's faith as a point of pride, signaling that Baptists were being left out of higher education because they did not have an institutional home in America. There is a sense in this letter, in particular, that Goodspeed wanted Rockefeller to feel that Baptists were betraying their youth—good, young Baptist men and women—by refusing to cater to their educational needs. This is an appeal that Stanford would not have found persuasive, as he did not want sectarianism of any form in Palo Alto.

Chicago newspaper articles buttressed the argument that Baptists were being forced out of their hometown to attend colleges elsewhere because no institution of a high caliber existed within the city. In "Shall we have a City University?" an unnamed Chicago newspaper explained that "[h]undreds of Chicago boys and young women go East every year and matriculate in Eastern colleges."[170] The article backs up Goodspeed's estimation that masses of students were flocking to the East. It also seemed to implicity call on Rockefeller's philanthropy. It explained that "[i]t appears easy enough to raise millions for building walls for every other purpose [except a college] in this city."[171] The newspaper recognized what Rockefeller proved slower to enact; Chicago needed a college, and the sooner the better. Of course, the college would have not only

[168] Box 102, Folder 701
[169] Jan 7, 1887 Box 100 Rock Archive Center
[170] Rockefeller Archive Center, Box 100, Mr. Gates File 1886-87. Undated. Page 1.
[171] Ibid.

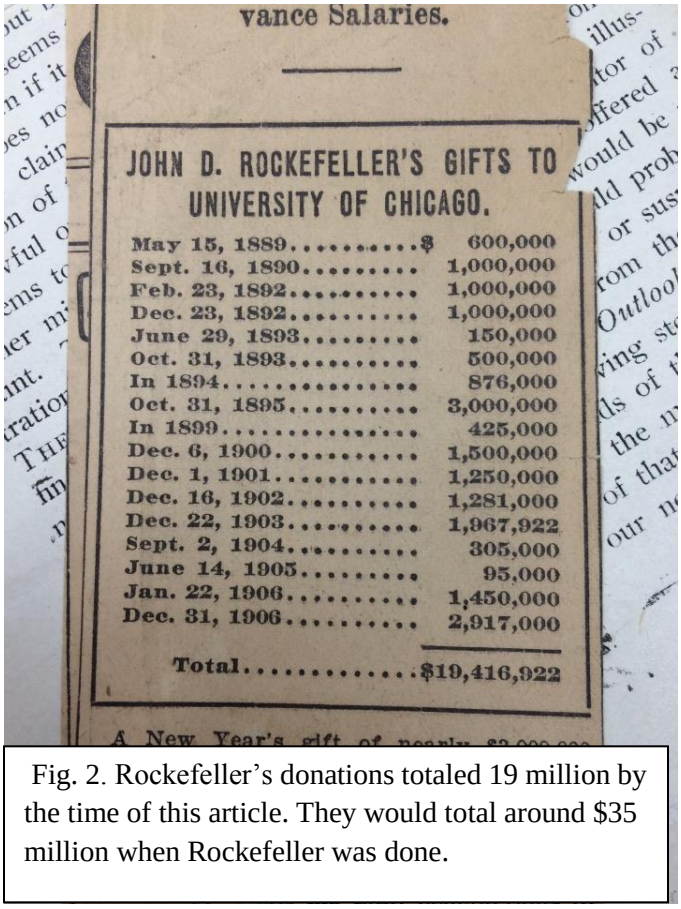
helped students; its publicity, donations, and libraries would have benefited the city, and its newspapers' writing and readership, as well. The newspaper could have drawn on the same donors that Rockefeller appealed on to boost its own readership. A University would have meant more attention to the newspaper's articles, and, perhaps, more donations to its work. The newspaper was not completely selfless in calling for donations for a new college, but it did see the void in higher education.

Goodspeed also appealed to Rockefeller's regional ties. Goodspeed knew that Rockefeller felt most at home in the Midwest and that his favorite city, with the possible exception of his birthplace, Cleveland, was Chicago. In the same letter, he reckoned that "a first class institution here is certain to become the greatest in our denomination."[172] Cleveland was the city where Rockefeller first made his millions, but Chicago's Baptist ties and status as the industrial center of America in the Gilded Age made it the more logical choice for a college. Though he never responded directly to the letter, Rockefeller certainly was moved by Goodspeed's arguments.

Goodspeed's regional argument likely also appealed to Rockefeller for reasons Goodspeed did not specify. In a 1919 interview, Rockefeller explained that Chicago "was sufficiently removed from Wall Street to encourage the hope that it would escape suspicion of being dominated by the so-called interests."[173] By the 1880s, Rockefeller understood that if he founded a college in New York the school would be immediately linked to the corruption of Wall Street in particular and capital in general. In part, Rockefeller chose Chicago because it remained far from the finance center of New York.

[172] Jan 7, 1887 Box 100 Rock Archive Center
[173] Rockefeller Archive Center. Interview with Inglis. Dec 17., 1919. Box 3 Folder 8

It is clear that Rockefeller was slowly changing his mind as to the fitness of Chicago for an institution. Just four months later, Goodspeed wrote to Rockefeller with a much more optimistic outlook. He explained that "I note with pleasure that you do not dismiss the matter of a University from your mind. The West is so lamentably weak in Baptist colleges and this is so manifestly the centre for the leading Baptist University of the country… Perhaps in another year or two you may make some money for its foundation."[174] Goodspeed had never been so direct in his appeals to Rockefeller for money. Clearly, he felt confident that Rockefeller realized the benefits of a Chicago university. Once again, he told Rockefeller what he undoubtedly already knew, that the West had no strong Baptist schools. Rockefeller presumably knew a fair amount about the state of Baptist education in America in the 1880s, since he had given generously to Baptist schools in the past and since his wife was a devout Baptist.



vance Salaries.

JOHN D. ROCKEFELLER'S GIFTS TO UNIVERSITY OF CHICAGO.

May 15, 1889	$ 600,000
Sept. 16, 1890	1,000,000
Feb. 23, 1892	1,000,000
Dec. 23, 1892	1,000,000
June 29, 1893	150,000
Oct. 31, 1893	500,000
In 1894	876,000
Oct. 31, 1895	3,000,000
In 1899	425,000
Dec. 6, 1900	1,500,000
Dec. 1, 1901	1,250,000
Dec. 16, 1902	1,281,000
Dec. 22, 1903	1,967,922
Sept. 2, 1904	305,000
June 14, 1905	95,000
Jan. 22, 1906	1,450,000
Dec. 31, 1906	2,917,000
Total	$19,416,922

A New Year's gift of nearly

Fig. 2. Rockefeller's donations totaled 19 million by the time of this article. They would total around $35 million when Rockefeller was done.

Due to Goodspeed and Morehouse's efforts in rallying the Baptists of Chicago around a new university, Rockefeller was assured that he would not be the lone backer of the school. William Rainey Harper, the first president of the University of Chicago, helped persuade Rockefeller by telling him in a December 13, 1888 letter that the National Board of Education meeting in

[174] Thomas Goodspeed letter to Rockefeller, May 19, 1887, Rockefeller Archive Center, Box 100, 2.

Washington, DC had been filled with Baptists who agreed on the need for a "good university in Chicago."[175] Convinced that both Harper would be the first president of Chicago and that Baptists supported the initiative, Rockefeller endowed the school in May of 1889. At the May meeting of the Board of the American Baptist Education Society, Rockefeller told them that he would donate $600,000 to founding a college in Chicago as long as donors raised $400,000 more by 1890.[176] In terms of Rockefeller's wealth, the $600,000 was small.[177] But Rockefeller was far from finished. In 1890, he donated another $1 million.[178] Almost every year for the next twenty years, Rockefeller donated around $1 million to the University.[179] In 1910, his lifetime donations to the University totaled $35 million—the equivalent of $875 million today.[180] By granting money to the Educational Society, and not to a university board directly, Rockefeller continued his preference for encouraging others to donate alongside him in founding a university. He wrote to his trusted advisor Frederick Gates in February of 1889, several months before the donation, that he would "prefer to give through the Educational Society, and hope its history will encourage the friends of our denomination to give through it."[181] Rockefeller implored other Baptists to donate to the University mainly because he recognized this would ensure collective buy-in and maximize the endowment. Instead of having to constantly fundraise by himself, he could rely on a network of Baptist donors to do the work for him. Unfortunately, this network never really materialized, and thus Rockefeller was pressured each year after his original benefaction to continue to donate. Although similarly pressured to help found a larger research university, originally Rockefeller had quite modest aims for the college he endowed.

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[175] Page 2 Folders 684-691, the University of Chicago—Early History—Mr. Gates File 1886-1887
[176] Box 100 Folder 686, RAC:U Chicago Official Bulletin, Jan 1, 1891:
[177] $600000 in 1889 is the equivalent of around $16 million in 2013 US dollars.
[178] Box 100 Folder 686, RAC: U Chicago Official bulletin, Jan 1, 1891 page 1
[179] Ibid.
[180] By one calculator, $35 million in 1910 is the equivalent of having $875 million today. http://www.davemanuel.com/inflation-calculator.php Accessed Feb 8. 2015.
[181] Rockefeller Archive Center. Box 100. Folder 692. Letter from Rockefeller to Gates, February 26, 1889.

Unlike Stanford, Rockefeller wanted his institution to exist as a college and not, at least at first, answer the much larger demands—and opportunities—of a research university. Daniel Lee Meyer studied the first 40 years of the University of Chicago and concluded that "[n]early all those involved in the founding… including… Rockefeller… imagined the initial establishment of a 'well-equipped' college' that might, with time, grow to acquire graduate departments and schools."[182] Rockefeller remained cautious. This was a new industry for him, and he wanted to move slowly—wary that if he moved too quickly critics could dash his plans, characterizing his philanthropy as an attempt to hijack the educational system just as he had monopolized oil refinement.

Initially hesitant about founding a college, Rockefeller eventually latched onto Carnegie's Gospel of Wealth and to the advice of people such as Gates. Even so, Rockefeller understood that it would be foolish to attempt to found a university without much experience in education. The history of religion at the University of Chicago reveals just how little influence Rockefeller had over weakening sectarianism on an institutional level.

Rockefeller, Spiritualism, and Chicago

Like Jane Stanford in California, Rockefeller had every intention of emphasizing the importance of religion at Chicago, yet his school would be sectarian. Rockefeller wanted a Baptist college, but his views on how the college would relate to religion were not simple. Rockefeller approved of and wanted Baptists administering the college through the Board of Trustees and its President; however, he felt that the character of the college as a whole should remain Christian, not Baptist, specifically. During the first two decades of the university,

[182] Daniel Lee Meyer, PhD. The University of Chicago 1994. The Chicago Faculty and the University Ideal, 1891-1929 (Volumes I and II).

Rockefeller's thoughts on this sectarianism shifted, but, at first, he wanted Baptism to be at the heart of his school.

Rockefeller aimed to have the levers of the college run and controlled by Baptists like himself. He trusted the Baptists in large part because he had associated himself with the Baptists ever since his youth. The Baptist church had helped raise Rockefeller in a family where he had no father figure.[183] In 1917 interviews with Rockefeller, Mark Inglis revealed how this Baptism developed from a young age. As a young man, Rockefeller attended Euclid Avenue Baptist Church in Cleveland, Ohio. In his teens through his adulthood, Rockefeller served as Clerk of the Church, Superintendent of the Sunday School, Superintendent of the Bible School, and, finally, President of the Board of Trustees.[184] He had deep institutional ties to the Baptist church far before his involvement in the Baptist Educational Society or the University of Chicago. Rockefeller saw the Baptist church as not just a place for spiritual enlightenment, but a family and a community.

It thus made perfect sense that in founding a university Rockefeller wanted to work through the Baptist Educational Society. Rockefeller trusted the Baptist church more than perhaps any other institution. In the founding documents, Rockefeller asserted how Baptism would remain institutionalized in his University. In his 1994 book *The Chicago Faculty*, Daniel Lee Meyer pointed out that "the core group of organizers in the American Baptist Education Society included numerous Baptist ministers, its President was a former Baptist seminary professor [Harper], and the membership of its governing board was required by statue to remain two-thirds Baptist."[185] Rockefeller had his men in place—of course, no women were included in

[183] Rockefeller's father had run away from the family before they moved to Cleveland.
[184] Inglis Interviews Page 2.
[185] Meyer 168.

the planning of the college, as the Baptist institution remained run exclusively by men. Only when the Baptist scholar and prodigy Harper signed onto the presidency did Rockefeller commit in full. Rockefeller knew that with Harper at its helm the University's Baptism would not be corrupted.

The Baptist control over the University represented a kind of sectarianism which diverged with that of Stanford. In a letter from Harper to Rockefeller in 1892, Harper summed up a recent meeting with him by writing that "I think I understand very clearly your desire… that the institution shall be in the truest and best sense a Christian institution."[186] Rockefeller wanted the University to be a bastion for Christianity in all aspects of student life, and he wanted faculty to life a life in line with Baptist tenets.

Faculty were to be not just mentors to students, but also Christian role models. When Rockefeller heard that some of the faculty were drinking too much in front of them, he got very upset. He wanted faculty to abstain from liquor, particularly around students. In an 1894 letter to Harper, John Wooley, a friend of Rockefeller's, wrote that "I have been spending a few days with Mr. Rockefeller and have… spoken about one of the few things as to which the University is liable to criticism… the drinking habits of certain of the faculty…. I found instantly that he agreed with me that the University ought to have a faculty that was safe for a boy to pattern after morally."[187] Rockefeller thought that his faculty had to demonstrate in action as well as in word Christian values, and for him, this meant public abstinence from liquor.[188]

[186] Rockefeller Archive Center, March 29, 1892 Harper to Rockefeller Page 1.
[187] Rockefeller Archive Center, Letter from John Wooley to President Harper, July 17, 1894, school in session two years now
[188] These sentiments prefaced the prohibitionist movement of the 1910s.

Although Rockefeller's collegiate education consisted of just a ten week business course at Folsom's Commercial College, in a 1901 address to the University, Rockefeller deplored drinking by students and faculty, saying "[h]ow many a young man whom I knew in my school days, went down, because of his fondness for intoxicating drinks."[189] Whether or not this was true, Rockefeller clearly saw alcohol as a poison for his Christian vision. It warped any Christian influences students maintained. It is unclear how students reacted to the speech, but in newspaper articles and letters to the founder in the 1890s they had proclaimed their devotion to him.

An entire school of the University of Chicago was dedicated to the kind of Christian education Rockefeller wanted: the Divinity School. Over the long run, the Divinity School was the only part of the University that remained denominationally Baptist. Harper and Rockefeller agreed that the Divinity School was to serve as the sectarian core of the campus; students were required to attend weekly chapel services. While many students did not go, this nonetheless excluded students of Jewish and Catholic faith from religious services. Students responded by refusing to attend a School and chapel they saw as Baptist and sectarian. There was no attempt to force attendance by the administration. Soon, the University, and likely Rockefeller, as well, realized its error, and mandatory chapel services were dropped. If few students were attending them, the University actually had no choice but to abandon one of the few sectarian requirements it had enacted.

Rockefeller and his advisors recognized that what they really needed to inculcate at the University was not so much sectarianism, but Christianity more generally, and this sentiment reflected in who was accepted to the University. Rockefeller never wanted his University to exclude either Jews or Christians whom did not identify as Baptists. On the first day of classes in

[189] Rockefeller Archive Center.

1892, 750 students entered the University, one-fourth of them women, with ten Jewish students and eight Catholics.[190] It is unclear exactly how many of the Protestant students were Baptist, but, assuredly, some were Calvinist, Methodist, Lutheran, or Anglican. There were never enough Baptist students to fill the University's classes. By allowing Jewish students, in particular, Chicago rejected the quotas and barriers to entry that Ivy League institutions put in place for Jews. Despite the low numbers of Catholics and Jewish students, given the time period, it is significant that Chicago opened its doors to students of multiple faiths.

From the start, despite the Baptism of the Divinity School, the university distanced itself from occupying a space as a purely Baptist school. This distancing reflected an earlier movement in public schools. In the 1870s, at public schools in Cincinnati and other major cities, early Christian principles were giving way to a more secular education. In Cincinnati, Catholics and Protestants clashed with one another over an attempt to consolidate Catholic and public schools due to a rising Catholic population. Protestants charged Catholics with aiming to subvert the public school system by turning public schools into Catholic schools. Catholics responded by dropping the proposal for consolidation, arguing that Bible reading had to be a part of any education for their youth. Consequently, both camps eventually acquiesced to removing the Bible from the classroom. Steven Green explained in *The Bible, The School, and The Constitution* that "[b]y the time of [1876]… nonsectarian education was being transformed from a curriculum that emphasized moral values by teaching 'universal' Christian principles to one that was increasingly secular with perfunctory reliance on religion."[191] The trend to denaturalize Christianity from public schools was an extension of what happened at Chicago in the 1890s and

[190] Chernow 323.
[191] Steven K. Green. *The Bible, the School, and the Constitution: The Clash That Shaped Modern Church-state Doctrine*. Oxford: Oxford UP, 2012. 12.

1900s. Since Chicago was a private university, Rockefeller wanted to instruct students in universal Christian values, but he increasingly recognized that the school's Baptist secularism had to change.

In a 1901 address to the president, Trustees, students, and faculty on his second visit to the University since its founding, Rockefeller voiced his support for a kind of Christian, moral education that neither limited itself to Baptist sectarianism nor abandoned the Christian pretenses upon which the institution was built. He told his audience that "[i]n the end, the question will be not whether you have achieved great distinction and made yourselves known to all the world, but whether you have fitted into the niches God has assigned you and have done your work day by day in the best possible way."[192] Rockefeller also distanced himself slightly from the kind of utilitarianism that Stanford had supported. While Stanford advocated for students to go on to be directly useful in life, Rockefeller proclaimed that religiosity and hard work were greater virtues than becoming useful or successful. For Rockefeller, social utility meant fitting into more pre-destined "niches" according to God's wishes, and accepting these niches with one's spirit. No such sentiments came out of Stanford's mouth in public speeches to the Trustees or students. We can see that by 1901—almost ten years after Chicago had opened its doors—Rockefeller recognized that he had to appeal to students on general, Christian, moral grounds, and not any strict Baptist sectarianism.

The Institution: How the University Adapts to Changing Religious Sentiment

The gradual evolution of the University of Chicago from a sectarian Baptist to a Christian school paralleled its growth from a small religious college to a research university. Originally,

[192] Rockefeller Archive Center, 1901 Rockefeller address to U Chicago, 11.

Rockefeller had modest ambitions for his University, yet, in part due to Harper's insistence of more funding for the college, these ambitions dissolved. Harper's dreams for a major research university won out. As the University broadened its scope, Rockefeller recognized that he could not tie his University to Baptist control in even moderate ways.

The changing sentiment towards religion manifested itself perhaps most clearly in the Board of Trustees. Originally, Rockefeller and the American Baptist Education Society mandated that two-thirds of the twenty-one Board members be practicing Baptists, meaning 14 or more had to be Baptist.[193] The Board remained with this restriction in place until 1909. At this point, the University's student body was substantially larger than in 1891. It was no longer the small, Baptist college that Rockefeller had set out to create. Consequently, the Board agreed to change the "proportion of Baptist trustees from two-thirds of twenty-one to three-fifths of twenty-five…"[194] Numerically, this actually increased the number of Baptist trustee members from a minimum of fourteen to fifteen, though overall the proportion did decrease. The move signaled the declining importance of Baptist control over the Board and the University. Rockefeller signed off on and approved of these measures in 1909 in both word and in a waiver he signed to that effect.[195]

The declining importance of Baptism was even clearer in moves the University made to free up the presidency. In the same telegram from 1923, referring to actions in 1909, the University removed all restrictions on the Presidency as a Baptist office.[196] Though Harper was a devout Baptist, the second president of the University, Henry Pratt Judson, was a historian by

[193] Rockefeller Archive Center. Box 107. Folder 755. Letter from Thomas M. Debevoise to Mr. John D. Rockefeller, Sr. July 24, 1930. Page 1.
[194] Ibid.
[195] Ibid.
[196] Ibid.

training and did not express his religion as openly. The third president, Ernest Dewitt Burton, who served from 1923 until 1925, was the son of a Baptist preacher and studied and practiced Baptism.[197] The President's Office remained imbued with the Baptist spirit Harper had created, but from the late 1900s on, there was no longer the requirement that the president be Baptist.

In a 1923 letter to the Trustees, Rockefeller expanded on why he approved of these measures in 1909. He wrote that "[s]uch an institution… is of necessity undenominational in its administration…. If the Board of Education should think it wise to adopt measures for releasing the University from all or any of the denominational restrictions in its articles of incorporation… such action would met with my hearty concurrence."[198] It is important that Rockefeller used the word *undenominational* in his assessment of the University. This shows that by the 1900s he was ready to do away with any Baptist sectarianism the University held onto. Likely, Rockefeller was such an active advocate of an undenominational college because he realized his University had grown far beyond the small Baptist college he had envisioned and, in just two decades by 1909, had already become a major research university with some of the best faculty in the country. There was no longer any pretense that Chicago remained a religious university. Rockefeller in fact went beyond the changes that were made, suggesting that the University do away with all requirements for the Trustees and open up all administrative offices to people of any and all religions. This was quite the radical statement coming from a devoted Baptist.

Rockefeller's Goodbye Gift

[197] Professor and Head of the Department of New Testament and Early Christian Literature 1892-1925 Director of the University Libraries 1910-1925 Acting President 1923 President 1923-1925. https://www.lib.uchicago.edu/e/spcl/centcat/pres/presch03_01.html Accessed Feb. 16, 2015.
[198] March 7 1923 Letter to Trustees. Rock Archive Center. Page 2.

Rockefeller's wish that the University open itself up to people of all faiths was one of his last major statements to the Trustees. Biographer Ron Chernow explained that "[b]y 1908, Rockefeller had spent $24 million on the university, but the Chicago citizenry had not lifted the burden from his shoulders."[199] As much as he had attempted to make his University a joint venture with the American Baptist Education Society and the donors of Chicago, mostly, the University had been funded through Rockefeller alone.

To try and get other people to donate to the University, Rockefeller made a final $10 million donation to the University in December 1910.[200] He explained that"[i]t is far better that the University be supported and enlarged by the gifts of many than by those of a single donor… I am acting on an early and permanent conviction that this great institution being the property of the people should be controlled, conducted, and supported by the people."[201] Rockefeller certainly had a Gilded Age conception of who the people were—only the rich could have donated to the University. Thus, its donors would remain people of Rockefeller's class. In 1910, Rockefeller realized that he had to cut off his money to ensure others might begin to fund the school.[202] The University of Chicago of 1910 looked different than it had in 1892, just 18 years prior. Gone were restrictions on the President being Baptist. Gone were as rigid restrictions on the Board of Trustees. Gone was the principal donor and founder of the University. The University never was the small Baptist college Rockefeller envisioned, but it had also grown and become less sectarian in its first two decades—changes which Rockefeller himself helped initiate and oversee. Ironically, these changes also meant that by 1910 the University looked more like

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[199] Chernow 496.
[200] Ibid., 497.
[201] Ibid., 497.
[202] Today, University of Chicago has an endowment of $7.55 billion, placing it among the fifteen richest universities in the United States (by endowment) as of 2014.
http://en.wikipedia.org/wiki/List_of_colleges_and_universities_in_the_United_States_by_endowment

the Ivy League model that Rockefeller had tried to move away from in establishing a Baptist school.

The Carnegie Technical Schools

Unlike the University of Chicago and Stanford, the Carnegie Technical Schools, now Carnegie Mellon University, had no religious auspices whatsoever. Andrew Carnegie founded his school as a technical training grounds for the working class and middle class of Pittsburgh. Also unlike Stanford and Chicago, the Schools were more consistent and successful in their desire to focus on a particular kind of education classical schools neglected: technical education. In a 1900 letter to the Mayor of Pittsburgh, Carnegie explained at length why he wanted to found a technical school. He wrote that "I recalled an essay written by my grandfather… entitled 'Handiccation versus Headication'; in that article my grandfather thanked God that in his youth he had learned to make and mend shoes."[203] Like his grandfather, Carnegie much preferred "handiccation" to "headication."[204] His vision for higher education rested on the belief that students would be best off if they learned practical, useful skills, tools they could later directly translate into jobs in manufacturing and industry.

Carnegie's preference for handiccation, his conception of higher education, clashed with classical notions of the university, what he felt represented headication. In an address at the opening of new engineering buildings at the University of Edinburgh in 1906, a year after the Schools were founded, Carnegie explained that "classical and theological fields are necessarily restricted because [they are] already thoroughly explored...."[205] He felt that Ivy League and

[203] November 15, 1900, letter from Carnegie to Hon. J. Diehl, Mayor, City of Pittsburgh Page 10.
[204] Ibid.
[205] August 14, Library of Congress, Andrew Carnegie Papers, Speech File, 1906, Address to the opening of new engineering buildings at the University of Edinburgh, Oct 16, 1906, Page 12

European institutions had already discovered all there was to know about religion and ancient languages and culture. He continued the same speech by saying that "he remains an ignorant gentleman if he has mastered little else than Latin and Greek."[206] With a somewhat patronizing tone, Carnegie dismissed the study of the Classics. Instead, he argued students needed to learn to benefit human society more practically.

Motives for Founding the Carnegie Technical Schools

Carnegie's foundation of the Schools depended on more than a general critique of classical education; his reasoning ranged from an understanding of the role of Gilded Age-philanthropy to a desire to give back to Pittsburgh to a penchant for technical education. Most prominent and important to Carnegie was the desire to put into practice all that he thought he knew about philanthropy.

Compared to Rockefeller and Stanford, Carnegie had more practical experience and a more refined social theory about philanthropy. As early as 1881, Carnegie wanted to donate money to build a library in Pittsburgh—where he began his fortune.[207] Carnegie saw the importance that non-Ivy League institutions, such as libraries, held in educating common workers, since he never attended college, and much of his education came from reading independently, not formal courses. To be sure, he may have over-emphasized this importance, as, with 12 hour days and 72 hour weeks, workers did not have much leisure time to use the libraries, and, thus, they may have been more beneficial to children. But, he did have a genuine concern for educating more of the working class. Over time, Carnegie also realized the importance of donating to smaller schools with a practical and technical focus. In the early

[206] Carnegie, Edinburgh Speech.
[207] Carnegie Museum, Annual Report of the Director, 1898-1902, Dedication Souvenir 1895, Carnegie Museum

1900s, Carnegie funded the Sutherland Technical Schools in Scotland. A harbinger of the Carnegie Technical Schools, the Sutherland institution educated boys—thus gendering the scientific profession—and emphasized technical subjects in the sciences that led directly to manufacturing jobs.[208] To Carnegie, it must have seemed an institution that taught the tools boys needed to become adequate workers in the industrial age.

Carnegie rested on not only his decades-long experience in founding libraries and technical schools, but also a sharp social analysis for why educational philanthropy was so important in the Gilded Age. A new university realized the values of his 1889 "Gospel of Wealth," a treatise on why and where the rich of America should donate their money. The Gospel promoted scientific philanthropy—the idea highlighted earlier that said that libraries and higher education were the most productive avenues for philanthropy because they would ease labor tensions and allow the industrious to advance. The Carnegie Technical Schools were both an attempt to link higher education to manufacturing jobs, and Carnegie's attempt to placate class conflict that threatened his own position. In a speech at the opening of a library in Scotland in 1903—two years before the Schools opened—, Carnegie said that "[m]y experience with workmen is that the more intelligent the man, the less trouble with him; the more ignorant, the more trouble. If every workmen were a reader of books… it would be better for the rich and noble educated classes, and better for the workmen."[209] The speech was somewhat Spencerian; it offered a view about human nature grounded in social Darwinism, articulating that progress was inevitable, but that progress could come only gradually. In his philanthropy in both Scotland and the US, Carnegie attempted to erase class conflict through education. He framed this goal, in

[208] Research Log August 11, 2014. Library of Congress. Papers of Andrew Carnegie. Box 107. 1904.
[209] August 13, 2014 Library of Congress. Andrew Carnegie Speech file, 1903. Speech at the Opening of library in Kilmarnock, Scotland, undated 1903.

1903, with a particularly gendered and patronizing tone, suggesting that only men could be workers and that if only working men read more they would not resort to troublesome strikes. He did not reference deep socio-economic inequality nor poverty in his assessment of what labor needed to overcome. Society saw Carnegie as a tycoon, not a worker. Carnegie realized this, and attempted to improve his image by founding technical schools.

He directed his money towards Pittsburgh, in particular, because it was, apart from Scotland, where he felt most at home. In 1906, Carnegie wrote to students of the Schools that "Pittsburgh was the home of my boyhood, and it was there that Fortune showered its favors upon me in early manhood."[210] Even though he did not live in Pittsburgh, residing in New York and Scotland, instead, he meant what he said. He associated Pittsburgh with good luck and the beginning of his rise to enormous fortune. A steel town, Pittsburgh represented the frontier to Carnegie: the place where innovations in manufacturing helped spur an industrial revolution. He hoped that he could fuel this revolution through education, while stopping a working-class-led revolution at the same time.

The Schools of Pittsburgh represented Carnegie's support for technical education—an education that he saw epitomized by Cooper Union in New York. A Trustee of Cooper Union, Carnegie sympathized with the goals of its founder, industrialist and philanthropist Peter Cooper. Established in 1859, from its start Cooper Union emphasized education in art, architecture and engineering. One of Cooper's favorite mottos was "[g]reat wealth is a public trust," something Carnegie certainly agreed with, as well.[211] Carnegie felt his school could build on what Cooper Union had started in the area of engineering. He had such high hopes for the Schools that in a

[210] The Thistle, Carnegie Technical Schools Yearbook, 1906. From the Founder, March 30,1906. Page 21.
[211] "About Cooper Union: History." http://www.cooper.edu/about/history Accessed March 24, 2015.

piece to students in 1906 he wrote that "I for one believe that Pittsburgh is to rank in the world as one of the chief centers of technical education."[212] In his analysis, Carnegie thought Pittsburgh as an industrial center—even more so than New York—needed a technical school to support its industry. Similar to Rockefeller, though, Carnegie did not want to found an institution all by himself. He told the Mayor of Pittsburgh in 1900 that he had been nursing the idea of founding a technical school in Pittsburgh for years, but it was not until the Board of Education asked the City of Pittsburgh for $10000 to start a Technical School that Carnegie committed.[213]

A Vision for a Technical School

Similar to Stanford and Rockefeller, Carnegie did not just donate money; he was also highly involved in the organization and design of the institution itself, so as to ensure it emphasized technical education. The composition of the school highlighted this focus. The School consisted of four separate schools: The School of Applied Science, offering "courses… in engineering practice," The School of Applied Design, with "courses… in applying art and design to industries," The School of Apprentices and Journeymen, housing "courses… in the manufacturing and building trades," and the Margaret Morrison Carnegie School for Women, which trained "women for the home, and for various… professions open to women."[214] Carnegie's desire for technical education was clear. Two of the schools were geared towards engineering and design; one was a trade school for day workers; and the fourth emphasized practical skills for women in the home, re-affirming the gendered breakdown of the Schools. Unlike Stanford or Chicago, the Carnegie Technical Schools did not embrace the humanities in

[212] The Thistle, Carnegie Technical Schools Yearbook, 1906. From the Founder, March 30,1906. Page 21.
[213] President's Office, foundation documents, Box 1 of 2, Carnegie Institute of Technology, Charter, Folder 1, November 15, 1900, letter from Carnegie to Hon. J. Diehl, Mayor, City of Pittsburgh, 9.
[214] Carnegie Institute of Technology, General Catalog, Vol 1.

its founding. It did not even offer four year degrees until 1912.[215] This was a much narrower mission than the many departments of Stanford or Chicago, and yet it was a mission Carnegie fully supported.

To carry out this modest, technical vision, Carnegie involved himself in the physical design of the school, its planning, and the hiring of teachers. In a letter to Carnegie, one of the main architects wrote that the buildings would illustrate "dignity and simplicity, with their influence on public taste, solidity and economy, as an industrial lesson..."[216] Architects of the Schools factored in the institutions' purpose and mission as a technical school that wanted to instill in students' minds the virtues of practicality. Unlike Stanford and Chicago, there were no grand or unnecessary churches. Instead, basic stone halls surrounded a simple quad. Just three days later, Carnegie wrote to the architect his approval of the plans. He explained that "[t]he site you propose and the plans are magnificent. All is upon a broad and wise scale."[217] The architectural layout of the Schools reflected and reaffirmed Carnegie's desire to found a small institution with the possibility for expansion later on.

In later correspondence, Carnegie explained that his rationale for starting small fit with the needs of Pittsburgh as a city. In a 1904 letter, Carnegie wrote that he wanted to start small so that the "School would be firmly planted attaining an established reputation…. To meet the proved wants of Pittsburg…"[218] In part, the Schools aimed to admit a relatively small number of students because they were targeted at Pittsburgh—not Pennsylvania, and certainly not the nation, unlike Stanford and Chicago. Furthermore, the Schools targeted the working and middle class of Pittsburgh, young adults who would remain in the city after graduation.

[215] Correspondence with University Archivist Julia Corrin, April 15, 2015.
[216] Andrew Carnegie Online Collection. Letter from McConway to Carnegie, Jan 16, 1903.
[217] Andrew Carnegie Online Collection. Jan 19, 1903 Letter from Carnegie to McConway.
[218] Andrew Carnegie Online Collection. June 20, 1904 Letter to McConway.

Carnegie did not want to experiment with designing a wholly different technical school. The Schools were based on other institutions such as Cooper Union. Carnegie explained the reasoning behind this choice by relating it to his experience in the steel industry. He wrote in 1904 that "[i]f I had to embark in the manufacture of Steel I would concentrate upon developing the forms of steel that had been made before."[219] In analyzing the forms of technical schools that had already been developed, Carnegie found them useful since they emphasized practical and technical subjects. He thus concluded the letter by affirming that "the Pittsburgh Technical School has nothing whatever to do with experiments at present."[220] Unlike Stanford and Chicago, which were experiments in combining classical and practical knowledge with spiritual influences, the Schools could build on the forms of other technical schools already in existence without jeopardizing its founding mission. What was unique about the Schools was its explicit desire to serve the working class of Pittsburgh.

In 1904, as he helped oversee the construction of the Schools, Carnegie also ensured that his institution would serve the day laborers of Pittsburgh—people who could not attend traditional universities, but wanted to refine their skills. One of the four schools—The School of Apprentices and Journeymen—was designed for day laborers alone. Carnegie expounded upon the need for a night school, writing in 1904 that day laborers "work through the day and educate and improve themselves at night. It is from this class we may expect the most useful citizens, the future inventors and captains of industry and science, and it is in my opinion that this class should elicit our first and chief attention."[221] Carnegie joined his social analysis with his respect for day laborers. He bestowed praise on the industrious of the working class, and thought capital

[219] Andrew Carnegie Online Collection. June 29, 1904 Letter to McConway from Carnegie.
[220] Ibid.
[221] Ibid.

needed to help these talented few rise up through society. These day laborers could be future Andrew Carnegie's, and it was only right to support them, as he had been supported.

Carnegie was so effusive about the merits of day laborers occupying a prominent position at his institution in part because he identified with them on a personal level. In 1909, Carnegie wrote that he "was a working boy myself and attended night school."[222] He attempted to frame himself as a member of the working class—even though he was one of the wealthiest people in the US. In his 1909 letter, he explained that his aim in founding the Schools was "to reach the children of poor people, especially those who have to work through the day and acquire knowledge at night."[223] The Schools were successful in targeting the working class of Pittsburgh. Early student rosters show almost everyone coming from the Pittsburgh area. For instance, in 1912, 70% of the students came from Pittsburgh, with 74% of students from Pittsburgh in 1910 and probably higher percentages before that.[224] A centennial survey of the students at the Schools revealed that of these students, "diploma students came from middle-class families and had graduated from high school… [t]wo-year certificate students, on the other hand, came mainly from working class families and, indeed, in most cases already had jobs and families of their own."[225] For the first seven years of the institution, the only students at the Schools were those pursuing a two-year certificate—many of whom worked during the day and studied at night.

With a structure in place that allowed for an emphasis on technical education and day laborers, the Schools were also closely monitored by Carnegie in the area of finances. In

[222] Andrew Carnegie Online Collection. March 25, 1909 letter to McConway:
[223] Ibid.
[224] Carnegie Institute, Founder's Day Celebration, 1908-1912. Ninth Annual Report of the Director of the Carnegie Technical Schools," Dr. Hammerschlag, 1912. "Abstracts from the Report of the Registrar."
[225] Fenton's Centennial History of CMU, Page 43.

December of 1900, the Board of Trustees of the Carnegie Institute—Carnegie's philanthropic foundation—created a five-member committee to oversee the Schools.[226] The Committee took charge of approving expenditures in the construction of the school and the hiring of faculty. With Carnegie's approval, it also hired the Schools' first director, or president, Arthur Hamerschlag, a mechanical and electrical engineer. Carnegie made sure he was a part of these conversations. In the Committee's 1904 annual report, Carnegie approved of the Committee taking more responsibility from the larger Board of Trustees in financing the school.[227] While not a member of this Committee, Carnegie did play a major role in advising it.

While the technical nature of the Schools was its focal point, Carnegie realized that the Schools could develop and expand in purpose over time. He never hypothesized that this very expansion would change the nature of his school and turn it into a liberal arts institution. He built into the mission of the Schools a focus on the arts. In a 1907 speech, Carnegie heralded that his benefaction gave "Technical students free access to [a]… Department of Fine Arts, Music Hall and Museum. Our Technical Schools, therefore, while resting upon the severely practical foundation… may be regarded as also educational in esthetic fields in no small degree."[228] Though the Schools did not emphasize the study of the arts to the same extent as engineering, they did allow students opportunities in these areas. This fit into Carnegie's conception of the enlightened working-class man—someone practical in foundation with a keen mind. The Schools remained focused on engineering in their teaching; the fine arts represented a secondary mission

[226] President's Office, foundation documents, Box 1/Folder 1, Carnegie Mellon University Archives, Pittsburgh, PA, "City Ordinance Granting Site for Carnegie Technological School."
[227] Carnegie Institute Collection Box 3, CTS Annual Report 1904.
[228] Memorial of the Celebration of the Carnegie Institute at Pittsbugh, PA, April 11, 12, 13 1907. Carnegie.

of the institution, things that Carnegie did not see as fundamental to one's education but as helpful, mostly extracurricular, activities.[229]

Religion was neither part of the extracurricular nor curricular focus of the institution. Carnegie never wavered in his opinions on religion. Never religious himself, he deeply distrusted the role of religion in an educational institution. His gospel of scientific philanthropy was explicitly free of any religious allusions because he felt religion would get in the way of educating the next generation of students. In a 1914 address to Brown University, another school to which he donated, Carnegie explained the need to separate religion from the scholarship of an institution. He applauded Brown for decreeing that "[i]nto this institution shall never be admitted any religious tests, but on the contrary all the members hereof shall forever enjoy full, free, absolute and uninterrupted liberty of conscience."[230] Carnegie believed that scholarship needed to be unimpeded by religion, and his biographies have illustrated these beliefs. David Nasaw's recent work explained that Carnegie did not enter philanthropy out of any "religious duty," unlike Rockefeller.[231] Not grounded in religion, Carnegie nevertheless wholeheartedly believed in his "Gospel of Wealth" and the need to educate students in the technical fields.

The Carnegie Technical Schools seem more consistent in their educational mission in comparison with Stanford and Chicago. Partly, this has to do with the more limited scope of the Schools; compared to Stanford's plans to join practical and theoretical learning, emphasizing technical education was not a novel experiment. Still, the Schools did not hold perfectly to their founding values. In 1912, the Schools allowed four-year graduates, essentially turning the school into a more standard college.

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[229] Today, Carnegie Mellon University is nationally-known for its theatre and fine arts programs.
[230] Library of Congress.
[231] David Nasaw. *Andrew Carnegie*. New York: Penguin, 2006.

Conclusions

What can we learn from three people who founded institutions over 100 years ago? Countless histories of Leland Stanford, John D. Rockefeller, and Andrew Carnegie as businessmen have been written, and yet their forays into education are less appreciated and even less often critiqued. These were three of the most famous people in American history, all of whom attempted to use their immense wealth to reform education. Distrustful of classical education, they attempted to create new kinds of colleges to better educate the masses while at the same time diffusing class conflict. Yet neither Stanford, nor Chicago, nor the Carnegie Technical Schools succeeded in jettisoning classical education wholesale. Whether it was the surprising popularity of the Classics degree at Stanford, the declining influence of Baptists at Chicago, or the rise of a degree-granting program at Carnegie in 1912, each school adopted virtues of the classical institution.

The three men failed to create new kinds of colleges for a variety of reasons. Leland Stanford died in 1893, just two years after his institution opened, meaning that he had very little time to fulfill his vision for a university that combined practical learning and cooperative association. Moreover, Jane Stanford was unable to build on his vision. Her conflicts with everyone from the University's chaplain to its president meant that she had little power to reaffirm the importance of cooperative association on campus. Larger forces beyond campus also affected students coming to the school. As Altenberg pointed out, "with McKinley's election and the defeat of the Populists in 1896, the cooperative movement was crushed."[232] Students attending Stanford around 1896 may not have known about the cooperative movement that some

[232] Altenberg.

did just several years earlier. Put in context, Leland and Jane Stanford faced much tougher challenges to the cooperative vision than administrative power struggles alone.

The political environment was perhaps less deleterious to Rockefeller and Carnegie's visions for new kinds of colleges because they did not have cooperative politics. Rockefeller's vision for a new Baptist institution in Chicago weakened over time, in large part because he was not around to influence the school. Rockefeller never put in the time as an administrator of the school to hold onto its Baptist influences. In part, he recognized that since he was not an active advocate for this Baptism that the school had to grow and change in its first two decades: hence why he called for an end to Baptist requirements for the Board of Trustees. He also trusted the administrators he had selected—namely, William Rainey Harper—to govern the institution in his absence. This reluctance to actively engage with the school was one reason it began to resemble the Ivy League institution of Harper's imagination.

Carnegie, meanwhile, was probably the most successful of the three in distancing his institution from the classical, Ivy League model. In the beginning, his technical school broke with the classical model entirely. Yet even in distancing himself from this legacy, Carnegie built on existing iterations of the technical school. Thus, the Carnegie Technical Schools cannot be considered a novel form of higher education. Carnegie, like Rockefeller, handed the management of the institution over to associates who did not share his ideals. Retreating to Scotland, Carnegie was not around to critique the expansion of the college into a degree-granting institution in 1912.

All three men were distant from the daily operations of the institutions they founded—and even if they had been directly involved, they may not have been able to change much. In order to create novel forms of higher education, these founders relied on existing models of

university administration: a hierarchical governance structure with a university president. This bureaucracy was perhaps the largest impediment to the cooperative dream at Stanford. Altenberg explains that when Stanford "established the University, he gave it a standard hierarchical corporate structure, with a sovereign Board of Trustees choosing a President with complete executive power."[233] This hierarchy meant that decisions had to be approved by one man—David Starr Jordan—before they could be implemented. There was little cooperative decision-making in the administration at Stanford, which may have contributed to minimal cooperative education at the university. A similar structure at Chicago and the Carnegie Technical Schools yielded similar results. Of course, Stanford, Rockefeller, and Carnegie each approved of and appointed members to the initial Board. But this did not necessarily mean that members of this Board had the same vision for a university. While appointing members of a Board was one thing, determining its direction was something none of the founders could control. At Chicago, a hierarchical structure meant Harper had control over the University. Meanwhile, with Carnegie's retreat, Arthur Hamerschlag, first director of the Schools, had control over its expansion into a degree-granting college. While I have not focused as much attention on the administrative makeup of these schools, this is another history that deserves study.

The faculty of the three schools also probably influenced their collective trend towards the classical college. For instance, at Chicago, Rockefeller recognized that he could not have an all-Baptist faculty. There were simply not enough Baptists in academia. Out of necessity, each of the founders had to draw on faculty from the Ivy League, as well as state schools, to supplant their ranks. These faculty probably did not share the same cooperative vision as Stanford, and they certainly were not all Baptist.

[233] Altenberg.

Understanding the early histories of these schools lends insight into the character of these institutions today. In 2015, Stanford advertises itself as a world-class research institution providing a broad-based liberal arts education—an Ivy League institution, in short. However, in practice, Stanford spends much of its money and time on the technical fields and medicine. It has become a university dedicated to Stanford's ideal of practical learning. Unsurprisingly, though, this ideal is detached from cooperative association. The remnants of Leland's cooperative vision are still visible around campus. The cooperative dorms—Synergy and Columbae, most notably—reflect this history. Yet the teaching of the university often fails to acknowledge cooperative association. Cooperative association has become something one does in the residences, rarely in the classroom. Remnants of Jane and Leland Stanford's spiritualism also exist. Memorial Church still occupies its central place on the Main Quad. In this area, too, though, there is little institutional knowledge or coursework about spiritualism. In some ways, Leland Stanford would probably be quite proud of how his University has evolved. He would certainly boast of its dedication to practical learning and of the growth of the machine shop into the newly-built Engineering Quad. If he looked at Stanford closely, though, he would question its teaching. He would not support the divorce between practical learning and cooperative association in coursework.

When reminded of Stanford's cooperative vision, the administration has pushed aside its own history. During the University's Centennial, Lee Altenberg's article was the only publication that recognized Stanford's cooperative vision. No official University publications "mentioned Leland Stanford's advocacy of worker cooperatives, nor the actual stipulations that Stanford placed in the University's Grant of Endowment that 'the Trustees shall have power and it shall be their duty: ... To have taught in the University the right and advantages of association

and co-operation.'" Altenberg explains that he worked to bring a professor to campus to "give a Centennial lecture on Leland Stanford's historical contributions in the context of the Populist movement. The Centennial Operating Committee rejected the proposal, claiming that the shared opinion of the committee was that 'there just wouldn't be much interest in the subject matter.'"[234] Possibly, the administration may not have wanted to contrast the schools' advertised entrepreneurial spirit with a cooperative history that rested on people working together, not alone. Certainly, Leland Stanford would be irked to hear that his own University's administration found one of his guiding ideologies uninteresting and not worth a lecture on its Centennial. Ironically, by not allowing such lectures to take place, the administration did not prevent this history from emerging, but it instead piqued the interest of students like myself curious about the University's origins.

Much in the same way as Stanford, at Chicago its own Baptist roots have been largely forgotten. Though there is a physical memorial to the Divinity School in the form of the University Chapel, this monument points to an older college. How many people at the University of Chicago know that John D. Rockefeller founded the institution under Baptist auspices? How many understand how important Baptism was to the foundation of that school, if not its later decades? These are questions that seem open to discussion. A quick survey of the University of Chicago's official website reveals one line about Rockefeller's connection to the American Baptist Education Society. There is no discussion in this history about how strong this connection was, nor how it weakened over time.[235]

[234] Altenberg.
[235] University of Chicago History. Website. Accessed March 25, 2015. http://www.uchicago.edu/about/history/

Similarly, the Carnegie Mellon University website devotes one sentence to the complex history of the institution. It glosses over the Schools by applauding that "[w]hether they attended Carnegie Technical Schools (1900-1912), Carnegie Institute of Technology (1912-1967) or Carnegie Mellon University (1967-present), our alumni became the innovators of their generation who made a difference in the world."[236] There is little discussion of how the institution grew so massively and changed in scope and function from its start as a night school for the working class of Pittsburgh to a world-class research institution. At Carnegie Mellon today, there is not even a physical monument to this history.

These three institutions not only inaccurately portray their own founding histories, but they also miss an educational opportunity. If more students, professors, and administrators knew about Stanford's founding history, for instance, perhaps we could explore what cooperative association would look like in classes and residences in 2015. At a university that portrays itself as largely entrepreneurial, it is useful to know that its roots came from a much different set of ideas. Knowing this history, we could ask questions about whether its current entrepreneurialism is actually progress. At the very least, would not students have a richer experience if we knew something about the founding ideals of our school?

In rewriting the histories of these institutions, I learned that the agency of their founders was more limited than I anticipated. Great-man histories that dominate popular culture and our visitor centers ascribe too much agency to the founders of institutions. I likewise thought I would be writing the stories of three men. I wrongly believed that these businessmen could, with their immense wealth and political power, fashion a university in exactly the way they wanted. In

[236] Carneige Mellon University History and Traditions. Website. Accessed March 25, 2015. http://www.cmu.edu/about/history/index.shtml

reality, the histories of these institutions are much more complex. I realize now that to understand the founding of these institutions we have to look at how these founders related to the complex societal, administrative, and ideological pressures they faced. All three men had to balance competing demands from associates, university presidents, and social movements as a whole. These forces ranged from the personal—David Starr Jordan and Jane Stanford—to the societal—the decline of the Populist Party on a national scale. It turns out that creating new kinds of institutions is much more difficult than I had anticipated. Even when we think we are designing radical institutions, we may be re-creating the very hierarchical structures that lend themselves to bureaucracy and conservatism. The adherence to past ways of thinking and ways of doing is stronger than we may want to believe.

Are institutions of higher education inherently conservative places, in the sense that they tend to resemble the classical college? It seems that the inertia of classical higher education is strong, and that even radical attempts to transform schools can rest on existing models of bureaucracy and administration. This thesis cautions, but it also works to inspire critical reflection on the role of the individual in relation to the educational institution. In order to improve higher education, ideals of cooperative association need to continue to circulate. If the stories of these three people are representative, cooperative association can be a model for not just a student's education but also for how one can design and reform institutions such as Stanford, Chicago, and Carnegie Mellon.

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