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Edward J. Wickson's Quiet Voice for Change:  
The Origins of California's Secondary Agricultural Education Curriculum  
in the Early Twentieth Century.

A Dissertation submitted in partial satisfaction  
of the requirements for the degree of

Doctor of Philosophy

in

Education

by

Scott Charles Smith

June 2012

Dissertation Committee

Dr. Margaret Nash, Chairperson

Dr. Melanie Sperling

Dr. Begonia Echeverria

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2012

The Dissertation of Scott Charles Smith is approved:

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Committee Chairperson

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S, J, J, B, I, L forever

## ABSTRACT OF THE DISSERTATION

Edward J. Wickson's Quiet Voice for Change:  
The Origins of California's Secondary Agricultural Education Curriculum  
in the Early Twentieth Century.  
by

Scott Charles Smith

Doctor of Philosophy, Graduate School of Education  
University of California, Riverside, June 2012  
Dr. Margaret Nash, Chairperson

This study examines Edward J. Wickson's involvement in the origins of California's secondary agricultural education curriculum. Wickson held a variety of positions in the College of Agriculture at the University of California from 1876 through 1915. Additionally, he was the editor of the *Pacific Rural Press*, an influential publication popular in the agricultural community. During this same time period, agricultural education in California's secondary schools took root and spread rapidly. Within eleven years, agricultural education grew from non-existence in California's high schools to being included in nearly one-third of them.

The purpose of this study is to understand the socio-historical context of the tension between California's academic and agricultural communities and Wickson's involvement in mediating this conflict, while quietly advancing his educational agenda. Additionally, this study explores the various changes in the agricultural education curriculum within California's educational institutions prior to the passage of the Smith-Hughes Act of 1917. By investigating the origins of agricultural education within

California's secondary schools, this study offers a portrayal of the rural community during a period of tension and transition and an agricultural education community that struggled with self-identity during the early twentieth century. The data for this study includes a variety of primary sources, including personal correspondence, local and national newspaper articles, secondary agricultural education textbooks, and California's Agricultural Experiment Station bulletins.



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## **Introduction**

A career involving agriculture, in some form, was always a goal of mine. As a child, my family and I worked a small half acre garden, raising a variety of crops and citrus in Southern California. We frequently bartered with our neighbor for a few select types of produce, to add further variety to our diet. My father and grandfather told accounts of their youth growing up farming and my uncle's forty-acre raisin farm was extolled in family stories. In high school I joined the FFA and competed in a variety of state competitions in horticulture, eventually winning fourth place in the state and leading my team to my high school's first visit to the National FFA Landscape/Horticulture competition in Kansas City, Missouri. These experiences led me to believe in the viability of an agricultural career. However, I also had a desire to teach in secondary schools. Teaching agricultural education was the natural result of combining my passion for agriculture and education.

Even though my first teaching credential was in the field of agriculture, I quickly realized that I needed to transfer into the sciences to feed my young family. Finding a job within California's secondary school system is an extension of the principles of supply versus demand and the sheer number of opportunities. A comparison of educational employment websites such as Edjoin and California Agricultural Teachers' Association's job opportunities indicates that while agricultural teaching positions were, and currently are, in demand, the numbers of high schools offering agricultural programs is rather small. Science, on the other hand, offered a greater number of opportunities for employment. In order to graduate from high school within California, a student must take

both a physical and a life science course. This requirement necessitates that every secondary school have at least one or two science positions. Ten years ago, as a recent graduate of my credentialing program, I quickly realized the benefits of having both an agricultural and a biological background within the secondary school job market.

### **The Pariah Known as Agricultural Education**

As a newly hired biology teacher in 2000, I quickly realized agricultural education, along with other forms of vocational education, was often seen as a pariah within the educational community. Since agricultural education was not a core academic class, secondary instructors, even ones in closely related fields such as the biological sciences, typically viewed it with moderate disdain.<sup>1</sup> Coming from an agricultural background, I wondered why. When the goal was to teach students and to meet their various educational needs, why did teachers within closely aligned departments have such animosity toward their colleagues' subject matter?

At the university level, a large amount of curricular cross-over occurs within the agricultural and scientific disciplines. For example, various universities' plant science courses can be listed as either agricultural, botanical or biological courses. The same course, with the same basic catalog description, can be found within three different departments at various universities. Little did I understand, however, that, at the secondary school level, agricultural education was considered to be vocational rather than academic, and vocational education in general had a culture unto itself. This culture,

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<sup>1</sup> Brian K. Warnick, Gregory W. Thompson, and Edith S. Gummer, "Perceptions of Science Teachers Regarding the Integration of Science into the Agricultural Education Curriculum," *Journal of Agricultural Education* 45, no. 1 (2004).

though outwardly welcoming, was cautious of outsiders and fearful of being marginalized.<sup>2</sup> Two main factors contributed to the establishment, and reinforcement, of this culture within the collegiate and secondary agricultural education communities. The first factor was the organization of secondary educator preparation programs within various universities, and the second was the educational environment in which new secondary agriculture teachers typically found themselves once they were hired.

The establishment of agriculture teacher preparation programs is found within the Morrill Act of 1862. At first glance, the federal law established the land-grant college system. However, few individuals understand that a provision tucked into the bill created a divide within the educational community between agriculture teachers and those individuals who taught other subjects. The Morrill Act mandated the preparation of agricultural education teachers through agricultural colleges instead of normal schools or other institutions of higher learning. This effectively shifted the agricultural education community away from the pedagogical specialists within normal schools and housed them firmly as subject matter experts found at the land grant colleges. The separation of agricultural education and secondary teacher preparation programs continues to this day. Currently, once secondary school teachers demonstrate subject matter competence, their teacher training is conducted within the education department of their particular university. California's agriculture teachers, on the other hand, work with both the agriculture and education departments. Agriculture teachers are required to demonstrate competency in all four subspecialties of agricultural education, in addition to pedagogical

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<sup>2</sup> Theodore Lewis, "Rise and Decline of Job-Specific Vocationalism: Response to Judith Little and Susan Threatt," *Curriculum Inquiry* 25, no. 3 (1995).

approaches, taught in both the agricultural and education departments of their university. These subspecialties include the areas of animal science, plant and soil science, agricultural mechanics, and agricultural business management/economics. This dual training results in the issuance of two credentials, a single subject and a specialist credential, both within the field of agriculture. Of the thirty California public institutions currently approved by the California Department of Education to train secondary educators, only five have agriculture educator programs. The segregation of teacher training programs inherently causes unfamiliarity between agricultural education teachers and those who teach other subjects.

In addition to the separation of teacher training programs, agricultural education teachers enter into an educational environment designed for isolation from other members of the teaching staff. The Smith-Hughes Act of 1917 promoted the establishment of secondary vocational education and created a financial incentive for those programs. In order to receive funding, each state had to establish a vocational education school board completely separate from any previously established state school board. In addition, secondary schools had to segregate designated vocational students out of academic courses and into vocational ones.<sup>3</sup> The use of land is paramount to many agricultural courses, and thus agriculture buildings and classes are usually separated a distance away from other classrooms. Thus the isolation is often both physical and psychological among students and staff.

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<sup>3</sup> John Hillison, "Agricultural Teacher Education Preceding the Smith-Hughes Act," *Journal of the American Association of Teacher Educators in Agriculture* 28, no. 2 (1987).

In response to a variety of pressures upon agricultural education, such as accusations of not being academic enough, shrinking budgetary consideration, and falling student enrollment, many agricultural education leaders pushed for educational reforms during the end of the twentieth century.<sup>4</sup> Reformers focused on the integration of scientific theory and principles into the agricultural curriculum. By narrowing the divide between agriculture and science courses, the agricultural education community attempted to create a new academic identity within the educational community.<sup>5</sup>

## **Background**

I began my educational and academic career in the midst of these reforms. While attempting to ascertain possible reasons for agricultural education's disregard within some academic circles, I quickly realized that the agricultural education curriculum had not always been vocational.<sup>6</sup> This came as quite a surprise given that the Smith-Hughes Act was identified as the genesis of agricultural education in the agriculture credentialing program I participated in. Over the past thirty years, academic research has offered a clearer picture of the events, organizations, and individuals who gave rise to the

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<sup>4</sup> J. David McCracken, "A Profession in Need of Academicians," *The Journal of the American Association of Teacher Educators in Agriculture* 24, no. 1 (1983); John Hillison, "The Role of the Agricultural Education Teacher Educator Yesterday, Today, and Tomorrow," *Journal of Agricultural Education* 39, no. 1 (1998); Theodore Lewis, "Vocational Education as General Education," *Curriculum Inquiry*, 28, no. 3 (1998); D. M. Parr et al., "Designing Sustainable Agriculture Education: Academics' Suggestions for an Undergraduate Curriculum at a Land Grant University," *Agriculture and Human Values* 24, no. 4 (2007).

<sup>5</sup> Parr et al., "Designing Sustainable Agriculture Education: Academics' Suggestions for an Undergraduate Curriculum at a Land Grant University."

<sup>6</sup> Hillison, "Agricultural Teacher Education Preceding the Smith-Hughes Act."; Gary E. Moore, "The Involvement of Experiment Stations in Secondary Agricultural Education, 1887-1917," *Agricultural History* 62, no. 2 (1988); John Hillison, "The Origins of Agriscience: Or Where Did All That Scientific Agriculture Come From?," *Journal of Agricultural Education* 37, no. 4 (1996); John Hillison, "Agriculture in the Classroom: Early 1900s Style," *Journal of Agricultural Education* 39, no. 2 (1998).

vocational education movement in the early twentieth century.<sup>7</sup> Additional information also illuminated what pre-vocational agricultural education was like on the East Coast.<sup>8</sup> One question that has not been answered by the research, however, is how pre-vocational agricultural education in California began and who was involved in the curricular development.

In the narrow academic field of California's agricultural education, only two researchers, Joseph Dowdell and Sidney Sutherland, explored the implementation of the curriculum during the early twentieth century.<sup>9</sup> While Dowdell indicated that the agricultural education curriculum implemented prior to the passage of the Smith-Hughes Act of 1917 was not vocational, he offered little insight into the actual curriculum of those courses and who brought those programs to pass. This lack of specificity, on the part of Dowdell, is only one of the reasons for this work. Another reason is his brief mention of Edward J. Wickson, the Dean of Agriculture at the University of California from 1905-1912. Dowdell mentioned that Wickson was a supporter of agricultural education in California's public schools, but offered no evidence of this, nor did he expound on that statement. What specifically was Wickson's role in the development of agricultural education in California and why was it so important, that out of the entire agricultural education community, Dowdell specifically recognized Wickson?

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<sup>7</sup> Gary E. Moore, "The Secondary Vocational Agriculture Curriculum," *Journal of the American Association of Teacher Educators in Agriculture* 27, no. 3 (1986); Hillison, "Agriculture in the Classroom: Early 1900s Style."

<sup>8</sup> Hillison, "Agricultural Teacher Education Preceding the Smith-Hughes Act."; Gary E. Moore, "The Forgotten Leader in Agriculture Education: Rufus W. Stimson," *Journal of the American Association of Teacher Educators in Agriculture* 29, no. 3 (1988); Hillison, "The Origins of Agriscience: Or Where Did All That Scientific Agriculture Come From?."

<sup>9</sup> Joseph Aloysius Dowdell, "The Growth of Agriculture as a High-School Subject in California" (University of California, 1932).

Sutherland, on the other hand, never mentioned Wickson once. Instead, Sutherland took a broad approach to the first fifty years of California's agricultural education, acknowledging that the curriculum was fragmented, but not specifying how, and the general implementation of the curriculum. A gap in the historiography is created by Dowdell's brief recognition of Wickson, with no supporting evidence as to Wickson's contributions, and Sutherland's disregard for individual's involvement in agricultural education at the turn of the twentieth century. This study fills this gap, by exploring Wickson's involvement in California's secondary agricultural education.

### **Why Wickson**

Wickson's educational career at the University of California spanned nearly four decades from 1879-1914. He enjoyed collegial relationships within California's various agricultural, academic, scientific, and political communities. Near the end of Wickson's life, he wrote a book, *Rural California*, about California's natural resources and a history of California's rural population after the state's admission into the United States. In the book, Wickson cited his longevity within the state as follows:

California is so young that more than two-thirds of the whole span of her life as an American state have passed under the adult observation of the writer [Wickson]; and his knowledge of the preceding portion was chiefly derived from personal acquaintance with those who had participated as young men in its earliest enterprises.<sup>10</sup>

Though Wickson was not born in California, from the time of his arrival, and throughout the rest of his life, he was very active in both the educational, agricultural, and scientific

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<sup>10</sup> E. J. Wickson, *Rural California*, ed. L. H. Bailey, Rural State and Province Series (New York: The Macmillan Company, 1923), preface.



communities. His involvement in these communities allowed him to meet with, advise, and befriend many individuals who themselves became involved in a variety of California's social and political circles. Wickson was able to garner support and influence educational policy through these friendships.

The agricultural education community, in many ways, was conflicted, often pressured by various constituencies within the farming or the educational communities. Agricultural education utilized various subject matters, pedagogical approaches, and socio-political themes in California's classrooms and Wickson witnessed many of these changes. Holding various positions within the College of Agriculture from 1879 through 1912 and as the editor of the *Pacific Rural Press* from 1875 through 1922, Wickson had access to information not generally available to either the academic or the agricultural communities. This information was used, and at times manipulated, to advance his agenda. Utilizing Wickson as a lens allows for viewing both the educational and agricultural spheres of influence within California during the early twentieth century.

### **Historiography**

Vocational education has been called one of the most successful secondary education reforms ever in America's public school system.<sup>11</sup> Unfortunately, there is little consensus on just what vocational education is. Other concepts such as vocationalism (the belief that all school subjects should be taught and viewed through a vocational lens)<sup>12</sup>, technical education (the training of a vocational pathway from high school to

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<sup>11</sup> David B. Tyack, *The One Best System: A History of American Urban Education* (Cambridge: Harvard University Press, 1974).

<sup>12</sup> Harvey Kantor, "Work, Education, and Vocational Reform: The Ideological Origins of Vocational Education, 1890-1920," *American Journal of Education* 94, no. 4 (1986).

post-secondary vocational institutions)<sup>13</sup>, and industrial education (the course of study that taught particular job skills usually with the direct connection of a union or a business)<sup>14</sup> tended to also muddy the waters. The fluidity of all of these terms complicates research. However, the lack of a clear definition and differentiation is nothing new. Since the advent of vocational education in secondary schools, terms used to refer to this type of education have been malleable.<sup>15</sup>

From its inception, vocational education was defined more by the individual using the term than by a universal definition. The Snedden-Dewey debates, spanning 1914-1916 in various journals, offer an example of how personal views and opinions regarding vocational education can cloud the implementation of the curriculum. Educational reformer David Snedden pushed for changes he believed would allow students to acquire the skills needed by the ever-changing economy and shifting industries of the time. These skills would be career oriented and help students become productive members of society. John Dewey, another educational reformer, advocated a broader type of vocational education that included not only a set of distinct skills, but also helped an individual understand that they were an inseparable part of his society.<sup>16</sup> Dewey wanted individuals to know that they were not a cog in the industries' machinery, but rather a part of a larger,

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<sup>13</sup> Claudia Goldin, "The Human-Capital Century and American Leadership: Virtues of the Past," *The Journal of Economic History* 61, no. 2 (2001).

<sup>14</sup> Lewis, "Vocational Education as General Education."

<sup>15</sup> Lewis, "Rise and Decline of Job-Specific Vocationalism: Response to Judith Little and Susan Threatt."

<sup>16</sup> David Snedden, "Fundamental Distinctions Between Liberal and Vocational Education," *Journal of Proceedings and Addresses of the 52nd Annual Meeting on the National Education Association* (1914). and John Dewey, *Democracy and Education: An Introduction to the Philosophy of Education*, ed. Paul Monroe, Text-Book Series (New York, NY: The Macmillan Company, 1916). Both Snedden and Dewey utilize the term democracy as their basis for their radically different interpretations of what the purpose of education was. The term "democracy" was, and still is, a flexible term often used for political advantage.

more complicated society.<sup>17</sup> The Spring, 1977 edition of *Curriculum Inquiry* was dedicated to this debate, citing some similarities between Snedden-Dewey and the debates surrounding career education in the 1970s as justification for reviewing both Snedden and Dewey. In addition to including the debate in its entirety, the journal attempted to explain the participant's perspectives and backgrounds. Educational historian Walter Drost not only reintroduced Snedden to the educational community, but also illuminated who Snedden was as an educator, delving into Snedden's reasoning for vocational education.

Drost took a different approach toward Dewey, instead analyzing Dewey's main objection to Snedden's vision of vocational education.<sup>18</sup> Twenty-three years later, educational historian David Labaree asked why Snedden's version of the curriculum was successful instead of Dewey's. From the onset, Labaree's bias against Snedden is obvious, calling Dewey "America's greatest philosopher," while calling Snedden "utterly forgettable" and his ideas "educationally narrow" and "quaint."<sup>19</sup> Beyond Labaree's favoritism toward Dewey, the author does introduce a sociological reason for Snedden's success, the recognition that Snedden had a message that coincided with the increased influence of the educational administrative progressives and the efficiency theory that

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<sup>17</sup> Lewis, "Rise and Decline of Job-Specific Vocationalism: Response to Judith Little and Susan Threatt."

<sup>18</sup> Walter H. Drost, "Social Efficiency Reexamined: The Dewey-Snedden Controversy " *Curriculum Inquiry* 7, no. 1 (1977).

<sup>19</sup> David F. Labaree, "The Victory of David Snedden and Social Efficiency in the Reform of American Education," in *Pragmatism and Modernities*, ed. Daniel Tröhler, Thomas Schlag, and Fritz Osterwalder (Rotterdam: Sense Publishers, 2010)., p. 1 & 2 respectively.

attempted to identify and eliminate perceived waste within all areas of society and the economy.<sup>20</sup>

From 1977 to the late 1980s, vocational education disappeared from educational history. Educational historian Harvey Kantor, in 1986, explored the origins of vocational education in America. In his landmark monograph, Kantor used the terms vocational education and vocationalism as synonyms, thereby cementing the two terms together, while historically, in the early twentieth century, they had two different definitions.<sup>21</sup> Educational historians Robert H. Beck, George H. Copa, and Virginia H. Pease described vocational education as a set of technical skills.<sup>22</sup> Economist Claudia Goldin disagreed and interpreted vocational education as a set of general courses designed to teach a variety of job skills that could be used in a multitude of careers. These skills included typing and bookkeeping.<sup>23</sup> Vocational educator Theodore Lewis attempted to redefine vocational education to encompass both the skills required for a job and, simultaneously, education about work. Depending on the situation, vocational education would teach the skills needed for a particular industry and yet, in another setting, teach students about what work was like outside of secondary schooling.<sup>24</sup>

In this morass of definitions, the only explanation of vocational education these papers agreed on was that vocational education was not a liberal education. In fact,

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<sup>20</sup> Daniel T. Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age* (Cambridge, MA.: Harvard University Press, 2000).

<sup>21</sup> Kantor, "Work, Education, and Vocational Reform: The Ideological Origins of Vocational Education, 1890-1920."

<sup>22</sup> Robert H. Beck, George H. Copa, and Virginia H. Pease, "An Uncommon Education: Interaction and Innovation," ed. U.S. Department of Education (Berkeley, CA: National Center for Research in Vocational Education, 1991).

<sup>23</sup> Goldin, "The Human-Capital Century and American Leadership: Virtues of the Past."

<sup>24</sup> Lewis, "Vocational Education as General Education."

Theodore Lewis called vocationalism, which he used synonymously with vocational education, tantamount to the antithesis of a liberal education. Even historically, vocational education and liberal education were perceived as being incompatible and led some educators, including Snedden, to advocate for two separate school systems, one based on vocational training while the other prepared youth for post-secondary schooling.<sup>25</sup>

This leads to the question of vocational education's purpose within the public schools. As education historian Harvey Kantor argued, educational researchers fall into two broad camps. The first group views vocational education in a positive light, as a means to help prevent students of the lower socio-economic class from acquiring dead-end and low paying jobs.<sup>26</sup> These leaders and researchers promoted vocational education during the early twentieth century and desired to bring about a fundamental shift in public schooling by doing so. Other researchers were critical of vocational education for a variety of reasons. These reasons included the implementation of a tracking system for lower socio-economic students and the maintenance of those students in a stagnant social setting.<sup>27</sup> This group of researchers can be further broken down into two subgroups, first being contemporaries of David Snedden and Charles Prosser, such as John Dewey and William Bagley, while the second mainly being composed of late twentieth and early

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<sup>25</sup> Snedden, "Fundamental Distinctions Between Liberal and Vocational Education."; Charles A. Prosser and Charles R. Allen, *Vocational Education in a Democracy*, ed. C.A. Prosser, The Century Vocational Series (New York, NY: The Century Co., 1925).

<sup>26</sup> Kantor, "Work, Education, and Vocational Reform: The Ideological Origins of Vocational Education, 1890-1920."

<sup>27</sup> Ibid.

twenty-first century researchers, such as educational sociologists Judith Little and Susan Threatt.<sup>28</sup>

Recent attempts to expand the vocational education historiography permit a better understanding of the educational context that Snedden and Dewey found themselves in. Most vocational education historians fall within two camps. The first group explores the development of vocational education through the lens of national advocates.<sup>29</sup> While Snedden and Dewey are the main focus of many research papers, additional participants in the vocational education conversation are slowly being recognized.<sup>30</sup> Michael Martin's focus on Eugene Davenport and his desire for vocational education that blended Snedden and Dewey's implementation ideas is an example of how some of the historic gaps are being filled in.<sup>31</sup> The second group of education historians focus on the philosophical foundations of various movements during the turn of the twentieth century, or on the national organizations that promoted vocational education. Herbert Kliebard and Michael Schiro explored the competing educational philosophies held by educators during the turn of the twentieth century.<sup>32</sup> In addition to educational philosophies vying

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<sup>28</sup> William C. Bagley, *Craftsmanship in Teaching* (New York, New York: The Macmillan Company, 1911); John Dewey, "On Industrial Education," *Curriculum Inquiry* 7, no. 1 (1977); Judith Warren Little and Susan M. Threatt, "Work on the Margins: Compromises of Purpose and Content in Secondary Schools," *Curriculum Inquiry* 24, no. 3 (1994).

<sup>29</sup> Drost, "Social Efficiency Reexamined: The Dewey-Snedden Controversy "; Marcia Braundy, "Dewey's Technological Literacy: Past, Present, and Future," *Journal of Industrial Education* 41, no. 2 (2004); Labaree, "The Victory of David Snedden and Social Efficiency in the Reform of American Education."

<sup>30</sup> John Hillison, "The Coalition That Supported the Smith-Hughes Act or a Case for Strange Bedfellows," *Journal of Vocational and Technical Education* 11, no. 2 (1995); Michael Knoll, "From Kid to Dewey: the Origin and Meaning of 'Social Efficiency'," *Journal of Curriculum Studies* 41, no. 3 (2009); Michael J. Martin, "Eugene Davenport's Education for Efficiency," *Journal of Agricultural Education* 51, no. 4 (2010).

<sup>31</sup> Martin, "Eugene Davenport's Education for Efficiency."

<sup>32</sup> Herbert M. Kliebard, *Forging the American Curriculum: Essays in Curriculum History and Theory* (New York, New York: Routledge, 1992); Herbert M. Kliebard, *The Struggle for the American Curriculum, 1893-1958*, 3rd ed. (New York, NY: Routledge 2004); Michael Stephen Schiro,

for support, national organizations entered the political discussions surrounding vocational education. Kantor and Kliebard both explored the contributions made by the National Association of Manufacturers and its contentious relationship with the American Federation of Labor concerning vocational education during the first few decades of the twentieth century.<sup>33</sup>

As stated before, vocational education, at its core, is a secondary educational reform. In order to illuminate the educational environment that Wickson faced, it will be necessary to discuss the educational reform movements that occurred during the turn of the twentieth century. Instead of reviewing the multitude of attempted school reforms in their entirety, I focus on the reasoning why the reforms were attempted and how they were designed to change the public school system. This offers a more holistic contextualization of Wickson's educational environment, rather than focusing on any particular reforms that may have come forward during his tenure as the Dean of the College of Agriculture at the University of California.

While America had social and economic stratifications, the public schools, during the turn of the twentieth century, were being built into organizations that were supposed to set themselves apart from these divisions. As such, attempts were made to have school held above the political fray and for them to become independent of any particular group within society. This attempt could not be successful according to political scientist Paul Peterson. He argued the main thrust for school change has always been about political

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*Curriculum Theory: Conflicting Visions and Enduring Concerns* (Thousand Oaks, California: Sage Publications, Inc, 2008).

<sup>33</sup> Harvey Kantor, *Learning to Earn: Reform in California, 1880-1930* (Madison, WI: The University of Wisconsin Press, 1988); Kliebard, *The Struggle for the American Curriculum, 1893-1958*.

power. There have been many reforms, such as changing the school's organizational structure, the curriculum, or funding, but the core impetus for the reform was an exercise in political power. While it is true that schools typically responded to the groups with the most political power, conflicts over policy were not always predictable.<sup>34</sup>

While educational reforms are inherently political in nature, the issues surrounding those reforms go deeper, and are more basic, than politics. Educational economist W. Norton Grubb and historian Marvin Lazerson argued that every attempt at educational reform, in the last one hundred years, has been an attempt to resolve social problems through the education of the youth. Grubb and Lazerson termed this philosophy the education gospel.<sup>35</sup> This concept is based on the belief that training children is far easier than changing grown adults set in their ways. Grubb and Lazerson argued that during the past century, this philosophy has been carried out to its extreme, resting the ills of society, specifically American society, at the feet of the educational system. These problems include economic instability, socio-economic inequities, poverty, deterioration of the family unit, the disenchantment of the youth, social volatility, and crime. Instead of solving these issues, the school system has become strained and disoriented with multiple conflicting roles and purposes.<sup>36</sup>

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<sup>34</sup> Paul E. Peterson, *The Politics of School Reform, 1870-1940* (Chicago, IL.: The University of Chicago Press, 1985). In addition to Peterson, Diane Ravitch, *The Schools We Deserve: Reflections on the Educational Crisis of Our Times* (New York, NY.: Basic Books, Inc., 1985); Anthony M. Roselli, *Dos & Don'ts of Education Reform: Toward a Radical Remedy for Educational Failure* (New York, NY.: Peter Lang Publishing, Inc., 2005); James Andrew LaSpina, *California in a Time of Excellence: School Reform at the Crossroads of the American Dream* (Albany, NY.: State University of New York Press, 2009) offer additional insights into the political maneuverings used to change the public schools of America.

<sup>35</sup> W. Norton Grubb and Marvin Lazerson, "The Education Gospel and the Role of Vocationalism in American Education," *American Journal of Education* 111, no. 3 (2005).

<sup>36</sup> *Ibid.*



The concept of the education gospel is not exclusively Grubb and Lazerson's. Educational historians David Tyack and Larry Cuban (2001) concur that there is a deeply ingrained belief in the American people that better schools make a better society.<sup>37</sup> During the 1960s and 1970s, educational researchers shifted their research focus to encompass more students, especially those who had been previously marginalized by various school systems and/or programs. This new focus included students who were either socio-economically disadvantaged or racial minorities and helped create an overarching attempt to lift those students up into a more economically stable and better social setting.<sup>38</sup>

As ennobling as improving society through the school system may seem, recent literature has questioned why educational reforms have not solved many of society's problems. Idealistically, public schools educate all who arrive at its doorways, even though individuals and groups frequently have conflicting beliefs and goals. This diversity of beliefs gives rise to a variety of rationales for schools, and since schools cannot be everything to everyone, they are condemned to failure.<sup>39</sup> Educational researcher Robert Franciosi agrees and argues that the basis for American school policy, from its inception, has been the story of repeated waves of reformers, each lamenting the present state of schools and offering a list of measures that would bring improvement.<sup>40</sup>

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<sup>37</sup> David Tyack and Larry Cuban, "Progress or Regress?," in *The Jossey-Bass Reader on School Reform, The Jossey-Bass Education Series* (San Francisco, CA: Jossey-Bass, 2001).

<sup>38</sup> Diane Ravitch, "Reformers, Radicals, and Romantics," in *The Jossey-Bass Reader on School Reform, The Jossey-Bass Education Series* (San Francisco, CA: Jossey-Bass, 2001).

<sup>39</sup> Vivian T. Thayer, *Formative Ideas in American Education: From the Colonial Period to the Present* (New York, NY: Dodd, Mead & Company, Inc., 1965).

<sup>40</sup> Robert J. Franciosi, *The Rise and Fall of American Public Schools: The Political Economy of Public Education in the Twentieth Century* (Westport, CT: Praeger Publishers, 2004).

The educational reformers have frequently utilized a variety of methods to garner support for their ideas, often citing the children as a motivating factor, even to the point of manufacturing the crisis to meet their ends.<sup>41</sup> Forty years after educational historian Vivian T. Thayer initially made his arguments, public policy expert David Kirp contended that the public's expectations of America's schools have only increased the pressure to be a "modern-day Noah's Ark." The ark is to be an institution like no other on the face of the earth, one that is "nonsexist, nonracist and nonclassist," a utopian-type that is open for all to learn and enjoy learning. Kirp concludes that with these expectations public schools are doomed to failure.<sup>42</sup>

Educational reform has even been cited as the reason America's public educational system has failed. Ravitch has argued that past educational reforms have diluted the curriculum students must take, in an effort to appease social reformers.<sup>43</sup> Educational reform, especially curricular reform, in the name of a social benefit, often antagonizes various school constituents, thus either driving them away from public schools (specifically non-charter schools) or adding to the clamor for educational reform.<sup>44</sup> Educational historian James Nehring argued it is not the educational reforms themselves that have caused so much turmoil in public schools, but rather the philosophies and methods utilized by those who seek reform that has caused the problems. Building upon educational psychologists David Berlinger and Bruce Biddle,

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<sup>41</sup>David C. Berlinger and Bruce J. Biddle, *The Manufactured Crisis* (Reading, MA: Perseus Books, 1995).

<sup>42</sup>David L. Kirp, "Changing Conceptions of Educational Equity," in *Learning From the Past*, ed. Diane Ravitch and Maris A. Vinovskis (Baltimore, MD: The John Hopkins University Press, 1995), 110.

<sup>43</sup>Diane Ravitch, *Left Back: A Century of Failed School Reforms* (New York, NY: Simon and Schuster, 2000).

<sup>44</sup>Myron Lieberman, *Public Education: An Autopsy* (Cambridge, MA Harvard University Press, 1993).

Nehring goes as far as to state that many reformers have created a conspiracy, though neither cohesive nor systematic, against public schools.<sup>45</sup>

Educational historian Herbert Kliebard merged the areas of vocational education and school reform historiographies.<sup>46</sup> In the first edition of *The Struggle for the American Curriculum*, published in 1987, Kliebard outlined four major educational philosophies within America's public schooling at the turn of the twentieth century and explored how those philosophies struggled to gain influence within the educational field.<sup>47</sup> Building upon this work, Kliebard further explored vocational education and school reform by tracing the origins of vocational education and demonstrating how it transformed into vocationalism, the belief that one of the major purposes of public schools was to prepare students for a job. Finally, Kliebard discussed, in his view, the lamentable consequences for accepting this educational philosophy so wholeheartedly within America's public schools.<sup>48</sup> Kliebard's various writings about vocational education has established him as a prominent researcher in the field.

After reviewing the relevant works in vocational education and educational reform, it is necessary to include a review of the literature regarding California's educational history. When California's constitution was adopted, education was specifically mentioned as a vital part of a free society.<sup>49</sup> However, very little has been

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<sup>45</sup>James Nehring, *The Practice of School Reform: Lessons from Two Centuries* (Albany, NY: State University of New York Press, 2009).

<sup>46</sup> Herbert M. Kliebard, *Schooled to Work: Vocationalism and the American Curriculum, 1876-1946* (New York: Teachers College Press, 1999); Kliebard, *The Struggle for the American Curriculum, 1893-1958*.

<sup>47</sup> Kliebard, *The Struggle for the American Curriculum, 1893-1958*.

<sup>48</sup> Kliebard, *Schooled to Work: Vocationalism and the American Curriculum, 1876-1946*.

<sup>49</sup> California Constitution, Art. 9, Sec 1.

written about California's educational history until recently. For the better part of the twentieth century, California's educational history was often ignored by scholars when writing about California.

The first serious scholarly attempt at California's educational history was written in 1937 by law professor William Ferrier. He took a broad approach to the development of California's educational system, with special attention to the early years of California (1840s-1870s). Ferrier's emphasis explains why he dedicated so little space to secondary schools, mainly due to the lack of such institutions. However, he did establish the genesis and development of institutions of higher learning.<sup>50</sup>

Roy Cloud, though neither a historian nor an academic researcher, had unique access to a variety of records as State Executive Secretary of the California Teachers Association during the late 1920s through the late 1940s. Cloud built upon Ferrier by including details about individuals and organizations who helped develop California's educational system up until the middle of the twentieth century. Instead of focusing on the development and growth of the California Teachers' Association, Cloud took a two-pronged approach, covering the history of the California Teachers' Association and the men who held the office of the State Superintendent of Public Instruction. Cloud demonstrated a balanced approach to these two groups, who had differing opinions on such topics as teacher tenure and various legislative education amendments. Cloud fits nicely with Ferrier, giving a different perspective to the growth of California's education

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<sup>50</sup> William Warren Ferrier, *Ninety Years of Education in California: 1849-1936* (Oakland, CA.: West Coast Printing Company, 1937).

system by tying that development to the individuals who helped initiate it or carry it forward.<sup>51</sup>

An attempt to expand California's educational history was made by Charles Falk in 1968. Falk identified the works of both Ferrier and Cloud as instrumental in understanding the foundation of California's educational history. Instead of writing a history, per se, Falk wrote a textbook for future teachers. Special emphasis was placed on the legal, organizational and fiscal foundations of California's educational system. After this groundwork was established, Falk tackled curriculum and instruction. Out of nearly thirty pages, including a section he termed "The Development Period (1910-1930)," Falk made no mention of agricultural education, and only mentioned vocational educational in a mere two paragraphs. Instead, he discussed the growth of the secondary curriculum in response to the recommendations by the Committee of Secondary Social Studies (Committee of Ten), the subsequent early twentieth century growth of secondary schools during the early twentieth century, and the Cardinal Principles of Secondary Education Report of 1918. These factors led to significant changes to the secondary curriculum, including its standardization and the idea that education should aid in societal and individual efficiency.<sup>52</sup>

The end of the twentieth century brought a new perspective to early twentieth-century California educational history. Instead of broad overviews of history, researchers took a more concentrated approach in specific areas. They focused on such topics as

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<sup>51</sup> Roy Walter Cloud, *Education in California: Leaders, Organizations, and Accomplishments of the First Hundred Years*. (Stanford, CA: Stanford University Press 1952).

<sup>52</sup> Charles John Falk, *The Development and Organization of Education in California* (New York, NY: Harcourt, Brace & World, 1968).

ethnicity, geographic location, and gender. Early in 1980, educational historian Irving Hendrick offered a brief acknowledgement of the discrimination that Asian and Asian-American students faced during the turn of that century in San Francisco.<sup>53</sup> As the years continued additional researchers began to explore how California's schools treated minority students. Educational researcher Juan Carlos Gonzalez and American Studies professor Stephanie Lewthwaite identified some of the troubles that many Mexican-American students and parents faced in California's educational system, while Jana Noel brought to light the fight Jeremiah Sanderson had while trying to increase the educational opportunities for African American students in the Delta region of California.<sup>54</sup> While Noel's piece is earlier than my timeline, it does offer evidence of how various individuals had to fight for an education in California's school system. Researchers such as Kathleen Adams and Joseph Watras investigated how the surrounding communities shaped and developed two vastly different schools.<sup>55</sup> These investigations illustrated how different schools met the needs of the students and area in which the schools were situated. Finally, an insight into gender issues was given by Kathleen Weiler when she utilized several case studies of California's rural female teachers. She discussed the socio-cultural construction of gender and identified the importance of being aware of subjectivity and

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<sup>53</sup> Irving G. Hendrick, *California Education: A Brief History*, ed. Jr. Norris Hundley and John A. Schutz, Golden State Series (San Francisco, CA.: Boyd & Fraser Publishing Company, 1980).

<sup>54</sup> Jana Noel, "Jeremiah B. Sanderson: Educator and Organizer for the Rights of "Colored Citizens" in Early California," *The Journal of Negro Education* 74, no. 2 (2005); Juan Carlos Gonzalez, "Damning Historical Visual Archives: Deficit Photographing of Mexicans and the Schooling Process," *American Educational History Journal* 35, no. 2 (2008); Stephanie Lewthwaite, *Race, Place, and Reform in Mexican Los Angeles : A Transnational Perspective, 1890-1940* (Tucson, AZ: University of Arizona Press, 2009).

<sup>55</sup> Joseph Watras, "Profit-Making as Character Education: Social Education in the Moraine Park School and Antioch College, 1916-1933," *Theory and Research in Social Education* 37, no. 4 (2009); Kathleen Anne Adams, *Kindergarten and Community: The Silver Street Kindergarten of San Francisco, 1878-1906* (Ann Arbor, MI: UMI Dissertation Services, 2010).

bias within the historical evidence of this time period and subject.<sup>56</sup> These recent perspectives provide a more accurate portrait of California at the turn of the twentieth century and help not only elucidate, but also enrich the historiography of its educational system.

Kantor appears to be the only researcher who has attempted to investigate the convergence of vocational education, school reform, and California's educational history.<sup>57</sup> While retracing Kliebard's national origins of vocational education, Kantor was able to identify some of California's unique educational settings to better contextualize the growth of the curriculum at the beginning of the twentieth century. By exploring the state specifically, Kantor was also able to demonstrate how the pressure for vocational education came from within California's own educational community, in addition to outside pressures. Surprisingly, Kantor does not once mention Wickson and agricultural education is only mentioned three times, mainly in reference to the Smith-Hughes Act of 1917. This act brought matching federal financial assistance into secondary schools to assist in the establishment of vocational education programs. This is in stark contrast to how often commercial education (twenty times), home economics (sixteen times), and industrial education (twenty-four times) are mentioned. While Kantor, and Kliebard, discussed the origins of, and rationale behind, commercial education, home economics, and industrial education prior to the passage of the Smith-Hughes Act, both researchers ignored the existence of agricultural education prior to

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<sup>56</sup> Kathleen Weiler, *Country Schoolwomen: Teaching in Rural California, 1850-1950* (Stanford, CA: Stanford University Press, 1998).

<sup>57</sup> Kantor, *Learning to Earn: Reform in California, 1880-1930*.

1917. They both acknowledged the National Association of Manufacturers and National Society for the Promotion of Industrial Education's desire to add agriculture to vocational education. However, both Kliebard, and by extension Kantor, created a historiographical gap within the vocational education historiography by not engaging in the agricultural education history started by Dowdell and Sutherland. It is primarily this work I build upon by filling in the gaps created by Kliebard and Kantor's oversight of Wickson, specifically, and agricultural education in general, especially prior to the Smith-Hughes Act.

### **Terminology**

Before a meaningful analysis of the events surrounding California's agricultural development and implementation can occur, it is important to establish some common definitions. Vast differences within agricultural education pedagogy existed during the early twentieth century. Terms such as scientific agriculture, practical agriculture, technical agriculture, and vocational agriculture arose from very diverse teaching methods. Though one of the main objectives of chapter four will be to explore these terms in detail, it is important to create a working definition to better understand agricultural education within California during the early twentieth century. As educational conversations surrounding agriculture evolved, these pedagogic terms became increasingly fluid. Generally speaking, scientific agriculture was defined as a curriculum based on scientific theories. Teachers of practical agricultural education attempted to teach the skills needed on a farm in an educational environment. However, science still had a minor role within the practical agricultural curriculum. Practitioners of



technical agriculture combined scientific theory with hands-on experiences, thus implementing a curriculum that drew on portions of scientific and practical agriculture. Finally, vocational education was an extreme form of practical agricultural education, with a strong emphasis on hands-on activities and little integration of scientific theory.

The fluidity of pedagogic terms utilized in the educational conversation gives insight into an educational community in transition and also reflects upon the society that supported those conversations. The second industrial revolution, from 1860 through 1917, brought about great changes that altered the relationships people had with their families, jobs, and communities. As a consequence, many Americans moved into urban areas to take advantage of the new economic opportunities and technological advancements. The demographic shift away from rural communities and into urban centers did not go unnoticed. Community leaders and social scientists attempted to rally support for a variety of issues that came as a consequence of a rapidly growing metropolitan population and depopulated rural areas. These issues led to a larger part of American society participating in reform movements in an attempt to rectify perceived problems. Some of these issues included the agrarian movement and educational reform efforts, both of which played prominent roles in the creation and development of California's secondary agricultural education curriculum.

### **Research Questions**

In an effort to understand the factors that contributed to the creation of California's secondary agricultural education curriculum, this study is centered on the following research questions:

- What was Wickson's role within California's agricultural and academic communities?
- How did California's agricultural communities contribute to the transformation of agricultural education in the state's educational institutions?
- How does understanding Wickson's educational philosophy broaden our understanding of the conversation surrounding vocational education at the turn of the twentieth century?
- What was California's secondary agricultural education curriculum before the passage of the Smith-Hughes Act of 1917?

Answering these questions add a significant layer of context to the creation, and development, of California's secondary agricultural education. While agricultural education in California did not remain independent of vocational education for long, the creation of the curriculum prior to the federal financial incentive reflects the significance California's populace placed upon agricultural education.

### **Significance of Study**

This study expands the existing historiography of vocational education with regards to secondary agricultural education, with special emphasis on how the curriculum was originally promoted, and implemented, in California during the turn of the twentieth century. The academic field of vocational education research largely ignores secondary agricultural education. This study expands the historiography by resituating this curriculum within vocational education. The current historiography places the birth of agricultural education in conjunction with vocational education's creation. However,

both Dowdell and Sutherland recognized the existence of some vocational agricultural education courses in California prior to the passage of the Smith-Hughes Act. Though Dowdell briefly mentioned Wickson and Anderson, neither he nor Sutherland detailed anyone's contributions to the agricultural education community. Furthermore, the contributions made by the agricultural community, with regard to the transformation of agricultural education in California, have never been examined. This expands the California educational historiography by offering a completely new vantage point to the academic field.

Modern vocational education researchers do not acknowledge either agricultural education's existence before 1917, nor do they recognize the events and individuals involved in agricultural education's creation during the early twentieth century. By treating vocational education as having single origin, Kliebard and Kantor take agricultural education's beginnings within California for granted and thereby open an academic gap within the historiography.

The gap in vocational education research is further perpetuated by the continued lack of engagement between the vocational and agricultural education researchers. By failing to engage each other in an academic conversation, the community members are unable to build upon each other's work. This study recognizes that many of the events which contributed to the creation of vocational education, generally, also had a strong influence on agricultural education, specifically. An example can be found in the social efficiency component of the agrarian movement, which led to a pedagogical shift away from scientific agricultural education, and the educational reform movement, resulting in

the integration of vocational education courses into many of America's secondary schools.

In addition to challenging the current historiography regarding secondary agricultural education's genesis within California, I also expand the conversation surrounding the implementation of vocational education. The historiography surrounding vocational education's implementation has been reduced into a polar argument between Snedden's view that vocational education should teach strictly the skills needed to gain employment through rote memorization and Dewey's belief that vocational education needed to incorporate social and cultural components to help individuals understand their role within the industrial and occupational community. The reduction of the educational dialogue surrounding vocational education into dualistic viewpoints diminished the contributions made by those educators who did not hold strictly to either Snedden or Dewey's beliefs. When placed within the continuum of vocational education implementation, Wickson's voice demonstrates a pedagogical approach that attempted to bridge vocational education with scientific agricultural education, a concept not addressed by either Snedden or Dewey.

Additionally, the exploration of secondary agricultural education formation prior to the Smith-Hughes Act indicates different motivating factors for those involved in the curriculum's creation. According to Dowdell, the expansion of vocational agricultural education in California after 1917 is directly tied to the financial benefits the Smith-Hughes Act offered schools.<sup>58</sup> California's secondary agricultural education, however,

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<sup>58</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."

developed more than a decade before the federal law's enactment and without a financial boon for schools. Instead, the local agricultural communities were driven by a different reason. Many farmers believed that schools actively persuaded students away from a farm life or only taught the scientific principles of agriculture without taking into consideration the practical application of such information. These farmers desired a curriculum that included the promotion of rural living, engendered agrarian themes, and contributed to an educational system that recognized agriculture's contribution to society.

Finally, my study introduces the ground breaking work by individuals such as Edward J. Wickson, Eugene W. Hilgard, the first Dean of the College of Agriculture at the University of California and Leroy A. Anderson, the first superintendent of the University Farm. These three individuals laid the groundwork for the College of Agriculture's transition into the twentieth century, the establishment of scientific agricultural education curriculum within the College of Agriculture, and the creation of a university farm and a secondary agricultural education sponsored by the University of California. Wickson, Hilgard, and Anderson transformed California's agricultural education, both at the university and secondary levels, and are unknown within the academic community. In addition to recognizing all three individual's contributions to the agricultural education community, insights into their interpersonal relationships and political maneuverings offer a glimpse into the hidden workings of the University of California administration at the turn of the twentieth century.

### **Statement Regarding Primary and Secondary Sources**

The primary question of my study, which establishes Wickson's role within California's academic and agricultural communities, requires the analysis of primary sources generated by Wickson and many of his associates. Wickson's papers are located at both the Bancroft Library of the University of California in Berkeley and also the Shields Library of the University of California in Davis. These documents offer insight into Wickson's personal and professional views relating to both his career and other issues that provide context to my study. Additionally, individuals such as Eugene Hilgard, Wickson's predecessor as Dean of the College of Agriculture, and Benjamin Wheeler, President of the University of California, both played crucial roles within the academic climate Wickson worked within. Correspondence and other papers related to my study, written by Hilgard and Wheeler, are found in the Office of the President Records and the Records of the Regents of the University of California, both of which are located in Bancroft Library of the University of California in Berkeley. Finally, Governor George Pardee's papers offer insight into Wickson's ability to garner political support and influence during the years just prior to, and after, his selection as Acting Dean of the College of Agriculture. All four of these archival collections not only offer opportunities to view official University of California business during the turn of the twentieth century, but also give clarity to the personal relationships all four men had with each other and establish context to their various actions.

In addition to using the above listed archival collections, California Agricultural Experiment Station bulletins and circulars and agricultural education textbooks give a

voice to the agricultural education community during its formative years. The bulletins and circulars, written by College of Agriculture personnel, expose institutional preferences and rationale with regards to the fledgling secondary agricultural education community. The secondary agricultural education textbooks reflect the educational philosophies of the authors, their desired pedagogical approaches for agricultural education, and, many times, their vision of agricultural education's future.

Finally, the use of newspaper articles provides invaluable context into California's social and political setting during the turn of the twentieth century. From the agri-centric focus of the *Pacific Rural Press* to *San Francisco Chronicle*'s broader appeal, the newspapers offer detailed accounts about events, along with individuals' reactions to those events. The close proximity of some newspapers' locations, such as the *San Francisco Chronicle* and the *San Francisco Call*, offer competing interpretations of local events, thereby providing a more complete picture of a particular moment in time.

The failure of the vocational education historians to fully engage, and integrate, the history of agricultural education has left an incomplete historiography. However, this research partially creates local, regional, and national contextual frameworks to situate the events outlined in this study. These outlines establish the reasoning behind, and motivation of, the various participants within my research.

### **Organization of the Dissertation**

Each chapter is organized thematically, highlighting important historical events that pertain to the topic at hand. Though agricultural education did not appear in

California's secondary schools until 1905, some of the chapters begin much earlier to contextualize the events that contributed to the curriculum's development. The implementation of the Smith-Hughes Act of 1917 offers a natural ending point to this study, as this law ushered vocational education into California's high schools, replacing the preexisting agricultural education curriculum.

Chapter I: "Edward J. Wickson" explores the tension between agricultural and academic communities, how this tension came about, and how this tension manifested itself during the turn of the twentieth century. The very creation of the University of California, through the merging of the Agricultural, Mining, and Mechanical Arts College with the College of California in 1868, caused a sense of loss among many farmers. Tension continued to mount as the College of Agriculture's curriculum became more scientifically-based and less hands-on experiential. Wickson was a voice of moderation at a time when polarizing rhetoric dominated the conversations between the agricultural and academic communities. As a consequence, these two communities had different opinions as to Wickson's expertise, a conflict that would plague his career at the University of California.

Chapter II: "Agrarianism in California" investigates California's own agrarian movement during the early twentieth century. The conflicted nature of the agrarian movement, with its competing goals and philosophies, allowed many individuals and organizations in California to adopt various components of the movement as their own. Without a unifying voice to coalesce behind, the movement was unable to effectively bring about social reform. However, the agrarian movement did plant the seeds of



reform, which when combined with the context of educational reform at the turn of the twentieth century, facilitated agricultural education reform in California's educational institutions. The disunity of the agrarian movement, especially when taken in conjunction with the increased political clout of the vocational education movement in the 1910s, also contributed to the rapid decline of scientific and technical agricultural education in California's secondary schools during the second decade of the twentieth century.

Chapter III: "Educational Reform in California" examines the educational field at the turn of the twentieth century and how various events contributed to opportunities for educational reform. These reforms, combined by a vocal rural populace who utilized various agrarian themes, created an environment that facilitated agricultural education reform in California's educational institutions. Some of these changes included the formation of the University of California's farm in Davisville and the implementation of agricultural education in secondary schools. The educational reform movements, along with Wickson's educational philosophy regarding agriculture in the classroom, offer insight into California's early twentieth century educational environment.

Chapter IV: "California's Secondary School Agricultural Education" analyzes several issues within California's agricultural education community. The great diversity of agricultural education components, a pedagogy in transition from uniformity to a range of techniques, and the intrusion of social and political themes within the curriculum itself, reflected a relatively new secondary agricultural education community struggling for self-identity. These issues evolved during the late nineteenth and early twentieth centuries as the agricultural education community progressed from initially being ignored by the

majority in the educational community to acceptance and membership within broader educational spheres.

Finally, in the conclusion, I discuss the significance of studying California's agricultural education history. Not only does this research expand the historiography surrounding California's educational system, but also the historiographies of vocational education and educational reform. I also summarize the research findings and recommend further areas of research. Agricultural education in California has a history that is, as of yet, virtually unexplored.

## Chapter I: Edward J. Wickson

“The art and the science of agriculture have a place in a university of higher learning when both are ably handled for instructional purposes.”<sup>1</sup>

As Dean of the College of Agriculture at the University of California, Edward J. Wickson embodied the tension between the academic community within the university and the agricultural communities throughout California at the turn of the twentieth century. The relationship between the University of California and the agricultural communities had been a difficult one since the very start of the university. The political maneuvering that occurred when the University of California was formed through the combination of the Agricultural, Mining, and Mechanical Arts College and the College of California in 1868 caused a sense of loss, and anger, among many farmers. This conflict would entangle Wickson as he was promoted to a variety of positions within the University of California and professional organizations. These promotions contributed to an academic identity for Wickson that he, as well as others, would utilize during the twentieth century. Wickson was also able to reach out into the agricultural community and had built a reputation as an expert agriculturalist who was recognized as genuine, a feeling many in the farming community did not usually associate with academicians. Unfortunately for Wickson, the acclaim he garnered in the agricultural communities was a detriment in the academic one. This struggle between the academic and agricultural communities regarding Wickson’s expertise contributed to the tension that would plague

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<sup>1</sup> Thomas F. Hunt, "Wickson and the State," in *University of California Printing Office*, ed. University of California Bancroft Library, Berkeley (Berkeley, California 1924).

his career at the University of California. In addition to a brief biographical sketch of Wickson's various professional positions in California, this chapter explores the tension between agricultural and academic worlds, how it was created, and how it manifested itself during Wickson's career.

### **Introduction to Wickson**

Little evidence exists regarding Wickson's life prior to his moving from New York to California in 1875. Wickson was the son of a Presbyterian minister who had a strong affinity for the dairy industry in New York. As a student at Hamilton College in Clinton, New York, Wickson began a relationship with agricultural journalism that he would maintain for over fifty years. In 1870, Wickson began writing for the *Utica Weekly Herald and Gazette and Courier (Utica Weekly Herald)* on such issues as dairy science, cheese production and dairy quality.<sup>2</sup> Eventually, he would become the agricultural editor for the *Utica Weekly Herald* and the American correspondent for the *London Agricultural Gazette*.<sup>3</sup> In addition to agricultural journalism, Wickson was highly active in several agricultural organizations including serving as the Secretary of the New York Dairymen's Association in 1871, President of the Utica Dairymen's Board of Trade in 1874, and the Secretary and Treasurer of the Central New York Farmers' Club from 1873-1875.<sup>4</sup>

Wickson moved from New York to California to accept the editor position at the *Pacific Rural Press*, a popular technical agricultural journal on the West Coast. Almost

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<sup>2</sup> "To Dairymen," *Utica Weekly Herald and Gazette and Courier*, December 14, 1875.

<sup>3</sup> "Personal," *Pacific Rural Press*, December 25, 1875; "To Dairymen," *Utica Weekly Herald and Gazette and Courier*, December 14, 1875.

<sup>4</sup> "Personal," *Pacific Rural Press*, December 25, 1875; "To Dairymen," *Utica Weekly Herald and Gazette and Courier*, December 14, 1875.

immediately, he ingratiated himself in a variety of farmer's organizations to the point where he was made an officer in several of them. Serving as an officer in both the California Horticultural Society and the California State's Dairymen Association, he came into close contact with Eugene W. Hilgard, the Dean of the College of Agriculture at the University of California.<sup>5</sup> Wickson's academic career was launched in 1879 by Dean Hilgard, himself an 1875 transplant from the Midwest, when Wickson became a Lecturer of Dairy Science. For the next twenty-five years Wickson would fill a variety of positions within the College of Agriculture. Evidence indicates that the tension between the agricultural and academic communities began to increase after Benjamin I. Wheeler became the President of the University of California. The friction between these two communities would eventually come to a head after Hilgard's retirement in 1905. The relationship between President Wheeler and Professor Wickson offers a glimpse into the tensions that were mounting between rural communities and a variety of other groups, including those representing urbanites and academicians at the turn of the century.

Wickson was able to generate loyalty within the farming communities. This loyalty was not bought or commanded. Instead, Wickson invested time in various agricultural organizations, both at the state and local level, and amongst the rural communities. This investment of time helped create a sense of trust and oneness with many farmers and agricultural advocates. Wickson utilized the social capital he was able to garner through all three of these systems to the benefit, and at times the detriment, of his professional and social career. Some brief examples can be found in Wickson's

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<sup>5</sup> "State Dairymen's Association," *Sacramento Daily Record-Union*, October 5, 1876; "A Call to Organize a State Horticultural Society," *Pacific Rural Press*, September 13, 1879.

associations with the state's dairymen and horticultural organizations, his editorship at the *Pacific Rural Press* and his frequent publication of information-dense, but easily accessible horticulture books. These endeavors helped establish Wickson as an agriculturalist, who while not a farmer, was an advocate for the grower. This social capital helped establish trust and respect for a university professor working in a growing urban area, an individual who would normally be viewed by these communities as an outsider.

### **Problems for Hilgard**

As Wickson settled into California as the new editor of the *Pacific Rural Press* in 1875, Hilgard immediately ran into some difficulties with several agricultural organizations, including the California State Grange. He was replacing Ezra S. Carr, the founding professor of the College of Agriculture in the University of California. Carr was a holdover from the University of California's predecessor, the Agricultural, Mining, and Mechanical Arts College and was well liked by the agricultural community. He had attempted to blend the practical education of agriculture, such as the application of field work, with the classical collegiate teaching of philosophy, history and politics as they applied to farming.<sup>6</sup> The combination of practical agriculture with classical collegiate instruction led to courses that were deemed to be academically inadequate by the University of California Regents and conflict arose as to how agricultural courses were to be taught. Carr eventually chose to continue teaching his version of practical agricultural education and was supported by the California House Committee on Education when it

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<sup>6</sup>Verne A. Stadtman, *The University of California, 1868-1968* (New York, New York: McGraw-Hill, 1970).

stated “all admit that the Professor for Agriculture is not only a scientist, but a thoroughly practical instructor. He should live on the grounds and the students should be allowed to labor, thereby applying science under the direction of their instructors.”<sup>7</sup> University President Gilman felt that manual labor was not appropriate for university students and “invariably discourage[d] it in all my [Professor Carr’s] intercourse with him, and the little work which students have been permitted to do has had no connection with agricultural instruction.”<sup>8</sup> President Gilman and the Regents desired a College of Agriculture in which “students are not instructed in agriculture outside of the school-room.”<sup>9</sup> The Regents did not back away from their position and Carr’s continued refusal to modify instruction resulted in his dismissal in 1875, much to the consternation of the farming community. Eugene Hilgard was selected as Carr’s replacement and was made the Dean of the College of Agriculture, a new position within the university.<sup>10</sup> The united vision of Dean Hilgard and University President Daniel Gilman was to develop the College of Agriculture into a science-based program. The farming community desired a more traditional, hands-on approach to agricultural education, while the University of California Regents, President Gilman, and Dean Hilgard preferred “the enlistment of science as an aid to agriculture.”<sup>11</sup> This tension had become a sore issue when Hilgard was hired and needed to be addressed quickly.

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<sup>7</sup> "The University," *San Francisco Chronicle*, September 27, 1874, 6.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> Edward J. Wickson, *In Memoriam. Eugene Woldemar Hilgard...* (Berkeley, Ca.: University of California Press, 1916).

<sup>11</sup> Ibid.

## **Wickson as a Potential Bridge**

Hilgard realized that Wickson was a potential bridge between the two dueling communities with his ability to advance the scientific inquiry at the university while at the same time placate some of the concerns many of the agricultural organizations had regarding the direction of agricultural instruction at the University of California. Wickson was a familiar name to many farmers through the *Pacific Rural Press*. As the editor, and a frequent contributor, Wickson had a powerful platform and was able to talk directly to the farmers regarding agricultural education in a weekly newspaper that was well received by many agriculturalists.<sup>12</sup> Additionally, Wickson's activity within the dairy communities, in both New York and California, along with his involvement within the California Horticultural Society, helped cement his acceptance across a variety of California's agricultural organizations.<sup>13</sup> Furthermore, shortly after Wickson's arrival in California, he became an active member of San Francisco's Microscopical Society in 1877, a subgroup of the California Academy of Science, until the society's closure in 1906.<sup>14</sup> This organization was dedicated to expanding the scientific knowledge base of the fledging field of microbiology, and in doing so, helping to ease citizens' and politicians' concerns regarding the importation of communicable diseases from the seaport.<sup>15</sup> Wickson's active role in San Francisco's scientific community, coupled with his budding relationship with noted botanist and agricultural scientist Luther Burbank,

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<sup>12</sup> "From Rural Readers," *Pacific Rural Press*, May 16, 1896; "As Other See It," *Pacific Rural Press*, May 23, 1896.

<sup>13</sup> "San Francisco Microscopical Society," *Daily Alta California*, March 3, 1877.

<sup>14</sup> K. A. Ryerson, "Edward James Wickson," *The University of California Journal of Agriculture* 2, no. 6 (March, 1915).

<sup>15</sup> "History of San Francisco's Microscopical Society," <http://www.sfmicrosoc.org/history.html>.



helped solidify Wickson's scientific credentials. By hiring Wickson at the College of Agriculture, Hilgard was able to meet the scientific demands of the University of California's new vision for agriculture and also placate the farmer organizations by hiring a well-known individual from within the agricultural community.

### **Urban and Rural Tension**

In many ways, Wickson's life reflected some of the societal tensions between those who lived in urban and rural communities, a conflict that grew during the turn of the twentieth century in America. As cities continued to grow, both through immigration and rural migration, the ability to purchase economically viable food supplies became more difficult. As many growers moved away from the farm, those remaining were required to support burgeoning urban populations. The desire for cheap agricultural commodities by urbanites caused a direct conflict with rural communities. Many farmers tacitly recognized the inelasticity of food supplies and that an increase in production led to an oversupply of goods, thus driving down the prices. Lower prices caused a decrease in profits and encouraged farmers to increase debt burdens. As city leaders pushed for an increased efficiency on the farm, thus leading to increased crop yields, farmers resisted change.<sup>16</sup>

While many people viewed rural communities as old fashioned and backward, those in the rural communities considered cities as crime-ridden, overcrowded, and full of vice. Wickson sought to preserve the social traditions of the rural communities, while at the same time recognizing that agricultural methods were outdated and inefficient, which

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<sup>16</sup> David B. Danbom, *The Resisted Revolution: Urban America and the Industrialization of Agriculture, 1900-1930* (Ames, Iowa: The Iowa State University Press, 1979).

not only caused high food costs, but also kept new markets closed. Wickson helped forge the gap between the rural and the city communities by advocating an increase in production, while striving to maintain relatively high prices.

Instead of joining the drum beat of increased production solely for a decrease in prices, from the time he began his work at the University of California, Wickson sought to incorporate advanced agricultural practices and agricultural science to increase commodity production and quality. While increased production did create a surplus in goods, new technology helped open up new markets and increased quality helped mediate depressed prices from oversupply. An example can be found in the opening of the East Coast to California's agricultural goods via refrigerated rail cars. By the end of 1907, Pacific Fruit Express had 6,600 refrigerated box cars moving along the Union Pacific and Southern Pacific railroad tracks. Nearly half of California's agricultural goods, and nearly all of the perishable commodities, could now be exported throughout the country.<sup>17</sup>

### **The College of Agriculture in Transition**

At the turn of the century, the College of Agriculture at the University of California was about to go through a transition and University President Wheeler found himself in a difficult predicament. Dean Eugene W. Hilgard, the father of modern soil science in America, was about to retire in 1905. Hilgard had replaced a practical agriculture professor in 1875 and helped build and organize the College of Agriculture at the University of California. In addition to transforming the College of Agriculture from

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<sup>17</sup> Donald Duke, *Santa Fe: The Railroad Gateway to the American West*, vol. 2 (San Marino, CA: Golden West Books, 1995).

one that specialized in practical agriculture to a more scientifically based one, he created the University Agricultural Experiment Station in 1875. He had built a coalition between the academic, experimental world of agriculture and many of California's agricultural organizations. President Wheeler was reluctant to lose the scientific acclaim that Hilgard had brought to both the agricultural department and the university.

The crafting of the University of California's scientific image was critical to President Wheeler. Jacob Niebert Bowman, a Professor of History at the University of California, summed up Wheeler's philosophy as follows: "The university during those days was in the process of changing from a college into a university, from teaching to research. This change was the task of Wheeler, and in it he could be somewhat ruthless."<sup>18</sup> The expansion of the student body and the school's prestige was to come from the building of its scientific acclaim and anything that detracted from that vision was a severe concern to Wheeler. His ultimate goal was to make the University of California comparable with Eastern universities, and he recognized that it was only through the research that faculty conducted that such acclaim could be won.<sup>19</sup> Under Wheeler's tenure, the university tripled student enrollment and expanded to include facilities such as the University Farm in Davis, the Scripps Institute for Biological Research in La Jolla, the Hooper Foundation for Medical Research in San Francisco, the

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<sup>18</sup> Jacob N. Bowman, "Reminiscences of the University of California, 1906-12," (University of California, Berkeley, Bancroft Library, 1963), 31.

<sup>19</sup> Henry F. May, *Three Faces of Berkeley: Competing Ideologies in the Wheeler Era, 1899-1919* (Berkeley, California: University of California, 1993).

Citrus Experiment Station in Riverside, the Southern California Pathological Laboratory in Whittier, and a southern branch of the university in Los Angeles.<sup>20</sup>

An example of Wheeler's high esteem for science can be found during his search for Hilgard's replacement. On August 20, 1906, Wickson gave an address to the incoming freshmen at the first university meeting of the year. While introducing himself, Wickson referred to the College of Agriculture as "that dilapidated place by the creek, which you all call 'Cow College!'"<sup>21</sup> According to the newspaper article, the freshmen received this sarcasm as a form of agricultural humor. The humor apparently was lost upon President Wheeler, however, who promptly told Wickson, who had just begun to speak, that his time was up and he needed to sit down.<sup>22</sup> President Wheeler felt it was inappropriate for the Acting Dean of the College of Agriculture to make such a reference, even in jest. The headline from the *San Francisco Call* article, "Wickson Fires Some Sarcasm at 'Cow College' Equipment," portrayed the university as having "meager equipment and inadequate buildings."<sup>23</sup> Additionally the article went on to call Wickson an agricultural expert, implying that he would have the expertise to accurately portray the College of Agriculture's facilities. An additional article from the *San Francisco Chronicle* one week later refreshed the incident in the Bay Area, and reaffirmed Wickson as well known throughout the West Coast, calling him "an authority on agricultural

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<sup>20</sup> Stadtman, *The University of California, 1868-1968*; University of California (System). Office of University Relations, *A Brief History of the University of California* (Berkeley, California: University of California, 1974).

<sup>21</sup> "Wickson Fires Some Sarcasm at 'Cow College' Equipment," *San Francisco Call*, August 21, 1906, 5.

<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*, 6.

subjects” and “one of the ablest professors at the university.”<sup>24</sup> The positioning of Wickson as a popular agricultural expert would have been a depiction Wheeler did not desire, especially as he continued the search for Hilgard’s replacement.

Wickson immediately wrote a response to the newspaper articles that implied a rift between himself and President Wheeler:

A serious error has apparently actuated some comments upon my remarks at the University meeting yesterday. There is no difference in attitude toward the advancement and better equipment of the College of Agriculture between the President of the University and myself.<sup>25</sup>

Wickson’s response to the newspaper’s articles was delayed at Wheeler’s request because “it seemed to him more likely to revive controversy than to allay it.”<sup>26</sup>

Wickson’s self-deprecating humor regarding the College of Agriculture was well received by many of the incoming freshmen, several of whom were agricultural students. Wickson, however, had cast doubt upon the facilities available to the College of Agriculture and its ability to perform scientific research. While President Wheeler did not respond directly to Wickson’s comments in his address to the freshmen, he articulated that each student was to become an “active aggressor instead of a passive recipient” with regards to their learning.<sup>27</sup> He continued by stating that it was to be in the laboratories

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<sup>24</sup> "Wheeler Talks to New Students: Professor Wickson Creates a Sensation at Opening of Term in Berkeley," *San Francisco Chronicle*, August 21, 1906, 4.

<sup>25</sup> Edward J. Wickson to His Largest Class, April 18, 1907, folder 12, box 32, Records of the Regents of the University of California 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley.

<sup>26</sup> *Ibid.*

<sup>27</sup> "Wickson Fires Some Sarcasm at 'Cow College' Equipment," *San Francisco Call*, August 21, 1906.

and seminaries that the “new” education would stimulate discovery and the students’ knowledge would greatly increase.<sup>28</sup>

### **Wheeler’s Search**

As Wheeler searched for a replacement for Dean Hilgard, the president quickly found there to be little support within the college of agriculture for anybody other than Professor Edward J. Wickson. Wickson had deep roots at the university, having been a professor in the college of agriculture since 1879, almost as long as Hilgard, holding various titles in the college, and was well regarded by many groups within the agricultural community. One of Wickson’s first positions at the University was that of the Lecturer of Practical Agriculture. Eventually he would be made a Professor of Agricultural Practice and the Superintendent of the University Extension in Agriculture. As of 1905, Wickson had spent sixteen of his twenty-five years at the university as a professor of practical agriculture. These positions required Wickson to work closely with California’s various farming communities throughout the state, often requiring travel away from the university as mandated by the Hatch Act of 1887. This federal law established not only the funding for the University of California agricultural experiment station, of which Hilgard was the director, but also the dissemination of the information gathered at the experiment stations. Wickson became the conduit between the experiment station and the agricultural communities by distributing the newly acquired scientific knowledge to the farmers. He greatly expanded the Farmers’ Institutes as a means to convey information through meetings that were held in various locations. In addition to

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<sup>28</sup> Ibid.

increasing the number of communities visited, Wickson helped transition the presentations away from lectures and into more of a social activity. Wickson's Farmers' Institutes were typically carried out over several days that incorporated not only new agricultural techniques and knowledge, but also picnics and music.<sup>29</sup> The transformation of the Farmers' Institutes, and their increased popularity among various community members, is indicative of Wickson's understanding of some of the social norms within the agricultural community. His frequent travel away from the University, in addition to classroom lecturing, left Wickson with little time to actually conduct work at the experiment station. However, because Wickson was more a practical agriculturalist than Hilgard, Wheeler felt that choosing Wickson as the new Dean would be a step backward.<sup>30</sup>

Wheeler reached out to an old colleague and personal friend, Liberty H. Bailey, Dean of the College of Agriculture at Cornell University. Wheeler lamented the fact that he had talked to the various agricultural professors at the University, but they had all refused to step over Wickson.<sup>31</sup> Wheeler hesitantly promoted Wickson to be the Acting Director of the University's Agricultural Experiment Station and named him as Acting Dean of the College of Agriculture, yet he continued his search for a more scientifically-minded replacement. The *San Francisco Call* stated that Wheeler felt "a scientist, famous for original research work should succeed Professor Hilgard instead of Wickson,

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<sup>29</sup> "Farmers' Institute," *Pacific Rural Press*, September 12, 1891; "Farmers' Institute," *Pacific Rural Press*, December 29, 1894.

<sup>30</sup> Benjamin I. Wheeler to Liberty H. Bailey, March 31, 1905, folder 31, box 27, Office of the President. Records: Alphabetical Files, 1885-1913, series number CU-5 Series 1, Bancroft Library, University of California, Berkeley.

<sup>31</sup> *Ibid.*

who was declared to be ‘clever, but not a research man.’”<sup>32</sup> Bailey recommended several individuals who could replace Hilgard instead of Wickson. Bailey had known Wickson for several years and Bailey agreed with Wheeler that Wickson was not scientifically minded enough for the position.<sup>33</sup> Wheeler would offer the Dean and Director positions to Dean Bailey and Dean Henry J. Waters, of the University of Missouri College of Agriculture.<sup>34</sup> Unfortunately for Wheeler, both Bailey and Waters refused, allowing Wickson to further entrench himself in the Acting Dean position.<sup>35</sup>

### **Wickson Garners Support**

As Wheeler continued his search for Hilgard’s replacement, Wickson began to quietly seek assistance from some of his supporters, both agricultural and political. California’s U.S. Senator, and former Governor, George C. Perkins openly denounced Wheeler’s indecision and openly advocated for Wickson’s appointment as Dean of Agriculture. Perkins called Wickson a “savant of the soil” and the most “erudite of hoe men.”<sup>36</sup> Appellate Court’s presiding justice, and former Civil War General, Norton Chipman praised Wickson for his hard work for the agricultural community.<sup>37</sup> The State Board of Trade also threw its support behind Wickson.<sup>38</sup> In addition to these organizations, several community Granges advocated for Wickson’s permanent promotion. In the *Pacific Rural Press*, the Tulare Grange openly called for Wickson to be

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<sup>32</sup> "Wheeler After Official Scalp of Professor," *San Francisco Call*, April 15, 1907.

<sup>33</sup> Liberty H. Bailey to Benjamin I. Wheeler, April 6, 1905, folder 31, box 27, Office of the President. Records: Alphabetical Files, 1885-1913, series number CU-5 Series 1, Bancroft Library, University of California, Berkeley.

<sup>34</sup> "Wickson Chosen by the Regents," *San Francisco Chronicle*, September 12, 1907.

<sup>35</sup> *Ibid.*

<sup>36</sup> "Praises Wickson, Not Wheeler," *San Francisco Call*, November 14, 1906.

<sup>37</sup> *Ibid.*

<sup>38</sup> *Ibid.*



appointed due to his expertise in the agricultural field, both in the classroom and at the Farmers' Institutes.<sup>39</sup> This recommendation from the Tulare Grange gives credence to the high regard members held for Wickson, especially when it was Wickson who had recommended the University shut down the Tulare Experimental Station just one year previous, much to Tulare's Board of Trade and the Tulare Grange's protest.<sup>40</sup>

The fact that several prominent individuals and organizations rallied to support Wickson appears to indicate that Wickson had established trust and loyalty within a variety of social and political groups. An example of this trust can be found in Judge Chipman's support for Wickson. Wickson had contacted Judge Chipman calling him "an old friend and one so deeply interested in California agriculture."<sup>41</sup> Wickson continues "my appeal to you to bring up the question as to why I am not appointed Director is because of your many expressions of regard for me and because it is not proper for me to approach the Regents personally. If the thing comes to a hearing I am willing to abide the result; my apprehension is that it may not be fairly heard."<sup>42</sup> Chipman was well known within the political and social circles of Sacramento and the Bay Area. However, Chipman was in a difficult reelection campaign when Wickson had contacted him.<sup>43</sup> Wickson, when being made aware of Chipman's reelection struggles wrote back, "I have regretted exceedingly that I troubled you as I did. Do not for a moment attempt to add my

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<sup>39</sup> "Letter to the Editor," *Pacific Rural Press*, November 17, 1906.

<sup>40</sup> "True Writes About Station," *San Francisco Call*, October 14, 1905; Edward J. Wickson, "Patrons of Husbandry," *Pacific Rural Press*, July 22, 1905.

<sup>41</sup> Edward J. Wickson to Norton P. Chipman, November 10, 1906, folder box Box, Edward J. Wickson Papers, series number BANCMSS C-B 1035, Bancroft Library, University of California, Berkeley.

<sup>42</sup> *Ibid.*

<sup>43</sup> Norton P. Chipman to Edward J. Wickson, November 8, 1906, folder box Box, Edward J. Wickson Papers, series number BANCMSS C-B 1035, Bancroft Library, University of California, Berkeley.

troubles to your own.”<sup>44</sup> The congenial nature of the letters and the concern expressed by both men for the other’s welfare helps explain why immediately after Chipman’s reelection, he forcefully vouched for both Wickson’s abilities and character.<sup>45</sup>

### **Bailey, Wheeler, and Wickson**

A common concern for many of Wickson’s supporters was that an East Coast scientist would be placed above Wickson in the Agriculture Department.<sup>46</sup> Wickson’s supporters believed he had been doing an excellent job as both the Acting Dean of the College of Agriculture and the Acting Director for the Agricultural Experiment Station. This support was based on Wickson’s experience as an agriculturalist within California for over twenty-five years and his long relationships with various agricultural organizations. The *San Francisco Call* stated, “President Wheeler has shattered all of those expectations of Wickson’s friends, whose name is legion, and apparently plans to humiliate Wickson by superseding him with an Eastern man.”<sup>47</sup> The man in question, Liberty H. Bailey, was well known as an agrarian, botanist and the founder of both the American Society for Horticultural Science and the College of Agriculture at Cornell University in New York. He was well qualified for the Dean position offered to him by President Wheeler; however, he was not a Californian. Wickson had written about agricultural issues in California, for the benefit of Californians, for over thirty years previous to becoming the Acting Dean of the College of Agriculture and Acting Director

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<sup>44</sup> Wickson to Chipman, November 10, 1906, folder box Box, Edward J. Wickson Papers, series number BANCMSS C-B 1035, Bancroft Library, University of California, Berkeley.

<sup>45</sup> "Praises Wickson, Not Wheeler," *San Francisco Call*, November 14, 1906.

<sup>46</sup> "Wheeler After Official Scalp of Professor," *San Francisco Call*, April 15, 1907; "Wickson's Friends Come to His Rescue," *San Francisco Call*, April 16, 1907.; "Regents Help Savants, But Overlook Wickson," *San Francisco Call*, May 18, 1907.

<sup>47</sup> "Wheeler After Official Scalp of Professor," *San Francisco Call*, April 15, 1907.

of the Agricultural Experiment Station. Wickson frequently traveled to the farmer's institutes and talked to farmers about their concerns. He also offered the resources of the university to assist in both state and local agricultural issues with regards to research.<sup>48</sup> Wheeler, on the other hand, had just arrived in California in 1899 when he became the President of the University. While he expressed a high regard for the Farmers' Institute and other agricultural programs enacted by the university at his arrival, he had done little since then to engender support.<sup>49</sup> Wheeler's relative newness to the state, coupled with the fact that he had specialized in Greek literature and history at Cornell University, established him as an outsider to many farming organizations. The frequent usage of the term "Eastern man" in reference to Bailey helped establish, within the context of the article, the outsider status of Bailey, and ultimately also Wheeler, along with the solidarity available to support Wickson.

### **Bailey's Political Misstep**

This animosity toward Bailey, and indirectly Wheeler, was not based on the job offer alone, but also on another incident of very poor timing by Bailey and Wheeler. Immediately after Hilgard's retirement in June of 1905, Wheeler invited Bailey out to California to lecture at the summer agricultural short courses offered by the university. These short courses were expanded versions of the Farmers' Institute courses, usually lasting over a two to three day period instead of a single afternoon, as was typical of the Farmers' Institute classes. Bailey accepted the offer and was promoted heavily by

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<sup>48</sup> "Farmers in Convention," *San Francisco Chronicle*, August 26, 1896.

<sup>49</sup> Victor Henderson, "Dr. Wheeler's Plans," *Los Angeles Times*, October 9, 1899.

Wheeler as an expert whose ideas were “invaluable to California.”<sup>50</sup> This alone would not have been an issue, except for a speech Bailey gave as he was leaving California. Bailey had been informed that the California legislature had recently passed legislation allocating funds for a university farm. Bailey proceeded to outline what his vision of a university farm would look like and how it would function.<sup>51</sup> Bailey declared that the purpose of a university farm was to further the scientific research in agriculture and that it was to be utilized as a proving ground for the Agricultural Experiment Station.

Bailey’s scientific vision for the farm and its direct connection to the Agricultural Experiment Station did not take into account the political forces behind the legislation’s passage. The passage of the legislation had been pushed by several state agricultural organizations such as the Grange, the Cattleman’s Association, the State Agricultural Society and politically prominent individuals such as Judge Peter J. Shields. They envisioned a farm that had access to the University resources, but focused on the practical application of agricultural science. Many in the agricultural communities felt that the University was too scientific, and actually led youth away from the farm and into laboratories as scientists.<sup>52</sup> Those individuals and organizations who had worked hard to push for the legislation authorizing the university farm were angered when Bailey stated that “the farm must then be a laboratory. Thus primarily it must be a laboratory enterprise, and the pattern and model idea are only incidental and secondary. If your

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<sup>50</sup> "Wheeler After Official Scalp of Professor," *San Francisco Call*, April 15, 1907.

<sup>51</sup> Liberty H. Bailey, *Recent Problems in Agriculture - What a University Farm Is For*, vol. 15 (California Agricultural Experiment Station, 1905).

<sup>52</sup> "Why They Leave the Farm," *San Francisco Call*, November 16, 1892; Edward Berwick, "Education from a Farmer's Standpoint," *Pacific Rural Press*, July 9, 1898; C. C. Sawfford, "The Farm and the School," *Pacific Rural Press*, March 11., 1899; "Keep the Farmer on the Farm," *Pacific Rural Press*, May 26, 1900.

people do not believe in this idea, then you must educate your people.”<sup>53</sup> Bailey’s comments, coupled with Wheeler’s endorsement, caused some hostility within the agricultural community. This antagonism reached such intensity that Bailey had to clarify his statements after his return to New York, stating that his vision was not related in any way to how the University of California’s farm was to be run or organized.<sup>54</sup>

### **Wickson Appointed as Dean**

Finally, in the September 11, 1907 meeting of the Regents of the University of California, Wickson was appointed to be the Dean of the College of Agriculture and the Director of the University’s Experiment Station.<sup>55</sup> According to the *San Francisco Chronicle*,

The appointment follows one of the bitterest fights that has taken place in the faculty since the president of the University took office several years ago. The matter of appointing a man to the place has been before the Regents of the University for over two years, but repeatedly has been put off on the recommendation of the president of the University.<sup>56</sup>

Within a month of Wickson’s appointment to the Dean of Agriculture position, his teaching title was changed from Professor of Agricultural Practice to Professor of Agriculture.<sup>57</sup> There is little written evidence as to why Wickson received his new title, yet the title was likely changed at Wheeler’s request. His desire for a scientific candidate

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<sup>53</sup> Bailey, *Recent Problems in Agriculture - What a University Farm Is For*, 15.

<sup>54</sup> "Some Poor Advice," *Woodland Daily Democrat*, August 17, 1905; "Criticism of Berkeley Influence in Choosing Farm Site," *Woodland Daily Democrat*, September 17, 1905; "University Farm - Where Shall it Be?," *Oakland Tribune*, August 16, 1905.

<sup>55</sup> "Wickson Chosen by the Regents," *San Francisco Chronicle*, September 12, 1907.

<sup>56</sup> *Ibid.*

<sup>57</sup> Carl C. Plehn to Edward J. Wickson, October 9, 1907, folder 30, box 54, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley.

likely held some sway with the Regents for the position of Dean to go unfilled for so long. However, after two years of searching, it appears Wheeler no longer had enough political support on the Board to continue his search for his ideal applicant. By changing Wickson's teaching title, Wheeler was able to reaffirm the Dean position as being held by a scientific agriculturalist instead of a practical agriculturalist.

### **Wickson's Professional Relationships**

Instead of viewing agricultural education as embodying a polar argument between practical and scientific agriculture, Wickson believed there was a middle ground that could meet the needs of both the academic and the farming communities. Wickson's medial view may have been based on his close interaction with both the agricultural and the academic communities. Because, he frequently acted as a conduit between these two communities, providing information that was useful to agriculturalists, he accessed a variety of avenues to help disseminate information quickly and efficiently. The Agricultural Experiment Station often printed bulletins that were circulated throughout scientific communities dedicated to agricultural sciences. These bulletins mainly focused on the results of the experiments conducted by the facility. The special interest placed by the Agricultural Experiment Station on diseases and pests that affected California's agricultural commodities frequently drew the attention of California's farmers to the issued bulletins. Serving as the Director of the Agricultural Experiment Station kept Wickson in regular contact with agricultural researchers, both in California and throughout the United States, and enabled him to keep current with scientific agricultural knowledge. His nearly fifty year stewardship, as editor of the *Pacific Rural Press*,

allowed him the authority to dictate the contents of the weekly newspaper, which reached into the homes of many of the West Coast's farmers. The *Pacific Rural Press* was generally viewed as a publication that concentrated on the technical aspects of agriculture, i.e. pruning, watering, and planting techniques, along with pest control and the development of profitable marketing strategies.<sup>58</sup> Finally, Wickson frequently gave speeches throughout the state, to both local agricultural groups and statewide organizations. As an example, he had both formal and informal relationships with the California Horticultural Society almost immediately after his moving to the state and until near his death.<sup>59</sup> Not only did Wickson serve as an officer in the organization for many years, but he was also a regular speaker at the annual convention.

In addition to public speeches, lectures at Farmers' Institutes, directing the publication of the Agricultural Experiment Station bulletins, and editing the *Pacific Rural Press*, Wickson also authored several agricultural books, including *One Thousand Questions in California Agriculture Answered*, *The California Vegetables in Garden and Field*, and *The California Fruits and How to Grow Them*. These books tended to help individuals, both farmers and non-farmers alike, gain access to the discoveries of agricultural science and how those discoveries could benefit them personally. From answering common agricultural questions to helping individuals with their personal gardens, Wickson attempted to meet the commercial and residential agricultural needs of California's diverse population. Though the original target audience for Wickson's books was not agricultural scientists per se, some officials from the United States Department of

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<sup>58</sup> David Vaught, "Factories in the Field Revisited," *Pacific Historical Review* 66, no. 2 (1997).

<sup>59</sup> "Annual Meeting of the State Horticultural Society," *Pacific Rural Press*, November 8, 1884.

Agriculture used and recommended his books to individuals as well written, complete, and comprehensive.<sup>60</sup>

Wickson's ability to garner support within both the agricultural and political communities had a variety of consequences. The most obvious benefit was his eventual appointment as the Dean of the College of Agriculture in 1907. However, support of farmers had unintended consequences for his academic career, some of which he knew in great detail, such as the delay of his appointment as Dean, and others that he may not have been aware of. President Wheeler, on two separate occasions, wrote to Governor Pardee specifically requesting Wickson not receive positions on either a state board or one of the governor's standing committees. On the first occasion, Wheeler contacted the governor when Wickson had applied to the Chairman position of the newly organized California State Board of Horticulture in 1903.

I have no doubt it has already occurred to you that the most economical and altogether best arrangement for the Commission of Horticulture, as newly created by law, would be reached through the appointment of Professor Wickson...There is really no reason for the existence of an independent commission, and such independent positions have generally wasted money and wrought far less good than they ought fairly to be expected to yield.<sup>61</sup>

While Wheeler acknowledges that Wickson would be an excellent choice as a commissioner on the Board of Horticulture, Wheeler argues that board should not exist since the University of California was in the process of developing a horticultural

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<sup>60</sup> G. B. Brackett to Cliff N. Towne, January 22, 1900, folder U.S. Dept. of Agriculture Division of Pomology, box 1, Edward J. Wickson Papers, 1868-1923, series number BANC-MSS C-B 1035, Bancroft Library, University of California, Berkeley.

<sup>61</sup> Benjamin I. Wheeler to Governor Pardee, March 17, 1903, folder 59, box 10, George C. Pardee Papers, series number BANC MSS C-B 400, Bancroft Library, University of California, Berkeley.



department within the College of Agriculture. Wheeler then proceeds to inform Pardee that Wickson will be assigned as the lead professor of the newly created horticulture department. Wheeler felt that the creation of the Board of Horticulture would be a waste of taxpayer money, especially since the functions of the board could be conducted by Wickson at the University of California. Though the Board of Horticulture was created, Wickson was denied a position within the committee. The second occasion was when Wickson was being considered for a position on the committee that was to decide the location of the University Farm in 1905.<sup>62</sup> Wheeler requested that Wickson not be on the committee and that Wheeler's secretary be placed on the committee instead. These two positions would have greatly expanded Wickson's political influence regarding agricultural issues within the state, something that Wheeler desired to limit.

In sum, Wickson's relationship with the University of California, and various agricultural organizations, placed him in a distinctive position at the turn of the twentieth century in California. His direct access to thousands of farmers, either through Farmers' Institutes or the *Pacific Rural Press*, coupled with his ability to establish a type of loyalty that could be translated into vocal support, allowed him to become a potentially influential advocate for his vision of agricultural education. Once it is understood who Edward J. Wickson was and the location of his spheres of influence within various communities within California, it is possible to understand his particular role in advancing a particular version of agricultural education, a version that would be extremely successful, yet very short lived.

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<sup>62</sup> "Finding Site for State Farm," *Watsonville Register*, November 29, 1905.

## Chapter II: Agrarianism in California

“Burn down your cities and leave our farms, and your cities will spring up again as if by magic, but destroy our farms and the grass will grow in the streets of every city in our country.”

William Jennings Bryan<sup>1</sup>

The turn of the twentieth century brought about changes within American society that many Americans struggled to grasp and understand. The second Industrial Revolution had produced great technological advances that would alter how people worked and where they lived. Consequently, many individuals and families moved to cities in order to take advantage of the new economic opportunities and technological advancements. The demographic shift away from rural communities and into urban centers did not go without notice. Social scientists, politicians, and community leaders attempted to rally support for a variety of issues that a rapidly growing urban population caused. Issues of social equity, justice, and reform became prominent in both the political realms and social circles during this time.<sup>2</sup> In addition to these urban issues, other politicians and social reformers exploited the dichotomy between the rural and urban settings for political advantage. Politicians, such as William Jennings Bryan, frequently extolled the republicanism of farmers and rural communities at the turn of the century as a means to boost support in rural communities and pay homage to an idealized version of

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<sup>1</sup> William Jennings Bryan, "Cross of Gold speech," in *Democratic National Convention* (Chicago, Illinois 1896).

<sup>2</sup> Bernard Mehl, "The Conant Report and the Committee of Ten: A Historical Appraisal," *Educational Research Bulletin* 39, no. 2 (1960).

the founding of the country.<sup>3</sup> This ploy to tap into agrarian ideals was an effective technique due to the fact that agrarianism had been so ingrained into America's culture that sociologist Wayne C. Rohrer and political scientist Louis Douglas called it America's *idée fixe*.<sup>4</sup>

This chapter explores agrarianism, one of the reform movements that developed in an attempt to rectify perceived social problems. An examination of the lesser-known agrarian movement during the early twentieth century will follow a brief review of the two major identified periods of the agrarian movement spanning 1865-1940. By focusing on California's contributions to the national agrarian movement, the major goal of developing a better understanding of California's rural populations, a group traditionally ignored by academicians, is achieved. This knowledge contributes to a better recognition of the factors that led to California agricultural education reform at the turn of the twentieth century. While historians typically reduce the agrarian cause in the twentieth century as a simplistic reaction against the rapid growth of urban centers, in reality it was much more complex than that. The movement also attempted to help farmers form an identity, both for themselves and for others, at a time in American history when society was experiencing rapid changes. This chapter also situates Wickson within California's agrarian movement. While he never formally associated himself as a member of the agrarian movement, Wickson's actions strongly reflected his sympathies to the movement. The conflicted nature of the agrarian movement, along with California's

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<sup>3</sup> Richard Hofstadter, *The Age of Reform* (New York, New York: Knopf 1960).

<sup>4</sup> Wayne C. Rohrer and Louis H. Douglas, *The Agrarian Transition in America: Dualism and Change* (Indianapolis, Indiana: The Bobbs-Merrill Company, Inc., 1969).

manifestations, planted the seeds that would later blossom into agricultural education reform in California's educational institutions.

### **The Agrarian Movement**

Historians Ralph A. Smith and Theodore Saloutos have identified the Reconstruction Era as the launching point for the final agrarian movement of the nineteenth century. Citing the founding of organizations such as the National Grange of the Order of Patrons of Husbandry (the Grange) and the People's Party in the 1890s, these historians also identify the agrarian movement as having started in the South.<sup>5</sup> Historians Paul Fossum and Horace Merrill, while recognizing the South's contributions to agrarianism, identify the Mid-West as another leading region for the agrarian movement.<sup>6</sup> A major factor these historians identify in the growth of the agrarian movement, and People's Party, during the end of the nineteenth century was the beginning of large movements away from rural areas and into cities. America was in transition, according to historian Richard Hofstadter who stated that, "the United States was born in the country and has moved into the city."<sup>7</sup>

During the 1910s, and through the 1930s, another version of agrarianism became prevalent in American society. According to Rohrer and Douglas, this form of agrarianism was rooted in the struggles farmers faced when they began to accept the

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<sup>5</sup> Ralph A. Smith, "The Grange Movement in Texas, 1873-1900," *The Southwestern Historical Quarterly* 42, no. 4 (1939); Theodore Saloutos, "The Grange in the South, 1870-1877," *The Journal of Southern History* 19, no. 4 (1953).

<sup>6</sup> Paul R. Fossum, *The Agrarian Movement in North Dakota*, John Hopkins University Studies in Historical and Political Science (Baltimore, Maryland: Johns Hopkins Press, 1925); Horace Samuel Merrill, *Bourbon Democracy in the Middle West 1865-1896* (Baton Rouge, Louisiana: The Louisiana State University Press, 1953).

<sup>7</sup> Richard Hofstadter, *The Age of Reform: From Bryan to F.D.R.* (New York: Vintage Books, 1955). 23.

industrialization of their lifestyle and transition into a mechanized agricultural industry.<sup>8</sup> The evolution of farm life during this period led to many social changes, according to historian Mary Neth.<sup>9</sup> An example of this form of the agrarian movement is found in the publication of *I'll Take My Stand: The South and the Agrarian Tradition*, a collection of essays published in 1930 by a group of men collectively known as the Southern Agrarians. The publication, arriving at the onset of the Great Depression and the Dust Bowl, lamented the loss of America's agricultural traditions. The essays tended to romanticize agricultural life, tap into nostalgic feelings of loss, and ignore the harsh reality of farm life.<sup>10</sup>

A lesser-known version of the agrarian movement occurred between Reconstruction and the Roaring Twenties/Great Depression. Frequently attributed to the conflict between rural populations and emerging urban centers, a revival of agrarian thought and activism arose slowly at the turn of the twentieth century. Instead of visualizing three separate movements spanning 1865-1940, a continuous movement that waxed and waned in public support would be more accurate. The nebulous nature of the agrarian movement throughout American history, from Jeffersonian Democracy to the current emphasis on organic farming and sustainability, has made the designation of particular individuals and organizations difficult. The only central tenant that occurs on a regular basis is the idealized concept of a yeoman farmer on his patch of land, making a

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<sup>8</sup> Rohrer and Douglas, *The Agrarian Transition in America: Dualism and Change*.

<sup>9</sup> Mary Neth, *Preserving the Family Farm: Women, Community, and the Foundations of Agribusiness in the Midwest, 1900-1940* (Baltimore, Maryland: The Johns Hopkins University Press 1995). 2.

<sup>10</sup> Lewis P. Simpson, *The Fable of the Southern Writer* (Baton Rouge, Louisiana: Louisiana State Univ Press, 1994); Emily S. Bingham and Thomas A. Underwood, eds., *The Southern Agrarian and the New Deal: Essays after "I'll Take My Stand"*, Publications of the Southern Texts Society (Charlottesville, Virginia: University of Virginia Press, 2001).

living, and growing wholesome crops to the benefit of others. Frequently, the arduous back-breaking work, the long hours, being at the mercy of climatic conditions, and any other hard facts of life are ignored to help perpetuate this conceptualized cultivator of God's earth.

One of the reasons the agrarian movement was so nebulous was that members of the movement could not clearly articulate the condition of the rural community. Some agrarians believed the social life of rural communities was disintegrating. The movement of individuals away from family farms and into the cities helped support this belief. The cities offered sanitation, indoor plumbing, electricity, and other modern conveniences, in addition to the opportunity to meet other people and socialize.<sup>11</sup> Furthermore, mechanization helped reduce the need for hiring local farm hands or fellow farmer's children to aid in planting and harvesting, thus reducing the reliance on and socialization with other local farmers.<sup>12</sup> On the other hand, some agrarians considered the farmer to be the pinnacle of humanity due to the perceived simplistic and independent lifestyle in which the farmer tilled God's great earth to bring forth food, much like Adam of old.<sup>13</sup> This was mainly a visceral reaction to the urbanized life found within the cities, including the belief that urban families were disintegrating, cities were rampant with crime, and plagued with filth and disease. By not being able to articulate the state of the rural community, it was difficult for agrarians to coalesce into an effective political movement.

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<sup>11</sup> Warren H. Wilson, "The Church and the Rural Community," *American Journal of Sociology* 16, no. 5 (1911); Walter A. Dyer, "The Case of Kelly and Hannah Belden: Why Our Country Communities Need More Play," *The Craftsman* 1914.

<sup>12</sup> Roy Hinman Holmes, "The Passing of the Farmer," *Atlantic Monthly*, October 1912.

<sup>13</sup> Danbom, *The Resisted Revolution: Urban America and the Industrialization of Agriculture, 1900-1930*.

Agricultural historian David Danbom made an attempt to categorize participants in the agrarian movement. He explained that the diversity of agrarian thought was, in actuality, a continuum with the romantic agrarians generally on one end and rational agrarians toward the opposite.<sup>14</sup> Individuals identified as romantic agrarians typically grew up in rural settings, having moved to cities in the pursuit of educational or career opportunities. These agrarians also tended to look back through the lens of nostalgia at their childhood. The romantic agrarians can be further separated into two sub groups. The first subgroup fervently desired a return to the simpler life they visualized as the idealized farms of their youth. In effect, these romantic agrarians were more anti-urbanite or anti-industry than pro-farmer.<sup>15</sup> The second romantic agrarian subgroup was composed of those individuals who viewed rural/agricultural life as beneficial to the moral, emotional, or physical wellbeing of the individual.<sup>16</sup> Many politicians, such as William Jennings Bryan, could be categorized within the first subset of the romantic agrarians. Henry David Thoreau with his book *Walden*, on the other hand, could be placed firmly in the second camp of romantic agrarians.

Rational agrarians had a different place within the agrarian movement. These individuals were also typically from agricultural communities. While some rationalists remained in rural communities into adulthood, many moved into the cities, much like romantic agrarians, in pursuit of economic opportunities. The big difference between romantic and rational agrarians was the fact that rational agrarians maintained very close

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<sup>14</sup> David B. Danbom, "Romantic Agrarianism in Twentieth-Century America," *Agricultural History* 65, no. 4 (1991).

<sup>15</sup> Ibid.

<sup>16</sup> Clifford B. Anderson, "The Metamorphosis of American Agrarian Idealism in the 1920s and 1930s," *Agricultural History* 35, no. 4 (1961).

ties to agricultural communities. This may have occurred through their occupations or the maintenance of familial relationships. These individuals proudly announced the political, cultural, and economic contributions that agricultural communities and farmers made to the country.<sup>17</sup> An example of a rational agrarian is Thomas Jefferson based on his vision of democracy.

The conceptualizations of romantic and rational agrarians at the turn of the century are not polar positions on the continuum of agrarian thought. The nebulous nature of the agrarian movement allowed for a great diversity of beliefs, expressions, and manifestations. This diversity included the Country Life Commission's national investigations and the birth of the 'Little Landers,' a group of California urban dwellers dedicated to settling in rural areas, both occurring simultaneously. The Country Life Commission was a group of seven men, whose purpose was to identify the deficiencies in the nation's rural communities and make recommendations for federal policies. The 'Little Landers,' on the other hand, were dedicated to action, forming a collective that settled in sparsely populated areas, to flee the urban centers and reconnect with their agricultural roots. These two different approaches to agrarian idealism, with different goals, exemplify the difficulty in placing the entirety of the agrarian movement on a singular philosophical rational versus romantic agrarian continuum. The discussion of both of these approaches to the agrarian movement will follow shortly.

At the end of the nineteenth century, the factors that had contributed to the Reconstruction era agrarian movement had largely resolved themselves. However,

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<sup>17</sup> Danbom, "Romantic Agrarianism in Twentieth-Century America."



American agricultural commerce, and the communities that supported it, were largely preindustrial.<sup>18</sup> Draft animals and primitive farm equipment conducted the majority of farm work done in 1900, because mechanization had not yet reached the majority of America's farms.<sup>19</sup> Mechanical reapers, balers, and tractors were difficult to use and cost prohibitive for many small farms. While some of the larger farms were able to utilize such equipment due to the owner's access to capital, this was relatively rare. This lack of equipment led to lower crop yields and contributed to cycles of over and underproduction.

The Country Life Commission, established in the fall of 1907 by President Roosevelt, was a federal attempt to rectify the "problems" associated with rural life, including inefficiencies in agricultural production. The commission focused on modernizing agricultural communities and practices and no element of the rural community was left out of the commission's recommendations. They tackled such issues as rural education, the contributions of women, increasing irrigated land, public health, government, religion, newspapers, conservation, labor, county and local fairs and agricultural cooperatives.<sup>20</sup> The entirety of the commission's suggestions would have revolutionized the rural community's social and cultural structures; however, it is their educational reform efforts that require exploration in the next chapter, especially when set within the greater context of the educational reform movement at the turn of the twentieth century.

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<sup>18</sup> Danbom, *The Resisted Revolution: Urban America and the Industrialization of Agriculture, 1900-1930*: 22.

<sup>19</sup> Ibid.

<sup>20</sup> Liberty H. Bailey, *The Country Life Movement in the United States*, The Rural Outlook Set (New York, New York: Macmillian Company, 1911).

Due to the vast rural territory in America, and the short four-month timeline imposed by President Roosevelt, the commission based their recommendations on data collected from a variety of surveys and visited only a limited number of states. In California, the commission held meetings in urban centers, such as the assembly hall of California State Board of Trade in San Francisco and the Los Angeles Chamber of Commerce.<sup>21</sup> The only exception was a brief stopover in Fresno, before the commissioners continued on to San Francisco.<sup>22</sup> The newspapers were very positive toward the Country Life Commission, and expressed the belief that Californians should feel honored that three of the commissioners, including Liberty H. Bailey, the chair of the commission, were visiting their state.

The Country Life Commission made three fundamental proposals for implementation of their plan nationally. The first was a scientific approach to gathering data, analyzing it, and developing a customized program of improvement for each rural community. The commission also recommended the continuation of extending newly acquired scientific agricultural knowledge from agricultural colleges and the Agricultural Experiment Station down into the rural areas. Finally, the third recommendation was to issue a call to every individual, institution, and organization with an interest in country life to hold local, state, and national conferences to assist each other in the

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<sup>21</sup>"Commission Studies Country Life Data," *San Francisco Chronicle*, November 29, 1908; "Country Life No Problem Here," *Los Angeles Times*, November 26, 1908.

<sup>22</sup>Olaf F. Larson and Thomas B. Jones, "The Unpublished Data from Roosevelt's Commission on Country Life," *Agricultural History* 50, no. 4 (1976).

implementation of programs of development and to unite toward a common cause, that being the uplifting of the rural citizen and community.<sup>23</sup>

This call to all those interested in country life was taken up by a diverse segment of the agrarian movement. Informally termed ‘Country Lifers,’ this group of agrarians was mainly composed of social thinkers, business executives, scientists, and government workers who viewed the agricultural community through a social lens. A core belief of this segment of the agrarian movement was that the current methods of farming were insufficient to meet the needs of the American people, especially those living in the city. By adopting a more industrial approach to agricultural production, agricultural communities would be able to increase efficiency, thereby increasing commodity production.<sup>24</sup> While the Country Lifers had many goals, and vastly different beliefs regarding how change should be brought about, they typically rallied behind a central purpose, the uplifting of the rural community through modernization.<sup>25</sup> By modernizing the rural community and increasing agricultural production efficiency, unbeknownst to the Country Lifers, they were planting the seeds of destruction for the symbolic yeoman farmer, by transforming the farmer’s livelihood into a commercial operation instead of a family tradition.

Country Lifers also included many business executives, agricultural scientists, and politicians who viewed rural communities through an economic lens. Migration and outdated agricultural practices were just two factors that supported their concerns. The

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<sup>23</sup> Bailey, *The Country Life Movement in the United States*.

<sup>24</sup> Danbom, *The Resisted Revolution: Urban America and the Industrialization of Agriculture, 1900-1930*.

<sup>25</sup> Bailey, *The Country Life Movement in the United States*.

agrarians realized that as farmers, and especially their children, moved away from their farms the means of food production decreased. An example can be found in a *Los Angeles Times* article decrying the movement of farmer's sons away from the farm, going so far as to term it "one of the most serious problems that confronts the economic world today."<sup>26</sup> As cities grew, the problems of food shortages and dramatic price increases continued to mount. This was especially true for markets on the East Coast, where transportation costs across the country only added to prices. Reverend Frank De Witt Talmage rallied against the high cost of food in the Chambers-Wylie Presbyterian Church of Philadelphia, Pennsylvania. He encouraged farmers to leave the cities and return to their farms. Instead of land sitting idle, it was their patriotic duty, and God's work for them, to produce food for Americans.<sup>27</sup> The high prices even led to a boycott of meat and meat products in the year of 1910, mainly on the East Coast.<sup>28</sup> Cities such as New York, Boston, Pittsburg, and Richmond all had organizations advocating the boycott of meat due to high prices.<sup>29</sup>

During the boycott, the *Pacific Rural Press* called the East Coast newspapers hypocritical and deceitful.

The papers making the greatest howl over the present price of meat are the same sheets which in former years have been turning out high sounding editorials on the poor down-trodden farmer who was getting no returns for his money; so now when he had come into his own after many

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<sup>26</sup> "Back to the Farm," *Los Angeles Times*, December 23, 1903, A7.

<sup>27</sup> "Must Return to Farm," *Sausalito News*, June 4, 1910.

<sup>28</sup> Paul P. Parker, "The Boycott on Meat," *Pacific Rural Press*, February 5, 1910.

<sup>29</sup> "Meat Boycott Spreads Rapidly," *San Francisco Chronicle*, January 23, 1910; "Virginia Falls Into Line," *New York Times*, January 23, 1910.

years of struggling with a poor market, they accuse him of making too much money.<sup>30</sup>

Simply put, the farmer was not the reason for the high prices, but rather a beneficiary. Instead, the papers should have directed their criticism toward the trusts, and other intermediaries, that helped manipulate the price of agricultural commodities.<sup>31</sup> Within two months, the State Grange requested a reprint of some demands the National Grange had made in Washington D.C. At the end of the demands, the National Grange identified their organization as a group of farmers, “not agrarian agitators, but plain Americans, with the same intelligent insight into our problems that other sane and intelligent people have.”<sup>32</sup> By promoting the image of a farmer as an average patriotic American, the National Grange was attempting to eliminate some of the aspersions directed toward farmers by several prominent Eastern newspapers. Additionally, the Grange attempted to promote the idea that farmers were fully aware of rural problems and implied that the farmers were capable of rectifying those issues on their own, without the need for outside assistance.

The argument that farmers were able to identify and propose solutions to rural problems did not gain wholesale acceptance. Agrarians pointed to the large migrations away from rural areas and into cities as evidence to support their claims. The result of this migration away from rural areas led to fewer and fewer farms being utilized for agricultural production. Additionally, the fact that farmers tended to farm as their ancestors had, and the general lack of adoption of the then-current scientific principles on

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<sup>30</sup> Parker, "The Boycott on Meat."

<sup>31</sup> Ibid.

<sup>32</sup> "Demands of the National Grange," *Pacific Rural Press*, April 16, 1910.

crop production, only exacerbated the reduced production due to migration. This reduction of agricultural commodities caused the prices for food and fiber to increase dramatically. Unfortunately for farmers, a rise of agricultural commodity prices at the turn of the twentieth-century bore this theory out and supported urbanites' beliefs that farmers were manipulating high food prices.<sup>33</sup> By incorporating new scientific principles and mechanization into traditional farming practices, many agrarians felt that farmers could become more efficient and boost their production, thus lowering food costs. For this to occur, rural communities and the very nature of agricultural work had to be changed.

Country Lifers turned to science to help in the modernization process. It was through knowledge and technology that farming would become a "scientific industry."<sup>34</sup> Many Eastern and Mid-West banking organizations sought agricultural education as a means to reduce high food prices.<sup>35</sup> The addition of agricultural education in schools was based on the belief that agricultural colleges could teach the art of modern farming in a more efficient and practical manner. The bankers readily admitted that increased agricultural production was in their own self-interest; their thinking being that increased production led to the reduction of food costs. The lowering of food costs allowed borrowers to have additional income, which the borrowers could turn around and use for

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<sup>33</sup> Danbom, *The Resisted Revolution: Urban America and the Industrialization of Agriculture, 1900-1930*.

<sup>34</sup> Clarence Poe, "The Government and the New Farmer," in *The World's Work: A History of Our Time*, ed. Walter Hines Page and Arthur Wilson Page (Garden City, New York: Doubleday, Page & Company, 1905).

<sup>35</sup> "Bankers Organize to Help Farmers Increase Crops," *New York Times*, December 17, 1911; "Bankers Will Help Develop the Farms," *New York Times*, May 7, 1912; "Bankers at Work to Aid Farmers," *New York Times*, May 19, 1912.

loan repayment.<sup>36</sup> Through the adoption of science, technology, and agricultural education, a farmer would have a reduced workload, while the city dwellers would reap the benefit of lowered food costs. Though the Country Lifers dedicated to reform for financial reasons, like the Eastern and Mid-West bankers, never comprised a large portion of the agrarian movement, the economic benefits were often touted as a side benefit to rally support. By reducing food costs, the growing urban populations would have an increased stream of disposable income, enabling them to become an important factor in economic growth.

### **Agrarian Movement Manifestations in California**

The multifaceted nature of the agrarian movement, with its competing goals and philosophies, allowed many individuals and organizations in California to adopt various components of the movement as their own. Though the national agrarian movement was waning during the turn of the twentieth century, in California, the localized movements actually gained momentum. Two reasons for this included California's agricultural diversity and political environment. The vast range of agricultural commodities helped moderate the drastic price fluctuations seen by farmers in other parts of the country, a reason often cited for the mobilization of agrarianism in the South and Mid-West during the Reconstruction era. Additionally, California's political environment during the early twentieth century was more tolerant of reform movements, especially with progressive leaning Governors James Gillett and Hiram Johnson. The agrarian movement in

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<sup>36</sup> "Bankers Organize to Help Farmers Increase Crops," *New York Times*, December 17, 1911.

California arose out of the tension created through efforts of modernization of agricultural practices and foreshadowed the agrarian movement in the 1920s and 1930s.

The first tentative step for agrarianism in California during the early 1900s was the 'Little Landers' movement, a localized version of the Back-to-the-Land movement. The Back-to-the-Landers were romantic agrarians, recommending city dwellers take up farming as a means of sustenance and financial independence. In 1907, Bolton Hall became the unofficial representative of the Back-to-Land movement with the publication of his book, *Three Acres and Liberty*. In his book, Bolton promoted the idea that individuals and families could survive on subsistence farming and, thereby, achieve part of the American dream.

William E. Smythe took Hall's campaign of moving away from city life to heart and established an agricultural colony just south of San Diego in 1908, naming it San Ysidro, after San Ysidro Labrador, the patron saint of farmers.<sup>37</sup> Each family received as much land as they could cultivate, averaging two acres each, which gave rise to their 'Little Landers' nickname.<sup>38</sup> Following the success of San Ysidro, Smythe established an additional farming district outside of Los Angeles, naming the community Tujunga in 1913.<sup>39</sup> Both communities were initially successful and continue to this day, though both have abandoned their agricultural roots.

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<sup>37</sup> John L. Cowan, "The Hope of the 'Little Landers': The Story of San Ysidro, Cal., Where Families Prosper on Two Acres and a Quarter," in *The World's Work: A History of Our Time*, ed. Walter Hines Page and Arthur Wilson Page (Garden City, New York: Doubleday, Page & Company, 1912).

<sup>38</sup> "'Little Landers' Attempt to Solve Problem of Living Without Worry," *Popular Mechanics*, October 1914.

<sup>39</sup> Marlene A. Hitt, *Sunland and Tujunga: From Village to City, The Making of America* (Dover, New Hampshire: Arcadia Press, 2002).



Soon after Smythe's experiments in establishing agricultural communes, public entities attempted to replicate his success, with mixed results. In 1913, the state of California established the city of Durham as an agricultural colony, just outside Chico. The state purchased land and water rights, developed roads and irrigation canals, and allowed individuals to purchase tracts of land at a much-reduced price. The city of Durham, two hours north of Sacramento, continues to this day to be an agricultural community. Soon after this endeavor, the Los Angeles City Council and its Municipal Employment Bureau began to plan for a similar project in the rural areas surrounding the city. The intention of this proposal was to help unemployed men and their families relocate outside of the city and alleviate the many issues that typically accompanied a lack of capital.<sup>40</sup> The *Los Angeles Times* made no further mention of this proposed agricultural community, and it appears that the Municipal Employment Bureau abandoned its plans. This move by the city of Los Angeles appears to have been the last governmentally organized attempt in California to move people out of the cities and into rural settings, until the 1920s.

The Back-to-the-Land movement was not without its critics. The *Los Angeles Herald* condemned a *Kansas City Journal* article promoting the untilled farmlands as perfect for the poor in cities. Citing the scientific nature of agriculture, the *Los Angeles Herald* went on to state that city planners were dreaming that poor people would leave the city for rural areas. Since the poor were relatively unskilled in farming, within a week "the old lure of the city, with its electric lights, its street cars, its theaters, its churches, its

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<sup>40</sup> "Hunger Strike of Unemployed: Men Refuse to Work Except on Selected Jobs," *Los Angeles Times*, January 18, 1914.

excitement and even its dirt and its wickedness” would quickly bring them back into the city.<sup>41</sup> Five years later, the Secretary of Agriculture, James Wilson, called the Back-to-the-Land movement a myth, citing data indicating no increase in the establishment of family farms in rural communities, but rather an increase in the number of farms abandoned.<sup>42</sup> Again, the draw of the modern conveniences proved too strong for many of the urbanite-turned-farmers to resist and many returned to the city.<sup>43</sup>

In reality, the Back-to-the-Land movement was a short-lived social experiment that lasted little more than a decade at the turn of the century. Though the intentions of the crusade appeared to support agricultural pursuits, in effect it was more of a visceral reaction against city conditions. This is what separates the Back-to-the-Land movement from other attempts to develop agricultural colonies. While cities such as Anaheim, Riverside, and Pasadena had the purpose of moving farmers to new agricultural lands, the Back-to-the-Land movement targeted city dwellers in an attempt to move them out of the cities and into the rural communities.<sup>44</sup> By targeting poor people, city councils and social engineers were able to tackle two problems in one fell swoop, the first being urban overcrowding, and the second being large populations of indigent peoples. However, shipping the poor out of the cities was only a temporary fix. The lack of agricultural knowledge and capital to purchase either equipment or land doomed many attempts to resettle urban dwellers in rural areas to failure. Unsuccessful examples include Smythe’s

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<sup>41</sup> "Untilled Farms and the City Poor," *Los Angeles Herald*, March 18, 1906.

<sup>42</sup> "Back to Farm a Myth," *Los Angeles Times*, May 6, 1910.

<sup>43</sup> "Not Far Enough Back," *Los Angeles Times*, October 27, 1910; "Back to the Farm Cry False Appeal," *Los Angeles Times*, December 27, 1910.

<sup>44</sup> John Panter, "Central California Colony: 'Marvel of the Desert'," *The Journal of the Fresno City and County Historical Society* 36, no. 2 (1994).

establishment of colonies in Runnymede and Ashurst, along with California's establishment of Delhi in central California.<sup>45</sup> Technically speaking, even the cities of San Ysidro and Tujunga could be considered a failure since their original purpose, to create an agricultural colony, has been subverted with both communities abandoning their agricultural roots to become suburban areas. In fact, the only known successful colonization of the Back-to-the-Land movement in California was the state's establishment of Durham.

The attempt to move people out of the cities and into rural areas reflects an overly simplistic view of what farmers do and how they accomplish it. This misperception only grew as city populations expanded. California's early twentieth century media offers a glimpse into how farmers were viewed, however the newspapers themselves give an often-conflicted view. This indicates that in a larger sense, society itself was uncertain of how the placement of farmer within California's society as it faced rapid modernization and urbanization.

The concept of early twentieth century rural America being home to the yeoman farmer and the bulwark of democratic standards was perpetuated in many popular magazines and newspapers during the turn of the twentieth century.<sup>46</sup> While many agricultural journals and magazines exalted the virtues of the farmer and rural life, it was not their exclusive purview. *The Los Angeles Times* published several articles at the turn of the century commending the farmer. The *Times* warned "Patriotic Americans cannot

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<sup>45</sup> "Mr. Smythe Proposes to Bring Many Settlers to California," *San Francisco Call*, January 3, 1896.

<sup>46</sup> Dennis Roth, "The Country Life Movement,"  
[http://www.nal.usda.gov/ric/ricpubs/rural\\_development\\_chap1.pdf](http://www.nal.usda.gov/ric/ricpubs/rural_development_chap1.pdf).

but view with alarm the prevailing tendency to concentrate in large cities. Anything that will tend to keep the boys on the farm is a distinctive gain, not only for themselves but for the country at large.”<sup>47</sup> Not only was the plight of the relocated farmer a concern due to overcrowding in the cities, but it was a patriotic duty to help facilitate the farmer in staying on his farm. An unidentified *Los Angeles Times* columnist referred to the typical farmer as the “salt of the earth” and his career was the “basis of all wealth and is the bulwark of all civilization.”<sup>48</sup> The recognition of George Washington and Thomas Jefferson as great farmers, both before and after their political careers, was an explicit attempt to correlate farmers with American patriotism.<sup>49</sup> The correlation of Washington and Jefferson to the farming profession ignored almost all reality in the amount of actual farming they did and instead, tied the farmers to the concepts of independence, democracy, and patriotism.

Not all media portrayals of farmers were positive. Frequently, farmers, and others living in rural settings, were labeled as being illiterate, backward, poor, and gullible, the much-maligned hayseed, hillbilly, or yokel. An 1892 *San Francisco Call* article is an example wherein farmers are the butt of a joke, utilizing poor English slang to communicate.<sup>50</sup> The comics in a variety of publications frequently used stereotypical farmers as unintelligent or backward. This rose to such a degree that the *Los Angeles Times* ran an article condemning such pieces, going so far as to state that the “farmer is

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<sup>47</sup> "Back to the Farm," *Los Angeles Times*, August 16, 1902, 6.

<sup>48</sup> "A Talk to Farmers," *Los Angeles Herald*, January 21, 1906.

<sup>49</sup> "America's Debt to Thomas Jefferson," *San Francisco Call*, November 24, 1899; "Farming Must Have a Place in Our Schools," *San Francisco Chronicle*, December 27, 1905.

<sup>50</sup> "Why They Leave the Farm," *San Francisco Call*, November 16, 1892.

the only member of a civilized community who is absolutely indispensable.”<sup>51</sup> The paper even utilized a moral reasoning behind its denunciation when it christened farmers as stalwart entities within society and recommended that writers should “stop cartooning things honorable, for ‘tis the devil’s weapon to smirch the good.”<sup>52</sup>

### **Situating Wickson**

As the position of the farmer with California’s society played itself out within the media, only a few had the opportunity to actually select, and thereby direct, how farmers were portrayed. In addition to being the editor of the *Pacific Rural Press* and helping select the content of the newspaper, Wickson also wrote editorials and feature articles. While he never formally identified himself as a member of the agrarian movement, Wickson’s actions strongly reflect his sympathies to the movement. To understand Wickson’s contribution to the agrarian movement in California, and ultimately agricultural education, it is important to explore how he viewed various issues confronting farmers. To do this, Wickson will be compared to another prominent, and better-known, member of the agrarian movement, Liberty H. Bailey.

Bailey and Wickson had many similar interests in their lifetime. Both men spent their youth in agricultural areas and carried those interests into their future careers. Bailey had become the Dean of the College of Agriculture at Cornell University, while Wickson became the Dean of the College of Agriculture at the University of California. These men both sought the integration of technological advances into everyday agricultural life to increase agricultural production efficiency. Finally, they desired an improvement in the

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<sup>51</sup> "Cheap Wit," *Los Angeles Times*, March 23, 1902.

<sup>52</sup> *Ibid.*

social standing of rural communities and the ability for those communities to sustain themselves in the face of the growth of urban centers. However, the amount of their continued contact with agricultural and academic communities took them down different paths. As a result, Bailey tended to align himself with the romantic agrarian camp, while Wickson began to have more rational agrarian leanings, though neither belonged in the extreme end of their respective views.

As the Dean of the College of Agriculture at Cornell, Bailey was at the forefront of the Country Life Movement. He was the chair of President Roosevelt's Commission on Country Life, and traveled across America with the goal of identifying areas of deficiency in America's rural communities and making recommendations on how to improve the general condition of those communities.<sup>53</sup> Bailey viewed rural life as backward and entrenched in traditional, ineffectual agricultural practices.<sup>54</sup> He frequently spoke about the need to improve farming conditions. However, he rarely spoke in rural areas, instead speaking to social scientists, politicians and educators. While he advocated for the uplifting of the American farmer, he tended to push for the industrialization of farming practices. It is not evident that Bailey foresaw the possibility that increased production of agricultural commodities would naturally lead to depressed pricing of those goods. This shortsightedness would cause difficulty for Bailey later in his life, when an oversupply of agricultural goods flooded the markets causing very low agricultural prices. Instead of pressing for a reduction in production, thus causing some prices to

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<sup>53</sup> "Commission Studies Country Life Data," *San Francisco Chronicle*, November 29, 1908.

<sup>54</sup> Allan Carlson, *The New Agrarian Mind: The Movement Toward Decentralist Thought in Twentieth-Century America* (New Brunswick: Transaction Publishers, 2000).

increase and save some of the smaller family farms from bankruptcy, he instead pressed for wider acceptance of technologies with fewer farmers.<sup>55</sup> Additionally, Bailey often promoted an anti-city ideology. He believed cities were “parasitic” and “artificial” and that they deprived individuals of a simple life.<sup>56</sup> Bailey recognized that the urbanization of America was not going to stop and that the only way for the farming and rural communities to survive was through modernization and the adoption of industrial techniques in place of traditional farming methods.

Wickson, on the other hand, took more of a subtle role within the agrarian movement. He did not make rousing speeches attacking city life or extol the virtues of rural communities, however he did frequently travel to rural communities and spoke to them regarding agricultural science or local agricultural issues. He also desired to modernize agricultural practices. However, Wickson believed that modernization had some costs associated with it, and the agriculturalist had to be prepared to reduce those costs. In an article titled “Hearts, Homes and Homoculture,” Wickson recognized the desire to be successful in farming, but warned against successful farming being the sole purpose of their endeavors. Wickson sought to remind the reader that while the industrialization of their respective fields was acceptable, they should remember they had a moral duty to beautify, both their homestead and their community. Financial success should not come at the cost of heart and home.<sup>57</sup> Wickson recognized the drudgery of rural life and supported means to reduce its difficulty. While this would appear to create

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<sup>55</sup> Ibid.

<sup>56</sup> Liberty H. Bailey, *The Outlook to Nature*, 2nd ed. (New York, New York: Macmillan, 1911). 54, 91.

<sup>57</sup> “Hearts, Homes and Homoculture,” *Pacific Rural Press*, July 15, 1899.

the same shortsighted vision held by Bailey concerning overproduction, Wickson also desired the expansion of new markets in an attempt to reduce the effects of localized overproduction and subsequent price reduction.

Wickson also tackled issues that Bailey did not; issues such as the financing of land and agricultural equipment were of concern for many farmers. In 1900, Wickson began to publish articles seeking agricultural lending reform. That year, the *Pacific Rural Press* published a speech given at the Banker's Association of Sacramento by an individual identified only as "a contrite banker," calling on fellow financiers to change current practices as they related to farmers. If bankers were willing to extend some leniency with regard to loan repayments in tough years, a decline in farm foreclosures would occur. This reduction would benefit bankers since selling farmland and equipment at auction usually did not bring satisfactory returns.<sup>58</sup> This article generated a great response from the readers of the *Pacific Rural Press* and as a result, Wickson's editorial gave ardent support for the reforms proposed in the previously published "Contrite Banker" article.<sup>59</sup>

A decade later, Wickson spoke at the Eighteenth Annual Convention of the California Bankers' Association. He promoted the idea that bankers needed to change their lending practices in the rural communities. Instead of short-term loans, financiers should develop two to five year loans, so that a single bad crop, or poor weather, would not bankrupt the farmer. Wickson argued that a farmer left on the land to farm was truly in the best interest of the bank, since abandoned farmland added little to the bank's

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<sup>58</sup> "A Contrite Banker," *Pacific Rural Press*, May 12, 1900.

<sup>59</sup> "Keep the Farmer on the Farm," *Pacific Rural Press*, May 26, 1900.



balance sheet and was hard to resell.<sup>60</sup> Wickson emphasized the concept of keeping the farmer on the farm throughout his speech and echoed many of the points mentioned by the Mid-West and Eastern bankers when they advocated for agricultural education reform.<sup>61</sup>

While Wickson played a small and subtle role in the larger agrarian movement, his position within California, among farmers, helped cast a positive light on a movement that had previously been regionalized to either the South or the Mid-West. Though he did not create a unifying voice for the agrarian movement, there is little evidence that he attempted to. Instead of focusing on purely agrarian issues, he divided his time, working on a diversity of issues including topics such as agricultural science, agricultural education, and the restructuring of the College of Agriculture. Even with Wickson's position within the *Pacific Rural Press* and the University of California, the diversity of philosophies and goals within California's agrarian movement made it impossible for one individual to forge it into an organization determined to enact statewide reform.

### **Seeds for California's Agricultural Education Reform**

The great philosophical and ideological diversity within the agrarian movement however did allow the seeds of reform to be planted. The lack of unifying core values, or a central organization, within the agrarian movement caused it to sputter along at the turn of the twentieth century. Lacking the economic crisis of the 1890s, and the necessity of increased agricultural production during World War I, the agrarian movement in the early twentieth century had no rallying cry around which to coalesce. This led to different

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<sup>60</sup> "Agricultural Development and Education," *Pacific Rural Press*, May 25, 1912.

<sup>61</sup> "Bankers at Work to Aid Farmers," *New York Times*, May 19, 1912.

goals, some of which were developed organically by local farmers, organizations representing the agricultural community, and rational agrarians, while other goals were developed by city dwellers, politicians, and romantic agrarians to impose solutions to perceived rural problems.

While some organizations and political groups supported the Back-to-the-Land movement in an attempt to alleviate the symptoms of urban overcrowding, other agrarians pushed for a revolution in agricultural practices through scientific advancement. This ran headlong into the goals of many farmers, and their agricultural organizations, who desired a more practical education for their children. Calls to separate the College of Agriculture from the University of California occurred at the turn of the twentieth century. The fact that many students who left for the university never returned to the farm after college, fueled the concept that the university did not serve the needs of the farming community.<sup>62</sup> Once again, the same tension created by the academic community, with its drive for scientific inquiry being a primary goal, and the agricultural community, seeking practical training, came into play. The conflict between President Wheeler of the University of California and Dean Wickson of the College of Agriculture is emblematic of this tension within the larger context of the agrarian movement.

The complex relationship between the many factions within the agrarian movement, and with those not part of the movement, brought a unique opportunity for educational and curricular reform. While various interest groups within the agrarian

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<sup>62</sup> "Agricultural Education," *Los Angeles Times*, January 12, 1897; David B. Danbom, "The Agricultural Experiment Station and Professionalization: Scientists' Goals for Agriculture," *Agricultural History* 60, no. 2 (1986).

movement continued to build tension well into the 1930s, the opportunity for educational reform was fleeting. The movement's growth within California at the turn of the century, coupled with educational reform efforts, both at the national and state levels, contributed to the enactment of changes within agricultural education. These adjustments to the curriculum were felt at all levels of education in California, including the University of California and secondary schools during the early 1900s. The agrarian movement in California, though fragmented with often conflicting goals, did act as a catalyst for many agricultural organizations and individuals to push for reform. The next chapter explores educational reform and how it, within the agrarian context, developed agricultural education reform within California's institutions of education.

### Chapter III: Educational Reform in California

“Never before in the history of the world have the inter-relations of the arts of agriculture and education been so clearly discerned as they are at the present day.”<sup>1</sup>

The twenty years spanning the late nineteenth and early twentieth centuries were one of the most ideal time periods within American history for educational reform. The scope of public education greatly expanded during this time and its fundamental purpose came into question. Social and political factors played into this educational maelstrom, bringing about many changes. The root of Edward J. Wickson’s version of agricultural education’s success, and ultimately its failure, can be found within the various movements that fought for political power during this time period. While Wickson initially found success in his advocacy, the social winds changed and the foundation Wickson had built for his curriculum was unable to adapt to those changes.

As various groups competed for political power during the turn of the century, terms such as scientific agriculture, practical agriculture, technical agriculture, and vocational agriculture crept into the public conversation. Though one of the main objectives of the next chapter is to explore these terms in detail, it is important to create a working definition to better understand the educational reform movement in California during this time period. As educational conversations evolved, these terms became increasingly fluid. Generally speaking, scientific agriculture was defined as a curriculum based on scientific principles and theories. Practical agricultural education, on the other hand, attempted to teach the skills needed on a farm in an educational environment.

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<sup>1</sup> Edward J. Wickson, "Agriculture and Education," *Pacific Rural Press*, July 9, 1898.

However, science still had a minor role within the practical agriculture curriculum. Technical agriculture combined scientific theory with hands-on experiences, thus staking out a middle ground between scientific and practical agriculture. Finally, vocational agriculture was an extreme form of practical agricultural education, with a strong emphasis on hands-on activities and little integration of scientific theory. These four pedagogical approaches were at the heart of the agricultural education reform movement during the turn of the twentieth century and effected the educational conversation within California at that time.

The seeds of reform planted by the agrarian movement, combined with the context of educational reform at the turn of the twentieth century, created an environment that facilitated agricultural education reform in California's educational institutions. In order to investigate this, first the educational environment in California just prior to the twentieth century will be explored. Once the educational context is established, the use of agrarian themes by various agricultural organizations to push for agricultural education reform will be investigated. The establishment of the University Farm will be the main focus of this section. In addition to agricultural education reform at the University of California, secondary school agricultural education reform will also be illuminated. These reform movements, along with Wickson's educational philosophy regarding agriculture in the classroom, will give insight into California's early twentieth century educational environment. Ultimately, the conflicted nature of the agrarian movement, with its lack of a unifying voice or purpose, along with the increased political clout of the vocational

education movement, led to the rapid decline of scientific and technical agricultural education in California's secondary schools.

### **Fertile Field for Reform**

While some public secondary schools existed prior to the Reconstruction Era of American history, a rapid period of expansion occurred in the late nineteenth and early twentieth centuries. In 1890, the United States had 4,158 secondary schools in operation, with approximately forty percent run by private organizations.<sup>2</sup> These schools had approximately two hundred thousand students in attendance, or seven percent of the youths aged fourteen to seventeen. Within three decades the number of students aged fourteen to seventeen attending public secondary schools increased five hundred percent to over one million.<sup>3</sup>

Prior to the twentieth century, secondary schools had an eclectic mix of purposes, courses, and pedagogy. This diversity in educational practices was a result of two factors. State, and local, control of schools allowed for the utilization of a variety of priorities and educational philosophies in the formation of high schools.<sup>4</sup> Additionally, the great range of collegiate entrance requirements led to a diverse curriculum to aid student admission into post-secondary schools of higher education.<sup>5</sup> These two elements created an assortment of curricular issues, with secondary schools having no common set of courses or curriculum for graduation. During this time, universities had a variety of factors they

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<sup>2</sup> Thomas H. Briggs, "The Committee of Ten," *Junior-Senior High School Clearing House* 6, no. 3 (1931).

<sup>3</sup> R.L. Church and M.W. Sedlak, *Education in the United States: An interpretive history* (Free Press New York, 1976).

<sup>4</sup> Marc A. VanOverbeke, *The Standardization of American Schooling: Linking Secondary and Higher Education, 1870-1910*, Secondary Education in a Changing World (New York, New York: Palgrave Macmillan, 2008).

<sup>5</sup> Kliebard, *The Struggle for the American Curriculum, 1893-1958*.

considered for student admission.<sup>6</sup> These admission requirements ranged from personal interviews with the university president to written examinations tailored to the individual university.<sup>7</sup> As a result, admissions into higher institutions of learning were problematic for students graduating high school and heading to different universities. The range of admission requirements required a diversified high school curriculum, irrespective of the school's facilities or financial status. Due to fiscal restraints, principals complained about the non-standardized nature of university admissions and the impossibility of preparing their high school graduates for post-secondary education at the end of the nineteenth century.<sup>8</sup>

In 1881, University of California President William T. Reid took steps to alleviate this situation by sending faculty from the university to visit West Coast secondary schools.<sup>9</sup> These visits were the beginning of an accreditation process that would help recent graduates with admissions into the University of California. The purpose of the visits was to review the secondary school's curriculum and decide if the school's graduation standards were deemed sufficiently rigorous. When such a determination was

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<sup>6</sup> Dorothy Perry et al., "The Use of Admissions Tests by the University of California " Board of Admissions and Relations with Schools, <http://www.universityofcalifornia.edu/senate/committees/boars/admissionstests.pdf> ; Mott R. Linn, "College Entrance Examinations in the United States: A Brief History for College Admission Counselors," *Journal of College Admissions*, no. 140 (1993); S. Gelber, "Pathways in the past: Historical perspectives on access to higher education," *The Teachers College Record* 109, no. 10 (2007).

<sup>7</sup> Linn, "College Entrance Examinations in the United States: A Brief History for College Admission Counselors."

<sup>8</sup> Thomas C. Hunt, "American High Schools in Trouble: 1893 and 1976 " *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* 49, no. 5 (1976); Kliebard, *The Struggle for the American Curriculum, 1893-1958*.

<sup>9</sup> James Hocker Mason, "The Educational Milieu, 1874-1911: College Entrance Requirements and the Shaping of Secondary Education," *The English Journal* 68, no. 4 (1979).

made, graduates from the school were able to avoid the individual examination requirement for admissions into the university. A consequence of this process was the increased pressure for secondary schools to standardize their curriculum to meet the University of California's admission requirements. This movement of curricular standardization started slowly in California, but would accelerate in the late 1890s and into the 1900s through the actions of the Committee of Ten and University of California President Benjamin I. Wheeler.

The Committee of Ten was the informal name for a group of committees formed in 1892 by the National Education Association. One of the purposes of the Committee of Ten was to develop guiding principles for secondary schools. The committee was chaired by Harvard President Charles W. Eliot, and its membership was heavily tilted toward higher institutions of learning. Thomas H. Briggs, a professor of education at Teachers College, Columbia University, and specialist in secondary school education, stated that the committee also examined the subject matter being taught within secondary schools, when those subjects should begin, and the amount of time dedicated to each subject.<sup>10</sup> Even though the committee recognized that secondary schools needed a diversity of ideas and processes, a consequence of their report was the standardization of the high school curriculum.<sup>11</sup>

The standardization created some upheaval in the high school curricular circles. Efforts to accommodate various advocates on the Committee of Ten led universities to

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<sup>10</sup> Briggs, "The Committee of Ten."

<sup>11</sup> Herbert M. Kliebard, "Education at the Turn of the Century: A Crucible for Curriculum Change " *Educational Researcher* 11, no. 1 (1982); Hazel W. Hertzberg, "Foundations. The 1892 Committee of Ten.," *Social Education* 52, no. 2 (1988); VanOverbeke, *The Standardization of American Schooling: Linking Secondary and Higher Education, 1870-1910*.



accept some subjects, such as modern languages and English, and elevate other subjects, such as the hard sciences, to a more prominent role within the school's academic programs. Curricula not in compliance with the Committee of Ten recommendations quickly fell into disuse. Some of these abandoned courses included the recently established hands-on, manual arts subjects. These courses garnered support, prior to the Committee of Ten, due to the late nineteenth century collapse of the master-apprentice model, but curriculum standardization quickly removed the manual arts curriculum from many secondary school programs.<sup>12</sup>

In addition to the standardization of the curriculum, the Committee of Ten's report also entered into the multifaceted conversation surrounding democratic values and education. The report explicitly stated, "every subject which is taught at all in a secondary school should be taught in the same way and to the same extent to every pupil so long as he pursues it, no matter what the probable destination of the pupil may be, or at what point his education is to cease."<sup>13</sup> With the committee membership heavily favoring individuals representing colleges and universities, the academic emphasis was quickly cemented into high school curriculum. However, students who did not desire post-secondary education were not ignored by the committee. The Committee of Ten helped mediate the conflict between college-bound students and terminal students,

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<sup>12</sup> Kliebard, *Schooled to Work: Vocationalism and the American Curriculum, 1876-1946*.

<sup>13</sup> National Education Association of the United States. Committee of Ten on Secondary School Studies, *Report of the Committee of Ten on Secondary School Studies: With the Reports of the Conferences Arranged by the Committee* (Pub. for the National Education Association, by the American Book Co., 1894).

emphasizing the need for all students to be treated equally within the academic school year and enroll in the same courses.<sup>14</sup>

This philosophical shift toward academic inclusion created unintended tension between students, school officials, and community members. As America moved into the early twentieth century, many Americans felt the public secondary schools were not meeting the needs of all students.<sup>15</sup> The conflict between servicing students who are college bound, thus needing rigorous academic courses, and students who have no intention of post-secondary education is still a debate that echoes today. How could schools meet the needs of those students who desired a non-academic career after secondary school, while still maintaining the rigor for those students headed to college?

This question came to a head in the agricultural community quickly after the Committee of Ten's report came out. The *Pacific Rural Press* published a scathing article by Edward Berwick, a prominent orchardist in Carmel Valley, that called into question the purpose of a classical education.

To the little tin god of "classical education" we and they still bow down and shout, "Great is a classical Education!"...The dry bones of the dead past may be good enough things for a few philologists and paleontologists to rummage among; but give the young American the living beauties of Nature for his daily contemplation, and anything he cannot learn about them in his own mother tongue, with the 70,000 extra words furnished by a recent Dictionary, is perhaps hardly worth his knowing.<sup>16</sup>

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<sup>14</sup> Ibid.

<sup>15</sup> J. N. Hook, *A Long Way Together: A Personal View of NTCE's First Sixty-Seven Years* (Urbana, IL.: NCTE, 1979); Carol Aulbach, "The Committee of Ten: Ghosts Who Still Haunt Us," *The English Journal* 83, no. 3 (1994).

<sup>16</sup> Berwick, "Education from a Farmer's Standpoint."

According to Berwick, students needed to explore nature, to study it, and scientifically analyze it, for this is where their future was, on the farm and continuing the traditions of farming. Learning needed to be based upon the student's daily experiences and therefore, students had little use for Latin or Greek. In addition to condemning a classical education and promoting a nature-study based curriculum, Berwick also denounced educators for holding onto a dead curriculum, and recommended farmers unite in pushing for curricular reform at their local schools.<sup>17</sup>

Wickson wrote an editorial response to Berwick within the same edition of the *Pacific Rural Press*.<sup>18</sup> Wickson pointed out that many great strides had been made in education during the previous few years with regards to curriculum reform, changes that Berwick appeared to not be aware of. Wickson cited the fact that many high schools had moved away from the classical education.

‘Against the classics’ has been the slogan of educational reformers for a quarter century, and in this country at least there is no need to continue that cry longer. The present pupil can boycott them if he wishes. Our leading high schools have a number of courses leading to graduation and a diploma is attainable without a syllable of Latin or Greek, if the pupil so choose.<sup>19</sup>

Wickson also expressed sympathy for the expansion of nature study within primary schools. Nature study opened the door for agricultural education in secondary schools so he called upon farmers to unite, if they so desired, to push for these changes. “Agriculturalists need a better understanding of the principles underlying their practices

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<sup>17</sup> Ibid.

<sup>18</sup> Wickson, "Agriculture and Education."

<sup>19</sup> Ibid.

and of the materials involved in them. The only question is, do rural communities want it, and will they actuate it in the selection of county and district school officers?"<sup>20</sup>

Wickson had more than one reason to cite the recent changes in secondary school education reform. Just one year previous to Wickson's editorial, the *Los Angeles Times* published an article advocating the College of Agriculture be separated from the University of California if certain curricular changes were not implemented.<sup>21</sup> The changes were needed due to the belief that "men who graduate from them [agricultural colleges] seem to embrace every vocation but agriculture."<sup>22</sup> The *Los Angeles Times* pushed for a change in the College of Agriculture's curriculum if the college desired to remain within the university. There was no call to replace the old curriculum of scientific agricultural education. Instead, the *Times* urged the College of Agriculture to integrate practical training into the theoretical/scientific instruction; to create "scientific farmers" who would help place American agriculture as one of the top industries in the country.<sup>23</sup> Wickson's editorial emphasized that curricular changes within all levels of California's educational system were taking place, and issues, such as theory and practice, were continually being reviewed to maintain a proper balance.<sup>24</sup> Though Wickson did not know it at the time, his call for farmers to unite for a common educational purpose, combined with the writers at the *Los Angeles Times*'s call to separate the College of Agriculture, would have unforeseen political and educational ramifications.

### **Farmers Organize for Reform**

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<sup>20</sup> Ibid.

<sup>21</sup> "Agricultural Education," *Los Angeles Times*, January 12, 1897.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

<sup>24</sup> Wickson, "Agriculture and Education."

In March of 1904, Peter J. Shields, a judge on the California Superior Court in Sacramento and the secretary to the California State Agricultural Society, issued a rallying cry for reform. He published a bulletin through the California Livestock Breeders' Association that pushed for several changes within California's agricultural education system. Shields argued that California's agricultural education was an embarrassment, especially when compared with the agricultural education systems put into place in states such as Wisconsin, Illinois, and Minnesota. Not only did Shields advocate for a larger allotment of financial resources, but he criticized every method of agricultural education within California, with special emphasis on the University of California. He accused the College of Agriculture of having "inadequate buildings [because] it has no farm, it has no flocks or herds. It is a landless college."<sup>25</sup>

In addition to condemning the university's facilities as being inadequate, Shields also denounced the instructional techniques that were used in the agricultural courses. Utilizing agrarian concerns of rural depopulation, Shields stated that "those states where agricultural education is comprehensive, and where a taste and capacity for agriculture is imparted in the schools, the movement of the population to the city has been checked, and the tide turned; with us it continues in the direction of danger."<sup>26</sup> In addition to this, he also used familiar agrarian themes of farmer superiority and their stabilizing effects on democracy. Shields pushed for a rededication by Californians to agricultural education so that California could take its proper place within the country as a leading agricultural

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<sup>25</sup> Peter J. Shields, "Agriculture Education," (California Livestock Breeders' Association, 1904). folder 32, box 1, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley, 5.

<sup>26</sup> *Ibid.*, 6.

state. Finally, he reiterated that this blossoming of California's agricultural industry could only happen through the incorporation of a revised agricultural education curriculum that married agricultural science theory and practical skills together. While Shields advocated for a radical transformation of California's agricultural education, he did not push for the separation of the College of Agriculture from the University of California.

Shortly after Shields' article, Governor George Pardee wrote to Eugene Hilgard, Dean of the College of Agriculture, inquiring as to the truthfulness of Shields's accusations. In response, Hilgard called the College of Agriculture facilities "humiliatingly fragmented and primitive" and a good cause for the lack of student enrollment in agricultural education.<sup>27</sup> Additionally, Hilgard explained that he was constantly apologizing to visitors to the College of Agriculture from other states and from abroad regarding the "ridiculously inadequate provision for instruction in a great agricultural State."<sup>28</sup> Hilgard further identified an attitude held by many of his Berkeley literary colleagues that agriculture had no place in the university. He was even told by Regent Stebbins at one time that "of course we don't expect to make much of the College of Agriculture, and you need not push it."<sup>29</sup> Hilgard believed that increased student enrollment could be obtained by updating College of Agriculture facilities through

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<sup>27</sup> Eugene W. Hilgard to George C. Pardee, 1904, folder 1, box 32, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley.

<sup>28</sup> Ibid.

<sup>29</sup> Ibid., 2.

additional budgetary allotments and by embracing “the study and demonstration of the principles and practice of agriculture.”<sup>30</sup>

The College of Agriculture students added their voice to this conversation regarding their learning conditions. A pamphlet published by the Agricultural Club in October 1904 called on the university to improve agricultural facilities immediately. Citing examples of professors using their offices as lecture rooms, a small shed that had been condemned as unsafe, and the use of a dilapidated horse shed for a laboratory facility, the students expressed a desire for a university farm. The farm would offer an opportunity for the “two lines of work included in agricultural education, the scientific and the practical [to be] in close touch with one another.”<sup>31</sup> Not only did the College of Agriculture’s students address the issues of inadequate facilities, but they expressed their desire for a different pedagogical approach to instruction.

The California State Grange joined the bandwagon in support for Shields and the University of California’s agricultural students at their annual convention in November, 1904. The Grange’s Committee on Agriculture demanded that the University of California build a modern scientific building for the College of Agriculture at Berkeley, the University continue the Farmers’ Institute and extension work, and that a farm be purchased for practical instruction and demonstrations.<sup>32</sup> However, the farmers within the State Grange were not unified on how the University Farm was to be managed. In addition to the Committee on Agriculture’s push for reform, another Grange committee

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<sup>30</sup> *Ibid.*, 3.

<sup>31</sup> "Needs of the College of Agriculture of the University of California From the Students' Point of View," (1904). folder 8, box 32, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley.

<sup>32</sup> B. G. Hurlburt, "Our Agricultural College," (California State Grange Office of Master, 1904).

promoted a more radical idea. The Committee on Legislation pushed for the complete separation of the College of Agriculture from the University of California and the purchase of a university farm to facilitate this separation.<sup>33</sup>

The conversation surrounding the College of Agriculture was a source of apprehension for Hilgard. While he desired better facilities and a university farm, he felt the “trouble with the Breeders’ Association is that they were dominated by men who desire to remove the Agricultural College from the University...they have a wild idea that the Farm may just as well be fifty or one hundred miles away from the University, and that lets the secession cat out of the bag.”<sup>34</sup> Attempts to detach the College of Agriculture from the University of California had been gathering steam since the *Los Angeles Times* called for the separation in 1897. In its article the newspaper called for, “a genuine agricultural college in a wholesome agricultural atmosphere.”<sup>35</sup> Hilgard plainly viewed the proposed university farm as an indirect attempt to cause this division. He wrote to Lieutenant Governor Alden Anderson regarding the proposals put forth by the Legislative Committee of the California State Grange. Hilgard thought the proposals were an unacceptable segment of a “definite movement to wholly segregate the Agricultural College from the University.”<sup>36</sup>

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<sup>33</sup> Ibid.; H. C. Raap, "Our Agricultural College," (California State Grange Committee of Legislation, 1904), respectively.

<sup>34</sup> Eugene W. Hilgard to H.P. Armsby, November 15, 1904, folder 1, box 32, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley

<sup>35</sup> "Agricultural Education," *Los Angeles Times*, January 12, 1897.

<sup>36</sup> Eugene W. Hilgard to Alden Anderson, December 3, 1904, folder 1, box 32, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley.



As the bill based on the California Livestock Breeders' Association and Shields' recommendations wound its way through the legislative process, a letter to Regent John A. Britton, from D.T. Fowler, gives some insight into California politics in 1905.<sup>37</sup> Fowler was the conductor of the Farmers' Institutes in Central and Northern California, but more importantly, he was the new Chair of the Legislative Committee for the California State Grange. In the letter, Fowler described the fact that two competing agricultural education bills were before the legislators. One of the bills supported an allocation of money to build a new agricultural building on the Berkeley campus. The second was the bill written by the California Livestock Breeders' Association. Fowler predicted the failure of the first bill and the success of the second based on two viewpoints held by many legislators. The reasoning behind the prediction was that Fowler found

a good deal of sentiment in the legislature and among those who are advocating the College farm that the money of the Morrill Fund has not been properly spent for agriculture and the manual arts by the Board of Regents of the University and hence these parties wish to have a separation of the agricultural department from the University. These statements are wild and unreasonable, but they more or less have their effect.<sup>38</sup>

Though Fowler called these claims unreasonable, the recent statements from the College of Agriculture students, the California State Grange, and the California Livestock Breeders' Association provided plenty of evidence to support the legislator's beliefs. In addition to the belief that the Regents had acted improperly toward the College of

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<sup>37</sup> D. T. Fowler to John A. Britton, February 3, 1905, folder 29, box 32, Records of the Regents of the University of California, 1868-1933, series number Cu-1, Bancroft Library, University of California, Berkeley.

<sup>38</sup> Ibid.

Agriculture, many legislators and their constituents felt resentment toward the University of California. This resentment was based on the merger of the Agricultural, Mining, and Mechanical Arts College with the College of California to form the University of California. Many legislators felt the university had abandoned both its agricultural roots and the agricultural communities in the state. This perceived sentiment of apathy and/or hostility by the Regents and the University of California leadership led many legislators to believe that a new permanent building on the Berkeley campus would not benefit the College of Agriculture.

#### **Agricultural Education Reform at the University of California**

The bill establishing a university farm was passed in 1904 and the University Farm Commission was established with Governor Pardee as the Chair. Other members included University of California President Benjamin Wheeler, Senator B. F. Rush, Lieutenant Governor Alden Anderson and California Horticultural Commission Chair Elwood Cooper. A sixth member of the University Farm Commission was to be nominated by the commission and Pardee put forth Wickson's name since he "was in constant touch with the farming element all over the state."<sup>39</sup> Instead, Wheeler nominated V. H. Henderson, the Secretary of the Regents of University of California, arguing that Henderson understood the will of the Regents better than Wickson. Wheeler's motion carried and Wickson was denied membership on the commission.

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<sup>39</sup> "Farm Commission is Organized," *Woodland Democrat*, April 10, 1905. An excellent resource for hard to find newspaper articles regarding the University Farm can be found in folder 1, box 32, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley.

In reality, Wheeler did not want the farm and he certainly did not want an agricultural advocate, such as Wickson, on the commission. The University Farm represented a step backwards in Wheeler's view. Having fully accepted the theory that scientific acclaim lent prestige to a university, the farm symbolized a large investment in non-scientific instruction. After the matter of membership was concluded, Wheeler suggested that "the selection of a farm was a very important proposition and it behooved the Commission to go slow."<sup>40</sup> He further recommended that every member of the commission travel back east to observe other university farms. Once that was completed, every member should visit every possible farm site throughout the state before any decision was made. Wheeler's justification was the fact that such a large purchase of land for the university's use was very important and should not be rushed into.<sup>41</sup> By slowing down the selection process he planned to delay the commission's decision until 1905, an election year. He assumed the selection of one particular site, out of over sixty-nine possibilities, would cause the alienation of some voters during the critical time just before the fall election for the governor, the lieutenant governor, and the senator on the committee.

In addition to slowing the commission's decision, Wheeler's true intent with regard to the University Farm was established in a letter to Pardee within days of the final report given to the commission. In it Wheeler wrote,

We, of course, understand that our State Farm will be of very little use for the higher agricultural training unless it be in close proximity to the University or to one of the

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<sup>40</sup> Ibid.

<sup>41</sup> Ibid.

Universities. If we place the Farm in the central valley, say at Woodland, it will serve the purpose of a secondary school, what they call in Minnesota an Agricultural High School, but it will have very little value for any other purpose.<sup>42</sup>

Upon receiving the final report, Wheeler rejected the proposed site due to Woodland's distance from Berkeley and instead, proposed the University Farm become an agricultural high school. Knowing the placement of the University Farm near Berkeley would be impossible, due to geography and other factors, Wheeler attempted to minimize the utility of the University Farm to the University of California. In the same letter he also attempted to subvert the work that had been done to generate the commission's final report by pushing for a site near Palo Alto. Wheeler made arrangements with Stanford President David Jordan for the new site to be a joint venture between the University of California and Stanford University.<sup>43</sup> Though no written evidence as to Pardee's reply is found in the archives, the ultimate placement of the University Farm follows the original final report to the commission and not Wheeler's late recommendations.

In addition to statewide political concerns and his lack of enthusiasm for the University Farm, Wheeler also had to confront the political reality at the University of California. Though Wheeler had denied Wickson a place on the University Farm Commission in April 1905, he abruptly reversed course in November of that same year. In fact, not only did Wheeler desire for Wickson to be a member of the commission, but

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<sup>42</sup> Benjamin I. Wheeler to George Pardee, February 16, 1906, folder 39, box 32, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley

<sup>43</sup> Ibid.

he also made a motion to leave the entire process of site selection to Wickson.<sup>44</sup> Wheeler's reversal may very well have been caused by College of Agriculture Dean Hilgard's retirement announcement at the end of the 1904-1905 school year. Wheeler had already begun a public search for Hilgard's replacement, with little success, when the initial meeting of the commission occurred. Wheeler had every reason to diminish Wickson's political power with state officials and farming communities throughout the state and thus desired his exclusion from the commission. Subsequent to the commission's initial meeting, Wheeler privately received word that the individuals he offered the Dean position to, Liberty H. Bailey, Dean of Cornell University and Henry J. Waters, Dean of the University of Missouri, had both refused it.<sup>45</sup> With no alternatives to Wickson, Wheeler needed more time. A position on the University Farm Commission, and its extended timetable for site selection, offered just that to Wheeler. In total, sixty-nine potential sites had been identified, throughout the state, and a traveling agenda of over one year had been drawn up.<sup>46</sup> Though very little written evidence is available, the benefits to Wheeler were clear. Wickson would be away from the university for a while, traveling up and down the state, and whatever decision Wickson made would surely alienate the farming communities not selected for the University Farm. In a letter written by Hilgard at the time of Wickson's assignment, Hilgard noted that the location of the

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<sup>44</sup> "Finding Site for State Farm," *Watsonville Register*, November 29, 1905.

<sup>45</sup> "Wheeler Back From East," *San Francisco Chronicle*, July 6, 1905; "Pres. Wheeler Goes East," *Los Angeles Herald*, November 10, 1905; Wheeler to Bailey, March 31, 1905, folder 31, box 27, Office of the President. Records: Alphabetical Files, 1885-1913, series number CU-5 Series 1, Bancroft Library, University of California, Berkeley.

<sup>46</sup> Edward J. Wickson to The University Farm Commission, February 9, 1906, folder 29, box 32, Records of the Regents of the University of California, 1868-1933, series number Cu-1, Bancroft Library, University of California, Berkeley.

University Farm was a matter of controversy and jealousy and “there will be a great many disgruntled people when the final selection is made.”<sup>47</sup> In addition, the politicians on the committee would be able to mitigate any political consequences for a community not being selected, since Wickson was the only one responsible for site selection. In one fell swoop, Wheeler was potentially able to diminish Wickson’s standing within the academic, farming, and political communities.

In the summer of 1905, Bailey was invited to speak at the Summer Farmers’ Institute. Though there is no evidence as to who invited Bailey to speak, it is logical to presume that Wheeler issued the invitation. Support for this conjecture is the close, personal relationship between the two men, the collegial letters during the spring, and Wheeler’s early summer trip back from the East Coast.<sup>48</sup> Wickson is the only other person who had the authority to issue an invitation to speak at the institute. The fact that Bailey had been offered Hilgard’s position was public knowledge and there is no evidence that Wickson was aware of Bailey’s rejection of Wheeler’s employment offer. The odds of Wickson offering a prominent lecturing opportunity to a direct competitor for his job are slim.

Whoever invited Bailey, his lecture at the Summer Farmers’ Institute offered Wickson an opportunity to discretely diminish a rival’s standing within California’s agricultural communities, while at the same time, further discrediting Wheeler within the

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<sup>47</sup> Letter from Hilgard to J. Clyde Marquis, The Phelps Publishing CO, Chicago Illinois dated December 18, 1905 Folder 38 box 32 CU-1 Records

<sup>48</sup> "Wheeler Back From East," *San Francisco Chronicle*, July 6, 1905; "Pres. Wheeler Goes East," *Los Angeles Herald*, November 10, 1905; Wheeler to Bailey, March 31, 1905, folder 31, box 27, Office of the President. Records: Alphabetical Files, 1885-1913, series number CU-5 Series 1, Bancroft Library, University of California, Berkeley.

political circles of Sacramento. Bailey chose to speak on his vision of the ideal university farm, a similar topic he spoke about to the University Farm commission just a few days prior.<sup>49</sup> The reason for this choice in topics is baffling until Bailey's personal relationship with Wheeler is recognized. Wheeler's drive to gain scientific prestige was "ruthless."<sup>50</sup> The idea of a practical university farm was antithetical to him. But, having Bailey, a well recognized agriculturalist, address the farmers with a scientific vision for the University Farm allowed for Wheeler to secretly promote his goals for the farm.

Wickson knew Bailey's ideas and vision for the University Farm would have a quick and heated response from the farming community. As the Acting Director of the Agriculture Experiment Station, Wickson immediately published Bailey's philosophies as Agriculture Experiment Station Circular No. 15, titled "Recent Problems in Agriculture: What a University Farm is For." This circular was distributed throughout the state to almost fifteen thousand agriculturalists and farmers, roughly six times the number of pamphlets normally produced.<sup>51</sup> In the bulletin, Bailey stated that "the farm must then be a laboratory. If your people do not believe in this idea, then you must educate your people."<sup>52</sup> Furthermore, "the better it is a farm the better it ought also to be a laboratory; but the laboratory utilization of it should always come first. A university farm justified from the university or pedagogical point of view must be made a true laboratory."<sup>53</sup> This

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<sup>49</sup> "To Lecture on Agriculture: Eminent Scientist From Cornell University Will Arrive in This City Today," *San Francisco Chronicle*, July 30, 1905.

<sup>50</sup> Bowman, "Reminiscences of the University of California, 1906-12," 31.

<sup>51</sup> Edward J. Wickson to Benjamin I. Wheeler, January 8, 1906, folder 30, box 55, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley.

<sup>52</sup> Bailey, *Recent Problems in Agriculture - What a University Farm Is For*, 15: 3.

<sup>53</sup> *Ibid.*, 4.

subordination of the University Farm to a laboratory setting did not sit well with many of the state agricultural organizations that had fought to win passage of the University Farm bill in 1905.

The background surrounding the publication of this particular bulletin and the timing is suspicious. First, Wickson was denied membership on the committee dedicated to finding a location for the new University Farm, and media reports informed him that President Wheeler was instrumental in that denial.<sup>54</sup> Secondly, Wheeler had just arrived back home from the East Coast, attempting to find Wickson's replacement as the temporary College of Agriculture Dean and the Agricultural Experiment Station Director positions.<sup>55</sup> Thirdly, Wickson desired that the University Farm "should be developed to the highest degree only along lines of practical instruction and distance is of less importance than success in building up this new feature [the farm] and properly correlating it with the theoretical work in science and economics at the University."<sup>56</sup> Finally, though Bailey's original lecture was related to a variety of problems facing agriculture, only the portion related to the University Farm was printed by the Agricultural Experiment Station "as a contribution to a question of pressing public interest."<sup>57</sup> Therefore, evidence suggests that Wickson set out to damage the reputations

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<sup>54</sup> Edward J. Wickson to George C. Pardee, April 17, 1905, folder 40, box 32, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley.

<sup>55</sup> "Wheeler Back From East," *San Francisco Chronicle*, July 6, 1905.

<sup>56</sup> Edward J. Wickson to George C. Pardee, April 17, 1905, folder 40, box 32, Records of the Regents of the University of California, 1868-1933, series number CU-1, Bancroft Library, University of California, Berkeley.

<sup>57</sup> Bailey, *Recent Problems in Agriculture - What a University Farm Is For*, 15: 1.



of both Bailey and Wheeler by not only publishing Bailey's lecture, but also insuring the circular's wide distribution with an abnormally large printing order.

Wickson knew Bailey's ideal university farm would ignite a firestorm of controversy among the politically connected agricultural organizations and farmers alike, and he was right. Within a few days after Agricultural Experiment Station Circular 15 was published, Bailey's lecture was condemned by many university farm advocates.<sup>58</sup> In the annual California Livestock Breeders' Association conference, Judge Shields stated that he "regretted that the professor [Bailey] came to California to obstruct the only genuine awakening of agricultural education interest the State has had."<sup>59</sup> Wickson was in attendance at the conference and had just finished giving a lecture before Shields stood up to speak. While Shields condemned Bailey and President Wheeler's opinions regarding the purpose of the University Farm, he made a special effort not to criticize the College of Agriculture or the newly installed Dean Wickson. Shields continued,

that while they materially differed from the views entertained by Professor Wickson he [Shields] desired to state that in no way reflected on the work of Professor Wickson, whose earnest efforts in his chosen branches had endeared him to the hearts of the farming element of the State.<sup>60</sup>

Wickson knew the history behind the passage of the University Farm bill and understood how the politically active state agricultural organizations and individuals would react to Bailey's ideas. By publishing Circular No. 15, Wickson portrayed Bailey, a rival for his position as Dean, along with Bailey's ardent supporter, President Wheeler, in a negative

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<sup>58</sup> "The Farmers Turn Loose on the University Professors," *Sacramento Bee*, September 8, 1905;

"Livestock Breeders are Outspoken on State Farm," *Sacramento Union*, September 8, 1905.

<sup>59</sup> "Livestock Breeders are Outspoken on State Farm," *Sacramento Union*, September 8, 1905.

<sup>60</sup> "The Farmers Turn Loose on the University Professors," *Sacramento Bee*, September 8, 1905.

light. In addition, Wickson's position was enhanced since he was the individual who brought Bailey's thoughts to the agricultural community's attention. These perceptions may have helped Wickson later as Wheeler remained indecisive on naming a permanent replacement for the retired Dean Eugene Hilgard.

Within two months of the farmers' uproar regarding Bailey's comments, Wheeler reversed his thoughts about Wickson joining the University Farm Commission and requested that Wickson lead the site selection process. Many farmers were watching the University Farm Commission proceedings closely and supported the decision to make Wickson the sole investigator.<sup>61</sup> Wickson committed himself to a whirlwind tour of the state, traveling over two thousand miles and visiting sixty-nine potential sites in little over three months. On February 9<sup>th</sup>, 1906, Wickson submitted his report and his recommendations to the commission. In the report, Wickson mentioned that,

not less than two hundred patriotic citizens have promoted my investigations in a wholly disinterested and generous manner...I am glad to testify that not in a single instance has there been any suggestion or intimidation of any consideration or inducement to improperly influence my judgment. All manifested the keenest interest in the undertaking and favored its purpose and most of those who assisted me unselfishly declared that if their offering was not best for the purpose in view they desired that another location be made.<sup>62</sup>

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<sup>61</sup> "The State Farm Commission," *Sacramento Union*, November 28, 1905; "Finding Site for State Farm," *Watsonville Register*, November 29, 1905; "'Don't Worry,' Says Wickson to All," *Oakland Tribune*, November 30, 1905; "Professor to Tour State," *Oakland Herald*, December 1, 1905

<sup>62</sup> Wickson to Commission, February 9, 1906, folder 29, box 32, Records of the Regents of the University of California, 1868-1933, series number Cu-1, Bancroft Library, University of California, Berkeley.

This desire for the University Farm became paramount above the desire for a particular location. While various localities and farmers fought for a particular location for the farm, there is little evidence that hard feelings were felt by those who were not selected.

Soon after Davisville, later to be renamed Davis, was identified as the home of the new University Farm, agricultural organizations began to visit.<sup>63</sup> Generally speaking, the discord Wheeler predicted regarding the rivalry within the agricultural communities did not materialize. Instead, the desired progress toward a farm, away from Berkeley, was coming to fruition, leaving many in the agricultural community satisfied.

Cordial feelings within the farming community were further cemented by the appointment of Leroy Anderson as farm superintendent. Anderson had garnered a positive reputation as the first director of California Polytechnic School. He was responsible for recruiting the first faculty and oversaw the construction of the new campus buildings. The key to his success was in his approach to agricultural education. Cal Poly's curriculum was a mixture of academic and practical experiences and the school's motto, "To Learn by Doing," perfectly captured his educational philosophy. Anderson was once again called upon to develop a new educational facility. The farm was to teach agriculture in a manner that combined a rigorous scientific approach to problem solving with the hands-on experiences to help carry those trained skills beyond the classroom. With Anderson at the helm of the new University Farm, many individuals

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<sup>63</sup> "State Grange Goes to Davisville," *Sacramento Union*, October, 1906; "The Yolo Farm," *Sacramento Union*, November 17, 1906; H. A. Craft, "California's New State University Farm," *Hoard's Dairyman*, September 13, 1907.

in state agricultural organizations toned down their rhetoric for reform and instead focused on agricultural issues outside of higher education.

### **Secondary School Agricultural Education Reform**

While some farmers' efforts were being made to secure agricultural education reform in the College of Agriculture, others recognized the distance between their homes and the University of California was too great, thereby lowering the opportunity for their children to experience agricultural education. The efforts to add agricultural education into the secondary school curriculum started slowly. In 1901, a small group of individuals took up Wickson's call for educational reform and successfully pushed for the establishment of a technical school within California. With the incorporation of the Agricultural, Mining, and Mechanical Arts College with the College of California in 1868, California was left without an educational institution dedicated to manual training. An earlier attempt to merge an agricultural college with a secondary school failed when Chaffey College School of Agriculture was closed in 1901, and eventually converted into a comprehensive high school, abandoning agricultural education in its entirety.<sup>64</sup>

In 1901, Governor Henry Gage signed into law a bill that established the formation of the California Polytechnic School.<sup>65</sup> Cal Poly, as it was nicknamed, was a coeducational secondary school established to teach the practical arts including agriculture, mechanics, engineering, and domestic economics. The law established a board of five trustees, each with a four year term. However, the governor was given permission to issue varying term lengths for the first board to stagger the appointments

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<sup>64</sup> Joe Blackstock, "Chaffey College's First 125 Years," *San Bernardino County Sun*, December 21, 2007.

<sup>65</sup>"The California Polytechnic School," *Pacific Rural Press*, February 8, 1902.

and prevent a complete turnover of trustees every four years. Of interest is the fact that Wickson, at this time the Professor of Agricultural Practices at the University of California, was the only trustee selected for a four year term. Though Cal Poly had come into existence in 1901 on paper, in reality, it did not open its doors to the public until 1903 when it accepted its first cohort of twenty students.<sup>66</sup>

Some agrarians felt the creation of Cal Poly, while beneficial, was not sufficient with regards to agricultural education reform. The farmers in the Central Valley and in Southern California desired an agricultural education program closer to their homes, feeling the distance to San Luis Obispo was too great. What many farmers wanted was a local school that taught students agricultural education. Additionally, the limited student enrollment greatly reduced the practicality of the school. Emboldened by the successful push for a secondary school dedicated to manual arts in California, some individuals widened their gaze beyond a single secondary school. Though the financial resources needed to sustain such a school dedicated exclusively to teaching agriculture were not available, farmers throughout the state recognized that such a program could be incorporated into their local high school.

In 1905, the promotion of secondary school agricultural education gained momentum in California. At the end of that year, Alfred C. True, Director of the Office of Experiment Stations in the United States Department of Agriculture, gave a lecture at a joint session of the Farmers' Institute and California Teachers Association's nature study department. This meeting was arranged by Wickson to promote agricultural education.

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<sup>66</sup> "Highlights in the History of Cal Poly," <http://lib.calpoly.edu/universityarchives/history/timeline/>.

True spoke about how “the movement for the introduction of instruction in agriculture into secondary and primary schools is passing rapidly from the stage of agitation to that of action and realization.”<sup>67</sup> While citing the many economic benefits of a well-educated farmer, True also gave credit to recent changes in educational philosophy for the recent interest in agricultural education.

The most important result of this movement is that our leading educators have now changed ideals of education and recognize that the industrial element is an essential factor in a completely cultural education. The movement for agricultural education, therefore, has a sound pedagogical basis.<sup>68</sup>

Just prior to True’s lecture, Kern County Union High School became, in 1905, the first secondary school in California to integrate agricultural education into their regular program.<sup>69</sup> Four years later, Gardena High School in Los Angeles became the second secondary school to add agricultural education into their curriculum. In addition to being the only two comprehensive secondary schools in California to include agricultural education, these two schools were also forerunners to the high school farm. Both schools purchased properties that were to be utilized by the students as a hands-on laboratory facility.<sup>70</sup>

From 1905 to 1910, only six out of two hundred fifteen high schools in operation in California offered agricultural education.<sup>71</sup> This represented less than three percent of

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<sup>67</sup> "Farming Must Have a Place in Our Schools," *San Francisco Chronicle*, December 27, 1905.

<sup>68</sup> Ibid.

<sup>69</sup> Rufus W. Stimson and Frank W. Lathrop, "History of Agriculture Education of Less Than College Grade in the United States: A Cooperative Project of Workers in Vocational Education in Agriculture and in Related Fields," (Washington: United States Government Printing Office, Reprint -1954).

<sup>70</sup> Sidney S. Sutherland, "A History of Agriculture Education in California Secondary Schools," (1940).

<sup>71</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."

the total number of secondary schools in California. Within six years, agricultural education exploded onto California's secondary school scene. By 1916, ninety-three out of the two hundred eighty-one high schools in California had some form of agricultural education built into their curricular programs.<sup>72</sup> In other words, within eleven years, agricultural education grew from non-existence in California's high schools to being included in nearly one-third of them.

### **Vocational Education**

The desire for secondary school curricular reform was not the exclusive purview of farmers within California. The combined effect of the Committee of Ten report, issued in 1894, and the visitations of secondary schools by University of California professors contributed to the standardization of the high school curriculum. As America became a more industrial society, the Committee of Ten report did not accurately reflect the social and economic changes that occurred in the late nineteenth and early twentieth centuries. The seemingly incompatible purposes set forth by the committee to educate all students to the same rigorous curriculum, irrespective of the student's future career, gave impetus to the examination of how to prepare students for careers after graduation that did not require higher learning.

Almost immediately after the Committee of Ten's report was issued, two private secondary schools built around a vocational curriculum were established in California. The first school, established in 1895, was known as the California School of Mechanical

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<sup>72</sup> Ibid.

Arts and welcomed both boys and girls into the school's hallways.<sup>73</sup> Within a few years, an additional school, the Wilmerding School of Industrial Arts for Boys, was established in San Francisco by the Regents of the University of California. Both of these schools were operated by George Merrill and eventually merged in 1900.<sup>74</sup> The purpose of these schools was to "teach boys trades, fitting them to make their living with their hands, with little study and plenty of work."<sup>75</sup> These schools were in effect trade schools, dedicated to teaching the various skills necessary for particular vocations and little else. A decade later, the Lux School of Industrial Training was established in 1912 to train girls in technical and domestic-science coursework. All three of these schools were directed by George Merrill and shared some facilities and faculty.<sup>76</sup>

Out of necessity, trade schools were established in large cities.<sup>77</sup> A close relationship between future employers and employees could be established, along with the frequent changes in industrial standards and practices being incorporated into the curriculum in a timely manner. However, some individuals expressed a concern regarding access to such programs, mirroring the complaints by agrarians about Cal Poly. For those individuals who did not live in San Francisco or other large towns, trade schools were not a viable option and there were no other options in the state for such an education.

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<sup>73</sup> Beth Jersey Crowder, "The Lux School: Education for Women," *California History* 65, no. 3 (1986).

<sup>74</sup> *Ibid.*

<sup>75</sup> Wilmerding School of Industrial Arts for Boys, *Catalogue: The Wilmerding School of Industrial Arts for Boys* (University of California, 1900). 5.

<sup>76</sup> Crowder, "The Lux School: Education for Women."

<sup>77</sup> "Farming Must Have a Place in Our Schools," *San Francisco Chronicle*, December 27, 1905.



The concerns shared by industrial educators were not limited to access. As the movement to incorporate vocational education into secondary schools gained momentum, the lack of a common definition of what vocational education and industrial education was somewhat stymied educational reform. This again parallels the difficulty agrarians had in creating a common goal for the agrarian movement. One phrase used frequently in education prior to the turn of the century was manual education. Educators who followed this educational philosophy attempted to link heart, hand, and mind toward a learning goal, however, as a pedagogic approach, manual education was beginning to wane in the early 1900s.<sup>78</sup> Manual education was viewed as having a “salutary effect in directing attention to the right relation between theory and practice in education, [however] it is nevertheless true that handwork in schools is still mainly abstract, isolated, impractical, and unsocial in character.”<sup>79</sup> While the concept of the instruction was acceptable, the implementation was often viewed as ineffective. Using manual education as a launching point, educational terms such as industrial education, commercial education, technical education and vocational education came into being, often interchangeably.

Educators made an attempt to transform secondary school curriculum and embrace America’s second industrial revolution. However, just how theory and practice were to be integrated was left to interpretation. An extreme example can be found by a master mechanic who stated:

These boys will work all their lives for our company and we want them to do things our way. We don’t want the

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<sup>78</sup> Kantor, *Learning to Earn: Reform in California, 1880-1930*; Kliebard, *Schooled to Work: Vocationalism and the American Curriculum, 1876-1946*.

<sup>79</sup> Jesse D. Burks, "Getting Our Bearings on Industrial Education," *The Elementary School Teacher* 9, no. 9 (1909).

boys to draw; we want them to read drawings. We don't want them to figure; we want them to read figures. We don't want them to boss; we want them to be bossed.<sup>80</sup>

The mechanic desired schools to train individuals for particular roles within the industrial economy, with no further aspiration above the boy's assigned position. The author of the article added that this master mechanic might as well have said he does not want the boys to think, but rather be automatic machines.

Agricultural education, on the other hand, attempted to navigate a more medial approach. In 1905, the *San Francisco Chronicle* quoted Dr. True as stating:

It is not the old trade school which we wish to revive and make a part of our public school system...[but rather] the judicious employment of the elective system in the high school will allow agriculture to be taught in an effective way to make the atmosphere of the schoolroom favorable to the cultivation of a love for country life.<sup>81</sup>

In addition to teaching agricultural education in the classroom, True also desired to integrate romantic agrarian ideals into the curriculum. Teaching technical skills was not his only objective. True also desired a better understanding of what country life was like and engendering a fondness for it among all students, both urban and rural. Many within the agrarian movement believed that an affection for country life would stem rural migration into the cities, and also reduce the tension between the urban and rural communities.

Unlike the agrarian movement, the vocational education movement became a national movement in the late 1900s and early 1910s. This allowed individuals to rally

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<sup>80</sup> Ibid.

<sup>81</sup> "Farming Must Have a Place in Our Schools," *San Francisco Chronicle*, December 27, 1905.

around educational reformers who had access to a national stage. The uncertainty created by changes in American society, mainly due to the second industrial revolution, contributed to an effective platform for these educators to promote their version of education.

Educators such as David Snedden, Franklin Bobbitt, Charles Prosser, and William Bagley came to prominence during this time with their theories on how to educate larger masses of students in urban settings, while also meeting the needs of the rapidly expanding industrialized nation. Their theories facilitated the incorporation of social efficiency into educational practice. The social efficiency movement intended to utilize schools as a means of sorting students into differentiated programs, based on various individual test results and social needs, and train those students for their post-secondary lives.<sup>82</sup> Vocational education was seen as an effective method to incorporate social efficiency into the school system.

Many individuals contributed to the educational conversation regarding the development and implementation of vocational education, but unfortunately, it has frequently been artificially narrowed into a false dichotomy epitomized by the Snedden/Dewey Debate. This debate, spanning 1914-16 in various journals, by educational reformers David Snedden and John Dewey offers an example of how distinctly different views of vocational education can cloud the implementation of the curriculum. Through the series, both Snedden and Dewey outlined their visions of vocational education and how it was to be implemented. Snedden strongly felt the

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<sup>82</sup> Franklin Bobbitt, *The Curriculum* (New York, New York: Arno Press, 1918); Franklin Bobbitt, *How to Make a Curriculum* (Boston, Massachusetts: Houghton Mifflin Co., 1924).

purpose of vocational education was to train students in the skills needed for a job immediately out of school, relying on rote memorization and muscle memory activities. He pushed for educational reform that allowed students to acquire the skills needed by the ever-changing economy and shifting industries of the time. These skills were career oriented and allowed students to become productive members of society.<sup>83</sup> For Snedden, industrial and national economic interests were paramount in planning an educational system.

Dewey advocated a broader type of vocational education that included not only a set of distinct skills, but also taught an individual that they were an inseparable part of society. Dewey strongly felt that vocational education was a viable means of socialization.<sup>84</sup> Students and teachers worked together to solve a variety of mechanical and industrial problems. These problems were found in the students' environment, from the school house to the local community. According to Dewey, the individual student's interests were supreme over outside economic concerns.

While this debate greatly illuminates some of the issues faced by educators at the turn of the twentieth century, it does not give the whole picture. Historians correctly portray both Snedden and Dewey's views on vocational education.<sup>85</sup> However, using the Snedden/Dewey Debate as a means to symbolize the educational conversation surrounding vocational education is slightly misplaced. This portrayal does a disservice to both the participants of the publicized debate and other individuals who were part of

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<sup>83</sup> Snedden, "Fundamental Distinctions Between Liberal and Vocational Education."

<sup>84</sup> Dewey, *Democracy and Education: An Introduction to the Philosophy of Education*.

<sup>85</sup> Drost, "Social Efficiency Reexamined: The Dewey-Snedden Controversy "; Labaree, "The Victory of David Snedden and Social Efficiency in the Reform of American Education."

the original dialogue. In essence, Snedden and Dewey debated the implementation and pedagogical approach to vocational education, not the worthiness or merits of the curriculum itself. It is hard to imagine the educational conversation surrounding vocational education did not have its detractors, and yet, neither Snedden nor Dewey argued against vocational education. To cast Snedden and Dewey as polar opposites within the entire vocational education conversation is flawed. The Snedden/Dewey Debates are better placed within the context of vocational education implementation, a small but important subset of the vocational education discussion. Within the conversation surrounding vocational education execution, Snedden and Dewey are accurately viewed as having oppositional viewpoints.<sup>86</sup>

The expansion of the vocational education historiography in recent years, while important, still maintains some academic gaps. As historians focused on the contributions made by national leaders and organizations, the influence exercised by regional and local educational advocates was largely ignored. By highlighting Wickson's personal educational philosophy as it relates to vocational and agricultural education, expansion of the narrowed vocational education historiography is achieved. Additionally, when placed within the continuum of vocational education implementation, Wickson's voice demonstrates a pedagogical approach that attempted to bridge vocational education with science-based education, a concept not addressed by either Snedden or Dewey.

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<sup>86</sup> M.J. Herrick, "Assessment of Student Achievement and Learning, What Would Dewey Say? A" Recent" Interview with John Dewey," *Journal of Vocational and Technical Education* 13, no. 1 (1996); Emery J. Hyslop-Margison, "An Assessment of the Historical Arguments in Vocational Education Reform," *Journal of Career and Technical Education* 17, no. 1 (2000); Braundy, "Dewey's Technological Literacy: Past, Present, and Future."

### **Wickson's Agricultural Education**

Wickson's role within the vocational education conversation had a different basis than either Snedden or Dewey. While Wickson agreed that vocational skills should be incorporated into the school system, he did not endorse vocational education wholeheartedly. As witnessed in Wickson's indirect involvement in California's agrarian movement, he once again took an oblique approach to vocational education, by focusing on agriculture education. Vocational education advocates incorporated agriculture education into the educational conversation in an effort to gain political support in the 1910s.<sup>87</sup>

There is difficulty in determining Wickson's true educational philosophy with regards to how agricultural education was to be taught. A superficial analysis indicates that Wickson's educational philosophy evolved during his lifetime. However, there is evidence that his beliefs did not change during the turn of the twentieth century. Instead, Wickson appears to spend the majority of his career mediating the scientific and practical agricultural education communities. At times, he sought to bring science into the conversation surrounding agricultural education, while at other times, he attempted to bring practical experiences into the discussion. The examination of Wickson's beliefs, in conjunction with the tension surrounding Hilgard's recent appointment as the Dean of the College of Agriculture, brings clarity to Wickson's educational philosophy.

When Wickson began his career at the University of California, the leadership of the College of Agriculture was in the process of transitioning from an ardent proponent of

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<sup>87</sup> Kliebard, *The Struggle for the American Curriculum, 1893-1958*.

practical agricultural education, Ezra S. Carr, into a scientifically based curriculum with Dean Hilgard. This transition was contentious due to the farming community's support of Carr's version of agricultural education and the University of California Regents' and President's support of a more scientifically rigorous curriculum. In Wickson's second year of teaching at the University of California, he was appointed Lecturer on Practical Agriculture and Assistant Superintendent of Experimental Grounds. In this role, Wickson taught the practical application of scientific knowledge, or a version of agriculture education known as technical agricultural education. To farmers, he actively promoted the benefits of integrating scientific theory into agricultural courses, thus easing the transition for Dean Hilgard. If this view is correct, then Wickson did not desire an agricultural education without practical applications, but rather a more balanced approach to the instruction of agricultural education.

At the end of the nineteenth century, Wickson actively supported the integration of scientific theory into the agricultural education curriculum. Under Wickson's tenure as editor, the *Pacific Rural Press* frequently contained articles touting the beneficial relationship between science and agricultural education. Wickson wrote:

...but the very practices of production are changing to keep pace with the advance of science. How can an agriculturist keep his place in the ranks of successful and forehanded producers? There is no way under the sun except by making the best possible man of himself by the best education attainable.<sup>88</sup>

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<sup>88</sup> "Wisdom is the Principal Thing," *Pacific Rural Press*, November 12, 1898.

Wickson believed a thorough knowledge of scientific principles was necessary for agricultural production to increase. Wickson believed that education was the key to increased production and created a competitive edge for farmers.

Wickson's role as the editor of the *Pacific Rural Press* provided him with a powerful platform from which to advocate for a particular version of agricultural education. From 1876 through 1922, Wickson's tenure as the editor of the *Pacific Rural Press*, the weekly paper published a total of three hundred and six articles related to agricultural education. These articles focused on the University of California prior to the turn of the twentieth century, but began to incorporate secondary school issues by 1905. As a comparison, the *Los Angeles Times* and the *San Francisco Chronicle* only had twenty-seven and ninety-four articles, respectively, regarding agricultural education during the same forty-six year time period. The overwhelming emphasis of the *Times* and the *Chronicle* articles was the University of California's College of Agriculture and not secondary school's agricultural programs.

In addition to the frequent articles in the *Pacific Rural Press* regarding science and agricultural education, many of the lecturers in the Farmers' Institutes promoted the same ideas. Wickson was coordinator of the University's Farmers' Institute at the turn of the twentieth century, and the speakers under him, were clear in their message, "I now again, as I have before on many occasions, make an earnest plea for the teaching of more science."<sup>89</sup> It was Wickson's belief that science was the key to expanding agricultural

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<sup>89</sup> Sawfford, "The Farm and the School."



knowledge, and either directly, or indirectly, that message was disseminated throughout California's farming communities.

While Wickson was the Director of the Agricultural Experiment Station, he was able to promote agricultural education in a way not done before. Prior to 1905, no bulletin issued by the station had focused on agricultural education. From 1905-1912, Wickson's term as Director, a total of twenty-seven bulletins regarding agricultural education were issued. Twenty-two of the circulars were either dedicated to, or included a discussion of, secondary agricultural education. Shortly after Wickson retired from the University of California and the Agriculture Experiment Station, the number of station bulletins regarding agricultural education dropped to zero, and stayed that way until 1936.

At the turn of the twentieth century, as Wheeler's search for Hilgard's replacement continued, Wickson openly embraced a middle ground. Instead of advocating for integration of more science in the curriculum to farmers, he began to push back against the academic and scientific communities. As both the College of Agriculture and secondary schools adopted agricultural education, the curriculum focused heavily on scientific theory. There was little regard for the integration of practical experiences, especially when addressing California's agricultural needs. Wickson agreed that students should understand the underlying scientific principles behind agricultural practices. Once these principles were understood, agricultural techniques would be utilized to determine how more effective practices could be developed and allow for students to gain hands-on experiences.

In 1907, Wickson promoted technical education in a speech given at a federal Department of Technical Education meeting. In that speech, he proclaimed that technical education was ideal for it “upholds and promotes the interests of pure science as the source of the light essential to the further advancement of applied science [agriculture].”<sup>90</sup> Pure sciences such as chemistry, biology, botany, and meteorology were to be sought out, not for their own good alone, but to further advance agriculture. This advancement was obtained through the integration of scientific knowledge into agricultural practices.

Wickson’s endorsement of technical education did not come without controversy. Immediately after Wickson sat down, President Albert B. Storms of Iowa State College stood up and stated that he would have lost his standing as the president had he endorsed Wickson’s comments regarding technical education.<sup>91</sup> During an era that associated prestige to universities based on scientific acclaim, Wickson’s promotion of integrating practical experiences into agriculture courses was viewed as diminishing to agriculture courses, as well as the universities at large. The integration of practical experience with scientific theory within the agricultural education curriculum was a controversial topic for the next decade as the agricultural education community struggled with the creation of a self-identity. It was only after the passage of the Smith-Hughes Act of 1917, designating federal funds for secondary vocational education programs, and ignoring all other versions of agricultural or technical education, that practical agriculture became the undisputed curriculum for agricultural education students.

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<sup>90</sup> "Technical Education," *Los Angeles Times*, July 12, 1907.

<sup>91</sup> *Ibid.*

As the agrarian movement in California struggled to gain a unified voice with a common vision, the vocational education movement gained national prominence. With national advocates such as Snedden and Dewey, along with commercial and industrial support, the movement to integrate vocational curriculum into secondary school programs held sway within both the federal legislature and the executive office. However, the most active promotion of vocational education did not occur until well into the 1910s, with the culmination of the vocational education movement's political power occurring with the passage of the Smith-Hughes Act of 1917. While vocational education had existed prior to the Smith-Hughes Act, the vocational education programs were poorly funded and usually considered an afterthought in curricular design.<sup>92</sup> Three months after President Woodrow Wilson signed the Smith-Hughes Act into law, the California state legislature accepted the provisions of the act and agreed to provide one dollar from state funds for every one dollar received from the federal government. In 1917, just before the passage of the Smith-Hughes Act, approximately 337 students were enrolled in secondary vocational agriculture education in California. Within ten years that number had grown to 3,279 students.<sup>93</sup>

The next chapter explores the agricultural education curriculum before the infusion of federal monies mandated a particular version of the curriculum. An analysis of California's agricultural education curriculum reveals a great diversity of agricultural education components within the secondary schools, a pedagogy in transition from uniformity to a range of techniques, and the intrusion of social and political themes

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<sup>92</sup> Sutherland, "A History of Agriculture Education in California Secondary Schools."

<sup>93</sup> *Ibid.*, 40.

within the curriculum itself. A better understanding of California's secondary school agricultural education prior to the passage of the Smith-Hughes Act is obtained by investigating these three factors.

## **Chapter IV: California's Secondary School Agricultural Education**

Even those who recognize the importance and value of agricultural education are in doubt as to the best methods of attaining the result that they regard as ideal.

Benjamin Marshall Davis<sup>1</sup>

The Committee of Ten report issued in 1894, and the visitations of secondary schools by University of California professors, contributed to the standardization of curriculum in secondary schools. However, an anomaly is found in the development, and rapid implementation, of California's agricultural education courses. Within these new programs grew a great diversity of agricultural education components, a pedagogy in transition from uniformity to a range of techniques, and the intrusion of social and political themes within the curriculum itself, reflecting a relatively new secondary agricultural education community struggling for self-identity. This chapter explores these three components and investigates how they evolved during the first two decades of the twentieth century.

The variety of agricultural education components within California's secondary schools gave rise to a curriculum that quickly spread throughout the state. The secondary agricultural education curriculum was typically composed of a diverse set of topics including plant and soil sciences, animal sciences, and agricultural mechanics. All of these topics may have been included in a single class or spread out through multiple school years. In addition to the diverse programmatic components within the agricultural curriculum, vast differences in agricultural education pedagogy eventually existed. This

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<sup>1</sup> Benjamin Marshall Davis, *Agricultural Education in the Public Schools: A Study of Its Development with Particular Reference to the Agencies Concerned* (Chicago: The University of Chicago Press, 1912).

diversity of teaching methods gave rise to such terms as scientific agriculture, practical agriculture, technical agriculture, and vocational agriculture. These pedagogic approaches were poorly defined and will be clarified in this chapter. Finally, the social and political movements of agrarianism and educational reform took root at the turn of the twentieth century in California. The influence of these movements supplemented the agricultural education curriculum through textbooks as witnessed by the integration of nature study, agrarian principles, and increased efficiency. These three themes waxed and waned in conjunction with the social movements that supported them. The exploration of early twentieth century agricultural education's curricular evolution expands our understanding of the agricultural education community by illuminating the internal struggle of the organization regarding pedagogy and program implementation.

Within the first two decades of the twentieth century, California's advocates for agricultural education in high schools witnessed a curriculum, not long before striving for recognition, flourish into acceptance. Local communities, both urban and rural, rapidly added agricultural education into secondary school curriculum at the end of the 1900s and early 1910s.<sup>2</sup> The community interests and needs dictated the implementation of secondary agricultural education, and caused the fragmentation of the agricultural education community. Agricultural educator and geneticist Ernest Babcock noted that, "self-directed high school development is surely much in evidence as far as agriculture is concerned. Indeed we find agriculture being handled in nearly as many ways as there are

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<sup>2</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."

high schools including it in their course of study.”<sup>3</sup> Babcock’s early position within the University of California, as an individual who conducted high school visitation on behalf of the University’s accreditation process, allowed him to view a wide variety of agricultural education programs in California. The rapid growth of agricultural education, and its adaptation to local community’s needs, did not allow agriculture educators with limited resources the time necessary to coordinate a statewide agricultural education curriculum. This diversity of agricultural education thought created a multitude of agricultural education textbooks available for use in California’s secondary classrooms.

The range of agricultural education programs within California caused an assortment of curriculum to be used. In an effort to standardize the materials being used in secondary schools, Leroy Anderson and Babcock added a list of recommended agricultural education textbooks and authors to the California Agricultural Experiment Station bulletins they wrote.<sup>4</sup> These bulletins were published in 1909 and 1911 respectively, while Edward Wickson was the Director of the California Agricultural Experiment Station. The majority of the textbooks, originally published before 1911, used in this study were selected from these two bulletins. In addition to the Agricultural Experiment Station bulletins, Sidney Sutherland’s *A History of Agriculture Education in California Secondary Schools* and Joseph A. Dowdell’s *The Growth of Agriculture as a High-School Subject in California* provided an outline of agricultural education programs

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<sup>3</sup> E. B. Babcock et al., *Development of Secondary School Agriculture in California*, vol. 67 (California Agricultural Experiment Station, 1911). 4.

<sup>4</sup> Ibid.; Leroy Anderson, *Agriculture in the High Schools*, vol. 47 (California Agricultural Experiment Station, November 1909).

within California at the turn of the twentieth century.<sup>5</sup> The remaining textbooks used in this study were selected to represent the classroom programs identified by Dowdell and Sutherland. Ultimately, Anderson and Babcock's attempts to standardize California's agricultural education curriculum in the agricultural education community's formative years were unsuccessful, as is witnessed by the great variety of California's secondary agricultural education programs through the first two decades of the twentieth century.

### **Types of California Agricultural Education Programs**

The diversity of California's initial secondary agricultural education curriculum can be generalized into three categories. The first type of program was an applied-science course, the second was a singular agricultural course, and finally, a complete multi-year agricultural program.<sup>6</sup> The original agricultural education courses were almost exclusively applied-science classes. However, as the growth of agricultural education continued into the 1910s, secondary schools adopted programs that better reflected their communities. Singular and multi-year agricultural education programs took root and surpassed applied-science courses in the latter half of the 1910s.<sup>7</sup>

The applied-science agricultural course tended to be a science course that occasionally utilized an agricultural setting. However, the fact that these courses were located in larger, comprehensive high schools reduced the number of agricultural opportunities.<sup>8</sup> An amalgam of the natural sciences, such as zoology, chemistry, and botany, was the main focus of the course. An example of a textbook found in this course

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<sup>5</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."; Sutherland, "A History of Agriculture Education in California Secondary Schools."

<sup>6</sup> Sutherland, "A History of Agriculture Education in California Secondary Schools."

<sup>7</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."

<sup>8</sup> Ibid.



is *The Principles of Agriculture for Common Schools*, published in 1890. This book covered such topics as land and water usage, cultivation, the atmosphere, plants and animals.<sup>9</sup> A brief example of the outlined curriculum is found in the first two chapters of the text. The first chapter of the book focused on chemistry, the structure of atoms, chemical reactions and combustion. The next chapter focused on land and water usage, including such topics as the geology of North America, the science of soil formation, and the variety of soil compositions. Throughout the first forty pages, or over one quarter of the book, there was no mention of any specific agricultural product. Botany and zoology covered such topics as plant life and animal types, respectively. This broad approach to agricultural instruction briefly discussed agriculture in a tangential manner, with very few references to specific agricultural commodities. Hands-on activities were stressed; however, they tended to be classroom-based activities, focusing on the use of laboratory equipment.<sup>10</sup>

The second form of agricultural education typically included a science course focused on a single agricultural subject. However, once again, science was the foundation the curriculum was built upon. Examples are found in Liberty Bailey's *Botany: An Elementary Text For Schools*, published in 1901 and W. J. V. Osterhout's 1905 text, *Experiments with Plants*. Both of these texts focused on plant anatomy, living conditions, life cycles, and reproduction. While Bailey took a generic plant approach, instead of emphasizing agriculturally significant plants, Osterhout specifically identified

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<sup>9</sup> I. O. Winslow, *The Principles of Agriculture For Common Schools* (New York: American Book Company, 1890).

<sup>10</sup> *Ibid.*; Liberty H. Bailey, *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*, ed. L. H. Bailey, First ed. (New York: The Macmillan Company, 1898); Liberty H. Bailey, *Botany: An Elementary Text For Schools*, 4th ed. (London: The Macmillan Company, 1901).

and examined several agricultural commodities.<sup>11</sup> The integration of agronomy, horticulture, and soil science principles expanded the curriculum beyond a science course and into agricultural education. Mr. F. H. Bolster, a teacher at Gardena High School, wrote, "At present General Science and Botany are directly correlated with agriculture. The principal aims to correlate Chemistry somewhat with agriculture but only in a general way."<sup>12</sup> Once again, classroom-based laboratory exercises were utilized to extend student understanding of the scientific principles. However, there was some acknowledgement by the author that gardens were an appropriate laboratory setting.<sup>13</sup> The single subject agricultural course proved to be popular in smaller, rural high schools.<sup>14</sup>

Finally, the third type of agricultural education was a multi-year program which typically consisted of a series of single subject agricultural classes. This particular version of agricultural education may, or may not have, been on a curricular pathway, with one course building upon another. Fresno High School was an example of a high school that developed non-sequential agriculture courses. The school eventually included an agricultural education curriculum with such courses as Agronomy, Animal Husbandry, Horticulture, Soils, and Farm Mechanics.<sup>15</sup> Other schools, such as Kern County High

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<sup>11</sup> Bailey, *Botany: An Elementary Text For Schools*; W.J.V.L. Osterhout, *Experiments With Plants* (The Macmillan Co., 1905).

<sup>12</sup> F.H. Bolster to College of Agriculture, October 9, 1909 as quoted in Anderson, *Agriculture in the High Schools*, 47.

<sup>13</sup> Winslow, *The Principles of Agriculture For Common Schools*; Bailey, *Botany: An Elementary Text For Schools*; Liberty H. Bailey, *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*, ed. L. H. Bailey, Twentieth ed. (New York: The Macmillan Company, 1919).

<sup>14</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."

<sup>15</sup> Edwin R. Snyder, "Biennial Report of the Commissioner of Industrial and Vocational education," (California State Board of Education, 1916), 20-21.

School took a different approach. Mr. Macomber, the principal at Kern County High School wrote,

We have introduced, with the entering class this year, an entirely new scheme of work which will give a proper place to Agriculture. In this course we will give them the Elementary Physical Geography, Botany, and Chemistry in the first two years, with work in Horticulture, Soils, Plant Propagation and Plant Diseases in the third and fourth years. While it seems that we have tried to work out every detail in the third and fourth years of this new course, we have done it only to see what we might do. We are concerned at present only with the first and second years.<sup>16</sup>

Kern County High School attempted to offer students sequential agricultural education courses that progressed in knowledge and practice. Though some of the larger agricultural education programs began at the end of the first decade, most did not develop until the 1910s. The multi-year agricultural education programs typically took root in larger rural schools, and generally enjoyed popular support in their communities.<sup>17</sup>

An analysis of California's agricultural education growth indicates that, though its overall growth was rapid, the implementation of the curriculum at individual schools was fragmented. Agricultural education curriculum began in some schools and was terminated the next year, just to start up again a few years later. In other schools, agricultural education courses ran for several years, only to be terminated and never started again.<sup>18</sup> Many factors contributed to the fluctuation in implementation, including the lack of qualified agricultural education teachers and a high teacher turnover rate.<sup>19</sup>

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<sup>16</sup> Mr. Macomber to College of Agriculture, September 19, 1909 as quoted in Anderson, *Agriculture in the High Schools*, 47.

<sup>17</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."

<sup>18</sup> Ibid.

<sup>19</sup> Sutherland, "A History of Agriculture Education in California Secondary Schools."

Finding qualified, experienced teachers trained in agricultural education, and with practical farming experiences, was a difficult feat at the turn of the twentieth century.<sup>20</sup> This was a national problem, identified through a series of studies conducted during 1909-1911 by Benjamin Davis of Miami University in Oxford, Ohio. In 1912, Davis concluded:

Teachers who have grown up in the normal schools or those who go into the profession from colleges and high schools without a normal training, very seldom have practical experiences adequate to give them a comprehension of farm problems. On the other hand, those who have a practical experience find it difficult to secure the scientific training which is necessary to make instruction in farming sufficiently advanced to justify calling it a science. The graduates of the agricultural colleges are either so much in demand for practical positions, or so poorly qualified for the special work of teaching, that they do not enter upon the teaching profession after they complete their agricultural course.<sup>21</sup>

The ability to find a teacher with an agricultural background or a graduate from an agricultural college with a proclivity to teach was rare. Many schools desired teachers who were pedagogic experts, and turned to normal schools to find such potential employees. In California, the only state normal schools in operation at the turn of the twentieth century were located in San Jose, Los Angeles, Chico, and San Diego. During this time period, no state normal school offered any courses in agriculture; however, they all offered at least one year-long course in science.<sup>22</sup> The emphasis on such science

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<sup>20</sup> Babcock et al., *Development of Secondary School Agriculture in California*, 67.

<sup>21</sup> Davis, *Agricultural Education in the Public Schools: A Study of Its Development with Particular Reference to the Agencies Concerned*

<sup>22</sup> "Course Catalog 1895-1896," ed. California State Normal School at Los Angeles (1895); "Course Catalog 1899-1900," ed. California State Normal School at San Diego (1899); "Course Catalog 1903-

courses as botany, zoology, physics, and chemistry contributed to the usage of the applied-science approach in the vast majority of California's agricultural education programs during the 1900s and 1910s. Teachers based their curriculum and instruction on a subject they were familiar with, namely science. The bulk of the teachers' studies were dedicated to other subjects, giving rise to a shortage of qualified agricultural education teachers with practical experiences. This clear division between normal school training and agricultural education training was established by the Morrill Act of 1862, which dictated that agriculture educators were to be subject matter experts as opposed to pedagogical specialists.<sup>23</sup> The only institution qualified to graduate this type of subject matter expert was the University of California, a feat that rarely occurred.<sup>24</sup>

In addition to a lack of qualified teachers, a high teacher turnover rate caused many problems for some of the fledgling agricultural education programs.<sup>25</sup> Agricultural education historian Sidney Sutherland acknowledged that "to find the name of an agriculture teacher listed among the faculties of four different schools in four consecutive years was the rule rather than the exception."<sup>26</sup> As teachers were replaced, the emphasis of the courses frequently changed. One year a biology course might emphasize citrus and cattle, the next, chickens and grasses, all of which could be irrelevant to the surrounding agricultural community's needs. Many administrators determined that it was better to secure any agriculture teacher, without regard to their expertise, than not have one. If no

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1904," ed. California State Normal School at Los Angeles (1903); "Course Catalog 1907-1908," ed. California State Normal School at San Diego (1907).

<sup>23</sup> Ray V. Herren and John Hillison, "Agricultural Education and the 1862 Land-Grant Institutions: The Rest of the Story," *Journal of Agricultural Education* 37, no. 3 (1996).

<sup>24</sup> Babcock et al., *Development of Secondary School Agriculture in California*, 67.

<sup>25</sup> Ibid.

<sup>26</sup> Sutherland, "A History of Agriculture Education in California Secondary Schools," 8.

agriculture teacher was found to replace the one that had moved on, the agricultural education courses were either suspended or transferred to a science teacher, frequently the latter.<sup>27</sup> As can be imagined, this turnover of teaching staff, and consequently curriculum, caused frustration among secondary school administrators, students, and community members.<sup>28</sup> While the types of agricultural education programs varied from one school to the other, the pedagogic approach rarely did, especially in the early years of implementation.

### **Agricultural Education Pedagogy**

The educational and farming communities debated the pedagogic approaches to agricultural education throughout the turn of the twentieth century. With the appointment of Dean Hilgard in 1875, University of California President Daniel Gilman developed a science-based agricultural education program in the College of Agriculture.<sup>29</sup> By continually ignoring the practical application of science in the field of agriculture, instructors alienated many within the farming community. The relationship between the University and many farming communities in California grew hostile.<sup>30</sup> In 1904, Judge Peter J. Shields and the California Livestock Breeders' Association exploited this hostility by calling for the formation of a university farm. The farm's purpose was the integration of practical instruction into the College of Agriculture's curriculum.<sup>31</sup> Other groups, such as the California State Grange's Committee on Legislation, called for the

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<sup>27</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."

<sup>28</sup> Sutherland, "A History of Agriculture Education in California Secondary Schools."

<sup>29</sup> Stadtman, *The University of California, 1868-1968*.

<sup>30</sup> "The College of Agriculture," *Los Angeles Times*, September 5, 1896; *Los Angeles Times*, "Agricultural Education," January 12, 1897.

<sup>31</sup> Shields, "Agriculture Education."

complete separation of the College of Agriculture from the University of California.<sup>32</sup> In 1906, the University Farm was established and many agriculturalists, having found success at the state level, turned toward local secondary schools in an attempt to expand agricultural education. The educational conversation surrounding the University of California's integration of practical and scientific agriculture foreshadowed many of the pedagogic issues that arose with the creation of a secondary school agricultural education curriculum.

Due to the fluidity of such terms as scientific agriculture, practical agriculture, technical agriculture, and vocational agriculture, it is necessary to utilize working definitions to clarify California's secondary agricultural education development. These four different pedagogic approaches make up a continuum of instructional techniques, for they are all related to each other. The main underlying theme within this continuum is the amount of science instruction being utilized in the course. The more an instructor taught science, the more scientific the agricultural education was. As scientific theory was sacrificed for other topics, or hands-on experiences, the instruction reflected a more technical agricultural education approach. Eventually, the continued removal of science from the course led the instruction to a practical agricultural education and finally to vocational agricultural education. This end of the continuum resulted in little or no scientific instruction being used. The hands-on experiences and training were the ultimate goal of the course.

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<sup>32</sup> Hurlburt, "Our Agricultural College."; Raap, "Our Agricultural College."

Scientific agriculture is defined as a curriculum based on scientific principles and theories. Within the scientific curriculum, two camps attempted to stake out positions. The first, and most prevalent group, felt that agriculture was an amalgam of other sciences. This faction believed agricultural education could be broken down into units of botany, chemistry, physics, zoology, and economics.<sup>33</sup> Scientific understanding was the primary objective for this type of teacher and focus upon theory was paramount, for “you cannot teach the application of science until you have taught the science.”<sup>34</sup> This focus caused many in the surrounding community to conclude that “the ‘science teacher’ would become so absorbed in one or two sciences that agriculture would be touched incidentally, or as a student recently expressed it, ‘accidentally.’”<sup>35</sup> The second group of scientific agricultural teachers believed agriculture itself was a science and not a combination of other disciplines. An example can be found in the training of colts. The ‘agriculture as an amalgam’ educators believed this should be done by utilizing a mixture of zoology and psychology. The ‘agriculture as a science’ teachers believed the proper method for training a colt was a distinct science, with many subtle techniques that could not be obtained through the study of zoology or psychology.<sup>36</sup> As a science in its own right, agriculture should have its own distinct place within the secondary school curriculum.

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<sup>33</sup> George F. Warren, "In The Public High Schools Agriculture Should Be Taught As Agriculture, Not As Applied Science," in *Agriculture And Applied Science: The Eleventh Yearbook*, ed. S. C. Parker (Chicago: The University of Chicago Press, 1911).

<sup>34</sup> William R. Hart, "In Public High Schools Should Agriculture Be Taught As Agriculture Or As Applied Science?," in *Agriculture And Applied Science: The Eleventh Yearbook*, ed. S. Chester Parker (Chicago: The University of Chicago Press, 1911).

<sup>35</sup> Ibid.

<sup>36</sup> Warren, "In The Public High Schools Agriculture Should Be Taught As Agriculture, Not As Applied Science."



While agriculture educators debated the inherent nature of agriculture within the fields of science, students had very few actual experiences outside of a textbook or lecture hall. Hiram H. Shepard's *Life on the Farm* is an example of a textbook utilizing a scientific approach to agriculture.<sup>37</sup> He gave details on insect metamorphosis and the chemical composition of soils, but provided no practical application to this information. Shepard did not mention possible laboratory activities to extend student understanding. Instead, he focused entirely on the scientific principles of agricultural education. The scientific agricultural education approach to instruction integrated well with the applied-science type of agricultural education program.

Practical agricultural education, on the other hand, attempted to teach the skills needed on a farm in an educational environment. The purpose of this instructional technique was to "teach the boys how to do the various things needful for carrying on the farm operations."<sup>38</sup> The students did not necessarily need to understand the science behind various farming methods, but rather the proper application of those techniques on the farm. The curriculum closely followed the type of agricultural commodities produced by the surrounding community. However, this type of education was judged by some to be "direct, immediate, practical, and narrow, because of the circumscribed outlook and limited insight of the teacher."<sup>39</sup> The students' limitations in understanding agricultural science diminished their ability to adapt to changing market needs and environmental

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<sup>37</sup> Hiram H. Shepard, *Life On The Farm Or, Scientific Agriculture Simplified: A Reading Book For Grammar and High Schools*, Home and School Series for Young Folks (Chicago: A. Flanagan Co., 1901).

<sup>38</sup> Hart, "In Public High Schools Should Agriculture Be Taught As Agriculture Or As Applied Science?."

<sup>39</sup> Ibid.

factors. This knowledge gap had the potential to create inefficiencies, the bane of some within the agrarian movement.

While scientific agriculture and practical agriculture may appear as polar opposites, in reality they are two pedagogic approaches on a continuum of agricultural education teaching practices. Technical agricultural education attempted to occupy a middle ground on this continuum, a space between scientific agriculture and practical agriculture. As the agricultural education community struggled to identify a primary pedagogical approach, many felt that neither scientific, nor practical agricultural education properly addressed the needs of the students. Garland Bricker, an assistant professor of agricultural education at Ohio State University and the managing editor of *The Rural Educator* remarked, “Until we fully recognize agriculture as both a science and an art, we shall go amiss in developing proper methods for its instruction.”<sup>40</sup>

The argument surrounding the exact nature of agriculture as a science was not important to many within the agricultural education community. What was important was the need to balance both the scientific foundation and the practical application in the curriculum. Bricker continued, “Agriculture is both a science and an art; it deals with both a body of organized laws and principles, and with their application to the actual problems of producing the raw materials of food, raiment, and shelter. Both learning and doing are involved.”<sup>41</sup> While scientific theory was taught, practical application of those principles was also emphasized. Frequently, home or school-based projects were used to

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<sup>40</sup> Garland Armor Bricker, *The Teaching of Agriculture in the High School* (New York: The Macmillan Company, 1911).

<sup>41</sup> Ibid.

extend student understanding of scientific theory beyond the classroom.<sup>42</sup> The utilization of these activities allowed for student experiences to develop, thus addressing the main concern many agriculturalists had with scientific agricultural education. By understanding the founding scientific principles of agriculture, students possessed the ability to adapt to adversity on the farm and thereby, increase the their farm's level of efficiency. The integration of technical agricultural education addressed the concerns some within the agrarian movement had regarding practical agricultural education.

Attempting to avoid the false Snedden/Dewey dichotomy vocational education is typically aligned with, the placement of vocational agricultural education can vary on the continuum of agricultural education pedagogy. Starting in the area occupied by technical agricultural education, vocational agricultural education programs moved toward the practical agricultural education camp, shedding scientific theory to incorporate additional hands-on experiences. The line between technical and vocational agricultural education is convoluted and often a single text falls into both categories. John H. Gehrs' *Livestock and Farm Mechanics* is an example of such a book.<sup>43</sup> A balance was struck between scientific principles and practical information and application. In Gehrs' chapter on dairy cattle, an analysis of dairy cattle included a brief anatomical and physiological discussion of how milk production occurs, along with practical instruction on how a cow was judged before it was purchased. Other vocational agricultural education textbooks abandoned scientific theory in pursuit of practicality. An example is found in Gehrs' *The Principles*

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<sup>42</sup> Kary C. Davis, *The New Agriculture for High Schools* (Philadelphia: J. B Lippincott Company, 1923).

<sup>43</sup> John H. Gehrs, *Live Stock and Farm Mechanics* (New York: The Macmillan Company, 1917); John H. Gehrs, *The Principles of Agriculture* (New York: The Macmillan Company, 1919).

*of Agriculture* where he stated that “every lesson and laboratory exercise is failing its real value unless it creates an interest in and an appreciation of agriculture in practice.”<sup>44</sup>

Practical agriculture was the key to Gehrs’ vision of agricultural education.

For the first decade of California’s secondary school agricultural education, from 1905-1915, the vast majority of teachers utilized a scientific approach to teaching agriculture. This lack of pedagogic diversity was a major concern for many within the schools’ communities. The focus on scientific agriculture resembled the curriculum offered at the College of Agriculture, a pedagogical approach recently rejected by the several state agricultural organizations. While Wickson sought to incorporate practical hands-on activities, or what he termed ‘the art of agriculture,’ with the science of agriculture, others continued to disagree. Many within the agricultural community felt that agriculture as an applied-science was incompatible with the art of agriculture, for “the ‘farmer-teacher’ and the ‘science-teacher’ are antithetical.”<sup>45</sup> In the Biennial Report of the Commissioner of Industrial and Vocational Education, Edwin R. Snyder wrote to the California State Board of Education: “the agricultural courses in our high schools have too largely resolved themselves into courses in science taught agriculturally. What we need in these schools are courses in farming taught scientifically.”<sup>46</sup> There is a very subtle, but important, difference between the two as illustrated by two of Liberty H. Bailey’s textbooks.

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<sup>44</sup> Gehrs, *The Principles of Agriculture*.

<sup>45</sup> Hart, "In Public High Schools Should Agriculture Be Taught As Agriculture Or As Applied Science?."

<sup>46</sup> Snyder, "Biennial Report of the Commissioner of Industrial and Vocational education," 40-41.

As a prolific author of agricultural texts, Bailey wrote several agricultural books covering a broad spectrum of agricultural education philosophies and pedagogies. During the turn of the twentieth century, he addressed both science taught agriculturally and agriculture taught scientifically in two separate textbooks. The science taught agriculturally curriculum taught scientific principles as the primary focus of the instructor with agricultural applications being a secondary concern. Bailey's *Botany: An Elementary Text for Schools* is an example of such a curriculum.<sup>47</sup> The outlined course stressed the scientific principles of botany, such as plant anatomy and physiology, and contained a moderate number of references to specific agricultural commodities. While physical activities were emphasized, they were conducted in a laboratory setting. To teach farming in a scientific manner, agriculture was the core of the content with scientific theories utilized to improve agriculture. This type of curriculum is found in Bailey's *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*.<sup>48</sup> This text delineated a curriculum focused on various agricultural components, such as soils, and illustrated how those constituents could be improved, such as the application of either private or commercial products that enhanced soil structure, content, and/or fertility. Home or school-based projects extended scientific theory and provided students with practical experiences.

Mirroring the agitation that grew within many agricultural communities over the teaching practices at the University of California's College of Agriculture, many people in the rural communities grew frustrated with the high school agricultural education

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<sup>47</sup> Bailey, *Botany: An Elementary Text For Schools*.

<sup>48</sup> Bailey, *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*.

pedagogy. Calls to reform secondary school agricultural education began quickly after the subject was incorporated into various schools throughout California. Wickson put forth in a *Pacific Rural Press* editorial that there was great public interest in “making instruction in the art of agriculture much more available in this State. We have made much progress in the development of the science of agriculture in the light of our peculiar natural conditions.”<sup>49</sup> As evidence for this claim, Wickson cited the recent formation of the University Farm at Davisville as an effort to reform the instructional practices of the College of Agriculture. He also cited the establishment of the California Polytechnic School in San Luis Obispo as an effort to initiate a secondary agricultural education program in the state.<sup>50</sup> During the second decade of the twentieth century, agricultural education pedagogic reform led to a diversity of instructional techniques by the beginning of the 1920s.

### **Agricultural Education Themes**

In addition to the different types of agriculture being taught and the variety of methods being utilized, topics that reflected societal and political changes crept into the agricultural education curriculum. The uncertainty created by changes in American society, mainly due to the second industrial revolution, caused tension among a variety of communities. Concepts such as nature study, agrarianism, and increased efficiency were examples of this subtle intrusion on the curriculum and reflected some of the societal tension. These themes added a layer of complexity to the textbooks, creating a more

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<sup>49</sup> "The Week," *Pacific Rural Press*, February 9, 1907, 82.

<sup>50</sup> *Ibid.*

intricate view of the agricultural education community, especially when combined with the implementation of various pedagogical approaches.

In 1895, educator Anna B. Comstock founded nature study as an educational curriculum while working at Cornell University.<sup>51</sup> Nature study curriculum taught “in both theory and practice,” focusing on science in a manner that was easily observable and centered on the students’ interactions with their environment.<sup>52</sup> Teachers primarily utilized students’ observations of nature, whenever possible, to teach scientific principles. One of the most popular techniques for the nature study curriculum was the development, and use, of school gardens to examine natural processes. Many schools within urban settings utilized the garden as a means to not only teach scientific knowledge, but also practical skills. Additionally, the utilization of a garden allowed students to connect with nature in a way their urban setting did not. Within the agricultural community, many felt the nature study curriculum was a basic form of agricultural education.<sup>53</sup>

Recent attempts to expand the historiography of science curriculum has centered on nature study and clarified some of the origins of subjects that typically fall within the scientific curriculum. The negative consequences of urban living were frequently utilized to promote nature study. According to Armitage, nature study curriculum was a respite

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<sup>51</sup> S.G. Kohlstedt, *Teaching Children Science: Hands-on Nature Study in North America, 1890-1930* (Chicago, Illinois: University of Chicago Press, 2010).

<sup>52</sup> Wilbur S. Jackman, *Nature Study for the Common School*, Second ed. (New York, New York: Henry Holt and Company, 1892); Kohlstedt, *Teaching Children Science: Hands-on Nature Study in North America, 1890-1930*: 81.

<sup>53</sup> Aretas W. Nolan, *The Teaching of Agriculture* (Cambridge, Massachusetts: Houghton Mifflin Company, 1918).

from the industrialization and decay from city living.<sup>54</sup> By leaving books and the classroom behind, and entering into a natural setting, oft times a school garden, students could grow physically and psychologically.<sup>55</sup> The utilization of common experiences and a child-centered curriculum quickly drew John Dewey's endorsement as a means to produce "public-spirited and civic-minded individuals."<sup>56</sup> Additionally, the expansion of nature study occurred as a means to introduce students to pragmatic environmentalism at a time when the conversation surrounding the utilization of America's natural resources became oppositional.<sup>57</sup> Nature study allowed for a pluralistic approach to environmentalism, a message of conservation and planning that was often lost between the "'humans first!' and 'nature first!' camps."<sup>58</sup>

As a curriculum, nature study has received some research. However, while the philosophical underpinnings and the implementation of the nature study curriculum has been explored, little is written about how nature study was incorporated into other subjects. The use of nature study provided a stepping stone for the acceptance of agricultural education within the educational community.<sup>59</sup> The analysis of how nature study was incorporated into the agricultural education curriculum expands both nature study and agricultural education's historiographies. In the current field of research,

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<sup>54</sup> Kevin C. Armitage, *The Nature Study Movement: The Forgotten Popularizer of America's Conservation Ethic* (Lawrence, Kansas: University Press of Kansas, 2009).

<sup>55</sup> Ibid.

<sup>56</sup> Ben A. Minteer, *The Landscape of Reform: Civic Pragmatism and Environmental Thought in America* (Cambridge, Massachusetts: MIT Press, 2006). 10.

<sup>57</sup> Ibid.

<sup>58</sup> Ibid., 2.

<sup>59</sup> Alfred Charles True, "Why the Friends of Agriculture Progress Believe That Agriculture Should and Will Be Taught in Public Schools.," ed. Agricultural Experiment Station (Berkeley: University of California, 1906); Nolan, *The Teaching of Agriculture*.



nature study is treated as a stand-alone curriculum, as such, topics such as the subject matter and pedagogy are typically examined. This study instead focuses on the reduction of nature study as a curriculum to fit within agricultural education. Additionally, the historiography of agricultural education is expanded. This study recognizes the initial efforts by a struggling agricultural education community for recognition within California's educational sphere through the agricultural educators' attempts to connect nature study and elementary school gardens to agriculture. This maneuvering by the agricultural education community made a direct connection to elementary teachers and their practices. By making this connection the agricultural education community courted the largest constituency within the California Teachers Association in an effort to garner support and substantiate claims of legitimacy.

Textbooks such as Bailey's *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*, first published in 1898, and A.M. Ferguson's *Elementary Principles of Agriculture: A Text Book for the Common School*, published in 1908, established the decade-long popularity this type of curriculum had in public schools.<sup>60</sup> For Bailey, the main purpose of nature studies was the teaching of science. However, the quest for scientific knowledge was not the pinnacle of student achievement, but rather he believed that education itself had inherent value. "Its [education's] purpose is to improve the farmer, not the farm...One's happiness depends less on bushels of corn than on

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<sup>60</sup>Bailey, *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*; A. M. Ferguson and L. L. Lewis, *Elementary Principles of Agriculture: A Text Book for the Common Schools*, Fourth ed. (Sherman, Texas: Ferguson Publishing Company, 1909).

entertaining thoughts.”<sup>61</sup> Bailey’s approach is best understood when it is realized that agricultural education advocates were struggling to have agricultural education recognized as a legitimate addition to public school curriculum.

Ten years later, and after the establishment of agricultural education as a viable curriculum in many secondary schools, Ferguson’s textbook layered nature study with a component of technical education. “Old-time common sense and the close, analytical thought of modern times teach that the elementary school should assist both boys and girls, according to their needs, to fit themselves, practically as well as intellectually, for the work of life.”<sup>62</sup> Ferguson’s text is also an example of how secondary school curriculum reached into elementary schools. Technical agricultural education gained momentum in secondary schools at this time. By layering nature study and technical education together, Ferguson attempted to extend this pedagogical approach down into the elementary schools. Though identified as a common school text, Ferguson’s emphasis on higher level science concepts indicates that the text targeted higher grade levels within a common school or lower level grades at a secondary school.

At the turn of the century, the agrarian movement garnered support in California; however, with no central leader, organization, or well defined purpose, the movement remained fractured during this time. As the movement struggled to find a collective voice, agrarian themes entered into agricultural education curriculum. The agrarian movement found fertile ground within the agricultural education community, gathered

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<sup>61</sup> Bailey, *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*: vii.

<sup>62</sup> Ferguson and Lewis, *Elementary Principles of Agriculture: A Text Book for the Common Schools*: Preface.

support, and slowly grew into the national movement of the 1930s. Themes such as the farmer being a repository for ideal social values, and the supremacy of rural living over urban life, took a prominent place within the agricultural education curriculum during this time period.

The historiography surrounding the agrarian movement focuses on political and social tension between farming communities and urban populations. Very little is written about the agrarians' approach to educational reform. The main focus of the research examines the Country Life movement's attempt at educational reform. According to the Country Lifers, the schools and churches were the only two key institutions that could revitalize the rural community.<sup>63</sup> Though the research uniformly agrees that the agrarian movement ultimately failed in reorganizing rural schools, the reasoning behind the failure differs. Theobald argued that the Country Life movement's vague notion that rural schools caused the rural problem, created the recommendation of a diverse, and sometimes conflicted, set of solutions.<sup>64</sup> Danbom attributes the failure of rural school reform to the implementation of "too many [educational] fads" such as "nature study" and "physical education" by educational reformers.<sup>65</sup> DeYoung and Theobald argued that the Country Life movement underestimated the economic conditions during the early

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<sup>63</sup> Dennis Roth, Anne B. W. Effland, and Douglas E. Bowers, "Federal Rural Development Policy in the Twentieth Century," *US Department of Agriculture, Economic Research Service*. [http://www.nal.usda.gov/ric/ricpubs/rural\\_development\\_policy.html](http://www.nal.usda.gov/ric/ricpubs/rural_development_policy.html) (2002).

<sup>64</sup> Paul G. Theobald, "Country Lifers Reconsidered: Educational Reform for Rural America," *Journal of Research in Rural Education* 7, no. 2 (1991).

<sup>65</sup> Danbom, *The Resisted Revolution: Urban America and the Industrialization of Agriculture, 1900-1930*: 77.

twentieth century and no infusion of agrarian themes into curriculum could counteract the economic opportunities offered by urban centers.<sup>66</sup>

The integration of agrarian themes into the fledgling agricultural education curriculum adds a layer of complexity not previously recognized by the agricultural education historiography. Having finally achieved acceptance into the pantheon of secondary curricula, the agricultural education community advocated for the expansion of agricultural education. This study explores some of the contributing factors that aided in agricultural education's rapid growth, including the incorporation of rising political support for agrarian issues within California's political spheres. By utilizing agrarian themes, agriculture teachers appealed directly to the farming community. The schools most likely to adopt agricultural education were those schools that had a direct connection to agriculture. By connecting agrarian themes to agricultural education, the agricultural education community was able to add crucial support from within California's farming communities.

The integration of agrarian ideas was included in the textbooks *Elements of Agriculture* written by G.F. Warren in 1909, and *Farm Boys and Girls* written by William McKeever in 1912. Some of the farmers' resistance toward education, in general, was the belief that it contributed to children leaving the farm for the city.

Warren summarized these feelings when he wrote:

While it is not desirable to try to make farmers, it does seem desirable to stop unmaking them. The present trend

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<sup>66</sup> Alan J. DeYoung and Paul Theobald, "Community Schools in the National Context: The Social and Cultural Impact of Educational Reform Movements on American Rural Schools," *Journal of Research in Rural Education* 7, no. 3 (1991).

of all our education is cityward. We have been living in a city-making epoch. The bright farm boy, as he has attended the village high-school, has been taught much that would naturally interest him in city occupations. The teacher has become interested in him, and has encouraged him to 'make something of himself.' This usually means that he become a lawyer, a doctor or perhaps an engineer. If he did become a farmer, he frequently felt that by doing so he lost his real opportunities.<sup>67</sup>

Warren continued that the concept of city life being superior to rural life was illusory at best and it was on the product of the farm that all other trades depended. Additionally, he promoted the idea that technical agricultural education allowed for the application of scientific knowledge in a familiar setting, thereby expanding the farmer's intellectual opportunities. Warren resonated with many within the agricultural education community, as witnessed by his textbook going through thirteen reprints within five years. McKeever, on the other hand, focused on child development within a rural farm setting. Believing that such a setting was superior, McKeever covered such topics as defining what a good life was, character development in youth, and juvenile literature. In addition to the superiority of rural life, McKeever emphasized the vocational opportunities available to the rural youth.<sup>68</sup>

As the agricultural education community continued to grow, educational reformers began to expound the virtues of social efficiency. However, the term social efficiency had no common definition during the early twentieth century.<sup>69</sup> This allowed

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<sup>67</sup> George F. Warren, *Elements of Agriculture*, ed. L. H. Bailey, Thirteenth ed., Rural Text-Book Series (New York: The Macmillan Company, 1913). viii.

<sup>68</sup> William McKeever, *Farm Boys and Girls*, ed. L.H. Bailey, The Rural Science Series (Norwood: The Macmillan Company, 1912).

<sup>69</sup> J. Null, "Social Efficiency Splintered: Multiple Meanings Instead of the Hegemony of One," *Journal of Curriculum and Supervision* 19, no. 2 (2004).

different educators to implement educational reforms under a common banner, yet with varying goals. The fluid definition of social efficiency, along with other educational philosophies such as democratic equity and social mobility created tension within the educational community.<sup>70</sup> Labaree argued that the social efficiency philosophy was built upon the belief that schools should be designed around the preparation of students for future employment. When students achieved gainful employment, social problems were alleviated, thereby easing the burden upon taxpayers.<sup>71</sup>

The historiography of social efficiency usually falls within two groups. The first faction explored the relationship of social efficiency and school organizational change. According to Callahan's 1962 seminal work, school administrators modeled schools after businesses and were willing to sacrifice educational goals to achieve efficiency. The streamlining of school organization to maximize efficiency and cost savings was a central focus.<sup>72</sup> Peck and Reitzug explored the rise of social efficiency within school administrative ranks.<sup>73</sup> The second camp within social efficiency's historiography explored curricular changes brought about by the newly accepted philosophy. The leading study is Kliebard's *Struggle for the American Curriculum, 1893-1958*. Kliebard maintained that social efficiency educators believed that the integration of social efficiency into school curriculum allowed both schools and society at large to become

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<sup>70</sup> David Labaree, "Public Goods, Private Goods: The American Struggle Over Educational Goals," *American Educational Research Journal* 34, no. 1 (1997).

<sup>71</sup> Ibid.; Grubb and Lazerson, "The Education Gospel and the Role of Vocationalism in American Education."

<sup>72</sup> R.E. Callahan, *Education and the Cult of Efficiency: A Study of the Social Forces That Have Shaped the Administration of the Public Schools* (University of Chicago Press, 1962).

<sup>73</sup> Craig Peck and Ulrich Reitzug, "How Existing Business Management Concepts Become School Leadership Fashions," *Educational Administration Quarterly* 48, no. 2 (2012).

more efficient. By changing the secondary school curriculum, an analysis and evaluation of a student's abilities were factored into educational experiences, thereby training students for future employment.<sup>74</sup> While Kliebard took a broad approach to curricular reform, others explored specific secondary school subjects such as biology<sup>75</sup>, mathematics<sup>76</sup>, and social studies.<sup>77</sup>

The rise of vocational education and social efficiency are connected.<sup>78</sup> Researchers such as Kliebard and Kantor explored the rise of vocational education at the turn of the twentieth century. However, neither discussed the changes that occurred in agricultural education during this time period. Exploring the integration of social efficiency concepts within agricultural education expands the historiography surrounding social efficiency's effects on secondary curriculum. Furthermore, the inclusion of social efficiency into the agricultural education curriculum allowed the agricultural education community to focus on one pedagogical approach, thereby garnering political support and eventually, financial resources from the Smith-Hughes Act of 1917.

As the conversation surrounding vocational education gathered momentum in the second decade of the twentieth century, the concept of an efficient farm being the primary goal for a farmer appeared in agricultural education textbooks. The life of a farmer subtly shifted away from being an ancestral tradition and a self-identity to that of

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<sup>74</sup>Kliebard, *The Struggle for the American Curriculum, 1893-1958*.

<sup>75</sup>D.B. Rosenthal and R.W. Bybee, "Emergence of the Biology Curriculum: A Science of Life or a Science of Living?," in *The Formation of School Subjects*, ed. T. S. Popkewitz (New York, New York: Falmer Press, 1987).

<sup>76</sup>Alan H. Schoenfeld, "The Math Wars," *Educational Policy* 18, no. 1 (2004).

<sup>77</sup>M.B. Lybarger, "Need as Ideology: Social Workers, Social Settlements, and the Social Studies," *The Formation of the School Subjects: The Struggle for Creating an American Institution* (1987).

<sup>78</sup>Kliebard, *Schooled to Work: Vocationalism and the American Curriculum, 1876-1946*.

a career with the goal of securing an income and profit. In *The Teaching of Agriculture* written by Aretas W. Nolan in 1918 and *The Principles of Agriculture* by Gehrs in 1919, teaching efficiency became the central purpose. Nolan believed that “agriculture is one of the major vocations and basic industries,” and, as such, should be run like a business, as efficiently as possible.<sup>79</sup> It was only through the adoption of an efficient industrial model that agriculture became the most profitable. Gehrs, on the other hand, based his promotion of increased efficiency on social need. He wrote:

The chief motive of *The Principles of Agriculture* is to show how agricultural production may be increased. Agricultural production has not kept pace with the increase in population, and it behooves the American People to utilize those factors that will make agriculture more efficient. Greater production of agricultural products at a lower cost is constantly emphasized in this book.<sup>80</sup>

Gehr echoed the Reverend Frank De Witt Talmage, encouraging farmers to increase agricultural production because it was their patriotic duty, and God’s work for them, to produce food for Americans.<sup>81</sup>

However, not all agricultural education textbooks focused on a singular theme. Some texts integrated multiple themes within the curriculum, thereby allowing multiple educational and agricultural philosophies to enter into the classroom. In the twentieth edition of *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*, Bailey reduced, but did not eliminate, the prominence of nature studies, and stressed the importance of efficiency on the farm. In the introduction, Bailey stated:

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<sup>79</sup> Nolan, *The Teaching of Agriculture*: iii.

<sup>80</sup> Gehrs, *The Principles of Agriculture*: v.

<sup>81</sup> "Must Return to Farm," *Sausalito News*, June 4, 1910.



The fact is, however, that agriculture is pursued primarily for the gaining of a livelihood, not for the extension of knowledge; it is, therefore, a business, not a science. But at every point, a knowledge of science aids the business... [the] business method is the master, and that teaching of science are the helpmates.<sup>82</sup>

According to Bailey, farmers who were trained in technical agricultural education became efficient and successful in business. Another textbook, *Farm Science*, published by International Harvester Company of America in 1906, used a combination of agrarian and efficiency concepts. *Farm Science* authors utilized the concept of farmer superiority in addition to technical agricultural education, when they stated, “the wonderful progress made in modern American agriculture is due in large part to our unlimited agricultural resources, and to the intelligence of the American farmer.”<sup>83</sup> An intelligent farmer was able to comprehend the technical nature of agriculture, combining scientific and practical knowledge in an efficient manner. Increased profits were a direct result of this efficiency.

From scientific to vocational agricultural education, the textbooks reflected not only pedagogic changes, but also a subtle evolution of educational philosophies. Unfortunately, there was no clear endpoint to the publication of scientific agricultural education books and the beginning of technical agricultural education texts. The same is true for the endpoint of technical texts and the beginning of vocational books. As educational philosophies developed and changed, a variety of all three pedagogical approaches were printed, or reprinted, for much of the first two decades of the twentieth century. While it is clear that the number of scientific texts diminished after the 1910s,

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<sup>82</sup>Bailey, *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*: v-vi.

<sup>83</sup>Joseph E. Wing et al., *Farm Science* (Chicago, Illinois: International Harvester Company of America, Inc., 1906).

they did not disappear entirely. An agriculture teacher who started out teaching scientific agriculture could have worked next to someone who taught technical agriculture. Not enough time had occurred between the birth of agricultural education, as a secondary subject, and its maturation to have a singular, fully developed curriculum. This pedagogic variety of texts provides further evidence of the fragmented nature of agricultural education.

### **Wickson's Influence on Secondary Agricultural Education**

Much like the agrarian and the educational reform movements, Wickson was not a leading advocate for secondary agricultural education curriculum. As a university professor, and the eventual Dean of the College of Agriculture, Wickson minimized his public role within California's secondary school environment. However, he took a supportive role in the early twentieth century as the secondary agricultural education curriculum gained local and political support. While Wickson did not work directly with high school agricultural teachers, he worked indirectly with many high school age students. California passed its first compulsory education law in 1874, but students living more than a mile from a school were exempt.<sup>84</sup> This exception, coupled with the sometimes great distances from home to high school, allowed many high school age students to avoid enrollment in formal schooling. Wickson's various roles within the College of Agriculture allowed him opportunities to indirectly interact with high school-aged students, to help them further their education, and facilitate the development of

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<sup>84</sup> "The Compulsory Education Law," *Los Angeles Herald*, May 30, 1874.

agricultural education at both the California Polytechnic School and the School of Agriculture.

In the mid-1890s, the College of Agriculture accepted what Wickson termed “special students.”<sup>85</sup> These students typically were seventeen and eighteen years old. Two types of students were enrolled within the program. The first group was composed of students who were unable to prepare for regular admissions due to a lack of educational opportunities, usually from rural areas, and had a farming background. The second group of students consisted of individuals who had obtained some secondary education, but with no distinguishing marks, and again, an agricultural background. These students were admitted to the College of Agriculture on a provisional basis, with access to all of the courses available to a regularly enrolled College of Agriculture student. The implementation of this special program quickly fell to Wickson, the Superintendent of the University Extension in Agriculture in 1898. Under Wickson’s leadership the enrollment of provisional students grew from only a handful to half of the College of Agriculture’s enrollment within six years.<sup>86</sup>

Shortly after provisional students were accepted into the College of Agriculture, in 1901, Governor Henry Gage signed into law a bill that established the formation of the California Polytechnic School. Cal Poly, at that time, was the only public manual arts secondary school in California. The governor appointed Wickson to the school’s board of trustees as the only trustee with a full four year term.<sup>87</sup> Wickson was instrumental in

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<sup>85</sup> Edward J. Wickson, *Beginnings of Agricultural Education and Research in California*, California Agricultural Experiment Station Report 1917-1918 (1918).

<sup>86</sup> *Ibid.*

<sup>87</sup> "The California Polytechnic School," *Pacific Rural Press*, February 8, 1902.

the school's formation and development. However, he quickly realized his employment by the University was an item of concern for some people. A rumor spread through some of the farming community that a university man was appointed to the board of trustees. Tension between the University of California and the farming community over the College of Agriculture's pedagogic approaches had been mounting for several years. Some in the farming community were concerned that a university man would bear undue influence upon the newly created school and impose a scientific approach to coursework. Wickson, as the College of Agriculture's Professor of Agricultural Practice, promptly put these concerns to rest by assuring individuals of the separation of the University from the California Polytechnic School.<sup>88</sup> Within hours of such a statement, the board of trustees adopted a wide reaching curriculum dedicated to the mechanical, agricultural and domestic arts that also affirmed a practical pedagogic approach to instruction.<sup>89</sup>

Wickson, a few months later, put forth the job description of the future principal and included the requirement "to do everything within his power for the promotion of the work and interests of the school."<sup>90</sup> Leroy Anderson was quickly nominated as the new director.<sup>91</sup> As Anderson's immediate supervisor in the University's Extension in Agriculture program, Wickson knew Anderson's work habits and educational philosophy well. Wickson's immediate endorsement of Anderson allowed the board to extend an employment offer to Anderson. In 1904, the first school year with students, the California Polytechnic School board of trustees adopted a resolution that read, in part,

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<sup>88</sup> "Plan Education on Broad Lines," *San Francisco Call*, March 9, 1902.

<sup>89</sup> *Ibid.*

<sup>90</sup> "Trustees Elect Leroy Anderson," *San Francisco Call*, May 28, 1902.

<sup>91</sup> *Ibid.*

that the school was to “produce educated farmers, stock raisers, dairymen and orchardists.”<sup>92</sup>

As the Superintendent of the University Extension in Agriculture, Wickson implemented a program to educate those seventeen or older on modern, scientific agricultural practices to increase agricultural profitability and/or production. The subject of the first Farmers’ Short Course was Dairying and the class started in the fall of 1901. Short courses usually lasted seven weeks and were open to anyone, male or female, who desired to attend. The implementation of the Dairy short courses was short lived, ending in 1902, due to a lack of equipment and facilities.<sup>93</sup> With the new University Farm in Davis, Wickson reinstated Farmers’ Short Courses in 1908. The new facilities allowed for an expansion of the program to meet the diverse needs of California’s farmers. The Agricultural Experiment Station issued Circular 37, specifying the courses available and the application process for the fall 1908 session. Again, the College of Agriculture wanted all to attend when it stated, “The Farmers’ Courses are open to all persons who are at least seventeen years old. No entrance examinations will be given nor any requirements imposed except an earnest desire to learn and to make the best use of the opportunities freely offered by the State through its University.”<sup>94</sup> Short courses continue through this day, implemented through the University of California’s Small Farm Program.

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<sup>92</sup> "Outline Bright Future for Polytechnic School " *San Francisco Call*, February 28, 1904.

<sup>93</sup> "Curriculum & Courses " [http://drinc.ucdavis.edu/depthistory/courses\\_new.htm](http://drinc.ucdavis.edu/depthistory/courses_new.htm); Ann Foley Scheuring, "The University of California, Davis: Why Not University of California of Woodland " *California Historian* 20, no. 2 (Winter 2003).

<sup>94</sup> *Instruction in Practical Agriculture*, vol. 37 (California Agricultural Experiment Station, May 1908). 4.

In January, 1909, the School of Agriculture, later to be known as the University Farm School, opened at the University Farm in Davis. Under the direct supervision of Anderson, and the endorsement of Wickson, the new school admitted all boys “fifteen years of age or older.”<sup>95</sup> The purpose of the School of Agriculture was to educate students in “the essential academic subjects of the high school, such as English and mathematics, but devotes the most of his time to agricultural subjects and the sciences related directly thereto.”<sup>96</sup> Those who graduated grammar school were admitted without examination, while those who did not graduate were required to take an entrance exam. The School of Agriculture was designed to meet high school graduation requirements within a three year program, but did not meet University of California entrance requirements. The College of Agriculture reiterated the School of Agriculture’s purpose to “furnish a technical training in agriculture to those who feel that they do not desire or are not able to pursue a college course.”<sup>97</sup> The first year eighteen boys attended the School of Agriculture.<sup>98</sup> Fourteen of the boys lived in an onsite dormitory during the school year to ease the costs of attendance for those families who lived outside of the Davis area. The desire to make the School of Agriculture coeducational was strong among the College of Agriculture staff; however, the lack of funds to build a female dormitory was cited for

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<sup>95</sup> *Instruction in Practical Agriculture*, vol. 39 (California Agricultural Experiment Station, August 1908). 17.

<sup>96</sup> *Ibid.*

<sup>97</sup> *The School of Agriculture on the University Farm*, vol. 41 (California Agricultural Experiment Station, November 1908). 6.

<sup>98</sup> *The School of Agriculture on the University Farm*, vol. 43 (California Agricultural Experiment Station, May 1909).

their exclusion.<sup>99</sup> By the fall of 1911, eighty-one students were attending the School of Agriculture with one coming as far as the Territory of Hawaii.<sup>100</sup>

As the Dean of the College of Agriculture, Wickson frequently received correspondence from “school officers charged with the preparation of courses of study for the schools; by those now engaged in teaching; and by persons preparing themselves to receive teacher certificates” regarding agricultural education.<sup>101</sup> The growth of agricultural curriculum in secondary schools necessitated new duties thrust upon College of Agriculture staff and instructors. Wickson successfully argued, and received, the appointment of three new Agricultural Education Instructors by the fall of 1911.<sup>102</sup> Babcock expressed the College of Agriculture’s, and thereby Wickson’s, support when he stated the University “will endeavor to do its share in directing the development [of secondary agricultural education] by training teachers and furnishing suggestions or advice as the need arises.”<sup>103</sup> In 1909, the College of Agriculture requested the University of California consider adding three secondary courses to the matriculated list of electives available to students desiring entrance into the University. These courses included general science, horticulture and dairying.<sup>104</sup> The matriculation of these three courses strengthened agricultural education by preventing the potential diversion of college bound students out of agriculture courses.

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<sup>99</sup> *Instruction in Practical Agriculture*, 37; *The School of Agriculture on the University Farm*, 41.

<sup>100</sup> *University Farm School*, vol. 61 (California Agricultural Experiment Station, June 1911).

<sup>101</sup> Edward J. Wickson to Benjamin I. Wheeler, January 26, 1909, folder 3, box 24, Office of the President. Records: Alphabetical Files, 1885-1913, series number CU-5 Bancroft Library, University of California, Berkeley.

<sup>102</sup> Babcock et al., *Development of Secondary School Agriculture in California*, 67.

<sup>103</sup> *Ibid.*

<sup>104</sup> Anderson, *Agriculture in the High Schools*, 47.

Finally, Wickson's roles as the Director of the Agricultural Experiment Station allowed him a surreptitious outlet for participating in the secondary agricultural education community. Prior to 1905, the Agricultural Experiment Station did not issue a single bulletin or circular discussing collegiate or secondary agricultural education. Through Wickson's tenure as Director, from 1905-1912, he supervised the publication of twenty-seven bulletins that examined agricultural education. Of these twenty-seven bulletins, twenty-two were either dedicated to, or included a discussion of, secondary agricultural education. After Wickson retired from the University of California, the Agricultural Experiment Station did not publish another bulletin regarding agricultural education, either at the collegiate or the secondary, until 1936.

In 1902, Wickson witnessed firsthand the suspicion many held within the farming community regarding individuals who worked at a university. He observed a concern of subversion regarding secondary agricultural education curriculum and University of California's policies and pedagogy. While Wickson played a prominent role within the College of Agriculture, he did not directly promote the agricultural education in secondary schools. Instead, he placed people such as Anderson, Babcock, and others in positions that allowed them to vocally promote an agricultural education curriculum for high school youth.

### **Conclusion**

The agricultural education community struggled with self-identity during the early twentieth century. As the agricultural education curriculum established a foothold within California's high schools, a diversity of agriculture programs developed. The



variety was based on a number of factors including the shortage of quality agricultural educators and a high teacher turnover rate, resulting in a fluctuating curriculum. These issues led to a fragmented implementation of agricultural education. Mirroring the tension that developed between the farming communities and the University of California, agricultural communities challenged the pedagogical implementation of scientific agriculture in local high schools. Members of the agricultural education community developed technical agriculture, practical agriculture, and vocational agriculture in an attempt to placate local concerns regarding teaching techniques.

Finally, the integration of social and political themes within the agricultural education curriculum reflected an agricultural education community attempting to garner support. The early utilization of nature study gave credence to a curriculum not yet recognized by the educational community at large. The use of agrarian themes garnered the support of farming communities at a critical time shortly after agricultural education's acceptance into secondary schools. Lastly, the incorporation of social efficiency allowed the struggling agricultural education community to garner the support of educational reformers and politicians, along with the financial resources offered by the Smith-Hughes Act.

The early twentieth century agricultural education community attempted to standardize the curriculum, but was unsuccessful due to the diverse local needs of the rural and urban communities that adopted secondary agricultural education. As the agricultural education community continued to evolve and expand, fiscal pressures began to mount. Agricultural education programs were expensive and the passage of the Smith-

Hughes Act offered an opportunity for local school administrators to continue to offer at least a form of agricultural education, while concurrently garnering financial support from both California and the federal government.

While many vocational education advocates heralded the passage of the Smith-Hughes Act, California's agricultural educators gave the law a tepid reception.<sup>105</sup> The most obvious consequence within California's secondary agricultural education programs was the forced revision of teaching techniques. In one fell swoop, the new law provided a financial incentive to local school districts to implement vocational agricultural education. Although many agriculture educators desired an integration of scientific knowledge with practical instruction, vocational agricultural education focused on the latter, with little scientific theory being taught. While technical agricultural education survived in some of California's secondary schools until the late 1920s, federal monies proved too tempting for school administrators to ignore.<sup>106</sup> Thus, the Smith-Hughes Act resolved some of the issues preventing a uniform implementation of the agricultural education curriculum. The California State Plan for Vocational Agricultural Education, a requirement for access to federal funds, outlined the process for agriculture teacher certification.<sup>107</sup> This clarification of certification for vocational agriculture instructors, in conjunction with the financial incentive, created a demand for properly trained teachers. As the number of vocational agricultural education teachers grew, the shortage of well-qualified agriculture teachers became less of a problem. One of the consequences of the

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<sup>105</sup> Sutherland, "A History of Agriculture Education in California Secondary Schools."

<sup>106</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."

<sup>107</sup> California State Plan for Vocational Agricultural Education, State Department of Education

burgeoning agriculture instructor applicant pool was the reduction in teacher turnover. This reduced the fluctuations many secondary schools experienced in the agricultural education course offerings. While not all of California's agricultural education promoters might have agreed with the pedagogical approaches mandated within vocational agricultural education, the Smith-Hughes Act created a uniform agricultural education curriculum in California, a goal many within the agricultural education community sought after since the inception of the curriculum in 1905.<sup>108</sup>

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<sup>108</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."

## Conclusion

I began this study of California's agricultural education with a simple question; why is there a status discrepancy between agricultural education and science courses within California's secondary schools? I asked myself how this divergence came into place and how it perpetuated itself. While contemplating such questions, I read John Hillison's *Agriculture in the Classroom: Early 1900s Style*<sup>1</sup> and quickly realized the agricultural education I had been trained in, vocational in nature, was not the original curriculum. I wanted to know what had happened to the initial, scientific agricultural education and how it developed in California's secondary schools. What I found was a multifaceted relationship between local and state farming organizations, the University of California, the agricultural education community, and Edward J. Wickson during the turn of the twentieth century. The exploration of these interrelationships illuminates segments of California's educational history where there is little research conducted.

Educational reform was a key issue at the end of the nineteenth and the beginning of the twentieth century. The nature of the relationship between secondary schools and institutions of higher learning developed during this time. Attempts to delineate the relationship between these organizations were led by the Committee of Ten and the National Education Association. As reform swept through the educational communities, California's agrarians found fertile fields to reorganize agricultural education at the University of California and introduce it into local secondary schools.

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<sup>1</sup> Hillison, "Agriculture in the Classroom: Early 1900s Style."

## **Restatement of Research Questions**

My research questions add context to the creation of California's secondary agricultural education during the early twentieth century. In an effort to understand the factors that contributed to the creation of California's secondary agricultural education curriculum, this study centered on the following research questions:

- What was Wickson's role within California's agricultural and academic communities?
- How did California's agricultural communities contribute to the transformation of agricultural education in the state's educational institutions?
- How does understanding Wickson's educational philosophy broaden our understanding of the conversation surrounding vocational education at the turn of the twentieth century?
- What was California's secondary agricultural education curriculum before the passage of the Smith-Hughes Act of 1917?

The purpose of this study was to explore the context and events surrounding the creation of California's secondary agricultural education curriculum. Edward J. Wickson was used as a lens due to the positions of influence he held in both the agricultural and academic communities. The answers to my research questions not only add context, but also expand the historiographies surrounding vocational education, educational reform, and California's education history. One of vocational education's gap in the

historiography, created by Dowdell and Sutherland<sup>2</sup>, is filled by recognizing Wickson's role at the College of Agriculture and his involvement in various social and educational movements during the turn of the twentieth century. By assuming vocational education's origins lay within a single origin, Kliebard and Kantor created a gap within vocational education's historiography.<sup>3</sup> Though Kliebard and Kantor align vocational education's foundation with having an economic basis, this study reveals California's farming community's desire for self-preservation of the agricultural lifestyle as the source for the creation of California's secondary agricultural education. Finally, despite the fact that education historian David B. Tyack called vocational education one of the most successful secondary education reforms ever in America's public school system, vocational education historians typically ignore the history of agricultural education. This study recognizes the secondary agricultural education curriculum was also a type of educational reform when properly situated in the educational context of early twentieth century California.

### **Wickson's Role**

My first, and main research question, explored Wickson's role within California's agricultural and academic communities. Edward J. Wickson was a quiet voice at a time of reform within California's agricultural education community. He did not hold large events to advocate for reform or a particular legislative bill. Instead, Wickson was more subtle, working behind the scenes to bring about change. His position as the editor of the

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<sup>2</sup> Dowdell, "The Growth of Agriculture as a High-School Subject in California."; Sutherland, "A History of Agriculture Education in California Secondary Schools."

<sup>3</sup> Kantor, *Learning to Earn: Reform in California, 1880-1930*; Kliebard, *Schooled to Work: Vocationalism and the American Curriculum, 1876-1946*.

*Pacific Rural Press* and various positions within the College of Agriculture allowed him direct access to thousands of farmers. His understanding of social traditions within rural communities, coupled with his ability to garner loyalty within agricultural and political groups, allowed him to be an influential individual within California. He did not formally align himself with either California's agrarian or educational reform movements, nor with California's secondary agricultural education community. However, he exercised his influence in a variety of ways. Through his selection of articles, in both the *Pacific Rural Press* and the Agricultural Experiment Station bulletins, along with his editorials that addressed a variety of agricultural issues in the *Pacific Rural Press*, Wickson's sway extended heavily into California's farmland. His academic career gave him access to various political spheres in which he developed friendships with members of California's Board of Trade, Governor Pardee, and members of the scientific communities.

As Wickson's career advanced from practical instructor at the University of California to the eventual Dean of the College of Agriculture, he recognized and embodied the mounting tension between the academic community within the university and the agriculture communities throughout California. As President Wheeler strove to gain prestige for the University through scientific acclaim, Wickson, as the potential Dean of the College of Agriculture, symbolized a step backward. Much to Wheeler's consternation, Wickson, unlike his predecessor Eugene Hilgard, was well connected with the agricultural community and conducted little, if any, agricultural research. Wickson chose to publish agricultural information to laity, instead of other academicians, and

published no scientific papers during his career. He enjoyed his close connections with California's farmers, remaining the editor of *Pacific Rural Press* for almost four decades. Wickson was not sufficiently scientific for Wheeler's vision of the University of California. This created tension, which not only affected Wickson's career in the College of Agriculture, but also mirrored the mounting tension between the academic and the agricultural communities.

While he never formally associated himself as a member of the agrarian movement, Wickson's actions strongly reflected his sympathies to the movement. The typical portrayal of the agrarian movement as an anti-urban, pro-rural dichotomy does not encompass Wickson's efforts to modernize farming communities. Instead, he frequently traveled to rural communities and spoke regarding agricultural science, new scientifically proven agricultural practices, or local farming issues. He recognized that mechanization and modernization of farming techniques would lead to more profit on farms. He also sought to remind farmers that while the industrialization of their respective fields was acceptable, they should remember they had a moral duty to beautify, both their homestead and their community. Financial success should not come at the cost of heart and home. Though Wickson did not create a unifying voice for California's agrarian movement, there is little evidence that he attempted to. Instead of focusing on purely agrarian issues, he divided his time, working on a diversity of issues including topics such as agricultural science, the restructuring of the College of Agriculture, and secondary agricultural education.



As California's secondary agricultural education community grew, Wickson maintained a delicate balance between supporting the fledgling community and being in the public eye. He knew firsthand, due to his appointment on California Polytechnic School's Board of Trustees, the suspicion an individual from the University often garnered in the agricultural community. While he was welcomed into the farming community through his travels during Farmers' Institutes or the *Pacific Rural Press*, the thought of a university man overseeing the development of a new secondary school dedicated to the manual arts was unnerving to some. Through the development of California Polytechnic School in San Luis Obispo and the School of Agriculture in Davis, Wickson worked outside the public light to advance agricultural education for high school age students.

In addition to participating in the creation of two technical high schools, Wickson supported high school students gaining access to agricultural education elsewhere. As the Superintendent of the University Extension in Agriculture from 1898 through 1905, Wickson expanded the provisional student program at the University of California. This plan allowed students, with little to no secondary school experience, entrance into the College of Agriculture, as long as they had an agricultural background.

As the Dean of the College of Agriculture, Wickson successfully argued for the appointment of three agricultural education instructors at the University. By expanding the agricultural education program at the College of Agriculture, he increased the number of well-trained agricultural education teachers, thereby minimizing the chronic shortage of secondary agricultural teachers and the fluctuation in the curriculum that often

coincided with new teachers. Additionally, Wickson allowed older students access to Farmers' Institutes and Short Courses, thus providing them opportunities to learn technical agricultural education. Finally, Wickson's role as the Director of the Agricultural Experiment Station allowed him an outlet for participating in the secondary agricultural education community through the publication of bulletins supportive of agricultural education within the secondary school system.

### **Role of California's Agricultural Community**

My second research question recognized that Wickson was not the only participant affecting agricultural education during the early twentieth century. While he played a crucial, yet quiet, role within the secondary agricultural education community, members of California's farming community directly worked toward reform. As the conversations between the academic and farming communities became more dogmatic, other societal factors mounted pressure on agriculturalists. Urban populations grew rapidly at the turn of the century, due to immigration and migration away from rural areas, causing a greater imbalance between producers and consumers of agricultural goods in America. Social scientists, politicians and community leaders attempted to rally support for a variety of issues that a rapidly growing population created.

A fledgling agrarian movement began in response to the social pressures facing farmers. The creation of the University of California through the merger of the Agricultural, Mining, and Mechanical Arts College with the College of California in 1868 caused a sense of loss, and anger, among many farmers. The original Agricultural, Mining, and Mechanical Arts College was a land grant college, as designated by the

federal Morrill Act of 1862, with the expressed purpose of teaching agriculture and mechanical arts. The merger diluted the purpose of the college and allowed outside interests, the Regents of the University of California and the University President, to control the curriculum. Though the University of California continued as California's land grant institution, the heavy emphasis on a scientific pedagogy alienated many within the agricultural community. According to many agriculturalists, the expansion of the science facilities at the University of California came at the expense of the College of Agriculture. This generated a perception of misappropriation of school funds to grow within the farming community and further escalated the tension between the academic and agricultural communities.

An early twentieth century agrarian movement grew in California, though in a nebulous manner, often with conflicting goals and philosophies, in response to the social changes and tension. However, the lack of a singular rallying cry, or leader to coalesce around, stymied the agrarian movement. The movement did plant the seeds that would later blossom into agricultural education reform within California's educational institutions. The agricultural community transformed agricultural education through their political efforts to establish the University Farm in Davis and the California Polytechnic School in San Luis Obispo, along with their local attempts to incorporate practical and scientific knowledge in secondary agricultural education classrooms.

### **Wickson's Educational Philosophy**

My third question integrated Wickson's approach to agricultural education into the education conversation surrounding vocational education during the early twentieth

century. He firmly believed in the integration of scientific theory and agricultural practices within the agricultural education curriculum, also known as technical agriculture. This moderate viewpoint within the agricultural education community caused him to take various positions throughout his career as pedagogical approaches changed. At the beginning of his career, while Dean Hilgard utilized a scientific approach to agricultural instruction at the University of California, Wickson promoted the benefits of scientific agricultural education in both the *Pacific Rural Press* and later in the Farmers' Institutes. As the educational pendulum swung toward the predominance of scientific agricultural education, Wickson openly endorsed technical agricultural education in an attempt to bring hands-on activities back into the curriculum. While Wickson agreed with the incorporation of vocational skills into the school system, he did not endorse vocational education whole-heartedly. According to Wickson, a delicate balance between the scientific and vocational pedagogic approaches to agricultural education was needed to develop a better agriculturalist.

Wickson's approach to agricultural education differed from both Snedden's and Dewey's versions of vocational education. Historians have artificially narrowed the educational conversation surrounding vocational education into a false dichotomy between Snedden and Dewey. While Snedden and Dewey did debate the implementation of vocational education, to use their arguments to represent the entire educational conversation is too broad of a generalization. Wickson brought a new perspective to the conversation surrounding vocational education implementation. Snedden demanded rote memorization through skills-based practice and Dewey desired a combination of hands-

on practice with socialization. Wickson favored the integration of hands-on activities with scientific theory, or technical agriculture. The use of technical agriculture extended beyond Snedden's limited view of education, by helping students understand the scientific principles and reasoning behind their practical endeavors. However, Wickson's vision of agricultural education was not as expansive as Dewey's vision. While Wickson wanted students to become better farmers through the use of scientific principles and experimentation, Dewey not only wanted students to become better at their future jobs, but also desired them to understand their placement within the larger social and industrial communities.

### **California's Secondary Agricultural Education**

My final research question expanded the limited historiography surrounding California's secondary agricultural education. At the beginning of the twentieth century, the secondary agricultural education community struggled for acceptance within the educational setting. Within eleven years, agricultural education grew from non-existence in California's high schools to being included in nearly one-third of them. This rapid growth reflected the desire by community members to expand educational opportunities to students in the various components of agriculture. However, the lack of a centralized voice, or organization, created a struggling secondary agricultural education community with little in the way of resources. With the flood of new secondary agricultural education courses and programs, a shortage of qualified agriculture teachers surfaced. As a result, many schools used science teachers as temporary agriculture teachers. Quickly the secondary pedagogical approach to agriculture mirrored the College of Agriculture's

scientific agriculture. Many local farmers and agricultural educators found the heavy emphasis on scientific study, with little to no practical instruction, distasteful. Efforts to reform agricultural education quickly garnered support in many areas, while in other areas no effort was made to change agricultural education. This contributed to the formation of a widespread and diverse but fragmented secondary agricultural education curriculum.

The rapid growth of agricultural education, and its adaptation to local communal needs, did not allow agriculture educators with limited resources the time needed to coordinate a statewide agricultural education curriculum. This resulted in the implementation of a disjointed curriculum and instructors who utilized various pedagogical approaches. This fragmented approach to the agricultural education curriculum reflected a community struggling for an identity. Members of the community branched out and developed technical agriculture, practical agriculture, and vocational agriculture in an attempt to placate local concerns regarding teaching techniques.

Additionally, members of the agricultural education community wrote textbooks that integrated several social and political themes within the curriculum in an effort to garner support. The early utilization of nature study, during the late nineteenth and early twentieth centuries, gave credence to a curriculum not yet recognized by the educational community at large. As the agrarian movement garnered political support, the use of agrarian themes was incorporated into the curriculum during the late 1900s and early 1910s. Finally, the incorporation of social efficiency allowed the struggling agricultural education community to garner the support of educational reformers and politicians,

along with the financial resources offered by the Smith-Hughes Act. Ultimately, the conflicted nature of the agrarian movement, the disjointed agricultural education community, along with the increased political influence of the vocational education movement and the large financial incentive for vocational education caused the rapid decline of non-vocational agricultural education in California's secondary schools.

### **Further Research**

The exploration of the College of Agriculture at the turn of the twentieth century illuminated portions of the social tension in California. The College of Agriculture at the University of California was the focus of much of the tension between California's academic and agricultural communities. The pedagogical approaches utilized to teach agriculture at the University appear to be the major source of the tension. The appointment of Dean Hilgard and creation of the University Farm's early curriculum offer two opportunities to further illuminate the intensification and reduction of conflict between the academic and farming communities.

Shortly after the University of California opened, conflict between Ezra S. Carr, a founding professor of the College of Agriculture, and the University of California Regents occurred. Both the Regents and University President Gilman deemed the pedagogical approach used by Carr in the agricultural courses to be inappropriate for university students.<sup>4</sup> Eugene Hilgard replaced Carr at the College of Agriculture in 1875 and transformed the College of Agriculture into a scientifically based program. He focused on the utilization of laboratory settings instead of the university grounds for

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<sup>4</sup> Stadtman, *The University of California, 1868-1968*.

student learning, a dramatic departure from Carr's practices. By changing the College of Agriculture, Hilgard contributed to the University's prestige as an academic institution. An opportunity exists to explore these changes in more detail.

As briefly mentioned in Chapter I, Hilgard's hiring caused some tension between the agricultural and educational communities. The steps he took to alleviate the tension, and the relationships he built to develop a scientifically rigorous agricultural curriculum, would give insight into not only the academic, agricultural education, and agricultural communities within California, but also how those communities interacted on a national level. An example is found in one of Hilgard's first actions as Dean of the College of Agriculture. His belief that agriculture must be explored through scientific means manifest itself through the establishment of the Agricultural Experiment Station, more than a decade prior to the passage of the federal law authorizing the creation of the United States Department of Agriculture's Experiment Stations. With a fully functioning agricultural experiment station already in place, Hilgard must have received some inquiries from other universities or the United States Department of Agriculture on his management practices.

Thirty years after Hilgard became the Dean of the College of Agriculture, many of California's agriculturalists called for agricultural education reform, specifically to combat the pedagogic reforms Hilgard adopted. These calls culminated in the creation of the university farm in 1906 and, as a result, hands-on activities in a farm setting became an integral component of the students' education. By investigating the University Farm's first two superintendents and directors, Leroy Anderson and Hubert Van Norman, an



opportunity exists to highlight the formative relationships between the University of California, University Farm, and California's agricultural communities. This analysis could also examine how the University of California utilized the University Farm in conjunction with the College of Agriculture's Berkeley facility.

Anderson and Van Norman both made critical decisions regarding curriculum development and implementation. The analysis of these decisions gives further illumination of the dynamics within agricultural communities competing for room within the University Farm's new curriculum. The diversity of subject matters within the agricultural education curriculum and the amount of space needed to offer instruction in a practical fashion caused some difficult decisions by the University Farm, College of Agriculture, and University of California leadership. Their choices offer insight into the educational philosophies of the participants. Additionally, the reactions by individuals within the educational, agricultural, and the agricultural education communities to the various decisions made by the University of California contribute to the contextualization of a portion of California's educational history during the early twentieth century.

The field of California's agricultural education history is ripe for harvest. Except for a few narrow studies during the first half of the twentieth century, no other researcher has worked in this field. California's agricultural education reflects not only the rural populations within the state, but also the political and educational communities. A wealth of information is readily available to those who seek to understand California's political, social, commercial and rural histories.

## **Bibliography**

### Primary Sources

#### *Archival Collections*

Edward J. Wickson Papers, 1868-1923, Bancroft Library, University of California, Berkeley.

George C. Pardee Papers, Bancroft Library, University of California, Berkeley.

Office of the President. Records: Alphabetical Files, 1885-1913, Bancroft Library, University of California, Berkeley.

Records of the Regents of the University of California, 1868-1933, Bancroft Library, University of California, Berkeley.

#### *Printed Sources*

"Course Catalog 1895-1896." edited by California State Normal School at Los Angeles, 1895.

"Course Catalog 1899-1900." edited by California State Normal School at San Diego, 1899.

"Course Catalog 1903-1904." edited by California State Normal School at Los Angeles, 1903.

"Course Catalog 1907-1908." edited by California State Normal School at San Diego, 1907.

"Little Landers' Attempt to Solve Problem of Living Without Worry." Popular Mechanics, October 1914, 552-54.

"Needs of the College of Agriculture of the University of California From the Students' Point of View." 1904.

Anderson, Leroy. Agriculture in the High Schools. Vol. 47: California Agricultural Experiment Station, November 1909.

Babcock, E. B., C. J. Booth, H. Lee, and F. H. Bolster. Development of Secondary School Agriculture in California. Vol. 67: California Agricultural Experiment Station, 1911.

- Bagley, William C. *Craftsmanship in Teaching*. New York, New York: The Macmillan Company, 1911.
- Bailey, Liberty H. *Botany: An Elementary Text for Schools*. 4th ed. London: The Macmillan Company, 1901.
- . *Recent Problems in Agriculture - What a University Farm Is For*. Vol. 15: California Agricultural Experiment Station, 1905.
- . *The Country Life Movement in the United States*. The Rural Outlook Set. New York, New York: Macmillan Company, 1911.
- . *The Outlook to Nature*. 2nd ed. New York, New York: Macmillan, 1911.
- . *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*. edited by L. H. Bailey. First ed. New York: The Macmillan Company, 1898.
- . *The Principles of Agriculture: A Text-Book for Schools and Rural Societies*. edited by L. H. Bailey. Twentieth ed. New York: The Macmillan Company, 1919.
- Berwick, Edward. "Education from a Farmer's Standpoint." *Pacific Rural Press*, July 9 1898.
- Bobbitt, Franklin. *How to Make a Curriculum*. Boston, Massachusetts: Houghton Mifflin Co., 1924.
- . *The Curriculum*. New York, New York: Arno Press, 1918.
- Bricker, Garland Armor. *The Teaching of Agriculture in the High School*. New York, New York: The Macmillan Company, 1911.
- Bryan, William Jennings. "Cross of Gold Speech." In *Democratic National Convention*. Chicago, Illinois, 1896.
- Burks, Jesse D. "Getting Our Bearings on Industrial Education." *The Elementary School Teacher* 9, no. 9 (1909): 445-54.
- Cowan, John L. "The Hope of the "Little Landers": The Story of San Ysidro, Cal., Where Families Prosper on Two Acres and a Quarter." In *The World's Work: A History of Our Time*, edited by Walter Hines Page and Arthur Wilson Page. 96-100. Garden City, New York: Doubleday, Page & Company, 1912.
- Craft, H. A. "California's New State University Farm." *Hoard's Dairyman*, September 13 1907.
- Daily Alta California, "San Francisco Microscopical Society," March 3, 1877.

- Davis, Benjamin Marshall. *Agricultural Education in the Public Schools: A Study of Its Development with Particular Reference to the Agencies Concerned*. Chicago, Illinois: The University of Chicago Press, 1912.
- Davis, Kary C. *The New Agriculture for High Schools*. Philadelphia, Pennsylvania: J. B Lippincott Company, 1923.
- Dewey, John. *Democracy and Education: An Introduction to the Philosophy of Education*. Text-Book Series. edited by Paul Monroe New York, New York: The Macmillan Company, 1916.
- . "On Industrial Education." *Curriculum Inquiry* 7, no. 1 (1977): 53-60.
- Dyer, Walter A. "The Case of Kelly and Hannah Belden: Why Our Country Communities Need More Play." *The Craftsman*, 1914, 400-06.
- Ferguson, A. M., and L. L. Lewis. *Elementary Principles of Agriculture: A Text Book for the Common Schools*. Fourth ed. Sherman, Texas: Ferguson Publishing Company, 1909.
- Gehrs, John H. *Live Stock and Farm Mechanics*. New York, New York: The Macmillan Company, 1917.
- . *The Principles of Agriculture*. New York, New York: The Macmillan Company, 1919.
- Hart, William R. "In Public High Schools Should Agriculture Be Taught as Agriculture or as Applied Science?". Chap. VIB In *Agriculture and Applied Science: The Eleventh Yearbook*, edited by S. Chester Parker. 91 - 97. Chicago, Illinois: The University of Chicago Press, 1911.
- Henderson, Victor. "Dr. Wheeler's Plans." *Los Angeles Times*, October 9 1899, 9.
- Holmes, Roy Hinman. "The Passing of the Farmer." *Atlantic Monthly*, October 1912, 517-23.
- Hunt, Thomas F. "Wickson and the State." In *University of California Printing Office*, edited by University of California Bancroft Library, Berkeley. Berkeley, California, 1924.
- Hurlburt, B. G. "Our Agricultural College." California State Grange Office of Master, 1904.
- Instruction in Practical Agriculture. Vol. 37: California Agricultural Experiment Station, May 1908.
- Instruction in Practical Agriculture. Vol. 39: California Agricultural Experiment Station, August 1908.

Jackman, Wilbur S. *Nature Study for the Common School*. Second ed. New York, New York: Henry Holt and Company, 1892.

*Los Angeles Herald*, "A Talk to Farmers," January 21, 1906.

———. "Pres. Wheeler Goes East," November 10, 1905.

———. "The Compulsory Education Law," May 30, 1874.

———. "Untilled Farms and the City Poor," March 18, 1906.

*Los Angeles Times*, "Agricultural Education," January 12, 1897.

———. "Back to Farm a Myth," May 6, 1910.

———. "Back to the Farm Cry False Appeal," December 27, 1910.

———. "Back to the Farm," August 16, 1902.

———. "Back to the Farm," December 23, 1903.

———. "Cheap Wit," March 23, 1902.

———. "Country Life No Problem Here," November 26, 1908.

———. "Hunger Strike of Unemployed: Men Refuse to Work except on Selected Jobs," January 18, 1914.

———. "Not Far Enough Back," October 27, 1910.

———. "Technical Education," July 12, 1907.

———. "The College of Agriculture," September 5, 1896.

McKeever, William. *Farm Boys and Girls*. The Rural Science Series. edited by L.H. Bailey Norwood: The Macmillan Company, 1912.

*New York Times*, "Bankers at Work to Aid Farmers," May 19, 1912.

———. "Bankers Organize to Help Farmers Increase Crops," December 17, 1911.

———. "Bankers Will Help Develop the Farms," May 7, 1912.

———. "Virginia Falls into Line," January 23, 1910.

Nolan, Aretas W. *The Teaching of Agriculture*. Cambridge, Massachusetts: Houghton Mifflin Company, 1918.

*Oakland Herald*, "Professor to Tour State," December 1, 1905

- Oakland Tribune*, "'Don't Worry,' Says Wickson to All," November 30, 1905.
- . "University Farm - Where Shall It Be?," August 16, 1905.
- Osterhout, W.J.V.L. *Experiments with Plants*. New York, New York: The Macmillan Co., 1905.
- Pacific Rural Press*, "A Call to Organize a State Horticultural Society," September 13, 1879.
- . "A Contrite Banker," May 12, 1900.
- . "Agricultural Development and Education," May 25, 1912.
- . "Annual Meeting of the State Horticultural Society," November 8, 1884.
- . "As Other See It," May 23, 1896.
- . "Demands of the National Grange," April 16, 1910.
- . "Farmers' Institute," December 29, 1894.
- . "Farmers' Institute," September 12, 1891.
- . "From Rural Readers," May 16, 1896.
- . "Hearts, Homes and Homoculture," July 15, 1899.
- . "Keep the Farmer on the Farm," May 26, 1900.
- . "Letter to the Editor," November 17, 1906.
- . "Personal," December 25, 1875.
- . "The California Polytechnic School," February 8, 1902.
- . "The Week," February 9, 1907.
- . "Wisdom Is the Principal Thing," November 12, 1898.
- Parker, Paul P. "The Boycott on Meat." *Pacific Rural Press*, February 5 1910.
- Poe, Clarence. "The Government and the New Farmer." In *The World's Work: A History of Our Time*, edited by Walter Hines Page and Arthur Wilson Page. 5851. Garden City, New York: Doubleday, Page & Company, 1905.
- Prosser, Charles A., and Charles R. Allen. *Vocational Education in a Democracy*. The Century Vocational Series. edited by C.A. Prosser New York, NY: The Century Co., 1925.

- Raap, H. C. "Our Agricultural College." California State Grange Committee of Legislation, 1904.
- Ryerson, K. A. "Edward James Wickson." *The University of California Journal of Agriculture* 2, no. 6 (March, 1915): 203-06.
- Sacramento Bee*, "The Farmers Turn Loose on the University Professors," September 8, 1905.
- Sacramento Daily Record-Union*, "State Dairymen's Association," October 5, 1876.
- Sacramento Union*, "Livestock Breeders Are Outspoken on State Farm," September 8, 1905.
- . "State Grange Goes to Davisville," October, 1906.
- . "The State Farm Commission," November 28, 1905.
- . "The Yolo Farm," November 17, 1906.
- San Francisco Call*, "America's Debt to Thomas Jefferson," November 24, 1899.
- . "Mr. Smythe Proposes to Bring Many Settlers to California," January 3, 1896.
- . "Outline Bright Future for Polytechnic School " February 28, 1904.
- . "Plan Education on Broad Lines," March 9, 1902.
- . "Praises Wickson, Not Wheeler," November 14, 1906.
- . "Regents Help Savants, but Overlook Wickson," May 18, 1907.
- . "True Writes About Station," October 14, 1905.
- . "Trustees Elect Leroy Anderson," May 28, 1902.
- . "Wheeler after Official Scalp of Professor," April 15, 1907.
- . "Why They Leave the Farm," November 16, 1892.
- . "Wickson Fires Some Sarcasm at 'Cow College' Equipment," August 21, 1906.
- . "Wickson's Friends Come to His Rescue," April 16, 1907.
- San Francisco Chronicle*, "Commission Studies Country Life Data," November 29, 1908.
- . "Farmers in Convention," August 26, 1896.
- . "Farming Must Have a Place in Our Schools," December 27, 1905.

- . "Meat Boycott Spreads Rapidly," January 23, 1910.
- . "The University," September 27, 1874.
- . "To Lecture on Agriculture: Eminent Scientist from Cornell University Will Arrive in This City to-Day," July 30, 1905.
- . "Wheeler Back from East," July 6, 1905.
- . "Wheeler Talks to New Students: Professor Wickson Creates a Sensation at Opening of Term in Berkeley," August 21, 1906.
- . "Wickson Chosen by the Regents," September 12, 1907.
- Sausalito News*, "Must Return to Farm," June 4, 1910.
- Sawford, C. C. "The Farm and the School." *Pacific Rural Press*, March 11, 1899.
- Shepard, Hiram H. *Life on the Farm or, Scientific Agriculture Simplified: A Reading Book for Grammar and High Schools. Home and School Series for Young Folks.* Chicago, Illinois: A. Flanagan Co., 1901.
- Shields, Peter J. "Agriculture Education." California Livestock Breeders' Association, 1904.
- Snedden, David. "Fundamental Distinctions between Liberal and Vocational Education." *Journal of Proceedings and Addresses of the 52nd Annual Meeting on the National Education Association* (1914): 150-61.
- Snyder, Edwin R. "Biennial Report of the Commissioner of Industrial and Vocational Education." 40-41: California State Board of Education, 1916.
- Studies, National Education Association of the United States. Committee of Ten on Secondary School. *Report of the Committee of Ten on Secondary School Studies: With the Reports of the Conferences Arranged by the Committee.* Pub. for the National Education Association, by the American Book Co., 1894.
- The School of Agriculture on the University Farm. Vol. 41: California Agricultural Experiment Station, November 1908.
- The School of Agriculture on the University Farm. Vol. 43: California Agricultural Experiment Station, May 1909.
- True, Alfred Charles. "Why the Friends of Agriculture Progress Believe That Agriculture Should and Will Be Taught in Public Schools.", edited by Agricultural Experiment Station. Berkeley: University of California, 1906.



- U.S. Congress. Senate. The National Vocational Education Act of 1917. S 703. 64th Congress, February 23, 1917.
- University Farm School. Vol. 61: California Agricultural Experiment Station, June 1911.
- Utica Weekly Herald and Gazette and Courier*, "To Dairymen," December 14, 1875.
- Warren, George F. "In the Public High Schools Agriculture Should Be Taught as Agriculture, Not as Applied Science." Chap. VIB In *Agriculture and Applied Science: The Eleventh Yearbook*, edited by S. C. Parker. 98 - 101. Chicago, Illinois: The University of Chicago Press, 1911.
- Warren, George F. *Elements of Agriculture*. Rural Text-Book Series. edited by L. H. Bailey New York, New York: The Macmillan Company, 1909.
- Warren, George F. *Elements of Agriculture*. Rural Text-Book Series. edited by L. H. Bailey. Thirteenth ed. New York, New York: The Macmillan Company, 1913.
- Watsonville Register*, "Finding Site for State Farm," November 29, 1905.
- Wickson, Edward J. "Agriculture and Education." *Pacific Rural Press*, July 9 1898.
- . "Patrons of Husbandry." *Pacific Rural Press*, July 22 1905.
- . In Memoriam. Eugene Woldemar Hilgard... Berkeley, California.: University of California Press, 1916.
- . *Beginnings of Agricultural Education and Research in California*. California Agricultural Experiment Station Report 1917-1918. 1918.
- . *Rural California*. Rural State and Province Series. edited by L. H. Bailey New York: The Macmillan Company, 1923.
- Wilmerding School of Industrial Arts for Boys. Catalogue: The Wilmerding School of Industrial Arts for Boys. University of California, 1900.
- Wilson, Warren H. "The Church and the Rural Community." *American Journal of Sociology* 16, no. 5 (1911): 668-702.
- Wing, Joseph E., P.G. Holden, Waldo F. Brown, W. M. Hays, Thomas Shaw, Clinton D. Smith, Cyril G. Hopkins, and Fred R. Crane. *Farm Science*. Chicago, Illinois: International Harvester Company of America, Inc., 1906.
- Winslow, I. O. *The Principles of Agriculture for Common Schools*. New York, New York: American Book Company, 1890.
- Woodland Daily Democrat*, "Criticism of Berkeley Influence in Choosing Farm Site," September 17, 1905.

- . "Some Poor Advice," August 17, 1905.
- . "Farm Commission Is Organized," April 10, 1905.

### Secondary Sources

- "History of San Francisco's Microscopical Society."  
<http://www.sfmicrosoc.org/history.html>.
- "Curriculum & Courses ". [http://drinc.ucdavis.edu/depthistory/courses\\_new.htm](http://drinc.ucdavis.edu/depthistory/courses_new.htm).
- "Highlights in the History of Cal Poly."  
<http://lib.calpoly.edu/universityarchives/history/timeline/>.
- Adams, Kathleen Anne. *Kindergarten and Community: The Silver Street Kindergarten of San Francisco, 1878-1906*. Ann Arbor, MI: UMI Dissertation Services, 2010.
- Anderson, Clifford B. "The Metamorphosis of American Agrarian Idealism in the 1920s and 1930s." *Agricultural History* 35, no. 4 (1961): 182-88.
- Armitage, Kevin C. *The Nature Study Movement: The Forgotten Popularizer of America's Conservation Ethic*. Lawrence, Kansas: University Press of Kansas, 2009.
- Aulbach, Carol. "The Committee of Ten: Ghosts Who Still Haunt Us." *The English Journal* 83, no. 3 (1994): 16-17.
- Beck, Robert H., George H. Copa, and Virginia H. Pease. "An Uncommon Education: Interaction and Innovation." edited by U.S. Department of Education. Berkely, CA: National Center for Research in Vocational Education, 1991.
- Berlinger, David C., and Bruce J. Biddle. *The Manufactured Crisis*. Reading, MA: Perseus Books, 1995.
- Bingham, Emily S., and Thomas A. Underwood, eds. *The Southern Agrarian and the New Deal: Essays after "I'll Take My Stand"*, Publications of the Southern Texts Society. Charlottesville, Virginia: University of Virginia Press, 2001.
- Blackstock, Joe. "Chaffey College's First 125 Years." *San Bernardino County Sun*, December 21, 2007.
- Bowman, Jacob N. "Reminiscences of the University of California, 1906-12." University of California, Berkeley, Bancroft Library, 1963.
- Braundy, Marcia. "Dewey's Technological Literacy: Past, Present, and Future." *Journal of Industrial Education* 41, no. 2 (2004).

- Briggs, Thomas H. "The Committee of Ten." *Junior-Senior High School Clearing House* 6, no. 3 (1931): 134-41.
- Callahan, R.E. *Education and the Cult of Efficiency: A Study of the Social Forces That Have Shaped the Administration of the Public Schools*. Chicago, Illinois: University of Chicago Press, 1962.
- Carlson, Allan. *The New Agrarian Mind: The Movement toward Decentralist Thought in Twentieth-Century America*. New Brunswick, New Jersey: Transaction Publishers, 2000.
- Church, R.L., and M.W. Sedlak. *Education in the United States: An Interpretive History*. Free Press New York, 1976.
- Cloud, Roy Walter. *Education in California: Leaders, Organizations, and Accomplishments of the First Hundred Years*. Stanford, CA: Stanford University Press 1952.
- Crowder, Beth Jersey. "The Lux School: Education for Women." *California History* 65, no. 3 (1986): 208-13.
- Danbom, David B. "Romantic Agrarianism in Twentieth-Century America." *Agricultural History* 65, no. 4 (1991): 1-12.
- . "The Agricultural Experiment Station and Professionalization: Scientists' Goals for Agriculture." *Agricultural History* 60, no. 2 (1986): 246-55.
- . *The Resisted Revolution: Urban America and the Industrialization of Agriculture, 1900-1930*. Ames, Iowa: The Iowa State University Press, 1979.
- DeYoung, Alan J., and Paul Theobald. "Community Schools in the National Context: The Social and Cultural Impact of Educational Reform Movements on American Rural Schools." *Journal of Research in Rural Education* 7, no. 3 (1991): 3-14.
- Dowdell, Joseph Aloysius. "The Growth of Agriculture as a High-School Subject in California." University of California, 1932.
- Drost, Walter H. "Social Efficiency Reexamined: The Dewey-Snedden Controversy". *Curriculum Inquiry* 7, no. 1 (1977): 19-32.
- Duke, Donald. *Santa Fe: The Railroad Gateway to the American West*. Vol. 2, San Marino, California: Golden West Books, 1995.
- Falk, Charles John. *The Development and Organization of Education in California*. New York, NY: Harcourt, Brace & World, 1968.
- Ferrier, William Warren. *Ninety Years of Education in California: 1849-1936*. Oakland, CA.: West Coast Printing Company, 1937.

- Fossum, Paul R. *The Agrarian Movement in North Dakota*. John Hopkins University Studies in Historical and Political Science. Baltimore, Maryland: Johns Hopkins Press, 1925.
- Frabcciosi, Robert J. *The Rise and Fall of American Public Schools: The Political Economy of Public Education in the Twentieth Century*. Westport, CT: Praeger Publishers, 2004.
- Gelber, S. "Pathways in the Past: Historical Perspectives on Access to Higher Education." *The Teachers College Record* 109, no. 10 (2007): 2252-86.
- Goldin, Claudia. "The Human-Capital Century and American Leadership: Virtues of the Past." *The Journal of Economic History* 61, no. 2 (2001): 263-92.
- Gonzalez, Juan Carlos. "Damning Historical Visual Archives: Deficit Photographing of Mexicans and the Schooling Process." *American Educational History Journal* 35, no. 2 (2008): 293-313.
- Grubb, W. Norton, and Marvin Lazerson. "The Education Gospel and the Role of Vocationalism in American Education." *American Journal of Education* 111, no. 3 (2005): 297-319.
- Hendrick, Irving G. *California Education: A Brief History*. Golden State Series. edited by Jr. Norris Hundley and John A. Schutz San Francisco, CA.: Boyd & Fraser Publishing Company, 1980.
- Herren, Ray V., and John Hillison. "Agricultural Education and the 1862 Land-Grant Institutions: The Rest of the Story." *Journal of Agricultural Education* 37, no. 3 (1996): 26-32.
- Herrick, M.J. "Assessment of Student Achievement and Learning, What Would Dewey Say? A 'Recent' Interview with John Dewey." *Journal of Vocational and Technical Education* 13, no. 1 (1996): 17-29.
- Hertzberg, Hazel W. "Foundations. The 1892 Committee of Ten." *Social Education* 52, no. 2 (1988): 144-45.
- Hillison, John. "Agricultural Teacher Education Preceding the Smith-Hughes Act." *Journal of the American Association of Teacher Educators in Agriculture* 28, no. 2 (1987): 8-17.
- . "Agriculture in the Classroom: Early 1900s Style." *Journal of Agricultural Education* 39, no. 2 (1998): 11-18.
- . "The Coalition That Supported the Smith-Hughes Act or a Case for Strange Bedfellows." *Journal of Vocational and Technical Education* 11, no. 2 (1995): 4-11.

- . "The Origins of Agriscience: Or Where Did All That Scientific Agriculture Come From?". *Journal of Agricultural Education* 37, no. 4 (1996): 8-13.
- . "The Role of the Agricultural Education Teacher Educator Yesterday, Today, and Tomorrow." *Journal of Agricultural Education* 39, no. 1 (1998): 1-7.
- Hitt, Marlene A. Sunland and Tujung: From Village to City. Making of America. Dover, New Hampshire: Arcadia Press, 2002.
- Hofstadter, Richard. *The Age of Reform*. New York, New York: Knopf 1960.
- . *The Age of Reform: From Bryan to F.D.R.* New York, New York: Vintage Books, 1955.
- Hook, J. N. *A Long Way Together: A Personal View of NTCE's First Sixty-Seven Years*. Urbana, Illinois: NCTE, 1979.
- Hunt, Thomas C. "American High Schools in Trouble: 1893 and 1976 ". *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* 49, no. 5 (1976): 196-99.
- Hyslop-Margison, Emery J. "An Assessment of the Historical Arguments in Vocational Education Reform." *Journal of Career and Technical Education* 17, no. 1 (2000): 23-30.
- Kantor, Harvey. "Work, Education, and Vocational Reform: The Ideological Origins of Vocational Education, 1890-1920." *American Journal of Education* 94, no. 4 (1986): 401-26.
- . *Learning to Earn: Reform in California, 1880-1930*. Madison, Wisconsin: The University of Wisconsin Press, 1988.
- Kliebard, Herbert M. "Education at the Turn of the Century: A Crucible for Curriculum Change ". *Educational Researcher* 11, no. 1 (January 1982): 16-24.
- . *Forging the American Curriculum: Essays in Curriculum History and Theory*. New York, New York: Routledge, 1992.
- . *Schooled to Work: Vocationalism and the American Curriculum, 1876-1946*. New York, New York: Teachers College Press, 1999.
- . *The Struggle for the American Curriculum, 1893-1958*. 3rd ed. New York, New York: Routledge 2004.
- Knoll, Michael. "From Kid to Dewey: The Origin and Meaning of 'Social Efficiency'." *Journal of Curriculum Studies* 41, no. 3 (2009): 361-91.

- Kohlstedt, S.G. *Teaching Children Science: Hands-on Nature Study in North America, 1890-1930*. Chicago, Illinois: University of Chicago Press, 2010.
- Kirp, David L. "Changing Conceptions of Educational Equity." In *Learning from the Past*, edited by Diane Ravitch and Maris A. Vinovskis. 97-112. Baltimore, MD: The John Hopkins University Press, 1995.
- Labaree, David F. "The Victory of David Snedden and Social Efficiency in the Reform of American Education." In *Pragmatism and Modernities*, edited by Daniel Tröhler, Thomas Schlag and Fritz Osterwalder. Rotterdam, Netherlands: Sense Publishers, 2010.
- . "Public Goods, Private Goods: The American Struggle over Educational Goals." *American Educational Research Journal* 34, no. 1 (1997): 39-81.
- Larson, Olaf F., and Thomas B. Jones. "The Unpublished Data from Roosevelt's Commission on Country Life." *Agricultural History* 50, no. 4 (October 1976): 583-99.
- LaSpina, James Andrew. *California in a Time of Excellence: School Reform at the Crossroads of the American Dream*. Albany, NY.: State University of New York Press, 2009.
- Lewis, Theodore. "Rise and Decline of Job-Specific Vocationalism: Response to Judith Little and Susan Threatt." *Curriculum Inquiry* 25, no. 3 (1995): 293-306.
- . "Vocational Education as General Education." *Curriculum Inquiry*, 28, no. 3 (1998): 283-309.
- Lewthwaite, Stephanie. *Race, Place, and Reform in Mexican Los Angeles : A Transnational Perspective, 1890-1940*. Tucson, AZ: University of Arizona Press, 2009.
- Lieberman, Myron. *Public Education: An Autopsy* Cambridge, MA Harvard University Press, 1993.
- Linn, Mott R. "College Entrance Examinations in the United States: A Brief History for College Admission Counselors." *Journal of College Admissions*, no. 140 (1993): 6-16.
- Little, Judith Warren, and Susan M. Threatt. "Work on the Margins: Compromises of Purpose and Content in Secondary Schools." *Curriculum Inquiry* 24, no. 3 (1994): 269-92.

- Lybarger, M.B. "Need as Ideology: Social Workers, Social Settlements, and the Social Studies." *The Formation of the School Subjects: The Struggle for Creating an American Institution* (1987): 176-89.
- Martin, Michael J. "Eugene Davenport's Education for Efficiency." *Journal of Agricultural Education* 51, no. 4 (2010): 20-27.
- Mason, James Hocker. "The Educational Milieu, 1874-1911: College Entrance Requirements and the Shaping of Secondary Education." *The English Journal* 68, no. 4 (1979): 40-45.
- May, Henry F. *Three Faces of Berkeley: Competing Ideologies in the Wheeler Era, 1899-1919*. Berkeley, California: University of California, 1993.
- McCracken, J. David. "A Profession in Need of Academicians." *The Journal of the American Association of Teacher Educators in Agriculture* 24, no. 1 (1983): 2-12.
- Mehl, Bernard. "The Conant Report and the Committee of Ten: A Historical Appraisal." *Educational Research Bulletin* 39, no. 2 (1960): 29-56.
- Merrill, Horace Samuel. *Bourbon Democracy in the Middle West 1865-1896*. Baton Rouge, Louisiana: The Louisiana State University Press, 1953.
- Minteer, B.A. *The Landscape of Reform: Civic Pragmatism and Environmental Thought in America*. The MIT Press, 2006.
- Moore, Gary E. "The Forgotten Leader in Agriculture Education: Rufus W. Stimson." *Journal of the American Association of Teacher Educators in Agriculture* 29, no. 3 (1988): 50-58.
- Moore, Gary E. "The Involvement of Experiment Stations in Secondary Agricultural Education, 1887-1917." *Agricultural History* 62, no. 2 (1988): 164-76.
- . "The Secondary Vocational Agriculture Curriculum." *Journal of the American Association of Teacher Educators in Agriculture* 27, no. 3 (1986): 8-19.
- Nehring, James. *The Practice of School Reform: Lessons from Two Centuries*. Albany, NY: State University of New York Press, 2009.
- Neth, Mary. *Preserving the Family Farm: Women, Community, and the Foundations of Agribusiness in the Midwest, 1900-1940*. Baltimore, Maryland: The Johns Hopkins University Press 1995.
- Noel, Jana. "Jeremiah B. Sanderson: Educator and Organizer for the Rights of "Colored Citizens" in Early California." *The Journal of Negro Education* 74, no. 2 (2005): 151-58.

- Null, J. "Social Efficiency Splintered: Multiple Meanings Instead of the Hegemony of One." *Journal of Curriculum and Supervision* 19, no. 2 (2004): 26.
- Panter, John. "Central California Colony: 'Marvel of the Desert'." *The Journal of the Fresno City and County Historical Society* 36, no. 2 (Summer 1994): 1-11.
- Parr, D. M., C. J. Trexler, N. R. Khanna, and B. T. Battisti. "Designing Sustainable Agriculture Education: Academics' Suggestions for an Undergraduate Curriculum at a Land Grant University." *Agriculture and Human Values* 24, no. 4 (2007): 523-33.
- Peck, Craig, and Ulrich Reitzug. "How Existing Business Management Concepts Become School Leadership Fashions." *Educational Administration Quarterly* 48, no. 2 (2012): 347-81.
- Perry, Dorothy, Barbara Sawrey, Michael Brown, Philip Curtis, Patrick Farrell, Linda Georgianna, Calvin Moore, et al. "The Use of Admissions Tests by the University of California " Board of Admissions and Relations with Schools, <http://www.universityofcalifornia.edu/senate/committees/boars/admissionstests.pdf>
- Peterson, Paul E. *The Politics of School Reform, 1870-1940*. Chicago, IL.: The University of Chicago Press, 1985.
- Ravitch, Diane. "Reformers, Radicals, and Romantics." Chap. 3 In *The Jossey-Bass Reader on School Reform*. The Jossey-Bass Education Series, 43-88. San Francisco, CA: Jossey-Bass, 2001.
- . *Left Back: A Century of Failed School Reforms*. New York, NY: Simon and Schuster, 2000.
- . *The Schools We Deserve: Reflections on the Educational Crisis of Our Times*. New York, NY.: Basic Books, Inc., 1985.
- Relations, University of California (System). Office of University. *A Brief History of the University of California*. Berkeley, California: University of California, 1974.
- Rodgers, Daniel T. *Atlantic Crossings: Social Politics in a Progressive Age*. Cambridge, Massachusetts: Harvard University Press, 2000.
- Rohrer, Wayne C., and Louis H. Douglas. *The Agrarian Transition in America: Dualism and Change*. Indianapolis, Indiana: The Bobbs-Merrill Company, Inc., 1969.
- Roselli, Anthony M. *Dos & Don'ts of Education Reform: Toward a Radical Remedy for Education Failure*. New York, NY.: Peter Lang Publishing, Inc., 2005.



- Rosenthal, D.B., and R.W. Bybee. "Emergence of the Biology Curriculum: A Science of Life or a Science of Living." *The formation of school subjects: The struggle for creating an American institution* (1987): 123-44.
- Roth, Dennis, Anne B. W. Effland, and Douglas E. Bowers. "Federal Rural Development Policy in the Twentieth Century." US Department of Agriculture, Economic Research Service. [http://www.nal.usda.gov/ric/ricpubs/rural\\_development\\_policy.html](http://www.nal.usda.gov/ric/ricpubs/rural_development_policy.html) (2002).
- Roth, Dennis. "The Country Life Movement." [http://www.nal.usda.gov/ric/ricpubs/rural\\_development\\_chap1.pdf](http://www.nal.usda.gov/ric/ricpubs/rural_development_chap1.pdf).
- Saloutos, Theodore. "The Grange in the South, 1870-1877." *The Journal of Southern History* 19, no. 4 (1953): 473-87.
- Scheuring, Ann Foley. "The University of California, Davis: Why Not University of California of Woodland ". *California Historian* 20, no. 2 (Winter 2003).
- Schiro, Michael Stephen. *Curriculum Theory: Conflicting Visions and Enduring Concerns*. Thousand Oaks, California: Sage Publications, Inc, 2008.
- Schoenfeld, Alan H. "The Math Wars." *Educational Policy* 18, no. 1 (2004): 253-86.
- Simpson, Lewis P. *The Fable of the Southern Writer*. Baton Rouge, Louisiana: Louisiana State University Press, 1994.
- Smith, Ralph A. "The Grange Movement in Texas, 1873-1900." *The Southwestern Historical Quarterly* 42, no. 4 (1939): 297-315.
- Stadtman, Verne A. *The University of California, 1868-1968*. New York, New York: McGraw-Hill, 1970.
- Stimson, Rufus W., and Frank W. Lathrop. "History of Agriculture Education of Less Than College Grade in the United States: A Cooperative Project of Workers in Vocational Education in Agriculture and in Related Fields." 648. Washington: United States Government Printing Office, Reprint -1954.
- Sutherland, Sidney S. "A History of Agriculture Education in California Secondary Schools." 1940.
- Thayer, Vivian T. *Formative Ideas in American Education: From the Colonial Period to the Present*. New York, New York: Dodd, Mead & Company, Inc., 1965.
- Theobald, P.G. "Country Lifers Reconsidered: Educational Reform for Rural America." *Journal of research in rural education* 7, no. 2 (1991): 21-28.

- Tyack, David B. *The One Best System: A History of American Urban Education*. Cambridge, Massachusetts: Harvard University Press, 1974.
- Tyack, David, and Larry Cuban. "Progress or Regress?" Chap. 2 in *The Jossey-Bass Reader on School Reform*. The Jossey-Bass Education Series, 5-42. San Francisco, California: Jossey-Bass, 2001.
- VanOverbeke, Marc A. *The Standardization of American Schooling: Linking Secondary and Higher Education, 1870-1910*. Secondary Education in a Changing World New York, New York: Palgrave Macmillan, 2008.
- Vaught, David. "Factories in the Field Revisited." *Pacific Historical Review* 66, no. 2 (1997): 149-84.
- Warnick, Brian K., Gregory W. Thompson, and Edith S. Gummer. "Perceptions of Science Teachers Regarding the Integration of Science into the Agricultural Education Curriculum." *Journal of Agricultural Education* 45, no. 1 (2004): 62 - 73.
- Watras, Joseph. "Profit-Making as Character Education: Social Education in the Moraine Park School and Antioch College, 1916-1933." *Theory and Research in Social Education* 37, no. 4 (2009): 432-57.
- Weiler, Kathleen. *Country Schoolwomen: Teaching in Rural California, 1850-1950*. Stanford, CA: Stanford University Press, 1998.