

# A New Race of Farmers: The Labor Rule, the Farmers' High School, and the Origins of The Pennsylvania State University

Jim Weeks  
*The Pennsylvania State University*

Courtesy Penn State Room, Pattee Library, Penn State University



*A group of student laborers, about 1860, plowing near partially completed Old Main.*

On a clear June morning in 1863, a youth struggling with a plow coaxed his team to turn another furrow of rocky ground in central Pennsylvania. Only recently had he finished removing lumps of limestone from this field to condition its begrudging soil. Although ostensibly intent on his work, the youth suddenly unhitched his team and raced off to enlist when a boy shouted that Robert E. Lee had invaded the state.

Nothing could have been more ordinary than a youth plowing central Pennsylvania farmland in the mid-nineteenth century, or for whom, Cincinnatus-like,

the excitement of war could provide an excusable release from the drudgery. What was unusual was that the field belonged to a college and tilling it comprised part of its curriculum. The youth, Tellico Johnson of Buffalo, New York, had never laid hands on a plow until several weeks before. Officially the field represented part of his education at the recently established Agricultural College of Pennsylvania, which had been launched as the Farmers' High School four years before. Johnson's escape from the hard work, however, was more opportune than the imaginative slacking routinely devised by his peers. Intended by the college founders to instill industry and virtue in youth, the "labor rule" apparently had not stimulated or edified young men as much as school officials might have hoped.<sup>1</sup>

The Farmers' High School of Pennsylvania opened in 1859 after years of agitation by agricultural reformers for an alternative to the ubiquitous sectarian colleges. Emergence of the institution that later became Penn State marked one victory for an agricultural college movement developing since the 1840s.<sup>2</sup> Chartered by the Commonwealth in 1855, the Farmers' High School underwent a name change to "Agricultural College of Pennsylvania" in 1862 to acquire Morrill Land Grant Act benefits which provided an indirect federal endowment for each state to maintain an agricultural and mechanical college. Eventually the school became "The Pennsylvania State University" after successive name changes.<sup>3</sup> The institution's first president, Evan Pugh, noted that "The name 'Farmers' High School' originated partly in a feeling that farmers might be prejudiced against the word 'college,' as that of a place where boys only contracted idle habits."<sup>4</sup> Pugh's remark reflected sentiment building for years in the countryside not only against colleges, but concerning the tightening grip of market capitalism that had radically altered farm families over the past two generations. Two-thirds of the population farmed, yet no institutions offered knowledge essential to maintaining farming's vitality in the increasingly commercial environment. Establishment of the Farmers' High School to provide learning specifically for farm youth represented a response to the transformation of agrarian life. At the time of the institution's opening, two similar college-level institutions — today the University of Maryland and Michigan State University — had been inaugurated in those states to aid the agricultural community's struggle with the market.<sup>5</sup>

Founders of the Farmers' High School felt an educational enterprise dedicated to agriculture might help farmers compete in the marketplace by aiding soil

productivity and enhancing farming's dwindling status in an industrializing economy. Spearheading the drive for the school were an agricultural press and "gentlemen farmers" — professional men working through state agricultural societies — determined to raise farming's prestige in a middle-class society. The reformers were mostly judges, lawyers, physicians, and businessmen with railroad and banking interests who dabbled in agriculture. Preeminent among them were the first Board of Trustees President Frederick Watts, President of the Cumberland Valley Railroad, and attorney-businessman H. N. McAllister. Of the thirteen men comprising the first board of trustees, only three were farmers.<sup>6</sup> A high proportion of students the Farmers' High School attracted came from nonfarm families, and most of those who graduated from the institution never plied the farmer's trade.

Histories of nineteenth-century higher education approach early land-grant colleges by two distinct routes. One views antebellum colleges as creaking legacies of medievalism thankfully displaced by land-grant institutions representing democratic forces of progress.<sup>7</sup> The other sees the establishment of land-grant colleges through a rear-view mirror, collapsing events transpiring since their founding into celebratory accounts. By reversing time, these histories lend unassailable historical inevitability to land-grant colleges. Instead of their emergence examined in context, as action motivated by cultural influences, the land-grant colleges have been explored as if their founders possessed remarkable prescience and envisioned the great state universities of today.<sup>8</sup> These histories have, in other words, placed "enlightened" twentieth-century people in nineteenth-century costumes. They have not fully considered the early farm colleges as products of a society convulsed by the market revolution and as one of the mid-nineteenth century's many responses to change that included religious revivalism, antislavery agitation, utopian experiments, institutional reform, and millennialism. Like other reforms led by the urban professional and middle classes, the Farmers' High School represented an attempt to control change by revivifying familiar agrarian values. Understood within the context of farm community culture, establishment of the school illuminates how farmers suspicious of colleges and their "gentleman farmer" leaders sought a "middle ground" between an agrarian and middle-class society. Creation of the modern public multiversity represents an unintended consequence of the founders' efforts. As Ronald G. Walters has noted, reformers were "Americans responding to change in a manner their society and culture allowed."<sup>9</sup> Examining the founding of one of

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the first agricultural schools that later became a leading land-grant college suggests different motives than those advanced by established interpretations.

From their inception, the land-grant colleges have been shaped by tension between the American agrarian tradition and modernization. Historians have focused on the latter because technological progress has been the land-grant system's chief success story. By focusing on modernization, historians have avoided a less sanguine yet more fundamental element in the history of the farm schools: the decline of the farm family. After all, improvement in agricultural production was only one of several interests that combined in launching the colleges. What has not been given its due by land-grant historians is that concern over farm youth held a central focus in the school's founding. Profound change inspired an agricultural vision of the future perceived not only as progress through scientific knowledge, but also in terms of reforming and straightening the next generation's backbone. By structuring the development of future farmers in an isolated environment, the agricultural community might achieve stability by reaching a plateau safe from relentless change. Although scholars have bypassed the role worries over youth played in inaugurating farm colleges, the drive for the Pennsylvania Farmers' High School illustrates how the farm community's conception of youth figured prominently in the drama. As illustrated by agricultural journals, speeches at county fairs, and promotional material from the Farmers' High School, the agricultural community expressed deep concern over their youths' exodus from farms, moral development, health, and future as pillars of the Pennsylvania farm community.

Within the memory of many who helped launch the Farmers' High School, farming had been a craft tradition integrating work and life. Due to an abundance of Pennsylvania land and a dearth of hired labor to work it, the Pennsylvania farm family functioned as a close-knit economic unit. Ruled by patriarchal authority and bonded together to provide subsistence, all family members shared in tasks from the earliest age. Parenting aimed to reproduce father and mother: fathers taught sons field and crop work through custom just as mothers introduced daughters to chores assigned to the female sphere. A farm boy's days were filled with mundane, dawn-to-evening work only slightly less monotonous than the drudgery his sister faced. The repetition of feeding livestock, shoveling stables, tilling soil, raking hay, threshing grain, and cutting firewood confronted farm boys in an endless cycle of seasons. Fear of incurring patriarchal wrath, and thus endangering the

traditional dowry to daughters or bequest of land to sons, often coerced youth to remain in an apprentice-like condition into adulthood. This tradition of generational property transfer produced rural communities bound by tight kinship networks.<sup>10</sup>

In a household economy dependent on the industry of every member, neither lethargy nor individualistic self-advancement could be tolerated. A future of redundant work, and plenty of it, was the main lesson youth imbibed from their parents. Yet subsistence farming offered a less grinding life than that endured by laborers in growing industrial enterprises. Work slackened when family needs had been satisfied or when the harvest had been completed. Rural neighborhoods, characterized by egalitarianism, mutual support, and communal concern cooperated in a sociable work system of reciprocity and obligation.<sup>11</sup> A Centre County farmer recalled of a neighborly harvest gathering:

It was the custom of the farmer for whom they worked to bring out the schnaps which was pure rye whiskey. It usually was a large, round-bellied bottle of which all, both men and women, partook after eating. Then they worked until ten o'clock, when a fair lassie would come out into the field with a lunch of dried and smoked venison, wild pigeons, cake and rye bread.<sup>12</sup>

Leisurely digression might have moderated even the long days of harvest, but farming carried with it the weight of an agrarian tradition that testified to the farmer's incorruptibility and industry. Historian Daniel T. Rodgers notes that "the work ethic in its mid-nineteenth century form did not entail a particular piece of activity so much as a manner of thinking."<sup>13</sup> Farmers were not, however, expected to move with the efficiency of modern industrial operatives, however internalized their work ethic and disdain for idleness. Yet the hard work farming demanded glorified it as an occupation promoting the dignity of labor. According to the agrarian tradition which hearkened back to ancient Rome, moral virtue and its accompanying characteristics of thrift, sobriety, and simplicity followed those who worked the land. Jefferson, the nation's chief proponent of agrarian thought, viewed farmers as the republic's bedrock. In going so far as to term farmers "the chosen people of God," Jefferson meant that agriculture bred the independent, moral sort who stood apart from urban corruption and provided democracy's basic building block. But independence only could be assured to those free from economic shackles.

In the agrarian tradition farmers remained independent by providing their own subsistence and merely exchanging in the market peripherally, thus remaining free from the power of others.<sup>14</sup>

In Pennsylvania, the economic changes galvanized by transportation improvements, manufacturing, and urban growth began eroding the agrarian ideal of an independent yeomanry around 1820. The lure of an increasingly complex regional, then national market promising profits encouraged farmers to raise surplus products for the marketplace. In enriched soil regions with convenient transport, such as the Susquehanna Valley, the marketable surplus of wheat approached one-third of farm production before the market revolution was well underway.<sup>15</sup> The Philadelphia Society for Promoting Agriculture warned farmers of the changes upon them in 1826:

The farmers...will find ere long, that they must change their present modes and substitute other products in place of those commonly cultivated; which can be brought from great distances, and furnished at a cheaper rate than can be afforded by those who inhabit the neighborhood of the city.<sup>16</sup>

The expanding marketplace demanded increasing levels of specialization from farmers. Competing with western farmers, easterners introduced new crops that brought more cash but required greater effort and fluctuated in value at the hands of middlemen. Land grew not only more costly, leading to more tenancy, but was exhausted from overproduction. By 1850, most American farmers had been reduced to dependency on the market for their livelihood and on merchants for farm implements and goods formerly produced at home. Farming as a way of life, in other words, had given way to farming as business.<sup>17</sup>

The seduction of farmers into the market exacted a number of casualties on farm families and communities. Everywhere the market spread, it eroded patriarchal authority, traditions, and communal solidarity. Economic terms replaced the custom and reciprocity of rural social relations. Lifelong neighbors became competitors in the marketplace while communication improvements eroded communities by facilitating the movement of people and ideas. Farmers dealt with distant, impersonal enterprises instead of individuals they had known for a lifetime. Time, which formerly proceeded at an irregular gait, became a valuable

resource measured in terms of monetary increments. New measures for judging farmers replaced those of the agrarian tradition. Farmers striving to maximize profit through improved techniques became exemplars, while the thrifty, self-reliant yeoman who failed in the ways of the market might be considered indolent or stupid.<sup>18</sup>

A relentless middle-class hegemony overwhelming farm communities brought new standards of dignity to agrarian life. "Pulpit, schoolroom, and a rising tide of print . . . dinned in middle-class myth and ethic," writes Charles Sellers.<sup>19</sup> Farmers dislocated by vagaries of the market now struggled for honor through material display. The growth of industrialism in the antebellum era, in fact, proceeded rapidly because rural communities consumed manufactured goods at a healthy pace.<sup>20</sup> Farmers purchased not only necessary farm and home products no longer produced in the household, but cultural imperialism coerced them into buying luxuries as a talisman against aspersions of boorishness. Suddenly, the sons of toil had "found by some galling paradox that their dirty hands were a brand of inferiority in a society filled with obeisances to labor," according to Daniel Rogers.<sup>21</sup> In effect, farmers improved agricultural production to gain respectability as well as to increase profits. As Richard L. Bushman argues: "Farmers were actually fighting two battles in these decades: one for productivity of the soil, and the other for dignity and self-respect."<sup>22</sup> Between it all, farm youth experienced a rupture with the past, a searing break with the traditions that had previously guided the young.<sup>23</sup>

The drive for increased farm production exacerbated one of the deepest concerns of the agricultural community: the flight of youth from farms to either cities or western lands. By planting more land, farmers could no longer sustain the traditional bequest of property to male progeny who consequently looked elsewhere for a livelihood. At the same time, the nuclear family now served as the last retreat of communal cooperation. Families were forced to mobilize effort for production while meeting emotional needs that formerly had been served through a larger network of relationships. A multifaceted problem, the migration of farm youth cannot be exclusively attributed to the market revolution. In certain parts of the Northeast, migration had been underway since the mid-eighteenth century as population outstripped available land. Additionally, a bulge in the youth population appeared during the antebellum period unlike any America had experienced before. The "Young America" invoked by nineteenth-century writers possessed

more than metaphorical meaning. Thirty percent of the population belonged to the category of youth or young adulthood.<sup>24</sup>

The market revolution not only compounded the land problem. It also created alluring urban occupational opportunities that seemed all the more attractive in conditions that neutralized traditional methods of rearing and training children. Seduced by the main chance, youth defied patriarchal authority that no longer could guarantee them a future. "As soon as the young American approaches manhood, the ties of filial obedience are relaxed day by day," DeTocqueville remarked following his 1831 visit to the United States. "Master of his thoughts, he is soon master of his conduct. . . . At the close of boyhood the man appears and begins to trace his own path."<sup>25</sup>

The agricultural transformation may have frustrated many in Pennsylvania's farm community, but neither the agricultural press nor speakers at agricultural fairs ever advocated a return to subsistence farming. Instead, discussion swung between acquiescence in middle-class standards and the older language of the agrarian tradition. When the rhetoric grew shrill, it expressed anxiety over forces beyond the farm community's control that threatened to enslave it. While reasserting the farmer's integrity and independence, agricultural spokesmen acknowledged the impersonal power that possessed potential to corrupt virtue. Agriculture's primacy in Rome, the integrity of farm boys and chastity of farm girls, Cincinnatus, Washington, the dignity of labor, home and hearth all were recalled for the farm public.<sup>26</sup> Indeed, the motto of The Pennsylvania State Agricultural Society, founded in 1851, was "Virtue, Liberty, and Independence," a phrase painted on a massive banner stretching across the entrance of the state's first agricultural fair a year later. According to Clarence Danhof, evocation of the older ideology represented "one part of the social process of establishing the new structure of values, motivations, and methods supporting the emerging society."<sup>27</sup>

The exodus of farm youth to cities occupied a central place in agrarian thinkers' discourse, but at a deeper level lay fears of urbanization as an affront to farm values. A new urban view of farmers as rubes and hayseeds that replaced Jefferson's imagery of noble yeomanry dismayed the farm community. "He is looked upon by every variety of sharpers as fair game," a writer noted in the *Farm Journal*, "and they make game of him with a vengeance. Merchant, lawyer, doctor, and pauper alike take his money and return him humbug."<sup>28</sup> Cities were burgeoning



Babylons, increasing in population after 1820 at a much faster rate than rural areas. Employment opportunities in the city so attracted rural people and immigrants that urban growth in Pennsylvania exceeded rural after 1800.<sup>29</sup> The agricultural community perceived cities as breeding grounds for sloth and vice, peopled either by the wicked or venal men-on-the-make. A speaker at the Bradford County annual agricultural exhibition in 1853 spoke of "the contentions and strifes, the host of desperate agencies and instruments, which men invent and use, in order to get gain and the advantage of one another, in the large business marts, and the corrupting and misery-begetting tendencies of these."<sup>30</sup> Especially troublesome was the idea of farm youth commingling with desperate street characters, whose influence would lead them to idleness and sin. The 1859 catalogue of the Farmer's High School, representing the first promotional literature for the new institution, summarized the farm community's concern:

The active intellect of our rural districts is drawn from the country and concentrated in large cities, where, removed from the moral restraint of home, to the temptations of city life, and placed in almost perpetual contact with a vast floating population, it requires more than ordinary moral power to save the ambitious adventurer from the most deplorable consequences.<sup>31</sup>

Anxiety over youth free-falling in cities without traditional restraints expressed fears other than the possibility of a life of sin. The time-honored Calvinist concept of "calling" had taken on new meaning that included mobility and ambition. Youth traded the stasis of the farm for life perceived in terms of social elevation, where vertical loyalty to career replaced horizontal allegiances to family and community. "With ambiguous feelings of nostalgia and contempt," writes Burton Bledstein, "the middle-class American might gaze at his previous station in life in the old neighborhood and with the old folk."<sup>32</sup> Did the charm of wealth and social mobility require a compromise of virtue? If luxury were embraced, would enslavement result? At the time, which George Forgie terms the "post-heroic age" in American history, a pervasive belief was held that the nation's only hope for survival resided in the virtue of its citizenry. Because the republic, like the young, stood at the threshold of adulthood, it followed that properly cultivated youth could satisfactorily shape the nation's future.<sup>33</sup>

The farm community hoped that a safety net would regulate and structure the development of youth fleeing farms for urban opportunities. A well-formed character, as exemplified in the texts of countless advice manuals of the day, would be the internal mechanism driving the behavior of uprooted farm youth. This moral sense offered something for both elders and the young. For adults shaping youth's development, the principled, self-reliant individual stood grounded in moral certainty, safe from corruption; for youth, the appeal of character formation lay in its promise of success for the "self-made man." The lessons of character development were offered through schools, churches, and young men's associations sprouting in the cities.<sup>34</sup> "Everywhere the leading feature was the same," writes Joseph Kett. "Internalization of moral restraints and the formation of character were more likely to succeed in planned, engineered environments than in casual ones."<sup>35</sup>

The triumph of the "self-made man" character myth asserted the primacy of the middle class. But the irrepressible force of the market had been fueled by education all along, which eroded traditional farm culture while simultaneously promoting individualism. The example of the bourgeoisie provided the Pennsylvania farm community with proof of the power of education.<sup>36</sup> A writer in the *Farmer's Cabinet* noted: "In the stirring competition of all classes around them — in the increased diffusion of knowledge, and the general activity of mind which now pervades all society, the farmers must maintain their standing by the same means."<sup>37</sup> Although the reformers who advocated establishment of a farmers' college realized the value of science to agricultural enterprise, existing colleges offered little of use to farmers. Furthermore, the farm community looked with suspicion on colleges as dissolute places preparing youth for effete and suspect occupations. A speaker at the Tioga County agricultural exhibition in 1858 noted that the typical college graduate "may be so inflated with gas, or, in other words, with vanity and self-conceit, that there is no room left for anything of a practical, useful nature."<sup>38</sup> Worse yet, colleges alienated youth from the dignity of labor, as J. Richter Jones pointed out at the Susquehanna County exhibition about the typical college graduate :

His years of academical life have given him peculiar tastes and habits. He has done no labor of any kind, his hands have grown unnaturally delicate, his dress has been finer than the farmer's ordinary garb; his associates have been weak

young men and weak young women, whose habitual language has been contempt of the manual labor classes....The non-laboring classes gradually degenerate, and 'run out.'<sup>39</sup>

Clearly, the farm community's opinion of colleges did not simply emanate from the fact that agriculture's educational needs were not being met. Rather, it was a view conditioned by agrarian values as well as simultaneous contempt for, yet emulation of, the middle class. In discussions over the Farmers' High School, dreams of farmers' regaining their eroding economic and political power surfaced. George Woodward, addressing the annual Pennsylvania State Agricultural Society exhibition shortly after the farm school obtained its charter, said: "We shall have a race of men fitted to adorn any of those many stations in civil government to which under our happy constitutions, they are liable at all times to be called."<sup>40</sup> But upgrading the status of farming to the levee of a profession also interested the farm community in the potential of an agricultural college. "Let agriculture be understood as a science," noted the *Farm Journal*, "and it takes rank as a profession, with all the dignity which professional pursuits acquire."<sup>41</sup> Indeed, leaders of the agricultural community thought the growing field of agricultural science, avidly pursued in Europe, showed promise of constructing the knowledge base needed to support a profession. In that case, the intrinsic worth of farming for its intellectual stimulation would hold a youth on the farm and engage his whole family. "How delightful will be the meeting between the graduate of our Agricultural School and his fathers and brothers," Chairman of the Board of Trustees Frederick Watts commented.<sup>42</sup> Farmers were urged to spend free hours reading agricultural journals and chemistry books to turn "drudgery" into "a source of delightful interest."<sup>43</sup> The *Farmer's Cabinet* noted: "As he cultivates a taste for researches, his fondness for home and the labors of his farm will become stronger, and his instructions to his children will be their surest protection against the allurements of city life."<sup>44</sup>

Thus the Farmers' High School of Pennsylvania was an effort to meet the middle class educational game half way, in a mimetic but separatist arena. But a key difference with other colleges resided in labor as part of the curriculum. Some advocates promoted its salutary benefits to youth, while others, concerned over erosion of the work ethic in proliferating white-collar occupations, valued the moral lessons labor might teach. "No greater evil could befall most young men and

women than to be relieved of the necessity for labor, as the records of criminal courts, prisons and poor houses show," the *Farm Journal* commented.<sup>45</sup> Other writers rejected the mind-body dualism inherent in intellectual pursuits, and argued that the mind could fully function only if the working body stimulated it.<sup>46</sup> Trustees of the Farmers' High School provided a rationale for student labor that distinguished the new school from other colleges:

This institution proposes, by uniting the acquisition of knowledge with daily toil, to impart interest to the one and add dignity to the other. It proposes to remedy an evil which exists at every literary institution in the Commonwealth. That evil is the low repute in which manual labor is held by the student.<sup>47</sup>

Ironically, the "gentlemen farmers" who led the charge for the college graduated from the institutions disparaged by the farm community: Harvard, Yale, Princeton, the University of Pennsylvania, Dickinson, and Jefferson College. Although they believed that farmers required education to rise on the socioeconomic ladder, they may have clung to older virtues disappearing in the market whirlwind. For all the economic transformation had done to enhance material life, a price was being paid in the loss of republican concepts such as independence and the nobility of labor. Perhaps nostalgic for national virtue in an age Mark Summers has termed "the plundering generation," the founders may have felt that republican morality could be salvaged and passed on to youth.<sup>48</sup> Indeed, the first catalogue of the Farmers' High School, referring to the "great object . . . to combine manual labor with study," appealed not only to ordinary farmers but to "gentlemen farmers" anxious about their progeny's rectitude:

It not infrequently happens, that gentlemen of wealth in the city are desirous of investing money and land in the country, upon which they desire their sons to enter upon the duties of life, away from the mishaps of business, and the vices of society in town; to such the present college offers excellent opportunities of allowing their sons to become acquainted with the practical duties of the farm, at the same time they would secure a practical education.<sup>49</sup>

The Farmers' High School's emphasis on manual labor was not original. Institutions offering tuition, room, and board in exchange for student labor had

been the academic vogue. The meteor-like ascent of these manual labor schools, inspired by European example, came crashing down with equal rapidity in the Panic of 1837's afterglow. Most lost money, suffered from student malingering, and failed to rally a loyal working class to their banner.<sup>50</sup>

Courtesy of Penn State Room, Pattee Library, Penn State University



*Evan Pugh, first president of the Farmers' High School*

The philosophical difference between the old and the new venture could easily be viewed as a sleight of hand. Although the type of work might replicate that of the manual labor schools, at the Farmers' High School students paid for the privilege of working, and at the students' "calling" of farming, no less. Evan Pugh termed the school's lower tuition as a result of the labor policy an "incidental, but not

The Farmers' High School was not equated by its founders with these rock piles for the impecunious, but rather designed to be an institution adding the value of labor to a college education. "A boy is entitled to as much credit in the eye of his instructor for the performance of what he had been accustomed to consider as menial service, as for the solution of a problem of Euclid," wrote Board of Trustees Chairman Frederick Watts.<sup>51</sup> Appealing to those who would teach their children industry in an era of increasing leisure, the founders of the Farmers' High School attributed failure of the manual labor school movement to burdening students with the stigma of poverty.

unimportant result." Pugh, who had attended a manual labor academy himself and loathed the experience, distinguished it from student labor at the Farmers' High School: "Instead of the idea of poverty and want being associated with those who labor, that of laziness, worthlessness, and vagabondry is associated with those who refuse to work efficiently."<sup>52</sup>

In a middle-class culture that admired ambition but mocked toiling folk, however, not only farm boys would profit from a dose of hard work. "A man is not less fit for the office or the counting house by a vigorous frame, nor does he stand lower in city society on account of physical labor," said an agricultural exhibition speaker in discussing the worthiness of the new school.<sup>53</sup> Farm labor also could be the perfect antidote to unwholesome urban life as well as misperceptions of farming. In a proclamation to the people of Pennsylvania issued shortly after the institution's charter was granted in 1855, the board of trustees asked: "How many . . . fear the dissipations of a town — the temptations of a period devoted alone to study — the conviction that the son will be educated in mind and habituated in body, to a state of entire unfitness for practical and active life?"<sup>54</sup> William G. Waring, superintendent of the school's farm, wrote in a letter to the *Reading Gazette & Democrat*: "Young men from crowded towns, or miasmatic river bottoms may here acquire both sound health and good physical development under the light and varied labors in the free air, which will be required to illustrate their studies."<sup>55</sup> Thus the Farmers' High School offered immersion in ennobling agrarian virtues lost in the frenzy of commercialization. Here, for a change, was something the farm community could teach the urban middle class. The school's first catalogue touted the affective merits of the place:

To students who have become delicate by close application and sedentary habits in the schools of large cities, the Farm School will afford a means of continuing their studies under circumstances in which habits of daily exercise, in the pure mountain air of the country, will enable them again to build up their bodily constitution. . . . Another important object is to inculcate the idea that all labor which is in any way useful to mankind, is honorable; and that it can never be inconsistent with genuine dignity nor manly worth.<sup>56</sup>

The isolation of the college helped structure the whole for satisfactory character development. A committee of three from Northumberland County investigating the farm school in 1862 termed its remote Centre County location, four miles from the nearest village, "a very happy arrangement, since it serves to keep the students entirely out of the reach and influence of those temptations of vice and idleness, so common in and close around our large cities and towns."<sup>57</sup> Further guarding student virtue, the state legislature, in an effort to discourage entrepreneurial natives, went so far as to pass a law in 1859 forbidding sale of intoxicating beverages within two miles of the campus.<sup>58</sup> Not until 1965 did a state liquor store set up shop in the adjacent town of State College, but within two years its success propelled Centre County to the Commonwealth's second highest in per capita liquor sales.<sup>59</sup>

Apparently many nonfarm families endorsed the secluded college's potential for morally edifying their youth. Letters in the Pugh collection indicate that many students came from middle-class families who wanted their sons educated in a wholesome environment. Because early enrollment records do not list the occupation of students' fathers, determining their social class, or the number who hailed from nonfarm families, is problematic. But the "hometown" category listed by matriculants suggests nonfarm origins for a high percentage of students. Of 119 enrolled in 1859, twenty-three came from Philadelphia, four from Pittsburgh, eight from Carlisle, five from Reading, and one or two each from Harrisburg, Allentown, McKeesport, Germantown, and Columbus, Ohio.<sup>60</sup> It is not surprising that working-class urban families might send their sons to a school that would ground them in values that were fast disappearing. Republican rhetoric permeated urban as well as rural society, creating "an urban variation of the Jeffersonian social theme of the virtuous husbandman," as Sean Wilentz has noted.<sup>61</sup> But evidence also indicates that the institution's uplifting environment may have attracted the parents of recalcitrant youths to enroll their progeny. Waring recalled in his memoirs that many students were "the worst type, expelled from other schools," while Pugh sadly remarked that "experience proved this flock was not without its black sheep."<sup>62</sup>

Curfews, discipline, and measures taken to encourage sobriety may have promoted proper conduct, but industry proved another matter. In practice, the labor policy registered a less than satisfactory record. A story of conflict and compromise with students, the labor rule proceeded haltingly from the Farmers' High

School opening in 1859 until the rule's abolition fifteen years later. Before the first students were admitted, the school backed off on its commitment to require only labor relevant to farming, and implemented a merit system that judged labor, discipline, and academic work equally.<sup>63</sup> Apparently some parents disagreed that all labor dignified humankind. Just months after the first class had matriculated, the parents of several students circulated a petition condemning the kitchen duty borne by their sons. According to one parent, the petition stated "that if these kitchen and other 'menial' duties were part of agriculture & therefore a proper subject of a Farmer's Study, they would not object to them." Apparently the group never submitted the petition to the board of trustees as planned, but had suggested a solution to the problem by requesting "that three or four colored men be hired for this service, and that each boy should pay his proportion of the expense."<sup>64</sup> Superintendent Waring, who served as "Principal of the Faculty" until Pugh's arrival, wrote: "The conditions regarding 'industry' and good moral habits are imperative but it is impossible to retain students here who prove deficient in these respects."<sup>65</sup>

Visitors to the college in 1862 praised the labor rule for imparting "habits of industry and self-reliance" and for preparing the student "for being a master workman and a profound philosophic agriculturist."<sup>66</sup> Months before Pugh assumed the presidency, Frederick Watts wrote to him, "The boys themselves perform the services cheerfully and the idea infused and established is that all labor is agreeably honourable."<sup>67</sup> Students thought differently. One student wrote in March, 1859:

We are required to perform three hours of active labor every day, at whatever work they see fit to put us at—such as loading manure, cleaning out stables, chopping wood, picking, loading and handling stones, carrying water, waiting on the table, washing dishes, sweeping out the college, emptying the chamber buckets, etc., which goes against some of the fellows grain.<sup>68</sup>

Students resisted by slacking whenever possible or through more confrontational methods. One alumnus remembering his assigned kitchen duty had "lived high" hiding near the heater in the cellar, eating "busted pies and cakes."<sup>69</sup> Tellico Johnson, weary of hauling bricks to the roof of the president's house, argued with the "boss farmer" over the assignment. Threatened with expulsion, Johnson found himself reassigned to garden duty by an intervening faculty member.<sup>70</sup> Another



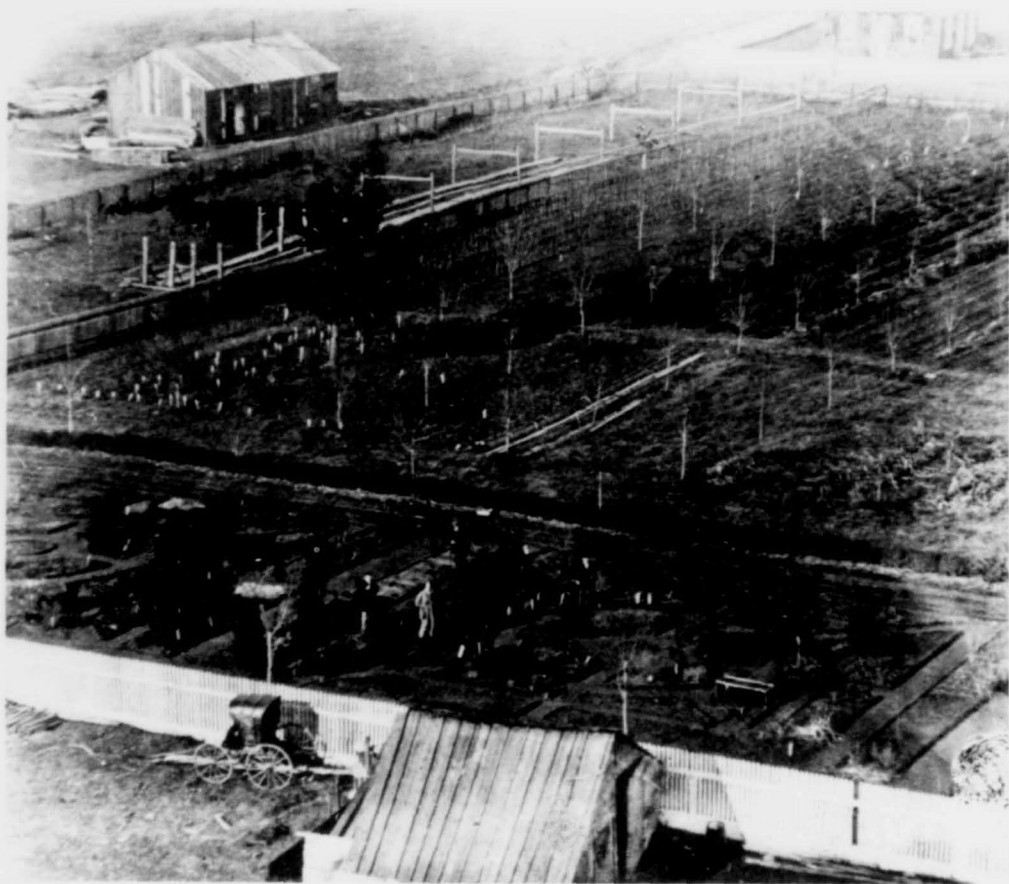
alumnus claimed: "It was considered good form to loaf when we were assigned our tasks, so we took our seats after the superintendent had left."<sup>71</sup> Few students during the school's initial years escaped picking rocks to clear limestone-laden farm fields or construct the school's main building. A former student rock picker remembered:

Mr. Patterson was the farm manager for the first two years of my time and he was a great talker and I think the credit is due to Joe Schell in discovering that if we got him to talking we need not do much work and there were many times that we took advantage of this weakness.<sup>72</sup>

Apparently Evan Pugh had misgivings about the effectiveness of the labor rule, but realized it had political value needed to accomplish his long-term goals. Pugh, recipient of a Ph.D. in chemistry from the University of Göttingen, realized the school could only succeed by launching a scientific research program useful to the farm community. Instead of chores, Pugh hoped to put the boys to work on scientific agricultural experiments. But to capture Morrill Act funding, which would endow the college with indirect federal aid, he temporarily placed greater emphasis on avoiding resemblances to typical colleges. Pugh informed a friend, "We have adopted a somewhat popular plan not because we did not appreciate and desire a plan more scientific, but because the necessities of the times have required the course at our hands which we have followed."<sup>73</sup>

Two years after Pugh's death in 1864 at the age of thirty-six, President John Fraser, attempting to bolster enrollments, abandoned the labor rule and in the catalog promoted "practicums" in science and agriculture instead.<sup>74</sup> But the trustees reinstated the policy when Fraser resigned in 1868 due to the college's deepening financial gloom. Following the admission of women students to the college, the trustees in 1875 dropped the labor rule in favor of one-hour of daily military training (for men) required by Morrill Act provisions. The trustees invested faculty members with the prerogative of assigning student work as necessary. By this time the labor required of students had dwindled from three hours a day to a few hours a week. The final break came just months later when a petition signed by fifty-eight students — three of them women — claimed the labor policy contradicted the institution's educational mission and drove students away. In its place, the students asked "that we be allowed to work in that department of labor which

Courtesy Penn State Room, Pattee Library, Penn State University



*View of the nursery from Old Main, 1863, part of the campus where students were expected to work*

will contribute most to our several pursuits . . .”<sup>75</sup> Colonel Grabowskii, military instructor, added fuel to the student flare-up by adding in a letter to President James Calder, “I understand that the labor of students on the Farm is considered worthless or of little value, and as officer in charge of the Building add, that the labor of students on detail in the Building is far from satisfactory.”<sup>76</sup> In their beneficence, the trustees permitted “any student who may desire it, the privilege of working for the college, in whatever capacity his labor may be deemed serviceable by the President.” This time, the students were offered wages for their services.<sup>77</sup>

Although it served as the Farmers' High School cornerstone, the labor rule survived only slightly longer than it had been aborning. In academic terms, the curriculum differed little from that of other colleges, consisting of rhetoric and composition, moral and natural philosophy, mathematics, chemistry, zoology, horticulture, and farming techniques.<sup>78</sup> John Hamilton, the college's farm superintendent in 1868, later recalled the "immediate need . . . of a man who should teach the science of agriculture" because "the professors of the old time faculty were all classical scholars or at least had some training in classical studies."<sup>79</sup> While agricultural science should have anchored the curriculum, it remained inchoate along with the basic sciences that supported it. As Margaret Rossiter has commented, farming problems at midcentury outpaced the ability to solve them, and scientists began emphasizing that only long-term empirical research would answer production problems.<sup>80</sup> Pugh realized the school faced a bleak future as a training camp for farmers. And because the college failed to produce expected results immediately, the farm community began wondering why its sons should pay to do work they could do at home for free.<sup>81</sup> Worse yet, drifting in search of a mission, the school alienated legislators because it increasingly resembled a typical college. Foundering characterized all land-grant colleges in the post-Civil War era, and not until near the turn of the century did they secure a niche in American life through direct federal support for agricultural experimentation and academic programs.<sup>82</sup> As late as the 1880s, Governor Robert Pattison termed the college "a costly and useless experiment from the very beginning."<sup>83</sup> The *Practical Farmer* had commented previously in 1871: "If it has ever turned out any young men who have since become eminent as farmers, we have not heard of them. The very word 'agricultural college' is distasteful."<sup>84</sup>

If it were stated positively, the *Practical Farmer's* observation might have noted the college's success, but not in terms of the original vision. Emerging from an era that produced the Oneida Community and the People's College, the Farmers' High School represented on the surface a response to modernity from a dying traditional culture. Yet it must be remembered that its founders were largely "gentlemen farmers" — men of affairs dabbling in agriculture or profiting from the farm community — who were interested in agricultural progress. Their speeches and writings, as well as articles in the popular Pennsylvania farm journals, admonished farmers on the value of education, maintaining a pleasant homestead, and increasing crop yields. Apparently not all farmers respected direction from agricultural

dilettantes. "Is it possible," a writer to the *Farm Journal* asked, "that all the agricultural interest of Pennsylvania, the keystone of this glorious union of Agricultural States is concentrated in three or four gentlemen of the city of Philadelphia?"<sup>85</sup> Frederick Watts, himself a "gentleman farmer," received a letter suggesting resentment among some Pennsylvania farmers toward the project's leadership:

The amateur farmer with a stack of theories, unprofitable under exacting circumstances, assumes the attitude of an adviser and administer which creates an ill feeling and a prejudice toward the amateur farmer, it is the cause [sic] the practical farmer shows an indifference in the present to encourage agriculture.<sup>86</sup>

Rather than the assertion that the agricultural college represented the triumph of democracy, it would be more appropriate to suggest it registered another advance for middle-class hegemony. The founders led the agricultural community in a quest to conform to a new respectability that might keep youth on the farm. Now that farm life increasingly was judged by middle-class standards, the college represented an attempt to dovetail encroaching middle-class standards with older agrarian values. The leadership undoubtedly envisioned a future rural population maintaining its mid-nineteenth century preponderance while acquiring greater material prosperity. Few could foresee that the farm population would increasingly shrink and that eventually nearly everyone would be employed in nonfarm occupations. Before typhoid ended Pugh's promising career in 1864, he had sketched a grand scheme for the future that placed agricultural colleges at the hub of a thriving agrarian commonwealth. Pugh envisioned a central educational institution with branches in each county offering agricultural experimentation, preparation for rural schoolteachers and research scientists, and farm-related learning opportunities for entire farm families.<sup>87</sup> Neither Pugh nor the leaders fathomed that the school they were inaugurating would help dissipate dreams of a stable and prosperous farm community by promoting more efficient agricultural production that eliminated small farms while preparing youth for white-collar urban employment.

Commercial, middle-class values, not those of the old rural life, pervaded the school. The trustees had structured an environment intended to instill systematic, regular behavior. This "efficiency," in Pugh's terms, possessed none of the

irregular, seasonally-adjusting pace of traditional farming. "Every thing in this college has its precise fixed time for attention," the Northumberland County Committee recorded in 1862, "and so proceeds from day to day as regularly as clock-work, whether it refers to eating, working, studying, reciting of lessons, attending prayer, Bible class or sermon, of going to bed, or getting out of bed, or the like."<sup>88</sup> The Farmers' High School would develop character for ambitious, self-reliant individuals aspiring to enter the middle-class world.

Thus the labor rule fell between the fissure of an old work ethic that internalized labor as a way of life, and a new one of personal satisfaction and self-advancement. Daniel Rogers terms this the "nagging contradiction between the ideals of duty and success — between the appeal to the dignity of all labor, even the humblest, and the equally universal counsel to work one's way as quickly as possible out of manual toil."<sup>89</sup> Farm work suited an earlier agrarian age that flowed without clocks, but it was a type of labor inappropriate for youth as opportunities beyond the farm beckoned. To the youthful dreamer, the exhilaration of the Civil War, a chance on the frontier, or a job in the city seemed powerfully alluring compared to the endless humdrum of farming. Now that farming had become a business, it seemed a second-rate business at best compared to city occupations.<sup>90</sup>

Paradoxically, it was not the failure of the antebellum colleges, as land-grant histories posit, but their success that provided incentive to establish the Farmers' High School. Indeed, as Colin Burke points out, antebellum colleges played an important role by providing young men with a transition between rural life and careers in the cities.<sup>91</sup> On the one hand, progressive farm leaders appreciated education's potential to bring agricultural improvements as well as prosperity and esteem to the rural community; on the other, they eyed colleges and urban life as emasculators of farming. The agricultural community's anxieties over popular contempt, youth's flight to cities, unhealthy effects of college life, and indolence led to a curriculum for developing youth that fused middle-class culture with republican ethics. But the experiment reached beyond the farm community to nonfarm families, as if to offer the rest of the nation ennobling values lost in the market revolution. Although some of the leaders may have believed the labor policy could control changes to farm life wrought by the market transformation, few farmers were hoodwinked into believing it would keep junior on the farm and upgrade farming as an occupation. In reality, the labor policy appears to have been a mixture of

politics to placate legislators and farmers, financial maneuvering to save overhead cost, and finally, belief in the salubrious and moral value of farm work.

In the end, the Farmers' High School functioned much like the traditional colleges it was designed to replace. It served as a staging area for town and country boys — some incorrigible — desiring city careers. An examination of those who can be traced from the first four Farmers' High School graduating classes reveals that of thirty-six graduates receiving the bachelor of scientific agriculture degree, only seven registered their occupation as "farmer" afterward. The rest entered professions the farm community had eyed as a drain on their manhood, such as law, medicine, and business.<sup>92</sup> Nearly thirty years after the institution's opening, the Pennsylvania State Dairymen's Association was lamenting the continuing flight of farm youth. "The boys! The boys!" wailed the association in its 1887 annual report. "The future cornerstones of not only our national existence, but the props for our existence to carry on the farming interest to success. What are we to do with them?"<sup>93</sup> But the farm school hurried the boys on the road to white-collar occupations, and the exodus continues unabated to this day. Near the turn of the century, due to federal legislation and scientific advances, Penn State and other agricultural colleges discovered their mission was not to train farmers, but to serve as research institutions that could promote agribusiness by increasing productive efficiency. Between its founders' interest in raising farming to an acceptable level of middle-class propriety, and its relentless support of agribusiness, Penn State in league with fellow land-grant universities ironically contributed to destroying small farming as a way of life.<sup>94</sup>

## Notes

1. Tellico Johnson, "Reminiscences of Penn State's Early Days," in "Twice-Told Tales of Our Early Days," *Penn State Alumni Quarterly*, 6 (April, 1916), 187.
2. Earle D. Ross, *Democracy's College: The Land-Grant Movement in the Formative Stage* (Ames: Iowa State College Press, 1942), 14-45; Roger L. Williams, *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant College Movement* (University Park: The Pennsylvania State University Press, 1991), 13-22; 30-31.
3. In 1874, the Board of Trustees renamed the school "The Pennsylvania State College," and in 1953 changed it again to "The Pennsylvania State University."
4. Evan Pugh, "Of the Rise and Progress of the Agricultural College of Pennsylvania," in *Report of the Transactions of the Pennsylvania State Agricultural Society for the Years 1861-'62-'63*, 6 (Harrisburg: Singerly and Myers, 1863), 754. Annual reports of the Pennsylvania State Agricultural Society are hereafter cited with the ordinal number followed by *Annual Report*.
5. Williams, *The Origins of Federal Support for Higher Education*, 32-34.
6. Wayland F. Dunaway, *History of the Pennsylvania State College* (University Park: The Pennsylvania State College, 1949), 3-13; Michael Bezilla, *Penn State: An Illustrated History* (University Park: The Pennsylvania State University Press, 1985), 2-7; Williams, *The Origins of Federal Support for Higher Education*, 31.
7. See Edward D. Eddy, *Colleges for Our Land and Time: The Land-Grant Idea in American Education* (New York: Harper & Row, 1957); Ross, *Democracy's College*; Frederick Rudolph, *The American College and University, A History* (New York: Vintage Books, 1962). Scholars of the present generation, among them Colin Burke in *American Collegiate Populations: A Test of the Traditional View* (New York: New York University Press, 1982), Stanley Guralnik in *Science and the Antebellum College* (Philadelphia: American Philosophical Society, 1975), and David Potts in "Curriculum and Enrollments: Some Thoughts on Assessing the Popularity of Antebellum Colleges" (*History of Higher Education Annual* 1, 1981, 88-109), have demonstrated that antebellum colleges were diverse, responsive to local needs, growing, and curricularly innovative.
8. See Eddy, *Colleges for Our Land and Time*; Ross, *Democracy's College*; Dunaway, *History of the Pennsylvania State College*; Bezilla, *Penn State*.
9. Ronald G. Walters, *American Reformers, 1815-1860* (New York: Hill and Wang, 1978), 12, 208, 214-215.
10. Stevenson Whitcomb Fletcher, *Pennsylvania Agriculture and Country Life, 1640-1840* (Pennsylvania Historical and Museum Commission, 1950), 419-423; 350-351; Charles Sellers, *The Market Revolution: Jacksonian America, 1815-1846* (New York: Oxford University Press, 1991), 10-15.
11. Fletcher, *Pennsylvania Agriculture*, 107-110; Sellers, *Market Revolution*, 13-15.
12. John C. French, *Rafting Days in Pennsylvania* (Altoona: Times and Tribune Company, 1922), 71-72.
13. Daniel T. Rodgers, *The Work Ethic in Industrial America* (Chicago: University of Chicago Press, 1978), 17.
14. John Ashworth, *Agrarians and Aristocrats: Party Political Ideology in the United States, 1837-1846* (Atlantic Highlands: Humanities Press, 1983), 21-23; Dumas Malone, *Jefferson the Virginian: Jefferson and His Time, Vol. 1* (Boston: Little, Brown & Company, 1948), 383-385; Richard Kirkendall, "The Agricultural Colleges: Between Tradition and Modernization," *Agricultural History*, 60 (Spring, 1986), 3-5.
15. Jeremy Atack and Fred Bateman, *To Their Own Soil: Agriculture in the Antebellum North*, Henry A. Wallace Series on Agricultural History and Rural Studies (Ames: Iowa State University Press, 1987), 3-16; Clarence H. Danhof, *Change in Agriculture*

- in the Northern United States, 1820-1870 (Cambridge: Harvard University Press, 1969), 1-12; Sellers, *Market Revolution*, 15-16; Andrew Baker and Holly Izard, "New England Farmers in the Marketplace, 1780-1865: A Case Study," *Agricultural History*, 65 (Summer, 1991), 51-52. Danhof notes the irony in the fact that the modern economic system would not have succeeded unless agriculture successfully negotiated a transition into the marketplace.
16. *Memoirs of the Philadelphia Society for the Promotion of Agriculture* V (1826), ii.
  17. Atack and Bateman, *To Their Own Soil*, 103-104; Danhof, *Change in Agriculture*, 257; Sean Wilentz, "Society, Politics, and the Market Revolution, 1815-1848," in *The New American History*, ed. Eric Foner (Philadelphia: Temple University Press, 1990), 52.
  18. Atack and Bateman, *To Their Own Soil*, 16, 201; Danhof, *Change in Agriculture*, 15-23; 278-289; Sellers, *Market Revolution*, 152-156; Richard Bushman, "Opening the American Countryside," in *The Transformation of Early American History*, ed. James A. Henretta, Michael Kammen, and Stanley Katz (New York: Alfred A. Knopf, 1991), 251.
  19. Sellers, *Market Revolution*, 239.
  20. Fred Bateman, "The Marketable Surplus in Northern Dairy Farming: New Evidence by Size of Farm in 1860," *Agricultural History*, 52 (July, 1978), 345.
  21. Rodgers, *Work Ethic*, 174.
  22. Bushman, "Opening the American Countryside," 253.
  23. Joseph Kett, *Rites of Passage: Adolescence in America, 1790-Present* (New York: Basic Books, 1977), 38, 93-96.
  24. *Ibid.*, 38-39; Burton Bledstein, *The Culture of Professionalism: The Middle Class and the Development of Higher Education in America* (New York: W.W. Norton, 1976), 205-207; 212-213.
  25. Alexis DeTocqueville, *Democracy in America*, ed. Phillips Bradley, Vol. 2 (New York: Vintage Books, 1945), 202.
  26. See, for example, *First Annual Report*, 274, 281, 340-341; *Second Annual Report*, 128, 164, 234-235; *Third Annual Report*, 131, 276, 317; *Farm Journal* 7 (July, 1857), 205; *Farmer's Cabinet* 1 (July 1, 1836), 13; *ibid.*, (November 15, 1836), 143.
  27. Danhof, *Change in Agriculture*, 25.
  28. "Cheating the Farmer," *Farm Journal* 4 (March, 1854), 82.
  29. *Ibid.*, 6-8.
  30. Address by E. Guyer, October 7, 1853, *First Annual Report*, 153.
  31. *Catalogue of the Officers and Students of the Farmers High School of Pennsylvania for 1859* (Philadelphia: King & Baird, 1859), 9.
  32. Bledstein, *The Culture of Professionalism*, 106.
  33. George B. Forge, *Patricide in the House Divided: A Psychological Interpretation of Lincoln and His Age* (New York: W. W. Norton, 1979), 13-18.
  34. Karen Halttunen, *Confidence Men and Painted Women: A Study of Middle-Class Culture in America, 1830-1870* (New Haven: Yale University Press, 1982), 1-13, 20-25; Bledstein, *The Culture of Professionalism*, 8-23, 214-222; Kett, *Rites of Passage*, 94, 105-107; Sellers, *Market Revolution*, 238-239.
  35. Kett, *Rites of Passage*, 112.
  36. Bledstein, *The Culture of Professionalism*, 30; Sellers, *Market Revolution*, 365-366.
  37. *Farmer's Cabinet* 7 (November 15, 1842), 133.
  38. Address by C. K. Thompson, October 2, 1858, *Fifth Annual Report*, p. 507.
  39. Address delivered October 13, 1853, *First Annual Report*, 274-275.
  40. Address delivered October 3, 1856, *Fourth Annual Report*, 90.
  41. "Agricultural Education," *Farm Journal* 1 (November, 1850), 325.
  42. "Annual Meeting," September 1, 1858, *Fifth Annual Report*, 288.
  43. "How Young Farmers Should Spend Their Evenings," *Farm Journal* 1 (November, 1851), 231-232.
  44. *Farmer's Cabinet* 10 (June 2, 1846), 351.
  45. *Farm Journal* 3 (December, 1853), 356.



46. "Memorial of the Committee of the Board of Trustees of the Farmers' High School of Pennsylvania to the Pennsylvania Senate and House," *Fourth Annual Report*, 108.
47. *Ibid.*, 107.
48. Dunaway, *History of the Pennsylvania State College*, 11. See Mark W. Summers, *The Plundering Generation: Corruption and the Crisis of the Union, 1849-1861* (New York: Oxford University Press, 1988); Earl J. Hess, *Liberty, Virtue, and Progress: Northerners and Their War for the Union* (New York: New York University Press, 1988).
49. *Catalogue 1859*, 14.
50. Rudolph, *The American College and University*, 217-220.
51. Typescript of Watts to Evan Pugh, April 10, 1859, Manuscript Vertical File (hereafter cited as MSVF), Penn State Room, Pattee Library, The Pennsylvania State University.
52. Pugh, "Of the Rise and Progress of the Agricultural College of Pennsylvania," *Sixth Annual Report*, 756.
53. *First Annual Report*, 277.
54. "Address to the People of Pennsylvania," July 21, 1854, *First Annual Report*, 33.
55. November 24, 1856, Box 1, Folder 11, Waring Family Collection, Penn State Room.
56. *Catalogue 1859*, 14.
57. "Report on the Pennsylvania Agricultural College," October 1, 1862, *Sixth Annual Report*, 698.
58. *Daily Legislative Record: Debates and Proceedings of the Pennsylvania Legislature*, Act of March 15, 1862, Sec. 2, 120.
59. *Centre Daily Times*, August 12, 1965, March 22, 1968.
60. *Catalogue 1859*, 18-20.
61. Sean Wilentz, *Chants Democratic: New York City and the Rise of the American Working Class, 1789-1850* (New York: Oxford University Press, 1984), 94.
62. Typescript of "Memoirs of William Griffith Waring," Box 1, Folder 5, Waring Family Collection, Penn State Room. Cited in Dunaway, *History of the Pennsylvania State College*, 25.
63. "Conditions of Admission," [1858?] *Fifth Annual Report*, 130.
64. Charles M. Tyson to H. N. McAllister, May 9, 1859, MSVF, Penn State Room.
65. William G. Waring to J. M. Seech, February 6, 1860, Box 1, Folder 11, Waring Family Collection, Penn State Room.
66. "Report on the Pennsylvania Agricultural College," October 1, 1862, *Sixth Annual Report*, 697.
67. Typescript of original, April 10, 1859, MSVF, Penn State Room.
68. Letter from unidentified student, March 10, 1859, cited in *Penn State Alumni News*, 22 (January, 1935), 13.
69. Wallace Pierce, "The Treasure Trove," *Penn State Alumni Quarterly*, 6 (April, 1916), 164.
70. Tellico Johnson, "Reminiscences of Penn State's Early Days," in *Penn State Alumni Quarterly*, 6 (April, 1916), 189.
71. William Shinn, Address, June 1912, *Penn State Alumni Quarterly*, 2 (July, 1912), 14.
72. Letter from A. C. Jones to "Class of '64," Box 1, Folder 14, Waring Family Collection, Penn State Room.
73. Evan Pugh to Samuel Johnson, January 6, 1860, Evan Pugh Papers, Penn State Room. See [1855?] letter to A. L. Elwyn, Evan Pugh Papers.
74. "Circular, Published by Authority of the Board of Trustees" (n.p., 1867), 8.
75. "Labor Rule," MSVF, Penn State Room.
76. November 15, 1875, MSVF, "Labor Rule," Penn State Room.
77. Circular [1875?], "Labor Rule," MSVF, Penn State Room.
78. Dunaway, *History of the Pennsylvania State College*, 25-26, 40-41.
79. John Hamilton, *John Hamilton: An Autobiography*. (Typed manuscript in MSVF, Penn State Room), 59.
80. Margaret Rossiter, *The Emergence of Agricultural*

*Science, Justus Liebig and the Americans, 1840-1880* (New Haven, Connecticut: Yale University Press, 1975), xiii.

81. "Notes on the History of the Pennsylvania State College" [Manuscript written by George W. Atherton], George Washington Atherton Papers, Penn State Room.

82. Williams, *Origins of Federal Support for Higher Education*, 1-9, 199-227.

83. Pennsylvania, *Vetoed, Bills Returned to the Legislature by the Governor With His Objections Thereto, During Its Regular Session, Ending on June 13, 1883* (Harrisburg: Lane S. Hart, 1883), 118.

84. *Practical Farmer* 8 (June 1871), 6.

85. *Farm Journal* 7 (March, 1857), 87.

86. H. Schubert to Frederick Watts, August 29, 1857, Box 1, Folder 10, Waring Family Collection.

87. Evan Pugh to A.L. Elwyn [1855?], Typescript in MSVF, Penn State Room; Evan Pugh to Samuel Johnson, February 22, March 16, September 30, 1855, October 18, 1859. True Papers, Department of Agriculture Library. Quoted in Earle D. Ross, *Democracy's College: The Land-Grant Movement in Its Formative Stage* (Ames: Iowa State College Press, 1942), 29, 189.

88. "Report on the Pennsylvania Agricultural College," 699.

89. Rodgers, *The Work Ethic in Industrial America*, 14.

90. Atack and Bateman, *To Their Own Soil*, 71-72; Bruce Laurie, *Artisans Into Workers: Labor in Nineteenth-Century America* (New York: The Noonday Press, 1989), 15-24; Michael Barkun, *Crucible of the Millenium: The Burned-Over District of New York in the 1840s* (New York: Syracuse University Press, 1986), 117-119; Sellers, *Market Revolution*, 157.

91. Colin Burke, *American Collegiate Populations: a Test of the Traditional View* (New York: New York University Press, 1982), 96.

92. *Alumni Record of the Pennsylvania State College*, 1880, 1883, 1888, 1893, 1898, 1902, 1906 (State College, Pennsylvania: Alumni Association).

93. Annual Report of the Pennsylvania State Dairymen's Association, 1887, in *Pennsylvania State Board of Agriculture Annual Report* (Harrisburg: Edwin K. Myers), 35.

94. Kirkendall, "The Agricultural Colleges," 8-11; see Jim Hightower, *Hard Tomatoes, Hard Times: The Failure of the Land-Grant College Complex* (Cambridge: Shenkman Publishing Company, 1973).