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A spatial approach to culture, agriculture and political economy in the late nineteenth-century corn-belt

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INTRODUCTION

Historians frequently employ a colon when titling their books. The colon separates two dependent clauses, whereby the second clause expands or elaborates upon the first. Authors traditionally employ this convention to demarcate the subject of the book from the chronological and spatial context within which the topic of historical inquiry is set. This mode of titling suggests a deeper intellectual division that explores human activity as if it were somehow distinct from space and time, as if space and time were merely context—a backdrop, or scenery behind the stage upon which human actors moved. This dissertation reverses that convention; it brings spatial analysis to the fore of inquiry in an attempt to understand the role of space and its organization in creating rural agricultural systems.

In the decades after the Civil War, the landscape and the political economy of the American Midwest emerged as a common product, shaped more by spatial relationships than an evolution in the mentalité of the Midwestern farmer. The maturation of commodity agriculture, built upon capital-intensive transportation networks, represented a revolutionary change in which economic space displaced natural space as the primary influence affecting regional agricultural production. A rapidly maturing network of rails tied corn-belt farmers to a far-flung commodity market. Within this commoditized infrastructure, and as the scale of family farms increased though the application of mechanical technology, farmers realized higher returns on their investments in land by increasing their concentration on commodity corn at the expense of other grains and livestock rearing. The commoditized landscape implied constraints. Successful farms,

those that best adapted to the changing economic landscape through successive generations, it would seem, were frequently those that maximized the efficiency of capital investments in land, farm buildings and machinery and, in the process, created an increasingly specialized landscape. While economic survival may have been the most powerful incentive, it was not the only metric by which farm families and communities made decisions that created landscapes. This dissertation employs a comparative approach that explores how different cultural groups responded to the spatial logic of commodity production within the broader regional economy. While the spatial logic of capital systems resulted in economic incentives that pushed the regional environment towards more specialized modes of production, this study demonstrates that the ultimate configuration of *local* agricultural systems within the corn-belt relied upon the negotiation of local culture and local market opportunities. In some locales, culture affected the creation of distinct modes of production and agricultural landscapes. The corn-belt was neither monolithic nor inevitable.

Beyond the economic logic of space that shaped the commoditized landscape of the corn-belt, individuals and groups lived within constructed physical places. Again, a comparative approach shows the construction, understanding and meaning of space varied within the corn-belt. While the function of physical spaces among disparate cultural groups may have been similar, the form often varied due to different interpretations of social-spatial relationships. Through long patterns of usage, spaces acquired meaning and the corporate values of community—they became places. Acquired meaning, a sense of place or identity, frequently proved a more persistent and powerful feature of the landscape than the built environment that first embodied the

values of community. The sense of place was every bit as much a part of the physical landscape as the homes, the fields, the fences and roads that comprised the rural community. The acquisition of meaning was a process achieved over time through the rhythms of rural work and reinforced by the institutions of the rural community—it emerged and matured in congress with the agricultural landscape and a reading of one requires an understanding of the other.

The comparative approach of this dissertation highlights significant changes in the American physical, cultural and social landscape. This dissertation begins with a geographically broad approach that focuses attention on economic relationships that affected regional changes in agriculture. It then focuses the lens of analysis to the level of community to consider how the interplay of local culture and markets affected the production of agricultural landscapes. From there it tightens further to the farm-home and its kitchen, the organization of which reflected broader evolutions in the Midwestern mentalité. Ultimately, I argue through a comparative analysis, that Midwestern farmers internalized the logic of the commoditized landscape, and that it found expression in internal organization of spaces of the homes within which they lived. In the decades after the Civil War, rural Americans in the Midwest functioned within a new national hierarchical network that constrained their interactions with the land and upon a landscape that increasingly functioned as an institution.

The overarching emphasis on underlying social structures as mechanisms of historical change and the methodological use of comparative history and quantitative data as the backbone of interpretation in this work owe an intellectual debt to the *Annales* tradition. Annales historians frequently provided an alternative to Marxist interpretations of history by emphasizing the role of geography over economic substructures as causal agents of historical change. Borrowing significantly, and over simplistically, from both traditions, the data employed in this work suggests that, in the American Midwest the dichotomy of geographical and economic determinism proves false.[1]

In 1931 Marc Bloch published *French Rural History: An Essay on Its Basic Characteristics*. In this seminal work, Bloch identified a simple physical characteristic of the landscape, soil type, as a causal agent in the social development of medieval France. Bloch's hypothesis held that soil type determined a need for either heavy wheeled moldboard plows or lighter tools of cultivation such as an *aratrum*. Heavier soil in northern France required heavier plows and greater draft power. The need to combine the bovine resources of several families required greater social organization. The different field, town, property and social systems (collectively termed "agrarian regimes" by Bloch) across the French landscape evolved, in part at least, from the physical properties of soil and the physics of pulling an inclined plane, a screw, and a lever through it.[2]

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[1] On the use of geography by Annales historians, see Alan Baker, "Reflections on the Relations of Historical Geography and the *Annales* School of History," in *Explorations in Historical Geography: Interpretive Essays,* ed. By Alan Baker and Derek Gregory (Cambridge: Cambridge University Press, 1984), pp. 1-27.

[2] Marc Bloch, Janet Sondheimer, trans. *French Rural History: An Essay on Its Basic Characteristics* (Berkley: University of California Press, 1970), 21-63.

Bloch's contemporary, Lucien Febvre emphasized geography even further in his study of history. While Febvre saw geography as a causal agent in history, he stopped short of positing a deterministic argument for the role of geography and environment. Subsequent scholars have dubbed Febvre's approach as 'environmental possiblism' as compared to an environmental determinism sometimes interpreted in Fernand Braudel's work. For Braudel, societal structures, the inertia of social systems so to speak, constrained the agency of historical actors at all levels of society, including heads of state. Braudel's approach suggests that historians' search for meaning must focus beyond simple events to encompass long-term trends.[3]

Historical geographer Carville Earle noted that Western scholarship, with a few notable exceptions (including the *Annales* school) has "steadfastly obscured, denied, or ignored the geographical factor in the study of history and social change."[4] Earle identified the New Deal era as a period in which geographers abandoned questions of history and social change in favor of a less ambitious approach focused on dependent variables of place and landscape.[5] Indeed, twentieth-century scholars in general have

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[3] See Lucien Febvre and Lionel Bataillon, E.G. Mountford and J.H. Paxton trans. *A Geographical Introduction to History* (New York: A.A. Knopf, 1925) and Fernand Braudel. Siân Reynolds trans. *The Mediterranean and the Mediterranean World in the Age of Philip II* (New York: Harper and Row, 1972).

[4] Carville Earle. *Geographical Inquiry and American Historical Problems*. (Stanford: Stanford University Press, 1992).

[5] Carville Earle. *Geographical Inquiry and American Historical Problems*. (Stanford: Stanford University Press, 1992) 3-5. Earle proceeds to hope that limited examples from the 1970s and 1980s will point the way toward a more locationally and ecologically interdependent interpretation of historical problems including works such as: Immanuel Wallerstein, *The Modern World-System: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century* (New York: Academic Press, 1974. Donald Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York: Oxford University Press, 1979). Alfred W. Crosby *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Westport, CT: Greenwood Press, 1972). Eugene D. Genovese and Leonard Hochberg, *Geographic Perspectives in History* (Oxford, England: Basil Blackwell, 1989).

viewed the concept of place as increasingly unimportant in the modernization of the West. As the West modernized, localism lost relevance; populations became increasingly mobile and national cultures and identity replaced local and regional identities as the salient agent of historical change. Localism proved anathema to Marxist historians who understood that material order developed out of social processes not, the conditions of location. Other scholars interpreted in localism and place specific determinism the roots of racism, bigotry and a fetishization of place.[6]

Frederick Jackson Turner conceptualized the influence of space upon historical development nearly forty years before March Bloch when he presented *The Significance of the Frontier in American History* to the American Historical Association at the World's Columbian Exposition in Chicago in 1893. Responding to the elimination of the 'frontier' designation to geographical territory by the Census Bureau in 1890, Turner's ideas resonated in a modern nation uncertain of the moral implications of its new urban and industrial moorings. There's little doubt that Turner's contemporaries working in the nearby crop fields of Cook County, only a few miles from the speaker's rostrum, had felt soil shifting beneath them over the course of the previous forty years.[7]

This study, borrows many elements of the geographical approach of *staple inquiry* which, in Earle's words is: "characterized methodologically by its attention to the ecological details of primary production and their societal ramifications: to the details of environmental constraints; of crop choice; of crop attributes (bulk, weight, perishability, seasonality); and of the agrarian technology (both material and organizational)." However, this study subjects the systems of local agricultural production to the methods of staple inquiry with emphasis on the overarching framework of a social-capital system of transportation infrastructure.

[6] Steven Moore, *Technology and Place: Sustainable Architecture and The Blue Print Farm* (Austin: University of Texas Press, 2001) 12. See especially Moore's discussion on modernist and post-modernist interpretations of place and space.

[7] Frederick Jackson Turner, *The Frontier in American History* (New York: Holt and Company, 1920). See also, John Mack Faragher, *Rereading Frederick Jackson Turner* (New York: Henry Holt, 1994) 1-12.

Perhaps Turner overstated his case. Subsequent historians have largely debunked his thesis that the frontier experience offered *the* key to understanding the American character as it existed on the cusp of a new century. Turner left little room for culture, gender or opposition of any sort to the great process of western expansion. His conceptions of what constituted a frontier and connection between, and ultimate transformation into, urban areas was flawed. Further, his thesis relied on pseudo social scientific Darwinian ideas of societal progression and climax communities. Still despite the specifics, the exceptions, and generalizations, the core idea that the spatial arrangement of population and its interaction with the natural environment plays a role in the evolution of society and its institutions remains valid, if incomplete. Indeed it is an idea central to the work of many current environmental historians.[8]

What Turner hinted at, but never explicitly wrote, was that the 'advancement of civilization' that had culminated in the closing of the frontier represented the eclipse of the natural order by the spatial logic of capital. The spatial conquest of the land remained far from complete; but by 1890 the tentacles of progress in the form of iron rails had tightened its grip upon the continent.[9] The old rules that had governed the extraction of capital from land through much of the nineteenth-century west had changed not because

[8] For example, see Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York: Pantheon, 1985). Crosby, *The Columbian Exchange.* William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: Norton, 1991). Brian Donahue, *The Great Meadow: Farmers and the Land in Colonial Concord* (New Haven: Yale University Press, 2004). See also, Carl J. Ekberg, *French Roots in the Illinois Country: The Mississippi in Colonial Times* (Chicago: University of Illinois University Press, 1998). Marc Bloch, Janet Sondheimer, trans. *French Rural History: An Essay on Its Basic Characteristics* (Berkley: University of California Press, 1970).

[9] John Stover, *The Routledge Historical Atlas of the American Railroads* (New York: Routledge, 1999) 39-52. In 1916, railroad mileage shrunk for the first time in American history from its high-water mark of 254,037 miles. By 1890 the frenzied building of the 70s and 80s already had slowed. Only 30,000 miles of new track were laid during the 1890s. Between 1880 and 1890, the total mileage of track increased by over 75% and experienced a total increase of only 32% between 1890 and 1916.

the population that lived upon it reached a certain density, but because the ways in which they, and the goods they produced, moved through it had changed radically over the brief span of a generation. Space, once measured in units of distance, or the time it took to move through it, had been monetized; its primary unit of measure had become the cost it required to transcend it. As speed increased distance shrank; such is the spatial logic of capital.

William Cronon delineates this evolution in the landscape with his descriptive constructs of 'first nature' and 'second nature'. In Cronon's work, first nature consisted of the natural landscape, its nutrient and energy cycles along with its flora and fauna. Within first nature, localism ruled. Plant and animals survived or failed based on their ability to adapt to local ecosystems and food chains. In contrast, the second nature that emerged in the Old Northwest dominated by commodity production of cattle, hogs, wheat and corn was governed by a very different logic—a spatial logic of capital.[10]

In second nature, consumption and production became geographically disparate phenomenon. The ultimate success or failure of a species or genetic characteristic depended upon its ability to efficiently move through space within the constraints of the physical technology in place to move it. Thus, the long horn cattle of Texas that once walked to market in great herds declined in population once they began to be moved on tightly packed cattle cars. Grains dominated the prairie landscape, in part, because aggregated loose grain behaved more within the physical realm of a liquid than solid. Steam technology, coupled with the liquid properties of loose grain meant that it could be augered, elevated, and stored mechanically rather than in the old method of individual

[10] William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: Norton, 1991), 264-269.

sacks, thereby expediting the speed and reducing the cost by which it changed locations. The way grain could be moved created the need for grading, itself an abstraction, which spurred the creation of international futures markets that speculated on the price of grain around the world. In Cronon's reading, the hinterland and metropolis were not distinct entities, but a single economic whole. The development of one required the other.

Cronon's spatial hypothesis of metropolitan growth and rural economic tributaries draws largely on central place theorists of nineteenth and twentieth century. The first among these was Johann Heinrich von Thünen and his 1826 work, *The Isolated State.* In *Isolated State*, von Thünen described a theoretical model in which a city existed at the center of a vast plane. Within the plane, all environmental and transportation conditions were held uniform; there were no rivers to cross or mountains to climb. The logic that emerged held that as transportation costs increased with distance, distinct rings of production would radiate out from the city. The inner rings produced heavy, bulky or perishable goods; land values were high and farm sizes small, and an intensive mode of production prevailed. As distance increased, land rents decreased, estates grew larger, and they produced lower value crops and livestock that could be transported or walked to market with relatively greater ease than bulky or perishable products near the city.[11]

Von Thünen's model held generally true for nineteenth-century American cities in the pre-railroad era and to a limited extent thereafter. Truck farming and dairying predominated in the areas immediately adjacent to the city; further away, farmers raised grain and cut timber to supply building materials and bread. Livestock producers herded their animals to market from points further afield. In reality though, no city existed within

[11] Johann Heinrich von Thünen, Carla Warenberg trans., *Isolated State; an English edition of Der isolierte Staat.* (New York: Pergamon Press, 1966). See also, William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: Norton, 1991) 447.

a geographically featureless plane; transportation networks bisected the land around cities and altered the economic logic implied by distance. Thus, the building materials used in and marketed from Chicago, while of comparatively low value compared to their bulk, could be gathered from hundreds of miles to the north and shipped via a lake route to the city.[12]

Roadways followed the natural features of the landscape, the paths of least resistance and remained slow and limited in capacity to the draft energy of four legged beasts of burden. Similarly, by the nineteenth century American waterways, though increasingly manipulated, remained a predominantly natural phenomenon. From a spatial standpoint, the great change that occurred to bring about the 'second nature' described by Cronon was the railroad. As the railroad extended into the rural corners of the Midwest, it imposed a new economic logic that superceded von Thünen's. The railroads, in effect, brought farms closer to markets, thereby increasing competition among farmers outside of older regional networks of exchange. This process of competition bred specialization and the emergence of the various crop belts in the American interior.[13] The Chicago milk-shed, central Illinois cash-corn-belt which eventually moved west and north into Iowa, and the wheat belt of the short grass prairie region developed out of a dialectic between the regional competitive advantages inherent in the natural limitations of 'first

[12] William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: Norton, 1991) 148-207.

[13] John C. Hudson, *Making the Corn Belt: A Geographical History of Middle-Western Agriculture* (Bloomington: Indiana University Press, 1994) 130-172. Hudson contends that soil conditions in southern Illinois made it less competitive in a cash grain market and corn remained primarily a feedstock. In northern Illinois, some corn was sold in excess but much of it was converted to silage in the milk-shed region while and in other areas it was fed to hogs. The initial pocket of cash corn farming emerged in north central Illinois in counties such as Champaign, Livingston and Douglas. Cash grain farming also developed early, and persisted, along major rivers. The development of regional agricultures in Illinois will be discussed more fully in Chapters One and Two of this work.

nature' and the economic logic of second nature. Commodity agriculture, the slow but steady move away from mixed husbandry, developed as part of the social inertia of infrastructure improvement. As the railroad network accumulated capital investments and represented an increasingly large percentage of national wealth, society grew ever more tightly bound to it and the mode of agricultural production it implied. The transportation network and the agricultural landscape grew together as a commoditized transportation system. As farm numbers began declining throughout Illinois from the 1880s onward, those farmers who failed to adjust to the new economic realities failed to farm. Farmers within the commoditized landscape found themselves profoundly dependent, shackled by mortgages, wooden ties and iron rails to a system of production that left little room for negotiation or variation.

Or, maybe not. Von Thünen's isolated state and Cronon's second nature both assume a rural population of producers that acted in an economically 'rational' manner and in a uniform way. European immigrants, most often from northwest Europe, poured into the rural heartland in the decades before and after the Civil War.[14] The native stock population, often locally homogenous, hailed from disparate sections of the young

[14] Oscar Handlin, *The Uprooted: The Epic Story of the Great Migrations that Made the American People* (New York: Back Bay Books. 1971) 17-22. Handlin's work, while often vague and general, correctly concludes that many immigrants arrived in the United States already affected by international capitalist development. Handlin paints an overly simplistic vision of village life and village agriculture that was becoming increasingly inefficient across Europe, thus fueling immigration. Regardless, Handlin appropriately reaches the conclusion that the hope of financial improvement formed the salient criteria among several in the decision of most immigrants to travel to the United States. Despite its limitations, Handlin's work has a seminal place in the cannon of immigrant history. The majority of immigrants arriving in nineteenth-century America settled in urban neighborhoods, as such, it is no surprise that an even greater percentage of immigrant historiography focuses on urban areas. This work should not be considered immigration history. It uses immigrant enclaves as part of a comparative context in order to illustrate the development of regional modes of agriculture, the social structures that reinforced those modes of production, and the means by which local culture and economic opportunity varied away from regionally dominant modes of production.

republic. In Illinois, early settlers from Indiana, Kentucky and Tennessee surged into the southern portion of the state, filling in first the cracks of river valleys before moving further into the prairies and savannahs. By 1818, Illinois had achieved statehood even as few white permanent settlements existed in the northern section of the state. The settlers that broke the northern prairies often traveled across the Great Lakes from New York, Pennsylvania and Ohio, arriving in the state of Illinois in the 1820s and, in the far north, the 1830s. Between and betwixt the Americans, foreigners from Ireland, Canada, Germany, England and the Nordic states trod shortly behind those that first broke the furrows upon the virgin landscape. The cultural landscape that emerged resembled nothing near the *tabula rasa* of von Thünen's imagination. Did the spatial logic of capital trump cultural modes of production? Did cultural modes of production exist; what caused them? Further, was profit maximization the only behavior that ought to be considered rational? In short, what role did culture play in the creation of landscape?

Numerous historians have discussed the degree to which immigrant groups introduced new crops and techniques into American agricultural practice and the extent to which they maintained cultural traditions of their homelands.[15] The trajectory of the historiography over the course of the twentieth century has become increasingly sophisticated. Ethnic generalizations based on anecdotal national characteristics of the 1920s and 1930s transitioned to geographical inquiries in which historians employed empirical evidence from census schedules in the 1940s and 1950s. The work of historians and geographers in the 1960s frequently concentrated on the delineation of differences between ethnic enclaves and native-stock populations. Historians such as James Lemon

[15] For an excellent summary of this historiography, see Brian Cannon, "Immigrants in American Agriculture," *Agricultural History* 65 (1991) 17-35. See also, Theodore Saloutos, "The Immigrant Contribution to American Agriculture," *Agricultural History* 50 (1976) 45-67.

argued that class played a greater role as a predictor of agricultural distinction than nationality and Allan Bogue suggested that, in Iowa, ethnic differences in production were more apparent than real.[16]

The balance between ethnic distinctiveness and assimilation played out as a dominant theme in the early twentieth-century historiography of ethnicity and agriculture. This trend continued into the 1970s and 1980s as historians pointed their inquiries increasingly toward European antecedents. Transplantationist scholars such as Jon Gjerde, William Kamphoefner, and Robert Ostergren studied chain migrations from the Old World to the New, offering specific insights on how agricultural systems worked on both sides of the ocean.[17] While the attention to pre-immigration lifestyles and

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[16] James T. Lemon, "The Agricultural Practices of National Groups in Eighteenth-Century Southeastern Pennsylvania," *Geographical Review* 56 (October 1966).
Allan Bogue, *From Prairie to Cornbelt: Farming on the Illinois and Iowa Prairie in the Nineteenth Century* (Chicago: University of Chicago Press, 1963) 238.

[17] Terry Jordan's study of Germans in Texas found a lower degree of livestock ownership in hogs and dairy cattle and less of a reliance on corn as the dominant source of grain produced. Jordan also found lower amounts of paid labor on German farms, but, interestingly, a higher amount of machinery, see Terry Jordan, *German Seed in Texas Soil*, (Austin: University of Texas Press. 1966) 89, 211. While Allan Bogue expressed skepticism that individuals of various ethnic backgrounds and living in the same neighborhoods would engage in significantly different agriculture, he went on to remark that the one consistent trend seen in two Iowa counties was the same pattern as Terry Jordan, fewer hogs and proportionally more cereal grain and less corn; see, Allan Bogue, *From Prairie Belt to Corn Belt: Farming on the Illinois and Iowa Prairies in the Nineteenth Century* (Chicago: University of Chicago Press, 1963) 237-238. Walter Kamphoefner's brief treatment of cropping patterns concluded that similarities in agricultural production outweighed the differences between Germans and their neighbors. While the differences are subtle, they still may be seen, relatively fewer hogs, relatively less corn, and commitment to small grain - all were evidenced in 1850 northeastern Missouri German population; see, Walter Kamphoefner, *The Westfalians: From Germany to Missouri* (Princeton: Princeton University Press, 1987), 125-133. Gjerde's study of cropping patterns illustrated an exaggerated reliance on wheat in the early phases of Norwegian settlement. Strong markets and underdeveloped infrastructure fueled the emphasis on wheat growth. The affect on the overall farm system was marked, and very different from the more pastoral conditions the immigrants left behind. However, immigrants showed slight preference for other small grains beyond wheat, such as barley, and a lesser inclination to grow corn than their Yankee neighbors did. Jon Gjerde's conclusions on production are interesting, but too small to be instructive. Further, the communities under study were not truly ethnic enclaves with more or less contiguous borders. The communities existed as subsets of larger communities with native-born stock in and among

agricultures represented a leap forward in sophistication, the transplantationists failed to ask significantly new questions. The focus remained on ethnically stereotyped production and ethnographic forays into the old dichotomy of assimilation versus cultural maintenance. Several transplantationist monographs were plagued by small sample populations, which made statistical comparison difficult. Further, the transplantationists' preoccupation with culture and the relative degree to which it was transmitted frequently resulted in an inadequate conceptualization of environmental factors, both natural and spatial, in the creation agricultural environments.[18]

The problem with these treatments of immigrant agriculture stems in part from the fact that they were not conducted by agricultural historians—their failing is one of both

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them. As such, we should expect a more tempered bio-cultural expression; see, Jon Gjerde, *From Peasants to Farmers: Migration from Balestrand Norway to the Upper Middle West* (New York: Cambridge University Press, 1985), 168-195. Ostegren's Swedes settled in a geographic landscape with profound consequences for agriculture. The scale of operations in the Isanti study area was small by Corn Belt standards. While Swedes and Germans put half of their land into wheat cultivation (compared to a third on American farms) real acreage was similar. Comparative analysis of agricultural economy, as in Gjerde's, work is complicated by the influence of frontier conditions. Thus, Ostergren's proposal that immigrants were less profit inclined seems an untenable position. Still, he identified a Swedish preference for small grains and a proclivity for oxen rather than horses. Without much explanation Ostergren removes women's labor from the fields with the mechanization of farms in the 1880s. Ostergren's analysis of Swedish agriculture leaves us wanting more information – especially concerning women. Women's roles in agriculture are almost wholly ignored and Ostergren's agricultural analysis and the typical treatment of field crops and large livestock failed to address other quantifiable census data that could have enlightened the nature of women's gender roles and their influence on the cultural landscape; see Robert Ostergren, *A Community Transplanted: The Trans-Atlantic Experience of a Swedish Immigrant Settlement in the Upper Middle West, 1835-1915* (Madison: University of Wisconsin Press, 1988), 195-209.

[18] Myron Gutmann, Sara Pullum-Pinon, Susan Gonzalez Baker and Ingrid Burke identify stereotypes commonly attributed to German-American agriculture, both in terms of their cropping and livestock patterns and their strategies of land transmission and profit motivation. Their study looked at production statistics from 1910 and 1990 for several hundred counties in the across the Great Plains ranging from Texas to Montana and North Dakota. The study pays specific attention to environmental conditions, but fails to move beyond aggregated county level data and takes no consideration of locally marketed farm production, see 'German-Origin Settlement and Agricultural Land Use in the Twentieth-Century Great Plains' in Helbich, Wolfgang and Kamphoefner, Walter, Eds. *German-American Immigration and Ethnicity in Comparative Perspective,* (Madison: Max Kade Institute for German-American Studies, 2004) 138-168.

approach and imagination. First of all, the census of agriculture has proven to be an all too easy entrepôt for historians seeking to use quantitative data to bolster qualitative arguments. Agriculture proved a fresh line of inquiry into a field dominated by a larger and older historiography of immigration consisting largely of urban topics. Page after page of census data grouped objects in easily defined categories: bushels of wheat, numbers of cows, and acres of improved land. In aggregate, whole landscapes unfolded from dry brittle pages (or microfilm). But this was low hanging fruit. It cannot be assumed that the production or consumption of a bushel of wheat or pound of butter meant the same thing to distinct populations in disparate geographic areas.

The transplantionist works gave too much attention to the crops farms produced, and not enough to the processes required in their production, the nature of labor required to complete productive processes, where the crop was ultimately consumed or processed and how it arrived at its destination. Further, their comparative approach breaks down because it assumes that when all else had changed (the economic environment, the modes of transport, the vagaries of climate and the very social patterns by which agriculture in the Old World) both the meaning and utility of a crop or an animal remained constant. Using quantitative data on crop or animal production as a measure of the relative power of the American environment to assimilate immigrant culture creates a meaningless comparison based on a faulty assumption that modes and types of production were predicated on choice. Rather, whole systems of agriculture must be compared, analyzed and distilled into what historian Royden Loewen refers to as 'essential characteristics.'[19]

[19] Loewen's study examines Russian Mennonites in the northern Prairies of the United States and Canada. The aim of the study, like many transplantationist histories is to understand phenomena of assimilation and static cultural retention. Loewen found that cultural retention did not take the form of descriptive cultural characteristics (such as architecture or language) but social

In *Family, Church and Market: A Mennonite Community in the Old and New Worlds, 1850-1930,* Loewen concluded that the behaviors of the Mennonite communities that migrated from Russia to the plains of Canada were 'characterized by neither unilinear cultural assimilation, nor by static unswerving persistence. Rather, the majority of group members adapted to new environments in such a way that the essentials of community continued.'[20] As historians, it is important that we conceptualize agricultural systems in terms of their essential characteristics. Instead of breaking down agricultural production into quantifiable units for comparison, we must reassemble quantifiable units of flax, hogs, and real estate values and recognize that, in combination, we are more likely to recognize the essential characteristics that defined one mode of agriculture against another. This then becomes the ultimate utility of examining ethnic agricultures. By studying immigrants and the effects of enclave experiences within the corn-belt context, it proves possible to see more clearly the nature and structure of the system itself. More succinctly, understanding how different enclaves of the same cultural background deviated or accepted norms of local production underscores the restrictive nature of spatial economic relationships. At the same time, this examination offers the opportunity to get at the essential characteristics, the deep-seated cultural predilections that persisted regardless of location and outward expression of cropping or stock raising behavior. To do this, a different model of quantitative study proves necessary.

Few historians of ethnic agriculture have constructed quantitative studies that compare the effects of culture across geographic space within a broader regional

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relationships, boundaries, and values, see Royden Loewen, *Family, Church, and Market: A Mennonite Community in the Old and New Worlds, 1850-1930* (Champaign: University of Illinois Press, 1993) 262.

[20] Royden Loewen, *Family, Church, and Market: A Mennonite Community in the Old and New Worlds, 1850-1930* (Champaign: University of Illinois Press, 1993) 262.

economy. When scholars have examined multiple distinct populations intra-regionally, they frequently compare distinct cultural groups against one another rather than populations of similar ethnic background.[21] The result is that few studies to date adequately describe either the role of local market opportunities in shaping local modes of production or the interaction of ethnic cultures and location-specific market forces. The methodology employed in this work examines the role of spatial economic relationships by comparing the agricultural modes of production of ten culturally similar communities. These communities (see Figure I.1), located throughout northern and central Illinois and eastern Iowa, existed within a variety of economic contexts including the Chicago milk-shed, the cash-grain region of central Illinois, and the local Chicago fodder-hinterland.[22]

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[21] D. Aidan McQuillan comes very close to a comparative regional analysis, but the study compares French Canadian, Russian Mennonites, Swiss Immigrants and native-stock communities rather than any single group against itself across geographic space. Without cultural variables held as constant as possible, it proves impossible to comprehend the effects of localized market opportunities, see D. Aidan McQuillan *Prevailing Over Time: Ethnic Adjustment on the Kansas Prairies, 1875-1925* (Lincoln: University of Nebraska Press, 1990). Royden Loewen's study examines Russian Mennonites in the northern Prairies of the United States and Canada. The aim of the study, like many transplantationist histories is to understand phenomena of assimilation and static cultural retention. Loewen found that cultural retention did not take the form of descriptive cultural characteristics (such as architecture or language) but social relationships, boundaries, and values, see Royden Loewen, *Family, Church, and Market: A Mennonite Community in the Old and New Worlds, 1850-1930* (Champaign: University of Illinois Press, 1993).

[22] Hudson, *Making the Cornbelt*, 88-109, 151-209. Hudson admirably describes the emergence of a cash-grain (corn) region in the Midwest and its subsequent expansion into the modern day corn-belt. The Chicago milk-shed and fodder-hinterland have been less studied in monograph form. A notable exception is Edward A. Duddy, *Agriculture in the Chicago Region* (Chicago: University of Chicago Press, 1929). While representing a treasure trove of detail maps, Duddy's work is not a work of history. It is based almost entirely on 1925 census returns. By the 1920s the shift to internal combustion and away from horses within the city was well underway. Thus, the 1925 study would underestimate the full effect of the nineteenth-century city on the production of hay in its immediate environs.

The central unit of analysis in each location is a congregation of Missouri Synod Lutherans. Institutionally, the Lutheran Church, Missouri Synod (LCMS) stressed doctrines focusing on the retention of cultural distinctiveness and use of the German language.[23] LCMS communities prove ideal subjects of study because church doctrine emphasized and promoted the distinctiveness of the ethnic enclave. This sense of exaggerated identity, localized in space, presents the researcher an ideal laboratory to test the relative strength of spatial economic logic against the weight of culture by comparing the agricultural modes of production within each community both against other LCMS communities and their native-stock neighbors.

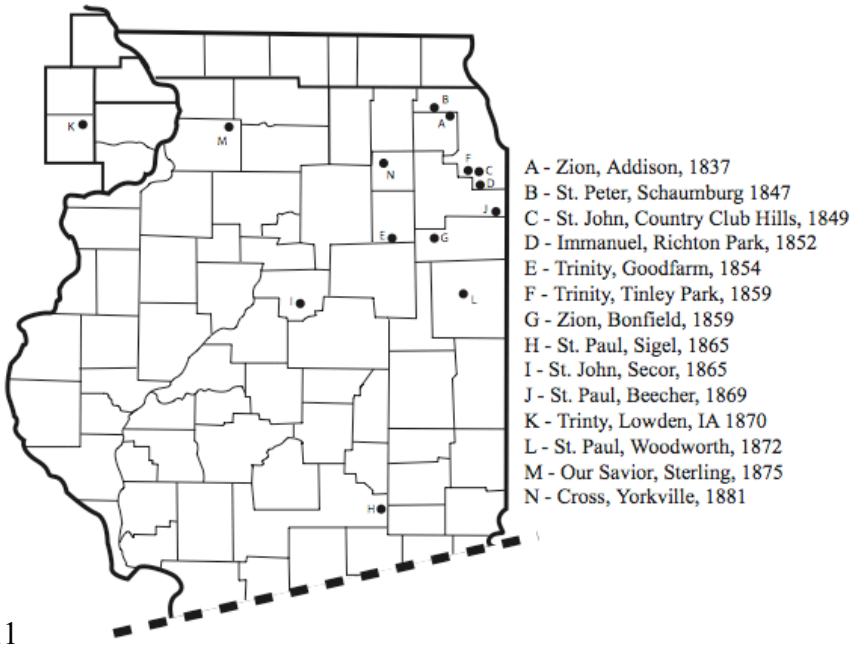

Figure I.1

[23] Carol Coburn, *Life at Four Corners: Religion, Gender, and Education in a German-Lutheran Community, 1868-1945* (Lawrence: University of Kansas Press, 1992). Coburn's study examines how the unique structure of the LCMS reinforced cultural distinction and dissuaded congregants from interacting with non-German (and non-LCMS) elements. See also, Heinrich Maurer. "The Lutheran Community and American Society: A Study in Religion As a Condition of Social Accommodation," *The American Journal of Sociology,* Vol. 34, No. 2 (Sept., 1928) 282-295. Maurer identifies the LCMS as an institution ideally adapted to insure the transmission of German culture within the American rural landscape.

This model, however, requires caution that ethno-cultural characteristics do not become *ipso facto* causes of agricultural variegation. Statistically, a data set might show a high correlation between two variables. Statistical analysis can show that it is highly unlikely that the correlation between the variables was a product of chance or sampling error. Still, the researcher must be wary that the relationship is not the result of a common prior cause. For instance, in Goodfarm Township in Grundy County, Illinois, there existed in 1880 a population of several Danish families. As a group, these Danes, more than any other population segment, emphasized a corn/hog monoculture production model. It would be all to easy to conclude that perhaps Danes assimilated very rapidly to the economic conditions of the corn-belt. However, all but one of the Danish families farmed as tenants, as the majority of other families occupied owned land. This suggests economic, not cultural, motivations as the primary agent affecting the landscape of Goodfarm Township late in the nineteenth century.

The Danes in Goodfarm Township belie the idea that culture, ethnicity or national background alone hold the explanatory vigor required to understand the creation of cultural landscapes. Landscape evolution over the course of the nineteenth-century Midwest reflected the larger economic trends and the concomitant commoditization of agricultural production. This research model suggests that spatial economic logic was fundamental in this transition, more so than any change in mentalité among agriculturalists towards profit maximization or something else. It places the emphasis on structural changes that constrained the decision-making processes and diminished the agency of individuals and families. It employs a research model that utilizes cultural variables to explore spatial and economic relationships in the creation of landscapes, and

is, in some respects, more natural than economic history. But, in the rural Midwest, the division between political economy and landscape is elusive at best.

Arguably, all the hallmarks of the modern agricultural economy existed within the upper Midwest by the end of the American Civil War.[24] The chronological breadth of this study encompasses the period in which the modern agricultural economy arrived fully-fledged. It affords both an opportunity to view how the commoditized landscape affected the rural community and to witness the beginnings of trends such as the mechanization, over production, population decline and soil degradation that have plagued the rural Midwest in fits and starts ever since.

By the Civil War, for most Midwestern farmers, the market existed as a conceptual entity rather than a physical place where goods were exchanged. It was not a transaction entered into upon equal terms for the great multitude of producers whose commoditized production passed through a small number of capitalist processors. The increasingly capitalized process of farm building coupled with inadequate or ineffective credit markets and a lack of local processing industries in rural areas drew Midwestern farmers into a modern international network of exchange and obligation. The need to service debt required monetization, a conversion of time, energy and environmental resources into cash. As such, monetization required participation in the commoditized network of exchange. The greater the energies exerted upon a farm, the more entrenched it became within the commoditized market system. Widespread competitive participation

[24] Charles A. Beard and Mary R. Beard, *The Rise of American Civilization* (New York: Macmillan, 1927); Louis M. Hacker, *The Triumph of American Capitalism: The Development of Forces in American History to the End of the Nineteenth Century* (New York: Columbia University Press, 1927).

in the commoditized market begat increasingly efficient and specialized modes of production and, ultimately, landscapes.

Monetization (a basic process upon which most economic history is thoroughly dependent) is an abstraction that can obscure as well as enlighten. Henri Lefebvre suggested the process of monetization conceals the real value of social labor and disguises social relations of exploitation and domination inherent in commodity production.[25] Indeed, the nature of commodity exchange does not imply a reciprocal exchange but rather a coercive extraction achieved by structural inequality. The structural inequality of commodity exchange, within the late nineteenth-century especially, was affected through an utter reliance by producers (a collective effort of many with little organization or political power) on a highly capitalized system (a collective effort of a relatively few individuals with a high degree of organization and political power) to access the services of the broader economy. The commoditized transportation system must thus be viewed as a hegemonic device, which simultaneously constrained and created economic opportunity. Given that this historical inquiry considers space and the role of spatial relationships as a core area of historical inquiry, it is important to give some thought to how agricultural processes worked and what farmers achieved prior to

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[25] Henri Lefebvre, Donald Nicholson-Smith trans., *The Production of Space* (Malen, MA: Blackwell Publishing, 1991) 80-81. According to Lefebvre:

> Things and products that are measured, that is to say reduced to the common measure of money, do not speak the truth about themselves. On the contrary, it is in their nature as things and products to conceal that truth. Not that they do not speak at all: they use their own language, the language of things and products, to tout the satisfaction they can supply and the needs they can meet; they use it too to lie, to dissimulate not only the amount of social labour that they contain, not only the productive labour that they embody, but also the social relationships of exploitation and domination on which they are founded. Like all languages, the languages of things is as useful for lying as it is for telling the truth. Things lie, and when, having become commodities, they lie in order to conceal their origin, namely social labour, they tend to set themselves up as absolutes.

monetization—an event that occurred outside of individual farm systems after individual investments of capital, labor and energy had been applied to the agricultural landscape. Subtracting monetization, we are left with an agricultural system comprised of space, time and energy, and perhaps a fuller understanding of the *nature* of agriculture.[26]

Monetization ascribed a value to farm products, but failed to describe how that value was accrued in any meaningful way. Agriculture has been (and remains) fundamentally, a collection of biological and natural processes managed and bent by human energy. Agricultural systems, including human labor, mechanical technology along with plant and animals species are natural systems that functioned within a larger framework of economic systems of exchange.[27] Various species required different labor patterns. The dynamic between available labor (itself a balance between family and paid labor) and the specific physical processes involved in the production of various species dictated limits in the ultimate balancing of a family farm system. Reading the cultural landscape via the family farm system develops as a two-step process. The first of which, outlined above, requires an understanding of how farmers planted, cultivated and harvested specific crops. The second requires an understanding of how those animal and plant commodities moved through space, first within the farm system itself, and later off the farm as individuals monetized commodities.

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[26] On the connectedness of space time and energy see Henri Lefebvre, Donald Nicholson-Smith trans., *The Production of Space*, 11. Lefebvre holds that the exercise of hegemony by one class over another inevitably affects space, that space can actually serve in the creation hegemony, and both the creation and use of space are actively negotiated in the dialectic of competing interests. See also, Yi Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977).

[27] As a natural system, I refer here to a construction of 'second nature' as employed by William Cronon in *Nature's Metropolis*. The idea that agriculture is natural system results from the fact that it harnesses natural processes, not that it is or was in any way a naturally occurring phenomenon or ecosystem.

In the most basic agricultural accounting, plants convert mineral and solar energy into caloric energy. Humans, hogs, and various other omnivores acquire the bulk of this energy eventually in the form of plant seeds. Ruminants and other herbivores consume energy in a less concentrated form through the consumption of greater amounts calorically less dense cellulosic plant fiber. Livestock concentrate and convert caloric energy into forms more useful for human consumption. Meat animals concentrate energy in the form of fat and protein (flesh), dairying animals in milk fat, and in the case of draft animals, the desired energy output takes the form of motive power. Like most energy transfers, there is much energy lost in the conversion process. The expenditure of energy by moving animals results in slower weight gain—hence the attempt to limit movement and increase the efficiency of the energy-converting unit in modern confinement models of production agriculture.[28] The actual energy entailed in the production and stored in the substance of a commodity is not directly monetized. The exchange value of every commodity is a social construction that arises not solely out of supply and demand, but the efficiency through which commodities move from production to consumption.

Farmers plant crops and nurture livestock as a means of converting energy from the sun and mineral nutrients from the soil into more useable forms. To maximize the conversion into vegetative matter, plants require nutrients, both mineral and chemical. Plants derive some of their mineral requirements from the natural break down of geologic material in the soil. Plant roots absorb minerals by putting roots down into the soil. Other essential chemical requirements, namely nitrogen, exist primarily as atmospheric gas. Throughout the nineteenth century, the only means of fixing atmospheric nitrogen in the

[28] Terence J. Centner, *Empty Pastures: Confined Animals and the Transformation of the Rural Landscape* (Champaign: University of Illinois Press, 2004).

soil was through the rotation of leguminous crops, the application of manures, long fallow periods or some combination thereof. Types of manure included green plant matter plowed under the soil, fossilized nitrates in the form of guano, collected stable manures, or a direct application of living livestock to crop fields. Very few American farmers practiced the required crop rotations and manuring schedules necessary to maintain the maximum of efficiency of an agricultural system.[29] From ecological perspective, most nineteenth-century farmers profited from the depreciation of natural energy systems. Stores of soil nutrients in virgin soil proved capable of this form of nutrient mining in many locations for decades, but ultimately the soil nutrients required a subsidy achieved through synthesized nutrients (mainly nitrogen) in the twentieth century in order to remain productive.[30] In a final accounting, synthesized and fossilized fertilizers fail to add organic matter to the soil. Over time, the resultant soil proves little more than a medium for holding plant roots in place. Without organic matter and

[29] Among American historians, Brian Donahue has done some of the most innovative work studying the environmental sustainability of agricultural systems. His work on nineteenth-century Concord, Massachusetts challenges the older orthodoxy that New England farmers, in their pursuit of profit, had begun to strain the carrying capacity of the land by the turn of the nineteenth century. Donahue's very thorough methodology focuses on the regenerative effect of wet meadows and the methods by which Concord residents apportioned land to illustrate that it was not until the mid nineteenth century that population pressures and new market access caused Concord farmers to undercut their own stability by plowing under the meadows and cutting too far into woodlands. See Brian Donahue, *The Great Meadow: Farmers and the Land in Colonial Concord* (New Haven: Yale University Press 2004). Donahue's work challenged some parts an earlier environmental interpretation of New England agriculture, see William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983). See also, Steven Stoll, *Larding the Lean Earth: Soil and Society and Nineteenth Century America* (New York: Hill and Wang, 2002).

[30] See, Vaclav Smil, *Enriching The Earth: Fritz Haber, Carl Bosch, and the Transformation of World Food Production* (Cambridge: MIT Press, 2004).

accompanying soil biota, the porosity of soil increases, resulting in faster rates of run-off and accompanying erosion.[31]

Notwithstanding soil depletion, farm systems ultimately achieved a spatial balance. Since the amount of space and the physical characteristics of its soil remained relatively constant in the short term, every change in farm production required a rebalancing of the farm system. If, for example, a farm increased its production of hogs, it needed to increase its the amount of calories available for consumption by the new hogs. To achieve this caloric increase, a farm must either adjust the balance of grain production in favor of corn, convert grassland to cropland or purchase corn on the market. The conversion of grassland frequently required the application of field tiles that altered the hydrology and the nutrient cycling ability of the soil.[32] Due to their different dietary needs and assuming that feed stocks were not purchased from off the farm, an intensification of hog production implied a de-emphasis of dairying and a corresponding loss of manure. Short of purchasing more land or improving existing land, spatial accounting suggests that a quick response to market stimulus was no simple matter. It

[31] Steven Stoll, *Larding the Lean Earth: Soil and Society in Nineteenth Century America* (New York: Hill and Wang, 2002). Stoll's work provides a valuable historical approach to soil ecology, but the work does not really address the commoditized landscape of the post Civil War Midwest. More work needs to be done on the ways in which drainage tile were employed throughout the Midwest in the nineteenth and twentieth centuries, which radically altered the landscape. Field tiles role in changing the hydrology, abetting soil erosion and eliminating wetland environments along with the last vestiges of tall grass prairie represents a revolutionary change which challenges the initial plow up of prairie soils in magnitude of importance.

[32] On soil hydrology and nutrient cycling see Donahue, *The Great Meadow*, 60-70. This particular passage references the relatively more sophisticated mode of water management practiced in English husbandry. In general, English and especially Dutch agricultural historians have been much more attentive to how farmers have managed water. Scholars such as Jan de Vries have suggested it was critical to the specialization of agriculture and emergence of modern urban areas in Holland. See, Jan de Vries, *The Dutch Rural Economy in the Golden Age, 1500-1700* (New Haven: Yale University Press, 1974).

required a rebalancing of the crop livestock regime and often a reorganization of capital assets in the form of farm buildings.

The nineteenth-century farm existed as a spatial system engaged in the conversion of energy into increasingly useable forms. Thus far, this accounting model has suggested how energy was converted, but not how it was applied to affect the conversion. Energy exists in two basic forms, kinetic and potential. Harvested grains and animal flesh represent the latter form. Farm laborers, human and draft animal, applied kinetic energy to the system by moving the stored energy within plant matter and animal flesh across the spatial system of a farm. A horse only added value to the spatial system when it moved, when it pulled a plow or transported a load of grain from one location to another. Crops, a form of potential energy, only increased in utility value through the application of kinetic energy: the picking, transporting and processing of the crop. By the mid nineteenth century, a profound transformation in the nature of agriculture was well underway as fossilized energy was being increasingly applied in the form of steam technology.

Agricultural products increased in value as the potential caloric energy they contained was converted into more easily-useable forms. Each step of a specific production process functioned toward increasing the use value. Within the spatial system of a farm, specific locations performed distinct functions in the conversion of energy and the aggregation of use value—and ultimately exchange value. In the process of accruing value, agricultural products moved from location to location on the farm through the application of human energy. Some locations, such as fields, meadows and orchards served as areas of primary energy conversion through natural processes described earlier.

The built environment consisted of structures designed to achieve specific functions within the spatial system of energy transfer. Structures such as root cellars, smoke houses, milk houses and granaries served as storage spaces that arrested otherwise natural process, which tended to erode the potential energy of agricultural commodities. Other structures, such as a hog house, milking parlor or farmhouse kitchen, served as locations of energy conversion, in which energy was transformed from one form to another. A barn served several functions. Grain and hay could be stored safe from the weather, but grain was also processed on the threshing floor, thereby increasing its use value. From the granary, it might be moved again to a different location within the barn where it was fed to horses or dairy cattle, a form of energy consumption and conversion. The farm, as a spatial system, consisted of production, storage, conversion and consumption nodes that functioned together to convert solar energy into consumable commodities. Movement through space applied by human energy brought the parts of the system together in a functioning whole.

The construction and uses of built spaces upon the farm required the application of capital. In the corn-belt context, materials with which to construct fences, outbuildings and structures were not locally available. The raw materials for the building and maintenance of the physical farm system helped tie the farm to the commoditized network of exchange. Corn-belt farmers seeking to increase or improve the efficiency of the farm system purchased the raw materials needed to affect the improvement only through the monetization of the system. The characteristics of space/value relationships within farm systems will be important in subsequent chapters as the efficiency of cultural modes of production are analyzed in a comparative context.

After the farm labor supply had maximized the use value of an agricultural commodity it necessarily left the spatial system of the farm before it could be monetized. The implications of the relatively simple process of applying force to overcome natural phenomena of gravity, friction and distance loom large in this work. The most efficient means of transportation were those that required the least application of energy per unit of weight or volume in transit between two specific locations. Due to vagaries of geography and the physical pattern of human settlement, the shortest physical distance may not have been the most efficient, thus "economic space" exists as a measure of distance divorced from objective measures of distance. External combustion technology, dependent upon the consumption of fossilized energy, resulted in major gains in efficiency over earlier modes of overland transportation. This network of railroads required immense amounts of capital to construct and maintain. Use of the network by farmers, who required the services of the system to overcome physical distance, required monetary participation. On the other hand, a farmer hauling a load of oats to a local market via wagon engaged in a form of transport reliant upon human and animal energy. Not requiring the monetization of farm production prior to its transaction, this form of movement constituted participation in a non-monetized transportation network. The distance that farm produce moved in the non-monetized network was not measured in dollars, but rather time and opportunity.

Transportation networks aggregated energy (the commoditized produce of vast physical spaces) into spatial networks of movement. Non-monetized transportation networks consisting of farm and market roads appeared on the landscape as easily-accessible and diffuse networks, spread broadly across physical space and converging on

market centers or transportation hubs with access to long range shipping facilities.[33] The railroad network, on the other hand, represented a much more concentrated network of energy flows. A capital-intensive network of rails, rolling stock, stations and elevating/loading facilities comprised the rail network. The immense amount of invested capital in the monetized transportation network required a vastly larger tributary region in order to maintain economic efficiency. In most cases, non-monetized networks of farm to market roads subsidized the rail network by providing access to shipping hubs in rural areas.

The concentration of movement within the rail network proved efficient, but inflexible, at transporting commodities across distances. The invested capital moved limited commodities in limited directions--efficient movement constrained space. By the latter half of the nineteenth century, the inertia of this capital system offered a competitive advantage in specific areas for specific crops and thus contributed significantly to the trend of specialization occurring across the upper Midwest. Farmers bound to this transportation network found themselves bound as well to international commodity markets. All the while, they continued to utilize non-monetized transportation networks to take advantage of local market opportunities. Within these two systems of movement through space existed the economic rational that promoted either agricultural specialization or diversified production.

The commodity infrastructure model and local market model existed simultaneously in corn-belt agriculture in the decades following the Civil War. Farmers

[33] County roads, were not free of course, but most nineteenth-century rural roads were a product of road taxes that were not paid in currency, but worked out in a form of communal labor exchange. This changed with the paving of roads in the twentieth century. See Hal Barron, *Mixed Harvest: The Second Great Transformation in the Rural North, 1870-1930* (Chapel Hill: University of North Carolina Press, 1997) 19-42.

frequently participated in both modes of production simultaneously. Both models involved commodity production intended almost exclusively for the market, but while one predicted the future of corn-belt agriculture, the other harkened back to its past. The commodity infrastructure model predicted an increasing intensity of specialized production wherein increases in profit margin derived from increased yield per acre, physical expansion and the resultant depopulation of rural areas. Localized production, on the other hand, required older modes of mixed husbandry and relied more fully upon non-monetized family labor.

Throughout this work, examples will highlight how local agricultural markets created exceptions to the corn-belt paradigm. This work will go on to interpret how these matrices of exchange, and the cultural paradigm of production they engendered, affected the ways in which groups of individuals ordered their physical landscape, their built environment, and ultimately ascribed meaning to a spatial community. This study will then refocus, examining the implications of a localized sense of space on agricultural modes of production. In other words, it will attempt to describe how spatial relationships affected a mode of agricultural production, how modes of production affected conceptualizations of local space, and then how those conceptions of space reinforced or changed modes of production.

NOTE ON METHOD:

This study relies heavily upon quantitative data from the United States Census, especially the Agricultural Schedule. In constructing the database, every farm in every township was included; no samples were taken. As such, statistical methods that measure

the probability that numerical differences are due to sampling error are not employed. Rather, quantitative data will be used to show the actual differences in production methods employed by distinct populations. The extent to which differences in aggregated populations is understood as significant remains a judgment of the author and is open to interpretation by the reader. [34]

The purpose of the quantitative data is not to ascribe a cultural mode of production to a given ethnic group. Rather, the purpose is to ascertain local modes of production and identify essential characteristics of distinct populations. For instance, rather than proving or disproving a supposed cultural preference for dairy cattle over beef cattle on German-American farms, this study recognizes that the predilection may be expressed in one specific economically conducive environment, and not in another, and attempts to understand the underlying cultural characteristic that might be represented by the processes involved in raising dairy cattle.[35] To this end, statistical methodology will not be employed in an attempt to divine a relationship between a binary status (such as ethnicity) and the acres of corn produced in a given township. Rather, quantitative data is most frequently employed to understand quantitative differences between categories, that is interpretation inferred from relationships between categories of investigation. This study is based on the behaviors of individuals who left few written documents that

[34] For a full discussion on the opportunities and pitfalls of using agricultural census records as a means of historical inquiry, see Frederick A. Bode and Donald E. Ginter, *Farm Tenancy and the Census in Antebellum Georgia* (Athens: University of Georgia Press, 1986) 11-44. See also, Jeremy Atack and Fred Bateman, *To Their Own Soil Agriculture in the Antebellum North* (Ames: Iowa State University Press, 1987) 118 - 120. Both works discuss, primarily, the 1860 census.
[35] Myron Gutmann, Sara Pullum-Pinon, Susan Gonzalez Baker and Ingrid Burke, 'German-Origin Settlement and Agricultural Land Use in the Twentieth-Century Great Plains' in Helbich, Wolfgang and Kamphoefner, Walter, Eds. *German-American Immigration and Ethnicity in Comparative Perspective,* (Madison: Max Kade Institute for German-American Studies. 2004) 138-168.

describe what they thought or felt. Instead, it relies on records that describe what they did and the footprints they left upon the physical environment. Quantitative data is relied upon to demonstrate differences among populations in the landscapes they created and to reconstruct what the land looked like. It is from this vantage point, which more important questions can be asked about the peculiarities of localité that informed those variegations.

CHAPTER 1

SUB-REGIONAL PATTERNS

From the Chicago Daily Tribune, December 21, 1857

> **Cold-Blooded Murder Near Blue Island.—**
>
> On last Friday forenoon, a most shocking and cold-blooded murder came to light in the town of Worth, near Blue Island, in this county. The first knowledge of the murder was the discovery of dead body of a man lying in the grass near the roadside, about three miles north of the village. In the road opposite the spot where the body was found, was a large pool of blood, and leading from it directly to the body was a bloody trail. Our informant went to the spot in company with 'Squire Duensing and a number of the citizens of the village. They found the body fifty-five paces west of the road, on section 17, township 37,14; it lay upon its face, with the feet toward the road. On turning the body over, a face presented a shocking sight. A ball hole was found in the socket of the left eye; a ball hole was also found in the hat, at the band, and the band was slightly burned, as though the hat had been jerked down over the face before the shot was fired.
>
> The body was recognized as that of a Mr. Lauermann, a German farmer, who resides on Western Prairie. Lauermann was on his way to this city with a two-horse team and a load of oats. He left the hotel at Blue Island, where he head stayed the night previous, about daylight on Friday morning for this city.
>
> A young man about 18 years of age, well dressed, having a gold watch and chain, stayed at the same hotel the same night, and had got permission to ride into the city with Lauermann, saying that he was out of money. This man is supposed to have done the murder. He is described as a Switzer, about 18 or 20 years of age' he wore black clothes, and displayed a gold or galvanized watch and chain at the hotel the night previous to the murder. It was supposed by the citizens of Blue Island that he came on to this city; but the officers here are under the impression that he turned off in some other direction. [36]

History unfolds as contingencies untangle over time and across space. Fate had little to do with the unfortunate end met by Mr. Lauermann on the cold road to Chicago. And yet, Lauermann was not simply a victim of circumstance. Lauermann farmed in a specific location, and in a specific manner, making cropping decisions within a network of constraints and opportunities implied by location. The decisions Lauermann made both informed and determined his movement within well-established spatial patterns. The

[36] No Title, *Chicago Daily Tribune*, December 21, 1857, 1.

young Switzer suspected of, and later arrested for, the murder moved in specific spatial patterns too.[37] Clad in dark clothes and with gold watch chain across his waistcoat, his path intersected with the pattern of the old German farmer one evening in a Blue Island hotel. What unfolded the next day was not predictable, but neither was it wholly surprising. The market road to Chicago, the wagon box loaded with oats, the two horse team and the driver—all of them together represent a profile that described the routine of thousands of farmers within Chicago's fodder hinterland. It could have been any of them.

Lauermann hauled oats to Chicago because he farmed in an environment of specific opportunities and constraints. Many farmers made similar decisions to market their crops directly in the city thereby utilizing the non-monetized transportation networks of farm to market roads.[38] As a result, farmers in the urban shadow created cultural landscapes that mirrored the market opportunities afforded by the human and equine population of the great metropolis just beyond their horizon.[39] Other farmers

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[37] "The Blue Island Murderer," *Chicago Daily Tribune*, December 22, 1857, 1.
Direct evidence of the non-monetized transportation networks utilized by farmers in Chicago's rural hinterland appeared infrequently in the historic record. In newspapers, the most frequent documentation resulted when farmers were attacked or swindled on the road to Chicago. See also, "Counterfeit Money for Good Grain" *Chicago Daily Tribune*, May 10, 1867, 4.
"Suburban Tragedy" *Chicago Daily Tribune*, November 16, 1884, 13.
In "Suburban Tragedy" a German farmer and his wife had delivered a load of potatoes and a dressed hog, which netted $23 and purchased three ducks on their return home to their farm west of Des Plaines on Higgins Road. The couple was murdered upon their return.

[38] Farm to market roads were non-monetized in the sense that they did not require cash outlay on a per-use basis. Road taxes, of course, did exist. Rural inhabitants frequently "paid" their road in labor upon the roads. Rural road maintenance was administered at the level of township government and frequently entailed a high degree of local autonomy. For more, see, Hal Baron, *Mixed Harvest: The Second Great Transformation in the Rural North, 1870-1930* (Chapel Hill: University of North Carolina Press, 1997), 19-42.

[39] For the purposes of this work, cultural landscape refers to a landscape resultant from the exchange of human energy and natural processes. A core question addressed in the first two chapters is if, when, and how can different culture affect changes within a cultural landscape shaped largely by an economic rationale. Otto Schluter first used the term in an academic setting in 1908. Carl Sauer promoted the idea of cultural landscapes and defined it as follows: "The cultural landscape is fashioned from a natural landscape by a cultural group. Culture is the agent,

chose a more specialized, often more lucrative and generally riskier mode of production. Among these two groups of agriculturalists, there existed a choice in the type and style of agriculture they would engage in. The decision between modes of production allowed the two groups to order their family labor differently and assume different amounts of economic risk. The agency exercised by the farmers of Chicago's fodder hinterland did not exist everywhere; it existed as a specific condition of location on the fringe of the city. As we shall see, the spatial logic of capital inhibited the diversity of opportunity in most other locations across the corn-belt of Illinois and, no doubt, similar locations across the upper Midwest. The following chapter unfolds as an examination into the patterns of agriculture in mid nineteenth-century corn-belt and the exceptions to them.

PATTERNS

The major hallmarks of modern agriculture emerged and matured in the American Midwest between 1850 and 1880. Farms increasingly relied on capital investment in land and mechanical technology, a commoditized market infrastructure of railroads and elevators and an increased presence of state and federal government. Lumber cut in the timberlands of Michigan and Wisconsin and mass-produced goods moved west along the ever-expanding network of rails and roads while specially designed rail cars carried corn, hogs, and wheat back to the market cities such as Chicago and St. Louis. The *nature* of this commodity exchange revolutionized the flora and fauna of the prairie landscape in a few short decades, leaving in its wake the familiar patchwork of domestic plants and animals known collectively as the corn-belt.

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the natural are the medium, the cultural landscape is the result." See, Carl Sauer. "The Morphology of Landscape" *University of California Publications in Geography* 22 (1925): 19-53.

From a birds-eye perspective, crops and livestock formed the Midwestern landscape in the familiar checkerboard pattern of an imposed spatial logic, a physical manifestation of the region's dominant political economy. The denizens of the corn-belt, both consumers and producers alike, wrought a landscape dominated by corn, hogs and, to a lesser extent, beeves within the strict confines of this commoditized market structure. Reliant on cash incomes to purchase the necessities of a thoroughly modern life, most mid nineteenth-century Midwesterners grew salable goods that lent themselves to long distance shipping and justified its costs. Hogs and beef fattened with corn frequently proved economically rewarding and easy to move to urban and international markets.[40] This well-established analysis of the Midwestern political economy offers a generally accurate descriptive tool in understanding the market forces that shaped the patterns of Midwestern landscape, but only from a birds-eye viewpoint. The simplicity of this pattern, as a static image, masked the fundamental changes occurring within it.

The basic formula of fattening hogs and cattle on corn existed across the central and almost all of northern Illinois by 1880. The 'belt' had been spreading northward from its base in central Illinois beginning before 1850 due in no small part to the emergence of overland transportation networks. However, within the corn-belt context of northern and central Illinois, sub-regional modes of agricultural production existed; 'corn-belt' suffers as a descriptive term from a lack of specificity. In the immediate environs of Chicago, in

[40] Cronon's characterization of the development of the commoditized landscape and emergence of the corn-belt details the overall transition of the landscape, but leaves little room for individual action or local differentiation. The effects of gender and ethnicity on localized landscapes is not presented, see William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: Norton, 1991). See also: Allen Allan Bogue, *From Prairie Belt to Corn Belt: Farming on the Illinois and Iowa Prairies in the Nineteenth Century* (Chicago: University of Chicago Press, 1963). and John Hudson, *Making the Corn Belt: A Geographical History of Middle-Western Agriculture* (Bloomington and Indianapolis: Indiana University Press, 1994).

Cook and DuPage counties, the equine population of the city created a market for fodder and resulted in market farming of hay and oats. Extending westward and northward, and including the fodder hinterland, Chicago's regional milk shed developed as processing facilities grew up alongside the expanding rail network. In east central Illinois a cash-grain region in which corn was raised as primarily as a commodity grain rather than feed stock-emerged as early as 1860. Further, within each of the sub-regions, opportunity to produce for local manufacturers of rope, linseed oil or malt created isolated pockets of divergence from the corn-belt paradigm. These distinct sub-regional modes of production colored the patterns of everyday life for ordinary folk across Illinois by shaping the rhythms of labor and the movement of exchange. Each sub-region represented a locally specific dynamic response to the constraints and opportunities of the commoditized market. This study seeks to understand cultural responses to the commoditized market structure within the various sub-regions.

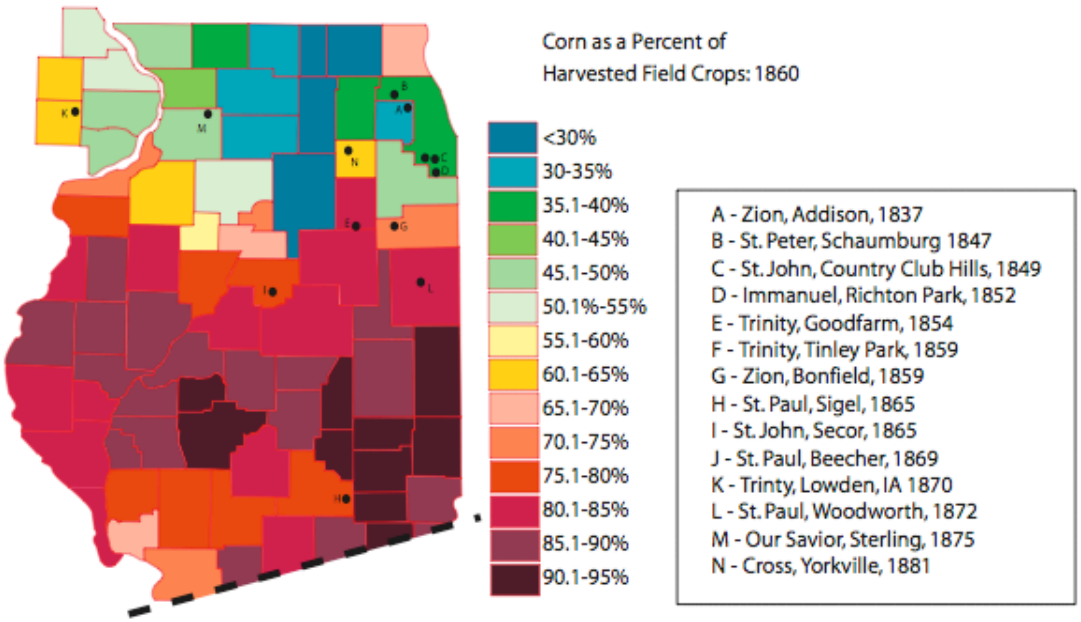

Figure 1.1

THE 'CORN-BELT': 1860

Zea Mays, corn in the common vernacular, dominated the landscape of the upper Midwest in the mid nineteenth century. Figure 1.1 illustrates the extent to which corn spread across the landscape of Illinois in the 1859 crop year.[41] The various colors in Figure 1.1 show the concentration of corn as a percentage of total harvested field grains such as wheat, oats, barley and rye. Notably, potatoes, fiber crops, and other minor truck crops are not included in the calculations from which this map was derived. The image that emerges from the numbers shows that by 1860, a definite pattern existed upon the Midwestern landscape. What came to be known as the corn-belt stretched from Indiana to Iowa across the mid-section of Illinois. While Figure 1.1 demonstrates the importance of corn in the Midwestern economy, it fails to communicate the form or the manner in which corn crops reached market. Farmers and their wives fed corn to livestock (usually hogs), which were ultimately slaughtered in Chicago or one of many smaller

[41] John Hudson, *Making the Corn Belt: A Geographical History of Middle-Western Agriculture* (Bloomington and Indianapolis: Indiana University Press, 1994). Hudson uses the criteria of 7.5 bushels of corn per acre of improved land and 18.5 bushels of corn per hog and beef cattle as averages that define counties included in his map of the corn belt. This methodology is generally accurate, but does little to delineate scale. The maps included in this chapter that illustrate corn as a percentage of total grain crop generally mirror the Hudson's findings both in the initial location of the corn belt and its northward migration. Hudson places the emergence of the corn-belt as a definable geographic phenomenon in Illinois by 1850. Hudson also correctly notes that the early corn-belt had very little to do with the emergence of Chicago as a commercial city. The initial orientation of the corn-belt faced St. Louis (thus the early intensity of cultivation in the counties along the Illinois and other rivers of the Mississippi Valley). While Hudson notes the emergence of the canal and eventual rail network in Chicago's rise to importance, he does not attribute the expanding rail network to the northward spread of the corn-belt or the intensification of agriculture it brought with it as the corn belt transitioned from a stock feeding region to a cash grain region.

Figure 1.1 created by author, based on data from:
Agriculture of The United States of America in 1860; Compiled from the Original Returns of The Eighth Census. (Washington: Government Printing Office, 1864), 30-53.

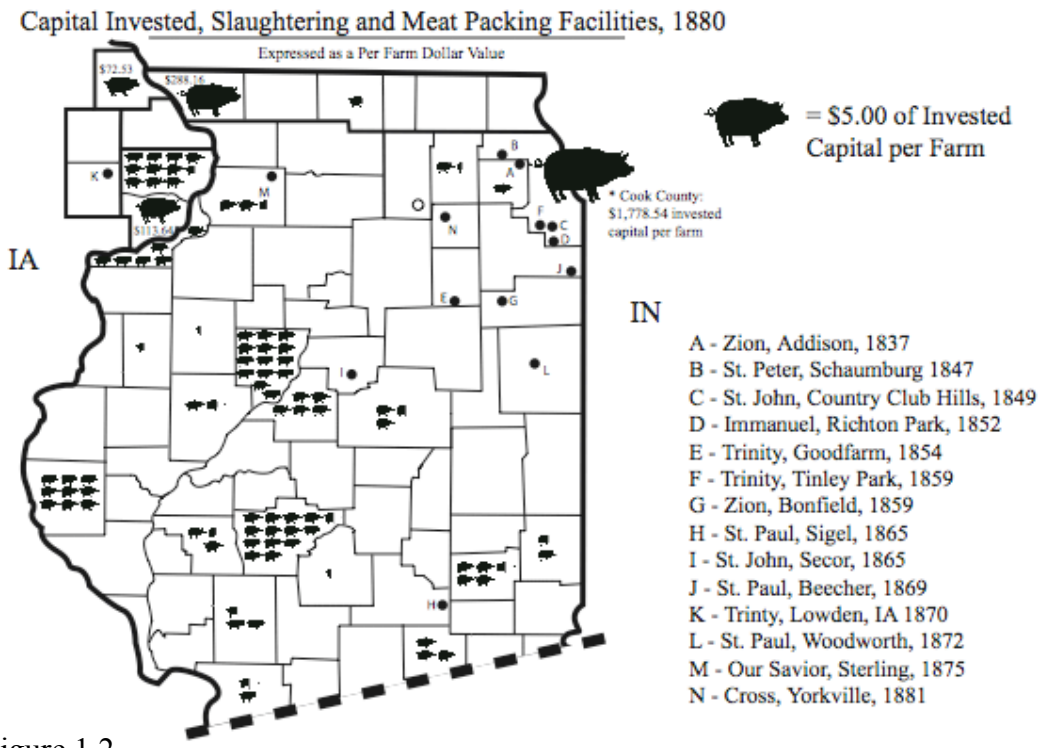

Figure 1.2

facilities spread across Illinois (see Figure 1.2). The development of transportation infrastructure also allowed for an increasing sale of corn, not in the form of pork, but as a commodity in and of itself.[42] Whether corn was produced as a commodity for sale, or converted into animal flesh is an important distinction for our purposes. Both modes of agriculture existed in 1859. Most farmers combined both stock raising and commodity grain production in a relative balance, one that in many areas increasingly skewed toward commodity production. Mixed husbandry represented an age-old method of agriculture, but it was not the model that would win out in the Illinois corn-belt. Cash-grain farming predicted the future of agriculture in Illinois.

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[42] Figure 1.2 compiled by author based on data from:
Report on the Manufactures of the United States at the Tenth Census. (Washington: Government Printing Office, 1883), 211-240.

The counties of east-central Illinois demonstrated an extreme reliance upon corn with overall concentrations above ninety percent.[43] Historical geographer John Hudson identifies this as the birthplace of the cash-grain sub-region in Illinois where production first transitioned from livestock feeding to grain production for commodity exchange. Locating the cash-grain sub-region geographically is achieved by dividing the total bushels of corn produced in a county by the combined number of beef animals and swine. In all counties, hogs far outnumbered cattle in both actual numbers and the amount of corn consumed. Figure 1.3 shows the bushels of corn produced relative to the number of hogs and beef animals that consumed it. The map clearly shows that farmers in east central Illinois were growing an excess of corn. In fact, some counties produced an average of more than 80 bushels per animal, more than four times the amount required to fatten a hog.[44] It is important to remember that the census of agriculture offers only a snapshot of a dynamic process. Farmers could respond to sustained low market for corn by increasing the number of hogs produced. It's a relationship agricultural economists refer to as the corn hog ratio.[45] Given the large litter sizes of hogs, their proclivity for reproducing multiple times per year, their rapid rate of growth and their relatively low cost of shelter, the line between cash-grain and mixed

[43] Figure 1.3 created by author, based on data from:
Agriculture of The United States of America in 1860; Compiled from the Original Returns of The Eighth Census. (Washington: Government Printing Office, 1864) 30-53.

[44] An average BPHP figure helps describe the broader sub-regional trend, but proves almost useless at predicting behavior at the local level. Throughout the sub-region many farmers maintained a greater or lesser reliance upon stock raising. Still, averages do reveal that a larger number of farmers within either sub-region trended toward a given sub-regional mode of agriculture.

[45] The corn hog ratio in rough form is obtained by dividing the price of pork per hundredweight and dividing it by the price of corn. The higher the price of pork relative to the price of feed grain the higher the index number and the greater profit in raising pork as opposed to selling grain.

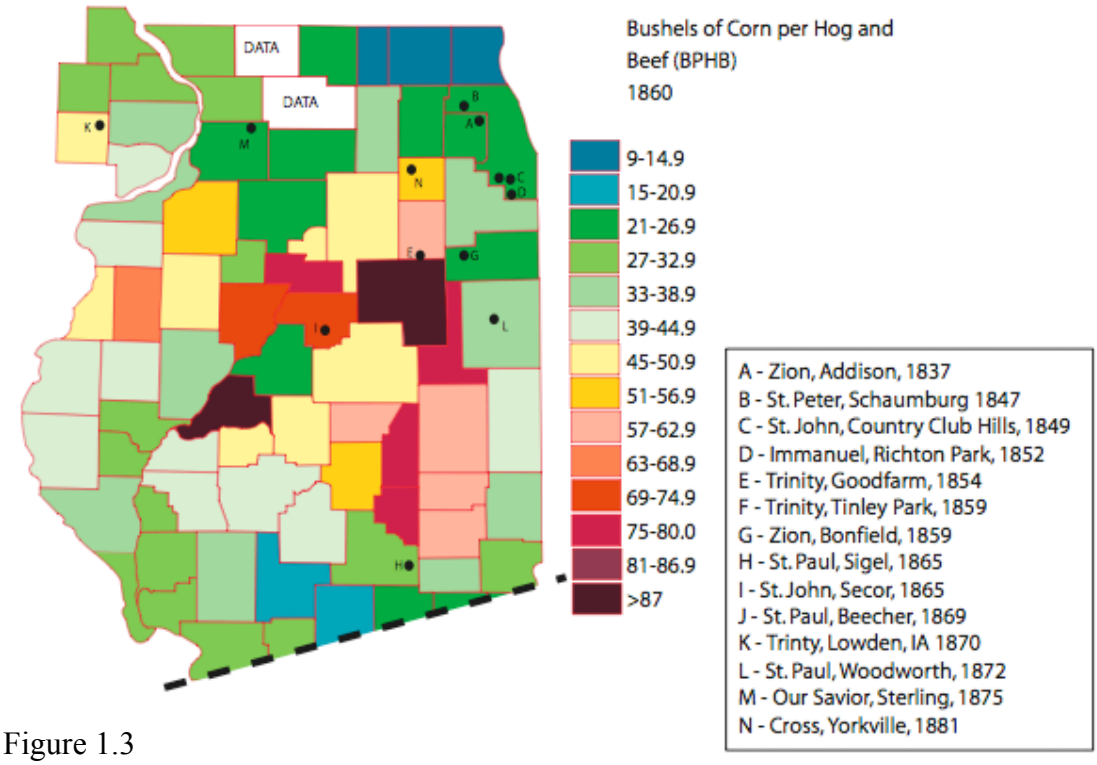

Figure 1.3

husbandry was a fuzzy one that from year to year. Nonetheless, a distinct trend towards specialization and intensification of grain farming was evident as of 1859 and, as we shall see, continued into the future.

Heading north from central Illinois the traveler in 1859 saw less corn and more dairy cattle (see Figure 1.4).[46] The dairy cattle lolling in the pastures of the countryside were only sometimes recognizable as blooded stock. More often, the dairy cattle were dual purpose animals, red, black, or some combination thereof, which produced less than a gallon per day of relatively low-fat milk.[47] American farmers had begun importing Jersey and Holstein-Friesen cattle, but they were expensive and still rare in the West.

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[46] Figure 1.4 created by author, based on data from:
Agriculture of The United States of America in 1860; Compiled from the Original Returns of The Eighth Census. (Washington: Government Printing Office, 1864), 30-53.

[47] For example, the 1873 Probate Inventory of the Johann Sunderlage estate lists six red cows between eight and fifteen years old, one ten year old black cow, four spotted cows that were five

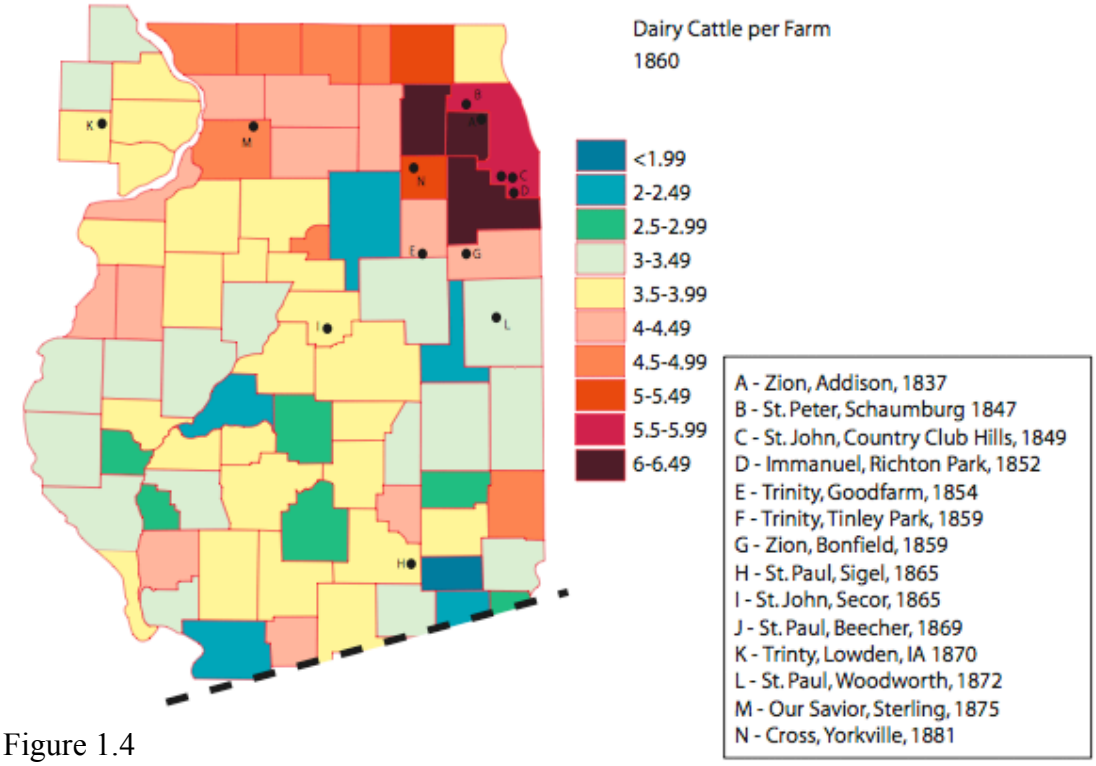

Figure 1.4

Farm workers extracted the milk-fat from the butter in the form of cream and converted it, through sometimes-Herculean effort, into butter, a product with a much longer shelf life than raw milk. Butter tended to traffic locally, but elevated numbers of dairy cattle in the collar counties of Chicago suggests a higher production of butter for the urban market.

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years old, three red cows that were five years and one spotted cow that was six years old. The motley is notable first because it was high number of older cattle beyond their productive prime. Theoretically, the spotted cattle could have referred to a Holstein-Friesen, but the values don't suggest this. The description of the remainder of the cattle suggests that they were not blooded stock. Census statistics demonstrate lower than average milk production per-cow across most of Schaumburg in 1879 support the supposition that most ethnic farmers had yet to engage in breed improvement in any substantial manner. Dairy production was an important part of overall agricultural production, but none were dairy farms in the modern sense of the world. Unpublished Probate Inventory, Johann Sunderlage, 1873. Volkening Heritage Farm at Spring Valley, Archives. Schaumburg, Illinois.

Corn farming did not preclude dairy farming. Dairy cattle could digest corn, but the dairy cattle of 1859 did not have the same protein requirements (corn has a higher protein content than other feed grains) as modern-dairy cattle. Dairy cattle in 1859 subsisted mainly on hay, their feed augmented during their milking cycle with grain of some sort, but not necessarily corn. While pit silos had existed for hundreds of years, as of 1859, the widespread use of vertical stave silos remained a few years in the future. Fodder chopping technology, and the mechanisms that powered them were not commonplace, so corn silage was not a major source of fodder for Illinois dairy herds. In the absence of processing and storage technology, farmers sometimes utilized the vegetative part of the corn plant as a form of fodder for cattle herds, but rarely was it relied upon.[48]

Environmental conditions played a limited role in the distribution of dairy farming. In the un glaciated extreme northwest corner of the state, natural topography limited row crop agriculture and made cattle raising more attractive. The slightly shorter growing season of northern Illinois had a minor affect on corn yields; the increased dairy production in the northern tier of counties is better explained by the concomitant competition of western wheat and expansion of rail networks into the sub-region. In competition with wheat from western farms, northern Illinois farmers placed a greater emphasis on dairy cattle, whose production traveled to urban markets via the emerging railroad network establishing the pattern of the Chicago milk shed for decades to follow.

[48] Photographic evidence from the late nineteenth century shows that corn stalks were being fed on some Schaumburg farm. It appears that un shredded stalks were strewn in dry lots during the winter to provide something for cattle to chew on, even if it lacked nutritional value. Unpublished photographs of the Boeger farmstead. Volkening Heritage Farm at Spring Valley, Archives. Schaumburg, IL.

In Chicago's immediate hinterland especially, farm men and women had begun to place a greater emphasis on commercial dairying, but across most of the sub-region dairying remained one part of a relatively diverse agricultural portfolio that included corn, hogs, oats, poultry, some beef, and not infrequently wheat or even barley.

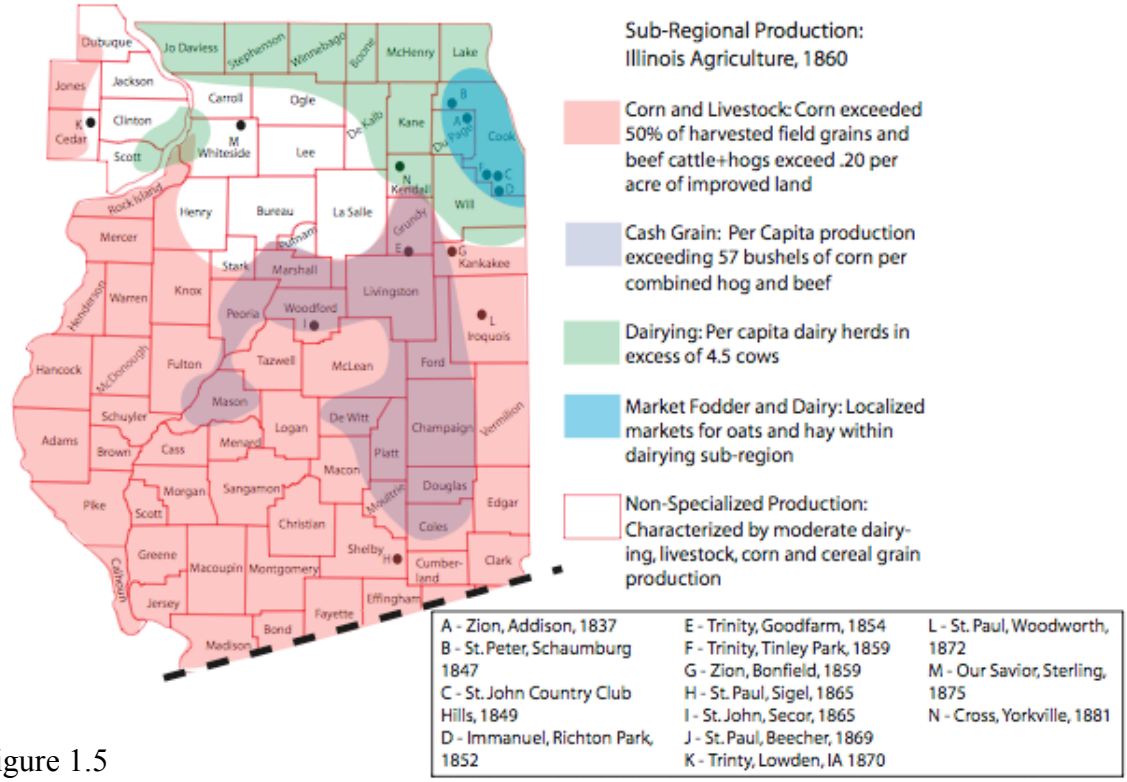

Figure 1.5

By combining the information on corn, hogs, beef and dairy cattle, the outlines of Illinois agriculture in 1859 begin to emerge.[49] The boundaries illustrated in Figure 1.5 should not be viewed as absolute lines of demarcation, but rather suggestive zones in which sub-regional archetypes were most likely practiced. Many farms outside the cash-grain region sold corn on the commodities market; the cash-grain region in Figure 1.5 depicts an area where the majority of farmers not only produced an excess, but made

[49] Figure 1.5 created by author, based on data from:
Agriculture of The United States of America in 1860; Compiled from the Original Returns of The Eighth Census. (Washington: Government Printing Office, 1864), 30-53.

grain farming their emphasis. The data used to create the sub-regional zones were aggregated at the county level. As such, it is possible to find local deviation from sub-regional norms. While pattern variance no doubt occurred at the local and individual level, Figure 1.5 illustrates important trends that changed over time and across geographic space.

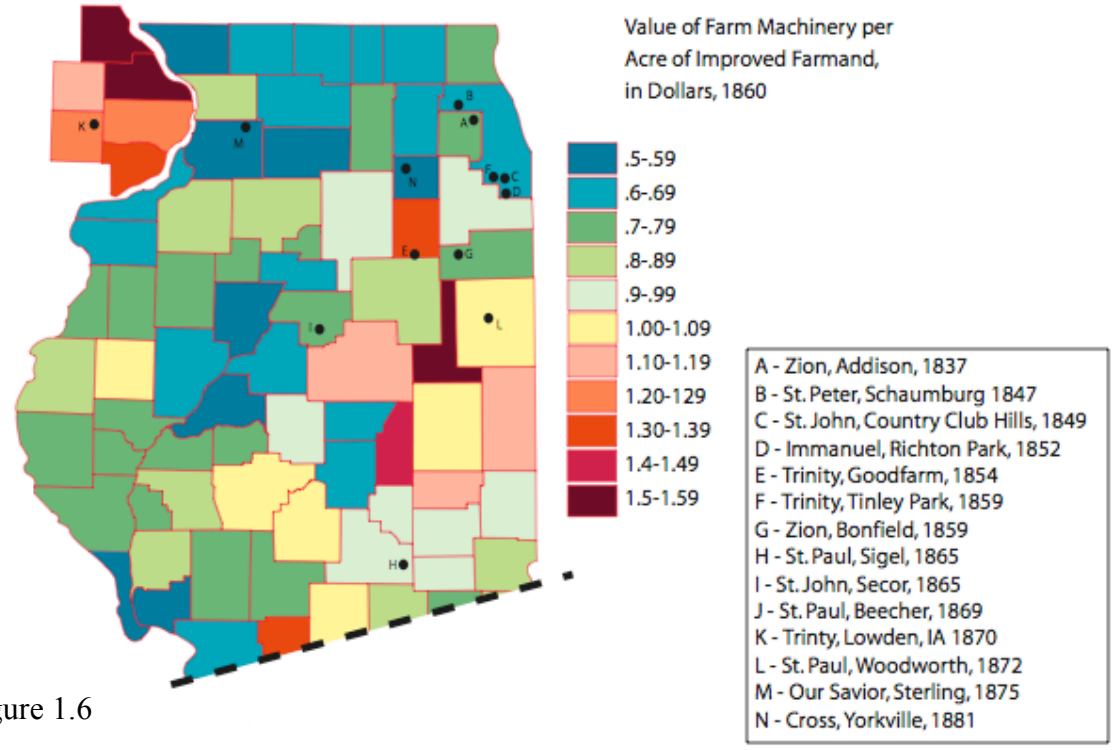

Figure 1.6

The requirements of sub-regional production affected the social fabric of rural farmers and their communities. Farms in the cash-grain region required more machinery per acre of improved land than any other sub-region (see Figure 1.6).[50] Farmers in DuPage County, adjacent to Chicago and Cook County, owned half the value of machinery per improved acre of farmland compared to farms due south in cash-grain

[50] Figure 1.6 created by author, based on data from:
Agriculture of The United States of America in 1860; Compiled from the Original Returns of The Eighth Census. (Washington: Government Printing Office, 1864), 30-53.

Ford County. The mechanization lag of the northern counties stemmed in part from the earlier date at which corn planting and cultivation technology reached widespread viability compared to reaping and threshing technology required for cereal grain production. The more heavily mechanized cash-grain farms were also less dense on the landscape (see Figure 1.7).[51] Again, DuPage County averaged over four farms per square

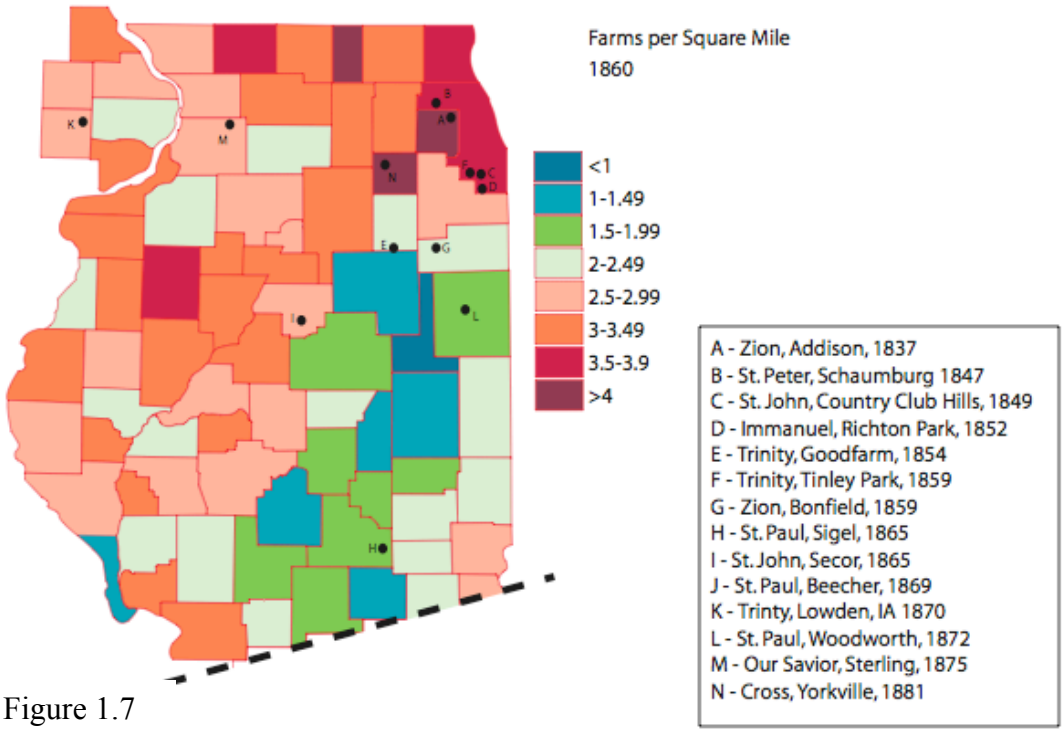

Figure 1.7

mile, whereas Ford County mustered less than one farm per square mile. The density of farms upon the landscape, no doubt, affected real estate values and, ultimately, the efficiency of a farm to return a profit on invested capital.

By 1859, the cash-grain agricultural typology emerged in east central Illinois as a distinct sub-region. Farmers did not abandon livestock, but many of them had begun to

[51] Figure 1.7 created by author, based on data from:
Agriculture of The United States of America in 1860; Compiled from the Original Returns of The Eighth Census. (Washington: Government Printing Office, 1864), 30-53.

embody modern characteristics of specialization and mechanization. Farms were generally larger and more geographically dispersed than in any other part of the state. Surrounding the cash-grain sub-region, farmers raised corn for market, but also placed a greater emphasis on raising stock, mostly hogs, destined for both local and regional slaughtering facilities. In the northern tier of counties, most farmers relied less upon corn and raised fewer meat animals in favor of dairying. In fact, the densities of meat animals per improved acre within the collar counties of Chicago were similar to, or lower than, those in the cash-grain sub-region. A corn-belt did straddle the center of the state in 1859, but it was by no means a uniform phenomenon.

NORTHERLY DRIFT: 1880

By the 1880 census year, farmers in the southern portion of the state had reduced their reliance upon corn while counterparts in northern and central Illinois had increased their concentration upon the crop (see Figure 1.8).[52] While a distinct pattern still divided the dairying region from the corn-livestock and cash-grain sub-regions, corn production intensified in all sectors of the state. The increases in production were most dramatic in counties bordering the dairy sub-region, Henderson, Bureau, Lee, Whiteside and La Salle counties, where total production increased by as many as 30 percentage points.

As the corn-belt shifted to the north, the cash-grain region expanded (see Figure 1.9).[53] The cash-grain sub-region, where farmers in the 1850s had begun to do something new by specializing in commodity corn production at the expense of livestock, also

[52] Figure 1.8 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), Table XI, 185-186.
[53] Figure 1.9 created by the author, drawn from data in:

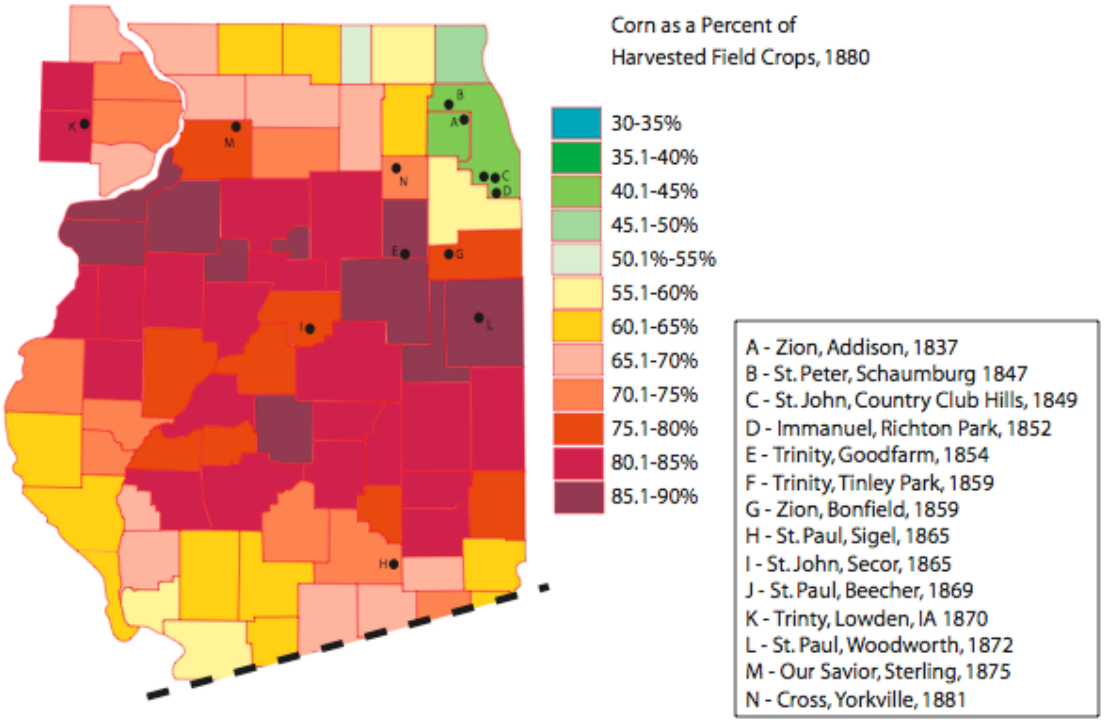

Figure 1.8

expanded, pushing to the north, east and west. Not only did the zone of intensive grain production increase in size, livestock raising relative to commodity corn production had decreased across the northern and central part of the state. Throughout western and northern Illinois, beyond the zone of the most intensive cash-grain production, the bushels of corn increased relative to the number of hogs and cattle that consumed it. Farmers increasingly grew corn for market rather than feeding it livestock, even while stock raising remained an important enterprise. It was a subtle yet consistent evolution across much of the corn-belt and it had profound implications for those that lived in the rural corners affected by the transition.

Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), Table XI 185-186 and Table IX 149-150.

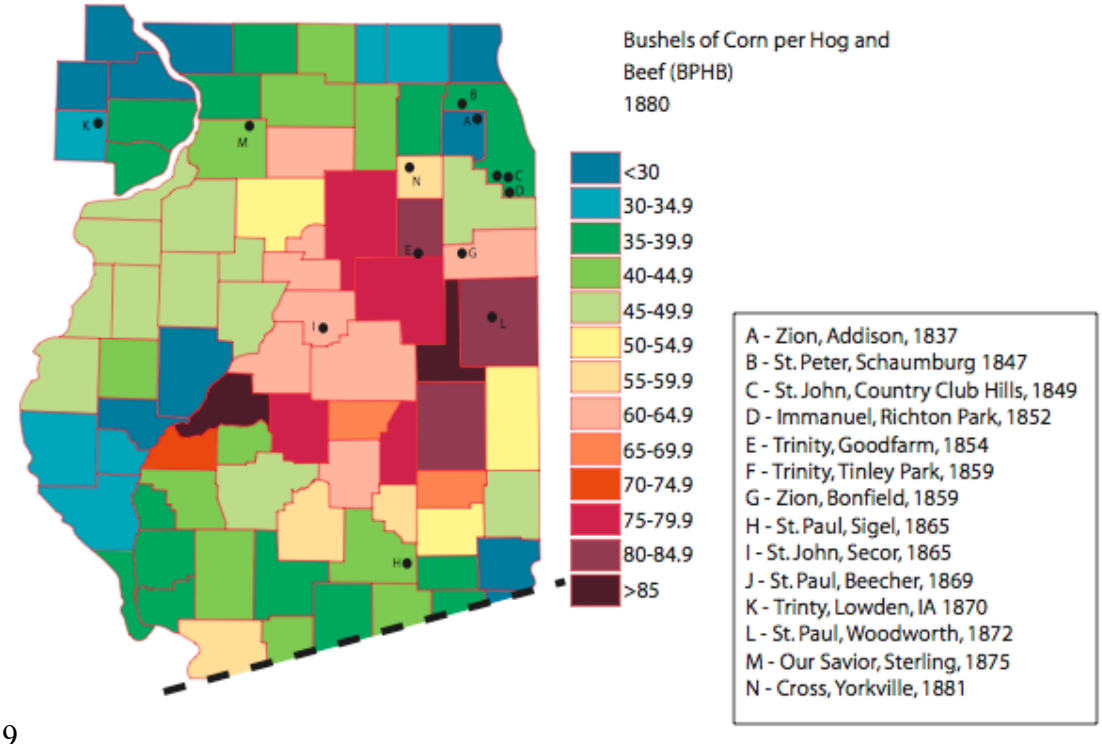

Figure 1.9

Like the trend of specialization in commodity corn, farmers and farmwives increasingly specialized in, or divested themselves of, dairy herds (see Figure 1.10).[54] Dairy herds nearly doubled in size in the northeastern corner of the state and increased in size throughout the dairying sub-region that was evident in 1860. Comparing Figures 1.4 and Figure 1.10, the pattern of dairying had crystallized between 1860 and 1880. Herd sizes decreased throughout the cash-grain sub-region and most of the corn-stock sub-region. This intensification of the pattern was not solely the result of farmers in the other sub-regions concentrating on more specialized forms of agriculture. The dairy industry developed in concert with the railroads. Processing facilities located along rail lines

[54] Figure 1.10 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), Table IX 149-150.

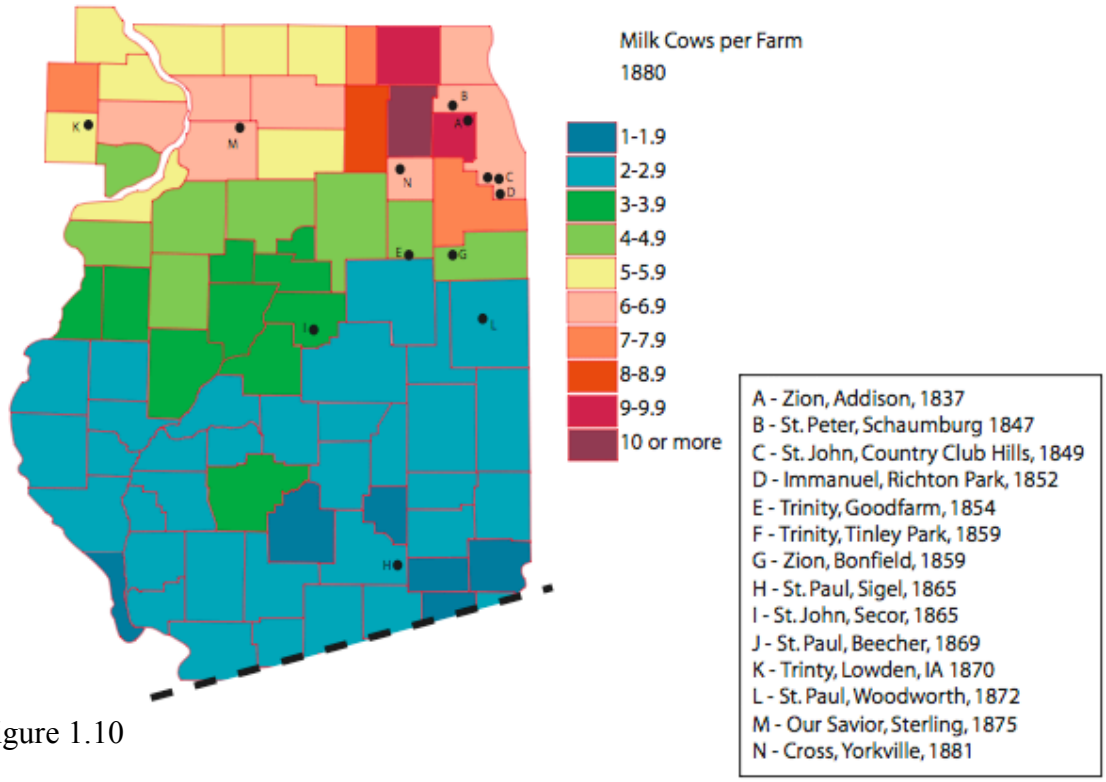

Figure 1.10

shipped raw milk, butter or cheese on the rail lines to urban consumers. The increased speed at which the perishable goods traveled increased the size of the dairy sub-region. Those seeking to invest in dairy industries of course located themselves where the cows were, see Figure 1.11.[55] The capital investment in processing facilities located within the dairy sub-region along the early railroads that radiated out of Chicago created an economic stimulus for farmers to increase herd sizes in the dairy region, and a disincentive to produce dairy outside of it as farmers still producing butter at home were now competing with cheaper, factory made butter.

[55] Figure 1.11 compiled by author based on data from:
Report on the Manufactures of the United States at the Tenth Census. (Washington: Government Printing Office, 1883), 211-240.

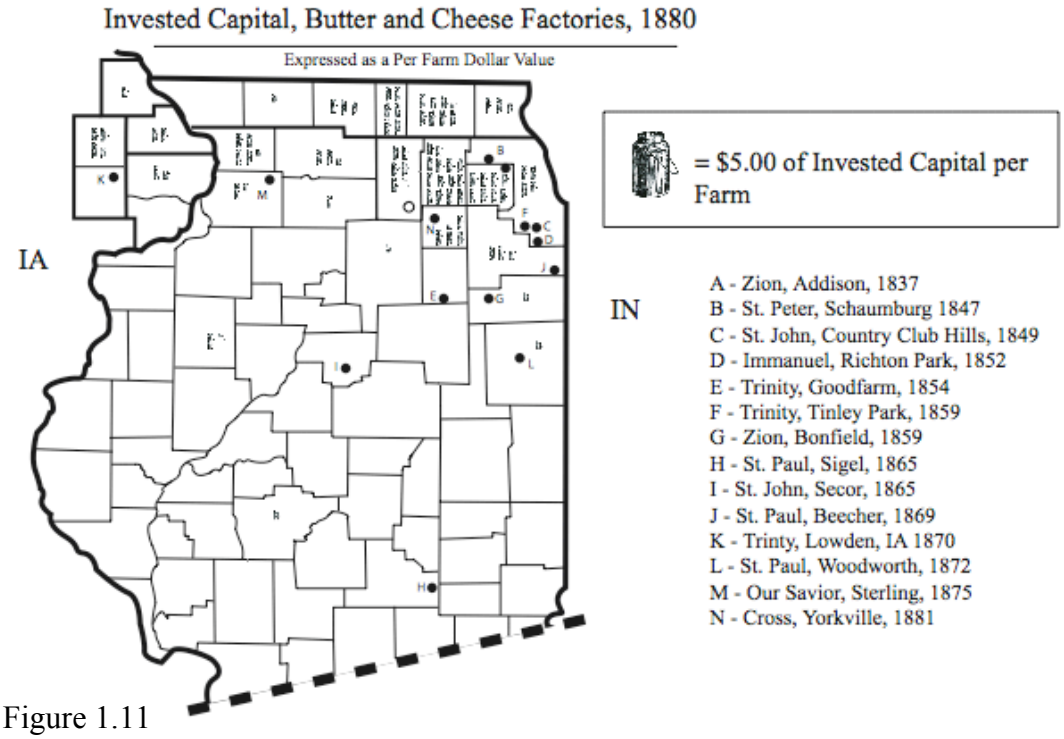

Figure 1.11

Thus, the maturation and intensification of the Chicago milk-shed can be interpreted as a self reinforcing feedback loop that affected a reduction in herd sizes in the central portion of the state. Smaller herd sizes in the central part of the state could not attract the outside capital required to build processing facilities, thereby intensifying the hazier distinction between regions that existed in 1860. Notably, the increase of herd sizes in the dairy-belt was also accompanied by increases in corn production. As dairying intensified within the sub-region, and as some farms began to specialize in milk production, herd sizes increased, often numbering in the dozens of animal. These blooded cattle required more protein in their feed to produce higher butter fat in their milk. Higher portions of corn in their feed fit that need. Also, corn silage was becoming more important as a feedstock due to the improvement of fodder chopping technology and tile and wooden silos. However, by 1880, the use of silos and silage still remained far from widespread.

Again, by combining the information on corn, hogs, beef cattle, hay and dairy we can assemble a map of the sub-regional agricultural production modes in Illinois as of 1880.[56] Figure 1.12 shows that by 1880, sub-regional agricultural production modes converged in areas of northern Illinois. Large parts of the dairy sub-region converged with the corn-stock sub-region and the cash-grain region also converged on its northern boundary with the Chicago milk shed. Within these areas of convergence there were opportunities to shift production toward either of the overlapping modes of agricultural production. No single mode dominated the areas of convergence. While some farms emphasized dairy and others cash-grain or livestock production, most farmers practiced a combination thereof. Convergence zones offer special insights into how cultural decisions affected the agricultural landscape. For instance, if one wanted to examine the stereotype of German-American preferences for dairy over beef cattle, the communities in Whiteside, Kendall and Cedar counties would be much better geographic areas of investigation compared to Woodford or Shelby county where a lack of processing infrastructure suppressed any possible cultural predilections toward dairying.[57]

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[56] Figure 1.12 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), Tables XI, IX and XV.

[57] Myron Gutmann, Sara Pullum-Pinon, Susan Gonzalez Baker and Ingrid Burke identify stereotypes commonly attributed to German-American agriculture, both in terms of their cropping and livestock patterns and their strategies of land transmission and profit motivation. The stereotyped German production included the following characteristics:

*Germans were more likely to grow wheat than the native born.
*Germans were more likely to grow crops that appealed to their traditional tastes in non-commercial quantities, especially small grains.
* Crop diversity increased for Germans during the late nineteenth century, then decreased as the market became a central priority, and the traditional noncommercial crops fell out of favor.
* Germans kept slightly fewer livestock per acre than did the native born
* Germans were more likely to keep cattle and dairy cows than any other ethnic group.
* Germans were as likely to own swine as non-Germans, but in lesser numbers

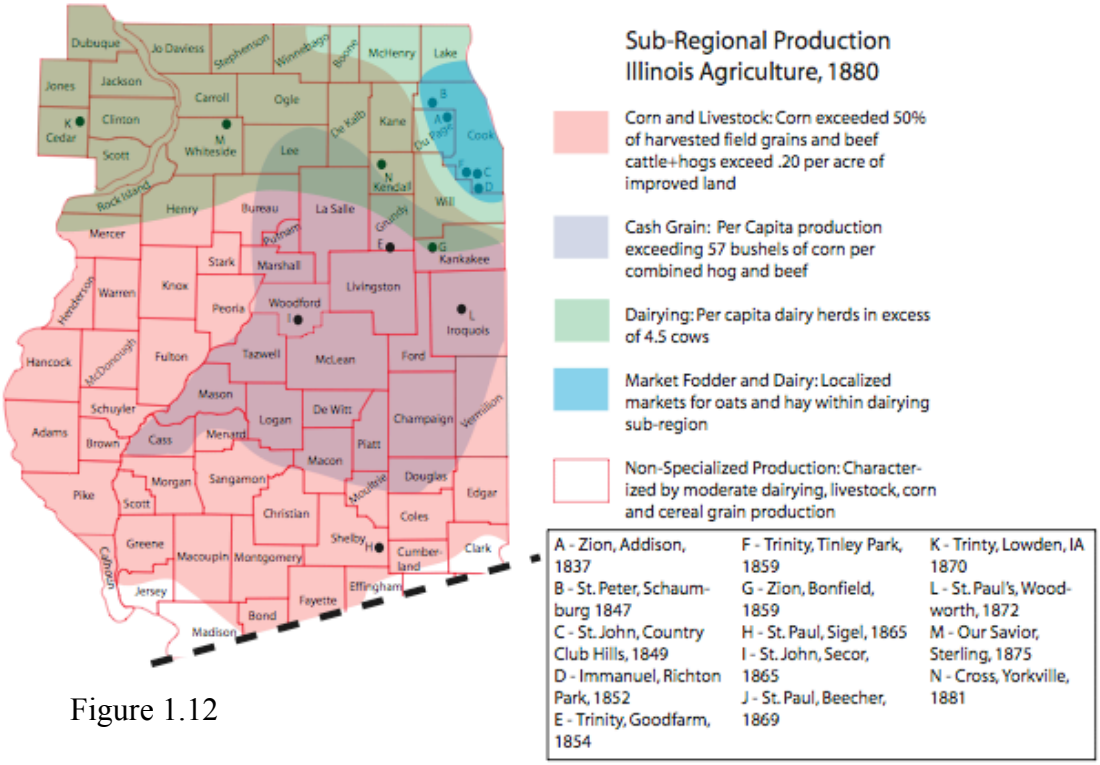

Figure 1.12

As farmers pushed the boundaries of the corn-belt to the north, other patterns on the land began to change. While the cash-grain sub-region still contained a relatively lower density of farms per square mile, the pattern was much less distinct than in 1860 (See Figure 1.7 for comparison).[58] Farm making had increased across the state in the two decades between 1860 and 1880 (see Figure 1.13). Farm sizes, expressed in terms of

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* Germans were likely to have mid-sized family farms organized around a farm-dependent village in which the church played a strong role in ethnic cohesion.
* Germans focused on passing land down to their children, keeping land in the family, and encouraging at least one child to stay on the farm.

The quantitative study found evidence that supported diversity of grain farming and higher livestock populations per acre among German farms. Their study looked at production statistics from 1910 and 1990 for several hundred counties in the across the great plains ranging from Texas to Montana and North Dakota. The study pays specific attention to environmental conditions, but fails to move beyond aggregated county level data and takes no consideration of locally marketed farm production, see 'German-Origin Settlement and Agricultural Land Use in the Twentieth-Century Great Plains' in *German-American Immigration and Ethnicity in Comparative Perspective,* (Madison: Max Kade Institute for German-American Studies. 2004), 138-168.

[58] Figure 1.12 created by the author, drawn from data in:

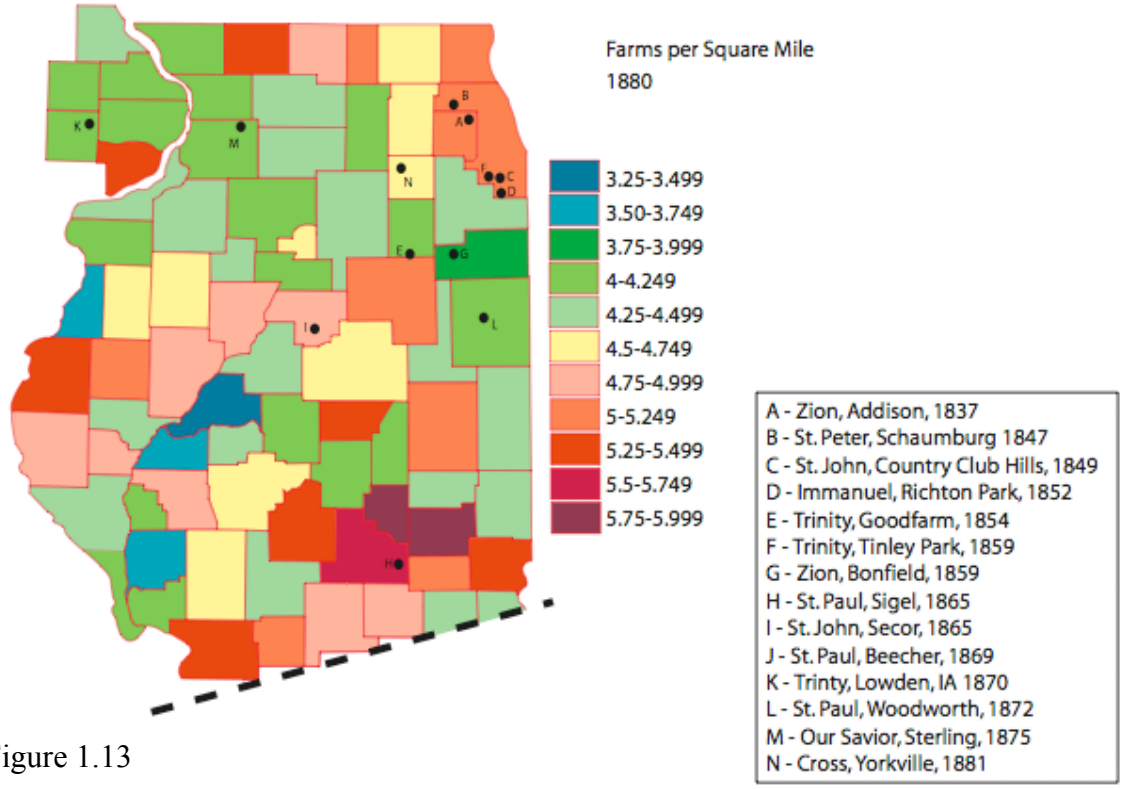

Figure 1.13

improved acres, were generally, but not universally larger in counties that most heavily favored corn in their balance of crops (see Figure 1.14).[59] The total number of farms per county had increased, generally unabated between the state's founding and the 1880 census year.[60] However, by 1890 the total numbers of farms per county had begun to decline across the northern half of the state.

Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883) Table VII.

[59] Figure 1.13 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883) Table VII, 111-112. County area information was derived from the Illinois Secretary of State's Office, http://www.cyberdriveillinois.com (accessed 8/1/2010).
Figure 1.14 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883) Table VII, 111-112.

[60] Number of farms per county between 1850 and 1900 were tabulated using:
University of Virginia Library Historical Census Browser, http://www.mapserver.lib.virginia.edu/ (accessed 9/2/2010).

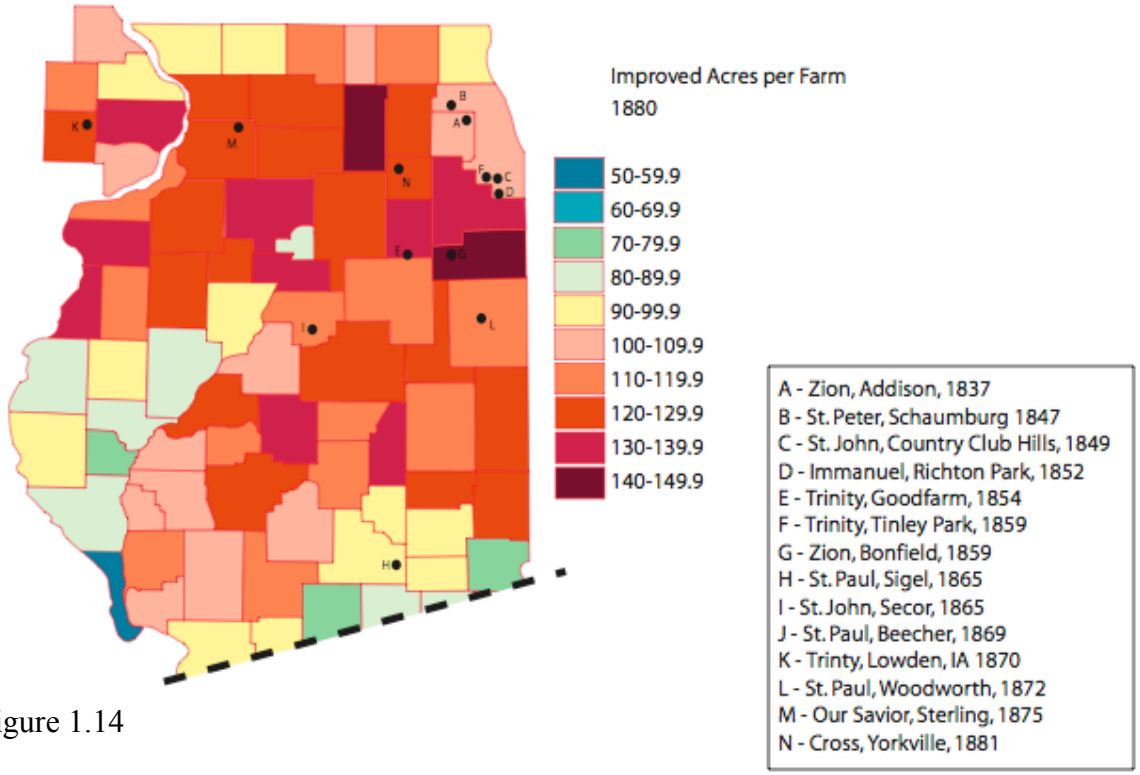

Figure 1.14

Figure 1.15 illustrates the relative change between the 1880 and 1890 census year. Aside from a brief increase between 1890 and 1900, the trend towards fewer and larger farms continued throughout the twentieth century. The trend, of decreasing farm numbers represents a complex series of phenomena tied into mechanization, increasing scale of production, increased input costs and decreasing rates of return. These variables created what is known as the cost-price squeeze in which farmers only route to financial success was achieved by either increasing the yield per acre, the number of acres planted or both. The seeds of these structural changes were planted in the intensive mono cropping of the cash-grain region and to a lesser extent the other sub-regions as specialization converted crops into commodities. However, the flowering of specialized intensive agriculture was

wholly dependent on the railroad to move the ever-increasing bushels of grain, head of hogs, or cans of milk across space.[61]

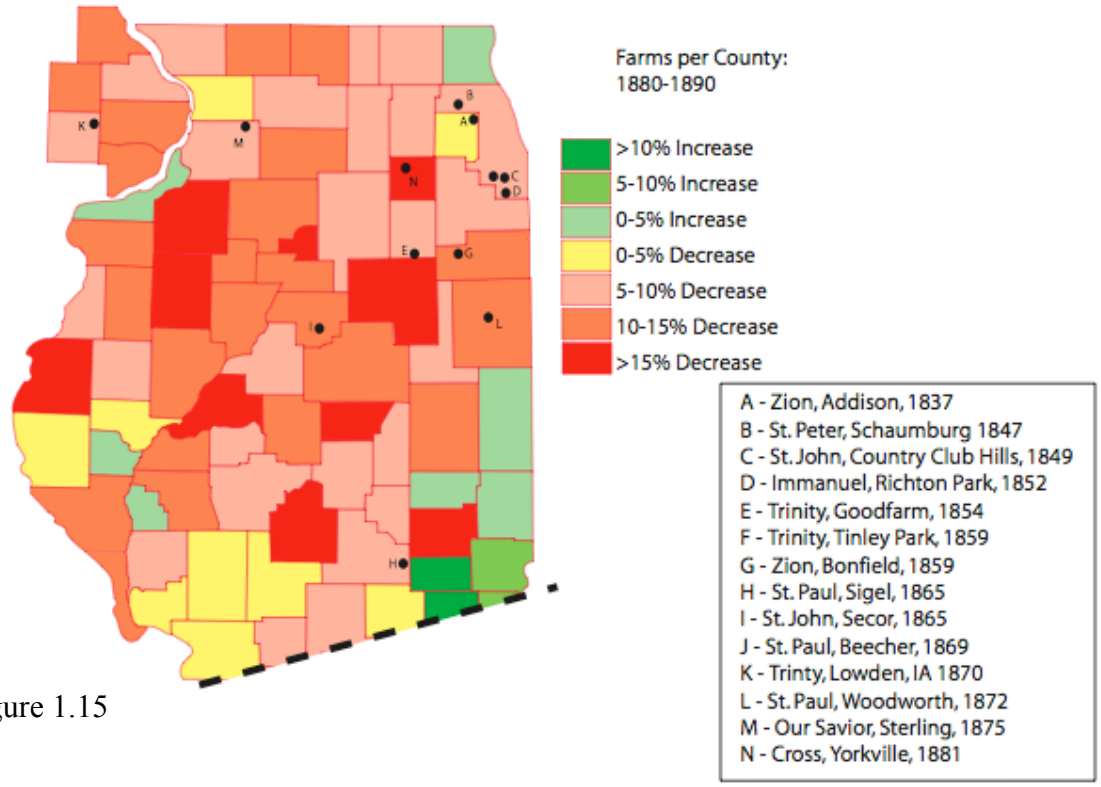

Figure 1.15

[61] The 1850s witnessed the first boom in railroad construction in Illinois. Construction of new lines in Illinois declined during the war years after which the pace of building increased somewhat during 1870s.

Selected Illinois Railroads	1840s	1850s	1860s	1870s
Chicago, Milwaukee, and St. Paul		665.7	403.4	1,072.3
Chicago and North Western	43	428.9	240.8	325
Chicago, Burlington, and Quincy		405.8	242.2	120.4
Chicago, Rock Island and Pacific		286.3	264.2	497.6
Illinois Central		705.5	0	0
Total	**43**	**2492.2**	**1150.6**	**2,015.3**
Total United States Railroads	**5,045.8**	**20,109.6**	**16,090.4**	**41,454.2**

Data compiled from:
"Report on the Agencies of Transportation in the Unites States," (Washington: Government Printing Office, 1883), Table VIII 354-363.

The decrease in numbers of farms between 1880 and 1890 bears an even closer relationship to the spatial distribution of corn harvested. Previous maps illustrated

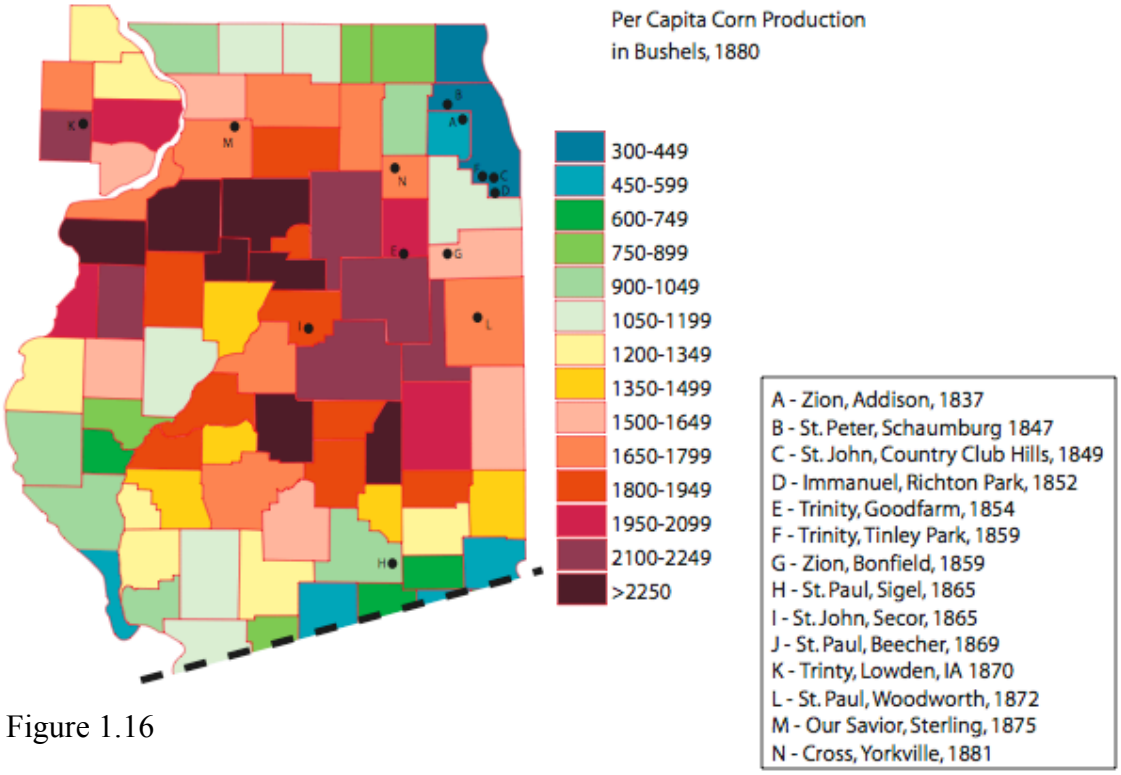

Figure 1.16

the balance between bushels of corn and other field crops. Figure 1.16 illustrates the total corn harvest in a bushels per farm average.[62] Interestingly, the counties with the highest per capita production of corn formed an arc around the Illinois River valley, extending across both the cash-grain and the corn-hog sub regions. The farms of western Illinois were growing just as much or more corn as those in the cash-grain belt, but they were diverting larger percentage of it into livestock. The two regions were not fundamentally different; it was only a matter of scale or intensity that separated them, thus explaining the fluidity between the two agricultural production typologies over time.

[62] Figure 1.16 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), Tables VII 111-112 and XI 185-186.

Farming was and remains an economic activity and much of the discussion thus far has skirted that point, concerned more with what happened rather than why or the implications thereof. Figure 1.17 shows the distribution of gross farm income across

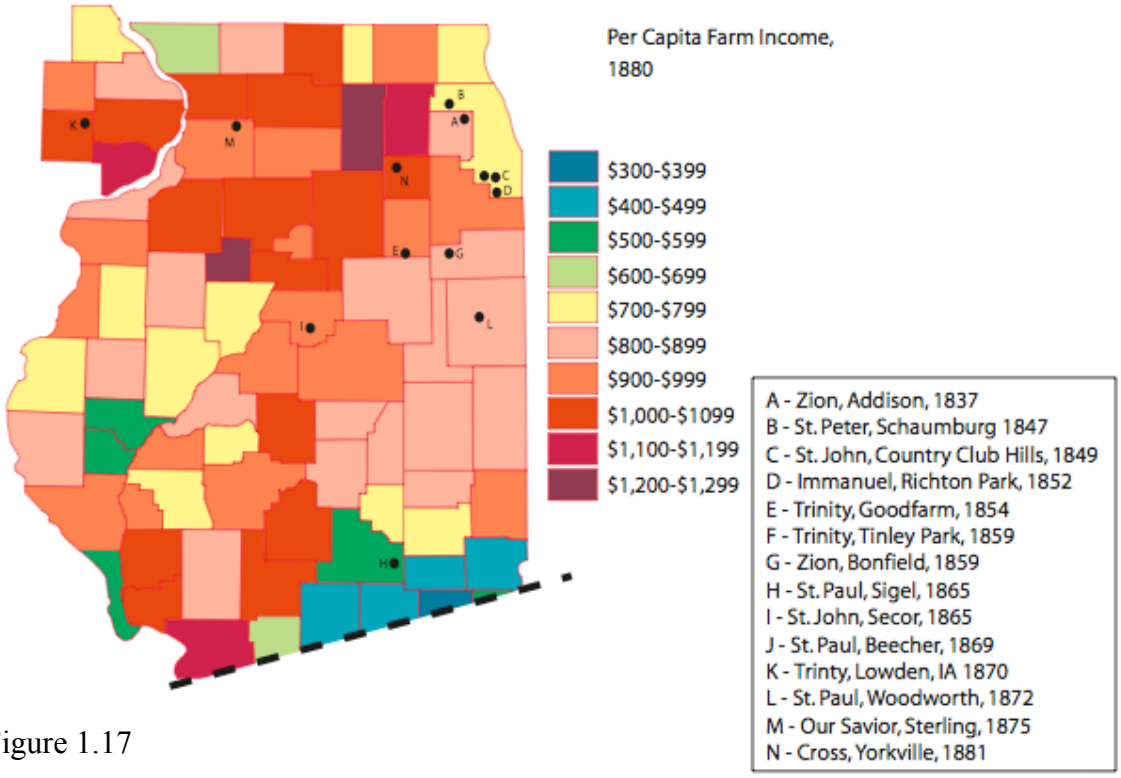

Figure 1.17

Illinois.[63] Given only gross income, it's difficult to reconcile Figures 1.17 and 1.15. Areas declining in the total number of farms between 1880 and 1890 were not suffering from low per capita gross income in 1880. Of course, gross income tells only half the story, it does not account for fixed costs such as farm mortgages, or variable costs such as machinery or labor.

[63] Total income of all farm production was not enumerated in the 1860 census, prohibiting direct comparison with the 1880 census. Figure 1.17 created by the author, drawn from data in: *Report on the Productions of Agriculture as Returned at the Tenth Census* (Washington: Government Printing Office, 1883), Table VII, 111-112.

Figure 1.18 depicts the efficiency of agricultural production at returning income on capital investments.[64] By dividing the total value of all farm production by the

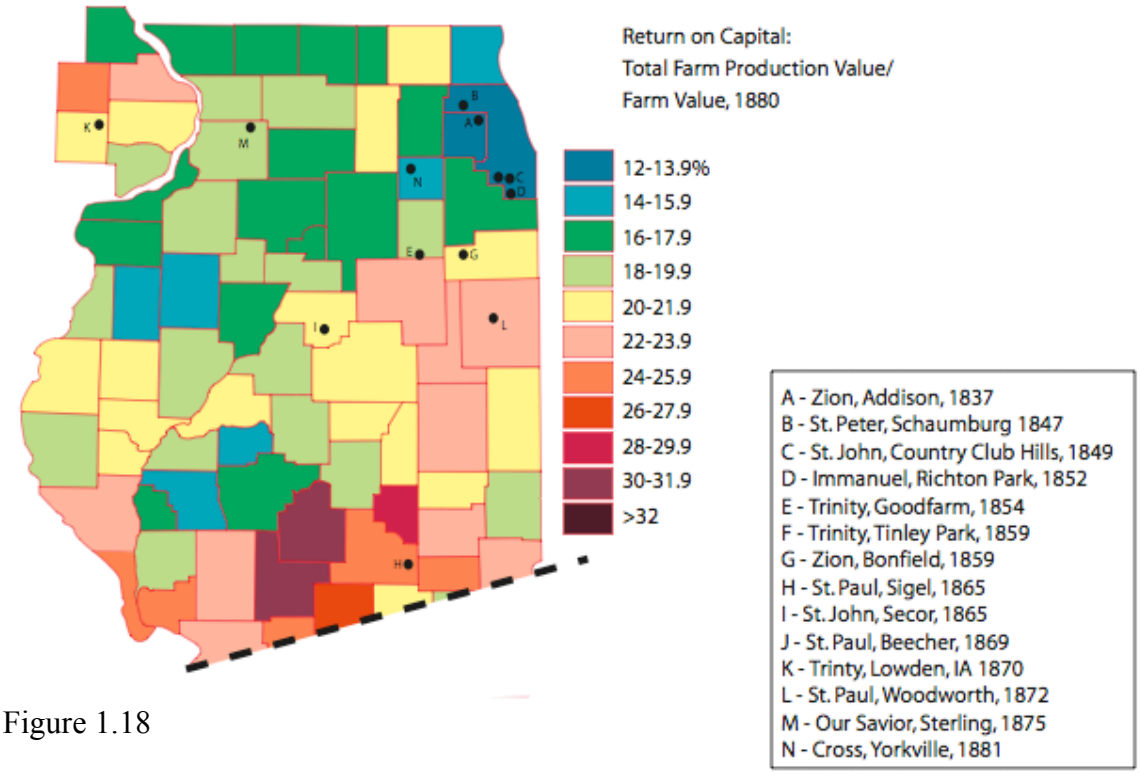

Figure 1.18

cash value of the farm, a rate of return on capital investment excluding machinery and livestock is obtained. The cash value of the farm measured not only the worth of the farmland, but the improvements upon it. Thus, even if farm acreage was of equal value, a dairy farm with a large dairy barn had a higher cash value than an otherwise similar farm without the large outbuildings. Besides the farmhouse, the most expensive improvements would have been in outbuildings and fencing. These expenses would have been greater on dairy farms, less on corn-stock farms, and even less on primarily cash-grain farms. The value of these improvements would have been disproportionately heavy on smaller

[64] Figure 1.18 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), VII 111-112.

farms because there was less improved acreage over which to spread the capital investments represented in bricks, mortar and lumber.

The cash-grain sub-region in 1879 most efficiently achieved a return on invested capital excepting the counties in the southern most fringe of the study area. This is extremely important to understanding how and why the cash-grain mode of agriculture spread into western and northern Illinois. It simply balanced a better gross income with lower capital requirements. The fodder hinterland of Chicago, meanwhile, produced the lowest rate of return on capital invested due in no small part to higher land values. The western milk-shed did not produce phenomenal returns on investment, but exceeded those of Cook, DuPage and Lake counties where higher population densities contributed to a higher base land price.

The spatial pattern in Figure 1.18 illustrates that balance between farm values and the rates of return of spatially specific sub-regional modes of production. This metric also provides insights on the economic merits of new farm creation within the various sub-regions. Farmers and their families typically acquired property either through purchase or inheritance. Farmland was generally inexpensive during the early settlement but, by 1880, the market for farmland had matured after three or four decades of settlement and improvement. This increase in farm values represented a real obstacle to individuals seeking to enter agriculture from outside of patrilineal land transmission. This was especially true in locations where high farm values corresponded with relatively low gross incomes. Figure 1.19 combines the efficiency of capital investment with gross

income to produce an index number illustrating the financial logic of land purchasing.[65] In figure 1.19, the lower the index number, the less economic incentive there was to

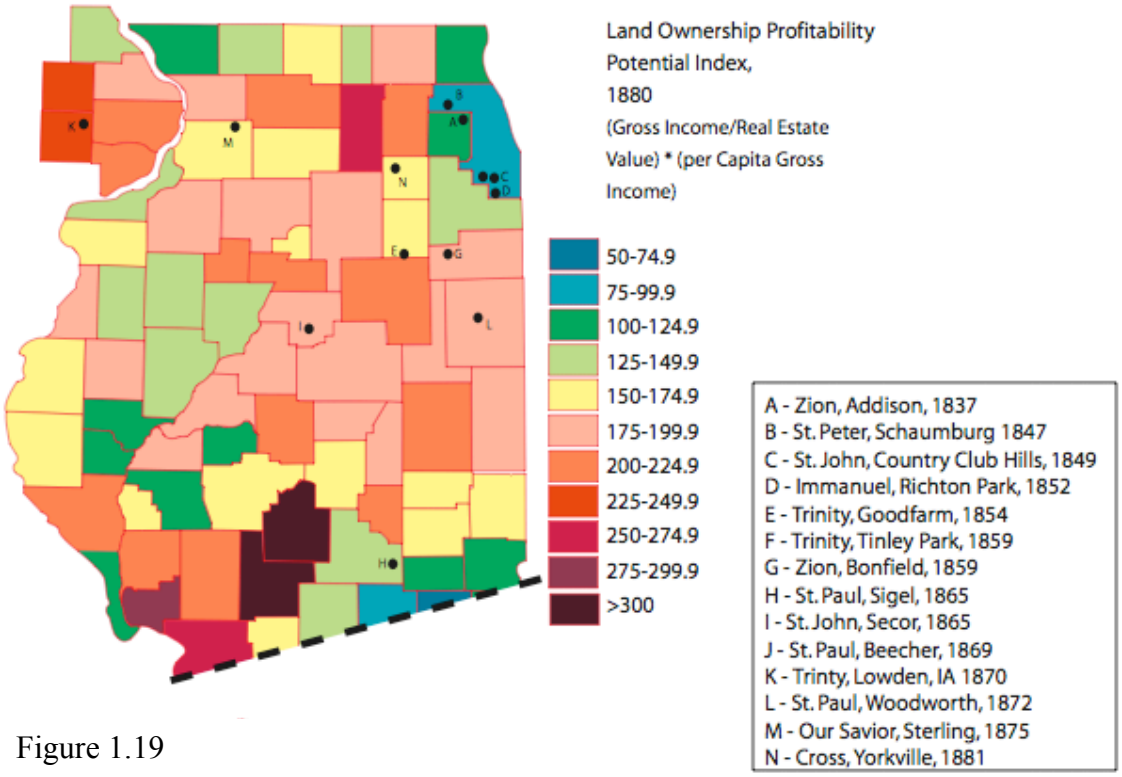

Figure 1.19

purchase land based on the balance between its cost and profit making potential within its local context of agricultural production. Clearly, for those individuals not inheriting property, it made the most financial sense to purchase farmland, or rent for that matter, in the expanding cash-grain sub region or select locations in the corn-stock region.[66]

This spatial dynamic between land values, capital costs of production, and sub-regional production modes may help explain behaviors of farm making and transmission

[65] Figure 1.19 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), Table VII, 111-112.

[66] A corridor stretching from Chicago across northern Illinois to the urban population along the Mississippi River also appears to have been especially efficient at returning value on investments in land. This may be due, in part to the early and well-developed network of railroads between Chicago and cities along the Mississippi River such as Dubuque, Clinton, Davenport, and Rock Island. Farmers were also able to capitalize on larger rural industries for dairy, malt and fiber.

in the 19th century. For instance, to cope with high land values that made purchasing new farmland economically inefficient, German-American families in Cook and DuPage Counties retained cultural strategies designed to insure patrilineal inheritance of farm property and continuation of the ethnic community.[67] For individuals not inheriting farmland, it made more sense to leave for a more profitable location—sometimes in groups. This is a phenomenon that will be explored later using the case of Trinity Lutheran congregation in Lowden, Iowa (location K on the map) and St. Johns in Coopers Grove, Illinois (location C on the map) as an example. Trinity was an offshoot of the Zion congregation in Addison, Illinois (A on the map). Due to natural growth and ongoing immigration from Germany, farm sizes were often small and farmland grew scarce and expensive. Without the ability to expand locally, a contingent of the population re-created community in a new location, moving across space to a much higher indexed location in Iowa (see Figure 1.19).

Real estate, however, was not the only expense involved in mid-late nineteenth-century agriculture. Figure 1.20 demonstrates that the balance of machinery expenses had reversed in the years between 1860 and 1880 (reference Figure 1.6 for data from 1860).[68] In 1860, the cash-grain belt represented the most mechanically intensive sub-regional production type. By 1880, it was among the least mechanized region. The dairy region, in contrast, had become the most mechanized. For example, DuPage County had, by 1880, almost doubled Ford County's per capita value of farm machinery. While agricultural

[67] See the discussion of the *Altenteil* contract in Chapter Four.
[68] Figure 1.20 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), Table VII 111-112.

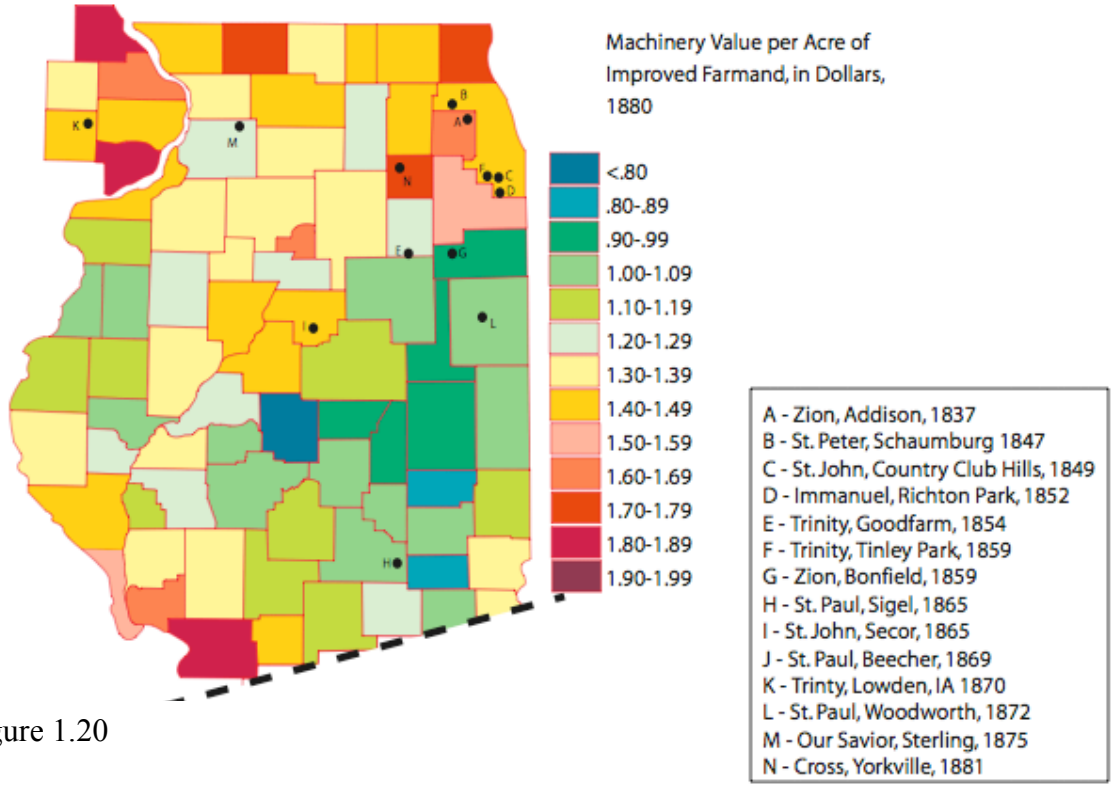

Figure 1.20

diversity insulated hinterland farmers from price swings in any particular commodity, it cost more money in the age of mechanization. In addition to corn planters, hinterland farmers, who had relied on grain cradles and winnowing baskets in the 1850s, needed mechanical mowers and reapers by the 1880s. Mechanical reapers were commercially available and had become essential to harvesting the larger fields of oats that fed the region's expanding dairy herds and horses of Chicago.

Corn-belt farming, on the other hand, had changed little. Mechanical planters improved, but did not necessarily represent a new addition to the corn farmer's machine shed between 1860 and 1880. Harvesting technology, beyond the corn-knife, was non-existent for the most part and cultivating technology, at its most advanced, did not transcend the two-row riding cultivator--a modest investment to be sure. Intensive corn farms required more summer labor during the cultivation season, but corn could be

harvested over a much longer window. While the oats and wheat dropped their seed when ripened, corn stood tall throughout the winter months or could simply be "hogged down" by allowing stock to do the work of harvesting.

Draft power, a sizable investment, was in greater need across the corn-hog and cash grain sub regions.[69] Cultivating and plowing larger fields required more horses. By

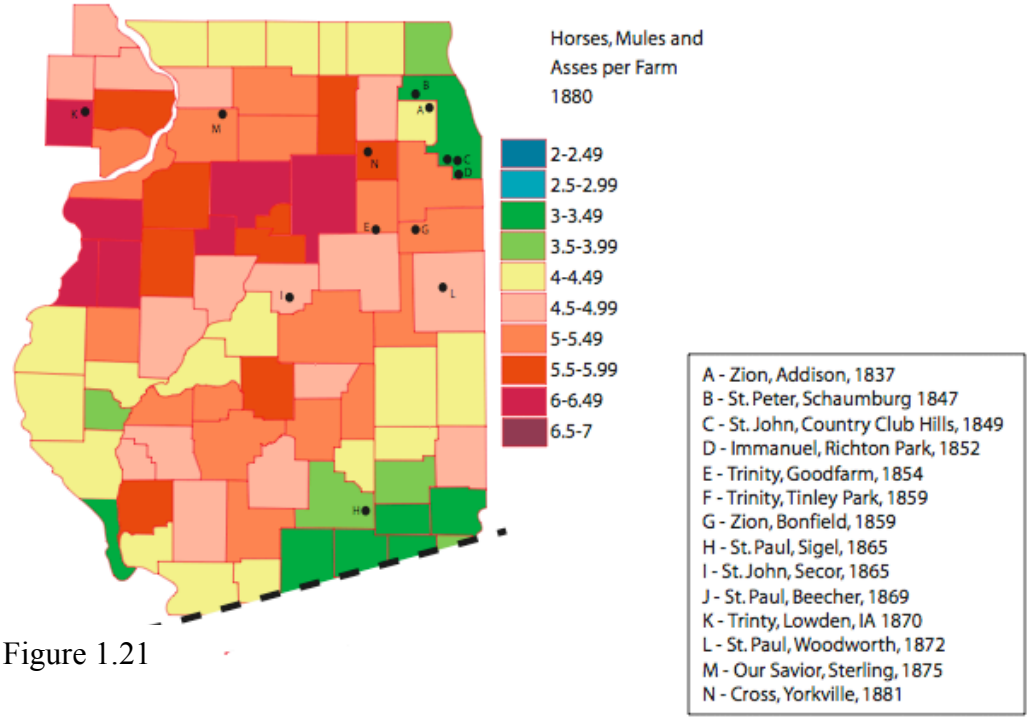

Figure 1.21

1880, oxen had been almost completely replaced in the northern counties of Illinois. Mules were far less common than horses, although they were more popular in the southern corn-belt. The typical farmer in the northern-most tier of counties, as seen in Figure 1.21, managed to work his farm with a span fewer horses and farmers in Cook County managed on half as many compared to counties with the highest rates of horse ownership in Livingston, Bureau, and Stark Counties.

[69] Figure 1.21 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), Table IX 149-150.

Despite the high rate of return on owned land, the counties of the cash-grain region experienced among the lowest rates of farm ownership in the state in 1880. Thus, another harbinger of twentieth century agriculture, increased rates of tenancy may be seen in the cash-grain sub-region. Figure 1.22 demonstrates that land ownership was

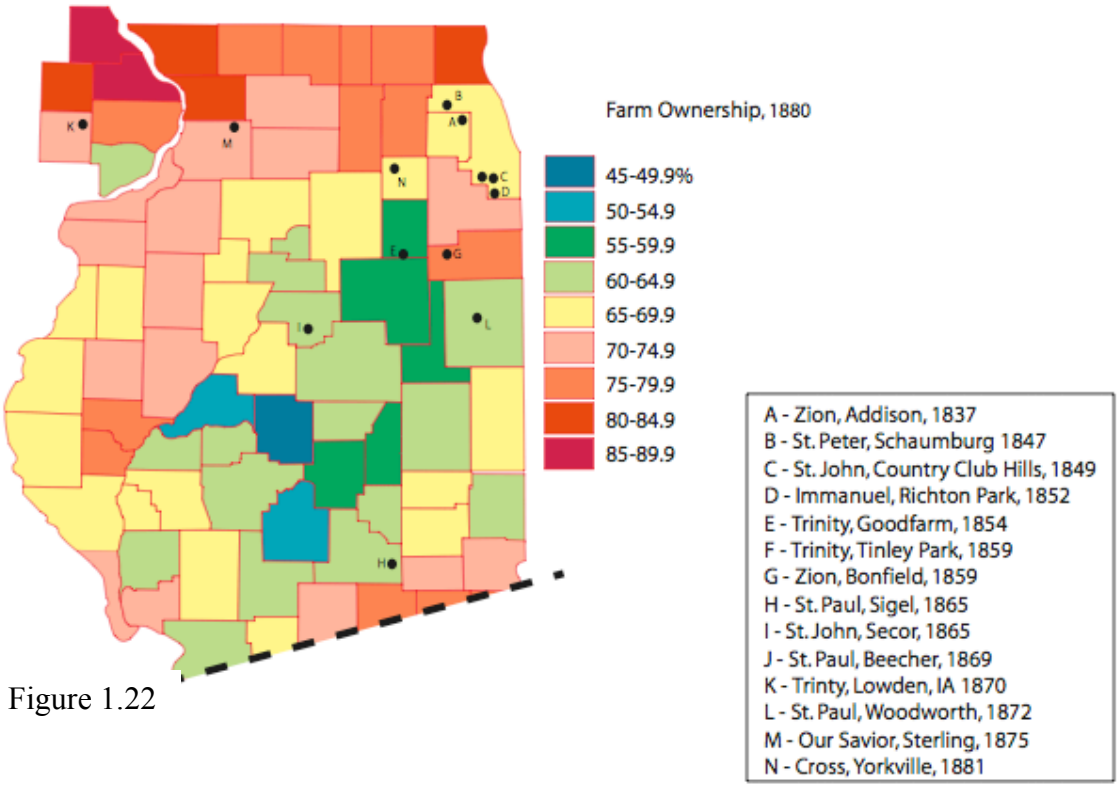

Figure 1.22

highest in locations where farm property returned lower rates of return and the start-up costs of farm making were high.[70] Farms in the more agriculturally diverse dairy belt required more investment in land and outbuildings (Figure 1.18) and machinery for both cereals and corn (Figure 1.20) without rewarding those capital investments with a commensurate income, at least compared to the cash-corn and, to a lesser extent, the corn-hog models of production. Neither landlords nor tenants, it seems, were inclined to

[70] Figure 1.22 created by the author, drawn from data in:
Report on the Productions of Agriculture as Returned at the Tenth Census (Washington: Government Printing Office, 1883), Table VII 111-112.

make expensive improvements to farm buildings and fences required for 'modern' dairy farming. Meanwhile, the low mechanization required and relatively lower capital outlay required in the cash-grain sub-region proved conducive to tenant farmers and farm owners looking to expand their cultivated acreage through rental property.

By 1880, the corn-belt was shifting to the north. In the southern part of the state, farm sizes decreased as the total number of farms increased. The rail network continued to expand into every corner of the state and opened up opportunities in the southern portion of the state for specialty production of fruits, vegetables, and even flowers. The earlier planting season, in conjunction with poorer soil conditions, in the southern part of the state allowed these more valuable, perishable goods to reach northern market centers such as Chicago earlier than the local produce. Corn production did not cease in the lower half of the state by any stretch, but it was deemphasized in some locations as farmers diversified into other areas of production.[71]

Throughout the state, the evolution of the landscape coincided with a broader change in how commodities moved to markets. Individual farmers made individual decisions that produced the northerly drift of the corn-belt, but they did so at a time when the rail network matured across the interior of the state. The two developments occurred simultaneously and were dependent upon each other. In each sub-region, the negotiation between the biological processes of production and the evolving economic context of commodity production resulted in the intensification of existing agricultural typologies.

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[71] On the diversification of agriculture in Southern Illinois, see: Jane Adams, *The Transformation of Rural Life: Southern Illinois, 1890-1990* (Chapel Hill: University of North Carolina Press, 1994). 73-83. See also, John Hudson, *Making the Corn Belt: A Geographical History of Middle-Western Agriculture* (Bloomington and Indianapolis: University of Indiana Press, 1994).

Dairy farmers shipped their products to urban consumers via the processing facilities situated along northern Illinois railways. The majority of hogs raised in the Illinois corn-belt traveled by rail to Chicago, the 'butcher for the world' via a network of stock yards and loading facilities situated along the railroad.[72] The farmers of the cash-grain sub-region abandoned the grain sacks of their parents' generation and hauled their crop to elevators to be graded and mixed with their neighbors' corn. The sub-regional agricultural typologies, all broadly existing within the corn-belt, were not static; they evolved along side each other and, in a sense competed with each other. The sub-regions expanded or contracted based, in large part, upon how efficient a specific type of production was at returning an income on capital investments in land and machinery. The technological innovations, and government policies of the twentieth century would further incentivize the transition to the cash-grain model of mono-crop production, but the trend had its genesis nearly a century before in the nineteenth-century.

Understanding sub-regional agricultural typologies adds a level nuance to any understanding of the corn-belt. Even this level of refinement, however, falls short of describing the vagaries of the cultural landscape that sometime occurred at the local level. At least two things complicate this narrative of historic change within the Midwestern landscape. First, immigrants from across Europe flooded into the Midwest throughout the nineteenth century, forming highly organized rural enclaves in some locations. These enclaves could, under the right conditions, bring different cultural values to bear on the processes of agriculture, thus affecting ripples in the economic landscape itself. Secondly, by focusing largely on the regional economy, historians have underestimated the effects

[72] Carl Sandburg, *Chicago Poems* (New York: H. Holt and Company, 1916), 3-4.

of local industry and local non-farm populations in the emergence of local landscape. While urban centers such as Chicago served as a market nexus, consolidating and organizing the trade of the vast American interior, smaller local economies also existed alongside, and as part of, the larger regional economy. Where local industries processed agricultural produce, pockets of exceptions to the corn hog model sprang up around them. These variables of locality, economic opportunity and cultural background underscore the fact that the corn-belt paradigm did not dictate a landscape in absolute terms.

Immigrants did not settle evenly across the landscape. Rather, immigrants tended to settle most densely in areas near population centers. As can be seen in Figure 1.23, the concentration of foreign-born population varied widely.[73] Immigrants settled most heavily in counties that contained urban populations and access to transportation networks. The availability of land during peak immigration periods also factored into the location of immigrant settlements. Thus, Chicago and its collar county region exhibited the highest rates of foreign-born population, but so too did Iowa counties along the Mississippi River, especially around Dubuque and Davenport. In 1860, Peoria County and LaSalle County, situated along the Illinois River and linked to the Great Lakes system via the I&M Canal, also contained regionally large numbers of foreign-born inhabitants. The northern tier of counties, in what has been established as the dairying region, also contained significantly higher numbers of immigrants. The majority of these rural immigrants were German, English, Irish, and Canadian along with a handful of

[73] Figure 1.23 drawn by author based on census data accessed through:
University of Virginia Library Historical Census Browser, http://www.mapserver.lib.virginia.edu/ (accessed 9/2/2010).

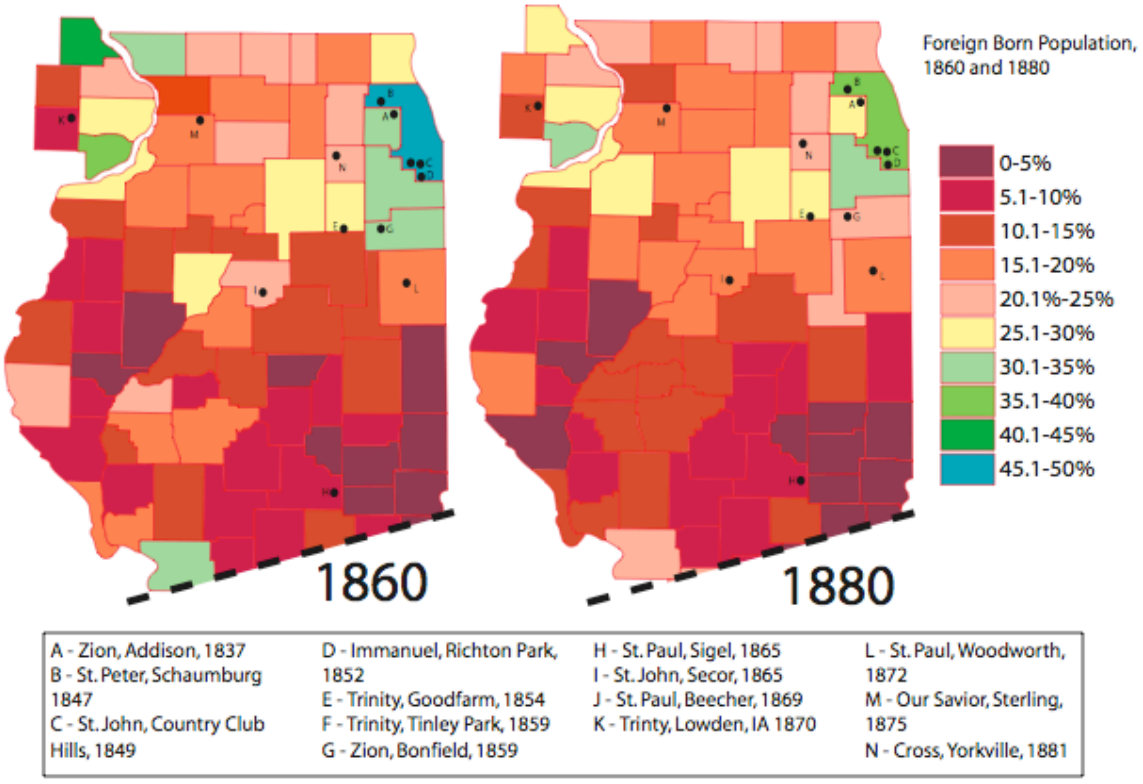

Figure 1.23

early Scandinavians. The Germans represented the largest segment of the rural immigrant population and began arriving en masse during the 1830s and 40s when the northern counties were experiencing their initial settlement phase.

Immigrants were a larger minority within the dairy-belt, but were more rare in the cash-grain sub-region and the corn-hog sub-region. In all cases, no particular ethnic group existed in large enough percentages to affect the sub-regional agricultural typologies, except for at the very local level. The agricultural sub-regions represented a common set of economic, climactic, geologic, and spatial variables that affected all individuals and cultural groups. Of course, that does not mean that groups responded to locally specific stimuli in the same way.

Culturally distinct landscapes did not emerge within the agricultural sub-regions, except as responses to localized market opportunities. Production for localized markets, often cash crops such as flax for fiber or oil and barley or wheat for malt, did not occur evenly across local landscapes. In smaller local markets especially, individuals varied in their reliance upon local commodities. Some incorporated local cash crops into their cropping patterns, while others cropped according to the more established sub-regional mode. These locally specific areas are critically important areas to study as they represent geographic locations in which farmers exercised choice in constructing the agricultural

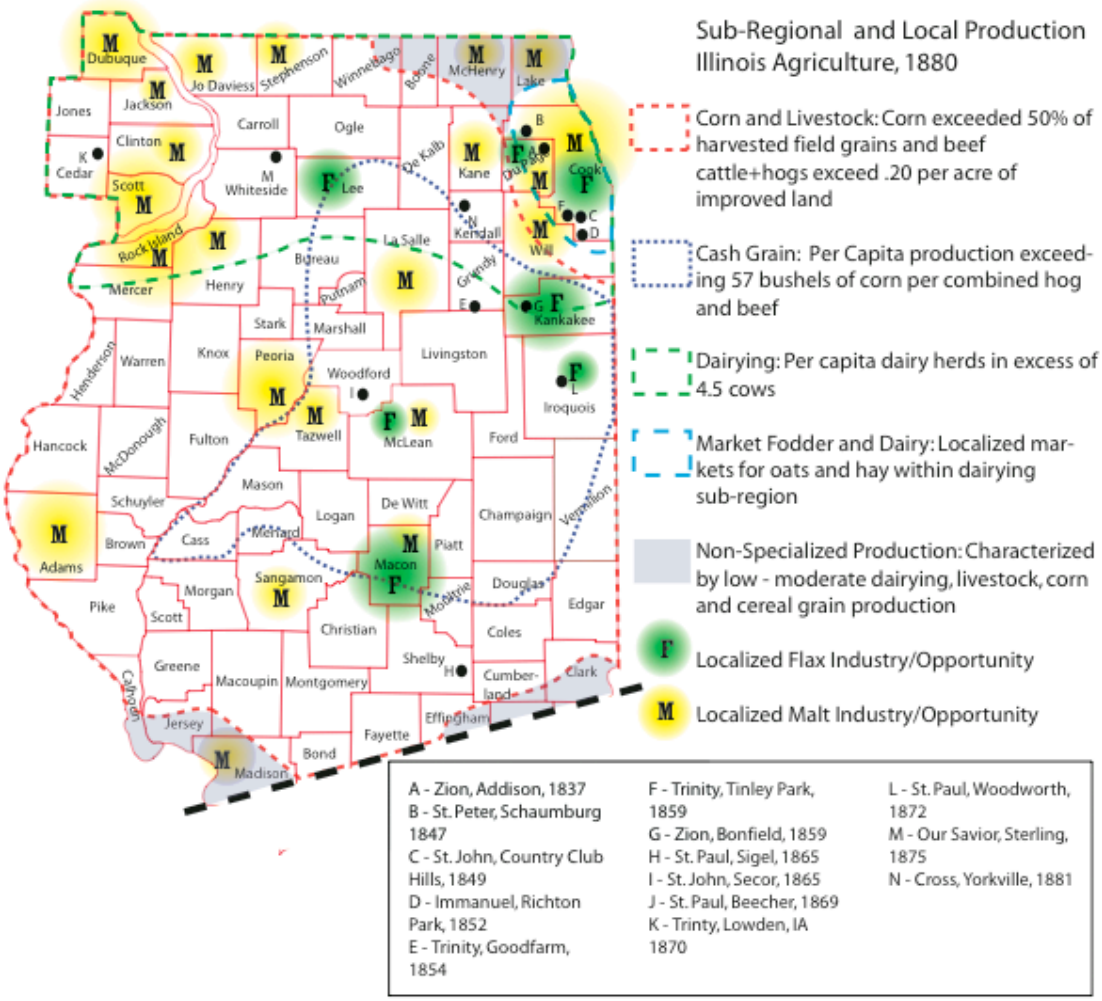

Figure 1.24

landscape. Figure 1.24 illustrates the locations of local processing centers of barley and flax.[74] The yellow and green zones do not represent exact locations of processing industries or the geographic area that the individual facilities influenced. Rather, the colored spheres show that processing facilities existed in specific counties. The size of the sphere, however, does approximate the amount of capital invested in processing industries expressed on a per farm basis; e.g. a county with one hundred farms and a flax mill worth one hundred dollars would have a larger green sphere than a county with one hundred farms and a flax mill worth fifty dollars. It is worth noting that in counties such as Champaign, Ford and Livingston, the heart of the cash-grain region, few opportunities for local production existed. Markets for malt existed mostly within counties that also contained cities large enough to support breweries. Flax processing facilities, on the other hand, were not directly related to local markets. Rather, entrepreneurs located processing facilities in areas with railroad access and a local labor supply. Often, flax mills were located in small villages such as the one in the Village of Roselle in northern DuPage County. Smaller mills did not require a large labor force and thus did not need to locate in large cities. [75]

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[74] Figure 1.24 compiled by author based on data from:
Report on the Manufactures of the United States at the Tenth Census. (Washington: Government Printing Office, 1883), 211-240.

[75] For a more in-depth discussion on the relationship between local industry and local agriculture, see Chapter 3. Roselle Hough was an interesting character and worthy of his own separate history. Born in Vermont, he came to Bloomingdale as a child. At age 19 he went to work in Chicago as a butcher. By 1850 he and his brother had opened their own packinghouse. In 1865 he was among the officers in the corporation founded to construct the Union Stock Yards and he served as superintendent of construction, the first carloads of hogs to enter the Yards were his. Hough served as a Chicago city alderman was the Chief Marshal of the parade that brought President Lincoln's corpse through the city. It was Hough's clout and influence that brought the railroad north through his developing crossroads community based around the flax mill (and closer to Schaumburg) rather than through the larger town of Bloomingdale to the south. See, Dorothy Sanborn, *History, Roselle, Ill,* (Roselle, IL: Roselle Historical Society), 4-13.

Spatially specific trends in the ongoing evolution of the Midwestern political economy were clearly evident in the period between 1860 and 1880. Revolutionary change in the means by which commodities moved across distance fueled an increase in specialization and a hardening of sub-regional trends. The economic particulars of cash-grain production fueled the expansion of commodity grain production from its original source region in east-central Illinois. Sub-regional differences in cropping patterns created different needs in horsepower, farm machinery, labor and ultimately the profitability of agriculture. Immigrant groups settled throughout Illinois and the Midwest. They brought with them a different set of experiences and background that colored their daily lives. They often settled in groups, formed social institutions such as churches, and maintained cultural traditions in their new environment. What follows is an attempt to understand if, how, and where immigrant culture affected agricultural landscape. To do so requires an intra-regional approach in which immigrant populations are compared, not with their counterparts across an ocean, but with their immediate neighbors and their ethnic counterparts across Illinois. By utilizing a comparative intra-regional approach, the strength of the spatially specific market forces may be measured, as can the role of local market opportunities.

CHAPTER 2

THE QUALITIES OF LOCAL AGRICULTURE: A QUANTITATIVE INQUIRY INTO THE SPATIAL CONTEXT OF ETHNIC AGRICULTURE IN THE MIDWESTERN CORN-BELT, 1880

This statistical inquiry into the spatial context of ethnic farm production draws exclusively from the 1880 agricultural census schedule and focuses its attention primarily upon what the landscape looked like. Farm people left few documents by which to divine their intentions and attitudes, but they left a permanent record of accomplishment in the re-organization of the landscape, which resulted from their expenditure of physical energy in pursuit of economic return. Preserved in time by the enumerator's pen, census data offers the researcher a tangible reflection of the world rural folk created. By reconstructing and "reading" the landscape, we gain understanding beyond economic relationships that bound individual farms to market centers through transportation systems across geographic spaces. The unfolded landscape offers a narrative that moves beyond description of an objective end towards an understanding of the dynamic means through which individuals achieved it. The chief concern of this chapter is how and when groups of individuals broke from a larger pattern and created something different upon the landscape.

What follows is not an inquiry into the 'essential characteristics' of ethnic agriculture, but rather an examination of its outward expression that draws attention not only to what was grown, but also the form in which it moved through space to processing

facilities and ultimately its consumption.[76] This quantitative analysis examines multiple communities in each agricultural sub-region in an effort to understand the spatial opportunities and constraints of the commoditized market by looking at the agricultural production records of distinct population groups. In each locale, the landscapes created by German-Americans are contrasted with their native-stock neighbors to determine if any culturally distinct characteristics were evident, or, whether place specific market stimuli resulted in a single heterogeneous landscape. Chapter Three addresses both the more nuanced essential characteristics of ethnic agriculture that existed across space and incorporate a time sequence in an attempt to gauge the trajectory of local agricultural systems. The remainder of this chapter will show that, throughout much of the Illinois corn-belt, distinctions in agricultural typologies between ethnic and native-stock populations did not manifest directly in the landscape, except where ethnic farmers accessed local markets via non-commoditized transportation networks.

The dataset upon which the following conclusions draw includes the production statistics of every farm in fourteen townships constituting a total data set of nearly 1,900 farms that describe a geographic area of nearly 500 square miles.[77] That data will be

[76] A common shortcoming of many transplantationist approaches to ethnic agriculture is a focus upon what is grown rather than the labor routines required to grow it. Transplantationists do a better job with livestock and the continuation of gendered labor norms in the American environment. Less concern has been given to the nature of field crop production and how cultural approaches gendered and group labor contributed to the maintenance or rejection of Old World cropping patterns. "Essential characteristics" is a term borrowed from Royden Loewen's work on Mennonite Immigrants to Canada. Loewen found that Mennonites readily adapted to the agricultural environment of their adopted homeland, whereas cultural markers of language, religion, organization of intra and extra familial labor proved more resilient. See: Royden Loewen, *Family, Church, and Market: A Mennonite Community in the Old and the New Worlds, 1850-1930*. (Champaign: University of Illinois Press, 1993).

[77] Actual data set consists of 1,897 farms and is a subset of over 10,000 farms tabulated for the purpose of this dissertation from 1850-1880. Only farms where ethnicity/background were clearly discernable via a comparison to population schedules were included. Thus, the database is actually substantially larger as it contains, in some areas, significant numbers of English, Irish,

presented throughout the remainder of the chapter in tabular form. The tables contain descriptive statistical calculations such as arithmetic mean and standard deviation, but subsequent interpretation relies more heavily on robust statistical measures of quartiles (Q1 and Q3), the inter quartile range (IQR) and median.[78] Rather than focus on the arithmetic mean, a figure that is too easily pushed one direction or another by a few very large or very small producers, this study relies upon the IQR to determine the central tendency of a population. The IQR represents the 'middle fifty' of a population. Q1 is the value of a specific statistic at the twenty-fifth percentile, Q3 the seventy-fifth percentile. Thus, if a data set contains 203 statistics arranged in order of increasing magnitude, Q1 represents the value of the fifty-first statistic and Q3 represents the value of the one hundred and fifty-third. The median, or Q2, is the value of the one hundred and second statistic. The IQR is determined by subtracting Q1 from Q3, which produces a number that describes the distance from the first quartile to the third, or the middle fifty percent of the population. The median's relative position within the IQR, that is, whether it is skewed toward Q1 or Q3, suggests the concentration of the statistic toward the higher or lower end of the IQR.

When comparing two populations, this study looks primarily at the middle fifty-percent. In this way, the study recognizes an interest in the central tendency of a

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Canadian and Scandinavian immigrants. Native-stock populations were largely of Mid-Atlantic or New England origins throughout the study area, although Virginians, Kentuckians and Indianans were not uncommon. The figure of 500 square miles is based on a standard township consisting of thirty-six sections of one square mile each. Schaumburg Township did not contain a full thirty-six sections, the bottom tier being somewhat reduced in size by the border of Cook and DuPage Counties. All fourteen of the townships included were almost exclusively rural in character. Bloomingdale Township in DuPage County had the largest 'town' of any of the townships. Most townships contained little more than crossroads hamlets; the overwhelming majority of acreage in every township was devoted to agricultural purposes.

[78] Konrad Jarausch, *Quantitative Methods for Historians: A Guide to Research, Data, and Statistics* (Chapel Hill: University of North Carolina Press, 1991).

population rather than those of the largest and smallest farms. In every township under study, there are a number of very large farms, run primarily with hired labor, and very small ones incapable of providing an economic subsistence through farm work alone. The behaviors of both large and small farmers deserve study, but not here.[79] The IQR, first and third quartiles, and median, taken together reveal a great deal of information about the middle fifty of a population and the degree of variation within the population. A population with a high IQR contains more variation, or less central tendency, than a community that demonstrates a low IQR even though the two communities may have exactly the same arithmetic mean and even median. While the standard deviation describes the variation within a population, it is a much more obtuse statistic that requires more extrapolation. IQR, on the other hand, is not extrapolated and can be directly compared across two data sets and the same statistic. It is common to see differences in the IQR between cultural populations, but determining at which point differences are statistically significant is a subjective effort. Employing IQR and quartile information is both a transparent and accessible method of employing statistical data and allows the non-statistician a better opportunity to recognize meaning behind the numbers. To make quantitative data even more accessible, the IQR will be represented occasionally in the form of a box-plot diagram (see Appendix). The box plot notes the upper and lower limit of the data set, the IQR and the median. Comparing two box-plots will show visually the

[79] Quantitative studies that examined the productive characteristics of either the lower quartile or upper quartile would offer significant insights. As median farm sizes increased across the upper Midwest over the last third of the nineteenth and through the twentieth century, it was the lowest quartile that was frequently 'squeezed' out. Once the economic connection to the land was severed, many formerly small farmers joined the surging population shift toward industrial cities. The economies of scale achieved through commodity production on larger farms did not work on small farms. Understanding the agricultural strategies of small farmers that remained economically viable in the face of this economic disadvantage could offer important insights into economic 'wrinkles' in the corn-belt paradigm and their implication on family labor systems.

distribution of values within a given population and, if the scale is constant, may be compared directly with a box-plot describing the same statistic in a separate data set.

While determining the level at which a difference between two populations is meaningful remains subjective, the potential for misunderstanding also exists in other areas of the quantitative study. Foremost among these pitfalls is enumerator error.[80] Human enumerators recorded census data by querying individual farmers about the various aspects of their farms production. The Census Bureau did create a set of instructions for enumerators, but not all enumerators interpreted instructions consistently.[81] For instance, it is clear that the enumerator in Goodfarm Township, Grundy County misunderstood the meaning of the 'Tilled Acres' category on the census. While most other enumerators included in this all land that was in a rotation of cultivation, the Goodfarm Township enumerator only included land that was tilled and planted during the 1879 census enumeration. As such, it proves impossible to deduce the percentage of land left fallow, there being essentially no difference between tilled and planted acreage in the census. In all other townships, the percentage of fallow land ranged between the twenty and forty-percent. These inconsistencies make comparisons from township to township more difficult, but do not affect comparisons of distinct populations within a given township. Additionally, some categories such as acres of corn, pounds of butter, or the numbers of horses were much less open to interpretation by the enumerator and may thus be more reliably compared across geographic space.

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[80] Frederick Bode and Donald Ginter, *Farm Tenancy and the Census in Antebellum Georgia* (Athens: University of Georgia Press, 1986).
[81] Carrol Wright, *The History and Growth of the United States Census, Prepared for the Senate Committee on the Census* (Washington: Government Printing Office, 1900).

Another possibility for error in the data stems not from the enumerator, but from the respondent. It is possible that respondents either gave purposefully incorrect information or withheld data from the enumerator. The more likely of the two errors is that of omission. Such was the case in Addison Township where over a quarter of respondents failed to report the total value of farm production and, oddly, the number of chickens on their farm. Whether this was due to lack of precise knowledge, intention to withhold information on the part of the respondent, or enumerator error is unclear. These types of errors, however, are very obviously spotted during the transcription process and are noted by asterisks when they appear in the data tables. Errors, no doubt, occurred during the very human act of recording. Occasionally, an extra zero was added to the end of a number. These too are very easy to spot and were corrected during the transcription process. A hypothetical example would be if all the farms that tilled 100 acres in a township had a value between $4,700 and $5,600, but one was reported as $52,000 and if all the other ancillary statistics concerning livestock and crops were roughly similar then the farm value was adjusted to $5,200. Lastly, some suitable locations for study were not included at all because the data had been corrupted over time. In some instances ink faded and was no longer legible; in others the microfilming process failed to properly record the information from the original paper records.

As noted earlier, despite the facade of objectivity afforded by quantitative data, its interpretation remains a subjective task. Comparing cultural groups will produce slight distinctions across all categories, but so too might a random sample across cultural groups.[82] Further, it must always be born in mind that agriculture was an economic

[82] Knut Oyangen, *Immigrant Identities in the Rural Midwest, 1830-1925* (Ph.D. Dissertation: Iowa State University, 2007) 163-164.

activity and that as the scale of farming increased (economic, physical or otherwise), so to did the manner in which it was practiced. Larger farms tended to have proportionally more livestock and leased farms tended to devote a higher percentage of acreage to corn, for instance. So, when differences between cultural populations did exist, we must be careful to not be too hasty in attributing that difference to some deep-rooted cultural predilection. Still, small differences between populations were not necessarily insignificant. If there is a slight difference in the number of swine, for example that, while small, existed regardless of location or economic scale then we must consider whether or not it was a manifestation of culture strong enough to find expression regardless of spatially specific economic stimuli. So, intra local differences among discrete populations may have stemmed from economic factors, those of the scale of production or they may have resulted from a more consequential difference in the method of production. Besides modal and scale differences, we must also include differences in spread as evidenced by the IQR. The tendency of a population to cluster production more closely to the median, thereby representing a more regular if not egalitarian mode of production, may be more important than a broad difference in the type of production.

In the majority of the Illinois corn-belt, drastic differences among discrete populations rarely existed within singular categories of production. Differences were more likely to be found in the relationships among multiple categories of production e.g., not in the acres of corn planted or the numbers of hogs, but how much corn was marketed as grain and how much was fed to hogs. The purpose of this quantitative exercise is threefold. First, to find out if ethnically distinctive practices existed among German immigrants in the Illinois Corn-belt. Secondly, it aims to locate specific locations where

ethnically distinct production existed. Thirdly, and most importantly, it investigates the nuances of location that enabled unique methods of agricultural production to develop among ethnic populations in contrast to native-stock populations.

ETHNIC AGRICULTURE IN THE CASH-GRAIN SUB-REGION

Quantitative analysis begins in the cash-grain sub-region, but it does not extend into the hearth of the region in east Central Illinois as it existed in 1860. This is due, in part, to the relative dearth of immigrants located in the counties that first comprised the cash-grain region. Immigrants filtered into the state along its major transportation corridors, their density decreasing as they moved further away from areas of entrepôt. While some rural and town congregations of Missouri Synod Lutherans were eventually founded in heart of the cash-grain sub-region, few if any extant rural congregations were established before the 1880s. Rather, the townships in Kankakee, Woodford and Grundy Counties examined here existed on the 'frontier' of the cash-grain belt as it was spreading northward between 1860 and 1880. In this contested area where the cash-grain emphasis merged with the corn-hog emphasis little difference existed in the combination of domesticated plants and animals. Farmers grew mostly corn, some oats and raised mostly hogs, less beef, a dairy cow or two and a flock of chickens to add color and protein to their daily routines. The distinction between the regions lay in what to do with all of that corn, how much to ship to market and how much to funnel into the maw of the ubiquitous porcine population.

In the mid 1850s, German Lutherans began settling in Pilot and Salina Townships, about ten miles west of the county seat of Kankakee. The Reverend Wolfgang Simon Stubnatzy, who served the St. John's congregation in southern Cook County about thirty-five miles to the north attended to the spiritual needs of the settlers at worship services in their homes. In 1859, twenty men organized the Zion Lutheran Church, which had, by 1861 laid the cornerstone of their first church building, a modest structure of less than seven hundred square feet.[83]

The settlement of German immigrants, and white settlers more generally, came later to Kankakee County than the counties to the north and much later than settlement in the southern and south central portions of the state. The settlers had arrived from diverse locations in Germany including the Alsace, Bavaria, Hanover and Prussia.[84] Several had made short stays elsewhere in Illinois, namely Cook and DuPage Counties before their arrival in Kankakee County, bringing with them an exposure and attachment to the Lutheran Church generally, and the Missouri Synod specifically. The emergence of rural enclaves of ethnic Germans centered around the bell-towers of Missouri Synod Lutheran churches in rural Illinois was not a random phenomenon. Much of the pastorate and the laity spread outward from the areas surrounding Chicago following the canal and railroad networks which concentrated in and then dispersed from the Midwestern city. Each enclave existed within a geographic network of association formalized through the

[83] Louis J. Schwartzkopf, *The Lutheran Trail: A History of the Synodical Conference Lutheran Churches in Northern Illinois* (St. Louis: Concordia Publishing House, 1950), 104-105. Cook and DuPage counties were cultural hearths not only for the spread of immigrant communities, but also the immigrant church. Pastors in northeast Illinois moved between congregations and many eventually went on to serve younger congregations throughout Illinois, Iowa and points further west.

[84] United States Census Bureau, *Tenth Census* (Manuscript Returns: Pilot Township, Kankakee County, Illinois).

official associations of the church and unofficial associations of kinship and acquaintance.[85]

The German immigrants to Pilot and Salina Township called a pastor and built a church in a collective effort to attend to their spiritual needs, but their corporeal needs were met through individual and family decisions and the work of their hands and backs in the fields and farmyards of the rural district. Taken together, familial energies bent upon the economic survival and advancement of individual farmsteads coalesced into an agricultural landscape of crop fields and farmyards arranged along the symmetrical grid of roads, fence-lines and cow-paths. The church fostered self-awareness among the community of believers that emphasized the importance of maintaining German culture, language, identity and the importance of remaining distinct in the American environment.[86] The self conscious identity cultivated by the immigrant church did not, however translate to the cultivation of a radically different agricultural landscape. In the economic milieu of the Midwestern corn-belt, immigrant farmers failed to reproduce traditional cropping patterns, relying instead upon the Midwestern staples of corn and hogs.

As evidenced in Table 2.1 and 2.2, in every metric of production, as enumerated in the agricultural census schedule, the ninety-one German-American farms in the

[85] The movement of individuals and immigrant families across geographic space paralleled the missionary activities of pastors and the immigrant church. Common surnames frequently appear in parish registers as branches of original settler families moved away from areas of dense population such as Cook County and to locations of with lower populations and lower land values. Sometimes this migration to a new location was organized within the framework of the immigrant church (see Chapter Four).

[86] Carol Coburn. *Life at Four Corners: Religion Gender, and Education in a German-Lutheran Community, 1868-1945*, (Lawrence: University of Kansas Press, 1992).
Heinrich Maurer. "The Lutheran Community and American Society: A Study in Religion As a Condition of Social Accommodation," *The American Journal of Sociology,* Vol. 34, No. 2 (Sept., 1928) 282-295.

Township behaved in much the same manner as their native-stock neighbors. Some differences existed between the two population groups; farms in the native-stock population group tended to be larger and consequently worth more, but beyond that, the differences were largely of scale rather than mode. Both groups dedicated nearly the same percentage of their cultivated acres to corn, cereals and flax. Both groups kept hogs, beef and dairy cattle in roughly the same proportions – native stock farmers having slightly more of each on their larger farms. Both groups raised nearly the same, relatively low, amount of corn per hog and head of beef cattle. The physically smaller German-American farms left less land fallow in order to plant fields of only slightly smaller size, suggesting a more intensive use of the landscape, but the overall method of production, in terms of crops and livestock, among the two groups was overwhelmingly more similar than different.

Table 2.1 Salina Township, Kankakee County: 1880

German-American, N (91)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	82		90.1%						
Tilled Acres	5,706			62.7	38.1	35	77.5	42.5	60
Farm Value ($)	245,280			2,695.4	1,698.4	1,500	3,550	2,050	2,400
Implement ($)	10,585			116.3	88.0	50	187.5	137.5	100
Livestock ($)	28,120			309.01	230.3	150	400	250	300
Labor ($)	2,144			23.6	73.3	0	0	0	0
Total Val. Farm Production ($)	53,044			582.9	415.4	350	692	342	505
Mown Acres	1,421			15.6	15.4	5.5	20	14.5	10
Non-Mown Grassland	102			1.2	4.8	00	0	0	0
Hay Tons	1,912			21.01	21.3	10	30	20	20
Horses	370			4.1	2.3	2	6	4	3
Milk Cows	413			4.5	2.6	3	5	2	4
Other Cattle	410			4.5	5.7	0	7	7	2
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	22,855			251.2	195.0	100	350	250	200
Swine	1,314			14.4	15.2	4.5	16	11.5	10
Chickens	3,427			37.7	30.2	15	50	35	30
Dozens of Eggs	10,845			135.6	115.0	48	200	152	100
Corn Acres	3,194			35.1	26.2	20	44.5	24.5	30
Corn Bushels	98,850	30.9		1,089.3	791.0	550	1500	950	1000
Corn Acres %			68.1%			66.6%	80.6%	14	73.0%
Oat Acres	775			8.5	7.0	4.5	11	6.5	8
Oat Bushels	26,772	34.5		294.2	249.7	130	400	270	260
Rye Acres	277			3.04	4.3	0	4	4	3
Barley Acres	5					0	0	0	0
Wheat Acres	86			.9	1.6	0	2	2	0
Wheat Bushels	1,159			12.7	22.0	0	20	20	0
Cereal Acres %			24.4%						
Flax	350			3.8	6.2	0	6.5	6.5	0
Flax Seed	2,858.5			31.4	54.6	0	50	50	0
Flax Straw (Tons)	0					0	0	0	0
Flax %			7.5%						
Potato Bushels	4,844			53.2	50.02	0	75	75	50
Corn Bu./Hog+Beef	57.3					37.6	114.8	77.2	55.6
Hog/Beef	3.2								
Dairy/Hog+Beef	.24								
Fallow %			17.9%						
Butter per Cow, lbs	55.3								
Milk Sold per Cow	0								
Eggs per Chicken	38.0								

Table 2.2 Salina Township, Kankakee County: 1880

Native-Stock, N (44)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	34		77.2%						
Tilled Acres	3,681			83.7	64.8	60	100	40	70
Farm Value ($)	154,950			3,521.6	2,080.5	2,400	4,925	2,525	3,400
Implement ($)	5,640			128.2	77.9	75	200	125	112.5
Livestock ($)	19,065			433.3	353.3	225	500	275	375
Labor ($)	2,782			63.2	100.3	0	21.25	21.25	2.5
Total Val. Farm Production ($)	35,332			803.0	574.6	475	1,000	525	687.5
Mown Acres	768			17.5	20.6	9	20	11	13.5
Non-Mown Grassland	10			.2	1.5	0	0	0	0
Hay Tons	1,097			24.9	28.1	11.5	30	18.5	20
Horses	199			4.5	2.6	3	6	3	4
Milk Cows	216			4.9	4.7	2	6	4	4
Other Cattle	308			7.0	11.2	0	9.25	9.25	3
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	14,025			318.8	411.0	100	400	300	200
Swine	792			18	15.7	7.75	22.5	14.75	15
Chickens	2,030			46.1	32.5	25	53.5	28.5	40
Dozens of Eggs	4,867			143.1	107.03	80	190	110	120
Corn Acres	1,863			42.3	28.6	25	50	25	40
Corn Bushels	61,600	33.1		1,400	841.7	975	2,000	1,025	1,200
Corn Acres %			66.7%			65.3%	80.3%	15	72.7%
Oat Acres	528			12	10.2	5.75	13.5	7.75	10
Oat Bushels	19,507	36.9		443.3	405.2	207.5	512.5	305	320
Rye Acres	160			3.6	5.7	0	8	8	0
Barley Acres	0					0	0	0	0
Wheat Acres	73			1.7	2.7	0	3	3	0
Wheat Bushels	1,069			24.3	40.7	0	35	35	0
Cereal Acres %			27.2%						
Flax	168			3.8	7.7	0	5.25	5.25	0
Flax Seed	1,300.50			29.6	69.5	0	10	10	0
Flax Straw (Tons)	0					0	0	0	0
Flax %			6.0%						
Potato Bushels	1,805			41.0	48.3	0	63.75	63.75	35
Corn Bu./Hog+Beef	56					32.6	121.7	89.1	58.4
Hog/Beef	2.6								
Dairy/Hog+Beef	0.2								
Fallow %			24.2%						
Butter per Cow, lbs	64.9								
Milk Sold per Cow, Gal.	0								
Eggs per Chicken	28.8								

Table 2.3 Pilot Township, Kankakee County: 1880

German-American, N (45)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	33		73.3%						
Tilled Acres	6,807			148.0	114.8	80	167.5	87.5	116
Farm Value ($)	$183,124			$3,981.0	$3,005	2,500	4,225	1,725	3,000
Implement ($)	$8,005			$174.0	$142.6	75	200	125	150
Livestock ($)	$21,225			$461.4	$342.9	250	600	350	400
Labor ($)	$3,490			$77.6	$135.4	0	100	100	0
Total Val. Farm Production ($)	$43,032			$935.5	$701.0	550	1,000	450	700
Mown Acres	894			19.4	34.6	7.25	25	17.75	11
Non-Mown Grassland	94			2.0	6.0	0	0	0	0
Hay Tons	1,208			26.3	34.7	10	27.25	17.25	15
Horses	200			4.7	2.5	3	6	3	4
Milk Cows	174			3.8	2.3	2	5	3	3
Other Cattle	235			5.1	7.5	0	6	6	3
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	8,353			181.6	109.2	100	250	150	150
Swine	498			10.8	12.4	3	12	9	8
Chickens	2,488			54.1	72.5	30	50	20	49
Dozens of Eggs	10,162			254.05	306.8	157.5	250	92.5	200
Corn Acres	3,537			76.9	66.8	40	78.75	38.75	60
Corn Bushels	113,900	32.2		2,476.1	2429.8	1,250	2,650	1,400	1,650
Corn Acres %			67.4%			61.8	70.4	8.6	66.3
Oat Acres	626			13.6	10.9	8	15.75	7.75	11
Oat Bushels	22,250	35.5		484	451.2	212.5	600	387.5	400
Rye Acres	29			.63	2.0	0	0	0	0
Barley Acres	0			0	0	0	0	0	0
Wheat Acres	36			.78	1.8	0	0	0	0
Wheat Bushels	356			7.7	18.8	0	0	0	0
Cereal Acres %			13.2%						
Flax	1,018			22.1	28.2	8.5	26.5	18	15.5
Flax Seed	7,971	7.8		173.3	191.2	71.25	230	158.75	111
Flax Straw (Tons)	0					0	0	0	0
Flax %			19.4%						
Potato Bushels	2,433			52.9	53.5	21	67.5	46.5	31
Corn Bu./Hog+Beef	155.4					96.9	216.7	119.8	150
Hog/Beef	2.1								
Dairy/Hog+Beef	0.24								
Fallow %			22.9%						
Butter per Cow, lbs	48								
Milk Sold per Cow	0								
Eggs per Chicken	49.01								

Table 2.4 Pilot Township, Kankakee County: 1880

Native-Stock, N (45)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	33		73.3						
Tilled Acres	7,108			158.0	129.1	80	160	80	120
Farm Value ($)	$189,275			$4,206.1	$3,553.7	2,100	5,000	2,900	3,000
Implement ($)	$4,490			$99.8	$68.9	50	150	100	100
Livestock ($)	$19,995			$444.3	$339.3	200	600	400	300
Labor ($)	$4,535			$105.5	$146.7	0	187.5	187.5	10
Total Val. Farm Production ($)	$39,271			$872.7	$689.9	400	1,100	700	700
Mown Acres	995			22.1	28.9	7	24	17	12
Non-Mown Grassland	68			1.5	5.2	0	0	0	0
Hay Tons	1,296			28.8	39.1	7	32	25	15
Horses	181			4.1	2.7	2	6	4	4
Milk Cows	146			3.2	3.2	1	5	4	2
Other Cattle	154			3.4	6.4	0	2	2	0
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	11,302			251.2	362.3	50	300	250	150
Swine	708			15.7	19.8	3	23	20	8
Chickens	1,708			38.0	43.7	16	50	34	30
Dozens of Eggs	6,415			152.7	122.5	80	200	120	160
Corn Acres	3,094			68.8	59.5	34	80	46	50
Corn Bushels	93,840	30.3		2,085.3	1,777.7	900	2,800	1,900	1,500
Corn Acres %			66.9%			61.3	73.0	11.7	67.5
Oat Acres	398			8.8	7.1	4	12	8	8
Oat Bushels	16,290	40.9		362	333.9	180	470	290	300
Rye Acres	22			.5	2.4	0	0	0	0
Barley Acres	0			0	0	0	0	0	0
Wheat Acres	6			.13	.89	0	0	0	0
Wheat Bushels	105			2.4	16.1	0	0	0	0
Cereal Acres %			9.2%						
Flax	1,108			24.6	20.7	10	35	25	18
Flax Seed	7,852			174.5	138.4	75	250	175	150
Flax Straw (Tons)	0					0	0	0	0
Flax %			23.9%						
Potato Bushels	2,331			51.8	65.6	20	50	30	30
Corn Bu./Hog+Beef	108.9					69.7	260.0	190.3	97.6
Hog/Beef	4.6								
Dairy/Hog+Beef	0.17								
Fallow %			34.9%						
Butter per Cow, lbs	77.4								
Milk Sold per Cow, Gal.	0								
Eggs per Chicken	45.1								

Due south of Salina Township lies Pilot Township (Tables 2.3 and 2.4) with Zion Congregation situated between them. Farmers in Pilot Township, both German and native-born alike tilled more acreage, planted substantially more grain, and raised moderately more livestock. Both German and native-stock farmers owned their farms at the same rate. Both groups planted almost the same percentage of land to corn; Germans slightly favored cereals while native-stock farms produced slightly more flax. But, in sum, little difference existed in the crop fields of the two groups. Like their countrymen in Salina Township, the Pilot Townships Germans fallowed less of their land. The value of their farms had similar median and means, but the native-stock farms demonstrated a much larger IQR, again similar to Salina Township. That the native-stock farms had significantly higher IQR tells us that there was a larger gap between wealthy and poor farmers and that 'middling' farmers made up a smaller proportion of the overall population.

From a birds-eye view, however, the fields of Pilot and Salina Township seemed little different. The amount of tilled acres in Salina Township was significantly smaller on a per farm basis, but the contents of the fields were very similar. The farms in Pilot Township were larger than Salina, particularly among the German-American population. In fact, the German-American farmers in Salina Township tilled the fewest acres of any of the group of farms in this study outside of Chicago's fodder hinterland. A more subtle difference among the populations existed regarding stock raising, specifically swine.[87]

[87] Several historians have noted that Germans in the Midwest averaged fewer hogs than 'Yankee' farmers, but few have developed the theme or its implications. Indeed, smaller hog numbers was one of the few notable differences Allan Bogue found between German and native-stock populations. See: Allen Bogue, *From Prairie Belt to Corn Belt: Farming on the Illinois and Iowa Prairies in the Nineteenth Century* (Chicago: University of Chicago Press, 1963) 237-238.

That the German population in Salina Township, who farmed smaller amounts of land, had fewer hogs than their native-stock neighbors is not surprising. That an average German farmer in Pilot Township, where farm sizes between groups was roughly equal, would have a third fewer hogs is more noteworthy. The average number of hogs, however, only tells half the story.

In Pilot Township, the majority of Yankee farms and German farms mirrored each other in hog production, to a point. In both populations, the Q1 statistic was three hogs, and both populations had an identical median of 8. However, the native-stock Q3 at twenty-three swine was nearly 100% larger than the Q3 value of 12 in the German-American population. Hog numbers in the lower quartiles of both populations approximated each other, but as the intensity of stock raising increased in scale, native-stock farmers proved more likely to increase the size of their herds.

This difference in approach is further evidenced in the Bushels of Corn per Hog/Beef number. As a total population, German farmers in Pilot Township grew 155.4 bushels of corn for each beeve and hog whereas native-stock farmers produced only 108.9 bushels. It would seem that German farmers were more inclined to raise commodity corn. Again, this is only true to a point; German farmers achieved the higher bushels of corn per hog and beef (BPHB) not by uniformly out performing Yankee farmers in grain production. As in hog production, there was considerable variation in the range of BPHB. At Q1 and through the median, German farmers put more corn on rail cars and less into hogs than their English speaking contemporaries, but, the most

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Walter Kamphoefner, *The Westfalians: From Germany to Missouri* (Princeton: Princeton University Press, 1987), 125-133. The data here suggests that smaller swine herds among Germans were not necessarily a product of middling farmers, but rather the symptom of a disinclination to engage in large-scale hog raising. Rather, swine numbers did not increase at the same rate in the upper quartiles.

specialized of grain farms, those that had the highest BPHB were Yankee farms as witnessed by a Q3 BPHB of 260. The Yankee farms that produced the lowest BPHP numbers, however, were not necessarily the same ones that produced the highest hog numbers. Similarly, no real correlation existed between the number of hogs and the amount of land planted in corn except on the largest of corn farms. Within the IQR for hog numbers, corn acreages fluctuated inconsistently. While BPHP tended to be higher on farms with fewer hogs, fewer animals did not necessarily correspond to less corn. Put another way, a farm that grew 50 acres of corn was as likely to have five hogs as it was to have fifteen. The high variability among the population was in large part a function of its location in Kankakee County, which was on the edge of the cash-grain sub-region. Some farms had begun to specialize in grain while others retained a greater reliance on fattening stock.

The wide variation in BPHB and the livestock/corn relationship more generally was also a function, however, of the nature of raising stock. In an enclosed landscape, where stock had to be housed and fenced, the capacity to grow corn far outstripped the capacity to grow hogs on most Midwestern farms. A typical farm in Pilot Township might have grown 70 acres of corn that produced 2000 bushels of grain. Conservatively, that amount of grain could have brought 200 hogs to market weight. The expense, however, of building structures and fences to house 200 hogs, and the labor required to process the feed and maintain their facilities would have strained the resources of middling farmers reliant, mainly, upon family labor. Hog farming did not achieve this

scale of production until confinement operations were developed in the mid twentieth century.[88]

German farmers in Pilot and Salina Township did not create an ethnically distinct landscape in 1879. The crops and livestock raised and marketed by ethnic farmers were the same as those raised by native-stock farmers. Even so, subtle differences between the two groups did exist. As we shall see, subtle variances from sub-regional method of agriculture remained, mostly, consistent across space and agricultural sub-region. An "average" immigrant farmer was no more or less likely to have more or fewer hogs than anyone else in this specific location, but they were significantly less likely to have a 'big' hog farm. Similarly, the majority of German farmers sold a slightly larger percentage of their corn on the commodities market, but they were less likely raise corn to the near exclusion of livestock. To summarize, ethnic agriculture exhibited all of the same hallmarks as the agriculture practiced by the Yankee farmers in the vicinity. Yankee farmers, however, proved more inclined to 'get big' in one direction or the other—either toward stock or toward grain specialization.

Moving to the west to Grundy and Woodford Counties, the same patterns were evident. The largely Bavarian population, many of whom arrived in the hamlet north of Dwight via First St. Paul's LCMS congregation in Chicago, established Trinity Lutheran in 1854.[89] Over twenty years later, they farmed their land in virtually the same manner as

[88] The transition to large-scale confinement feeding required not only technological changes to farm structures for housing both hogs and feed, but also concomitant innovation in understanding of swine diseases and the use of antibiotics in hog feed, see: Joseph L. Anderson, *Industrializing the Corn Belt: Agriculture, Technology, and the Environment, 1945-1972* (DeKalb: Northern Illinois University Press, 2009) 91-106.

[89] United States Census Bureau, *Tenth Census* (Manuscript Returns: Goodfarm Township, Grundy County, Illinois, 1879); Louis J. Schwartzkopf, *The Lutheran Trail: A History of the*

their 'Yankee' contemporaries. Both populations planted fields of corn and cereals of similar size and proportion. However, like the Germans just to their east, Goodfarm Germans exhibited the same pattern regarding hogs (see Tables 1.5 and 1.6). Up through the median, German and 'Yankee' farms kept similar numbers of hogs, but by the third quartile, native stock farmers had again nearly doubled the scale of hog production seen in the German settlement. The decreased scale in hog production in the upper quartile translated to a 25% higher reporting of bushels of corn per beef and hog among the German farmers. Again, like Pilot, the difference in BPHP exhibited the same pattern. The majority of German farms raised more corn for market than the majority of native-stock farms, but small percentage of Yankee farms outstripped the most ambitious of German corn growers. Again, the mode of agriculture differed little between the groups. On the fringe of the cash-grain sub-region, there were a wide range of BPHB values as some farmers had shifted toward a more grain-centric approach to agriculture while others maintained a greater reliance on stock raising. This was true in both ethnic and native populations. The differences between the groups existed in between the categories. Overall, ethnic farmers exhibited a greater inclination toward grain farming, but were less likely to concentrate on either extreme of production.

Synodical Conference Lutheran Churches in Northern Illinois (St. Louis: Concordia Publishing House, 1950), 89-91.

Table 2.5 Goodfarm Township, Grundy County: 1880

German-American, N (66)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	43		65.2%						
Tilled Acres	4,980			75.5	39.4	50	87.5	37.75	62
Farm Value ($)	251,920			3,817.0	2,329.8	2,400	4,800	2,400	2,445
Implement ($)	13,435			203.6	139.6	100	300	200	150
Livestock ($)	38,920			589.7	342.1	392.5	700	307.5	500
Labor ($)	2,098			31.8	57.0	0	37.5	37.5	0
Total Val. Farm Production ($)	56,858			861.5	484.8	571.3	1000	428.8	702.5
Mown Acres	1,288			19.5	13.0	10	30	20	15
Non-Mown Grassland	2,064			31.3	32.8	11.25	43.75	32.5	18.5
Hay Tons	1,362			20.6	14.5	10	30	20	16.5
Horses	381			5.8	5.9	3	6.75	3.75	4
Milk Cows	369			5.6	3.4	3	7	4	5
Other Cattle	422			6.4	7.7	2	8	6	4
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	21,660			328.2	240.3	200	400	200	300
Swine	761			11.5	9.2	4.25	16	11.75	10
Chickens	3814			57.8	32.5	35.25	75	39.75	55
Dozens of Eggs	7540			114.2	79.8	75	147.5	72.5	100
Corn Acres	3825			58.0	28.5	40	68.75	28.75	49
Corn Bushels	134,490	35.2		2,037.7	1,224.0	1,400	2,500	1,100	1,675
Corn Acres (%)			76.9			64.6	88.8	24.2	80.7
Oat Acres	666			10.1	13.34	4.25	12	7.75	7
Oat Bushels	16,436	24.7		249.0	204.8	100	300	200	212.5
Rye Acres	89			1.3	3.3	0	0	0	0
Barley Acres	NA					0	0	0	0
Wheat Acres	174			2.6	3.9	0	5	5	0
Wheat Bushels	814	4.7		12.3	25.1	0	18	18	0
Cereal Acres %			18.7%						
Flax	222			3.4	6.2	0	4.75	4.75	0
Flax Seed									
Flax Straw (Tons)									
Flax %			4.5%						
Potato Bushels	1883			28.5	21.5	20	34.5	14.5	25
Corn Bu./Hog+Beef	113.6					75.6	219.0	143.4	141.2
Hog/Beef	1.8								
Dairy/Hog+Beef	0.31								
Fallow %			.01%*						
Butter per Cow, lbs	58.7								
Milk Sold per Cow	0								
Eggs per Chicken	23.8								

Table 2.6 Goodfarm Township, Grundy County: 1880

Native-Stock, N (57)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	39		68.4%						
Tilled Acres	4,446			76.7	41.2	46.25	95	48.75	66
Farm Value ($)	212,430			3,662.6	$2,319.2	2,400	4,800	2,400	2,500
Implement ($)	10,938			188.6	123.8	100	225	125	150
Livestock ($)	35,669			615.0	$427.01	363.8	700	336.3	500
Labor ($)	2,039			35.2	63.7	0	50	50	0
Total Val. Farm Production ($)	51,224			883.17	496.2	517.5	1,200	682.5	775
Mown Acres	810			14.0	15.5	6	17	11	10
Non-Mown Grassland	1,478			25.5	29.9	4.3	40	35.8	18
Hay Tons	1,007			17.4	20.5	6	20	14	12
Horses	327			5.6	3.4	3	7	4	4
Milk Cows	268			4.6	3.3	3	6	3	3
Other Cattle	311			5.4	6.8	1	6	5	3
Milk Sold (Gallons)	200			3.4	26.3	0	0	0	0
Pounds of Butter	18,105			312.2	233.1	142.5	450	307.5	300
Swine	1,102			19	21.4	3	28	25	12
Chickens	3,946			68.0	66.1	30	90	60	50
Dozens of Eggs	6190			106.7	79.8	50	150	100	100
Corn Acres	3,419			58.9	31.9	38.3	70	31.8	52
Corn Bushels	128,110	37.5		2,208.8	1,399.3	1,300	2,700	1,400	1,800
Corn Acres %			73.9%			75	93.1	18.1	84.7
Oat Acres	575			9.9	10.1	.8	14	13.3	7
Oat Bushels	15,428	26.8		266	323.2	0	400	400	144
Rye Acres	64			1.1	2.5	0	0	0	0
Barley Acres	NA					0	0	0	0
Wheat Acres	55			.95	4.2	0	0	0	0
Wheat Bushels	915			15.8	92.6	0	0	0	0
Cereal Acres %			16.1%						
Flax	197			3.4	9.5	0	0	0	0
Flax Seed									
Flax Straw (Tons)									
Flax %			4.6%						
Potato Bushels	1,524			26.3	16.7	17	30	13	25
Corn Bu./Hog+Beef	90.66					54.4	221.6	167.1	89.6
Hog/Beef	3.54								
Dairy/Hog+Beef	0.19								
Fallow %			3.1%*						
Butter per Cow, lbs	67.6								
Milk Sold per Cow, Gal.	0.75		.						
Eggs per Chicken	18.8								

Table 2.7 Green Township, Woodford County: 1880

German-American, N (45)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	31		68.9%						
Tilled Acres	5096			110.8	49.6	80	131.5	51.5	100
Farm Value ($)	244,700			5,319.6	2,335.5	3,625	6,900	3,275	5,000
Implement ($)	10,400			226.1	148.4	100	300	200	200
Livestock ($)	24,713			537.2	392.5	277.5	600	322.5	435
Labor ($)	2,687			58.4	100.4	0	85	85	0
Total Val. Farm Production ($)	48,205			1,047.9	461.3	800	1,350	550	1,000
Mown Acres	447			9.7	10.7	.5	11.5	11	6.5
Non-Mown Grassland	30			.65	4.4	0	0	0	0
Hay Tons	539			11.7	15.3	.25	15	14.75	10
Horses	258			5.6	3.5	3	7.5	4.5	5
Milk Cows	175			3.8	2.9	2	4	2	3
Other Cattle	268			5.8	6.0	1.25	7.75	6.5	4
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	12,760			277.4	298.7	100	337.5	237.5	200
Swine	815			17.7	18.4	5	30	25	10.5
Chickens	2,720			59.13	49.3	24.25	100	75.75	50
Dozens of Eggs	14,225			309.9	588.2	100	375	275	200
Corn Acres	2,561			55.7	27.8	36.3	73.8	37.5	50
Corn Bushels	110,050	43.1		2,392.4	1,430.6	1,500	3,375	1,875	2,000
Corn Acres %			70.9%			65.2	76.2	11	70.0
Oat Acres	756			16.4	9.3	10	20	10	17
Oat Bushels	23,635	31.3		513.8	350.03	325	700	375	543
Rye Acres	68			1.5	2.9	0	1	1	0
Barley Acres	6			.13	.88	0	0	0	0
Wheat Acres	220			4.8	6.3	0	8.75	8.75	4
Wheat Bushels	2,675	12.2		58.2	76.2	0	96.75	96.75	21
Cereal Acres %			30.1%						
Flax	0			0	0	0	0	0	0
Flax Seed	0			0	0	0	0	0	0
Flax Straw (Tons)	0			0	0	0	0	0	0
Flax %	0		0						
Potato Bushels	1,816			39.47	38.4	15.25	50	34.75	30
Corn Bu./Hog+Beef	101.6					72.6	256.7	184.1	129.2
Hog/Beef	3.04								
Dairy/Hog+Beef	0.16								
Fallow %			29.1%						
Butter per Cow, lbs	72.9								
Milk Sold per Cow	0								
Eggs per Chicken	62.8								

Table 2.8 Green Township, Woodford County: 1880

Native-Stock, N (92)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	66		71.7						
Tilled Acres	12,031			129.4	108.5	80	160	80	80
Farm Value ($)	572,872			6,226.4	5,394.2	3,650	8,000	4,350	4,155
Implement ($)	17,610			193.5	179.3	100	200	100	170
Livestock ($)	60,410			656.6	555.9	300	907.5	607.5	500
Labor ($)	6,298			67.7	109.3	0	120	120	0
Total Val. Farm Production ($)	93,574			1,006.2	615.5	700	1,200	500	900
Mown Acres	1,075			11.6	14.8	0	14	14	10
Non-Mown Grassland	20			.21	2.07	0	0	0	0
Hay Tons	1,077			11.6	14.9	0	15	15	8
Horses	545			5.9	4.2	3	8	5	5
Milk Cows	311			3.3	2.7	2	4	2	3
Other Cattle	728			7.8	15.7	1	7	6	3
Milk Sold (Gallons)	0					0	0	0	0
Pounds of Butter	20,931			225.1	215.2	75	300	225	160
Swine	2,054			22.1	20.8	8	30	22	16
Chickens	3,764			40.5	31.5	15	52	37	40
Dozens of Eggs	19,376			208.3	167.7	50	300	250	200
Corn Acres	4,822			51.8	34.5	30	70	40	40
Corn Bushels	210,005	43.6		2,258.1	1,594.3	1,200	3,000	1,800	2,000
Corn Acres %			67.01%			59.9	76.9	17	69.0
Oat Acres	1664			17.9	16.3	8	25	17	15
Oat Bushels	62,938	37.8		676.7	891.2	200	850	650	500
Rye Acres	222			2.4	6.6	0	0	0	0
Barley Acres	6					0	0	0	0
Wheat Acres	482			5.18	70.55	0	8	8	2
Wheat Bushels	6561	13.6		70.5	129.9	0	82	82	9
Cereal Acres %			32.99%						
Flax	0			0	0	0	0	0	0
Flax Seed	0			0	0	0	0	0	0
Flax Straw (Tons)	0			0	0	0	0	0	0
Flax %			0						
Potato Bushels	3727			40.1	49.3	20	50	30	30
Corn Bu./Hog+Beef	75.5					46.5	164.4	117.9	80.4
Hog/Beef	2.8								
Dairy/Hog+Beef	0.11								
Fallow %			40.2%						
Butter per Cow, lbs	67.3								
Milk Sold per Cow, Gal.	0								
Eggs per Chicken	61.8								

Table 2.9 Palestine Township, Woodford County: 1880

German-American, N (47)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	24		51.1%						
Tilled Acres	4770			101.5	62.1	56	140	84	80
Farm Value ($)	191,720			4,079.1	2,379.3	2,400	4,900	2,500	4,000
Implement ($)	8,225			186.9	101.0	100	250	150	162.5
Livestock ($)	26,391			561.5	484.8	265	750	485	400
Labor ($)	974			20.7	55.33	0	0	0	0
Total Val. Farm Production ($)	33,173			705.8	370.9	430	900	470	750
Mown Acres	242			5.14	8.6	0	7.5	7.5	0
Non-Mown Grassland	0			0	0	0	0	0	0
Hay Tons	173			3.70	5.6	0	6	6	4
Horses	211			4.5	2.6	2.5	6.5	4	4
Milk Cows	149			3.2	1.6	2	4	2	3
Other Cattle	167			3.6	5.3	0	3.5	3.5	1
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	9,505			202.2	145.8	100	325	225	200
Swine	1,203			25.6	24.7	7.5	30	22.5	20
Chickens	2,393			50.9	32.2	29	65.5	36.5	48
Dozens of Eggs	13,630			296.3	198.9	150	475	325	300
Corn Acres	1,768			37.6	17.09	25	45	20	40
Corn Bushels	66,150	37.4		1,407.4	775.6	675	2000	1325	1500
Corn Acres %			64.5%			60.0	72.7	12.7	66.4
Oat Acres	663			13.5	8.8	7.5	20	12.5	10
Oat Bushels	22,076	33.3		490.6	362.6	200	679	479	460
Rye Acres	55			1.2	2.53	0	1	1	0
Barley Acres	0					0	0	0	0
Wheat Acres	253			5.4	5.8	0	7	7	4
Wheat Bushels	2,923	11.6		62.2	74.3	0	77.5	77.5	40
Cereal Acres %			35.5%						
Flax	0					0	0	0	0
Flax Seed	0					0	0	0	0
Flax Straw (Tons)	0					0	0	0	0
Flax %			0			0	0	0	0
Potato Bushels	465			9.9	32.7	0	0	0	0
Corn Bu./Hog+Beef	48.3					32.4	89.7	57.3	45.6
Hog/Beef	7.2								
Dairy/Hog Beef	0.11								
Fallow %			42.6%						
Butter per Cow, lbs	63.8								
Milk Sold per Cow	0								
Eggs per Chicken	68.3								

Table 2.10 Palestine Township, Woodford County: 1880

Native-Stock, N (100)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	73		73%						
Tilled Acres	10,907			109.1	108.6	60	121.5	61.5	80
Farm Value ($)	464,600			4,740.8	5,992.4	2,400	4,500	2,100	3,100
Implement ($)	17,115			190.2	149.6	100	250	150	140
Livestock ($)	69,468			739.02	1,376.3	250	600	350	400
Labor ($)	2,109			21.1	47.9	0	17.75	17.75	0
Total Val. Farm Production ($)	66,437			671.1	412.7	395	812.5	417.5	577.5
Mown Acres	583.5			6.02	9.1	0	10	10	3.5
Non-Mown Grassland	0			0	0	0	0	0	0
Hay Tons	592.5			6.10	10.6	0	7	7	4
Horses	499			5.04	3.27	3	6	3	4
Milk Cows	290			2.9	2.3	1.75	4	2.25	2
Other Cattle	643			6.43	17.1	0	4	4	1
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	39,171			391.7	1,491.3	100	362.5	262.5	200
Swine	2850			28.5	33.2	7	38.5	31.5	20
Chickens	4749			48	34.8	24	71	47	40
Dozens of Eggs	26,380			269.2	276.1	75	365	290	200
Corn Acres	3,933			39.3	26.4	25	45	20	33
Corn Bushels	142,955	36.3		1,429.5	925.5	800	1,800	1,000	1,200
Corn Acres %			64.5%			61.4	75.0	13.6	68.7
Oat Acres	1,357			13.6	11.1	7	18	11	12
Oat Bushels	42,111	31.03		425.4	364.6	200	564	364	355
Rye Acres	128			1.28	4.9	0	0	0	0
Barley Acres	0					0	0	0	0
Wheat Acres	406			4.06	6.0	0	7	7	0
Wheat Bushels	5,420	13.3		54.2	111.0	0	75	75	0
Cereal Acres %			32.5%						
Flax	0			0	0	0	0	0	0
Flax Seed	0			0	0	0	0	0	0
Flax Straw (Tons)	0			0	0	0	0	0	0
Flax %			0						
Potato Bushels	1,066			10.7	25.7	0	0	0	0
Corn Bu./Hog+Beef	40.9					27.1	90.7	63.6	53.3
Hog/Beef	4.4								
Dairy/Hog+Beef	0.08								
Fallow %			46.6%						
Butter per Cow, lbs	135.1								
Milk Sold per Cow, Gal.	0								
Eggs per Chicken	66.47								

The St. John's Congregation in Secor, Illinois, founded in 1865, drew congregants from both Palestine and Green Townships (Tables 2.7-2.10). Woodford County was on the periphery of the cash-grain sub-region in 1880 and had been so since 1860. Just as in Kankakee and Grundy Counties, the ethnic farmers in Woodford County bore a close resemblance to their native-stock counterparts. Ethnic farmers again concentrated on growing corn and raising hogs. In Palestine Township, farmers put greater emphasis on stock production; in Green Township they raised more corn for the commodity market. In Palestine Township, very few significant differences existed between the two cultural groups. In Green Township, however, German farmers demonstrated a consistently and significantly higher BPHP. Overall, Germans produced nearly 35% more bushels of corn per hog and beef animal. Unlike ethnic populations in Kankakee and Grundy Counties, however, Germans in Green Township kept larger herds of swine in numbers approximating those of the native-stock farmers. Rather than produce fewer swine at the upper quartiles, the German farmers of Green Township accomplished their elevated BPHB by keeping smaller herds at the lower quartiles, fallowing less land, and growing larger cornfields at the upper quartiles of production.

Agriculture in the cash-grain sub-region was little different among the German-American and native-stock farms included within this study. Located mostly on the periphery of the sub-region, significant differences in the Bushels of Corn per Hog and Beef (BPHB) existed among and within the various townships. BPHB statistics in the cash-grain sub-region were more volatile than in any other location included in this study. Communities in Woodford, Grundy and Kankakee Counties in 1880 transitioned toward a greater emphasis on cash-grain farming, but the change was not uniform. The fields and

farmyards of German-Americans frequently looked more similar to their native-stock neighbors than other Germans in nearby Townships. Both cultural groups grew the same crops and the same animals in roughly the same proportions. While some slight differences in modes of agriculture were detected between groups in specific locations, the only measure that was consistent, and thus may be some sort of essential or transcendent characteristic, was a higher rate of BPHB.

The spatial economics of the cash-grain sub-region dictated that corn and hogs were more economically rewarding than dairy and cereals. Germans proved every bit as adept at raising the complimentary pair of species, but on the whole demonstrated a greater inclination to raise grain rather than stock. In the absence of competitive local markets for cereals, German immigrants adopted corn culture. While they were not the progenitors of the cash-grain system spreading out of east central Illinois, they appear to have been eager converts. In contrast to stereotypes of risk-averse diversified producers, German-Americans in the cash-grain sub-region placed a greater emphasis on a single commodity than did their Yankee counterparts.

ETHNIC AGRICULTURE IN THE CORN-HOG SUB-REGION

By 1880, the corn-hog sub-regional typology that had once dominated most of central and northern Illinois appeared to be declining in deference to wave of cash-grain agriculture spreading from east-central Illinois. However, Illinois farmers had far from forgotten about stock-raising. In western Illinois, hog farming was big business. In northern Illinois, farmers combined hog raising with moderately sized dairy herds to

produce milk for Chicago. Throughout the corn-hog sub-region, cornfields had grown in size over the previous decades. Illinois farms in the corn-hog sub-region produced more corn than they could feed to their herds. Farmers in the corn-hog sub-region shipped their grain on the railroad just like farmers in the cash-grain region, but not on the same scale and with much less variation in BPHB within local populations. Throughout the corn-hog sub-region, ethnic farmers failed to produce distinctive landscapes. However, at specific locations within the sub-region, localized market opportunities existed that allowed flexibility in the mode of agricultural production. When freed from the constraints of the commoditized market infrastructure, ethnic farmers in these locations farmed in ethnically distinct patterns.

Immigrant farmers founded Cross Lutheran a few miles south of Yorkville in Kendall County, Illinois in 1881, six years after the Our Savior congregation in Hopkins Township, west of Sterling, Illinois in Whiteside County. Farms in both townships had more dairy cattle than farms in the cash-grain sub-region; herds of five or six cows were common and a few herds were substantially larger (see Tables 2.11 – 2.14). While some farms were beginning to sell milk, farmwomen continued to process the majority of butter on the farm. Larger dairy herds required more land in pasture and hay fields. Swine numbers were also markedly higher in the two townships than most of the townships in the cash-grain sub-region. Similar to the townships studied in the cash-grain sub-region, ethnic and native stock farmers in Hopkins and Kendall Township planted 65-70% of cultivated acres to corn with oats for their horses filling the remainder of the spare acres.

Table 2.11 Hopkins Township, Whiteside County: 1880

German-American, N (46)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	29		63%						
Tilled Acres	6,085			135.2	74.5	74	190	116	120
Farm Value ($)	350,178			7,612.6	5,245.1	3,525	10,000	6,475	6,000
Implement ($)	9,540			207.4	167.8	100	215	115	200
Livestock ($)	37,979			825.6	701.1	300	1,301.3	1001.3	525
Labor ($)	6,999			152.2	178.0	0	215	215	104
Total Val. Farm Production ($)	54,711			1,189.4	755.2	750	1,675	925	1000
Mown Acres	351			7.6	8.6	0	10	10	8
Non-Mown Grassland	124			2.7	9.1	0	0	0	0
Hay Tons	583			12.7	19.1	0	18	18	11
Horses	267			5.8	3.7	3.25	8	4.75	5
Milk Cows	248			5.4	3.6	3	8	5	5
Other Cattle	492			10.7	14.2	0	15	15	5
Milk Sold (Gallons)	16,877			366.9	1,112.8	0	0	0	0
Pounds of Butter	20,049			435.8	453.7	112.5	598.5	486	325
Swine	1,284			27.9	32.0	5.25	36	30.75	20.5
Chickens	2,206			48.0	35.5	26.5	57.5	31	40
Dozens of Eggs	7,950			712.8	123.7	100	200	100	200
Corn Acres	2,811			61.1	33.2	40	80	40	66.5
Corn Bushels	118,240	42.1		2,570.4	1,636.8	1,600	3,750	2,150	2,500
Corn Acres %			66.8%			62.5	72.3	9.8	67.1
Oat Acres	418			9.08	7.2	1	12	11	10
Oat Bushels	14,004	33.5		304.4	271.3	12.5	437.5	425	300
Rye Acres	59	17.7		1.3	2.9	0	0	0	0
Barley Acres	310	21.9		6.7	8.5	0	10	10	4.5
Wheat Acres	613			13.3	12.3	5	18.75	13.75	10
Wheat Bushels	7,398	12.1		160.8	173.5	42.5	237.5	195	100
Cereal Acres %			33.2%						
Flax	0			0	0	0	0	0	0
Flax Seed	0	0		0	0	0	0	0	0
Flax Straw (Tons)	0			0	0	0	0	0	0
Flax %			0						
Potato Bushels	2,355			51.2	43.5	24	78.75	54.75	40
Corn Bu./Hog+Beef	66.6					43.0	128.8	85.9	78.7
Hog/Beef	2.6								
Dairy/Hog+Beef	.14								
Fallow %			30.8%						
Butter per Cow, lbs	80.8								
Milk Sold per Cow	68.1								
Eggs per Chicken	43.2								

Table 2.12 Hopkins Township, Whiteside County: 1880

Native-Stock, N (79)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	59		74.7%						
Tilled Acres	9,162			116.0	95.3	65	150	85	110
Farm Value ($)	693,740			8,894.1	10,914.7	4,050	10,375	6,325	7,750
Implement ($)	19,082			244.6	166.5	150	300	150	200
Livestock ($)	72,002			911.4	654.6	427	1208.5	781.5	800
Labor ($)	10,553			135.3	174.2	10.5	200	189.5	50
Total Val. Farm Production ($)	91,184			1,154.2	731.8	667.5	1,569.5	902	1000
Mown Acres	929			11.9	14.6	0	17	17	10
Non-Mown Grassland	88			1.1	4.6	0	0	0	0
Hay Tons	1,710			21.6	30.0	0	30	30	15
Horses	452			5.7	3.3	3	8	5	5
Milk Cows	561			7.1	6.5	3	9.5	6.5	5
Other Cattle	979			12.4	16.5	2	14.5	12.5	6
Milk Sold (Gallons)	45,031			570.0	1,599.3	0	0	0	0
Pounds of Butter	46,243			585.4	837.5	200	700	500	400
Swine	2,247			28.4	27.0	8	42	34	17
Chickens	4,735			59.9	49.7	25	75	50	50
Dozens of Eggs	18,453			233.6	344.9	150	200	50	200
Corn Acres	4,282			54.2	34.0	32.5	72.5	40	50
Corn Bushels	183,575	42.9		2,323.7	1,513.0	1,200	3,000	1,800	2,000
Corn Acres %			70.5%			63.3	77.8	15.5	69.3
Oat Acres	863			10.9	8.2	6	15	9	10
Oat Bushels	29,576	34.3		374.4	277.8	200	500	300	350
Rye Acres	139	22.8		1.8	4.1	0	0	0	0
Barley Acres	150	24.2		1.9	4.6	0	0	0	0
Wheat Acres	635			8.0	9.1	0	12	12	6
Wheat Bushels	8,208	12.9		103.9	145.0	0	142.5	142.5	65
Cereal Acres %			29.4%						
Flax	0			0	0	0	0	0	0
Flax Seed	0	0		0	0	0	0	0	0
Flax Straw (Tons)	0			0	0	0	0	0	0
Flax %			0						
Potato Bushels	4,138			52.9	55.9	15.5	80	64.5	32
Corn Bu./Hog+Beef	56.9					33.8	133.3	99.5	60.7
Hog/Beef	2.3								
Dairy/Hog+Beef	.17								
Fallow %			33.8%						
Butter per Cow, lbs			82.4						
Milk Sold per Cow, Gal.			80.3						
Eggs per Chicken			46.8						

Table 2.13 Kendall Township, Kendall County: 1880

German-American, N (52)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	27		51.9%						
Tilled Acres	4,990			84.7	39.5	60	110	50	75
Farm Value ($)	269,420			5083.4	2,558.9	3,200	6,400	3,200	4,000
Implement ($)	10,865			205	120.3	150	250	100	200
Livestock ($)	26,590			501.7	333.5	300	700	400	400
Labor ($)	2,855			53.9	98.7	0	80	80	0
Total Val. Farm Production ($)	51,843			978.2	663.2	600	1,255	655	800
Mown Acres	853			16.1	12.3	9	20	11	15
Non-Mown Grassland	0			0	0	0	0	0	0
Hay Tons	1,161			21.9	13.8	12	30	18	20
Horses	267			5.1	2.4	3	6	3	5
Milk Cows	351			6.6	2.8	5	9	4	6
Other Cattle	237			4.5	4.2	1	6	5	3
Milk Sold (Gallons)	6,770			130.2	839.3	0	0	0	0
Pounds of Butter	47,000			886.8	552.2	600	1,200	600	800
Swine	1,115			21.0	18.9	10	26	16	18
Chickens	3,769			73.9	42.9	50	100	50	60
Dozens of Eggs	13,375			262.3	209.9	120	320	200	200
Corn Acres	2,512			47.4	21.8	35	60	25	45
Corn Bushels	87,734	33.7		1,598.8	960.7	1,000	2,100	1,100	1,300
Corn Acres %			65.6%			71.4	80.4	8	75.0
Oat Acres	745			14.1	7.9	10	19	9	12
Oat Bushels	29,830	40.0		562.8	286.0	400	720	320	500
Rye Acres	0			0	0	0	0	0	0
Barley Acres	0			0	0	0	0	0	0
Wheat Acres	82			1.5	2.6	0	3	3	0
Wheat Bushels	575			10.9	20.8	0	20	20	0
Cereal Acres %			34.4%						
Flax	0			0	0	0	0	0	0
Flax Seed	0			0	0	0	0	0	0
Flax Straw (Tons)	0			0	0	0	0	0	0
Flax %			0%						
Potato Bushels	2,076			39.2	43.4	20	50	30	25
Corn Bu./Hog+Beef	64.9					44.8	90.9	46.1	63.8
Hog/Beef	4.7								
Dairy/Hog+Beef	.26								
Fallow %			23.2%						
Butter per Cow, lbs	133.9								
Milk Sold per Cow	19.3								
Eggs per Chicken	42.6								

Table 2.14 Kendall Township, Kendall County: 1880

Native-Stock, N (66)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	51		77.3%						
Tilled Acres	6,339			97.5	61.9	60	135	75	90
Farm Value ($)	432,190			6,649.1	3,711.7	4,000	8,000	4,000	6,400
Implement ($)	13,320			204.9	114.5	150	300	150	200
Livestock ($)	50,163			771.7	542.9	400	1,000	600	675
Labor ($)	10,119			155.7	149.3	0	250	250	140
Total Val. Farm Production ($)	81,215			1,249.5	718.2	700	1,560	860	1,200
Mown Acres	1,472			22.7	15.2	12	30	18	20
Non-Mown Grassland	3			.05	.4	0	0	0	0
Hay Tons	1,791			31.4	20.3	15	40	25	30
Horses	418			6.7	4.7	4	8	4	6
Milk Cows	569			8.8	7.7	4	11	7	7
Other Cattle	432			6.6	7.8	2	10	8	4
Milk Sold (Gallons)	45,510			700.2	2,659.2	0	0	0	0
Pounds of Butter	60,980			938.2	660.3	400	1,350	950	800
Swine	1,396			21.5	21.7	5	28	23	15
Chickens	3,964			67.2	41.1	40	100	60	60
Dozens of Eggs	12,280			225.1	163.9	100	300	200	200
Corn Acres	2,714			41.8	25.6	25	60	35	40
Corn Bushels	100,815	37.1		1,551	935.7	720	2,200	1,480	1,500
Corn Acres %			72.4%			67.7	100	33.3	79.7
Oat Acres	1,020			15.7	17.5	0	20	20	12
Oat Bushels	34,850	34.2		536.2	525.1	0	700	700	500
Rye Acres	5			.08	.5	0	0	0	0
Barley Acres	0			0	0	0	0	0	0
Wheat Acres	8			.12	.71	0	0	0	0
Wheat Bushels	80	10		1.2	7.8	0	0	0	0
Cereal Acres %			27.6%						
Flax	0			0	0	0		0	0
Flax Seed	0			0	0	0	0	0	0
Flax Straw (Tons)	0			0	0	0	0	0	0
Flax %			0%						
Potato Bushels	2,502			38.5	29.3	20	50	30	30
Corn Bu./Hog+Beef	55.2					33.5	118	84.5	57.1
Hog/Beef	3.2								
Dairy/Hog+Beef	.31								
Fallow %			40.9%						
Butter per Cow, lbs	107.2								
Milk Sold per Cow, Gal.	80								
Eggs per Chicken	37.2								

Just as in the cash-grain sub-region, the German-American and native stock farms in the two townships were marked by more similarities than differences. German-Americans participated fully in the sub-regional mode of agricultural, keeping relatively large swine herds on par with their Yankee neighbors, and yet, in the aggregate, they grew more corn per animal than native-stock farmers. Ethnic farmers in both townships produced and marketed more corn--17% more BPHB than native-stock farmers. Like Pilot and Goodfarm Townships, German-Americans in Hopkins and Kendall did not produce universally higher rates of BPHB. Rather, ethnic farms out grew their Yankee neighbors in the lower quartiles of production. While Yankees farmed the most grain intensive farms, higher rates of German farmers in Q1, Q2 and into Q3 ultimately led to a higher aggregate figure. Of course, in the corn-hog sub-region, BPHB numbers did not achieve the same scale as in the cash-grain sub-region.

These corn-hog Germans in Kendall and Hopkins accomplished their moderately higher BPHB in much the same manner as the Green Township German population. Rather than raise fewer hogs in the upper quartiles like Germans in Pilot, Goodfarm and Palestine Townships, Germans in the Corn-Hog belt raise proportionally more corn by planting larger fields of it in the lower quartiles. Put another way, the small cornfields on German-American farms tended to be larger than the small cornfields on native-stock farms at the same time as the smaller German-American farms kept slightly fewer hogs at in the lower quartiles. In Kendall Township especially, German-Americans achieved higher BPHB by leaving less land fallow. Relative to ethnic farmers in the cash-grain sub-region, the emphasis by German-Americans on cash-grain production was not as strong in the corn-hog sub-region. It is not surprising that the ethnic predilection toward

grain production was lower in the stock-raising sub-region; it merely highlights the powerful role spatial relationships played in the agricultural landscape.[90] Still, even when muted by spatially specific economic contexts, there appeared a latent preference to market grain over stock among the majority of ethnic farmers that was expressed differently within the two spatially specific economic contexts.

During the 1879 growing season the landscapes created by German-American and native stock farmers throughout the cash-grain and corn-hog sub-regions bore a strong resemblance to one another. Few differences existed between the two groups in counting statistics and, while not void of cultural markers, the physical landscapes produced were much more similar than different. The reliance upon the infrastructure of commodity movement and capitalized mechanisms by which farm production reached market restricted any real choice in the types of plants farmers could grow. Rail transport rewarded specialization and its cost required profit maximization by producers setting in motion trends that help shape the corn-belt today. However, exceptions to the corn-belt paradigm did exist where strong localized markets for commodities besides corn and hogs existed.

The German farmers of Masilon Township in Cedar County, Iowa reproduced the characteristics of agriculture, not of the old world they left, but of Chicago's fodder hinterland where many of them had worked, and some were born, in the interim between Germany and Iowa. As real estate prices and population increased in Addison Township,

[90] Refer to Figure 1.2. The corn-hog sub-region contained significant local slaughtering facilities. The cash-grain sub-region, by contrast, had a dearth of local slaughtering facilities. Hogs slaughtered at local slaughterhouses incurred less cost to the farmer in their transportation, even while local slaughterers competed with Chicago prices for live hogs.

DuPage County, Illinois, congregants from Zion Lutheran went west to find cheaper farmland.[91] They returned to Illinois to report on the quality and price of land in eastern Iowa. Shortly thereafter, a number of families moved west, eventually establishing a community around Trinity Lutheran located in the small town of Lowden, Iowa in the year of 1870.[92] The settlers in Lowden found themselves located squarely within the corn-hog sub-region, but also near the large malt processing industries in the counties along the Mississippi River (see Figure 2.24). The localized malt industry created a demand for wheat and barley to which the German-American farmers eagerly responded.

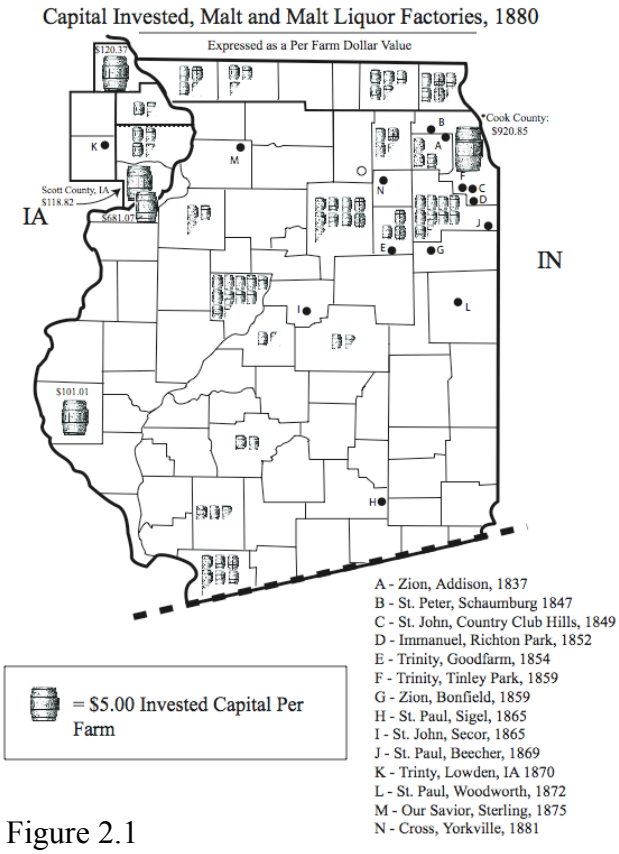

Figure 2.1

The German farmers of Masilon Township raised large herds of swine on par with those in Kendall and Hopkins Townships. The native-stock population, on the other hand exhibited an identical median but much lower Q1 and much higher Q3 (see Tables 2.15 and 2.16). On average, there were nearly ten more hogs per farm on Yankee farms. Taken

[91] Zion was the first Lutheran church in Northern Illinois. Zion joined the LCMS in 1856, nine years after the synod was officially organized in Chicago; for more information, see Chapter 3.
[92] *Seventy-fifth Anniversary of Trinity Lutheran Church, Lowden Iowa, Herman Maas, Pastor, 1871-1946*, (1846). Archival Collection, Iowa State Historical Society, Des Moines, Iowa.

together this suggests that native-stock farms produced more very large and more very small herds whereas German-American farms were much more clustered around the median. Unlike other study areas within the corn-hog sub-region, German-Americans did not produce a significantly higher BPHB. Both groups produced relatively low figures in the mid 40s. Native-stock farmers, ultimately grew more corn to feed to their greater numbers of swine. The Germans in Masilon, however, were approaching agriculture differently. Rather than emphasizing corn production, a greater proportion of their energies and land were devoted production of cereal grains, namely wheat and barley.

Farmers grew corn throughout the township and it represented the largest harvest of any individual grain type among either population. But, unlike most locations studied thus far, it comprised less than half of planted acreage among the German population, substantially less than the Yankee farmers. German farms did not plant significantly more oats, which remained a non-commoditized feedstock primarily intended for on farm consumption by draft horses or local trade. German farms planted more barley and wheat. Although there were nearly 30% more native-stock farms, German farms more than doubled the total acreages devoted to barley and wheat on Yankee farms. A greater percentage of German farmers raised wheat and barley and those that did grew significantly more acres of the cereal grains.

Table 2.15 Masilon Township, Cedar County, Iowa: 1880

German-American, N (57)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	43		75%						
Tilled Acres	5,577			97.8	45.0	65	120	55	80
Farm Value ($)	215,118			3,841.4	1,612.8	2,800	4,850	2,050	3,480
Implement ($)	7,398			134.5	97.7	60	200	140	115
Livestock ($)	26,909			472.1	254.8	301	605	304	468
Labor ($)	2,044			35.9	73.2	0	25	25	0
Total Val. Farm Production ($)	41,792			803.7	1,060.1	434.5	865.3	430.8	600
Mown Acres	467			9.3	14.2	0	12	12	6.5
Non-Mown Grassland	451			9.0	11.8	0	14	14	5
Hay Tons	509			10.2	11.4	0	15.8	15.8	7.5
Horses	230			4.6	2.1	3	6	3	5
Milk Cows	277			5.5	2.8	4	8	4	5
Other Cattle	365			7.3	7.5	3	8.8	5.8	5
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	16,910			338.2	278.3	112.5	500	387.5	300
Swine	1,112			22.2	13.5	12	30	18	20
Chickens	3,304			66.1	45.4	30	95	65	60
Dozens of Eggs	15,862			317.3	283.5	100	500	400	300
Corn Acres	1,959			34.4	20.4	20	45	25	30
Corn Bushels	68,286	34.9		1,368.8	799.8	800	2,000	1,200	1,400
Corn Acres %			46.5%			36.8	51.0	14.2	44.8
Oat Acres	587			10.3	6.5	7	14	7	10
Oat Bushels	18,491	31.5		369.8	256.1	231	500	269	375
Rye Acres	10			.17	.9	0	0	0	0
Barley Acres	548			9.6	7.3	4	15	11	9
Wheat Acres	1,105			19.4	13.7	11	25	14	17
Wheat Bushels	7,499	6.8		150	130.1	63.3	203.8	140.5	115
Cereal Acres %			53.5%						
Flax	0			0	0	0	0	0	0
Flax Seed	0			0	0	0	0	0	0
Flax Straw (Tons)	0			0	0	0	0	0	0
Flax %	0								
Potato Bushels	4,047			80.9	69.8	26.3	117.5	91.3	61
Corn Bu./Hog+Beef	46.2					35.7	61.3	25.6	44.8
Hog/Beef	3.0								
Dairy/Hog+Beef	.19								
Fallow %			24.5%						
Butter per Cow, lbs	61.0								
Milk Sold per Cow	0								
Eggs per Chicken	57.6								

Table 2.16 Masilon Township, Cedar County, Iowa: 1880

Native-Stock, N (74)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	54		73%						
Tilled Acres	7,662			105.0	63.9	58	150	92	97
Farm Value ($)	334,490			4,645.7	3,147.0	2,950	6,550	3,600	4,000
Implement ($)	10,612			145.4	118.3	50	200	150	100
Livestock ($)	56,958			791.1	790.9	200	1,091.3	891.3	523
Labor ($)	5,635			77.2	131.2	0	100	100	8
Total Val. Farm Production ($)	59,135			882.6	887.0	340	1,281.5	941.5	600
Mown Acres	1,147			16.4	21.0	0	21.5	21.5	10
Non-Mown Grassland	1,244			17.8	33.3	0	15	15	0
Hay Tons	1,405			20.1	25.5	0	28.8	28.8	12
Horses	344			4.9	3.6	2.25	7	4.8	4
Milk Cows	352			5.0	4.1		6	4	4
Other Cattle	855			12.2	17.3	1.3	16	14.8	5
Milk Sold (Gallons)	0			0	0	0	0	0	0
Pounds of Butter	23,455			335.1	335.8	100	500	400	300
Swine	2.096			29.9	30.1	7	45	38	20
Chickens	3,015			43.1	28.9	25	60	35	40
Dozens of Eggs	12,316			175.9	187.1	50	300	250	100
Corn Acres	3,311			45.4	35.0	20	70	50	42
Corn Bushels	131,321	39.7		1,903.2	1,594.8	900	3,000	2,100	1,600
Corn Acres %			69.1%			59.9	77.3	17.4	67.4
Oat Acres	742			10.2	10.7	0	13	13	10
Oat Bushels	25,382	34.2		362.6	353.4	0	500	500	310
Rye Acres	37			.5	2.7	0	0	0	0
Barley Acres	195			2.7	5.2	0	5	5	0
Wheat Acres	509			7.0	7.8	0	10	10	5
Wheat Bushels	4,667	9.2		66.7	240.5	0	50	50	18.5
Cereal Acres %			37.4%						
Flax	0			0	0	0	0	0	0
Flax Seed	0			0	0	0	0	0	0
Flax Straw (Tons)	0			0	0	0	0	0	0
Flax %			0%						
Potato Bushels	2,662			38.0	37.8	1.75	50	48.25	30
Corn Bu./Hog+Beef	44.5					28.9	79.8	50.9	43.3
Hog/Beef	2.5								
Dairy/Hog+Beef	.12								
Fallow %			37.4%						
Butter per Cow, lbs	66.6								
Milk Sold per Cow, Gal.	0								
Eggs per Chicken	49.0								

While very much still a part of the corn-hog sub-region, German farmers in Masilon Township responded to a localized economic demand for cereal grains. In doing so, they changed the fabric of the landscape around them. The change was not drastic, but it was noticeable and significant. The unique landscape created on the German-American farms of Masilon Township developed out of cultural differences between the German-Americans and their native-stock neighbors.[93] Although the cultural instinct that resulted in higher cereal production represented the transplantation of agricultural predilections from Chicago's fodder hinterland to the corn-hog sub-region, it did not represent a fundamentally different impulse than the one that resulted in higher BPHB numbers throughout the cash-grain and corn-hog sub-regions. Rather, it illustrates a distinct cultural characteristic expressed in multiple spatially specific economic contexts. The thread that extends through each of the study locations thus far has been an emphasis on grain production. Ethnic farmers certainly kept livestock, often in large numbers in the corn-stock sub-region, but they frequently found ways, including fallowing less land, to squeeze more bushels per animal out of their farms than their Yankee neighbors. When economic conditions allowed for diversification, German farmers did so at a higher rate than native-stock farmers. When the economic context suggested specialization, they

[93] The creation of landscape as a result of locationally specific cultural differences will be more fully developed in Chapter Three. It will be shown that ethnicity was not always the salient characteristic in creation of unique cultural landscapes. Even so, the objective thus far has been to locate areas in which the appearance ethnic of populations correlated with distinct landscapes. In doing so, the structure of the study assumes, without explaining or expanding, that cultural agents affected landscapes. Importantly, the landscape was affected; it was evidence of cultural influences on agricultural processes that shaped landscape. The agricultural landscape, as a reflection of process, was only cultural in the sense that it reflected a locally specific common application of processes. For example, the greater scale of cereal grain cultivation among German-American farmers in Cedar County was a reflection of culturally specific applications of family labor.

focused their efforts more acutely on corn production. Even in the corn-hog sub-region, where ethnic and native populations bore the strongest resemblance to each other, German-Americans exhibited a slightly greater inclination to grow grain. Stock raising played an important economic function on German-American farms in each of the study locations, but whether stock was fattened for subsistence of for market, German populations nearly always seemed to put more energy into, and pull more energy out of, the land.

ETHNIC AGRICULTURE IN CHICAGO'S FODDER HINTERLAND

The transplants from Addison to Masilon Township continued to emphasize cereal grain production after they left Chicago's fodder hinterland and moved into the corn-hog sub-region. The cereal grains they grew were different (fewer oats, more wheat and barley) but the processes, skills, and farm machinery required to produce them were the same. The migrants were only able to reproduce the relative emphasis on cereals because of the proximity of their settlement to malt processing facilities and the short-haul spur-line that connected them to the malt-houses along the Mississippi River, just east of their hamlet. The agricultural practices of the Masilon Township Germans represented, not a new start in a new environment, but a continuation of earlier methods within a different context characterized by continuity as well as change.

In contrast to the corn-belt sub-regions discussed thus far, farmers in Addison Township, like most areas in Chicago's fodder hinterland, devoted a lower percentage of

their cropped land to corn production. In some areas, the contrast between native-stock and German-American farmers appears stark. In others, it proved difficult to discern because there were not enough native-stock farmers from which to draw a comparison. The remainder of this quantitative analysis will focus upon two distinct areas within the fodder hinterland. The first is located in northern DuPage and northwestern Cook Counties, comprised of the Addison, Bloomingdale, Wayne and Schaumburg Townships. This small geographic area contained townships almost entirely composed of German immigrants and others in which native-stock were the majority. Bremen and Rich Township comprise the second location in extreme southern Cook County. Immigrant populations dominated southern Cook County; by 1880 no reasonably large population of native-stock farms existed within close proximity. However, the two locations, north and south, while sharing similar economic opportunities of production within the urban shadow, differed markedly in local opportunities. Flax processing, milk and cheese factories emerged along the early rail lines spreading to the northwest out of the city while south of Chicago, hay pressing operations offered local market opportunities to farmers looking to capitalize on their wet prairie meadows. In both areas, urban demand for oats (consumed by horses rather than people) fueled an agricultural economy focused on cereal rather than corn production. Still, while corn and hog production were not the emphasis on German farms, they fulfilled important subsistence functions on virtually every farm and their excess found a market via the larger ethnic farms and were emphasized among a majority of native-stock farms.

Table 2.17 Addison Township, DuPage County: 1880

German-American, N (182)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	111		60.1%						
Tilled Acres	10,868			59.7	49.0	26	75	49	46
Farm Value ($)*	1,180,753			6,67039	5,178.6	2,400	9,600	7,200	5,980
Implement ($)	28,225			155.1	159.6	36.3	200	163.8	117.5
Livestock ($)	86,331			474.4	422.5	141.3	707.5	566.3	400
Labor ($)	14,018			77.4	112.3	0	150	150	0
Total Val. Farm Production* ($)	167,013			917.7	2,025.7	0*	1,200	1,200	700
Mown Acres	2,850			15.7	16.3	0	25	25	15
Non-Mown Grassland	3,187			17.5	21.0	0	30	30	11.5
Hay Tons	2,920			16.0	16.7	0	25	25	15
Horses	641			3.5	2.06	2	5	3	3
Milk Cows	1,830			10.1	7.1	4	13	9	9.5
Other Cattle	628			3.5	3.4	1	5	4	3
Milk Sold (Gallons)	610,341			3,353.5	4,249.6	0	5,840	5,840	1,550
Pounds of Butter	12,047			66.6	294.8	0	0	0	0
Swine	2,712			16.9	16.8	5	20	15	9
Chickens	4,091			22.5	35.0	0*	40	40	0
Dozens of Eggs	7,961			43.7	77.3	0*	71.3	71.3	0
Corn Acres	2,129			11.7	11.4	4	15.75	11.75	10
Corn Bushels	73,335	34.4		403.0	370.7	150	593.8	443.8	325
Corn Acres %			32.1%			27.0	40.3	13.3	31.6
Oat Acres	3,224			17.7	15.4	2.5	27	24.5	18
Oat Bushels	146,242	45.4		403.0	370.7	150	593.8	443.8	325
Rye Acres	105.5			.6	1.5	0	0	0	0
Barley Acres	26			.14	.75	0	0	0	0
Wheat Acres	251			1.4	2.4	0	2	2	0
Wheat Bushels	3,275	13		18.0	33.6	0	29.8	29.8	0
Cereal Acres %			54.3%						
Flax	903			5.0	7.2	0	8	8	0
Flax Seed									
Flax Straw (Tons)									
Flax %			13.6%						
Potato Bushels	62,845			345.3	401.6	100	500	400	250
Corn Bu./Hog+Beef	22.0					15.7	42.0	26.3	26.3
Hog/Beef	4.3								
Dairy/Hog+Beef	.55								
Fallow %			38.9%						
Butter per Cow, lbs	6.6								
Milk Sold per Cow	333.5								
Eggs per Chicken									

Table 2.18 Schaumburg Township, Cook County: 1880

German-American N (133)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	118		88.8						
Tilled Acres	14,263			108.9	64.8	60	150	90	95
Farm Value ($)	709,310			5,414.6	6,069.8	3,200	6,650	3,450	5,000
Implement ($)	15,947			121.7	53.7	100	150	50	150
Livestock ($)	77,725			593.3	268.9	450	800	350	600
Labor ($)	24,304			185.5	163.7	50	250	200	200
Total Val. Farm Production ($)	104,010			794	424	550	1,000	450	700
Mown Acres	2,470			18.9	11.7	10	25	15	18
Non-Mown Grassland	96			.7	3.7	0	0	0	0
Hay Tons	3,855			29.4	18.3	15	40	25	30
Horses	480			3.7	1.6	2	5	3	4
Milk Cows	1,463			11.2	6	6	15	9	11
Other Cattle	665			5.1	4.3	2	7	5	4
Milk Sold (Gallons)	409,050			3,122.5	2,793.6	425	5,000	4,575	3,000
Pounds of Butter	19,435			148.4	231.1	0	200	200	100
Swine	1,220			9.3	8.1	4.5	12	7.5	7
Chickens	5,281			40.3	18.9	30	50	20	40
Dozens of Eggs	17,555			134.0	92.2	100	150	50	100
Corn Acres	1,841			14.1	7.8	10	18	8	12
Corn Bushels	52,465	28.5		400.5	207.7	300	500	200	400
Corn Acres %			23.6			20	28.5	8.5	23.1
Oat Acres	3,443			26.2	15.5	16.5	38	21.5	25
Oat Bushels	126,908	36.9		968.8	560.2	600	1,400	800	900
Rye Acres	9			.07	.5	0	0	0	0
Barley Acres									
Wheat Acres	619			4.7	4.7	2	6.5	4.5	4
Wheat Bushels	5,313	8.6		40.6	44.4	12	50	38	34
Cereal Acres %			52.2%						
Flax	1,888			14.4	12.2	6	20	14	12
Flax Seed	19,367	10.3		147.9	122	50	220	170	120
Flax Straw (Tons)	697			5.3	4.3	2	8	6	5
Flax %			24.2%						
Potato Bushels	19,129			146	112.4	100	200	100	150
Corn Bu./Hog+Beef	27.8					21.4	40	18.6	30
Hog per Beef	1.8								
Dairy/Hog + Beef	.78								
Fallow %			45.3%						
Butter per Cow, lbs	13.3								
Milk Sold per Cow, Gal.	279.6								
Eggs per Chicken	39.9								

Table 2.19 Bloomingdale Township, DuPage County: 1880

Native-Stock N (20)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	15		75%						
Tilled Acres	1,684			73.8	45.1	40	120	80	65
Farm Value ($)	233,403			9,475.4	7,947.0	4,625	11,800	7,255	9,000
Implement ($)	6,780			287.5	569.9	150	400	250	200
Livestock ($)	26,200			1,037.3	1,543.7	300	1,100	800	1,000
Labor ($)	7,619			290.4	392.2	50	400	350	250
Total Val. Farm Production ($)	39,170			1,541.8	2,009.6	562.5	1,600	1,037.5	1,100
Mown Acres	711			27.2	28.2	10	40	30	25
Non-Mown Grassland	945			36.9	28.9	13.3	60	46.8	45
Hay Tons	968			36.6	50.0	15	50	35	35
Horses	137			5.8	5.5	3	6	3	5
Milk Cows	335			13.2	15.6	3	20	17	8
Other Cattle	136			6.5	7.7	1	11	10	3
Milk Sold (Gallons)	106,980			4,295.4	6,853.0	0	6,000	6,000	50
Pounds of Butter	5,160			213.3	243.3	30	400	370	150
Swine	445			17.1	17.1	4.3	33	28.8	15
Chickens	905			40.6	21.7	25	50	25	40
Dozens of Eggs	4,005			177.3	117.3	100	250	150	150
Corn Acres	786			31.6	25.9	12.8	40	27.3	30
Corn Bushels	31,345	39.9		1,206.2	1,054.9	485	1,875	1,390	1,200
Corn Acres %			51.3%			37.0	62.1	25.1	53.6
Oat Acres	546			22.9	12.9	12.5	33	20.5	20
Oat Bushels	19,646	36.0		832.7	500.0	470	1,200	730	960
Rye Acres	0			0	0	0	0	0	0
Barley Acres	3			.1	.5	0	0	0	0
Wheat Acres	13			.8	2.3	0	0	0	0
Wheat Bushels	103			6.8	18.8	0	0	0	0
Cereal Acres %			35.7%						
Flax	183			8.8	9.0	0	14	14	10
Flax Seed	1,915			90.6	95.2	0	125	125	100
Flax Straw (Tons)	22			1.7	2.9	0	0	0	0
Flax %			12%						
Potato Bushels	2,920			134.7	81.2	100	200	100	130
Corn Bu./Hog + Beef	54					22.2	106.3	84.1	56.7
Hog/Beef	3.3								
Dairy/Hog + Beef	.58								
Fallow %			9.1%						
Butter per Cow, lbs	15.4								
Milk Sold per Cow, Gal.	319.3								
Eggs per Chicken	53.1								

Table 2.20 Bloomingdale Township, DuPage County: 1880

German-American N (83)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	51		61.4%						
Tilled Acres	5,657			68.2	27.0	50	83.5	33.5	65
Farm Value ($)	605,000			7,289.2	4,279.4	4,800	9,000	4,200	6,580
Implement ($)	15,945			192.1	126.0	100	200	100	180
Livestock ($)	52,635			634.2	441.7	355	775	420	560
Labor ($)	13,829			166.6	196.8	0	282.5	282.5	100
Total Val. Farm Production ($)	76,810			928.4	419.6	600	1,100	500	900
Mown Acres	1,969			23.7	21.4	10	30	20	20
Non-Mown Grassland	2,418			29.1	23.8	15	40	25	23
Hay Tons	2,217			26.7	20.0	12	30	18	20
Horses	333			4.0	1.9	2.5	5	2.5	4
Milk Cows	923			11.1	8.1	6	14	8	10
Other Cattle	389			4.7	4.6	1.5	6	4.5	4
Milk Sold (Gallons)	381,835			4,600	5,091.7	0	7,250	7,250	4,000
Pounds of Butter	13,610			164.0	340.3	0	200	200	0
Swine	1,388			16.7	15.3	6	20	14	11
Chickens	4,285			51.6	27.6	30	60	30	50
Dozens of Eggs	18,580			223.9	151.1	125	300	175	180
Corn Acres	1,582			19.1	12.9	12	25	13	15
Corn Bushels	51,915	32.8		625.5	452.3	300	740	440	500
Corn Acres %			32.8%			22.0	38.3	16.3	29.4
Oat Acres	1,976			23.8	12.3	15.5	30	14.5	22
Oat Bushels	67,765	34.3		816.4	378.7	600	1000	400	800
Rye Acres	43			.51	1.9	0	0	0	0
Barley Acres	11			.1	.9	0	0	0	0
Wheat Acres	259			3.1	4.2	0	4.5	4.5	2
Wheat Bushels	2,484	9.5		29.9	42.7	0	46	46	24
Cereal Acres %			47.5%						
Flax Acres	953			11.5	9.0	5	16	11	12
Flax Seed	10,983			132.3	103.2	48	200	152	120
Flax Straw (Tons)	179			2.2	4.2	0	3.5	3.5	0
Flax %			19.8%						
Potato Bushels	24,920			300.2	211.5	100	480	380	250
Corn Bu./Hog + Beef	29.2					21.1	46.0	24.9	32.7
Hog/Beef	3.6								
Dairy/Hog + Beef	.52								
Fallow %			14.7%						
Butter per Cow, lbs	14.7								
Milk Sold per Cow, Gal.	413.7								
Eggs per Chicken	52.0								

Table 2.21 Wayne Township, DuPage County: 1880

Native-Stock N (74)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	59		79.7%						
Tilled Acres	6,992			186.5	53.2	52	120.8	68.8	87.5
Farm Value ($)	591,860			15,782.9	4,826.4	4,500	10,500	6,000	7,000
Implement ($)	17,460			465.6	201.7	100	300	200	200
Livestock ($)	93,165			2,484.4	939.4	450	1,815	1,365	1,037.5
Labor ($)	25,950			692	438.1	0	456.25	426.25	275
Total Val. Farm Production ($)	115,310			3,074.9	1,315	600	1,825	1,225	1,400
Mown Acres	2,291			61.1	20.7	12	40	28	30
Non-Mown Grassland	2,998			79.9	31.2	20	50	30	35
Hay Tons	3,263			87.0	30.5	17	60	43	37.5
Horses	464			12.4	4.4	3	8	5	5
Milk Cows	1,661			44.3	16.6	7.5	30	22.5	20
Other Cattle	539			14.4	8	2	11.3	9.3	4.5
Milk Sold (Gallons)	899,185			23,978.3	10,036.4	2,450	18,250	15,800	9,380
Pounds of Butter	38,285			1,020.9	2,069.4	0	362.5	362.5	50
Swine	1,225			32.7	13.5	7	21	14	14.5
Chickens	3,595			95.9	33.8	30	52.5	22.5	40
Dozens of Eggs	15,530			414.1	147.6	100	300	200	200
Corn Acres	2,146			57.2	19.5	14	36.5	22.5	25
Corn Bushels	76,245	35.5		2,035.9	858.0	355	1,500	1,145	750
Corn Acres %			54.3%			42.1	62.8	20.7	52.9
Oat Acres	1,352			36.1	10.7	10	25	15	16
Oat Bushels	54,168	40.1		1,444.5	485.2	350	1,040	690	600
Rye Acres	136			3.6	4.6	0	0	0	0
Barley Acres	4			.1	.46	0	0	0	0
Wheat Acres	48			1.3	4.6	0	0	0	0
Wheat Bushels	482	10		12.9	18.5	0	0	0	0
Cereal Acres %			40%						
Flax Acres	265			7.1	6.6	0	5.3	5.3	0
Flax Seed	2,824	10.7		75.3	74.4	0	52.5	52.5	0
Flax Straw (Tons)	68			1.8	2.1	0	0	0	0
Flax %			6.7%						
Potato Bushels	4,717			125.8	52.3	40	100	60	50
Corn Bu./Hog + Beef	43.2					25.0	74.8	49.8	41.8
Hog/Beef	2.3								
Dairy/Hog + Beef	.94								
Fallow %			43.5%						
Butter per Cow, lbs	23.0								
Milk Sold per Cow, Gal.	541.4								
Eggs per Chicken	51.8								

Table 2.22 Wayne Township, DuPage County: 1880

German-American N (45)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	32		71.1%						
Tilled Acres	3,485			77.4	32.9	55	90	35	70
Farm Value ($)	263,320			5,851.6	2,789.1	4,500	6,500	2,000	5,000
Implement ($)	7,340			163.1	97.3	100	200	100	150
Livestock ($)	28,445			632.1	354.3	400	800	400	500
Labor ($)	3,583			79.6	101.2	0	150	150	20
Total Val. Farm Production ($)	37,115			824.8	386.7	600	1,000	400	800
Mown Acres	793			17.6	11.9	10	20	10	15
Non-Mown Grassland	1,300			28.9	15.1	20	40	20	28
Hay Tons	1,146			25.5	16.6	14	30	16	25
Horses	193			4.3	1.9	3	6	3	4
Milk Cows	562			12.5	7.2	6	16	10	12
Other Cattle	218			4.8	4.1	2	6	4	4
Milk Sold (Gallons)	271,815			6,040.3	4,100.0	2,400	9,100	6,700	5,100
Pounds of Butter	12,275			272.8	512.7	0	300	300	50
Swine	557			12.4	7.9	7	15	8	11
Chickens	2,270			52.7	28.9	40	60	20	50
Dozens of Eggs	9,675			215	138.6	100	250	150	200
Corn Acres	881			19.6	9.6	12	30	18	16
Corn Bushels	25,045	28.4		556.6	326.0	325	650	325	500
Corn Acres %			34.3%			23.5	41.8	18.3	33.3
Oat Acres	950			21.1	9.9	13	30	17	21
Oat Bushels	37,594	39.6		835.4	449.5	480	1,100	620	900
Rye Acres	74			1.6	5.1	0	0	0	0
Barley Acres	7			.2	.7	0	0	0	0
Wheat Acres	159	10.8		3.5	4.2	0	5	5	3
Wheat Bushels	1,716			38.1	56.4	0	50	50	26
Cereal Acres %			46.3%						
Flax Acres	500			11.1	10.0	0	15	15	10
Flax Seed	5,349	10.7		118.9	111.4	0	200	200	100
Flax Straw (Tons)	143			3.2	3.3	0	6	6	3
Flax %			19.4%						
Potato Bushels	5,215			115.9	105.3	50	150	100	80
Corn Bu./Hog + Beef	32.3					20.5	53.0	32.5	34.1
Hog/Beef	2.6								
Dairy/Hog + Beef	.73								
Fallow %			33.1%						
Butter per Cow, lbs	21.8								
Milk Sold per Cow, Gal.	483.7								
Eggs per Chicken	51.1								

Table 2.23 Bremen Township, Cook County: 1880

German-American N (209)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	150		71.8%						
Tilled Acres	15,860			75.9	56.0	36	104	68	80
Farm Value ($)	852,100			4,077.0	2,816.1	2,000	5,000	3,000	4,000
Implement ($)	34,485			165	220.1	50	200	150	100
Livestock ($)	67,963			325.2	287.8	150	400	250	250
Labor ($)	8,823			42.4	125.3	0	7	7	0
Total Val. Farm Production ($)	92,340			446.1	286.8	250	600	350	400
Mown Acres	4,086			19.6	18.2	6	30	24	15
Non-Mown Grassland	3,882			18.6	21.1	3	27	24	15
Hay Tons	4,721			22.6	19.3	8	30	22	20
Horses	646			3.1	2.5	2	4	2	2
Milk Cows	1,013			4.8	4.1	2	6	4	4
Other Cattle	829			4	4.7	1	6	5	3
Milk Sold (Gallons)	31,160			149.1	1,28731	0	0	0	0
Pounds of Butter	29,488			141.1	163.1	25	200	175	80
Swine	1,338			6.4	5.6	3	8	5	5
Chickens	6,122			39	23.8	15	40	25	24
Dozens of Eggs	20,309			97.2	98.9	30	100	70	60
Corn Acres	3,051			14.6	11.0	6	20	14	11
Corn Bushels	88,590	29		423.9	340.3	200	600	400	300
Corn Acres %			45.2%			38.5	75.0	36.5	50.0
Oat Acres	3,504			16.8	16.1	3	27	24	14
Oat Bushels	112,862	32.2		540.0	539.7	96	800	704	400
Rye Acres									
Barley Acres									
Wheat Acres	200			.95	1.6	0	2	2	0
Wheat Bushels	2,125	10.6		10.2	17.2	0	18.25	18.25	0
Cereal Acres %			54.8%						
Flax	4			.02	.2	0	0	0	0
Flax Seed									
Flax Straw (Tons)									
Flax %									
Potato Bushels	39,651			189.7	147.9	100	250	150	150
Corn Bu./Hog + Beef	40.9					25.0	65.9	40.9	42.9
Hog/Beef	1.6								
Dairy/Hog + Beef	.47								
Fallow %			57.4%						
Butter per Cow, lbs	29.1								
Milk Sold per Cow, Gal.	30.8								
Eggs per Chicken	39.8								

Table 2.24 Rich Township, Cook County: 1880

German-American N (155)	Quantity	BPA	Percent	Mean	Std Dev	Q1	Q3	IQR	Median
Owned Farms	114		73.5						
Tilled Acres	17,584			113.4	48.5	80	150	70	102
Farm Value ($)	11,504,00			7,421.9	8,016.3	4,500	8,250	3,750	6,000
Implement ($)	46,210			298.1	112.5	200	375	175	300
Livestock ($)	109,530			706.6	789.5	500	800	300	600
Labor ($)	17,049			110	104.7	22.5	190	167.5	75
Total Val. Farm Production ($)	145,020			935.6	337.4	750	1,200	450	1,000
Mown Acres	3,639			23.5	13.8	15	30	15	20
Non-Mown Grassland	4,594			29.6	17.9	15	40	25	28
Hay Tons	4,872			31.4	18.6	20	40	20	30
Horses	688			4.4	2	3	6	6	4
Milk Cows	1,418			9.1	4.4	6	11	5	8
Other Cattle	1,090			7.0	4.5	4	10	6	6
Milk Sold (Gallons)	100,244			646.7	2,169.8	0	0	0	0
Pounds of Butter	96,165			620.4	820.6	300	800	500	500
Swine	2,104			13.6	8.3	7	19	12	12
Chickens	12,816			82.7	71.6	50	100	50	75
Dozens of Eggs	45,700			294.8	148.7	200	400	200	300
Corn Acres	4,170			26.9	12.5	19	35	16	25
Corn Bushels	112,130	26.9		723.4	340	500	900	400	700
Corn Acres %			43.9%			39.0	50.0	11.0	44.9
Oat Acres	4,959			32	14.5	22	40	18	30
Oat Bushels	168,959	34.1		1,090.1	480.7	737.6	1,400	662.5	1,000
Rye Acres									
Barley Acres									
Wheat Acres	364			2.3	2.7	0	4	4	2
Wheat Bushels	3,520	9.7		22.7	26.3	0	38	38	19
Cereal Acres %			56.4%						
Flax	2			.01	.16	0	0	0	0
Flax Seed									
Flax Straw (Tons)									
Flax %			.0002%						
Potato Bushels	30,727			198.3	117.0	100	300	200	200
Corn Bu./Hog + Beef	35.1					23.5	52.8	28.3	33.3
Hog/Beef	1.9								
Dairy/Hog + Beef	.44								
Fallow %			46%						
Butter per Cow, lbs	67.8								
Milk Sold per Cow, Gal.	70.7								
Eggs per Chicken	42.8								

Germans first began filtering into the land northwest of Chicago when Jahn Hinrich Rothenfeld left Amt Stolpe in Hanover and arrived in Dunklee's Grove, DuPage County in 1834. Rothenfeld was, purportedly the third white settler in the area and soon began writing back to Germany and attracting friends and relatives of various means to the new settlement. By 1844, over twenty German families had settled in the area. In 1838 the immigrants had organized a religious congregation and in 1842, they purchased land and erected a church building. By 1848, the congregation had agreed to a 'sounder' version of Lutheranism, causing a rift and eventual split with the smaller 'rationalist' contingent.[94]

During the 1840s and 50s church members organized parochial school districts and in, 1856, the congregation officially joined the Missouri Synod. From Dunklee's Grove in Addison Township, pastors undertook missionary activities to the surrounding communities, which were home to an ever-increasing number of German immigrants. Pastors moved from one community to another as new congregations formed upon the prairie landscape, creating an informal Lutheran social framework that tied the local German enclaves of northern DuPage and northwestern Cook Counties together.[95] Over the years of emigration (which was most heavy in the two decades preceding the Civil War) the Lutheran Church, especially though not exclusively the LCMS, provided a social network that bound immigrants from disparate locations together, offering an identity, and a common cultural ideal.

By 1880, German immigrants, and just a few of their sons and daughters born in the United States, inhabited the majority of farmhouses in a swath of territory that

[94] See Chapter Three.
[95] Louis J. Schwartzkopf, *The Lutheran Trail: A History of the Synodical Conference Lutheran Churches in Northern Illinois* (St. Louis: Concordia Publishing House, 1950), 15-36.

composed the northern tier of Townships in DuPage County and the southern tier in the northern pan-handle of Cook County (Figure 2.26). In some townships such as Addison and Schaumburg, Germans occupied the land nearly to the exclusion of any other cultural group. In others such as Elk Grove and Bloomingdale Townships, Germans comprised a large majority and, moving away from the cultural hearth, Germans thinned to a minority of the population in locations such as Wayne Township in the northwest corner of DuPage County. The massing of Germans in larger concentrations over larger geographical spaces represents a phenomenon not seen in other areas studied previously in this chapter. Within the corn-belt, most German enclaves were smaller, and less dense—native stock farms surrounded the enclaves and were frequently interspersed among them. Thus, it is possible that this greater weight of place specific culture affected agricultural production and landscapes to a greater extent in the fodder hinterland than elsewhere. Even so, the major crops being grown were only those for which a market was available. Ideas of immigrants reproducing the landscapes of their homelands must be tempered by the economic realities of the locations in which they settled. Again, by comparing German-Americans to their native-stock contemporaries it is possible to see how the two groups responded to the same economic stimuli and interpret whether cultural processes played a role in shaping the agricultural landscape.

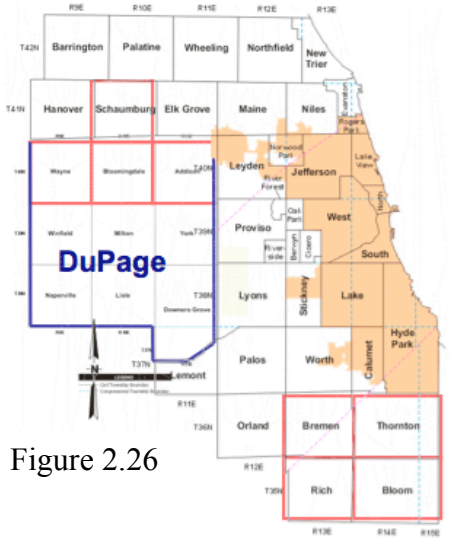

Figure 2.26

The northern study area of the fodder hinterland offered an array of agricultural opportunities. Horses in Chicago required oats; farmers choosing to grow oats could market them directly to stables in the city thus eliminating transportation costs. Milk factories sprang up to turn local dairy into cheese, butter and condensed milk for urban consumers. In northwestern Cook and DuPage counties, it was not uncommon to find multiple milk factories located within the same township. As a result, within this study area, we first see large quantities of 'milk sold' rather than 'butter made' enumerated in the manuscript returns. Additionally, flax mills in Bloomingdale Township processed fiber into rope and seed into oil.[96] Beyond all these local opportunities, farmers could, and did, raise corn and hogs, or beef, to be processed at the great mass of stockyards and packinghouses in Chicago. This northern tier of townships in the fodder hinterland offered real opportunities for choice in mode and means of agriculture on a scale unique among the locations studied and, likely, the larger corn-belt generally. If culture, not simply the accumulated habits of the past but also the collective mentalité and goals of a past's present, was capable of shaping landscape, this was the type of location in which it could have happened.

Much discussion thus far has centered upon the growth of corn and the means, whether on the hoof or by the bushel, by which farmers monetized their investments of time, energy and capital. The fodder hinterland represented a spatial-economic aberration, albeit a large one, in which local markets, spurred by urban populations and urban investment capital, created manufacturing and processing infrastructure that

[96] United States Census Bureau, Special Census Schedules 7 and 8, manuscript returns, DuPage County, Illinois, 1879.

extended into rural areas.[97] Frequently, as was the case with Roselle Hough's flax mill located in the town of Roselle, Bloomingdale Township, the money used in the financing and construction of rural industry came from urban enterprises. Hough made his first fortune in the Chicago Stockyards, and subsequently constructed the flax mill in the small rural town that would eventually bear his name.[98] Even so, corn was a significant presence on most every farm throughout the fodder hinterland and proves a good a place to start analysis.

Whereas both German and native-stock populations in the other locations of the various corn-belts typically devoted 65-75% of cropped acres to corn, farmers of both groups in the fodder hinterland planted less corn and more cereals (see Tables 2.17-2.22). Even so, German immigrants planted considerably less corn than their Yankee neighbors and it comprised a smaller portion of the ethnic landscape. Across all quartiles, the native-stock populations in Wayne and Bloomingdale Townships relied much more heavily upon corn than the German-Americans in the townships of Schaumburg, Addison and Bloomingdale. Not one of the German groups planted more than one third of their aggregate landscape to corn while the native-stock farmers planted over half of their land in corn. With less than a quarter of planted acreage in corn, Schaumburg Township proved most reluctant to grow the crop, planting it at roughly the same rate as flax. The decreased reliance on corn in the fodder hinterland, compared to other areas of central and northern Illinois, was significant among both German and native-stock groups, but it was doubly so among German farms.

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[97] For a discussion on the geographical flow of investment capital, see: William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991) 263-269.
[98] Dorothy Sanborn, *History, Roselle, Ill,* (Roselle, IL: Roselle Historical Society, 1968).

Germans grew less corn and, not surprisingly, they did different things with it. The larger farms within the native-stock population were more likely than their German counterparts to have large herds of swine and beef cattle. On Yankee farms, BPHB figures for corn were roughly equivalent with other locations within the corn-hog sub-region. With roughly 40-50 bushels of corn per head of hog and beef, Yankee farmers were selling some of their corn crop, but stock-raising remained their main focus. Still, while native-stock figures for BPHB were not high by corn-belt standards, they were significantly higher than among German farms where on-farm livestock consumed a larger percentage of the corn harvest.

Germans in Bloomingdale, Schaumburg and Addison townships, with BPHB numbers in the twenties, were growing little more corn than that needed to fatten their stock. In most of the German areas, swine production barely exceeded that needed for consumption by the local population of farm families. Both populations appear to have raised beef cattle as a natural, if slightly unfortunate consequence of dairying. Farmers fattened male calves on the farm for eventual slaughter, or sold them once weaned as feeder calves. The larger dairy operations on Yankee farms in the upper quartiles meant a correspondingly higher number of cattle raised on those farms ultimately destined for the stockyards. In summary, like many other locations in the corn-belt, German Americans fed smaller than average swine herds--especially less likely in the upper quartiles. Unlike every other study location within the corn-belt, the Germans in the fodder hinterland grew significantly less corn and sold an infinitesimally small portion of that which they did on the commodity market.

German immigrants devoted time, energy and land to the growth, harvest, transport and eventual sale and consumption of cereal grains within the city of Chicago. Among cereal grains such as wheat, oats, barley and rye, oats were the overwhelming choice among both native-stock and German farmers. Oats yielded in bushels per acre approximating, and in some locales exceeding, corn. The stables of the nearby city provided a constant and ready market that expanded at rates that mirrored the dynamic growth of the city generally. Because corn fed the hogs that fed the farm family, the smallest farms demonstrated the least difference in concentration in either corn or oats, but as the scale of production increased, and a greater percentage of farm produce left the farm for the market, German farmers especially devoted an increasingly large percentage of their acreage toward oats.

While native-stock farmers tended to devote most of their land to corn production, oats, as a rule, appropriated the greatest percentage of the landscape on the German farms in Schaumburg, Addison and Bloomingdale Township.[99] While cultivated in much lower overall concentrations, German farmers were significantly more likely to grow spring wheat.[100] Beyond what some historians have identified as a cultural proclivity for German-American farmers to grow wheat over corn, there also existed an economic incentive that might explain a greater rate of wheat farming among the German-American

[99] Addison Township, from which the Trinity congregation in Lowden, Iowa had departed fifteen years earlier, contained a higher percentage of very small farms compared to its neighboring townships. These smaller farms in the aggregate had the effect of slightly increasing the percentage of corn acreage in the township. The inhabitants of these small farms frequently worked in occupations off the farm in small manufacturing concerns within the village of Addison. Upon these small farms, farmers geared production toward fulfilling subsistence needs rather than producing grain for sale in the urban market. As such, land was much more likely to be devoted to corn and hay, the two crops necessary to support their small numbers of hogs, cattle and horses.

[100] The 1870 Agricultural Census schedule enumerates spring and winter wheat separately. As of the 1870 census year, nearly all the wheat planted in northeast Illinois was spring wheat.

farms of the fodder hinterland.[101] The reaping technology required to expand and emphasize oat production was identical to that needed for the wheat harvest. The oat farmers of Schaumburg and Bloomingdale Townships could spread the cost of a reaper over a larger acreage by planting wheat along with oats. This logic would not have applied to many of the Yankee farmers in Wayne Township that emphasized corn production. On these farms, the smaller fields of oats were more likely hired out for harvest by reaper or harvested with hand tools such as the 'old-fashioned' grain cradle.

Besides cereals and corn, farmers in the northern study area of the fodder hinterland also grew flax. Flax represented a cash crop with virtually no on-farm utility value. German farmers proved more inclined to grow flax across the study area, but in no location more than Schaumburg where, as noted earlier, it exceeded corn in the quantity of planted acres. Not only did Schaumburgers plant more flax, they proved more likely to harvest the fiber. This effort required workers to traverse the acres of fields, pulling it by hand and then manually separating the seedpods from the stalks. Farmers in other townships where flax was cultivated proved much more likely to only market the seeds, which meant the crop could have been harvested mechanically. Flax straw, from which the fiber was derived, was less valuable per unit of volume than the seed from which oil was pressed. Thus, as distance increased from processing centers in Roselle, the

[101] Terry Jordan, *German Seed in Texas Soil*, (Austin: University of Texas Press. 1966); Walter Kamphoefner, *The Westfalians: From Germany to Missouri* (Princeton: Princeton University Press, 1987); Myron Gutmann, Sara Pullum-Pinon, Susan Gonzalez Baker and Ingrid Burke, 'German-Origin Settlement and Agricultural Land Use in the Twentieth-Century Great Plains' in Helbich, Wolfgang and Kamphoefner, Walter, Eds. *German-American Immigration and Ethnicity in Comparative Perspective,* (Madison: Max Kade Institute for German-American Studies. 2004), 138-168; Allan Bogue, *From Prairie Belt to Corn Belt: Farming on the Illinois and Iowa Prairies in the Nineteenth Century* (Chicago: University of Chicago Press, 1963); Robert W. Frizzel, *Independent Immigrants: A Settlement of Hanoverian Germans in Western Missouri,* (Columbia: University of Missouri Press, 2007); Sonya Salamon, *Prairie Patrimony: Family, Farming and Community in the Midwest* (Chapel Hill: University of North Carolina, 1992).

prevailing spatial logic would be for farmers to market less flax straw. Yet, this is not completely the case. While Germans in both Bloomingdale and Wayne Townships were more likely to market straw than native-stock farmers, neither came close to the rate of straw production in Schaumburg, which was at least equidistant if not further from the flax mills than most locations in the other two townships.

Of all the townships in or outside of the fodder hinterland, Schaumburg represented the most diverse agricultural landscape. And yet, it was still a landscape nearly wholly devoted to market production. Flax and cereals comprised over 75% of cropped acreage, with only a small proportion of that land being held back for the family economy or maintenance of farm livestock (often the corn land). And yet, here too, as in Kankakee, Woodford, Grundy, and to a lesser extent in Whiteside, Cedar and Kendall Counties, we see a common commitment to the production of grain for market, which farmers achieved by raising relatively fewer stock. Again, the preference for marketable grain appears as a common cultural instinct manifesting in a unique form in a spatially specific, economic context.

Finally, in the southern portion of the fodder hinterland (see tables 2.23 and 2.24), we look at Bremen and Rich Townships. In Bremen and Rich, no local market existed for flax. As such, farmers here planted corn at slightly higher rates than other German farmers in the sub-region, but still less than Yankee farmers. Farmers in Rich Township tilled more acreage than Yankees in the northern district, yet still grew fewer acres of corn and more acres of oats across all quartiles. Although farms in Bremen Township were typically smaller and generally poorer than those in Rich, they produced more tons of hay per head of cattle than Rich and significantly more than any township

studied in Cook or DuPage County and mown-acres represented a larger part of the overall agricultural landscape in Bremen Township than in any other township.[102] The concentration upon hay production derived from the demand of local agricultural industries supplying the Chicago equine market.

Three stationary hay pressing businesses, including one that hired ten workers year round and twenty-five employees during peak periods, created demand for hay among inhabitants of Bremen Township directly west of the bailing businesses located in Thorndale Township.[103] As seen with regards to flax straw, the markets for flax straw and grass hay were extremely local due to their high bulk to value ratio and the lack of mechanization in handling and transport. Like raising corn for the commodity markets, or oats for the equine market in Chicago, the greatest observable differences in the population existed in the upper quartiles of production. Hay land did not comprise an abnormally large percentage of land on small farms in Bremen and northwest Rich Township. However, as the scale of operations increased, so to did the likelihood of growing hay intended for market rather than on-farm consumption.

Illinois farmers' reliance upon corn existed before 1860. However, by 1860 a new pattern had clearly emerged in how farmers marketed their product. Many farmers in east-central Illinois had begun to shift the emphasis of their operation away from fattening stock (predominately swine) and towards the growth, shipping and sale of

[102] Actually, mown acreage represented a greater percentage of the landscape among the native-stock population of Bloomingdale. However, this is a case where small population makes the numbers deceiving. In fact there were the upper quartile of farms maintained exceptionally large dairy herds of 35-70 cows, the largest of which accounted for nearly 20% of mown acres.
[103] United States Census Bureau, Special Census Schedules 7 and 8, Manuscript returns, Cook County, Illinois, 1879.

commodity corn. It was no coincidence that the emergence and spread of the cash-grain sub-region corresponded with the development of the railroad network that spread across the region. Cash-grain farming was predicated upon the infrastructure of overland transportation. This infrastructure of rolling stock, elevators and rails represented a massive investment of capital, the effect of which was to siphon the natural produce of the interior into urban centers. Farmers relied upon the commoditized infrastructure to monetize their investment of energy, time, and capital. Once monetized, successful farmers in the corn-belt reinvested in their farms by utilizing mechanical technology and the purchase of land to expand their scale of production. By specializing in one crop planted in greater quantities, farmers in the cash-grain sub-region were able to mechanize planting and harvesting more efficiently than in areas, such as the fodder hinterland, where a less specialized agricultural landscape reflected responses to localized markets, which required more machinery to harvest multiple grain types. Further, emphasizing grain production over animal production decreased the need for capital improvements to the physical campus of farm buildings. Increasing the size of swine herds would have necessitated an increase in buildings and fences to contain them. Factor in the amount of labor to feed and care for hogs on a daily basis and its no wonder that an increasing number of farms in the cash-grain sub-region diverted corn away from swine production and towards sale on the commodity market.

In the absence of localized markets, farmers increasingly planted what they could ship. By 1880, the geographic sub-region that emphasized cash-grain production had expanded to the north and west. The strategy of specialization proved especially effective in the less densely settled areas of northern central Illinois where lower land values and

cash-grain farming made for an especially lucrative return on farmers' capital investments in land. The reliance upon infrastructure that fostered the specialization of the agricultural landscape proved a difficult paradigm to escape. The crops and animals planted by ethnic Germans did not differ significantly from native-stock farmers throughout most of the corn-belt. Both groups concentrated mainly on corn and hogs; both raised a few beef cattle a few cows and usually grew enough oats to feed their horses. German farmers may have been slightly more likely to grow wheat, but rarely in quantities beyond a handful of acres. The economic relationships implied by spatial location constrained choices in cropping and constrained substantive variation of the landscape.

And yet, cultural differences were evident in agriculture. Even while the landscape looked similar among German and native-stock farmers, the two groups marketed their production differently. In both groups, the expanding cash-grain sub region, and the contracting corn-hog sub-region, German farmers proved more likely to market grain than hogs. This trend was not universal however; it was most apparent in the cash-grain sub-region. In both corn-based sub-regions, ethnic farmers were less likely to be the most aggressive commodity farmers, but on the whole were more eager participants in the grain trade than in the swine trade. The subtle differences between ethnic populations appear when farms are conceptualized as systems rather than the mere sums of various plants and animals. It requires researchers to move beyond counting elements of farm production and towards balancing them. The cultural differences in corn-belt agriculture did not exist in countable objects, but in the relationships between the numbers.

The differences between cultural groups in most of the corn-belt existed, not in the landscapes they produced, but in the way they balanced livestock. This chapter has described an observable pattern, but has not suggested a meaningful interpretation thereof. If a lesser inclination to feed corn to hogs, in both corn based sub-regions, is attributable to a cultural antecedent, then it is reasonable to expect some sort of varied behavior in other spatial-economic contexts as well. In the case of Lowden, Iowa it may be seen how this same tendency, not for any specific type of grain, but for grains generally, manifested in a different spatial-economic context. When localized markets for cereals existed, German farmers responded by devoting a significantly larger portion of their farmland. In the process, they created distinct cultural landscapes that were more agriculturally diverse than their native-stock neighbors. The German farmers in Lowden transplanted themselves from older German settlements in Chicago's fodder hinterland. There too, Germans proved more eager to diversify their landscapes into cereal and fiber production.

In all three spatial-economic contexts, we see a common trait among German immigrant farmers—a propensity to produce grain more intensively than non-Germans. In the corn-belt context, it took the form of a greater reliance on commodity corn. In the fodder hinterland Chicago and areas of localized market demand for cereal grain, German farmers relied less upon corn and relied upon and more diverse agricultural landscape of cereal grains and fiber. In short, where the spatially induced market forces rewarded specialized landscapes, German farmers were more specialized. In areas where spatially induced market forces allowed diversified production, German farmers were more diversified. So, if any essential characteristic can be said to exist among ethnically

German farmers living in rural enclaves that supported congregations of the Lutheran Church Missouri Synod, it is this: German farmers were no more or less attached to any single plant or animal type than any other group of farmers. Rather, immigrant farmers demonstrated a slightly greater propensity to adjust to and then take advantage of the unique economic opportunities of whatever spatial context they settled within—at least concerning those elements of production most directly affecting the creation of landscape.

Despite the acknowledgement that a common cultural characteristic could inform the agriculture of ethnic Germans regardless of location within the corn-belt, this data stresses the determining role of markets in the creation of the agricultural landscape. The expectation that immigrants could defy spatial market forces in an effort to recreate Old World crops and landscapes is simply unrealistic. This is not a suggestion that historians of ethnicity and immigration should cease their consideration of agriculture. Rather, it is an assertion that historians of immigration must do more work to contextualize immigrant agriculture within the realities of location and the economic relationships it implies. The focus must move beyond the end result (the physical landscape and its association of plants and animals) and toward a consideration of routines required to produce it. If culture, in its most simple expression, is pattern over time, then historians of ethnic agriculture have been too attuned to the effect of the pattern rather than the nuances of movement that created it. Only by understanding process, can historians hope to move beyond describing a pattern of what was or was not different between the Old World and New and toward an understanding of why. Of more significance, however, is that analysis of immigrant groups enlightens our understanding of the structural forces at

work within the political economy of a historic region. If the landscape emerged as a dialogue between economic expediency (a factor of spatial relationships within a commoditized landscape) and the inertia of patterned behavior across time, then understanding where and how patterned behaviors expressed themselves demonstrates the strength of systemic forces to constrain agricultural typologies. Immigrant groups, as a comparative tool, prove a reliable 'control' population with which to clarify the nature of these relationships.

The degree to which immigrants recreated Old World cropping regimes cannot be considered a litmus test of the relative degree of acculturation that had occurred or the degree to which immigrants had acclimated to the agricultural economy in the United States. Still, German immigrants were not wholly similar to native-stock populations in the ways in which they farmed. Culture could not trump market forces when it came to crops and livestock; but in specific locations, culture could work in concert with localized markets to produce unique cultural landscapes. The scale and nature of crop movement to market proved the salient agent in the equation that fostered or inhibited distinct cultural landscapes. Ultimately, for farmers to exercise real agency in cropping choices, markets free from the added expense of overland transport were required. Throughout most of the corn-belt, however, the only market available was the commoditized network of the railroad and the only real (economically feasible) choice was corn.

CHAPTER 3

THE QUALITIES OF LOCAL PLACES

The favorable economic climate in which Midwestern farmers labored during the war years of the 1860s disappeared during the 1870s. Demonetization of silver spurred deflation that reached rates as high as three percent per year for agricultural commodities and increased the cost of money for farmers reliant on credit to bridge the agricultural year.[104] Meanwhile, federal policies and military force opened up the vast interior of the continent to agriculture—or, more specifically wheat production. Domestic population growth boomed, but did not match the increased scale in agricultural commodity production, which further exacerbated the economic hardships of farmers. Government policy did little to protect US commodities on world markets. Contemporary economic theory held that the nation's debtor status required that it export commodities, regardless of cost, to bring specie back into the country. Ultimately, the economic environment of the 1870s pressured Midwestern farmers to increase the physical scale of production while simultaneously increasing efficiency through the application of mechanical energy.

In 1845, at the age of 33, Johann Boeger immigrated to the United States from Algesdorf, Schaumburg-Lippe. He and his family farmed land in northwest Cook County,

[104] Milton Friedman, "The Crime of 1873" *The Journal of Political Economy* 6 (1990), 1159-119; Allen Weinstein, "Was There a "Crime of 1873?" The Case of the Demonetized Dollar" *Journal of American History* 54 (1967), 307-326; Paul Barnett, "The Crime of 1873 Re-Examined" *Agricultural History* 38 (1964), 178-181.

Illinois, about a mile east of Schaumburg Center and three miles north of the small village of Roselle. The Boegers improved their land and prospered during the American Civil War, investing wartime profits back into their farm. Johann built a dairy barn, outbuildings and, eventually by the late 1860s, a new balloon-framed home. By the 1870s, however, Johann was in debt. Owing money on the farm at a nine percent interest rate, he made the difficult decision to sell off eighty acres of land to avoid losing the entire farm.[105] The fortunes of the Boeger family, however, began to revive when in 1872, the Chicago, Milwaukee, St. Paul & Pacific Railroad laid track through the small town of Roselle just a few miles to the south of the Boeger place. Shortly thereafter, Roselle Hough, who had made his fortune in the Chicago Stockyards during the Civil War, opened a flax mill in town that processed flax fibers into rope.[106] By 1870, Schaumburg farmers began to grow small quantities of flax and sell the seed to a manufacturer of linseed oil in Bloomingdale Township. With a market for both the fiber and the oil, flax production boomed throughout the remainder of the decade in Schaumburg Township. Flax returned a good profit, and, in 1881, Johann's son Herman expanded the farm operation by installing a thirty-foot Halladay power-windmill atop of the dairy barn to grind feed for livestock and saw wood and even a small millrace with a water wheel for churning butter.[107]

Like the Boegers, the German farmers of Coopers Grove in the southern section of Cook County struggled to adapt to the new economic environment. In April of 1873,

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[105] Redeker Family Oral History Interview, Undated, Local History Archives, Volkening Heritage Farm at Spring Valley, Schaumburg, Illinois.
[106] Dorothy Sanborn, *History, Roselle, Ill,* (Roselle, Illinois: Roselle Historical Society, 1968), 4-13.
[107] Redeker Family Oral History Interview, Undated. Local History Archives, Volkening Heritage Farm at Spring Valley, Schaumburg, Illinois.

after years of surplus revenue in their coffers, the voter's assembly of St. John's congregation in southern Cook County decided to end the traditional compulsory payment system referred to as *Zwangszahlungs*. Those assembled decided that tithing for regular and extraordinary expenses would henceforth be met by free-will donation. Later that year, the congregation, in special meeting decided to build a new stone church building. Planning continued, the congregation accepted architectural plans, and contracted with craftsmen to complete the building, which was estimated to cost $15,000. In May of 1874, the voting members of the congregation resolved that no money would be borrowed for the new building, noting that only in extreme necessity did the elders have the authority to borrow money. From that point forward, the finance committee made several unsuccessful rounds through the community, seeking fulfillment of subscriptions to fund the building of the church. In May of 1875, after several attempts to raise the money, voting members authorized the elders to borrow money for unpaid debt due on the church building. [108]

In the lean years of the 1870s, funding the church building stretched the capacity of the congregants to meet their own financial commitments. Voluntary donations failed to generate the funds necessary to pay the salaries of the pastor and school teacher. To "correct this evil," the voters decided to send the elders among the congregants to seek yearly subscriptions. Money problems continued, however, and in October of 1875, church elders attempted to institute an assessment on church members based on a tax list. In January of 1876, members protested this manner of collection as unjust, and the

[108] Richard Nordbrock, Trans. "Minutes of Transactions in the Meetings of the Duetsche Evanelische Lutherische St. Johannes Congregation in Rich, Cook County, State of Illinois" (April 1, 1863-1879), Saint Johns Lutheran Church, Country Club Hills, Illinois.

congregation returned to garnering its finances through free-will donation. Later that year, in an effort save money, church elders stopped providing heating fuel for the school teacher and, since there was no money to buy coal for the church, the elders borrowed the money to meet the expense. In October of 1877, the school teacher asked the congregation to reconsider and purchase the fuel needed for heating the "teacherage." The congregation tabled the request; it did not come up for discussion in subsequent meetings. The collectors, appointed by the building committee to collect the debt, reported their inability to raise additional funds in October of 1878. Those assembled in the meeting then decided that parishioners would be responsible for the share of interest accrued on their portion of the debt if they failed to make their promised payment by November first. By 1879, members delinquent in their promised payments were being called before the congregation and both elders and the Pastor made personal visits to "sharpen their conscience." At a meeting in October of 1879, delinquent members George Kollman, Wilhelm Sippel and Heinrich Rodehorst promised to pay between $20 and $40 each, stating it was the most they could afford to give. [109]

St. John's failed to retire their whole debt during the 1870s, but through arm twisting, peer pressure and other means of "conscience sharpening," the building committee managed to reduce its debt to only a few hundred dollars by the end of the decade. The congregants of St. John's could not have predicted the economic circumstances of the latter 1870s. Yet, despite circumstances, they tightened their belts and eventually paid off the debt on their church. Throughout the financial difficulties, the

[109] Richard Nordbrock, Trans. "Minutes of Transactions in the Meetings of the Duetsche Evanelische Lutherische St. Johannes Congregation in Rich, Cook County, State of Illinois" (April 1, 1863-1879), Saint Johns Lutheran Church, Country Club Hills, Illinois.

congregation continued to fulfill its philanthropic duty. Members committed donations to the orphan home in Addison, collected funds for needy students, and took collections for other struggling congregations.

As the farmers of St. Johns struggled to pay of their corporate debt, they and many other farmers across the hinterland reduced operating expenses in an effort to maximize efficiency. Unlike farmers in Schaumburg and Bloomingdale townships, however, no new railroad came through during the 1870s and few factories offered local marketing opportunities to revive flagging profits of the farmers in southern Cook County. In contrast to the northern boundary of DuPage and Cook Counties, southern Cook had fewer opportunities for the local marketing of agricultural products. Hay pressing businesses operated to the East of Bremen Township, in Thornton Township, but these were several miles away from the center of the congregation in Rich Township and there were fewer local processors of dairy.[110] As a result, farmers in Rich and Bremen continued to farm, for the most part, without radical departure from the patterns they had established in the preceding decades.

In the process of creating agricultural landscapes, hinterland farmers reacted to local opportunities and accepted commodity prices as they fluctuated or, as was more generally the case during the 1870s, declined. Farmers in Schaumburg shifted production from wheat to flax in an attempt to mitigate their vulnerability to commodity fluctuations. Other farmers, in Bloomingdale and Wayne Townships, however, attempted different

[110] For instance, Schaumburg had four separate creameries producing cheese and butter. Combined, the four factories produced over 500,000 pounds of cheese and nearly 140,000 pounds of butter and requiring the production of an estimated 2,400 cows (not all of which resided within the township). By contrast, Bremen Township contained no creameries and Rich Township only one. Not surprisingly, dairy herds in southern Cook County were smaller than those in the northwestern portion of the county. United States Census Bureau, Special Census Schedules 7 and 8, manuscript returns, Cook County, Illinois, 1879.

agricultural strategies in an effort to combat falling commodity prices and rising interest rates. Prior to the economic downturn of the 1870s, the agricultures of both ethnic and native-stock farmers in the hinterland were more similar to each other than different. In 1850, wheat dominated production. As time wore on, farmers shifted production away from wheat to corn and oats—all the while increasing the size of their dairy herds. The economic stress, and new localized opportunities (contingent upon railroad development) created a juncture point whereupon two seemingly different trajectories emerged which, in turn, created two distinctive agricultural landscapes.

POLITICAL ECONOMY OF CHICAGO'S FODDER HINTERLAND, 1850-1880

In 1850, Chicago's inhabitants numbered less than 30,000 and fewer than 125,000 residents inhabited the eight counties of northeastern Illinois. Plank roads had only begun to radiate from the city two years earlier. That same year *The Pioneer,* the first steam locomotive in Chicago, began hauling men and material westward for the construction of the Galena and Chicago Union Railroad.[111] Far from a metropolis, Chicago was little more than a market town. Its rural fiefdom consisted largely of poorly drained and as yet sparsely inhabited prairie. The built environment of rural districts such as Schaumburg had few frame structures. Most souls still resided rude cabins, what German immigrants referred to as *Blockhausen*; the living conditions among the livestock of the area were not universally worse.[112] Roads between the city and the hinterland were rarely more than

[111] Roger H. Grant, "Transportation." In *The Encyclopedia of Chicago History,* ed. James Grossman, Ann Durkin Keating and Janice Reiff (Chicago: University of Chicago Press, 2004), 826-832 and B4.

[112] Daryl Lint, trans. *Geschichte der Deutschen Ansiedelung zu Schaumburg, Cook County, Ill., vom Jahre 1850 bis 1900* (Schaumburg, IL: Lint's Emporium, 1976); Hilda Westerman, trans. *The History of the United Evangelical Saint Johns Church in Addison DuPage County Illinois*

cow-paths that were impassible significant portions of the year. It was a system on the precipice of revolutionary change.

The Galena & Chicago Union reached the village of West Chicago in DuPage County by 1848 with a branch line to Aurora by 1850. By 1853, the road had reached Freeport, Illinois and by 1855 it had traversed the Mississippi River at Dubuque. It was not the first road leaving Chicago to cross the river though. The Chicago and Rock Island began construction in 1851 and reached Iowa by 1854. The Illinois Central Railroad, the first road in Illinois funded by federal land grants, began construction through southern Cook County toward St. Louis and eventually New Orleans in 1851. By 1852, rail

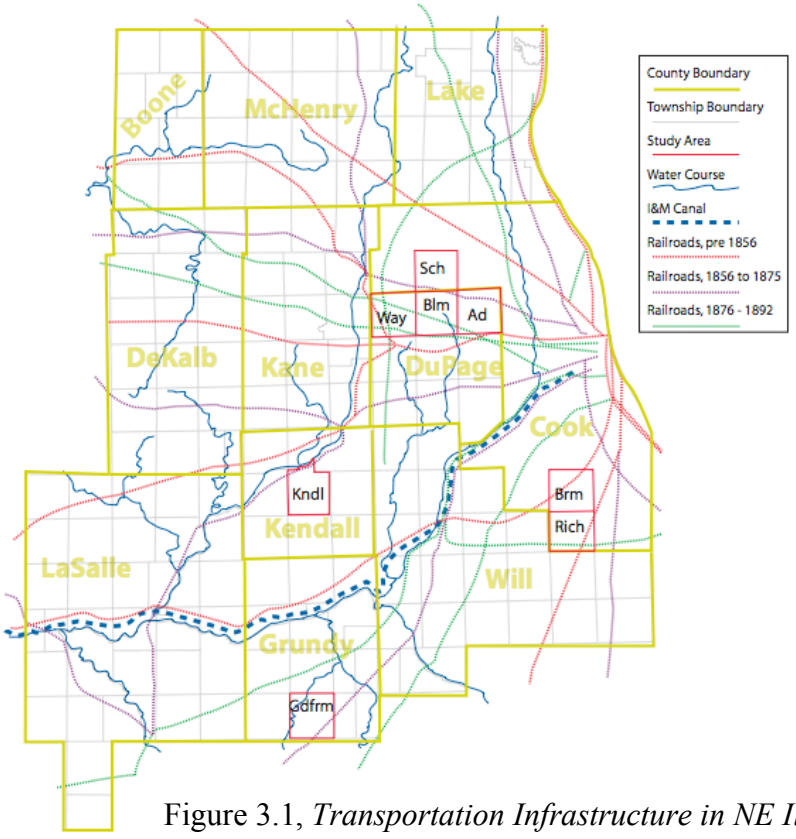

Figure 3.1, *Transportation Infrastructure in NE Illinois*

Celebrating their 50th Jubilee (Severing House, 1899), Local History files, Bensenville Public Library, Bensenville, Illinois.

lines stretched from New York to Chicago. At the end of the decade, no fewer than eleven roads served Chicago. Trunk and branch line construction out of and through Chicago slowed during the Civil War, but accelerated with the first route to the Pacific in 1869.[113]

The bright orange cars on the St. Paul Road changed Schaumburg. Without the road, Roselle Hough would have not built his fiber mill, and without that mill, farms in Schaumburg would have grown much less flax. In 1879, Schaumburgers planted approximately twenty-five percent of their cropped acres to flax. Flax, while planted like any other cereal grain, required a different harvesting regimen in which the men, women and children of Schaumburg, backs stooped, traversed the fields pulling the crop by hand. The St. Paul Road created an opportunity to which the struggling farmers of Schaumburg responded enthusiastically, but it also required an alteration in the social and cultural fabric of the township as they adjusted to the ways and means of growing flax. Schaumburg, however, was its own unique context of time, place and people. Other farmers in the area were experiencing similar economic hardships during the 1870s and were privy to the same localized opportunity, but not all of them responded in the same manner.

[113] Figure 2.1 drawn by author, based on map and data originally published in: Michael P. Conzen, "Chicago's Railroad Pattern in 1950" In *The Encyclopedia of Chicago History,* ed. James Grossman, Ann Durkin Keating and Janice Reiff (Chicago: University of Chicago Press, 2004), 829.

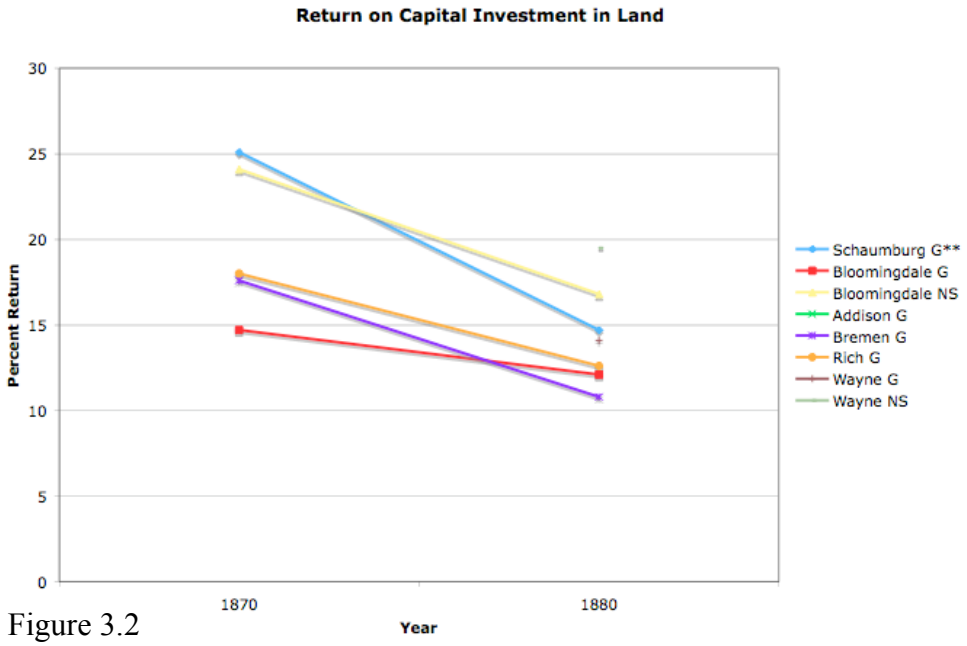

Figure 3.2

Farm incomes fell in both the northern and southern hinterland between 1869 and 1879. This was due, in part to a broader deflationary trend that hit commodity markets especially hard. However, as can be seen in Figure 3.2, commodity prices were not accompanied by a decline in farm value.[114] The rate of return on capital investments in land and buildings fell across the hinterland. As farm prices fell relative to the value of farmland, the cost of 'making' a farm increased. A rate of return of fifteen percent in Schaumburg left little wiggle room above the nine percent interest rate that loomed over the Boeger farm in the 1870s. Other townships, however, did not experience the same precipitous decline as Schaumburg, where the overall rate of return had fallen by nearly forty percent over the decade.

[114] United States Census Bureau, Special Census Schedule 4, Agriculture. Manuscript returns, Cook County, Illinois, 1879. Farm income prior to 1870 was not enumerated.

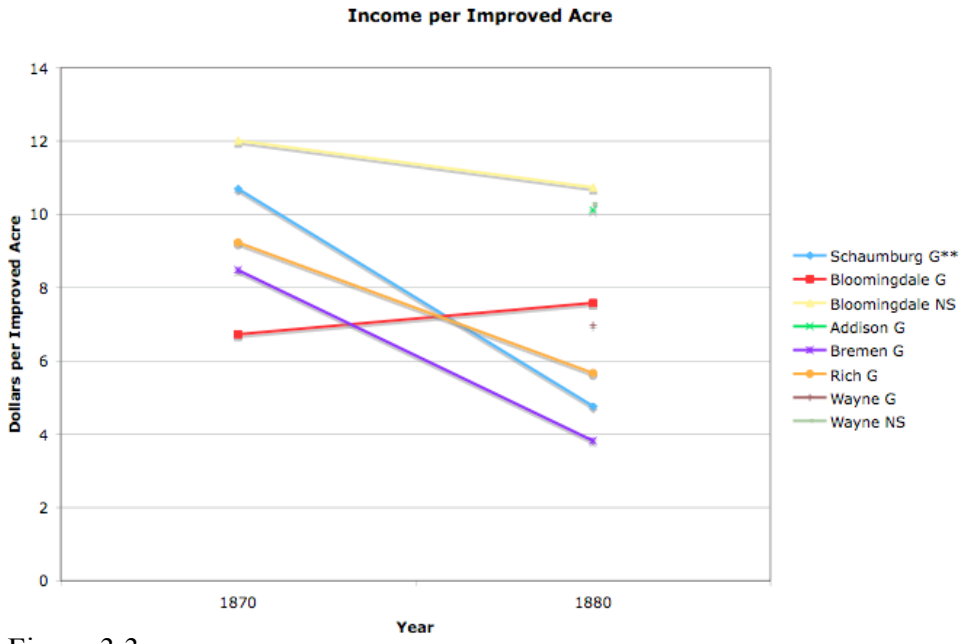

Figure 3.3

That other townships experienced less of a decline in the rate of return on capital investments was largely a function of different modes of agricultural production. This was, perhaps, the greatest advantage of farming in Chicago's hinterland, the ability to shift in and out of commodity production with relative ease. Because of Chicago's dairy consumption, horse population, and the presence, after 1865, of the Union Stock Yard, which required 100 tons of hay per day during peak periods, farmers in the hinterland could either produce for the Chicago market or the international commodity market.[115] Often times they did both, shifting relative emphasis between the two from year to year as economic circumstances dictated.

As Figure 3.3 illustrates, there was a wide gap in efficiency per acre. Some populations achieved a much higher return per improved acre even while the difference

[115] Chas. P. Raleigh, "Agriculture." in *The Encyclopedia of Chicago History,* ed. James Grossman, Ann Durkin Keating and Janice Reiff (Chicago: University of Chicago Press, 2004) 9-10.

in gross income was not particularly large. For example, although Germans in Bloomingdale Township earned almost $3.00 more per improved acre than Germans just to the north in Schaumburg, the gross income distribution between the two populations was very similar. This was due to the fact that farms in Schaumburg Township were larger than in Bloomingdale Township. As we will see, Germans in Bloomingdale Township earned more money on less, albeit more valuable, land. They did so by balancing commodity and local market production differently than in Schaumburg. Neither group farmed 'better' or 'smarter' than the other. Rather, farmers in Schaumburg farmed their land within a different cultural milieu, which resulted from spatially specific economic opportunities, filtered through the tradition of local experience and institutions.

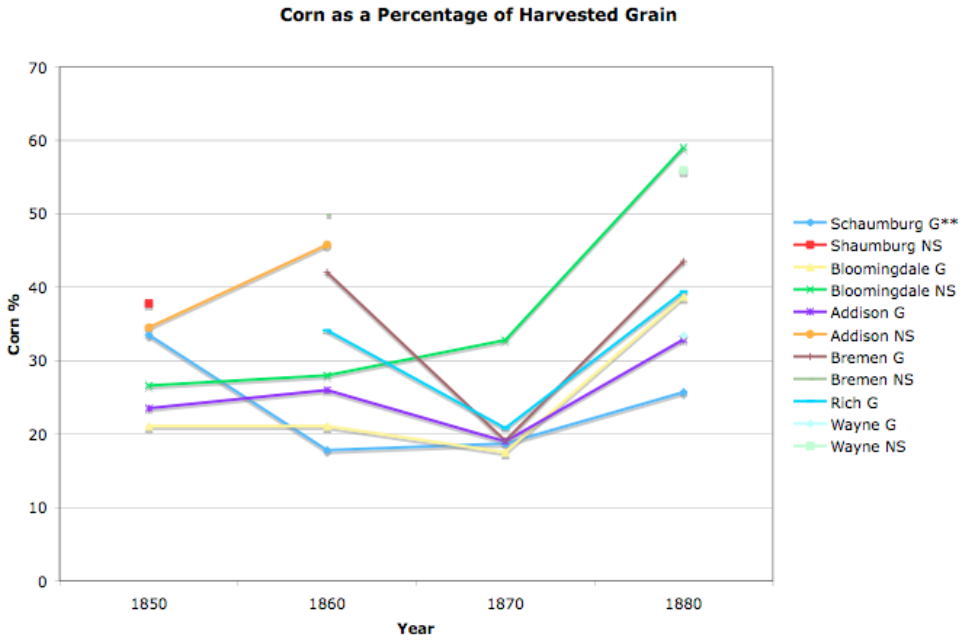

Figure 3.4

Agriculture in the fodder hinterland progressed through the decades book-ending the Civil War reliant mainly upon cereal production. In 1850, farmers of all cultural backgrounds produced wheat predominantly. In keeping with the larger economic trend of specialization and the establishment of sub-regional production norms, the farmers of

Chicago's hinterland moved away from wheat production between 1850 and 1870 as the equine population of the city mirrored the explosive growth of human population.[116] The transition to the lower valued (but higher yielding) oat crop relied on improvements in farm to market roads, as more trips were required to market the produce of increasingly large acreages.[117] In the northern tier of the hinterland, where dairying was more developed, corn consisted of less than a third of the harvested crops up through 1870. Between 1870 and 1880 farmers increased their reliance upon corn across the sub-region. The increase, however, was much less dramatic in Schaumburg Township compared to their neighbors in Wayne and Bloomingdale Townships, who had shifted the majority of their land into corn production.

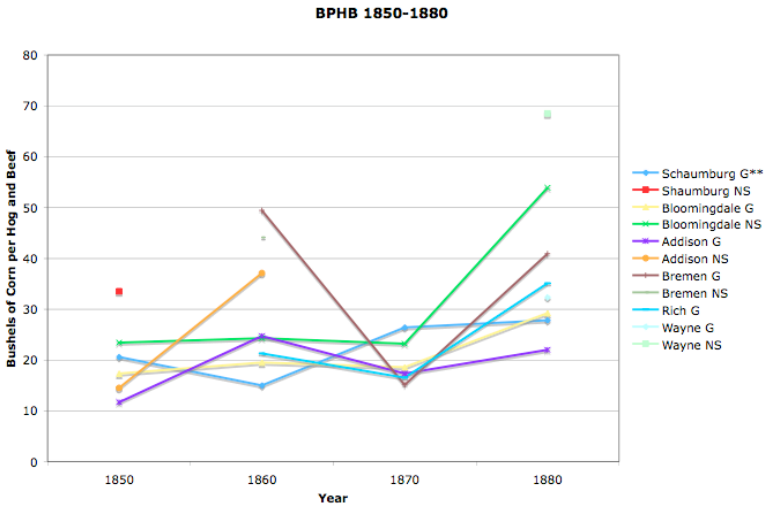

Figure 3.5

[116] During the twenty-year period, Chicago's population increased from just under 30,000 to just under 300,000—explosive growth by any measure. See: James Grossman, Ann Durkin Keating and Janice Reiff, eds. *The Encyclopedia of Chicago History,* (Chicago: University of Chicago Press, 2004), B8.

[117] The probate inventory of the estate of Johann Sunderlage, in 1873, valued oats at 18 cents a bushel and wheat at 80 cents a bushel. As of September, when the inventory was taken, 14 acres of corn were still standing in the field, valued at $6 per acre. The same farm, in 1879 owned by his wife planted 13 acres of corn that yield 350 bushels of corn, a yield of nearly 27 bushels per acre. If we assume the same yield figure from 1879 in 1873, then the estimated value per bushel of corn on the Sunderlage farm in 1873 would have been approximately 22.2 cents per bushel for corn, slightly higher than oats. See: Sunderlage Probate Inventory, 1873 Unpublished, Archival Collection, Volkening Heritage Farm at Spring Valley, Schaumburg, Illinois.

With the change in trend towards increased corn production, especially but not exclusively by native-stock farmers, came an increase in the bushels of corn grown per hog and beef animal. As seen in Figure 3.5, a marked increase in BPHB occurred between 1870 and 1880 as farmers produced more corn, not only for stock, but also for the commodity market. Although the numbers were not nearly as high as those in the cash-grain sub-region, many farms owned by native-stock farmers in Bloomingdale and Wayne Township were beginning to bear the hallmarks of production in the northern tier of the corn-hog sub-region. These farmers were shifting away from a sub-regional norm of cereal grain production toward the more widespread corn-hog model. This broad transition, muted in some locations and strong in others, to a more corn-based political economy represented a response to the economic downturn as farmers sought more efficient means of monetizing their investments of time and labor upon their farmland. The transition, in the northern townships of Bloomingdale and Wayne especially, was facilitated by the St. Paul Road that traversed the townships early in the decade and the increased ease of moving hogs to market that it allowed.

The change in the agricultural landscape represented one strategy among several inter-related strategies employed on hinterland farms during the economic lean years of the 1870s. Rather than change their method of agricultural production, many intensified it, seeking greater efficiency through tighter management of variable costs such as draft power, machinery and a more intensive use of family rather than paid labor. The exigencies of cereal versus corn production, however, allowed different groups to manage variable costs more or less effectively.

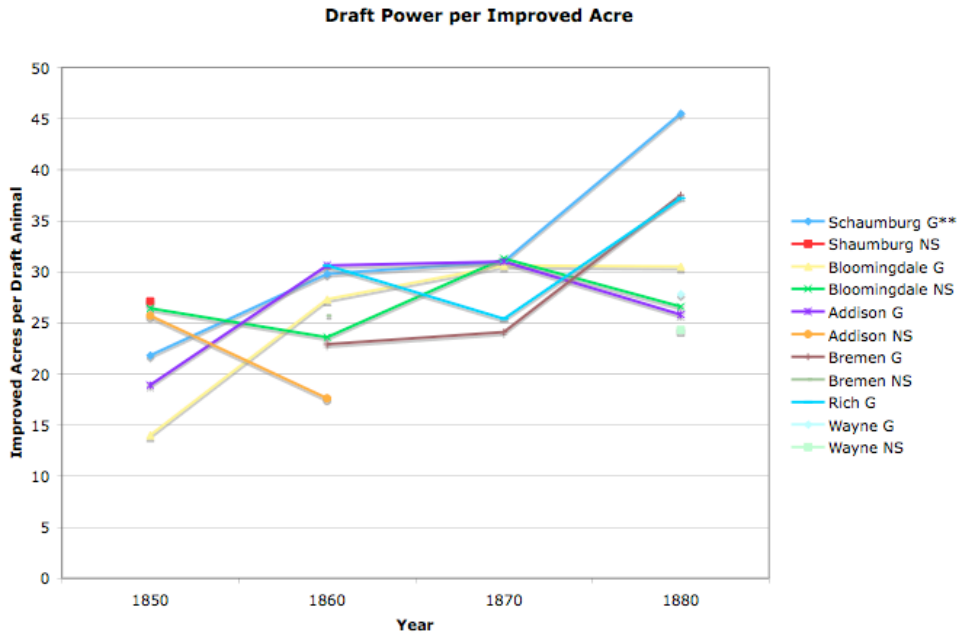

Figure 3.6

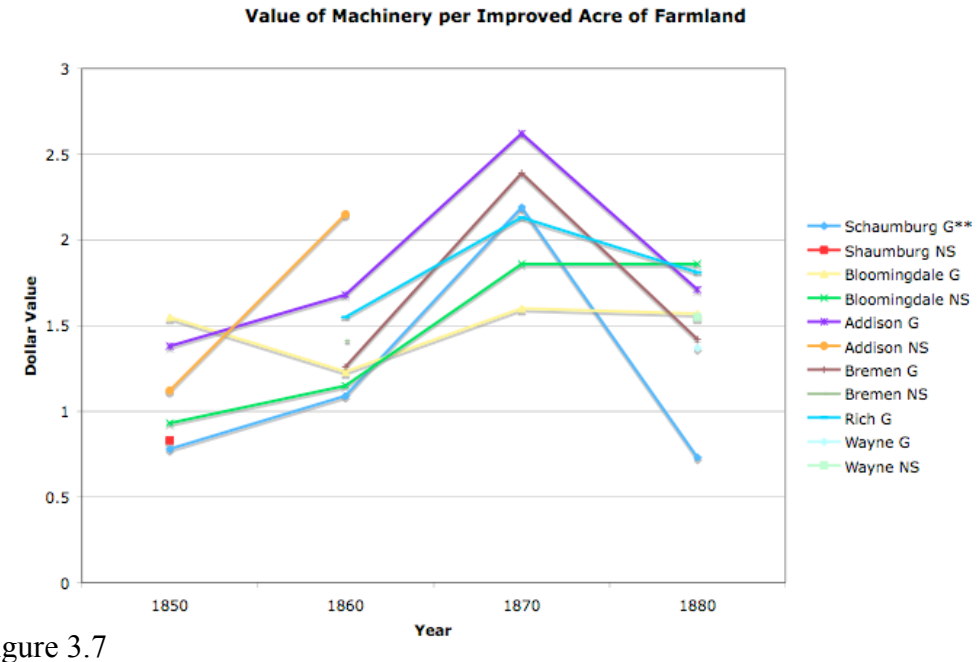

Figure 3.7

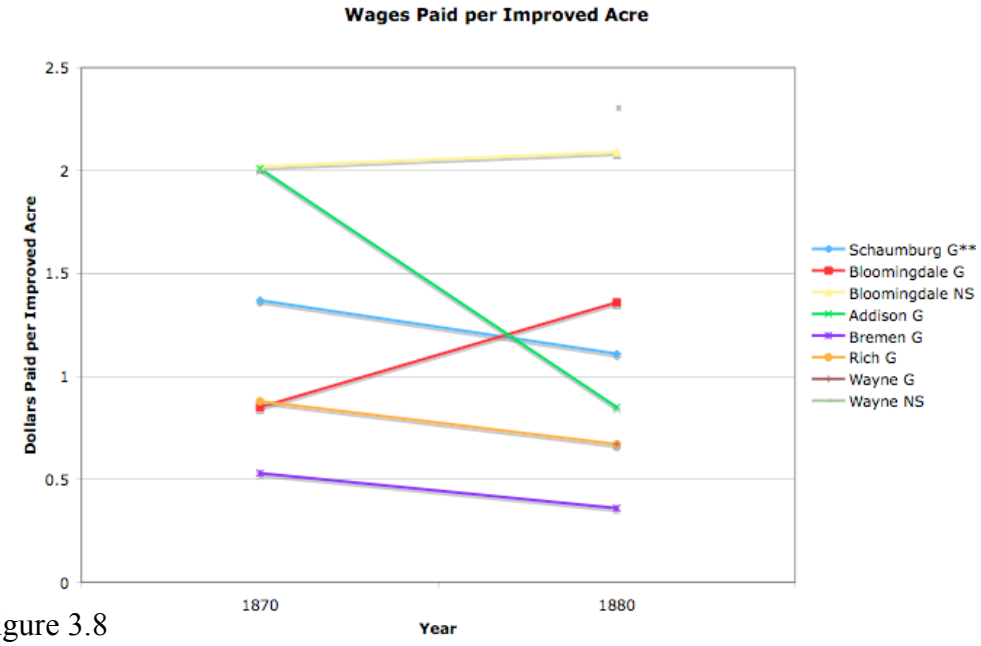

Figure 3.8

As the years passed between 1850 and 1880, farmers across the hinterland increased the number of improved acres per draft animal. This was achieved, in part, by completing the transition from oxen to draft horses, which were better suited to the increasingly mechanized mode of production in the post Civil War era. Draft horses represented an expensive investment, both financial and in terms of land devoted to their feed. Increasing the number of improved acres per animal spread the cost of draft power across a larger income-generating land mass and increased the efficiency of farm production. By 1870, oxen, for all intents and purposes, were extinct in Cook County. The trends after 1870 illustrate different approaches to managing the costs of doing business in Chicago's rural hinterland.

Among the studied townships in the northern fodder hinterland, draft animals per acre remained relatively steady between 1870 and 1880 except in Schaumburg Township (see Figure 3.8). Whereas farmers in Bloomingdale, Wayne, and Addison Townships

proved unable, or unwilling to decrease their draft requirements, farmers in Schaumburg Township increased the acreage per draft animal by approximately fifty percent over the course of the 1870s. Schaumburg farmers achieved this increased efficiency of draft energy not solely through working their horses harder. While farmers in Addison, Bloomingdale and Wayne Townships increased the sizes of their cornfields relative to other crops, Schaumburg farmers remained more fully committed to cereals and flax. Schaumburg farms were large, and required plowing, but unlike the increased corn acreages elsewhere, did not require multiple cultivations in June and July when draft horses were also needed for harvesting the large hay crops required by the area dairy herds. Additionally, farm laborers in Schaumburg worked in a field system composed of a more diverse mix of crops that required different planting and harvesting times. This allowed cycles of heavy plowing and harvesting to be spread more efficiently across the agricultural cycle—especially compared to native-stock populations in Bloomingdale and Wayne Townships which, by 1880, devoted over half of their planted acreages to corn.

Not only did farms in Schaumburg employ less draft power per improved acre, they also utilized less machinery (see Figure 3.7). The value of farm machinery per acre decreased across all townships between 1870 and 1880 as farmers delayed purchase of new machinery or found other strategies to economize on mechanical requirements. No population in any township, however, cut back on implement values per improved acre to the same extent that Schaumburg had, where farm operators slashed values per acre by more than half across the decade of the 1870s. Again, the shift to flax, rather than corn, production in Schaumburg underwrote this economization of machinery. As cornfields increased in scale across the region, mechanical planters and cultivators were needed to

accomplish a successful season. Schaumburgers, however, largely continued to grow corn much as they had since immigrants first started settling northwestern Cook County. Corn remained a subsistence crop, fed to a hog population and primarily consumed locally. While farmers in Schaumburg had adopted mechanical reapers, they planted cereal grains and flax without the aid of mechanical drills, relying instead on broadcast seeding methods, further decreasing the cost of raising and harvesting crops.[118]

Outside of Bloomingdale Township, labor costs per acre decreased during the 1870s (see figure 2.8). Bloomingdale Township farmers, who increased their rate of corn production between 1870 and 1880 more than any other location, were unable to decrease mechanization costs or the amount of draft power required per acre. Surprisingly, Bloomingdale farmers were not able to parlay their higher mechanization and draft power into less paid labor. While labor costs decreased per improved acre in every other location, Bloomingdale labor costs held steady or increased throughout the 1870s. On the surface, it seems that German farmers who avoided transitioning into corn–hog agriculture, in Schaumburg Township especially, were better able to find new efficiencies in response to the economic pressures of the 1870s. It is possible, however, that the retrenchment efforts exemplified by farmers in Schaumburg represented a strategy that was, in strict-economic terms, penny-wise but pound-foolish.

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[118] Sunderlage probate inventory did not include any mechanical planters, but did list an "old" reaper worth $15. By comparison, the farm used four wagons worth a total $107. The balance of machinery and implements illustrates the importance of local hauling in the agricultural profile of Schaumburg farmers. In fact, the value of implements on the Sunderlage farm was more than twice as high for equipment required for marketing crops compared to the plows, cultivators, rakes, reapers, etc. required to grow and harvest crops. Sunderlage Probate Inventory, 1873 Unpublished, Volkening Heritage Farm at Spring Valley, Archives. Schaumburg, IL.
The Pfingston family papers note that grain drills were not used on Schaumburg farms until the twentieth century, decades after they were commercially viable and in widespread usage. Pfingston Family Papers, Unpublished, Local History Collection, Schaumburg Township District Library, Schaumburg, IL.

The apparently profligate farmers of Bloomingdale Township, seemingly unable to manage input costs in a difficult financial environment, proved more efficient at achieving a financial return on improved acreage. In fact, the German population of Bloomingdale Township not only achieved the highest rate of return among ethnic farmers, but also was the only group, of any background, to accomplish an increased rate of return from 1870 to 1880 (see Figure 3.3). That Bloomingdale Township farmers, regardless of ethnicity, were engaging in a different mode of production was clearly evident in a changed landscape featuring more corn, a microcosm of changes evident across the northern Midwest. It was not solely corn, however, that vaulted German farmers in Bloomingdale Township ahead of other ethnic farmers in the hinterland. Rather, it was the accompanying increased role of livestock that made the farms in Bloomingdale more profitable.

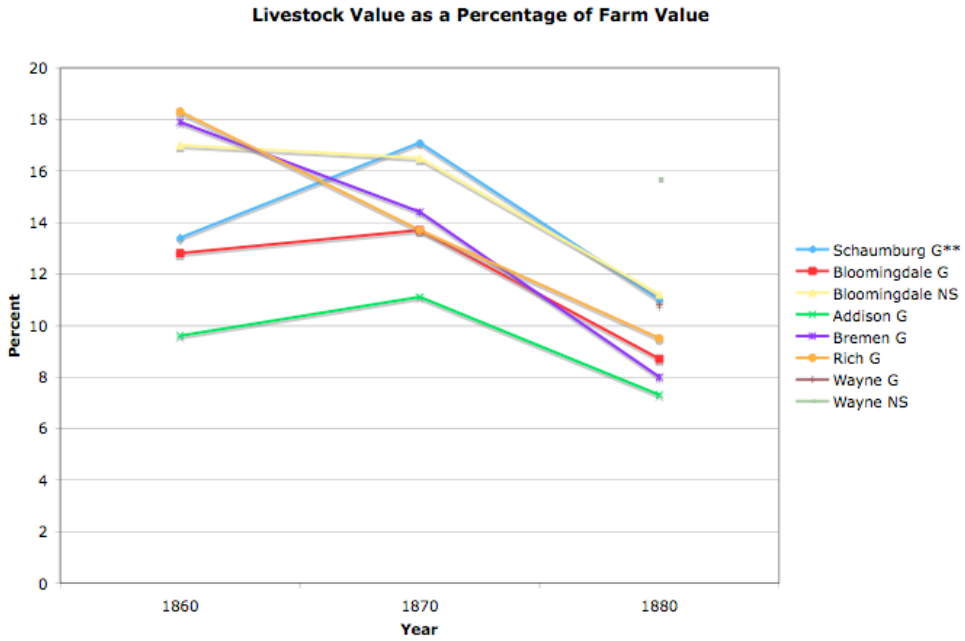

Figure 3.9

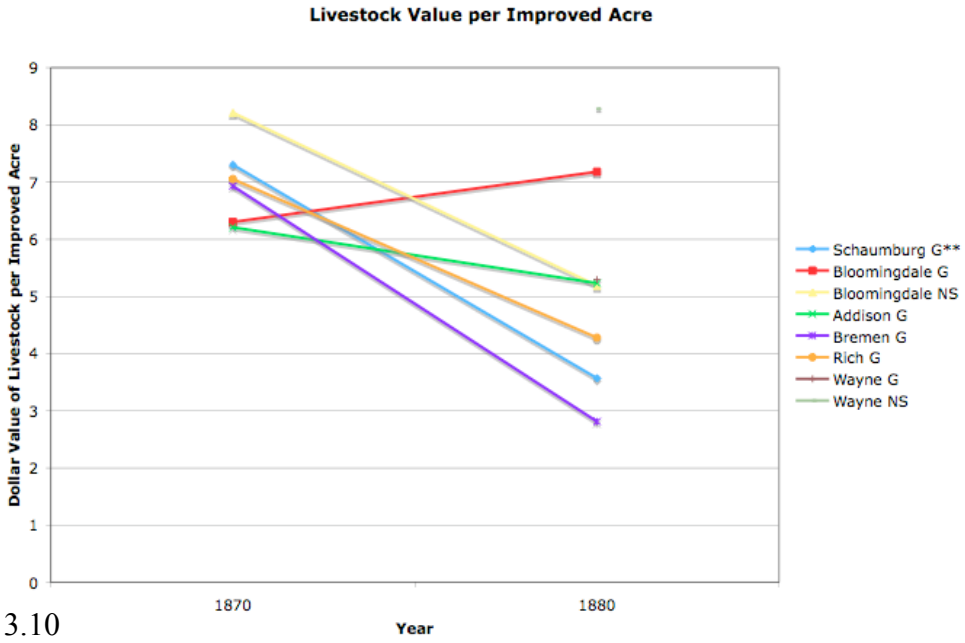

Figure 3.10

Even while the total numbers of living animals increased across the fodder hinterland between 1850 and 1880, the value of livestock relative to farm values decreased (see Figure 3.9). This long-term decline in relative wealth invested in livestock reflected the increasing value of farm improvements as farmers added or improved homes and outbuildings and the value of real estate increased following population growth. Rates of livestock ownership, relative to improved acres, however, did not universally fall in the fodder hinterland (see Figure 3.10). Germans in Bloomingdale Township, the only group that improved their income per improved acre over the decade of the 1870s, were also the only group to increase the value of their livestock relative to the improved acreage of their farms. This balance reflects a change in prevailing agricultural modes among the farmers of Bloomingdale Township as they shifted land from cash-grain (cereals) to feed-grain (corn) production. At the opposite end of the spectrum, farmers in Schaumburg, Rich and Bremen Township experienced the

greatest decline in income per improved acre and, not coincidentally, exhibited the largest decrease in livestock value per acre.

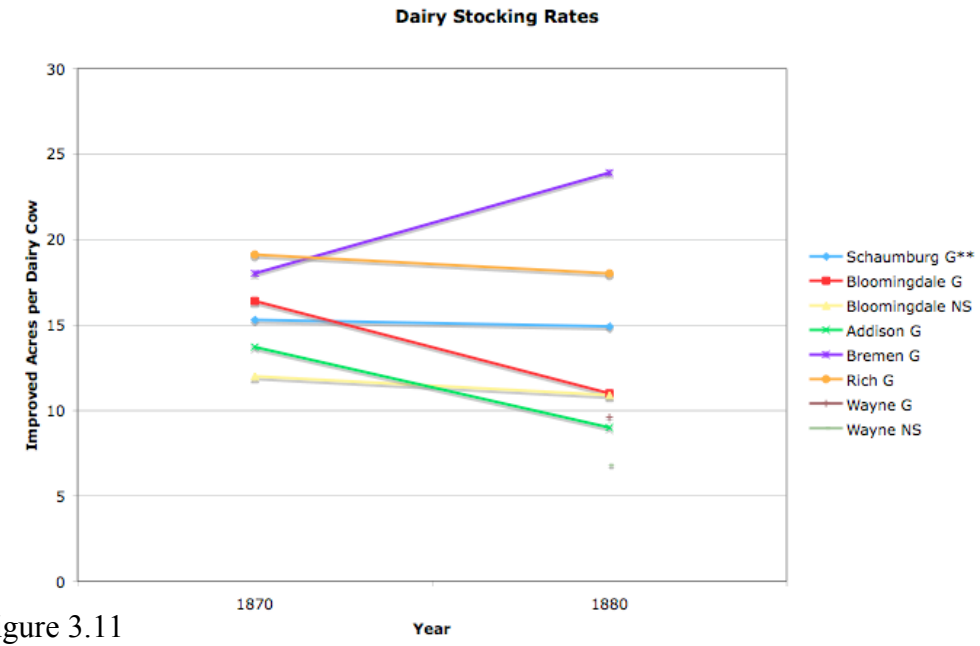

Figure 3.11

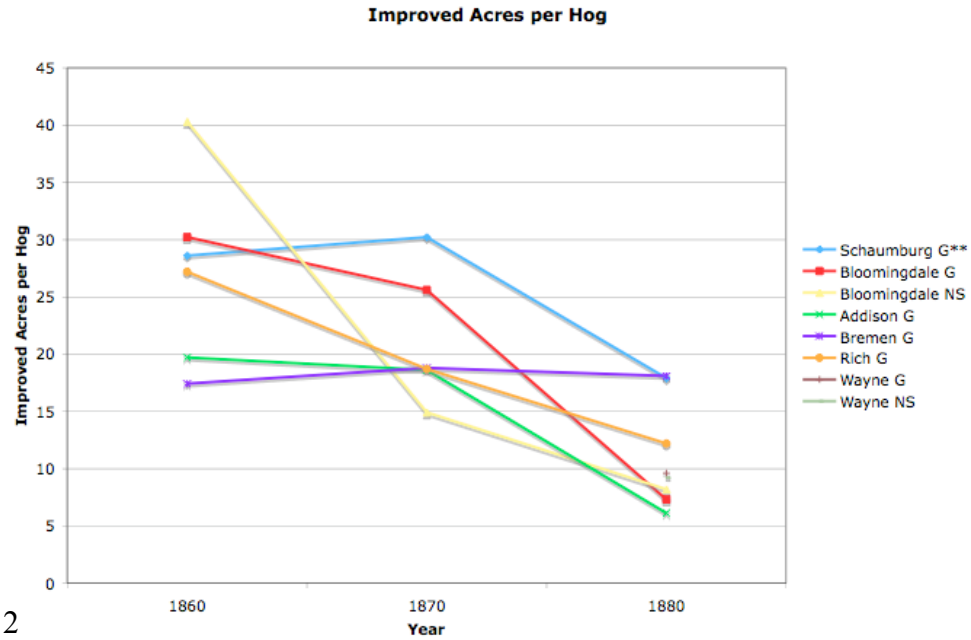

Figure 3.12

While Bloomingdale farmers expanded dairy herds, farms in Schaumburg, Bremen and Rich Townships failed to significantly increase herd sizes in relation to

increases in improved acres (see Figure 3.11). German farmers in Bloomingdale and Schaumburg Townships had similar dairy herds, but Bloomingdale farmers maintained those herds on smaller farms. Similar to their dairying operations, Bloomingdale farmers also had larger swine herds on their smaller farms (see Figure 3.12). Bloomingdale farmers realized a greater rate of return on their improved acreage though a more intensive production of livestock, both meat animals and dairy, and corresponding shift in field operations toward a greater reliance upon corn.

The modal changes in the agriculture of the fodder hinterland represented reactions to economic stimuli. Under difficult economic conditions, farmers favoring a more traditional approach improved more land, planted more grains, and did so while decreasing input costs of machinery, draft power and labor. The other, more modern, approach intensified production on relatively fewer acres. Bloomingdale farmers applied financial resources in an effort to bring more motive power, mechanical energy and hired labor, to bear upon their land. This approach affected a more specialized landscape, centered upon corn, and devoted to the production animal protein. The net effect of the two agricultural methods, however, did not produce vastly different gross farm incomes, so long as the less intensive farms expanded in scale, as was the case in Schaumburg (see Figure 3.13).

Unlike Schaumburg, where improved acres continued to expand through the 1870s, in Bloomingdale and Addison Townships population pressures had begun to halt or reverse the trend of continued increases in improved acreage per farm. By 1879, local farmers improved most arable and easily drained land and put it to use cropping and

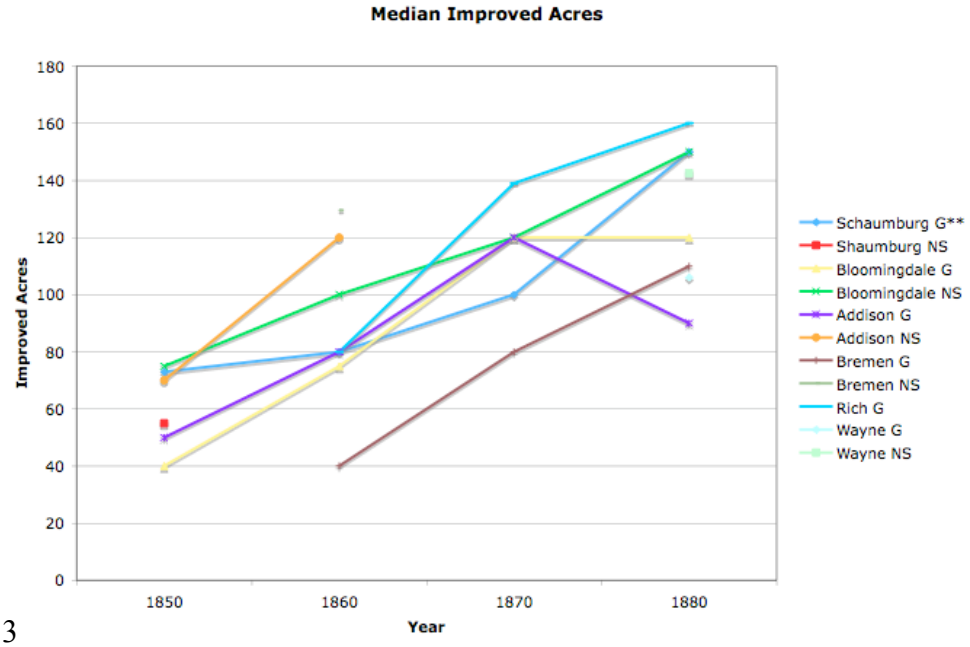

Figure 3.13

grazing. Land that remained too wet to mow remained permanent pasture for cattle. Farmers could only expand through the purchase of farmland, which, as has been shown, was not the most economically efficient strategy in the fodder hinterland.[119] The pressure to produce more on less land was one factor among several, which necessitated a more intensive approach to agriculture in the densely settled townships of the northern fodder hinterland. Not coincidentally, the population pressure on land came at a time when large numbers of the settler generation of the 1840s and 50s were retiring and dividing their

[119] In 1865, a group of settlers left Addison Township in DuPage County to settle on less expensive land in Lowden, Iowa. The group formed the Trinity Lutheran Church, a Missouri Synod congregation like the one they left in Illinois. There was already an Evangelical German congregation just south of town, but the two congregations maintained significant doctrinal differences and thus the Addison contingent formed their own congregation separate from other ethnic settlers. See: *The History of Cedar County, Iowa, Containing a History of the County, its Cities Towns, & etc*. (Chicago: Western Historical Company, 1878), 505; *Seventy-fifth Anniversary of Trinity Lutheran Church, Lowden Iowa, Herman Maas, Pastor, 1871-1946*, (1846). Archival Collection, Iowa State Historical Society, Des Moines, Iowa.

holdings among their heirs, thus increasing the numbers of farms in a fenced and finite landscape.

Both Schaumburgers and Bloomingdalians utilized the opportunities brought by the railroad in the early 1870s. Schaumburgers placed heavy emphasis on flax production for the local fiber mill that Roselle Hough built alongside the St. Paul Road. While Bloomingdale farmers also incorporated flax into their rotations, they did not do it as intensively as Schaumburgers. Rather, many farmers in Bloomingdale used the new rail line to transport their expanding swine herds to Chicago. Farmers in Bloomingdale and Addison also utilized the railroad to market potatoes. The bushels of potatoes produced per improved acre remained static between 1870 and 1880 throughout most of the hinterland, but more than tripled in Bloomingdale and Addison where farmers proved more willing to ship produce to Chicago via the same railroad that hauled their hogs. The Bloomingdale model mirrored trends of intensification and specialization in the broader corn-hog belt and required higher input costs, including transportation, and thus, greater risks. The Schaumburg model, on the other hand appeared more conservative, a retrenchment in fact, which reduced input costs, avoided commoditized transportation networks and spread risk over more crops and a longer agricultural cycle. The two approaches, just miles apart on opposite sides of the railroad line, represented not just modal differences, but differences in mentalité that informed the decision making process.

The diversity of agricultural opportunity within the fodder hinterland made divergent responses to overarching economic stimuli possible. But the fact that two populations, that bore both geographical and cultural proximity to each other, pursued

such different strategies of production begs further investigation. Why did farmers in Schaumburg, Rich and Bremen Townships continue to emphasize a less economically efficient (per acre of improved land) mode of grain production when increasing livestock, both dairy and pork, could have achieved higher rates of returns? In the remainder of this chapter, I will argue that, within the wider context of ethnic culture, localized institutions played a significant role shaping a mentalité that informed the various responses to agrarian crisis in the 1870s. In some locations, these institutions inculcated a self-conscious identity and sense of place helped shape local agricultures and, ultimately, landscapes that emphasized social cohesion rather than maximum landscape efficiency.

A SOCIAL CONTEXT OF AGRARIAN COMMUNITY IN CHICAGO'S FODDER HINTERLAND: THE LUTHERAN CHURCH, MISSOURI SYNOD

Within the constraints of spatially specific economic opportunities and the environmental suitability of weather and soil, local culture affected landscape. In Schaumburg, German settlers or their children gathered around the kitchen tables of all but one farmhouse in the Township by 1880. During the settlement process, Germans displaced the original "Yankee" settlers and, eventually, controlled the mechanisms of local township government. This same pattern occurred simultaneously in study areas throughout the hinterland, especially in Addison, Rich and Bremen Townships. Bloomingdale and Wayne Townships experienced a similar pattern of demographic

change, but later and less completely. However, ethnicity may not be the only, or even the best, measure of cultural homogeneity in a specific location.

In some areas of the fodder hinterland, cultural homogeneity was especially strong. Farm families frequently not only shared an ethnic heritage, but also a common set of beliefs that colored their attitudes toward the broader world, the American environment, and informed their local agriculture. The strongest local institution, the immigrant church, provided a common bond amongst the population and reinforced the distinctiveness of the ethnic population.[120] The self-conception of the immigrant community as a corporate entity, distinct from the larger regional and or national culture, offers an important tool in understanding the cultural landscape. Not all locations in the hinterland, however, were united in worship.

Throughout the nineteenth century, in locations such as Schaumburg, Bremen and Rich Townships, only one denominational affiliation existed within the township boundaries. In Addison, theological divisions fissured the immigrant community. In Bloomingdale and Wayne Townships, immigrants commingled with native-stock inhabitants of various Protestant denominations. In Addison, Bloomingdale, and Wayne Townships, immigrant farmers adjusted to the economic conditions of the 1870s by utilizing new strategies to maximize the efficiency of their land while the culturally homogenous communities of Bremen, Rich and, especially, Schaumburg retrenched, cut input costs and refocused on grain production. Although the strength of affiliation varied,

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[120] Daryl Lint, trans. *Geschichte der Deutschen Ansiedelung zu Schaumburg, Cook County, Ill., vom Jahre 1850 bis 1900* (Schaumburg, IL: Lint's Emporium, 1976); See also: Heinrich Maurer. "The Lutheran Community and American Society: A Study in Religion As a Condition of Social Accommodation," *The American Journal of Sociology,* Vol. 34, No. 2 (Sept., 1928), 285; Robert P. Swierenga "The Little White Church, Religion in Rural America," *Agricultural History,* Vol. 71, No. 4 (1997), 415-441.

the common bond among agriculturally conservative locations was a singular affiliation with the Lutheran Church, Missouri Synod.[121]

The first German settlers arrived in what would become Addison Township in 1834, mostly from Hanover. Immigration continued through 40s and 50s throughout Addison Township and into Elk Grove to the north, Schaumburg to the northwest, and Bloomingdale to the west. Early settlers marketed surplus fruits and vegetables by oxcart in Chicago, and used the proceeds to purchase flour, cloth and other necessities. They built *Blockhauser* of logs daubed with clay for shelter and gathered among each other's homes on Sundays to read sermons and sing hymns in their native tongue. In the early years, Lutheran pastors were unavailable and rural settlers walked the nearly twenty miles to Chicago to receive important religious sacraments such as communion and baptism.[122] The need for a local pastor became more apparent as the number of German immigrants in the area of Dunckle's Grove increased. In 1837, eighteen year-old Franz Hoffman of Chicago agreed, for $50 per year plus room and board, to teach school to the children of the rural district. Hoffman's duties also included leading congregants in song and the reading of sermons. While fulfilling his teaching duties, Hoffman read, studied and taught himself to be a pastor. The congregation officially appointed him to the

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[121] St. John's in Cooper's Grove (eventually Country Club Hills), Cook County, Illinois did not officially join the LCMS until 1974, but they discussed the matter for 125 years before ultimately deciding to join. Throughout the congregation's history, they supported the synod financially and employed its pastors and teachers. Richard F. Nordbrock. *Part 1, The History of St. John's Evangelical Lutheran Congregation, Unaltered Augsburg Confession,* (unpublished manuscript) 63, 116. St. John's Lutheran Church, Country Club Hills, Illinois.

[122] Hilda Westerman, trans. *The History of the United Evangelical Saint Johns Church in Addison DuPage County Illinois Celebrating their 50th Jubilee* (Severing House, 1899) Local History files, Bensenville Public Library, Bensenville, Illinois. For other another account of marketing local produce and traveling to Chicago for religions rites, see: Mrs. Rotermund. *Read before "The Tuesday" at Lombard Ills., "Old Settlers Night" November 30th*, Unpublished archival document. Wheaton, Illinois: DuPage Historical Museum.

position in 1842, when the German settlers in Addison Township, near modern day Bensenville, Illinois, formed a congregation with by-laws and ordinances. The immigrants called their church The German United Evangelical Reformed Lutheran Church of Addison, DuPage County, Illinois.[123]

The church, as the name suggests, "brought together all the people in Dunckle's Grove of different beliefs." The earliest and majority of settlers arrived from Hanover, where the Evangelical Church originated; a substantial minority of subsequent setters arrived from Schale, Kreis Tecklenburg, Westfalen. In Schale, adherents to Evangelical and Reformed denominations had been united for hundreds of years.[124] According to the history of St. John's Evangelical Church, all the Germans worked "in brotherhood, joined together in their belief" to build the first church building, which was completed in 1842. In 1847, Hoffman left to start a congregation in Schaumburg.[125]

In seeking a new pastor, the congregation asked two candidates to deliver trial sermons for the congregation to hear. The two arrived on the same day, and were joined by a third itinerate preacher also seeking the position. The three sermons lasted until dark and few congregants held out to the end. According to a history of St. John's Evangelical, a Missouri Synod (recently organized in Chicago in 1847) pastor by the name of Selle,

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[123] Hilda Westerman, trans. *The History of the United Evangelical Saint Johns Church in Addison DuPage County Illinois Celebrating their 50th Jubilee* (Severing House, 1899) Local History files, Bensenville Public Library, Bensenville, Illinois.

[124] Here, Evangelical refers to orthodox Lutheranism (acceptance the Confession of the Lutheran Church contained in the Book of Concord of 1580, embracing the Augsburg Confessions, Apology for the same, Schmalcaldich Articles, larger and smaller Catechism and Formula Concord) as opposed to the Reformed branch of Lutheranism. In the United States those more closely associated with Reformed doctrines became members of "Evangelical" synods, although many individual congregations that belonged to conservative synods such as the Missouri Synod continued to use "Evangelical" in the names of their congregations.

[125] Hilda Westerman, trans. *The History of the United Evangelical Saint Johns Church in Addison DuPage County Illinois Celebrating their 50th Jubilee* (Severing House, 1899) Local History files, Bensenville Public Library, Bensenville, Illinois.

unbeknownst to the Addison congregation, hoped to install a "completely Lutheran" pastor.[126] The congregation voted and accepted Selle's nomination and installed a new pastor, Pastor Brauer, in November of 1847. Several weeks afterward, Pastor Selle arrived as a guest of the new Pastor. Selle sermonized on "un established constitutions" eventually inquiring of those present if they would give up their counterfeit congregation.[127] The chief provision that Selle objected to was the inclusion in the original constitution of the following paragraph:

> *The faith and the confession of the teacher and the hearer shall never be taken into consideration in this congregation.*[128]

This "broad and liberal" statement had profound implications on doctrines concerning the sacraments (a distinction that had its roots in interpretations of the sacraments held between Martin Luther, Zwingli and Calvin), especially communion.

After discussion of Selle's message, the congregation allowed Bauer to review the church's by laws and ordinances. At a meeting in February, 1848 Pastor Brauer read the name of the church as "The German Evangelical Lutheran Church in the Missouri Synod." After discussion, members from Schale realized they were to be ousted if they did not join the Missouri Synod. Pastor Brauer reminded members that they had asked to, and agreed to be Lutherans only.[129] The Shale contingent argued that they had formed the congregation in their homes, that they allowed Lutherans, Reformed, and all Christians to attend, that all groups were equal and that there was only one God. Brauer stated he would have to leave if the Church were not all Lutheran. By 1848, more Hanoverians had

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[126] *Ibid.*
[127] *Ibid*, 8.
[128] Louis Schwartskopf, *The Lutheran Trail: A History of the Synodical Conference Lutheran Churches in Northern Illinois,* (Saint Louis: Concordia Publishing House, 1950), 19.
[129] By "Lutheran only," Brauer refers to conservative Lutheranism, not Reformed Lutheranism.

emigrated to the area and, upon voting, the majority decided to switch to "true" Lutheranism and adopt the new name. In February 14, 1848, the conservative Lutheran faction suggested that Evangelical and Reformed elements leave the church. According to St. John's history, the now Lutheran church believed they were "rid of the unruly and unbelieving element." [130] The remaining LCMS congregation espoused a confessional doctrine of the complete and whole truth of the written word of God, and characterized the schism as an elimination of the "rationalistic party."[131]

Within ten years, another group left the LCMS congregation, forming Immanuel Evangelical Church.[132] The third German congregation located in Addison Township formed in 1859. Seventy-five years later, Immanuel's brief historical sketch recalled the 'exclusive spirit' of the LCMS as the reason for the initial split between St. John's and Immanuel. The history went on to report that there were still several 'Evangelical minded' congregants that remained despite the spirit of "doctrinal intolerance." These Evangelical minded individuals thought that a "gospel of peace had been turned into poisoned arrows in a religious warfare." When the discord reached a breaking point, eight family fathers departed from the church and petitioned for an Evangelical pastor. [133] The schism among ethnically-German immigrants in Addison Township rent the fabric of

[130] Hilda Westerman, trans. *The History of the United Evangelical Saint Johns Church in Addison DuPage County Illinois Celebrating their 50th Jubilee* (Severing House, 1899) Local History files, Bensenville Public Library, Bensenville, Illinois.
[131] Louis Schwartskopf, *The Lutheran Trail: A History of the Synodical Conference Lutheran Churches in Northern Illinois,* (Saint Louis: Concordia Publishing House, 1950) 20.
[132] Hilda Westerman, trans. *The History of the United Evangelical Saint Johns Church in Addison DuPage County Illinois Celebrating their 50th Jubilee* (Severing House, 1899) Local History files, Bensenville Public Library, Bensenville, Illinois.
[133] *Souvenir of the Diamond Jubilee of Immanuel Evangelical Congregation at Churchville, Near Bensenville, Illinois.* (Unpublished: 1934) DuPage Historical Museum, Wheaton, Illinois.

community for decades, the wounds barely concealed in the writings of the congregations decades after the fact.

The schism in Addison contained geographic antecedents and represented a continuation of older doctrinal disagreements from the old country. In 1817, on the 300th anniversary of the reformation, the Lutheran and Reformed churches in Germany reconciled their differences and formed the Evangelical Church, first in the Kingdom of Prussia and subsequently in the Rheinphalz, and then the dukedoms of Hessian, Baden and smaller states. Missionary societies brought the Evangelical church to the United States as early as the 1830s. Rigid adherents to the old Lutheran faith remained, especially in what is today Lower Saxony and Westphalia—the area from which the large Hanoverian immigrant contingent in Cook and DuPage County left.

Lutherans who adhered to older doctrines were removed from or left the state church and came to be known as "Separatist Lutherans." One such Separatist Lutheran pastor, Martin Stephan, left his wife and children in Germany and removed, with a large part of his congregation, to Perry County, Missouri. Stephan was soon discredited and removed from his position of authority while others, including Pastor C.F. Walther assumed positions of leadership. Walther believed that the Lutheran church in America was independent of the old church hierarchy in Germany and, in Chicago, in 1847 helped establish the German Evangelical Lutheran Synod of Missouri, Ohio and Other States, largely under the doctrinal auspices of the old Lutheran faith of the separatist Lutherans in Germany. [134]

[134] Hilda Westerman, trans. *The History of the United Evangelical Saint Johns Church in Addison DuPage County Illinois Celebrating their 50th Jubilee* (Severing House, 1899) Local History files, Bensenville Public Library, Bensenville, Illinois.

A chief, although not singular, doctrinal difference was the interpretation of holy communion and whether it was to be 'open' to all believers or partaken in only by those members of the true Lutheran faith. Among the laity, interpretation of Eucharist represented the most recognizable manifestation of theological division between orthodoxy (conservative Lutheran Synods such as the Missouri Synod) and rationalism (Evangelical Synods). Article Seven of the Augsburg Confession stipulated that correct administration of the sacraments was critical to the unity of the church. Luther taught that the corporeal nature of the sacrament, that the meal comprised literal body and blood of Christ. As a result, the communion table, and consumption of the meal, offered believing communicants forgiveness while the unbelieving received judgment. The Reformed church, on the other hand, believed the body and blood of Christ were present in the communion sacrament in only a spiritual way, that humans were incapable of fully understanding the mysteries of the sacrament, and that it was a matter of faith, free of compulsion. By allowing anyone to receive communion, regardless of "faith or confession" as stipulated in the constitution of original Addison congregation, LCMS doctrine held that those who received the sacrament outside the confines of the true church were bringing judgment upon themselves and that the church as a corporate body and purveyor of the sacrament, was then culpable in causing individuals to stumble.[135]

It was more than a mere theological sticking point that divided the ethnic community in Addison Township. The differences on the Eucharist specifically, and participation in the church congregation more generally, underscored fundamentally different conceptions of the nature of the individual within society. The rejection of

[135] Walter Forster, *Zion on the Mississippi: The Settlement of Saxon Lutherans in Missouri, 1839-1841,* (Saint Louis: Concordia Publishing House, 1953), 1-26.

"rationalism" among those that stayed within the parent church and joined the LCMS represented, also, a rejection of individual liberty of conscience and a submission to the corporate will of the Lutheran church body. LCMS congregants could not allow an open communion table because they believed themselves culpable agents within larger corporate whole and thus, as espoused in the Heidelberg Catechism, guilty by association if the giving of communion to a non-believer caused that communicant to sin. In this world-view, the members of the church-body had a very real stake in the actions, right or wrong, of their fellow congregants. The idea that congregants were, in a real sense, their brother's keeper may be seen in other LCMS practices such as public confession and atonement for transgressions.[136] Such differences in mentalité had significant ramifications in a rural social order and, it seems, the agricultural landscape.

The contrast between the Corporatist LCMS and the individualistic Evangelical exemplified characteristics of the *Gemeindschaft/Gessellschaft* sociological construction that emerged out of late nineteenth-century Germany.[137] In *Gemeindschaft*, or community, individuals act according to common mores that arise out of associations of individuals. In *Gesellschaft,* or society, the larger association of individuals did not take precedence over the perceived individual self-interest. *Gesellschaft* represented a more modern approach to the conception of the individual and his/her role in society and, ultimately, for our purposes, the relationships between individuals and families across rural distances. The corporate emphasis of LCMS doctrine may thus be read as conservative response, a rejection of "society" in favor of "community."

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[136] On the structures for maintenance of church discipline, see: Carol Coburn. *Life at Four Corners: Religion Gender, and Education in a German-Lutheran Community, 1868-1945*, (Lawrence: University of Kansas Press, 1992), 31-59.

[137] Ferdinand Tönnies, *Community & Society (Gemeinschaft und Gesellschaft)* Charles Loomis Trans. (East Lansing: Michigan State University Press, 1957). Originally published in 1887.

Differences in doctrine did not always result in the division of the community. St. John's congregation, in Coopers Grove, on the border of Rich and Bremen Townships, did not officially join the LCMS until its 125th anniversary year in 1974.[138] In the meantime, the congregation was served by LCMS pastors, contributed to LCMS missions, and aided in the construction of other LCMS congregations through free will offerings. The church discussed, but failed to approve joining the synod at regular intervals. The meeting minutes suggest that the pastor and church elders tried to persuade the congregation on the merits of joining, but failed to convince a majority of voting members. A frustrated notation from 1870 simply stated, "About joining the synod, another useless discussion was held." At the same time, the church continued to administer sacraments to non-members. Meeting minutes reveal that repeated attempts were made to convince those, especially landowners, who relied on the church to fulfill spiritual needs without official affiliation to join the congregation. In 1866, when the public admonishment by the pastor and other means of cajoling had failed, the voter's assembly decided to drop the $16.00 membership fee. The same instincts that drove the schism of the church in Addison led the leadership of St. John's to push for membership in the LCMS, and the make every effort to enroll those whose spiritual needs required only *a la carte* spiritual services. Ultimately, the church leadership of St. John's proved more pragmatic and unwilling to force a division in the local congregation/community.

[138] The voter's assembly had taken up joining the synod many times in its history. Multiple votes were taken in 1880, one of which supplied only one negative vote. The congregation however, remained divided and the congregation remained independent. Even so, St. John's used LCMS pastors, teachers, supported LCMS missions and continuously expressed support of Synod doctrine. See: Richard F. Nordbrock. *Part 1, The History of St. John's Evangelical Lutheran Congregation, Unaltered Augsburg Confession,* (unpublished manuscript) 63, 116. St. John's Lutheran Church, Country Club Hills, Illinois.

Frederick Luebke described the development of Misouri-Synodism as a conservative reaction to a perceived dilution of Lutheran doctrines in other established Lutheran and protestant denominations, secret societies, native-born population, and the government. As such, the founders who, unlike the congregants, had been drawn to the United State primarily for religious reasons "raised up walls of isolationism, intentionally and otherwise, to protect the church in its immigrant condition." However, the immigrant community did not simply cling to a conservative church as a last bastion of old-world culture; the immigrant condition bred self-conscious conservatism.[139] Heinrich Maurer, writing in 1928, identified in the clannishness of Missouri-Synod Lutheranism a combination of:

> immigrant stranger fear compounded with the hereafter-fear of the Christian. The resentment of German farmers… against "the world," against the technique of a competitive society, attained a religious and ethical meaning. Loyalty to a set of traditional attitudes became a loyalty to a truer faith, obedience to a higher law.[140]

Missouri-Synod Lutheranism rejected the individualistic underpinnings of the American political and economic order. The ideological rift with American society found doctrinal expression in the Missouri-Synod's discouragement of interaction in business or other transactions outside the denomination, with either Yankee or German. The church provided a medium through which culture was insulated from the outside world while nurturing a sense of isolationism and identity.[141]

Parochial schools offered an important mechanism for cultural transmission. In a July 1864, St. John's congregation in Coopers Grove, Rich Township voted to eliminate

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[139] Frederick Luebke, *Germans in the New World: Essays in the History of Immigration* (Urbana: University of Illinois Press, 1990) 3-14.
[140] Heinrich Maurer, "The Lutheran Community and American Society: A Study in Religion As a Condition of Social Accommodation," *The American Journal of Sociology,* Vol. 34, No. 2 (Sept., 1928), 285.
[141] Carol Coburn, *Life at Four Corners: Religion, Gender, and Education in a German-Lutheran Community, 1868-1945* (Lawrence: University of Kansas Press, 1992).

teaching of the English language in parochial schools.[142] Education extended beyond arithmetic, geography, and chorus to German language and religious instruction in the orthodox Lutheranism of the Missouri-Synod. As a child in the early twentieth-century Schaumburg Township, Carrie Gathman Ollmann (b. 1898) remembered: "In Sunday School we learned to read [G]erman Bible stories. And in summer we had German school one day a week.[143]

In locations of dense ethnic settlement, the Missouri-Synod Lutheran church acted as a brake on the cultural assimilation of community members. The density of settlement and lack of outsiders in their midst strengthened the social hegemony of the church in locations such as Schaumburg. In other locations such as southern Cook County, doctrine seemed temporized by the exigencies of the cultural landscape.[144] The maintenance of the German language, community mores, and distinct cultural identity inculcated by the LCMS did not always and everywhere within the hinterland translate into a unique cultural landscape. Rather, social institutions such as the church and the density of ethnic settlement provided a friendly environment whereby cultural proclivities, in conjunction with varied local markets, could produce variegations in the landscape. If anything, the

[142] The vote was rescinded in 1866, but that it existed at all illustrates the degree to which immigrants desired to maintain old world language and customs. Richard Nordbrock, trans. "Minutes of Transactions in the Meetings of the Duetsche Evanelische Lutherische St. Johannes Congregation in Rich, Cook County, State of Illinois" (April 1, 1863-1879). Saint Johns Lutheran Church, Country Club Hills, Illinois.

[143] Carrie Gathman-Ollman, "A Time to Remember: A Tribute and Dedication to my Parents." Unpublished 1976, Volkening Heritage Farm at Spring Valley, Archives. Schaumburg, IL. For more on the role of the parochial school and transmission of ethnic culture, see especially Carol Coburn, *Life at Four Corners*: *Religion, Gender, and Education in a German-Lutheran Community, 1868-1945* (Lawrence: University of Kansas Press, 1992).

[144] Here, especially, use of "cultural landscape" connotes a landscape created through traditional organization of labor in combination with the economic opportunities of local and commodity production.

corporatist mentalité of LCMS communities proved more likely to temper inclinations toward modes of production that required greater input costs and increased capitalization. The cultural influence upon agriculture then, must not be viewed as a general influence that transcended space, but an intensely local response that balanced local market opportunities, prevailing modes of production, the strength of local social/cultural institutions and the homogeneity of local culture. Of all the locations included within this study, Schaumburg, in the last third of the 19th century, represents the most complete convergence of these influences.

On Christmas day in 1840 Schaumburgers gathered to hear Pastor Franz Hoffman, who had come from Dunckle's Grove, deliver the first Lutheran service in the township. Thereafter the immigrant faithful held services in the scattered homes of settlers until the congregation erected a frame church in 1847, followed by a brick structure in 1863.[145] The first, largest, and most centrally located was St. Peter's Lutheran Church, Missouri Synod. In 1851, German immigrants established a daughter congregation of St. Peter's, St. John's LCMS, which was located about four miles to the southwest of the parent congregation. Unlike Addison, which was divided along theological lines, the LCMS and its doctrines were firmly entrenched in Schaumburg and lent an element of cohesion to the rural district above and beyond their shared ethnic background. This social institution actively reinforced the ethnic distinctiveness and self-awareness of the immigrant community through the maintenance of the German language

[145] Daryl Lint, trans, *Geschichte der Deutschen Ansiedelung zu Schaumburg, Cook County, Ill., vom Jahre 1850 bis 1900* (Schaumburg, IL: Lint's Emporium, 1976).

and by facilitating a suspicion, if not contempt, of the "Yankee" element then present in the township.

In 1900, a committee of old settlers wrote a history of their own to commemorate the fiftieth anniversary of the community.[146] The authors of that document illustrated the extent to which they viewed themselves as something distinct from the larger culture. Consider the narrative in which the Township originally, "Sarah's Grove" received the new name of "Schaumburg:"

> The town of Sarah's Grove, after which name the Post Office was also known, had as its first Supervisor – Daniel H. Johnson. He performed his duties for one year. He was followed by E. F. Colby, and during his three years in office changing the name of the town became an issue. In a lively, tense town meeting, which had been called, it was then clearly evident that the Germans were determined to keep the upper hand in this town.
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> In the meeting, the Anglo-Americans present, (usually called yankees), said that they wanted the name to be Lutherville or Lutherburg; but, suddenly, Fritz Nerge hit the table with the firmness of an old German soldier and shouted: Schaumburg shall it be called.
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> To him, (Nerge), all of his German comrades agreed with him, and so it came about that from Sarah's Grove came the good German name Schaumburg. This took place in the office of the second Supervisor Colby.[147]

A clear division may be seen in this passage, a division along ethnic lines. German immigrants demonstrated an early solidarity and defined themselves in opposition to the prevailing local culture. The "Yankees" in the room seemed to have been making a reasonable concession, changing the name from Sarah's Grove to Lutherville or Lutherburg. Fritz Nerge and his "comrades" did not concede; the name of the township was to be of their choosing alone. The action of Fritz Nerge, in the naming of Schaumburg episode, illustrates the corporate identity inculcated by the LCMS. As Heinrich Maurer stated: "The spirit of compromise here is itself *unsittlich*; it is the

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[146] 1900 was not, in fact, the fiftieth anniversary of Schaumburg Township, settlers including Germans had been there since the early 1840s.

[147] Daryl Lint, trans. *Geschichte der Deutschen Ansiedelung zu Schaumburg, Cook County, Ill., vom Jahre 1850 bis 1900* (Schaumburg, IL: Lint's Emporium, 1976).

essence of group treason, for it means surrender of a group trust."[148] The divisions within the community exposed by the naming incident are most easily dichotomized along ethnic lines; it was with the firmness of an old *German* soldier with which Nerge shouted and pounded his fist. The feud, of which we only see the culmination of in this passage, was a local one. Nerge's refusal to compromise was not a rejection of some esoteric American value; it was the assertion of local control of a specific ethnic population within a specific place filtered through the experience of living and farming in an ethnic enclave.

The authors expressed this local identity, indeed pride, more stridently later in their short history:

> With pride, the Schaumburger of today dares to make a show of the prosperity of his free home and with joy he should greet and advance every further step of improvement.
>
> Schaumburg is the only exclusive German town in Illinois, if not in the United States. Every farm in town is occupied by Germans.
>
> A strong German nationalism in Schaumburg is surely praiseworthy for its inhabitants. Where are the Johnson, the Taylors, the Colbys, and the Cooks? They have all gone and have left no memories. However, the German names of succeeding generations still live on. May they succeed to continue in the future.[149]

And again:

> In the meantime, may the good spirit of Schaumburg bequeath to the younger generation and the town its German language, customs and manners which they should continue to use as a guide for their future growth and development.[150]

Clearly, by 1900 Schaumburgers lived unapologetically in a cohesive community that defined itself in opposition to the broader society and culture. Schaumburgers expressed

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[148] Heinrich Maurer, "The Lutheran Community and American Society: A Study in Religion As a Condition of Social Accommodation," *The American Journal of Sociology,* Vol. 34, No. 2 (Sept., 1928), 294.
[149] Daryl Lint, trans, *Geschichte der Deutschen Ansiedelung zu Schaumburg, Cook County, Ill., vom Jahre 1850 bis 1900* (Schaumburg, IL: Lint's Emporium, 1976).
[150] *Ibid*.

their self-awareness in terms of ethnic identity, but the message it conveyed was one of local distinction and pride. Schaumburgers identified themselves as much by what they were not as what they were. A common foreign language, shared experiences and background contributed to this identity, but the social institution of the LCMS, which was created and matured in the American environment, that nurtured and sustained localized identity.

Schaumburgers incorrectly assumed they were the only exclusively German community in the state, if not the nation. Far from it, they were not even the only exclusively German town in the county. Yet, this was how they perceived themselves, like a city upon a hill. The self-awareness inculcated by the immigrant church endowed local space with meaning and value beyond its simple ability to return an income. Life in Schaumburg revolved around agricultural cycles, but living in Schaumburg meant much more than farming. It meant being part of a larger community that believed they were different. Similar to the closed communion tables of St. Peter's or St. John's, failure of the individual, in the political economy of local agriculture, indicted the community as a whole. It is no wonder then, that in Schaumburg, the most culturally homogenous community studied, and the one with the most varied market opportunities, that the agricultural response to the economic depression of the 1870s was the one that fell back upon cultural tradition most acutely.

Rather than altering the existing mode of agriculture in favor of a more efficient stock intensive model, Schaumburg farmers retrenched. Schaumburg farmers avoided risk, cut cost costs, worked themselves, their livestock, their wives and children harder in order to make it through the lean economic years of the 1870s. They did so because

failure represented more than economic setback. Losing one's space represented not only the loss of a farm, but also a loss of one's place in the social order and the whole mental framework that the immigrant individual had constructed for himself. This condition was, perhaps, not unique to the ethnic enclave, but the enclave experience certainly heightened the sense of localism beyond that found in the broader culture of the late nineteenth century. Schaumburgers could not strike out on their own and expect to recreate what they had achieved. Schaumburgers, as a group, ascribed value and purpose to their community life, both of which were rooted firmly in locality, held fast by institutions and networks of association. The inward, local focus of the community was mirrored in its agriculture. In contrast to Bloomingdale Township, the agriculture practiced in Schaumburg during the 1870s was a safety-first agriculture focused on production for local markets. The vast oat and flax fields in Schaumburg were 'consumed' by animals and processed by machines within 'driving' distance.

Social institutions informed a mentalité that helped affect safety-first, local-market agriculture in Schaumburg during the 1870s. Schaumburgers, however, did not practice their agriculture in a cultural vacuum. There was a precedence that allowed Schaumburg farms to cut costs so effectively in the 1870s. Schaumburg farms could not have increased acreages of labor-intensive crops, such as flax while simultaneously reducing labor and machinery without relying on other operating efficiencies. Schaumburg farms realized gains in labor efficiency through a more thorough utilization of family labor, predicated upon culturally accepted norms of gendered labor.

The prevalent stereotype of German-American women as backwards peasants laboring in the stubble fields, shocking grain or raking hay, alongside their husbands and

fathers was not without foundation. At the turn of the century, writer Herbert Quick ascribed the German habit of working women in the field as the mark of an "old countryman." The progressive Yankee, on the other hand wouldn't even let women milk cattle.[151] Reflecting upon his childhood, he contrasted the German practice of using women and children in to bind and shock sheaves in the wheat fields with the more 'modern' method of employing itinerant laborers. The two labor strategies required different approaches to the mechanical harvest. In the Yankee method, enough laborers were hired to keep pace with the reaper. The German farmer reaped his whole field and then joined his family in the field to finish the binding.[152] Census evidence suggests Quick's observations were equally applicable to Schaumburg. Immigrant farmers relied on labor-intensive cereal grains and flax, while simultaneously employing less draft power, machines and hired labor than farmers in Bloomingdale Township. Similarly, the higher rates of mechanization, paid labor, and draft power in Bloomingdale suggest an acceptance the broader cultural ideal of the elimination of women's fieldwork when possible.

The nineteenth-century domestic ideology of mainstream American increasingly confined women to the dooryard then the kitchen and removed them from the dairy. The domestic ideal and the removal of women to increasingly small spheres of farm production represented one of the essential historical developments in the ongoing commoditization and specialization of agricultural production during the nineteenth-century. The degree to which domestic ideology may be applied to farmwomen has been

[151] Herbert Quick, *The Fairview Idea: A Story of the New Rural Life*. (Indianapolis: The Bobbs-Merrill Company, 1919), 6. Quick also refers to Hoosier women, of upland-southern origin who shared some agricultural duties, including dairying, with their husbands.
[152] Herbert Quick, *One Man's Life.* (Indianapolis: The Bobbs-Merrill Company, 1925), 194.

the subject of substantial historiographic debate.[153] Here, the purpose is not to explore the tension between the ideal and the reality, but rather to demonstrate that the domestic ideal did not exist as a fully conceived ideology among LCMS women. Chapter Four develops the emergence of the cult of domesticity and its implications for immigrant farmwomen in more detail.

This ideology reached its fruition in the twentieth century as espoused by university extension and USDA policies whereby women were largely removed from the fields in favor of the farmhouse or off-farm job.[154] Traditional arrangements of gendered labor played a fundamental role in the creation of a distinct agricultural regime in Schaumburg. At the same time, the social organization of the church mirrored that of the immigrant community more generally. The status of women within the Missouri-Synod households and within the community represented a complex relationship not embodied in the structural patriarchy of the church.

Women had no official voice in the Missouri-Synod Lutheran church. Women entered the building through a separate door and sat in a separate section removed from the male voting members of the church. If a woman had a grievance in the church, it was brought to the voters' assembly or negotiated with the pastor through a male proxy,

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[153] For more on the historiography of the domestic sphere, see: Nancy Cott, *The Bonds of Womanhood: "Woman's Sphere" in New England, 1780-1835*. (New Haven: Yale University Press, 1977); Harriet Friedmann, "Simple Commodity Production and Wage Labour in the American Plains," *Journal of Peasant Studies* 6, (1978), 71-100; Carl Degler, *At Odds: Women and the Family in America from the Revolution to the Present* (New York: Oxford University Press, 1980); Glenna Matthews, *"Just a Housewife": The Rise and Fall of Domesticity in America* (New York: Oxford University Press, 1987); Nancy Grey Osterud, *Bonds of Community: The Lives of Farm Women in Nineteenth-Century New York* (Ithaca: Cornell University Press, 1991); Carroll Smith-Rosenberg, *Disorderly Conduct: Visions of Gender in Victorian America* (New York: Oxford University Press, 1985).

[154] Mary Neth, *Preserving the Family Farm. Women, Community, and the Foundations of Agribusiness in the Midwest, 1900-1940* (Baltimore: Johns Hopkins University Press, 1995).

usually a husband, father or brother. Likewise, if a woman had a criticism leveled against her, it was through a male family member she received the news.[155] The Missouri-Synod was also noted for its conspicuous lack of ladies aid or auxiliaries in the late nineteenth century, especially when compared to women's work in other Protestant denominations[156]

Within the immigrant community, the highly prescribed public role of women within the church contrasted sharply with a far less prescribed approach to women's labor. Despite the 'unfortunate' reality that many native-born women of lesser means still labored in the fields when necessity dictated it, the domestic ideal of removing women from these hardships had largely been affected upon middling and progressive farms by the latter third of the nineteenth century. In contrast, the immigrant press routinely castigated American women as lazy and their children as ill behaved. The leisure time afforded American women and children by their lack of proper farm work, it was held, led to the cultivation of excess and immorality.[157]

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[155] Carol Coburn, *Life at Four Corners: Religion, Gender, and Education in a German-Lutheran Community, 1868-1945*. (Lawrence: University of Kansas Press, 1992), 48.
[156] Carol Coburn, *Life at Four Corners: Religion, Gender, and Education in a German-Lutheran Community, 1868-1945*. (Lawrence: University of Kansas Press, 1992), 50. St. John's Lutheran Church in Coopers Grove did not have a ladies aid society until 1930. Also, unlike prevailing trends in the American cultural landscape, women played no role in the teaching or administration of parochial schools until after World War II. Richard F. Nordbrock, *Part 1, The History of St. John's Evangelical Lutheran Congregation, Unaltered Augsburg Confession,* (unpublished manuscript) 63, 116. St. John's Lutheran Church, Country Club Hills, Illinois.
[157] John Gjerde, "Prescriptions and Perceptions of Labor and Family among Ethnic Group in the Nineteenth Century American Middle West," in *German-American Immigration and Ethnicity in Comparative Perspective,* ed. Wolfgang Helbich and Walter Kamphoefner (Madison: Max Kade Institute, 2004), 117-137. See especially Gjerde's use of editorials excerpted from *Die Iowa* of the 1870s and 1880s. See also, Mary Neth, "Gender and the Family Labor System: Defining Work in the Rural Midwest," in *Journal of Social History* 27 no. 3 (1994): 563-577.

Image 3.1,

The ideology that women's work was ignoble found little expression on farms of Schaumburg Township as witnessed in Image 3.1.[158] German-American women worked in the hay and oat field, and not always as manual laborers. William Harmening's mother "would work out in the fields, and she'd run back and iron some of the lace curtains and then she'd run back and she'd finish working in the fields and stuff." Mrs. Harmening also regularly prepared a table for fourteen people. Although there were two hired girls to help with the domestic work, his mother still helped in the fields.[159] Emma Scharringhausen-Gathman, born 1861 worked in the hayfield and raised chickens. Her daughter, Carrie Gathman-Ollmann, performed fieldwork during the 1920s and 30s, including driving the team on the hay wagon and the binder.

> We would work together on the farm. I would drive the team and Fred and Harold would shock the grain and corn. Wheat had a tendency to have rust and when I was on the binder I would be covered from head to foot with the dusty rust."

[158] "Pfingston Sisters Shocking Corn, 1904," Schaumburg Township District Library.
[159] William Henry Ferdinand Harmening, interview by unknown, March 27, 1975, transcript, Volkening Heritage Farm at Spring Valley, Archive Collection.

Her children were in the field as well. One time while loading hay, her five year-old son was picked up by the hay loader and deposited on the top of the hay wagon, somehow unscathed.[160] Elsie Heinie-Jahn (b. 1907) remembered helping with the hay harvest as a child. Her mother made market trips to Elgin, using a horse and buggy as a means of conveyance. As an adult on her own farm she continued to raise broiler chickens and milk cows.[161] Evidence suggests that the women of Schaumburg Township were essential in the overall agricultural system by reducing the expense of hired laborer.

A more thorough application of family labor underwrote the retrenchment of Schaumburg farms in the 1870s. Cultural mores that did not hold women's fieldwork as dishonorable or ignoble facilitated their method of agricultural production, but the unique labor requirements of specific crops also played a role. German women in Bloomingdale Township and elsewhere continued to have a presence, albeit diminished, in agricultural fields. The decreased presence of German women in the fields of Bloomingdale Township did not necessarily represent an abandonment of cultural labor arrangements, but rather the increasing local emphasis on corn. Cereal grain and flax production had, for centuries, required group labor to plant, harvest and process. Corn, on the other hand, required more individualized attention. By the late nineteenth century, check-row corn planters allowed individual farmers to plant corn in increasingly larger fields. Multiple row cultivators made the cultivation of the crop difficult for women, or at least those who wore dresses. The new multiple row cultivators common by the 1870s required the operator to walk behind, straddling rows of corn stalks or, if sitting, placed the operator's

[160] Carrie Gathman-Ollman, "A Time to Remember: A Tribute and Dedication to my Parents." Unpublished 1976, Volkening Heritage Farm at Spring Valley, Archives. Schaumburg, IL.
[161] Elsie Heine-Jahn, "My Autobiography," http://unicorn.stdl.org/uhtbin/cgisirsi/j9puMUfACS/CENTRAL/169490302/523/595 (accessed 12/17/2008).

feet in steel stirrups with which they manipulated cultivator shovels. The picking and shelling of the corn harvest was not nearly as time sensitive as the cereal crop, allowing for a longer harvest cycle and reducing the need for gang labor. Thus, while the weaker culturally based social institutions of Bloomingdale and Addison may have played a role in some families' choice to hire labor rather than use family labor, a more direct explanation lay in the work patterns inherent to corn production.

Over the course of the 1870s, Schaumburgers created a unique cultural landscape within the context of an agricultural recession and in response to local and regional markets for flax and oats. To affect this change in the landscape, they relied on inputs of family labor to reduce capitalization. Schaumburg farms grew more grain and fiber with less machinery, draft power, and paid labor. Schaumburgers lived on farms that were of lower value and maintained fewer livestock than their non-German neighbors. They milked cattle and sold either butter or milk and often both, but milked fewer and sold less than the farmers in Bloomingdale Township. Schaumburgers kept enough hogs to eat, but few fattened them in substantial numbers for market.[162] Schaumburgers bound themselves to the soil and were bound by custom. The agricultural landscape resulted from cultural labor patterns while simultaneously reinforcing culture. The gendered pattern of labor contrasted and conflicted with the dominant ideology of women's appropriate labor roles and stemmed from not too distant European antecedents. The labor requirements of the Schaumburg agricultural system emphasized group rather than individual labor. The tight knit nature of the immigrant community in terms of both blood

[162] U.S. Bureau of the Census, Tenth Census of the United States (1880), Agriculture Schedule, Schaumburg, Bloomingdale, and Wayne Townships, Cook and DuPage Counties, Illinois.

and beliefs reinforced the ideals that facilitated the practice of a unique agricultural footprint.

The supposition that ethnicity existed as an agent in the creation of distinct agricultural landscapes or the productive processes that created them proves a gross oversimplification. Farms existed as physical systems of managed natural processes created and pursued within larger economic, political, social and transportation systems. Farms and farm communities existed within these several systemic contexts held in a dynamic tension that shifted over time and in relation to each other. Adjustments to changes in systemic context required a rebalancing of a farm or a community's relative position in other systemic contexts. The creation of local places and the meanings that those places acquired through repetitive use and social organization developed as an intensely local process within the larger context of commodity based agriculture and shaped by the mechanisms through which farm produce reached its markets.

For instance, as national prices for agricultural commodities fell throughout the 1870s, members of St. John's congregation in Rich and Bremen townships struggled to maintain their pragmatic approach to church membership that reconciled differences in interpretation that had fractured other ethnic communities in Chicago's hinterland. Changes to local transportation systems and the subsequent development of local industry spurred differing trajectories of farm production in Schaumburg and Bloomingdale. The denominational schism within the Addison social system affected intrapersonal and working relationships among farm families. While ethnic farmers in Addison Township came to define themselves, not around a common ethnicity, but in contrast to each other's

disparate interpretation of creed; farmers in Schaumburg Township eventually endowed locale with meaning rooted in culture and defined self conscious identity.

While secondary goals such as patrilineal transmission of land and tertiary goals of sustained ethnic inhabitation of local places did, in some instances, inform agricultural production to the point of affecting landscape, these concerns always played out within a larger economic context. Farmers in the hinterland had more flexibility than other areas of the corn-belt in ordering their physical world, but they still existed within a landscape bound by parameters. Farmers in Bremen and Rich Townships grew corn, in part, because they could not grow flax. In the 1870s, no local market for the fiber existed and farms followed the prevailing trend toward increased corn production even while pursuing strategies of cost reduction and risk abatement. On the other hand, farm families in Schaumburg utilized changes to the transportation network and local business environment, to create an agricultural landscape that more closely mirrored their conceptions of themselves and what they wished their community to be. Schaumburgers did not create the economic opportunity; they responded to it and, in doing so, they reached back to their pasts.

CHAPTER 4

THE QUALITIES OF BUILT SPACES

On February 11, 1889, Carl Leiseberg, aged seventy-seven, and his wife Charlotte signed a contract with their youngest son Charles and his wife Louise. In consideration of two thousand dollars, which was half its value in 1879, Charles and Louise purchased the family farm from his parents. The conditions of the obligation accepted by Charles required him to provide his parents with the following for the remainder of their natural lives.[163]

> 1. Three suitable Rooms in the Dwelling House being on the East Side of said Dwelling House as standing now on the farm where we being at the present Time and all necessary Room in the Seller [sic].
> 2. All necessary Firewood prepared filed for Stove use and delivering said Wood near said Dwelling also one Ton hard and one Ton soft-Coal delivering each and every year.
> 3. One fet [sic] Hog dressed 200 # and one hindquarter Beef delivering in the Months of Decbr. & January each and every Year.
> 4. Every week one dozen fresh Eggs at the eight Summer Months.
> 5. Three berrel [sic] good sound spring wheat Flour each and every Year.
> 6. Eighteen Bushel good and sound eating Potatoes each and every Year.
> 7. One quart fresh sweet Milk every day each and every Year.
> 8. Keeping on Scheep [sic] for them each and every Year.
> 9. One half of an acre of Garten [sic] Land near the dwelling.
> 10. One third of fruit growing on Trees in the Orchard each Year.
> 11. Eight Dollars each every Month each and every Year.
> 12. All necessary Riding with a Team and Bugge [sic] or Sleigh to Church Doctor Friends and every where during their Lifetime.

The contract, known as an *Altenteil,* or bond of maintenance, had been a common means of transferring property and securing the livelihood of aged parents in northwestern Germany, which the Leisebergs had left nearly forty years earlier.[164] The

[163] Leiseberg Altenteil, Manuscript Collection, Schaumburg Township District Library.
[164] Robert W. Frizzel, *Independent Immigrants: A Settlement of Hanoverian Germans in Western Missouri,* (Columbia: University of Missouri Press, 2007) 86. Frizell notes the use of Altenteil

contract accomplished two main objectives; first it kept an economically viable farm in the hands of one family heir. Secondly, it ensured that aged parents received food and care as their health declined.[165] That the Leisebergs, and others in Schaumburg Township, retained this cultural convention forty years after leaving their homeland suggests several important points, most important of which was that it must have remained useful. In Cook County, where rural population density and farm values were high, the cost of making new farms was expensive. *Altenteil* agreements kept farm sizes large enough to ensure the sustainability of the land extensive mode of production practiced in Schaumburg and insured the continuance not only of family farms, but also of the larger ethnic community.[166]

Several factors might affect which son parents selected as heir to the family farm; it did not necessarily go to the oldest son. Carl Leiseberg had two older brothers who, based on census records, had left Schaumburg Township by 1880. Historically, feudal laws in the western German states gave preference to the elder son, thereby increasing the rate at which the property turned over and landlords collected the associated transaction

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agreements among German settlers of Hanoverian descent in Missouri. See also: Fred. W. Peterson, *Building Community, Keeping the Faith: German Catholic Vernacular Architecture in a Rural Minnesota Parish,* (St. Paul: Minnesota Historical Society Press, 1998); Frederick Nerge Altenteil, Manuscript Collection, Volkening Heritage Farm at Spring Valley, Schaumburg, Illinois; H.W. Spiegel, "The Altenteil: German Farmers' Old Age Security" *Rural Sociology* 4, No. 2 (1939) 203-218. According to Spiegel, in northwest Germany, the name of this style agreement varies locally and may also be known as *Leibzucht, Leibgedinge, Auszug,* and, *Ausgedginge.*

[165] German historiography suggests type of agreement developed, in part, to insure that heirs did not favor their wives and children above their parents during times of food insecurity. Robert W. Frizzel, *Independent Immigrants: A Settlement of Hanoverian Germans in Western Missouri,* (Columbia: University of Missouri Press, 2007), 86.

[166] Sonya Salamon's study of ethnicity and landscape in southern Illinois suggests that German enclaves pursued a yeoman approach to agriculture geared toward the preservation of land within a family patrimony. "Yankee" farmers pursued an entrepreneurial approach by contrast. Ethnic communities thus exhibited a longer tenure upon the landscape and a higher survivability in the modern cultural landscape. Sonya Salamon, *Prairie Patrimony: Family, Farming and Community in the Midwest* (Chapel Hill: University of North Carolina, 1992).

fees. By the nineteenth century, this convention had generally shifted toward a preference for younger sons. By favoring the younger son, fathers maintained control over the household longer and spent fewer years living at the convenience of their children. Also, by granting the right to purchase the farm and take care of the parents to the younger son, older siblings were more likely to leave the family farm. As fathers delayed the transfer of property to younger sons, they also controlled household finances for a longer time, which allowed them to endow older sons and daughters with education or monies to invest in farms of their own. Even so, the youngest son was not guaranteed the farm. Obviously, when the youngest son had aspirations other than farming, parents drew up an *Altenteil* with either another son, or possibly a son-in-law. Other factors including the size of the dowry a daughter-in-law brought to the union, and the nature of the relationship between in-laws affected the choice of an heir. A large dowry that would enhance to the long-term stability of the farm could sway the decision.[167]

The price attached to the farm in the *Altenteil* did not necessarily reflect market value. Aging parents who planned to live off their heirs had obvious incentive not to burden the farm with a debt load that threatened its economic viability and/or created hostility between the two generations that jointly occupied the farmstead. The other heirs in the family might receive land if the original estate was large enough for division; if not, they received cash or possibly higher education. The $2,000 Carl paid to his father and mother was not intended for their welfare. The *Altenteil* agreement made stipulations for all their food, shelter and transportation needs and provided pocket money as well. Most of the $2,000 Carl paid for the farm ultimately passed to his siblings at the time of

[167] H.W. Spiegel, "The Altenteil: German Farmers' Old Age Security" *Rural Sociology* 4, No. 2 (1939) 203-218.

his parents death, along with the balance of the wealth Charles and Charlotte accumulated over their lifetime of farming. Thus, *Altenteil* contracts although not perfect, achieved their goals well enough that they were still in use after several decades of living in the American cultural environment.[168]

Altenteil agreements not only insured the viability of patrilineal property, but also the ongoing maintenance of the ethnic community.[169] Younger siblings who sought to remain within their native community had to either purchase, or marry into property. Thus, the ethnic enclave frequently developed through time as a complex web of blood relations that bound the community together.[170] Of course, a finite agricultural landscape could not absorb indefinite population growth, especially in the age of rapid mechanization where falling commodity prices required land improvement and expansion to maintain economic viability. While some individuals found the enclave experience stifling and struck out on their own, other disenfranchised sons and daughters formed daughter congregations in the west where land was less expensive and the opportunity for

[168] Carl F. Wehrwein, "Bonds of Maintenance as Aids in Acquiring Farm Ownership," *The Journal of Land and Public Utility Economics* 8, No. 4 (1932). Both Spiegel and Wehrwein list negative aspects of *Altenteil* type bonds of maintenance. Among the possible negatives include the inefficiency of this mode of transmission on small landholdings where the capitalized debt load of the new farmer was spread over smaller acreages. Also, because of familial and social pressures, there was possibility for abuse within the framework of the *Altenteil*. Although parents had legal recourse against heirs who reneged on their responsibilities, these were sometimes difficult to exercise after the parent generation had placed themselves in a dependent relationship within a single household. Of course, local institutions such as the immigrant church could bring social pressures to bear on heirs who kept their parents in a manner that fell short of culturally prescribed norms.

[169] In instances where male no heirs not in the patrilineal line, then property descended to a son-in-law.

[170] Gary Biesterfeld, "Dear Cousin," Unpublished genealogy. Schaumburg Township District Library. This very thorough family genealogy demonstrates the pattern of intermarriage within the Schaumburg community. The social network of church membership developed as a literal proxy for kinship networks.

financial return higher.[171] The nineteenth-century German-American enclaves in Lowden (1865) and Germantown (1876/78), Iowa are examples of daughter communities formed in response to population pressure. The Lowden group left from Addison Township, DuPage County and Germantown from the St. John's congregation in Bremen Township, Cook County. [172]

Many immigrants in the German-American enclaves of Bremen and Rich Townships practiced impartible inheritance practices along the lines of the *Altenteil.* As population increased and land became scarce, some members of St. John's congregation began to consider a geographic migration similar to their parents a generation earlier. In 1876, four men dubbed *Kundshafter* (explorers or scouts) set out for northern Iowa to examine land offered by the Iowa Falls and Sioux City Land Company. The land company advertised real estate at $3.50 per acre for government land, or $5.00 if purchased from the land company. The four men traveled by rail as far as Cherokee County and then for ten miles on foot, north from the village of Marcus, Iowa. After settling upon land of "unusual fertility" they purchased several quarter-sections at the going rate of $5.00 per acre. They returned to Cook County with the intention of beginning settlement the next year, but news of a grasshopper plague delayed the

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[171] The correspondence between William Stelter and his family in Cooper's Grove in southern Cook county at the end of the nineteenth century illustrates the family pressure exerted on individuals who left the ethnic enclave. Stelter left Illinois and worked as a carpenter and barn builder in Cheney, Kansas. Letters and family photos reveal that William enjoyed the freedoms associated with western life outside the conventions imposed by his former Lutheran community. His family, however, never viewed his absence as a permanent removal and inquired frequently about his return, which they eventually affected.
William Stelter Letters, (Unpublished Papers, 1899-1902) Stelter family records, Lemont, Illinois.

[172] Richard F. Nordbrock, *Part 1, The History of St. John's Evangelical Lutheran Congregation, Unaltered Augsburg Confession,* (unpublished manuscript), 56-57; St. John's Lutheran Church, Country Club Hills, Illinois.

settlement until 1878. After the delay, a few men went west to begin construction of houses while the families stayed behind until the homes were completed. Prior to their departure, children aged thirteen, and some younger, were confirmed into the congregation of St. John's back in Cooper's Grove. Charles Brockmann, who migrated from Germantown from Cook County, brought with him two cows, six horses, two rabbits and a full array of farm implements, including two sulky plows, a two section harrow, grass mower, union corn planter and Barnes wire check rower, hay rake, land roller, two farm wagons, a sod-cutter (disc) and a binder. The livestock, machinery, and household items filled two freight cars. By 1881 the families had dedicated a new church named St. John's after the parent congregation and also organized parochial schools--a re-creation of the enclave community they had left behind.[173]

Altenteil agreements preserved the economic viability of the parent community and served as a mechanism for the reproduction of new ethnic enclaves across geographic space. The maintenance of this traditional form of estate division demonstrates how immigrants adapted old cultural conventions to new cultural landscapes and economic realities. Immigrants continued to use *Altenteil* agreements, not because of an attachment to Old World traditions or cultural inertia, but because these agreements fit within the mentalité of enclave existence and the spatial realities immigrants encountered in the American Midwest.

The *Altenteil* contract helped communities negotiate the transmission of land through time and across space, but these documents also reveal important details of how these immigrant communities constructed, used and conceptualized space at the

[173] Richard F. Nordbrock, *Part 1, The History of St. John's Evangelical Lutheran Congregation, Unaltered Augsburg Confession,* (unpublished manuscript), 57-60, St. John's Lutheran Church, Country Club Hills, Illinois.

household level. A careful reading of the Leiseberg *Altenteil* reveals that Carl and Charlotte did not fade passively into their dotage. Although Carl and Charlotte expected their son and daughter-in-law to provide them with the necessary provisions of day-to-day life, the elderly couple intended to maintain a high degree of independence—especially Charlotte. The couple required a half-acre for gardening and room in the "sellar" to store the produce. Whilst son and daughter-in-law provided firewood, eggs, butter, flour and meat, Charlotte continued to prepare the meals for her husband. So long as Charlotte remained in good health and capable of work, she and her daughter-in-law did not share kitchen space. The *Altenteil* noted that Carl and Charlotte retained use of "Three suitable Rooms in the Dwelling House being on the East Sid of Said Dwelling House as standing now on the Farm where we being at the present Time." One of those rooms, it seems very likely, was a kitchen.

The structure shared by the elder and younger Leisebergs must not be thought of as a single household. Rather, the structure with two separate kitchens and subsidiary spaces functioned as two distinct homes sharing a common wall. The creation of two-family homes at the time when the family farm transferred operation between generations was not unique to the Leisebergs. Ludwig Heine owned nearly 350 acres in 1886. In his declining years, he "sold their farm to his son Herman, and went to live with another son, William, who had built a new two family home."[174] Ludwig Heine divided his large estate among multiple heirs, selling the farm to one son and engaging in an *Altenteil* type agreement with William, who likely received cash and land in exchange for the care of the elder Heines. Another example is found in the *Altenteil* of Henry and Charlotte Nerge

[174] Elsie Heine-Jahn Biography (Unpublished), Local History Collection, Schaumburg Townships District Library.

with their son Frederick, which granted the parents the use of the north wing of the house and, like the Leiseberg *Altenteil,* provided them with food, fuel, garden space, transportation and health care.[175]

Evidence of two-family dwellings also exists in extant structures. The Johann Boeger farmhouse, built sometime during the 1850s, currently restored and operated as a museum by the Schaumburg Park District, demonstrates a remarkable similarity to the Leiseberg description. The Boeger farmhouse consists of an original three-room structure and a second three-room structure with identical floor plan its inhabitants added to it sometime during the 1880s or 1890s. When first joined, the two structures shared a common wall with no passageway between them. Eventually, sometime during the twentieth century, after the elder couple passed away, the residents of the then single family home joined the two houses by adding an interior passage (see Figure 4.1). Another example (Figure 4.2) is that of the Thies farmhouse.[176]

[175] Nerge Altenteil, (Unpublished) Volkening Heritage Farm at Spring Valley, Schaumburg, Illinois. Interestingly, in the Nerge case, the Altenteil was drawn up between Frederich Nerge and his parents Henry and Charlotte before Frederich was married. Frederich had younger male siblings and was listed as a blacksmith in the census of 1879. This demonstrates that there was no clear convention within Schaumburg on establishment of heirs. Rather, it seems to have been a choice of the parents. On the two-generation home, see also, Fred Peterson, *Building Community, Keeping the Faith: German Catholic Vernacular Architecture in a Rural Minnesota Parish* (St. Paul: Minnesota Historical Society Press, 1998), 88-89.

[176] Figure 4.1 drawn from extant structure, by author. Figure 4.2 reproduced with permission from: LaVonne Thies Presley, *A Schaumburg Farm, 1935-1964* (Unpublished), Schaumburg Township District Library, (2002).

Figure 4.1

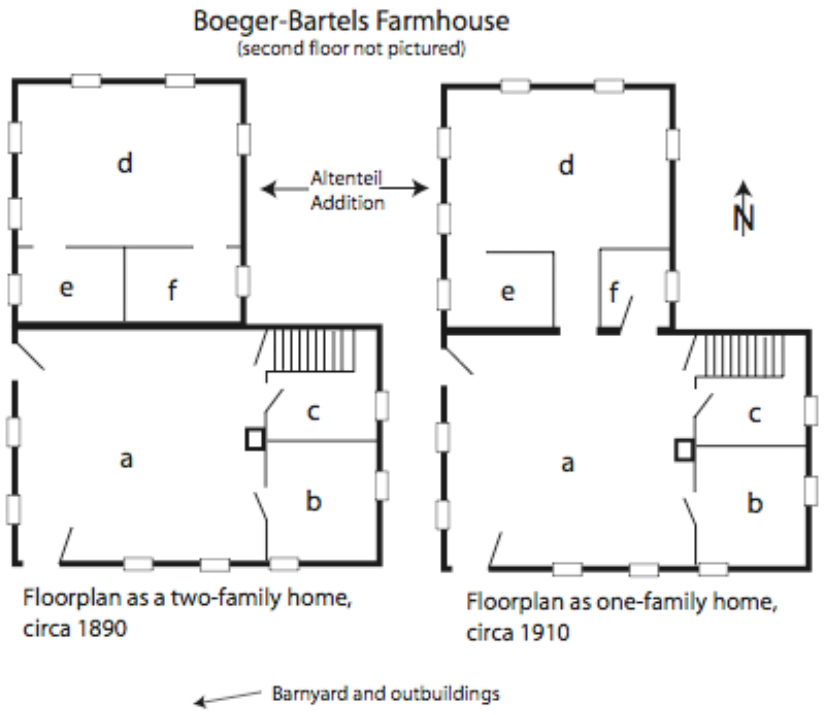
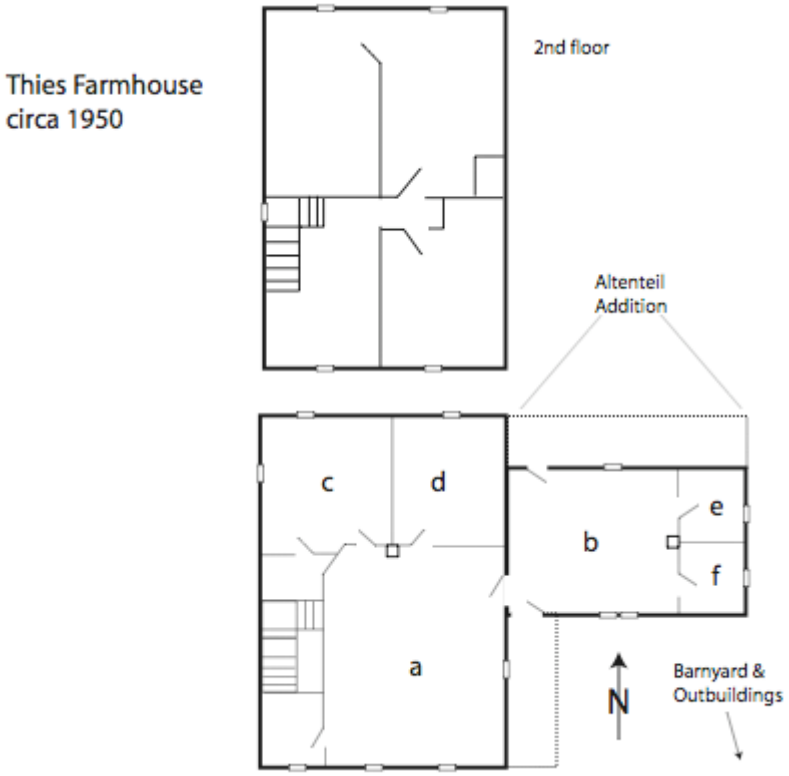


Figure 4.2



The Altenteil and the two-family farmstead represented a cultural mode of organizing space and its transmission through generational turnover. The facades and footprints of these homes bore a strong resemblance to nineteenth-century Anglo-American house forms. However, organization and use of the interior spaces of the home demonstrated a fundamentally different conception of space and the labor of men and women within that space. While Anglo-American house plans subdivided space into ever more specialized rooms and uses, the German house-form, as seen in Figures 4.1 and 4.2, retained large multi-purpose spaces. The most obvious contrast between the two forms may be seen in a comparison of kitchen spaces. The Anglo-American archetype witnessed the removal of women's workspace to the rear of the structure and the elimination of work from the room that did not directly relate to food preparation. The German type, on the other hand, maintained a large *Wohnküche* (living kitchen) in which farm families worked, played, entertained and sometimes slept. This fundamentally different conception of space, especially gendered space, mirrored larger changes in the highly gendered world of the nineteenth century. After the American Civil War the archetypical Anglo-American woman fulfilled an increasingly specialized domestic labor role that minimized her economic contributions to the family economy within an increasingly specialized domestic environment. In contrast, German-American *Hausfrau* remained more firmly entrenched in a non-specialized landscape that required traditional labor in grain fields and non-specialized domestic spaces.

The increasing number of professional architects and the publication of architectural pattern books demonstrated a more specialized approach to home building

in the early nineteenth century. From two pattern books published in the 1790s, the number had increased to ninety-three new publications during the 1850s.[177] Progressive agricultural publications also printed plans of farm homes and outbuildings. Editors of periodicals such as *Prairie Farmer* published drawings they believed demonstrated rational, efficient and tasteful design. Editorial staffs found and published some plans; others were submitted for publication by its readers—both male and female. The plans submitted by readers illustrate the means by which farm men and women attempted to reconcile the use and utility of domestic spaces with the changing social and cultural values emanating from urban America.

A careful reading of domestic spaces, as published in the agricultural press, has led some historians such as Sally McMurray to posit that many farm men and women resisted gendered ideals of domesticity into the 1850s. In antebellum America, as wage labor shifted from the home to the factory, urban families increasingly conceived of their world in terms of public/private and work/home dichotomies. Within this domestic ideology, women's labor that failed to return cash income came to be devalued and women's role as mother and homemaker gained in esteem. This bourgeois mentalité found expression in recently sanctified domestic spaces, which buffered the private spaces of the home from the harsh outside world by means of an entry hall. Once admitted into the home, the visitor passed not to the intimate spaces used by the family, but into a formal parlor where the inhabitants displayed their trappings of modernity made possible by their participation in the industrial economy.[178]

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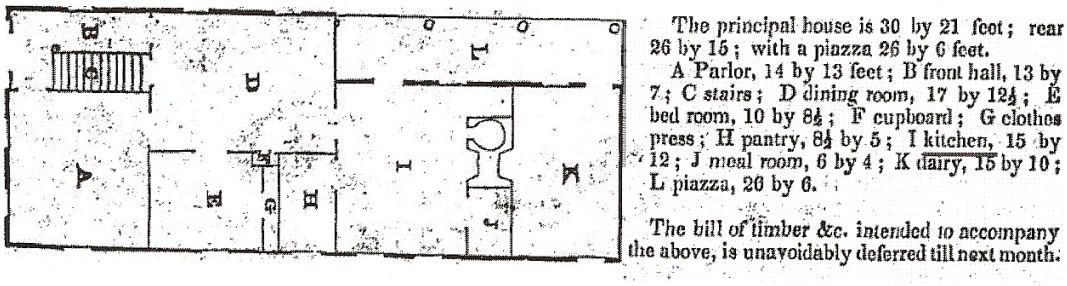
[177] Dell Upton "Pattern Books and Professionalism: Aspects of the Transformation of Architecture in America, 1800-1860," *Winterthur Portfolio* 19 (1984): 107-150.
[178] Sally McMurray, *Families and Farmhouses in Nineteenth Century America: Vernacular Design and Social Change* (New York: Oxford University Press, 1988), 57-87.

Through the early decades of the nineteenth century, the nature of agricultural life and mutual dependence of men and women in the maintenance of the farm as a successful economic unit prevented the dichotomization of the farm-home into specifically gendered spaces. Through much of the north and west, lack of infrastructure and mechanization prevented large-scale specialization. Within the larger context of market farming, informal exchange networks, which were largely the province of women, remained important to the domestic economy of the household.[179] By the 1840s however, publishers of popular agricultural journals had begun to publish plans that clearly demonstrated a rural conceptualization of public and private space and a devaluation of gendered workspaces as kitchens were removed from the center of farmhouses and appended to the rear of the structure thereby making women's work less

[179] Historians of the American family and gender contend that the first decades of the nineteenth-century witnessed a new idealization of the nuclear family, smaller in size, and based on affection and respect between partners. Within this union, women's primary, or idealized, duty shifted from economic production to child rearing, which was interpreted as not only a moral duty, but a civic one as well. In the increasingly industrial world of the 1840s and 1850s, the removal of economic activity from home life reached a level of moral imperative as middle class urban women transformed the home into a sanctuary from the economic world. The emergent cult of domesticity flourished in middle class homes of the Victorian era in which the ideal women transformed further from an economic contributor to a desexualized mother figure whose only economic function revolved around organizing domestic consumption. Several historians have contended that this transition was not achieved in large parts of rural America until the twentieth century and that ideal of separate domestic spheres was frequently not the reality for farmwomen. However, in the commoditized landscape of the upper Midwest, I would argue, an *awareness* of the domestic ideal did exists among late nineteenth-century farm women and that it was an ideal, if not a reality, that many aspired to. Looking at domestic architecture is a means of exploring this idea. For more, see: Nancy Cott. *The Bonds of Womanhood: "Woman's Sphere" in New England, 1780-1835.* (New Haven: Yale University Press), 1977; Harriet Friedmann, "Simple Commodity Production and Wage Labour in the American Plains," *Journal of Peasant Studies* 6 (1978): 71-100; Carl Degler, *At Odds: Women and the Family in America from the Revolution to the Present* (New York: Oxford University Press), 1980; Glenna Matthews, *"Just a Housewife": The Rise and Fall of Domesticity in America* (New York: Oxford University Press), 1987; Nancy Grey Osterud, *Bonds of Community: The Lives of Farm Women in Nineteenth-Century New York* (Ithaca: Cornell University Press), 1991; Carroll Smith-Rosenberg *Disorderly Conduct: Visions of Gender in Victorian America* (New York: Oxford University Press) 1985.

visible within the home. The plans A.G. Stone of Peoria County, Illinois submitted to *Prairie Farmer* in 1845 demonstrate these early evolutions (see Figure 4.3). [180]

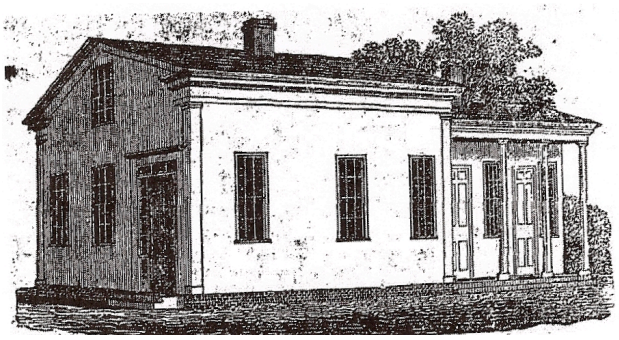


The principal house is 30 by 21 feet; rear 26 by 15; with a piazza 26 by 6 feet.

A Parlor, 14 by 13 feet; B front hall, 13 by 7; C stairs; D dining room, 17 by 12½; E bed room, 10 by 8½; F cupboard; G clothes press; H pantry, 8½ by 5; I kitchen, 15 by 12; J meal room, 6 by 4; K dairy, 15 by 10; L piazza, 26 by 6.

The bill of timber &c. intended to accompany the above, is unavoidably deferred till next month.

Figure 4.3



Stone's submission, with Greek Revival pilasters, frieze and columns is noteworthy for several reasons. First, Stone included a formal entry (B), which separated the public world outside the farm from the family spaces within. Stone included internal rooms that closely followed their function on a working farm. Stone separated the work areas of the home by placing them all in a single story wing at the rear of the home. The kitchen (I), the primary location of women's work has been functionally removed from the rest of the home and acted as a intermediary space between living quarters and more commercially oriented rooms. The dairy (K) represented a physical manifestation of women's increasingly regrettable (according to the domestic ideal) participation in the market economy. Accordingly, Stone located this agricultural workroom furthest away from the public area at the front of the home, failing even to connect the room to the larger structure by way of interior door.

[180] A.G. Stone "A House Plan" *Prairie Farmer* (Chicago, September 1, 1845), 20.

Stone did, however, fully recognize the importance of the kitchen within the farmstead and designed it with function in mind. The kitchen occupied the largest area within the home, lending it a greater functional flexibility for chores beyond meal preparation, including laundry. Doors and windows were situated to open onto the barnyard and allow a cross ventilation and adequate lighting. Stone did not fail to consider the help. He created a small room (J) where domestic or agricultural help could take their meals separate from the family who paid their wages. The dairy room represented an especially progressive outlook. It received its own room on the ground floor, relieving the farmwife from hauling milk buckets down stairs into the dank and dirty cellar. The division of the rear wing of the house into subsidiary spaces represented a more specialized approach to space in which form followed function. Stone's design grudgingly acknowledged the necessity of gendered farm labor, but still incorporated cultural ideals that defined labor and home, public and private in opposition to each other.

The plans for a farm-home submitted by "One of the Women" in 1853 demonstrated a different conceptualization of domesticity and architectural expression.[181]

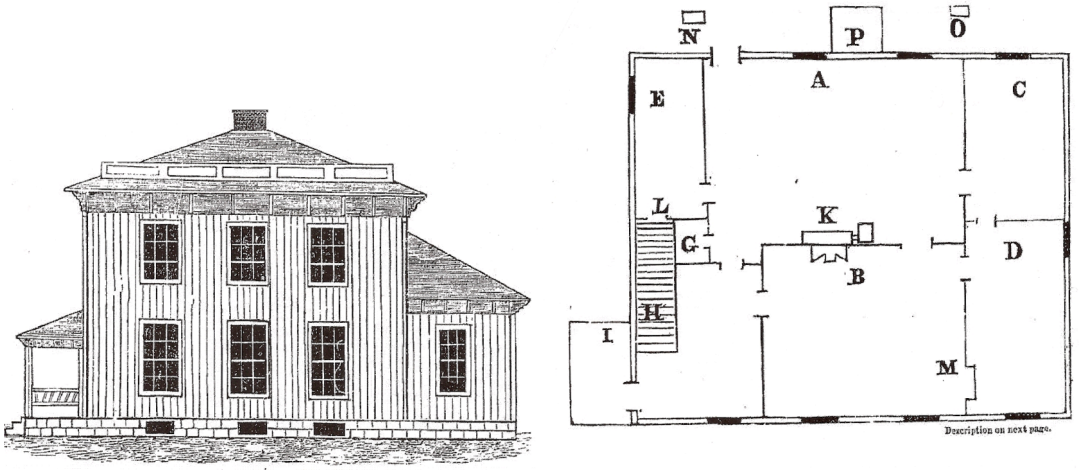


Figure 4.4

[181] One of the Women, "A Wisconsin House" *Prairie Farmer*. (Chicago, April 1, 1853), 30.

Similar to the A.G. Stone house, the woman who designed "A Wisconsin House" acknowledged a conceptualization of division between public and private space in the physical arrangement of internal spaces. The main entryway to the house is sealed from the interior spaces by means of a formal entry hall. Unlike the kitchen abutted to the rear of the Stone house, the kitchen (A) dominated the first floor of the Wisconsin House. Five entry doors, which opened to all rooms of the house and the exterior placed this kitchen at the literal and figurative center of the farm-home. The Wisconsin House situated the large, multi-purpose kitchen within easy access of the well (N) and provided both interior (L) and exterior (P) access to the cellar and a large pantry (E). The lean-to on the rear of the structure contained two smaller bedrooms. One bedroom (C) had no windows, the location of the interior wall between the two rooms adjusted to maintain symmetry in exterior fenestration.

The woman designer of the "Wisconsin House" disagreed with domestic ideals that found architectural expression of the A.G. Stone house. The domestic work of the farmwife in the Wisconsin house remained centrally located. The position of the farmhouse kitchen positioned the farmwife to effectively manage her domestic duties. Her work, whether it returned an income or not, did not occur in the far reaches of the home, but in its very center. Still, the incorporation of a formal hall and parlor (B) suggested that the designer was not wholly independent of broader cultural mores. The designer of the "Wisconsin House" wanted to bake her cake, and eat it too.

Early issues of *Prairie Farmer* and other agricultural publications frequently published reader-submitted house plans. These amateur architects applied their experiences to building design, focusing not solely on the aesthetic of the structure, but

also its utility. Progressive farm designers combined vernacular building forms with new ideals about efficiency to produce structures that increasingly organized interior space based upon its specific functions and uses while simultaneously hiding the private life of the family and its work routines from the public world. The increasingly specialized nature of interior workspaces remained detached, for a time, from changing cultural attitudes towards women's labor as the kitchen retained a central place within the home even as some of its various labor functions were removed to newly distinct rooms within the home. At the same time farm that men and women began to imbibe cultural ideals that deemphasized the value of women's economic contribution to the working farm and instead focused on the drudgery of women's domestic work, women began to identify personally with the physical spaces within which they performed their domestic functions.[182] This conflation of women's work, domestic space and the physical self may be seen most clearly in the designs of farmhouses published by the agricultural press during the 1860s and onward. Unlike earlier house plans, these plans did not derive from amateur designers, but instead from professional architects.

The January 6, 1870 issue of the *Western Rural* published a farmhouse plan by architect C. Chapman of Chicago. Among the older sections of the Western states, the demand for this style of farm home exceeded all others, according to the *Rural*. Mr. Chapman did not design this home as a modest dwelling for the small farmer. This

[182] Beverly Gordon, "Woman's Domestic Body: The Conceptual Conflation of Women and Interiors in the Industrial Age." *Winterthur Portfolio* 31 (1996): 281-301. Gordon articulates how conceptions of domestic interiors were ultimately conflated with conceptions of the women's self-identity, the health and identity of one, dependent upon the other. Women were the "embodiment of the home, and in turn the home was an extension of her." She notes this conflation existed most strongly from the 1870s to the 1920s. The article extends beyond floor plans and arrangement of space into domestic interiors, their decoration and furnishing, thus emphasizing women's roles as economic consumers and managers of the domestic sphere.

structure exemplified the level of affluence some progressive farmers achieved through increased scale, mechanization and wartime profits of the previous decade. The farmhouse, the most conspicuous marker of economic achievement, also represented an ideal to which progressive farmers of more modest means might aspire. [183]

The form of the professionally designed home of 1870 bore a strong resemblance to the 1853 house designed by "One of the Women." Both houses represented variations on a common vernacular house form and shared a square footprint with a shed addition appended to the rear and a hipped roof.[184] However, the latter structure treated gendered space differently than the earlier structure. The designer removed the kitchen to rear of the home, separated entirely from the living quarters of the structure. The designer intended that the kitchen be used for meal

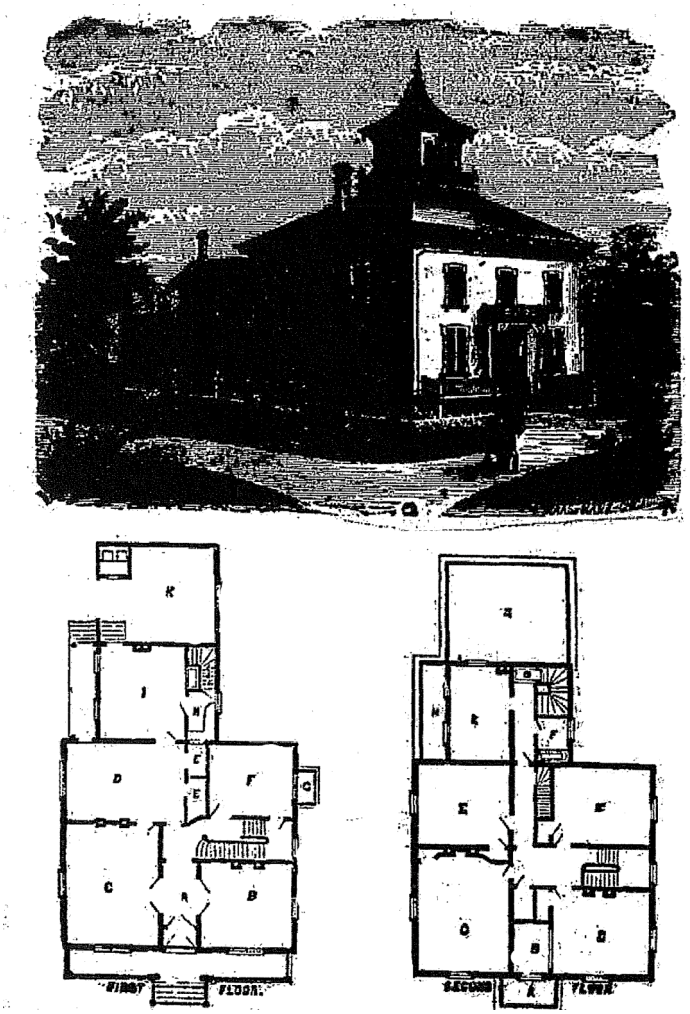


Figure 4.5

[183] "Plan for a Dwelling" *Western Rural*. (Chicago, January 6, 1870), 5.
[184] Both houses may be "read" as modifications of earlier Georgian House forms. The earlier house exhibited a façade reminiscent of a 2/3 Georgian Plan while the latter home more clearly followed convention with a central hall and flanking rooms. The hipped roof and Italianate bracketing of both structures demonstrate an awareness of contemporary style rather than any fundamental variation of form. For more, see: Henry Glassie, "Eighteenth-Century Cultural Process in Delaware Valley Folk Building" *Winterthur Portfolio* 7 (1972): 29-57.

preparation only, moving the summer kitchen, laundry and dairy to the basement of the structure. The arrangement of working rooms in the idealized home had begun to parallel the culturally prescribed hierarchy of gendered labor. In the ideal, the most esteemed spaces/roles, those involving the domestic ideal of homemaking and child rearing, enjoyed prominence of position. Entering into the formal entry (A), the individual was held before moving into the flanking parlor (B) or sitting room (C). Moving from front to rear brought a transition from the areas of sophistication and leisure to those designed to fill more basic human needs. The dining room (D) flanked a bedroom (F). Moving to the rear of the home, accessible only by a single door, the kitchen and its role of food preparation occupied a secondary status. The demotion of the kitchen to its second class position corresponded with the a contemporary dialogue in farm publications whereby women's work in the kitchen was increasingly cast as drudge work, especially in comparison to recent mechanical advancements in field husbandry.[185] Even so, women's role as preparers of meals that nurtured the health and growth of the family remained a valorized occupation by most. The tasks associated with producing food, whether for home consumption, barter or sale, however seemed increasingly unfortunate occupations for women as the fruit room, dairy and laundry have been hidden from view and removed to the basement.

Architects designing farmhouses for progressive farmers in the 1860s and 1870s did not stray very far from traditional vernacular house forms. The "French Cottage" originally published in *American Builder* and subsequently reprinted in an 1869 issue of *Prairie Farmer* provided an example of how professional architects repackaged

[185] "In the Kitchen" *Prairie Farmer* (Chicago: November 2, 1867), 1. A series of four front-page articles in 1867 argued for the modernization of the kitchen, often contrasting the lack of "progress" to the increased role of machinery in men's fieldwork.

traditional house forms to fit modern tastes (Figure 4.6). The "French Cottage" repeated a vernacular house form known as an I-house.[186] An arrangement of rooms two wide, one deep and two stories in height comprised the salient characteristics of the I-type. The form frequently demonstrated a symmetrical façade organized around a central hall and entry. A rear "L" addition contained the kitchen and domestic workspace.[187] The house form bears a close relationship to that of Chapman designed structure (Figure 4.5), the main difference between the two being a second tier of rooms behind the front rooms, which focused on the domestic ideal, and the rear L with its related functions of gendered labor.

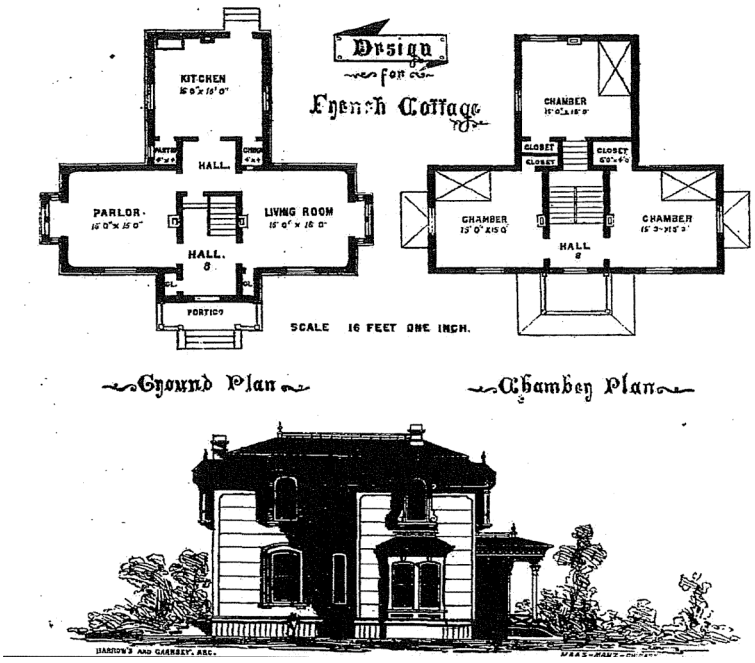


Figure 4.6

[186] Cultural geographer and folk scholar Fred Kniffen coined the term "I-house" in 1936. The I-type was so named due to the large quantity of nineteenth-century examples of the house type found in the "I-states" of Iowa, Illinois, and Indiana. See, Fred Kniffen, "Louisiana House Types" *Annals of the Association of American Geographers* 26 (1936): 179-193. Henry Glassie notes that this house form predated the development of Georgian forms in the Mid-Atlantic region and was common house form in England and all colonial regions during the time of settlement. Henry Glassie, "Eighteenth-Century Cultural Process in Delaware Valley Folk Building" *Winterthur Portfolio* 7 (1972): 29-57.

[187] The position of the kitchen at the rear of the structure, in the I-type especially, clearly predates the nineteenth-century conceptual revaluation of women's work and economic contributions to the household economy. In the case of the I-type, as opposed to massed floor plans such as the "Wisconsin House", the arrangement of domestic workspace reflected a functional approach to the arrangement of space. The I-type was a more in size than Georgian or massed floor plans. As such, a kitchen L economized building materials and oriented domestic workspaces to the dooryard and farmyard.

Farmwomen did not imbibe all the cultural prescriptions emanating from bourgeois society. Farm kitchens decreased in size over the last half of the century as the room lost its central position in the home, a place where family and friends might meet and where family meals were shared. This change reflected an increased eye toward efficiency of movement so as to reduce drudgework and also an efficiency gain in time resulting from the elimination of unnecessary and inefficient conversations. The kitchen became a more specialized place, literally a cook-room, as home designers removed dining tables from the kitchen and placed them in rooms designed especially for the purpose of eating. The removal of the family table from the kitchen coincided with women's increasing conceptualization of the kitchen as a farmwife's domain, where she could perform her work as efficiently as possible and separated from both the rest of the farmhouse, the farmyard and the individuals associated with those places.[188]

The conceptualization of the farmhouse kitchen as a distinct and separate sphere of the farmwife coincided with the commercialization of what had formerly been women's labor roles. As dairying, hog production and in some places poultry increased in economic importance, farm husbands frequently took over their management.[189] As farmwomen's economic contribution to the farm declined, the kitchen no longer needed

[188] Sally McMurray, *Families and Farmhouses in Nineteenth Century America: Vernacular Design and Social Change* (New York: Oxford University Press, 1988).

[189] Sally McMurry found that in Oneida County, New York the transition from home-based to factory cheese production squeezed women out of market oriented dairy production. Factory production led to a local competition and disintegration of neighborly relationships all the rapid transition to cash crops in the 1860s led to environmental degradation. While the earlier generation of cheese making, the economic activity fostered mutuality as women worked together with men within a network of local exchange. McMurry paints a picture of women who were generally happy about being freed from domestic production and used increased leisure time to join social organizations that sustained older social networks within the new economic milieu. See: Sally McMurry, *Transforming Rural Life: Dairying Families and Agricultural Change, 1820-1885* (Baltimore: Johns Hopkins University Press, 1995). See also, Nancy Grey Osterud, *Bonds of Community: The Lives of Farm Women in Nineteenth-Century New York* (Ithaca: Cornell University Press, 1992).

to be situated adjacent to the farmyard. Men and women who wrote to farm periodicals frequently lamented the sad view from the kitchen that looked out onto the mess of the farm yard, a view that frequently included mud, wood piles, hay stacks and roving livestock. These writers argued for a more "cheery" view that could bring light and beauty into the kitchen and thereby revive the overworked farmwife. One strategy to reduce the drudgery of the farmwife was to remove the kitchen from the rear of the house to its side, offering view with windows that looked to the front of the house and toward the road. While some amateur designers incorporated this feature into farmhouse design during the 1860s and 1870s, the overwhelming majority of structures maintained a kitchen in the rear of the structure.[190]

That amateur and newly professional mid-century architects proved unable or unwilling to radically alter basic house forms should not be surprising. The long history of evolutionary change in domestic architecture proves that individuals have been much more willing to adjust to stylistic changes in façade rather than change fundamental and culturally recognizable patterns of internal arrangement and use.[191] Returning to the Leiseberg *Altentiel*, we note that it is a three room addition to the home in which the elderly parents are to live out their remaining years. A reexamination of Figure 4.1 and 4.2 reveal that both additions were in fact three room additions. The addition added to the original home was a smaller scale reproduction of the original.

The resultant cross-gabled structure that developed after the *Altenteil* agreement had been signed bore a striking resemblance to the archetypical I-house design that

[190] Sally McMurray, *Families and Farmhouses in Nineteenth Century America: Vernacular Design and Social Change* (New York: Oxford University Press, 1988).
[191] Henry Glassie, "Eighteenth-Century Cultural Process in Delaware Valley Folk Building" *Winterthur Portfolio* 7 (1972): 43.

predominated the landscape of the nineteenth-century Midwest. The placement of the front door in the center of the non-gabled side of the house and the arrangement of windows created a bilateral symmetry that completed the approximation. Thus, at first glance the traveler at the turn of the twentieth century would have been hard pressed to tell the difference between the two types of houses.[192] If invited in, however, the traveler would have noted a very different arrangement and use of interior space. Among the German-American immigrants that built this type of house, the arrangement of interior space demonstrated a fundamentally different conception of space and women's labor based on Old World antecedents that remained relevant and useful within the Midwestern cultural landscape.

When Johann Boeger built his farmhouse in the early 1850s, the arrangement of three interior rooms (A, B and C in Figure 4.1) was no accident. The same pattern of room arrangement was repeated in the subsequent addition to the farmhouse and in both wings of the Thies farmhouse (Figure 4.2). A large kitchen that dominated the first floor proved to be the defining characteristic of this house type. Two auxiliary rooms divided along the lateral axis of the structure typically occupied the remaining third of the structure.[193] The Stelter farmhouse (circa 1860s) offers another example of the house form from southern Cook County.[194] This arrangement of rooms, and those like it dated

[192] The placement of the chimney, not in the direct center, but instead off center situated at one third of the interior distance, offers a distinct clue for those looking at the outside of the house that the interior space was organized on different principles than Anglo-American types.
[193] Sometimes, these two rooms were combined into one with a resultant structure based on two rooms, but not divided by a central hall.
[194] Edward Windhorst, James Gorski and Tria Architecture, Inc. "Historic Structures Report for the Stelter Farm, Country Club Hills, Illinois. (Unpublished, 2009). The architects who wrote this report did not understand ethnic floor plans. The Stelter farmhouse demonstrated a classic *Pfostenwohnhaus* floor plan. Instead of seeing the influence of culture in the arrangement of interior spaces, the architects suggested a base I-type that had been modified as the house

back several centuries in northwestern Germany.[195] Architectural historian Fred Peterson documented the use of this folk arrangement of interior space in a study of German-Catholic immigrants to Minnesota. Peterson connected the arrangement of space by German immigrants to a vernacular building type called the *Niedersachsen Pfostenwohnhaus.* The *Pfostenwohnhaus* has been documented as far back as the twelfth century in Holdorff, Niedersachsen, which is less than 100 kilometers west of the Schaumburg-Lippe area of Germany from which several farmers migrated to Schaumburg, Illinois.[196]

Unlike the prevailing cultural trend in the United States, the *Pfostenwohnhaus* illustrated a profoundly different conception of space, its use, organization and gender orientation. The main room (A. in Figure 4.1) was not simply a large kitchen. The name of the room, in German, is *Wohnküche* or "living kitchen. As the name of the room implies, the uses of the *Wohnküche* extended beyond gendered chores of meal preparation, food preservation, laundry and the processing of agricultural products including dairy. German-American families entertained guests, took their meals and observed religious rites in the Wohnküche, in sharp contrast to the prescribed role of the

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modernized. Nowhere in the report do the architects correlate the house with specific architectural traditions emanating from the European continent.

[195] The arrangement of rooms is similar to the "Continental" type described by Henry Glassie in that it placed the chimney on one of the thirds of the house and avoided a formal division of public and private space. The function and organization of kitchen space in the *Pfostenwohnhaus* type is significantly different. See, Henry Glassie, "Eighteenth-Century Cultural Process in Delaware Valley Folk Building" *Winterthur Portfolio* 7 (1972).

[196] The majority of immigrants to Schaumburg, Illinois hailed from areas around Hanover, which is only 40 more kilometers east of Schaumburg-Lippe. The Stelters arrived in southern Cook County from the village of Hoya, north of Schaumburg-Lippe and west of Holdorff. The source region for many of the immigrants to Cook County between 1840 and 1870 may drawn largely as a geographic area triangulated between Bremen, Hanover and Osnabrük. For drawings of the *Pfostenwohnhaus,* see: Fred Peterson, *Building Community, Keeping the Faith: German Catholic Vernacular Architecture in a Rural Minnesota Parish* (St. Paul: Minnesota Historical Society Press, 1998), 38.

kitchen in the bourgeois Anglo-American home. Not only did the *Pfostenwohnhaus* plan require a non-dichotomized conceptualization of domesticity and gendered workspaces, it also required a non-dichotomized approach to the public/private sphere.[197] The visitor entering a *Pfostenwohnhaus*-type structure did not enter a formal hallway, separated by walls and doors from the intimate rooms of the home and family life. Rather, a visitor to either the front or back door entered directly into the *Wohnküche*, the literal and figurative center of the home and family. The *Pfostenwohnhaus* and the *Wohnküche,* taken together, offer spatial evidence a less acute need to conceptualize the immigrant's world in simple dichotomies that divorced the individual from the social world in which he or she lived. Space could be simultaneously both public and private, it could be used for both profitable enterprise and family life; women could work in the field and still be women, mothers, homemakers and integral contributors to the household economy.

Despite evidence that demonstrates that the non-specialized use of space within the *Pfostenwohnhaus*-type arose out of specific antecedents upon the European continent, it should be made clear that the two house forms represent differences of culture, not necessarily class. Prescriptive writers such as Catharine Beecher and Andrew Jackson Downing argued for a more specialized approach to interior design as early as the 1840s.

[197] The arrangement of interior space represents a less defined division between the public sphere and the domestic ideal. If domestic space was highly gendered among immigrant populations, then this would seem to conflict with rigid separation of women and the public sphere as exemplified by women's lack of participation in the Lutheran church, which served as the main public structure of the community. However, as Joan Landes argues, the public sphere did not represent a universal norm, but rather a particularistic conception contextualized in time and place. Landes linked women's removal from the public sphere with the transition bourgeois society. The material culture evidence found in immigrant households, however, suggests that immigrant women though denied access to the public sphere, did not/could not retreat into a gendered domestic environment. Rather, it points to the reality that gender implied different meanings among distinct populations, as did the ideals of domesticity and the conceptualization of the home and the resultant organization of space. Immigrant farmwomen, and many other rural women no doubt, lived in a domestic world not fully formed. See: Joan Landes, *Women and the Public Sphere in the Age of the French Revolution* (Ithaca: Cornell University Press, 1988).

The ideological underpinnings of their work were further developed and codified by subsequent writers in the latter nineteenth century such as Christine Frederick and continued in the twentieth century via the institutional framework of land grant universities and departments of home economics.[198] The outcry among the well-heeled acolytes of Victorian American culture against traditional arrangement and use of space in the nineteenth-century United States had no parallel in Germany. Ultimately, architectural reformers in Germany did take up the cause of spatial specialization, but not until after World War I. Even then, the argument that a home's kitchen should serve a single purpose of food preparation applied primarily to workers' housing, not necessarily farmhouses.[199]

The arguments made thus far should not be interpreted to imply a causal relationship between conceptions of gendered space and its organization nor a greater or lesser degree of equality between the sexes. Rather, it suggests that conceptions of gendered labor and the organization of domestic space are related evidences of a more significant underlying mentalité. If Anglo-American house forms may be interpreted in a manner that highlights the cultural values that informed their construction, so too must ethnic arrangements of space. If the organization of interior spaces in Anglo-American homes reflected the relative decline of women's economic contribution to the household economy and accompanying decline in prestige of women's work and subsequent

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[198] Andrew Jackson Downing, *Cottage Residences* (New York: Wile and Putnam, 1842). Andrew Jackson Downing, *The Architecture of Country Houses* (New York: D. Appleton and Company, 1866). Catharine Beecher, *The American Woman's Home, or, Principles of Domestic Science* (New York: J.B. Ford, 1869). Catharine Beecher, *A Treatise on Domestic Economy* (Boston: T.H. Webb & Company, 1842). Christine Frederick, *Efficient House Keeping* (Chicago: American School of Home Economics, 1925).

[199] Nicholas Bullock. "First the Kitchen-then the Façade" *Journal of Design History* 1 (1988): 177-192.

association with drudge labor, then the organization of space within the immigrant home should offer clues to ethnically distinct conceptions of women's labor, its importance and the esteem in which it was held within the immigrant community. Still, it would be lax work indeed to assume that non-specialized or non-dichotomized conceptions of space within the immigrant household necessarily arose out of a greater respect for gendered contributions to the family economy. Ultimately, for our purposes here, the significance resides, not in the esteem which women's farm work assumed, nor the conceptualization of the nature of that work by women themselves. The significance of gendered labor here resides in the tangible effects of physical work and the implications of that labor upon the physical landscape.

When read as a part of the landscape, "gender" emerges not as a simple dichotomy or hierarchy, but as a relational system. Agricultural landscapes emerged within environments of economic constraints and as a series of patterns through which individual farmers wittingly pursued their material interests. Gender, in the rural Midwest developed within the context of those agricultural landscapes, both affecting and effected. In the agricultural context, the labor that women and men performed day in and day out affected social relationships between the sexes at both the household and the social level. The comparative lens of ethnic analysis reveals that immigrant women were less fully engaged with societal ideals; their horizons were more frequently focused within the enclave experience. Despite the rigidly defined construction of gender within the social institution of the immigrant church, among family, farm and home immigrant women

occupied a more nuanced space where boundaries, both literal and figurative, were not simply more flexible, but also less defined.[200]

In many corn-belt locations, German-American farms failed to invest in large-scale swine herds at the same rate as Anglo-American farms. As a result, German farms frequently relied more heavily on commodity corn production in the absence of local markets for cereals. This suggests that, within the context of the immigrant enclave, German immigrant women remained more involved in the day-to-day operations of raising hogs than did their Anglo-American counter parts and that this participation by women affected modes of production, but not necessarily landscapes. In Schaumburg, traditional labor arrangements employing family labor in agricultural fields allowed a unique cultural response to the economic downturn of the 1870s. Farms reduced input costs of labor and machinery while they increased an extensive mode of cereal and flax production and retained commercial dairy operations. Such a response would have been impossible had immigrant men and women adopted the prevailing attitude that denigrated women's farm work.

Importantly, the evidence of the specialization in the interior spaces of Midwestern farm-homes should not be read as universal acceptance of the tenets that it implied. Houses were not disposable objects that could be rebuilt according to changing style or shifting cultural convention. Many small and middling farmers lived in modest

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[200] On gender as a system of relations, see: Nancy Grey Osterud, *Bonds of Community: The Lives of Farm Women in Nineteenth-Century New York* (Ithaca: Cornell University Press, 1991), 4-12. Of course, more fluid spatial patterning should not imply a diminished role of patriarchy. Women within the ethnic enclave occupied a secondary status, especially in the social sphere. The work patterns add complexity standard interpretations of mutuality and separate spheres. The need for clarifying the nomenclature of domesticity and rural women's history has been eloquently detailed by Linda Kerber; see: Linda Kerber, "Separate Spheres, Female Worlds, Woman's Place: The Rhetoric of Women's History," *Journal of American History* 75 (1988): 9-39.

structures where the organization of space, by necessity, received a more general treatment. Patterns published in the agricultural press, however, do demonstrate archetypes to which progressive farmers aspired and the broader cultural mores that informed their design. Similarly, not every German immigrant to the Midwest reproduced an ethnic floor plan. The objective is not to document the distribution of a house form or the extent to which it was reproduced in the American cultural milieu. Rather, the purpose is to demonstrate that immigrants reproduced the form in the Midwest and that it derived from a distinct cultural tradition that conceptualized space in a very different way. This comparative approach highlights the trajectory upon which American spatial organization developed during the nineteenth century and how it reflected the broader social and cultural developments of an industrializing nation in which the individual increasingly conceptualized herself as a distinct entity in an atomized landscape.

The minds that built the German-American farmhouse understood the home not as a refuge from the outside world, but as an integral part of it. The farmhouse served as a space for the reproduction and maintenance of ethnic culture, the reproduction of family, the processing of agricultural commodities and the reinforcement of the ties that bound the ethnic community together. Unlike American archetypes of the period, the *Pfostenwohnhaus* type did not contain interior boundaries designed to disguise the purpose of the whole structure. Rather, the ethnic farmhouse mediated the convergence of the market, family life and farm production in a single organic unit. The ethnic farmhouse did not exist as system unto itself, or as an organization of space within which dichotomized identities found material expression. The immigrant arrangement of space

gave material evidence of a conceived role within a larger cultural framework through which it was constructed and used.

The same minds that continued to incorporate the *Wohnküche* into their farmhouses relied upon *Altenteil* agreements to negotiate the transfer of property between generations, thereby insuring the succession of the farm within the family and the survival of the ethnic community. The individual farm within the enclave context existed not as an inviolable unit of individual property, but as a component part of a cultural system that extended vertically through time and horizontally through the community. The strength of the system increased with time as familial networks spread through intermarriage among ethnics and as the community became more self consciously aware of itself. The institution of the ethnic church cultivated ethnic identity and distinction. The Lutheran Church, Missouri Synod's confessional doctrine did not conceive of individuals as moral isolates, but rather held individuals to be responsible for not only their own salvation, but that of their neighbors as well.

The fields, the farmhouses, the churches and the individuals that moved among them all existed as part of a singular system, its constituent parts integrating and strengthening the others, expressed across space. In contrast to American society, which had divorced economic activity from the home, the male from the female, the individual from the corporate body, the immigrant mentalité in rural America failed to conceptualize the individual outside the context of its web of relationships. Rural immigrants, who left few written records with which to interpret their world, left their record in and upon the landscape. Reading it not only opens up the world of the immigrant Midwest, but also

illustrates, by contrast, profound changes that had already occurred within the American fabric.

CONCLUSION

SPACE AND LANDSCAPE AS INSTITUTION

Ye shall know them by their fruits.
Do men gather grapes of thorns, or figs of thistles?
Matthew 7:16

An apple tree grows only grows apples, an orange tree only oranges. The nuances of location in which the tree spreads its roots, the condition of soil, the climactic environment and the parasitic organisms that leach nutrients away from the fruit affect only the quality of the harvest. The character of the fruit, however, stems from genetic information coded within a small seed planted decades earlier.[201] The fruit tree produces fruit because it must and it does so according to a logic that results from its own evolutionary instinct in congress with the environmental conditions unique to the space that it occupies. The man that tends the tree is little different. Understanding fruit, or grain for our purposes, that men grew enlightens both the logic of relationships between individuals and the nature of the spatial environment that coded and shaped their behaviors.

A spatial approach to history reveals the created environment as both effect and evidence of human activity, yet at the same time a corporate agent with its own momentum, capable of affecting patterns of human behavior. Reading and reconstructing agricultural spaces gives voice to a great mass of humanity that left little record beyond

[201] The author has only an elementary understanding of grafting in fruit trees and the fact that the character of the fruit is determined not by the seed, but in fact by the graft that is employed--in effect cloning the fruit of the parent graft. However, the author ignores this in favor of metaphorical effect.

that which they built. What they built, however, proves a rich record that evidences the processes that composed the fabric of their existence. The cultural landscape, reconstructed and read as a document, underscores the values and intentions of individuals who shaped the world around them, while at the same time placing them within a physical world of constraints. As a web of economic relationships expressed across distances, space in the late nineteenth-century Midwest acted as a relational system, more similar to its future than its recent past. The economic logic of the system conditioned patterns of movement among corn-belt farmers. The historic landscape, produced through the repeated movement of individuals and commodities in predictable patterns, demonstrates the extent to which the rural Midwest had been drawn into a new institutional paradigm of commodity production and networks of hierarchical control.

The comparative method employed within this dissertation highlights the increasingly regimented nature of spatial relationships within the upper Midwest, revealing that the modernization of spatial relationships between and among individuals and markets was an uneven process. The new logic of the commoditized landscape, while pervasive, was not all-powerful. Where local markets engaged local culture, some communities endowed places with meaning and value beyond their simple capacity to produce a commodity. Less modern, or less specialized, conceptions of both economic and individual relationships across space fostered unique landscapes. Unique cultural landscapes did not always maximize the efficiency of agricultural space in terms of its ability to reproduce capital, but rather its ability to produce a continuity of identity rooted in place. The same instincts that informed this approach were evidenced in the creation,

reproduction and use of built domestic space where families performed their familiar routines of farm life and farm work.

The utility of these findings on the behaviors of immigrant enclaves lies in their demonstration of a counterpoint to a prevailing trend. An understanding of when and how immigrants reproduced and relied upon cultural strategies of spatial organization satiates curiosity, but offers little real *understanding* in and of itself. However, when interpreted within a longer duration of rural modernization, the peculiar habits of ethnic enclaves underscore the extent to which the nineteenth-century landscape functioned as a part of the modern industrial economy--the degree to which space functioned as an institution in and of itself.

Michel Foucault, in *Discipline and Punish,* argued that the salient characteristics of modernity resulted from a historic process whereby time, space and movement were divided into ever more distinct units that were replicable and, to some extent, interchangeable. These divisions allowed for a reorganization of time and space in a manner that produced increased productivity and political control. Foucault used the development of the modern prison system as a case study, although he drew upon many other institutions of society to support his argument. Foucault referred to collective social pressures that worked to affect the subdivision of time and space as *disciplines* that not only organized the structures of society, but also the movement and agency of the individual within it.[202]

Foucault's arguments fit within a related framework of modernization theory espoused by Robert Wiebe in *The Search for Order.* According to Wiebe, the United

[202] Michel Foucault, *Discipline & Punish: The Birth of the Prison*, trans. Alan Sheridan, 2nd ed.(London: Penguin Books, 1978; New York: Vintage Books, 1995). See especially *The Art of Distributions*, pages 141-169.

States had become a "distended society" in which "island communities," that had defined and ordered life for most Americans prior to the Civil War, were undermined by new national networks of association. International markets and credit systems, modern transportation networks and the increasingly urban (often foreign) populations of industrial workers eroded the autonomy of the small villages that dotted the rural countryside. Ultimately, Wiebe concluded that large pockets of rural America escaped the "bureaucratic web" which had imposed order and continuity upon the fractious society of the latter nineteenth-century.[203] Allen Trachtenberg explores an analogous theme in *The Incorporation of America,* in which he describes a process through which corporate systems imposed a network of hierarchical control on gilded-age America.[204] Like Wiebe and Foucault, Trachtenberg described a fragmented society in which cultural, political and businesses elites effectively imposed a new order on American society. In the modern era of the late nineteenth century, individuals increasingly negotiated relationships among themselves via larger and more complicated institutions. This institutional framework provided a matrix through which society was both ordered and controlled.

Of course, the imposition of institutional society was uneven. Historians frequently look to rural Americans and immigrants for evidence of an incomplete incorporation into the modern institutional society. Often, these historians point to the localism of rural areas, their cultural isolation, or their resistance to the adoption of modern techniques. All of these are valid areas of inquiry, but they neglect a fundamentally simple observation of the material world. Reading physical space

[203] Robert Wiebe, *The Search For Order* (New York: Hill and Wang, 1967), 301.
[204] Alan Trachtenberg, *The Incorporation of America: Culture and Society in the Gilded Age* (New York: Hill and Wang, 1982).

demonstrates how the rural landscape functioned as a part of, and within, institutional society. Reading physical space demonstrates how many rural Americans were increasingly ordered, incorporated and disciplined into the modern social fabric. As cost replaced time as the salient characteristic of movement across space, space itself became an institution through which rural Americans experienced hierarchical control—that is modernity.

Within the context of the Midwestern corn-belt, institutional space was codified in law. The mechanisms by which the federal government sold land to individuals favored the creation of isolated individual farmsteads managed by owner or tenant operators. Laws restricting the grazing of animals reinforced the trend and by the beginning of the twentieth century improvements in fence technology made the atomization of the landscape into discrete, interchangeable units a reality. Fee simple land ownership reinforced the institution by ensuring an easy and complete parcelization of the landscape. Alienability of land through fee simple ownership facilitated the ability of individual units to increase or decrease in scale as a response to fluctuations in commodity prices. Thus, a key factor of the modern rural landscape was the ease with which it transitioned between owners. This not only allowed for a more flexible mechanism by which acreage could increase in pace with technological innovation, it also bound the owner of the land to employ human energy, often that of himself and his family, in order to wrest from it an economic return. The alienability of enclosed land increased the necessity for it to produce regardless of who 'owned' it. The spatial logic of capital, whereby the distance to market and the infrastructure required to transcend it dictated the terms of production, worked in tandem with alienable and enclosed spaces to

shape the agricultural landscape in its modern condition. Participation, or more aptly, production within the commoditized landscaped implied relinquishment of control, not to an individual or organization, but to the logic of the system. In the very modern nineteenth-century corn-belt, institutional space dictated action.

Exceptions underscore the rule. Non-commoditized transportation networks weakened the momentum of the system. In locations such as Chicago, urban markets allowed greater flexibility in methods of agricultural production. At the same time, in more remote locations, the highly capitalized transportation network, which facilitated the commoditized landscape, could create pockets of exception to the corn-belt paradigm. Local manufacturing concerns, such as the malt beverage industry created wrinkles in the fabric of the landscape that expanded the horizon of opportunity available to farmers concerning the choice of crops they produced. In these specific instances, farmers could choose to function outside the commoditized transportation network. When choice entered the landscape it opened the door for culture as a shaping influence.

Foucault's "collective dispositions" and Wiebe's "island communities" were both antithetical to the modern institution of rural space.[205] The enclosed landscape of alienable property helped achieve a highly mobile population that distributed a rural labor force evenly across the space. Even so, organic transportation networks of canals, lakes and rivers frequently distributed immigrants unevenly across the landscape. The enclave, and its institutions might retard the logic of commoditized landscape, but a handful of immigrants fresh off the boat could not simply reproduce the conditions of life they left

[205] Michel Foucault, *Discipline & Punish: The Birth of the Prison*, trans. Alan Sheridan, 2nd ed. (London: Penguin Books, 1978; New York: Vintage Books, 1995). See especially *The Art of Distributions*, pages 141-169. Robert Wiebe, *The Search For Order* (New York: Hill and Wang, 1967), 1-10.

in the Old World anywhere they landed. The emergence of distinct landscapes required two conditions: first an economic context of non-commoditized transportation networks coupled with local markets and second, ethnic enclaves with strong institutional structures that fostered local identity and exceptionalism. Outside of those conditions, the enclosed landscape and the commoditized market created an inertia that transformed the countryside by rewarding farmers who played by its rules.

Spatial relationships assumed hierarchical characteristics of modern institutions not only within the vast scale of landscape, but also within the modern institution of the family. Regimented use endowed both physical and built spaces with new meanings. Changes in American homes throughout the nineteenth-century indicate families increasingly lived in coded spaces that prescribed certain behavioral norms. Within domestic space, social convention sanctioned certain behaviors while scorning others as outmoded or worse, inefficient. Convention ultimately found expression in architectural spaces. The specialized kitchen represented a regimented space not unique to the individual, but rather a rational organization of processes to which any woman versed in the social conventions her time could enter into and understand. Similarly, divisions created by formal entryways coded behaviors of the family and its guests. In the absence of economic discipline, which shaped the landscape or institutional discipline of urban work place, a moral efficiency pinned down and partitioned the home. Again, the degree to which Americans had been "institutionalized" through regimented use of space is evidenced through comparison. The non-specialized home environment of the *Pfostenwohnhaus* and *Wöhnkuche* demonstrated a less formal conception of space and movement within it by immigrants. That immigrants functioned differently in less

specialized architectural spaces mirrors their instinct to produce a less specialized landscape when and where local markets made such methods feasible. The less regimented spatial discipline, in both instances, resulted in part from different formulations of relational gender systems through which families organized labor patterns.

As farms increased scale of production, improvements in outbuildings and fences increased the capitalization required to farm successfully. The nature of the commodity shaped the built environment. Dairy herds required larger barns, milking parlors and cooling houses. Larger grain fields required larger granaries to store the harvest and a new phenomenon upon the landscape, a machine shed, to store the increasingly necessary assortment of agricultural implements. Mass produced fencing enclosed ever-larger fields (often achieved through the application of drainage tile) and separated livestock. Commoditized infrastructure not only made the built environment of agriculture possible through the transport of building materials (including new materials such as concrete), commoditized infrastructure shaped agricultural space. The geographic expansion of commercial dairy farming required processing and shipping facilities along rail lines. The spread of cash-grain agriculture required the infrastructure of elevators and grain cars. The increasing specialization of locations within space organized and filtered the movement of commodities, and imposed institutional order upon the landscape around them.

Commodity exchange, by definition, dictated that the quality of the individual be subsumed to an aggregated approximation of objective standards. Thus a myriad of open-pollinated varieties of field corn could be described by the simple description of "No. 1"

or “No. 2” so long as the aggregate achieved objective standards of dryness and cleanliness. Similarly, within the commoditized landscape, labor became non-distinct. In this landscape, the individual did not achieve identity through a different approach to agriculture, but rather by the ability to increase the scale of his activity. By regimenting activity into distinct patterns, the commoditized landscape obscured the individuality of labor, thereby fragmenting its power. The emergence, growth and eventual failure of most cooperative movements within American agriculture bespoke the unequal terms on which farmers engaged with the commoditized landscape.

Farmers occupied space in a constant state of insecurity. The vagaries of the weather, natural disaster and the market itself affected the odds of the gamble. A farmer’s position within society rarely changed by moving horizontally to a different method of agriculture, but rather through an increase or decrease in rank as quantified by the quantity of land to which he held title. Within the commoditized system, movement between social ranks was always vertical. Horizontal movement was possible, indeed common, but it was achieved only when individuals failed within the system or chose to leave it in favor of a different occupation in the rural, or more commonly urban, environment. Individuals were free to rise and fall according to the logic of the system. The interchangeability of individuals increased the overall efficiency of the commodity system, its capitalization, and thus momentum or inertia of the system. The logic of the system did not require oversight, but it did require enforcement, which was achieved and sanctioned by the authority of the state to protect rights of property.

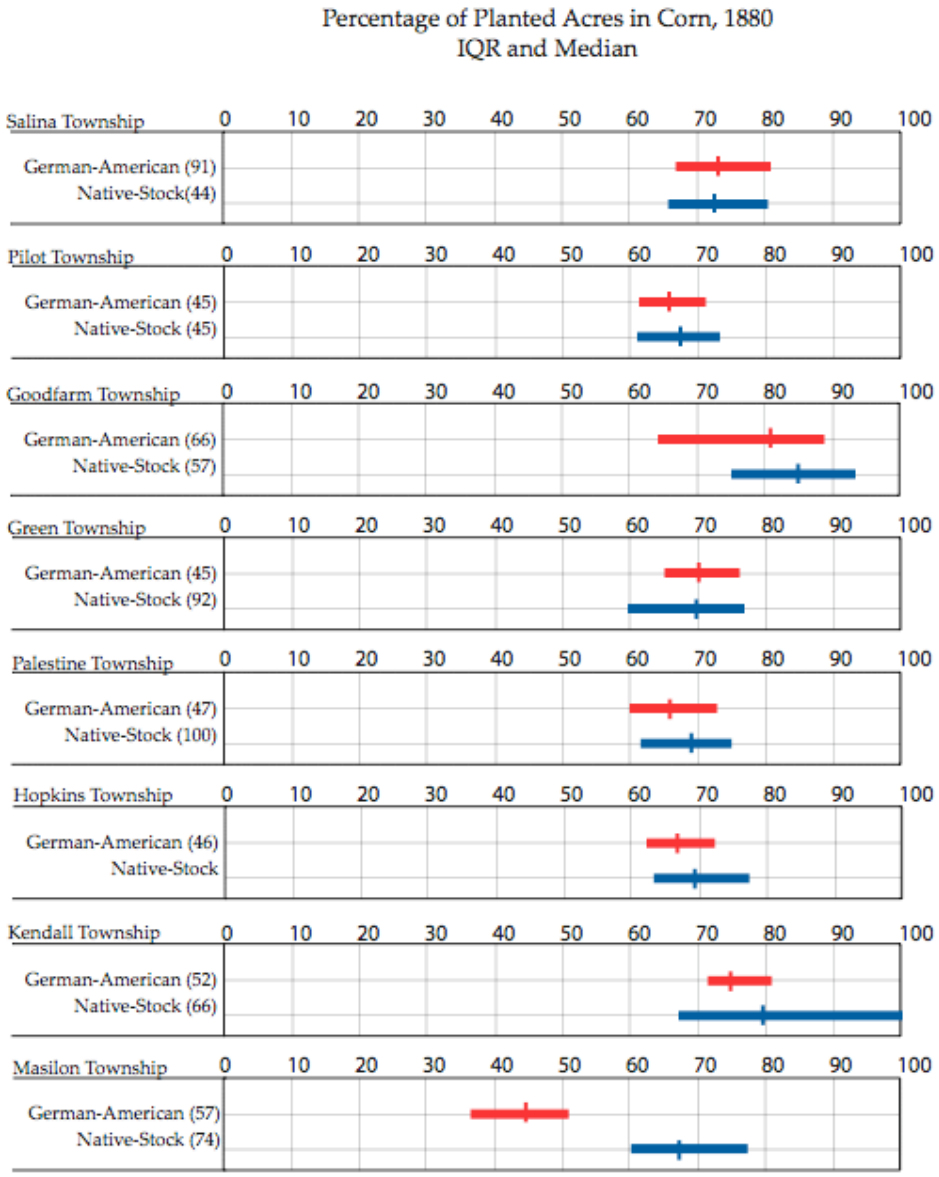
The United States in the decades following the Civil War lurched forward toward modernity as its network of social institutions coalesced into highly capitalized

hierarchies of social control. A spatial approach to landscape and political economy sheds light upon the nature of this transformation in the rural upper Midwest. A comparative approach that engages immigrants from a different cultural background at an intra-regional level highlights that system through contrast. The power of spatial logic at a regional level obscured the nuance of the local where rural inhabitants engaged the market outside of its commoditized infrastructure. Where local economies existed, immigrant enclaves proved capable of less institutionalized interactions across and within agricultural and built spaces. Their instinct to do so developed out of their desire not to maximize the efficiency of the landscape, but a desire to maximize the ability of the landscape to reproduce the unique experience of the enclave and its institutions.

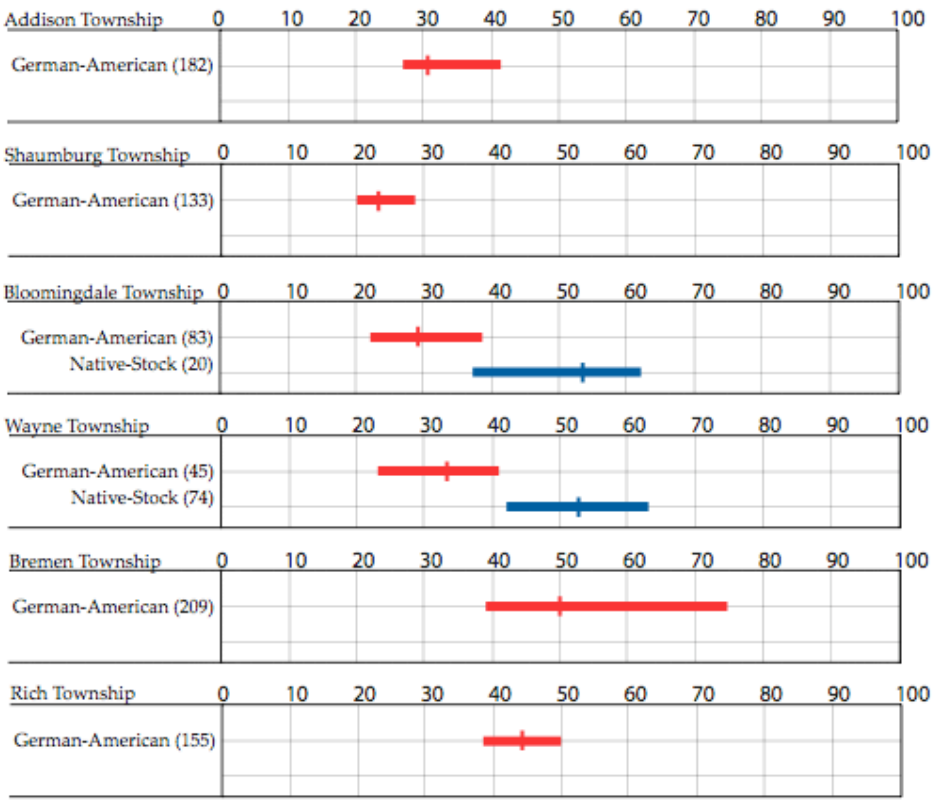
APPENDIX:

Box Plots

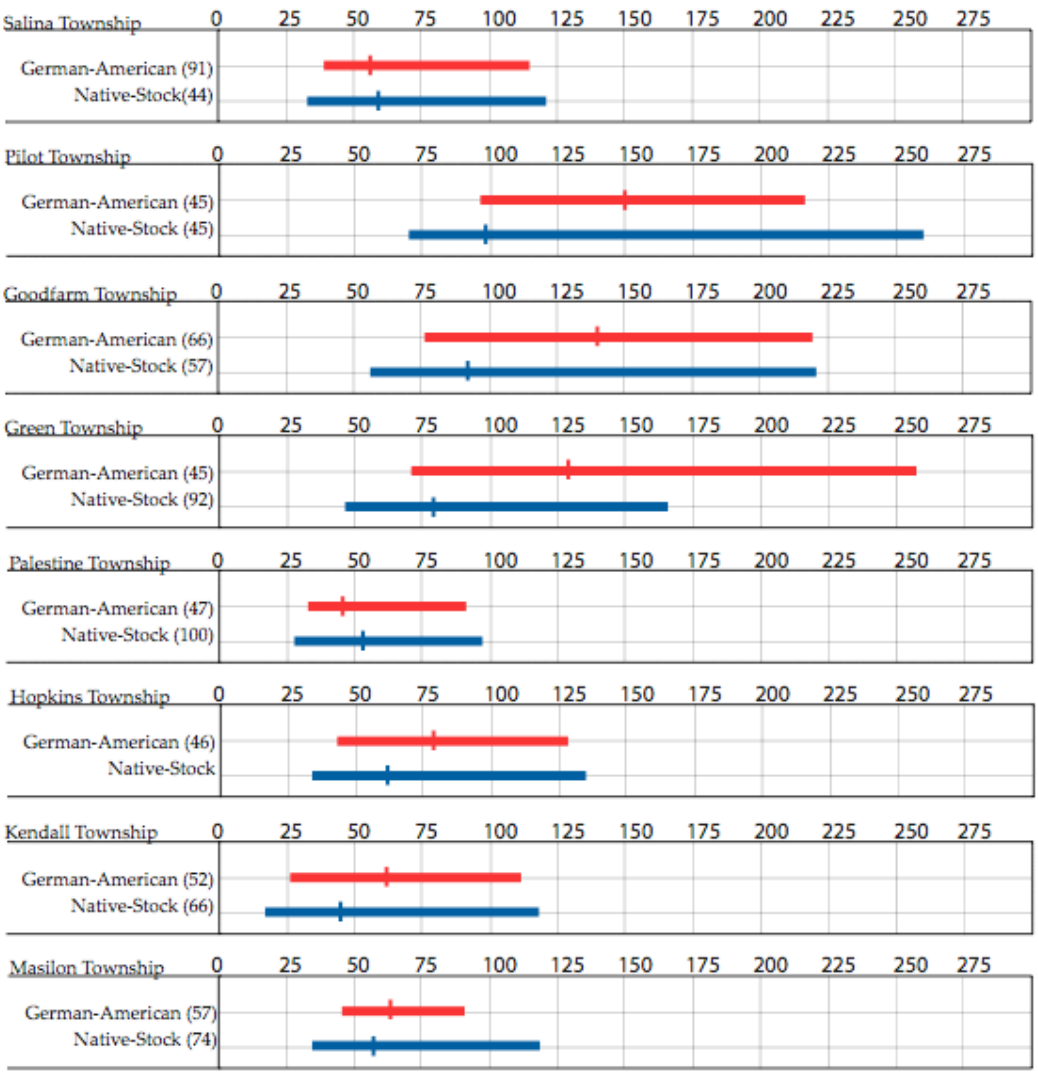
Percentage of Acres in Corn
Bushels of Corn per Corn and Hog
Swine
Dairy Cattle

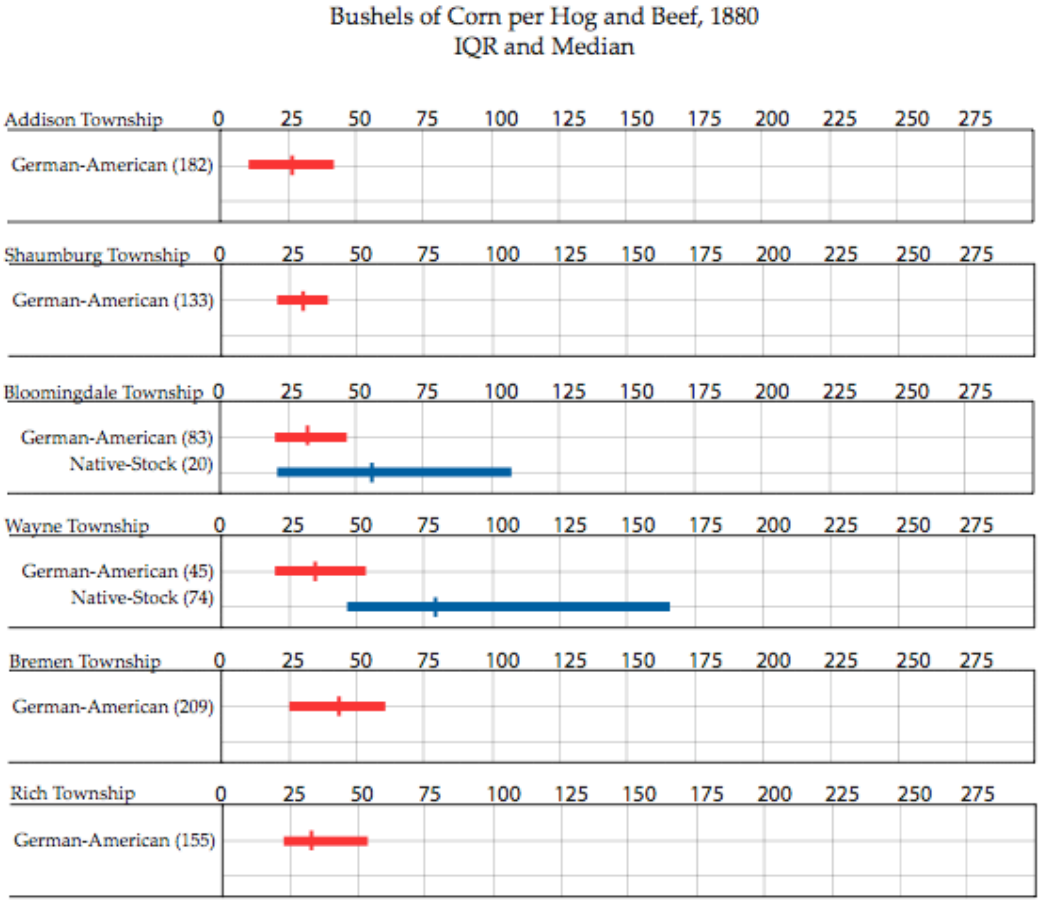


Percentage of Planted Acres in Corn, 1880
IQR and Median

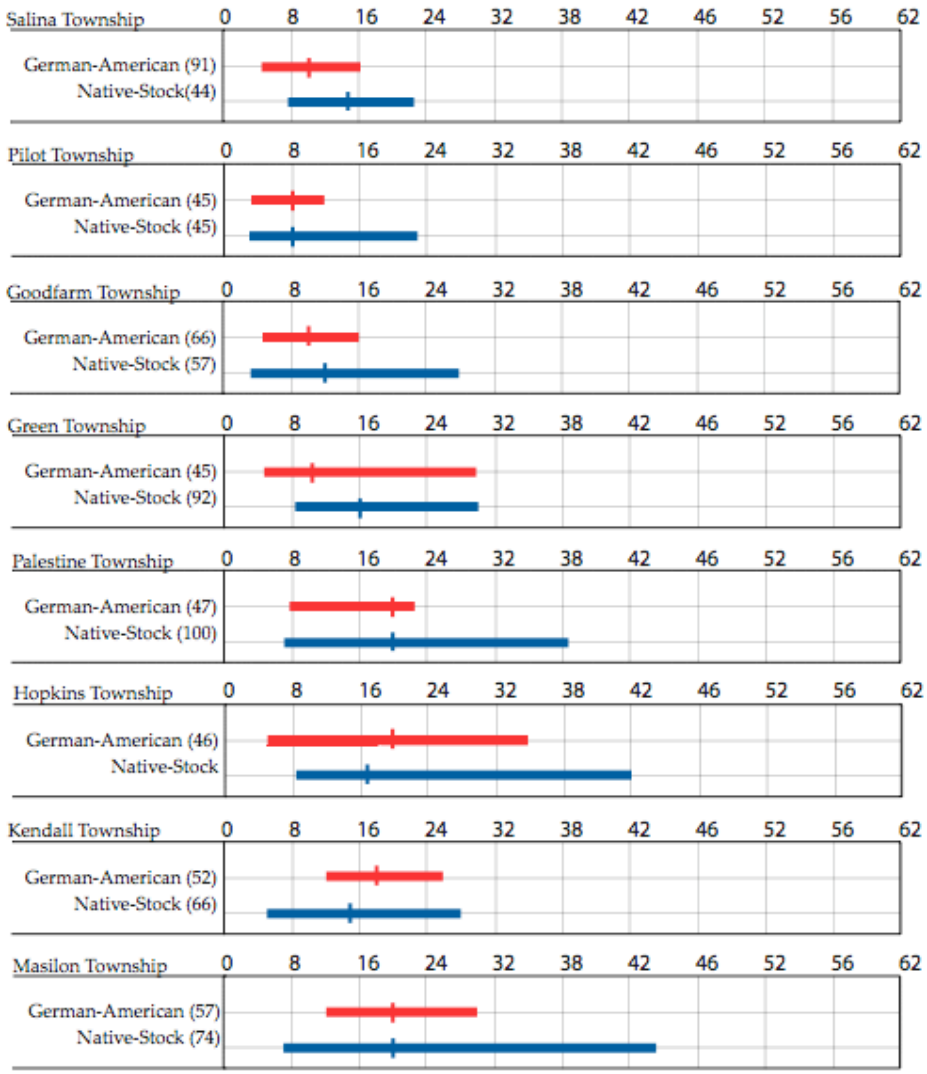


Bushels of Corn per Hog and Beef, 1880
IQR and Median

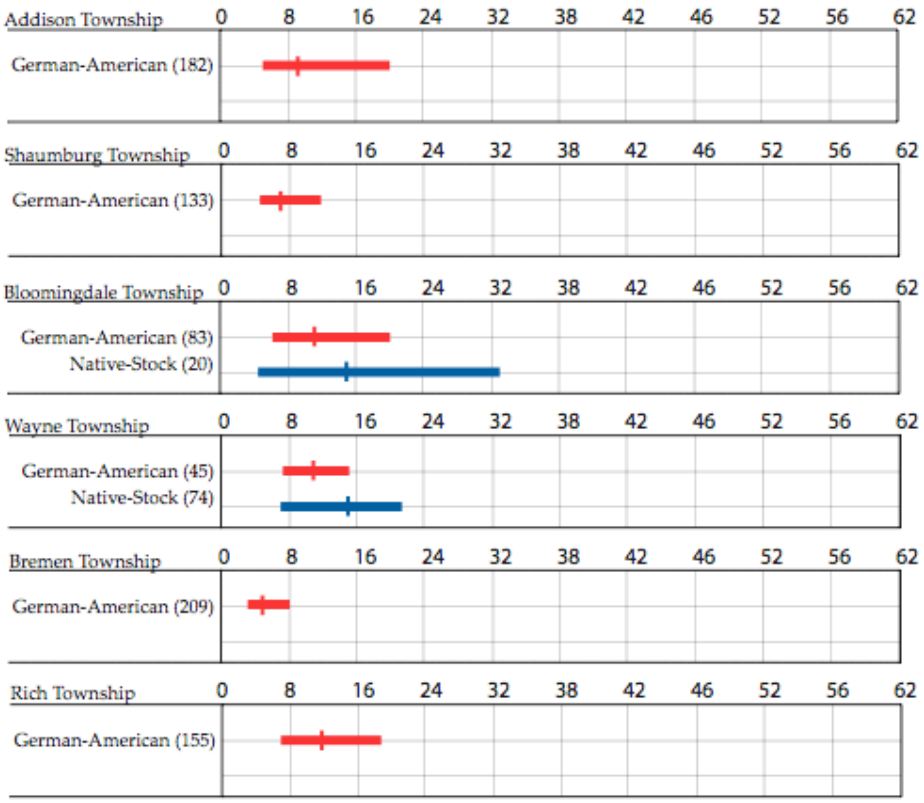




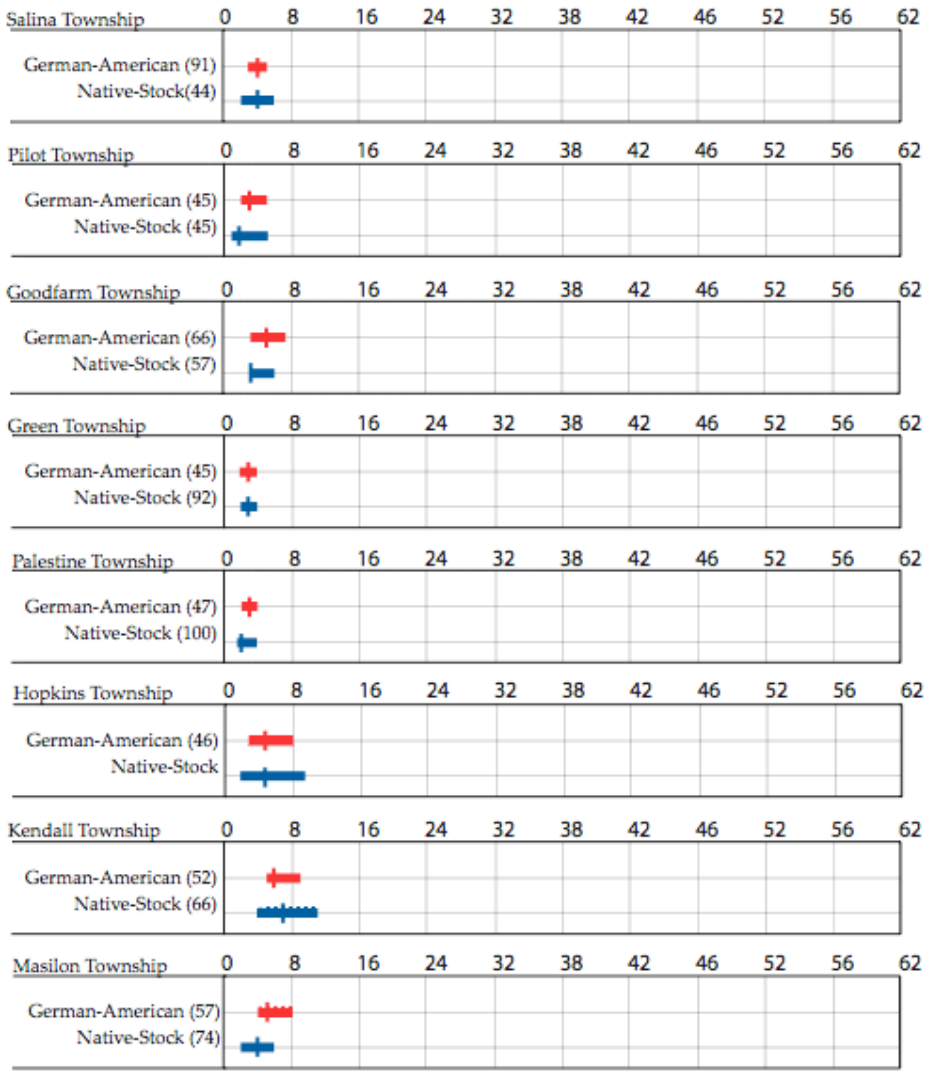
Swine, 1880
IQR and Median



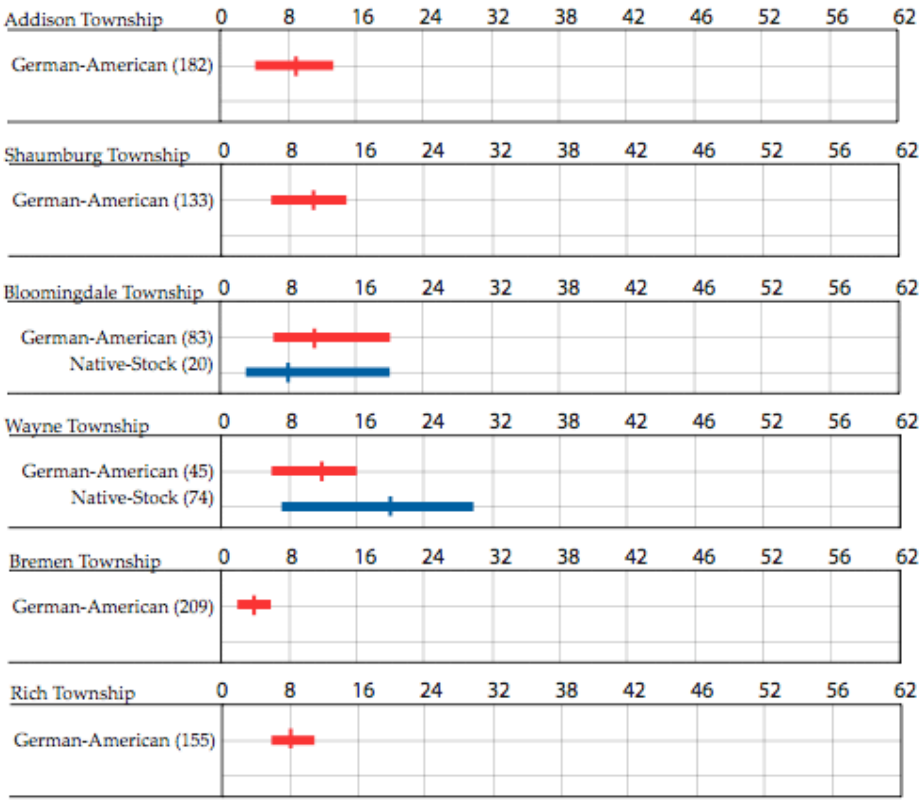
Swine, 1880
IQR and Median



Dairy Cows, 1880
IQR and Median



Dairy Cows, 1880
IQR and Median



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