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Caring for the Land and the Livestock: Anabaptist Agricultural Practices in Europe and Colonial Pennsylvania

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Abstract: Anabaptists have a strong history of agricultural innovation and care for the land. Their innovative spirit was forged out of persecution, migration, and the need to survive in challenging circumstances. This article examines the agricultural practices of seventeenth- and eighteenth-century Swiss and South German Anabaptist farmers and those of eighteenth-century Anabaptist immigrants to Pennsylvania. European Anabaptist tenant farmers distinguished themselves by their family-centered mixed agriculture and their investment in both the land (using manure, lime, gypsum, and crop rotation to improve the soil) and livestock (improving natural meadows and planting pastures for fodder, maintaining clean barns, practicing confinement feeding, and carefully caring for the animals). Pennsylvania Anabaptists cleared the land they bought and built sturdy barns, fences, and houses; planted orchards and vegetable gardens; planted or improved meadows for fodder; collected manure to use as a soil amendment; utilized family labor; and sold their surplus at market. The history of Anabaptist experimentation and adaptation provides inspiration for how we might face twenty-first-century challenges with tenacity, innovation, and care for land and animals. [Abstract by author.]

Keywords: Mennonites; manure; clover; crop rotation; forebay bank barn; Germany; Switzerland; Lancaster County, Pennsylvania; fertilizer; cattle

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INTRODUCTION

Anabaptists have a strong history of agricultural innovation and care for the land. Their innovative spirit of the past was forged out of persecution, migration, and the need to survive in challenging circumstances. This article analyzes the historic agricultural innovation of Anabaptists, examining the practices of eighteenth-century Swiss and South German Anabaptist farmers and Anabaptist immigrants to Pennsylvania.¹ Anabaptists were on the cutting edge of innovation in agricultural practices on both sides of the Atlantic, though scholars cannot always distinguish when these agricultural innovations emerged. In both places, as Anabaptist scholars have noted, their care for livestock and attention to improving the soil distinguished them from many of their contemporaries.² Today, as we confront twenty-first century challenges growing out of industrial agriculture and livestock production, the innovative spirit of eighteenth-century Anabaptist farmers can serve as an inspiration for movement towards greater sustainability in food and agriculture.

¹ In the eighteenth-century, all Mennonites could be considered “Plain,” even though they later branched into Plain and non-Plain groups. This essay usually uses the term Anabaptist, but “Mennonite” and “Amish” are also used, following the usage of the sources consulted. The Anabaptist movement described in this essay originated in Zurich, Switzerland in 1525. Due to their migrations and shifting political control of some areas, the terminology can be confusing. Alsace was part of Germany prior to the Thirty Years’ War (1618–1648). After the war, Alsace became part of France, but the people were of Swiss and South German heritage and maintained strong ties with German neighbors. It is therefore appropriate to treat the Anabaptists living in Alsace as part of the broader Swiss and South German Anabaptist population. This follows the practice of C. Henry Smith, who also notes that some parts of Alsace remained independent from French control even after the war. C. Henry Smith, *The Story of the Mennonites* (Berne, IN: Mennonite Book Concern, 1941), 327–29. Some sources refer to Anabaptists in France because at the time, the lands inhabited by the Anabaptists being described were politically controlled by France.

² For an overview of Mennonite rural history, see Harold S. Bender and Michael L. Yoder, “Rural Life,” in *Global Anabaptist Mennonite Encyclopedia Online*, last modified January 15, 2017, https://gameo.org/index.php?title=Rural_Life&oldid=143726. This article contains links to other GAMEO articles dealing with Mennonite agriculture in specific areas (e.g., Switzerland, South Germany, France, North America).

FARMING PRACTICES OF SWISS AND SOUTH GERMAN ANABAPTISTS

From the earliest days of the Anabaptist movement, persecution spurred migration to areas of greater religious toleration and eventually to “obscure outlying districts.”³ In many places, exclusion from village life and the need to make land with low fertility productive in order to feed their families led to agricultural innovations and self-sufficiency. Severe persecution of Swiss Anabaptists forced them to marginal lands, where survival “required unceasing application of labor and demanded that the best available talents be used to devise programs of farming that built up poor land and maintained fertility.”⁴ In the Swiss Jura, Anabaptists were forced to live outside of the villages and far from markets; thus, they became “nearly self-sufficient so far as provisions were concerned. Only occasionally did they go to sell their cheese and linen.”⁵ In these circumstances, Anabaptists developed their skill at improving soil fertility, gaining a reputation for being successful farmers.

Anabaptist Farmers in Alsace

This reputation opened new lands to them and sometimes offered them protection from persecution. Swiss Anabaptist farmers were actively recruited to settle agricultural lands in Alsace devastated by the Thirty Years’ War. Jean Séguy notes:

They improved the estates which they farmed, frequently introducing new crops on their domains, inventing new tools or making old ones more practical. [...] It seems that they quickly took to

³ Smith, *Story*, 56, 297.

⁴ Walter M. Kollmorgen, *Culture of a Contemporary Rural Community: The Old Order Amish of Lancaster County, Pennsylvania*, Rural Life Studies (US Department of Agriculture Bureau of Agricultural Economics, 1942), 40; David B. Schneider, *Foundations in a Fertile Soil: Farming and Farm Buildings in Lancaster County, Pennsylvania* (Lancaster, PA: Historic Preservation Trust of Lancaster County, 1994), 18.

⁵ Delbert L. Gratz, *Bernese Anabaptists and Their American Descendants*, Studies in Anabaptist and Mennonite History (Goshen, IN: Mennonite Historical Society, 1953), 83. Gratz further indicates that some of these Anabaptists in the Jura later immigrated to Lancaster County; others settled in Ohio and Indiana in the nineteenth-century (86, 140).

combining intensive and extensive farming. [...] They also interested themselves in the making and tending of artificial meadows. [...] Finally, the Anabaptists invested in cattle breeding, draught animals, dairy farming, cheese processing, etc.⁶ In the eyes of French authorities, they were “models of efficient agriculture.”⁷ Similarly, in 1712, representatives of the local lord of Sainte-Marie-aux-Mines (Alsace) protested the expulsion of Anabaptists on the grounds that the Anabaptists were extraordinarily talented in raising livestock, “cleared [...] a great quantity of land and places which had never been cultivated or inhabited previously,” and brought “sterile lands into cultivation [...] [converting them into] arable lands and the finest pastures of the province.”⁸ This pattern of agriculture recurred in reports of independent observers of Anabaptists throughout the eighteenth and nineteenth centuries: “clearing the land, creating meadows and pastures, [and] combining farming with cattle raising.”⁹

Despite the fact that they were tenant farmers on leased lands, Anabaptists in France distinguished themselves by their large-scale mixed agriculture and their investment in the land. For example, Jacques Klopfenstein, an Anabaptist who farmed around the turn of the nineteenth-century, had an 81 acre mixed farm including orchards, meadows, grains, clover, flax, root vegetables, hemp, and cattle.¹⁰ All generations of

a family participated in working the leased farm, and the leases were transmitted from parents to children; the land could thus continually be improved using the same methods.¹¹ The family was completely self-sufficient, producing their own food, clothing, household linens, and other items.¹² They distinguished themselves first by their use of manure and by the use of gypsum to improve the soil.¹³ From his review of archival land leases, which “discuss at length the proper maintenance of the land, [and] in particular the good use of manure,” Charles Mathiot concludes that “it seems that before the Anabaptists, one did not know to use fertilizer.”¹⁴

Séguy notes that Anabaptists maximized the productivity of the land they managed by strategically keeping it all under cultivation, rather than following the contemporary practice of fallowing sections each year. Neighbors complained that

¹¹ Ibid., 187. Séguy notes that only occasionally was outside labor used; it was typically Anabaptist, but there are instances of Lutheran workers, as well (188).

¹² Ibid., 188.

¹³ Ibid., 190. There is unfortunately a lack of documentary evidence for the dates when Anabaptists began to use such techniques, although Séguy notes that gypsum was used by the 1770s. Séguy and others draw on Alexandre Frédéric Jacques Masson de Pezay, *Les Soirées Helvétiques, Alsaciennes, et Fran-Comtoises* (Amsterdam and Paris: Chez Delalain, libraire, rue & à côté de la Comédie Française, 1771), <https://archive.org/details/lessoireshelve00massuoft>; Louis Ordinaire, “Mémoire sur les Anabaptistes,” in *Mémoires d’Agriculture et d’Économie Rurale et Domestique*, vol. 15 (Paris: La Société d’Agriculture du Département de la Seine, 1812), <http://gallica.bnf.fr/ark:/12148/bpt6k6108410p>. Ordinaire provides many details regarding the agricultural practices of the Anabaptists in the early nineteenth-century; however, it is impossible to determine from his work when such practices as planting of meadows and crop rotations began to be employed by the Anabaptists. Quotes cited to Ordinaire and Masson de Pezay in other sources retain the translation of the secondary source, although original page numbers in the original texts have been verified for accuracy and corrected as necessary. Christian Neff and Ernst H. Correll provide details on Pezay’s work and its connection to 18th century cultural ideas in their GAMEO article, “Alsace (France),” in *Global Anabaptist Mennonite Encyclopedia Online*, last modified January 15, 2017, [https://gameo.org/index.php?title=Alsace_\(France\)&oldid=144697](https://gameo.org/index.php?title=Alsace_(France)&oldid=144697).

¹⁴ Charles Mathiot and Roger Boigeol, *Recherches Historiques sur les Anabaptistes de l’Ancienne Principauté de Montbeliard, d’Alsace et du Territoire de Belfort*, Essais sur l’Histoire du Protestantisme Français (Flavion, Belgium: Editions “Le Phare,” Librairie des Eclaireurs Unionistes, 1969), 123. Translation mine.

⁶ Jean Séguy, “Ethnicity, the Economic Factor, and Religion: The French Mennonite Case,” in *Anabaptist/Mennonite Faith and Economics*, ed. Calvin Redekop, Victor A. Krahn, and Samuel J. Steiner (Lanham, MD: University Press of America, 1994), 75-76.

⁷ Steven D. Reschly, *The Amish on the Iowa Prairie, 1840-1910* (Baltimore: Johns Hopkins University Press, 2000), 37.

⁸ Quoted in Claude Jérôme, “Agriculture and Religion: The Success of Anabaptists in Alsace in the Eighteenth and Nineteenth Centuries,” trans. Kevin J. Ruth, *Pennsylvania Mennonite Heritage* 28, no. 1 (2005): 16. Jérôme cites as his source Archives Départementales de Haut-Rhin (ADHR), Colmar, France, Extrad. Munich, 133 (Memorandum Concerning the Anabaptists).

⁹ Jean Séguy, “Religion and Agricultural Success: The Vocational Life of the French Anabaptists from the Seventeenth to the Nineteenth Centuries,” trans. Michael Shank, *Mennonite Quarterly Review* 47, no. 3 (1973): 182, ATLA Religion Database with ATLASerials.

¹⁰ Ibid., 201. Séguy notes that the farms of this region “averaged around 20 hectares” (about 49 acres). Ibid., 201n122.

they used “communal lands as pastures for their herds,” and he concludes that prior to the French Revolution (1789–1799), Anabaptists had “adopted the technique of crop rotation.” In any event, by the early nineteenth-century, a three-year rotation had been instituted, including grains, clover, and root vegetables, with the regular application of fertilizer. Séguy notes that “this now classical rotation of crops was known and practiced in the nineteenth-century, and even somewhat prior to that, by non-Mennonites. But Mennonites seem to have adopted it unanimously, whereas the majority of non-Mennonites were still making use of the fallow system.”¹⁵

They also invested much effort in the improvement of natural meadows and even planted meadows that were used as pastures for their livestock. Masson de Pezay comments particularly on the “ingenious construction of their tools,” one of which was “particularly adapted to the drainage ditches which they take great care to dig in the pastures.” Their care of natural meadows was especially noted by Louis Ordinaire as “perfectly kept [...] often watered with discernment and intelligence. To do this, they take advantage of all the local resources, nearby streams or rivers.” Throughout the eighteenth-century, the rental value of farms managed by Mennonites increased in value, and the lands they cultivated were “among the more productive.” By the early nineteenth-century, creating meadows by sowing clover and esparsette clover that were fertilized with gypsum had become a regular practice among Mennonites.¹⁶

The Swiss Anabaptist farmers in France also carefully tended their livestock. Séguy notes that very little is known about the methods the Brethren used in livestock farming. Louis Ordinaire probably summarized the essential points when he stated: “A good choice of cattle, healthy stalls,

excellent pastures, selected feed, assiduous care, excessive cleanliness, all this contributes to providing them with superb and numerous herds.”¹⁷ Anabaptists were recognized for their skills in animal husbandry, and their creation of “remedies that protected a large number of herds from the contagion [cattle plague]” also demonstrated their care for the animals they raised.¹⁸ They also raised hogs and sheep and cared carefully for their horses; profits made from the sale of surplus farm products, including milk, cheese, and beef, were reinvested in livestock.¹⁹

In France, Anabaptist willingness to innovate and to learn from others led to their success as farmers. Since written correspondence and visiting were part of the Anabaptist culture, they learned from the experiences of others, noting new practices and sometimes adopting them. In addition, religious bias toward hard work and diligence and away from leisure contributed to the development of a “rationalized, commercial form of agriculture, adapted to the family-sized farm.”²⁰ This enabled them to increase their livestock and prosper more than their non-Anabaptist neighbors who were following traditional agricultural practices. Although some of the accounts of the success of Anabaptist farmers may be exaggerated by writers who were seeking to hold them up as an example, these complaints affirm the veracity of Anabaptist agricultural success.²¹

¹⁵ Séguy, “Religion and Agricultural Success,” 191-92; Ordinaire, “Mémoire,” 485-86.

¹⁶ Séguy, “Religion and Agricultural Success,” 192-94; Pezay, *Les Soirées*, 48; Ordinaire, “Mémoire,” 487-88. Common varieties of clover (genus *Trifolium*) are white clover and red clover. Esparsette clover (*Onobrychis viciifolia*), also known as *sainfoin*, is a perennial legume that is useful both as a nutritious livestock feed and as a green manure. See Sally Morgan, “Why Sainfoin is Known as ‘Holy Hay,’” *The Soil Association*, June 8, 2018, <https://www.soilassociation.org/farmers-growers/farming-news/2018/june/08/why-sainfoin-is-known-as-holy-hay/>.

¹⁷ *Ibid.*, 196; Ordinaire, “Mémoire,” 488-89. The excellent medical care provided by the Anabaptists to their cattle is further attested in a 1712 list drawn up by the Regency Council of Birkenfeld. Séguy, “Religion and Agricultural Success,” 210.

¹⁸ Mathiot and Boigeol, *Recherches Historiques*, 44. Translation mine. Mathiot here draws on an undated report found in the Archives of Haut-Rhin (E. 2.808 [minute]). According to Mathiot, the inventory has “arbitrarily” dated the document at 1762; he asserts that 1727 would be a better date for the document (43n36, 43n37).

¹⁹ Séguy, “Religion and Agricultural Success,” 196-200.

²⁰ Séguy, “Religion and Agricultural Success,” 223; Kollmorgen, *Culture*, 19-20.

²¹ Odile Birgy, “Une Occupation Originale de L’Espace Rural: La Communauté Anabaptiste de Normanvillars dans le Sundgau au XVIII^e Siècle,” *Histoire & Sociétés Rurales* 41, no. 1 (2014): 43, <https://doi.org/10.3917/hsr.041.0017>.

Anabaptist Farmers in the Palatinate

Anabaptist farmers in the Palatinate were also innovators who distinguished themselves from their neighbors through their agricultural practices. Mennonites expelled from Switzerland were received by territorial rulers in South Germany, who were seeking to rebuild their lands after the Thirty Years' War. Initially they were "assigned to smaller farms or estates (*Höfe*) for a term of usually six to nine years. . . [but] their industry, integrity, and their skill earned them such a good reputation that from 1680 they were permitted to lease larger estates without a time limit and with the right to pass such leases on to their heirs."²² They employed four significant agricultural techniques in the eighteenth and nineteenth centuries: the elimination of the three-field system and the introduction of crop rotation, the cultivation of clover, confinement feeding of cattle, and regular use of both natural and artificial fertilizers.²³

The usual practice in the Palatinate in the eighteenth-century was that of *Dreifelderwirtschaft*: "land surrounding the village was divided into three large fields and [each field] was farmed only two years out of three"; the third field was left unplanted (fallow) in an unsuccessful attempt to restore soil fertility, which gradually declined. Each farmer worked some land in each of the fields, which required cooperation in planting and harvesting and stifled innovation, as individual farmers could not adopt new practices that would conflict with the methods used in the remainder of the village field.²⁴ Because the Anabaptists were

excluded from villages and worked independently as tenants on the holdings of large landowners, they had more freedom to experiment.

The Palatine Anabaptists prized manure and utilized various strategies to increase its production and preserve it for use on their fields. Some of what qualified as innovation in the Palatinate was actually a continuation of time-tested practices brought from Switzerland. They employed "walled manure storage areas" and other structures that prevented liquid manure from being wasted as run-off; the design of these structures permitted the manure to decompose, after which it could be spread on the fields. This practice went hand in hand with their care of cattle; they earned a reputation as livestock breeders through the early practice of "year-round confinement feeding based on forage," which maximized manure production. In fact, "the effort to improve animal husbandry began not in order to increase meat or milk production but to obtain additional manure"; cattle in the three-field system were pastured on overgrazed meadows in the warm seasons and fed on straw in the winter, leaving them in very poor condition.²⁵

In addition, Palatine Anabaptists either introduced or were early adopters of clover, which improved the health of their livestock. In a time when "forage production and seeded meadows were rarities," they were using clover from 1737 and "were planting esparsette clover by the end of the 1760s at the latest." In addition, although the use of clover was not unique to the Mennonites, "they were the ones who frequently received public awards and notice as clover farmers." As in Alsace, their care and irrigation of natural meadows was also noted. At the beginning of the 1770s, the agrarian reformer Eugenmus speaks glowingly of the Mennonites' techniques and results:

²² Christian Galle, "Farming among Mennonites in South Germany," in *Global Anabaptist Mennonite Encyclopedia Online*, last modified August 23, 2013, https://gameo.org/index.php?title=Farming_Among_Mennonites_in_South_Germany&oldid=94605.

²³ "Artificial" here is not synonymous with "synthetic," but refers instead to non-animal substances.

²⁴ Ernst Correll, "The Mennonite Agricultural Model in the German Palatinate," ed. David J. Rempel Smucker, trans. Marion Lois Huffines, *Pennsylvania Mennonite Heritage* 14, no. 4 (1991): 3. This article is a translation of a section of Correll's dissertation, originally published in 1925 as *Das Schweizerische Täufermennonitentum: Ein Soziologischer Bericht* (Tübingen, Germany: J. C. B. Mohr, 1925). Quoted portions here regarding the three-field system are taken from the editor's explanatory note (3n2). Fallows much longer than one year are required for natural processes to restore fertility; using certain cover crops or grazing livestock on

the fallow field can speed this process. See Erika Styger and Erick C. M. Fernandes, "Contributions of Managed Fallows to Soil Fertility Recovery," chap. 29 in *Biological Approaches to Sustainable Soil Systems*, ed. Norman Uphoff, Andrew S. Ball, Erick C.M. Fernandes, Hans Herren, Olivier Husson, Mark Laing, Cheryl Palm, Jules Pretty, Pedro Sanchez, Nteranya Sanginga, Janice E. Thies (Boca Raton: CRC Press, 2006).

²⁵ *Ibid.*, 3, 4, 6. Compare the manure boxes that were a fixture with the Pennsylvania bank barns and their Swiss fore-runners.

Look how eagerly they have taken up clover farming, how they increase their livestock and thereby make far better use of their land than other farmers [...] . Some Mennonites (with 80 to 100 acres of the most beautiful clover have 100 head of cattle on 200 acres) might well laugh at you with your miserable cattle and your unnecessary fallow fields [...] observe their cows and oxen fattened on clover as compared to your [...] meadow hags. See how much milk, butter, and cheese they sell where your cattle scarcely produce a third as much. . . how bountiful the harvest which these talented farmers obtain in the worst regions by their strong clover farming and animal husbandry.²⁶

In addition to their intensive use of manure, the Mennonites experimented with other fertilizers, such as lime and gypsum; by 1747, tenant farmer Krehbiel fertilized with potash, and later reports show that salts and soap-making ashes were used as soil amendments.²⁷ Mennonite farmer David Möllinger (1709–1787) purchased land in Monsheim in 1744; the details of his farming operation are taken from the reports of J. N. Schwerz in his 1816 book *Der Ackerbau der Pfälzer*. Möllinger was accomplished both in his livestock feeding and in his distillery and brewery operations. He fed his cattle with distillery by-products, fodder beets and potatoes; after flooding destroyed his riverside meadows, he purchased barren high ground, which he planted with esparsette clover, creating meadows. Under Möllinger's innovative and thoughtful management, "land that had previously yielded only poor grain crops became very productive."²⁸

Conclusion: Farming in the Old World

Through their experiences of persecution and ostracism, Swiss and South German Anabaptists became innovative, self-sufficient farmers. Outside of the village system, they were able to experiment with new techniques. They adopted successful techniques, brought them along when they moved to new lands, and adapted them to their new situation. In addition, they regularly

communicated with others of their faith who lived in different places, exchanging information. As a result, they developed a style of agriculture that was family-centered, self-sufficient, and intensive; it also produced a variety of surplus products for market. Such an approach worked well for those who emigrated to North America.

EIGHTEENTH-CENTURY PENNSYLVANIA ANABAPTISTS AND THEIR FARMING PRACTICES

A handful of Anabaptist immigrants arrived in Pennsylvania in the late seventeenth century, settling north of Philadelphia and founding Germantown. Emigration from the Palatinate and Alsace began in earnest in 1709–1710 and continued for about fifty years.²⁹ A small group led by Christian Herr arrived in Philadelphia in 1710 and "set their sights on the western frontier," where land was cheaper and there would be plenty of room for family members in the Palatinate who would eventually join them; these "accomplished farmers" selected 10,000 acres bounded by the Pequea Creek and the Conestoga River, in what is now Lancaster County.³⁰ One member of their group, Martin Kendig, returned several years later to the Palatinate, assisting additional families in immigrating to this area of Pennsylvania in 1717. Some of these later groups also included Bernese Anabaptists. Most farmers in the settlement also practiced trades: carpentry, bricklaying, weaving, and medicine, for example.³¹

²⁹ C. Henry Smith, *Menno Simons: Apostle of the Nonresistant Life* (Berne, IN: Mennonite Book Concern, 1953), 68. Smith notes that this included 2,500–3,000 Mennonites and "several hundred" Amish.

³⁰ Steve Friesen, *A Modest Mennonite Home* (Intercourse, PA: Good Books, 1990), 32–33. However, it is important to note that the area that would later be called Lancaster County was not the only settlement point for Mennonites in Pennsylvania.

³¹ Ibid., 36–37; Gratz, *Bernese Anabaptists*, 168. Gratz notes that several Bernese Anabaptist families settled in the Pequea in 1717, including some Amish; however, many chose sparsely settled land in the frontiers of Ohio and Indiana (167, 173). Kollmorgen notes that "the Old Order Amish [...] did not settle [on the limestone plain] until 1757 and after." Walter M. Kollmorgen, "The Agricultural Stability of the Old Order Amish and Old Order Mennonites of Lancaster County, Pennsylvania," *The American Journal of Sociology* 49, no. 3 (1943): 233. During the settlement period, Amish

²⁶ Ibid., 4–6 (Eugenmus quotation, 6).

²⁷ Ibid., 6, 13. From Correll's original dissertation footnote no. 1, page 119 (so labeled in the article).

²⁸ J. N. Schwerz, quoted in *ibid.*, 9.

Agriculture in Pennsylvania was characterized from the beginning by diversity of products and family-sized farms located on individual holdings, rather than a village-style organization.³² This was a good fit for eighteenth-century Anabaptist immigrants. Pennsylvania farms provided for the needs of the family (subsistence type) and produced excess for market. The Conestoga Road linked the settlement to Philadelphia, and records of shipments to and from Philadelphia date from 1716; freight was hauled by professional teamsters, and farmers also sold flour, butter, and other farm produce to be shipped from the port of Philadelphia. Beginning in 1741, farmers were also able to sell their produce at Lancaster's open-air market, held twice a week.³³ Farmers in southeastern Pennsylvania also had a ready market for their produce in the stores located at ironworks and mills; by mid-century, "90 percent of Pennsylvania's population lived within 5 miles of a mill store" and "more than 85 percent [...] lived within 10 miles of an ironworks."³⁴ Because it took several days to make the trip, perishables were not sold in Philadelphia until late in the century.³⁵ The

continuing importance of the Philadelphia market to Lancaster farmers is supported by a petition to allow farmers to access the market via High Street, which was signed by 1,000 Lancaster farmers in the 1780s; this "indicates that the county farmers commonly transported their surpluses to Philadelphia in their own wagons and personally managed the exchange."³⁶

After settling in Pennsylvania, Anabaptist farmers continued their practice of meeting their families' needs through their farms; they also sold a variety of farm produce at markets throughout the region. Their farming practices used the skills they brought with them, grew out of the innovative spirit forged in the difficult years of persecution in Europe, and were informed by ongoing contact with the brethren in the Old Country. They were distinctive from many of their non-Anabaptist neighbors, investing time and effort in caring for their land and their animals.

Since eighteenth-century observers did not distinguish between Anabaptist settlers and other settlers of German descent, using period observations to assess Anabaptist farming practices can be challenging. Historical geographer James T. Lemon takes issue with the sweeping generalizations of period observers regarding German superiority in agriculture. Careful examination of writings of the period reveals that some early observers, such as Benjamin Rush, noting the flourishing farms on the fertile Lancaster Plain (inhabited in large part by Anabaptists) were quick to extrapolate this picture of agricultural success to *all* immigrants of German descent, despite the fact that Anabaptists made up only a small fraction of the German immigrants in southeastern Pennsylvania.³⁷ Lemon

and Mennonite farming practices would have differed little, since the groups had only recently split and came from the same geographic area in Europe. These groups would have been indistinguishable to casual observers; thus, this section utilizes material related specifically to Amish or Mennonites and generally to Anabaptists. It is likely that differences in agricultural practices did not become evident until the advent of mechanization in the nineteenth-century.

³² *Agricultural Resources of Pennsylvania, C. 1700–1960: Lancaster Plain, C. 1730–1960* (Pennsylvania Agricultural History Project), 4, accessed September 25, 2013, http://www.portal.state.pa.us/portal/server.pt/community/pennsylvania%27s_agricultural_history/2584; S. W. Fletcher, "The Subsistence Farming Period in Pennsylvania Agriculture, 1640–1840," *Pennsylvania History* 14, no. 3 (1947): 185.

³³ Friesen, *A Modest Mennonite Home*, 57. Friesen is drawing upon a quotation from Witham Marshe's journal in 1744, which is quoted in Dan Ducker, "History of Lancaster's Central Market," *Susquehanna Magazine* VIII, no. (1983): 19.

³⁴ Michael V. Kennedy, "'Cash for His Turnups': Agricultural Production for Local Markets in Colonial Pennsylvania, 1725–1783," *Agricultural History* 74, no. 3 (2000): 591, 593–94. Kennedy's conclusions are based on extensive research in the records of ironworks and, to a lesser extent, mill stores. Dairy products, eggs, vegetables, grain, and chickens were regularly sold to company stores (599, 602, 606).

³⁵ Friesen, *A Modest Mennonite Home*, 53–55.

³⁶ Carlton O. Wittlinger, "Early Manufacturing in Lancaster County, Pennsylvania, 1710–1840" (University of Pennsylvania, 1953), 29–30. Wittlinger includes the text of the petition in his dissertation. See also H. H. Shenk, *Lancaster County Historical Society Papers*, XXV, 71 and *Minutes of the General Assembly of the Commonwealth of Pennsylvania*, April 1, 1785, Ninth Assembly, Second Session.

³⁷ James T. Lemon, "The Agricultural Practices of National Groups in Eighteenth-Century Southeastern Pennsylvania," *Geographical Review* 56, no. 4 (1966): 494. Lemon records that in 1790, the estimated number of Mennonites was 20,000 (6% of the population), while Lutherans and Reformed (the vast majority of whom were Germans) totaled 85,000 (26% of the population). James T. Lemon, *The Best Poor Man's Country: A Geographical Study of Early Southeastern Pennsylvania* (Baltimore: Johns Hopkins, 1972), 18.

does not go so far as to make definitive assertions about the specifics of Mennonite agriculture, but he does note that Mennonites were wealthier: although Mennonites accounted for only one-fourth of Lancaster's population, nearly sixty percent of the sixty wealthy Germans (those paying more than £40 in taxes in 1782) were Mennonites.³⁸ He asserts that the greater wealth of the Mennonites on the Lancaster Plain (like the Quakers in south-central Chester County) can be attributed to "the discipline of hard work and mutual help" that was part of their religious beliefs, rather than to inherently better soils; their greater wealth "and other data suggest that on the whole they were better farmers than the others." As a consequence of their greater wealth, Lemon suggests that these farmers were able to risk some of their capital in innovation, and thus were "probably more inclined to try new techniques to improve yields."³⁹

Pennsylvania German farmers stood out from their contemporaries in the following ways: care for their livestock, including the construction of barns; use of meadows; vegetable gardens and family labor; care for land; and improvements such as orchards, fences, and houses. Benjamin Rush's 1789 *Account of the Manners of the German Inhabitants of Pennsylvania*, based on his own observations, has often been referenced by later writers as a source for the practices of these settlers. Although scholars such as Lemon dispute Rush's broad characterization of *all* Germans based upon his limited observations and his negative views on other ethnic groups, the accuracy of his observations does not seem to be in question.

Pennsylvania German farmers provided excellent care for their livestock: they "always provide large and suitable accommodations for their horses and cattle[...]. The barn and stables are [...] contrived in such manner as to enable them to feed their horses and cattle, and to remove their dung, with as little trouble as possible." Horses and cows were better fed, so that the horses did more work and the cows produced twice as much milk. By keeping their horses and cattle warm in the winter,

these farmers also reduced the animals' hay and grain consumption.⁴⁰

By contrast, livestock in the early colonial days was generally "under-nourished and poorly sheltered. Usually it foraged in the woods and fields for a scanty living[...]. The stock of German farmers, however, was a marked exception in this respect," as horticulture professor Stevenson Whitcomb Fletcher observes. In addition, German farmers did not consider manure "a nuisance," as most other farmers did.⁴¹ While most farmers of the period planted grain almost continually without employing any techniques to maintain or restore soil fertility—when one field ceased to be productive, they would abandon it and clear another section of forest—the "frugal and industrious" Pennsylvania Germans farmed intensively and "saved and applied manure"; thus, "many of the first farms to be cleared in Lancaster and adjoining counties on limestone soil have produced good crops every year since they were carved out of the forest."⁴²

Unlike other American settlers, the early Pennsylvania German settlers, including the

³⁸ Benjamin Rush, "An Account of the Manners of the German Inhabitants of Pennsylvania," in *Pennsylvania: The German Influence on Its Settlement and Development*, ed. Theodore E. Schmauk and I. D. Rupp (Lancaster, PA: Pennsylvania-German Society, 1910), 54-55, 59-60, 62.

⁴¹ Fletcher, "Subsistence Farming," 186-87. In another work, Fletcher quotes Thomas Jefferson as saying, "We can buy an acre of new land cheaper than we can manure an old one." Stevenson Whitcomb Fletcher, *Pennsylvania Agriculture and Country Life, 1640-1840* (Harrisburg: Pennsylvania Historical and Museum Commission, 1950), 125. The cost of manuring would have included the cost of labor, provided on Jefferson's Virginia farm by slaves, and on other farms by hired workers. However, the case was different for Mennonite farmers, who used family labor, and rarely hired outside workers. See below, footnotes 55 and 56.

⁴² Fletcher, *Pennsylvania Agriculture, 1640-1840*, 124-26. Given Lemon's conclusions regarding the observations of contemporaries in the Lancaster area, it would seem reasonable that at least some of these "Pennsylvania Germans" to whom Fletcher here refers were Mennonites. Further, Friesen notes that "dung hooks and forks are frequently found in early eighteenth-century Mennonite inventories. The will of Martin Barr, 1757, even directs that a son should 'dung' the widow's garden." Friesen, *A Modest Mennonite Home*, 120n13. For an earlier example of dung forks in a will (1735), see Oscar Kuhns, *The German and Swiss Settlements of Colonial Pennsylvania: A Study of the So-Called Pennsylvania Dutch*, new ed. (New York: Abingdon, 1914 [1900]), 87n10, <http://hdl.handle.net/2027/yale.39002014865829>.

³⁸ Lemon, "Agricultural Practices," 492-93.

³⁹ Lemon, *Best Poor Man's Country*, 224, 21-22; Lemon, "Agricultural Practices," 486. In this article, Lemon also analyzes the types of soil present in areas where various national groups lived in the eighteenth-century, and concludes that "Germans settled on all qualities of land" (473).

Amish, considered “warm winter quarters” for livestock to be a priority; often the barn was completed before the permanent dwelling.⁴³ However, the most compelling evidence regarding the Anabaptists and their barns is provided by geographer Robert F. Ensminger, who has studied Pennsylvania forebay bank barns extensively. This style of barn, which provided basement stalls for cows, a central aisle by which manure could be removed, and an outside container for that manure, originated in the high Alps of Switzerland with the Walsers centuries before Anabaptist immigration to Pennsylvania.⁴⁴ The earliest Pennsylvania barns were of log construction, but by mid-century, stone barns (such as the Isaac Long barn in Lancaster County) had begun to appear. The locations of Pennsylvania barns both within and beyond Pennsylvania correlate with settlements of Amish, Mennonites, and German Baptist Brethren.⁴⁵ From Ensminger’s careful analysis of evidence, it seems almost certain that the Anabaptist immigrants imported the forebay

bank barn design to Pennsylvania and adapted it to their new environment. The lower level of the barn provided shelter for livestock, and the upper level provided storage and processing space for grain, hay, and straw.⁴⁶ In contrast to earlier settlers of the backwoods frontier, who allowed their livestock, usually swine and dairy cattle, to forage in the woods around the farmstead⁴⁷ (and to most of their contemporaries), the Anabaptists built barns to house the livestock, planted or gathered fodder for the animals (at least to sustain them in the winter months), and collected their manure to use as a soil enhancement.

German farmers also selected land that contained meadows and made an effort to cultivate the grass.⁴⁸ Although the backwoods pioneers and the Swedish settlers utilized existing meadows to cut wild hay for their cattle,⁴⁹ the Anabaptists cultivated and improved meadows through irrigation. Governor Thomas Pownall, traveling through Pennsylvania in the second half of the eighteenth-century, described the irrigation he observed on “the estate of a Switzer”: “I saw the method of watering a whole range of pastures and meadows on a hillside, by little troughs cut in the side of the hill, along which the water from springs was conducted, so as that when the outlets of these troughs were stopped at the end the water ran over the sides and watered all the ground between that and the other trough next below it.”⁵⁰ Peter Kalm also described the watering of meadows in Pennsylvania in his travel journal from November 13, 1750, concluding that “one that has not seen it himself, cannot believe how great a quantity of

⁴³ Kollmorgen, *Culture*, 7.

⁴⁴ Robert F. Ensminger, *The Pennsylvania Barn: Its Origin, Evolution, and Distribution in North America*, *Creating the North American Landscape* (Baltimore: Johns Hopkins University Press, 1992), 26-27, 43-45. He cites an example of a surviving barn in Conters, Prätigau, Switzerland, that is dated to 1564, and notes that the Walsers “were the descendants of a nomadic Alemannic people who made their home in the Bernese Oberland, after migrating from the north before A.D. 1000. By the end of the twelfth century, they had moved into the high valleys of the Upper Rhone River in Canton Wallis”; hence, they were called *Walsers*. They subsequently spread into some of the river valleys and high Alpine valleys throughout the region. The Walsers “were cattle breeders and farmers who were able to successfully settle at extremely high altitudes and so could occupy these marginal lands.” The forebay barn has been associated with Walser settlements (Ensminger 41, 43). Note that Ensminger’s careful analysis of barn construction, including both log barns and stone barns, refutes Lemon’s assertion that “Mennonites in Lancaster County apparently built the great ‘Swiss’ barns only after they had prospered during the Revolution.” Lemon, *Best Poor Man’s Country*, 177.

⁴⁵ Ensminger, *Pennsylvania Barn*, 151, 161, 164. Ensminger is drawing on maps from *The Brethren Encyclopedia* that show the county membership of German Baptist Brethren in the United States. Quite likely it is the map showing such membership in 1881–1882 that is the basis for his analysis; “this map includes the Old Order, Conservative, and Progressive movements before the schism.” *The Brethren Encyclopedia*, vol. 3 (Philadelphia: Brethren Encyclopedia, 1984), 1444-45.

⁴⁶ Ensminger, *Pennsylvania Barn*, 52-53.

⁴⁷ Terry G. Jordan and Matti Kaups, *The American Backwoods Frontier: An Ethnic and Ecological Interpretation*, *Creating the North American Landscape* (Baltimore: Johns Hopkins University Press, 1989), 120-21. However, some Mennonites provided stables for the large animals, while others allowed large animals such as horses to roam free on their property. This did not imply neglect of the animals; the horses “and the other animals did not only forage for themselves, but were fed field crops, such as corn, oats, and meadow grasses.” Friesen, *A Modest Mennonite Home*, 62-63.

⁴⁸ Rush, “Account,” 56-57.

⁴⁹ Jordan and Kaups, *American Backwoods Frontier*, 122.

⁵⁰ Quoted in Kuhns, *German and Swiss Settlements*, 90. Kuhns cites as his source *Pennsylvania Magazine* 18 [May 1776], 215.

grass there is in such meadows, especially near the little channels; while others, which have not been thus managed, look wretched.”⁵¹ Newspaper advertisements in the late eighteenth-century also refer to well-watered meadows that could be “made.”⁵² The Weaver farmstead in Lancaster County, settled by Mennonites from the Palatinate in 1717, utilized such meadow irrigation until the mid-twentieth-century.⁵³ Friesen notes that because meadows provided both pasture in the warm months and the hay that was an essential livestock feed in winter, the Mennonites carefully managed their meadows; there is evidence in wills of fathers instructing their sons to water the meadows. This irrigation “increased the yield of the native grasses.”⁵⁴

In addition, Anabaptist farms were largely self-sufficient through the use of family labor. German farmers had large vegetable gardens gen-

erally tended by the women of the family, who also helped in the fields and orchards as necessary, rather than employing hired labor.⁵⁵ Although other colonial settlers utilized hired labor, for the Anabaptists, “The farm has always been considered a family affair, not merely a job for the head of the house. [Although men did most of the field work,] the women helped in the fields during the busy seasons of the year. They usually were responsible for the milking, and care of chickens. Another task for the women folk was planting and caring for a garden.”⁵⁶ Vegetable gardens were fenced to keep out animals and may have included “turnips and cabbages [...] [and] beets, onions, parsnips, celery, peas, asparagus, cucumbers, cauliflower, crookneck pumpkins, endive, and beans,” as well as a variety of herbs. Thus, the farmstead provided nearly all of the items needed by the family: meat, milk, eggs, vegetables, fruit, flax, grain, and wood for heating and cooking.⁵⁷

Anabaptists were also distinguished by their care for the land and land improvements such as houses and the planting of orchards. A typical backwoods pioneer clear-cut a section of land, removing the usable logs and burning the rest, leaving the stumps in the ground. The ash added fertility to the virgin soil, which remained productive for three to five years; the individual would then clear new land, leaving the old fallow.⁵⁸ The practice of farming a cleared section of land until it was used up was also practiced by settlers in New Sweden, along the Delaware River (southeastern Pennsylvania, southwestern New Jersey, and northern Delaware), as related by Kalm: “After the inhabitants have converted a tract of land into a tillable field [...] the colonists use

⁵¹ Peter Kalm, *Peter Kalm's Travels in North America: The America of 1750; the English Version of 1770*, ed. Adolph B. Benson, vol. 1 (New York: Dover Publications, 1966), 162. Kalm does not specify that the meadows he describes belong to any particular ethnic or religious group. However, the fact that the second part of this entry describes a machine for making sauerkraut that he saw “at the house of a German” would lend support to the possibility that the meadows were also located on farms owned by people of German descent (163). Elsewhere in his journal, Kalm has very harsh words for the “careless” manner in which agriculture is practiced by the settlers: “The grain fields, the meadows, the forests, the cattle, etc. are treated with equal carelessness[...] . Their eyes are fixed upon the present gain, and they are blind to the future.” He notes that “skilful farmers [...] were very scarce” (307-9). His glowing description of the meadows, by contrast, seems quite significant.

⁵² *Agricultural Resources*, 20. The author cites as an example an ad in the *Pennsylvania Gazette* for September 15, 1784, but states that there are “many others” (169n22).

⁵³ Robert C. Bucher, “Meadow Irrigation in Pennsylvania,” *Pennsylvania Folklife* 11, no. 2 (1960): 29-30. Genealogical information traces the Weber/Weaver family to Switzerland. See, for example, Lawrence Berger-Knorr, *The Relations of Milton Snavelly Hershey* (New Kingstown, PA: Sunbury Press, 2005), 288-89. Alan G. Keyser also describes the process of meadow irrigation for the production of hay in detail and how it was widespread during the settlement period and continued even after the introduction of timothy and red clover, with farmers keeping separate haymows for the meadow hay (fed to cows) and field hay (fed to horses). The article also notes that most wills in the 1700s talked about water rights, which related to irrigating meadows. Alan G. Keyser, “Hoi Ziehe uff die Wiss/Raising Hay in the Meadow,” *Pennsylvania Mennonite Heritage* 34, no. 3 (2011).

⁵⁴ Friesen, *A Modest Mennonite Home*, 58, 61.

⁵⁵ Rush, “Account,” 65-66.

⁵⁶ Gratz, *Bernese Anabaptists*, 175. Gratz’s observations about Bernese Anabaptists and their descendants are relevant because, as he notes, “The Mennonite families in the Palatinate are of Bernese and Zurich origin,” and these were among the immigrants to Pennsylvania (167).

⁵⁷ Friesen, *A Modest Mennonite Home*, 68, 66, 69. Friesen notes that potatoes were not widely grown or used by Mennonites until around 1800.

⁵⁸ Jordan and Kaups, *American Backwoods Frontier*, 94-101. The authors state that the Finns and Swedes were the only immigrants in the seventeenth century who came from forested land and possessed such forest-clearing skills; “in 1646 alone, 397 axes were sent over to the colony from Sweden” (96).

it as such as long as it will bear any crops.” He further notes that the fields “are seldom or never manured” there.⁵⁹ By contrast, Mennonite settlers removed the stumps from the land they cleared; this was a prudent move for them, since, unlike the backwoods pioneers (who generally used only hand tools such as the hoe), they used plows, which would be damaged by the stumps.⁶⁰

Anabaptist farmers also built strong fences that protected fields from roaming livestock.⁶¹ Mennonite fences required “deeply buried posts” and were more permanent and “harder to construct than the zigzag ‘worm’ fences used by the Scots-Irish settlers” and backwoods pioneers.⁶² These worm fences were easily knocked down by larger animals, but the shifting cultivation of non-Mennonite settlers made it impractical to invest much time and energy into a more permanent fence. That the Mennonites found this investment worthwhile indicates their intention to *settle* on the land for the long term.

The practice of patrimonial property succession encouraged improvements on the farm, such as planting orchards, building houses, and preserving the woodland, which would be used by future generations.⁶³ Théophile Cazenove, the first General Agent of the Holland Land Company, comments that “German farmers give farms to their sons as soon as they are of age, for their marriage, and even if they have 10 sons, they all become farmers,—while Irish farmers, if they make a fortune, bring up their children for the cities.”⁶⁴ The intent

for the family to remain on the land made the planting of fruit trees worthwhile. Friesen notes that “orchards were planted immediately upon the arrival of the first settlers in 1711[...] . A typical orchard included anywhere from 50 to 150 trees, primarily apples. The apple was an essential part of the Mennonites’ diet.” Peach and cherry trees were also part of Mennonite orchards.⁶⁵

As such, the farms of the Pennsylvania Germans stood out from their neighbors “by the superior size of their barns; the plain, but compact form of their houses; the height of their inclosures [sic]; the extent of their orchards; the fertility of their fields; the luxuriance of their meadows, and a general appearance of plenty and neatness in everything that belongs to them.”⁶⁶ From the evidence provided above, it seems clear that this description readily applies to the Anabaptist settlers of Lancaster County. In addition, by the end of the eighteenth-century, at least some Lancaster County farmers were using clover. Red clover seed and its sowing are mentioned in southeastern Pennsylvania documentary evidence from the 1720s, and “in 1754 a Chester County farmer requested some from Lancaster County, since it was not grown nearby.” However, despite the availability of clover, “not until after 1750 did farmers employ new rotation schemes involving clover or grasses, and apparently they were not common even among better farmers until the 1780s.”⁶⁷ Although these observations do not apply specifically to Anabaptist farmers, it may be possible that innovations such as crop rotations and the use of forage legumes such as clover were practiced by the Anabaptists.

In sum, Anabaptist agriculture in eighteenth-century Pennsylvania was distinguished by care for livestock; the planting of orchards and building

⁵⁹ Kalm, *Peter Kalm’s Travels*, 307.

⁶⁰ Rush, “Account,” 58-59; Ira D. Landis, “Mennonite Agriculture in Colonial Lancaster County, Pennsylvania: The First Intensive Agriculture in America,” *Mennonite Quarterly Review* 19, no. 4 (1945): 257, ATLA Religion Database with ATLASerials. Landis notes that early plows were of wooden construction. Jordan and Kaups, *American Backwoods Frontier*, 100, 119.

⁶¹ Rush, “Account,” 60.

⁶² Friesen, *A Modest Mennonite Home*, 63. The “worm” or “snake” fence was used by the backwoods pioneers and required no posts; this fence was easier to erect than other fence types, but not very durable; this was not a concern to the backwoods pioneers, since they moved frequently. Jordan and Kaups, *American Backwoods Frontier*, 105-7.

⁶³ Rush, “Account,” 70-71.

⁶⁴ Théophile Cazenove, *Cazenove Journal, 1794: A Record of the Journey of Théophile Cazenove through New Jersey and Pennsylvania*, ed. Rayner Wickersham Kelsey, *Haverford College Studies*, vol. 13 (Haverford, PA: Pennsylvania

History Press, 1922), 44. As noted in the Introduction to the *Journal*, Cazenove traveled extensively throughout Pennsylvania and recorded his observations in an anonymous handwritten journal. Later research identified the journal as that of Cazenove, and it was subsequently translated from the original French into English.

⁶⁵ Friesen, *A Modest Mennonite Home*, 64-65.

⁶⁶ Rush, “Account,” 72-73.

⁶⁷ Lemon, *Best Poor Man’s Country*, 159, 170. In addition, “red clover was noted in several areas in 1790, and some comments indicate that it was being raised for seed in Lancaster County by 1750.” Lemon, “Agricultural Practices,” 477-78.

of sturdy fences; the effort expended in clearing fields, constructing irrigation ditches, and improving the soil through the use of manure, and the building of permanent barns and houses. Although these practices contrast strongly with typical mid-Atlantic colonial farming, they are quite similar to the innovations adopted by self-sufficient Swiss and South German Anabaptists. Further, the design of the forebay bank barn seems almost certainly to have been carried by Anabaptist immigrants to Pennsylvania and beyond.

CONCLUSION

Anabaptists on both sides of the Atlantic were innovating in ways that demonstrated care for the land and their animals. It is quite possible that they brought some of these techniques with them and adapted them in their new home, just as they had done when moving from place to place in Europe. And it is entirely possible that later immigrants brought knowledge of new practices as they evolved in the homeland. It is also possible that immigrants corresponded with friends and relatives in the Old Country who told them of these new practices as they gained acceptance. Archival research including study of personal journals and records of early-eighteenth-century Anabaptists, if such are available, could bring greater understanding of how these agricultural innovations passed from the Old Country to the New. Regardless of the path that knowledge of these techniques traveled, the history of Anabaptist experimentation and adaptation provides inspiration for how we might face present challenges with tenacity, innovation, and care for the land and animals.

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