The Ohio Company of Associates, Medical Practice, and Westward Expansion, 1786-1794

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After the Treaty of Paris in 1783, the newborn United States government held the long-coveted prize that became known as the Northwest Territory. Encompassing most of what is now known as the Midwest, this land northwest of the Ohio River presented the opportunity to sell cheap land to veterans and settlers, remedying the federal government's massive war debt. As with earlier English colonization efforts in the New World, private land companies and speculators played a prominent role in the post-Revolutionary War expansionist efforts into the Northwest Territory. Though land speculation and illegal squatting had been fixtures of the North American frontier for generations, entities like the Ohio Company of Associates now partnered with the federal government to establish officially sanctioned towns that would intentionally spread Eastern-style formal communities into Pennsylvania, Ohio, Kentucky, and northwestern Virginia. The Ohio Company's efforts to establish a community at Marietta, near the Muskingum River in the Ohio River Valley, provide a useful case-study of how the westward expansion of medical knowledge and practice facilitated the migration of massive numbers of new Americans into the new century. Attitudes surrounding health, environment, and disease played a role in the "civilizing mission" of the migratory New Englanders to the newly opened Ohio River Valley and served an important function in securing the long-term stability of western communities.

The Ohio Company of Associates was formed in 1786 in Massachusetts as a joint-stock company. Its leaders and chief shareholders were primarily discharged Continental officers who were looking for financial gains and opportunities to secure their social positions after the war.¹ As a corollary to the famous Northwest Ordinance, Congress was authorized to sell its holdings in the territory, with the dual benefit of securing a revenue stream for the impoverished national government and exerting nationalistic presence and influence through a system of organized settlement.² Some soldiers received land

as part of their discharge pay, and the Ohio Company encouraged soldiers specifically, along with "all other good citizens, who wish to become adventurers in that delightful region" to establish a community in the Ohio Country.³ Using rapidly-devaluing Continental bonds, which accounted for much of the officers' pensions, the Company purchased 1.5 million acres in the Ohio River Valley from the United States Congress in 1787. Soon after, the similarly-structured Scioto Company purchased an option on an additional 3.5 million acres adjacent to the Ohio Company's territory.⁴ Though unofficial, illegal settlement had been occurring throughout the 18th century and there were already around 3,600 white settlers living in the area by 1785, such settlement was haphazard and a constant thorn in the side of both the British and United States governments and armies, which saw white incursions as a threat to their Native American containment policies.⁵ An official, officer-led, mass migration offered the benefits of security and respectability that individual efforts in the Northwest Territory could not, and the Ohio Company purchase represented the first successful, large-scale migratory movement endorsed by the new federal government.⁶ The concept of imposed order characterized the Ohio Company's efforts from the very beginning. A contemporary Boston newspaper published a report of the directors and agents of the company, with the thinly veiled purpose of encouraging subscribersthat is, buy-in-from other New Englanders looking for a fresh start. The article presents a detailed plan for the division of the settlement; land was to be allotted in orderly blocks for religious purposes, educational institutions, public use, temporary housing for new migrants, and a blockaded neighborhood for security. Township boundaries and uniform housing lots were minutely described. This would be no free-for-all land rush; the Ohio Company had a vision for a New England-style settlement that would conform to their ideas of order, down to which variety of decorative tree ought to be planted on each corner.⁷ It was conceived of as land for farmers actively recruited from the East.

The prospect of settlers in the N. Western Country is dayly [sic] increasing—many valuable farmers from N. Hampshire and this country [Pennsylvania] will go into N. Country as early as will be for their interest, if they hear nothing to discourage them.⁸

In February 1788, Manasseh Cutler, one of the three original leading associates, wrote this near Pittsburgh as he travelled for his first look at the "Ohio Country." He indicates the eagerness of families to move west, and asks Putnam if they can arrive as early as spring, or if they should wait until summer for more favorable weather. Rufus Putnam, a Revolutionary War veteran and the initial director of the Ohio Company, believed that New England farmers were:

better calculated to begin a settlement in that neighborhood of the Indians...because of the Indians having received no injury by our people, can have no cause of revenge upon us for any past affront...they will not be likely to interfere with the Indians' interests [namely hunting].⁹

Here, Putnam is differentiating the newer migrants from the previous unsanctioned settlers, suggesting, naively, that the local tribes would perceive no continuity between previous incursions into the Ohio Country and the new demands for Native American land. Putnam's faith in the New England example held firm upon his arrival to the Northwest Territory. He remained convinced that the new community in the West should seek its inspiration in the East, as the model of "republican government," and that the two regions of the new United States would benefit from a close relationship: "is it not for the interest of New England that the western country should in their manners, morrals [sic], religion, and policy, take the eastern states for their model?"¹⁰

The officers, many of whom were members of the Society of the Cincinnati, sought further sanction in classical tradition, bestowing landmarks with Roman-sounding names like "Campus Martius," "Adelphi" (the original name for Marietta), and "Via Sacra." These were self-conscious attempts to differentiate themselves both from the "uncivilized" native tribes who were still populous in the Ohio Country and the supposedly inferior whites already living there and perceived to be half-savage themselves.¹¹ The settlement project on the Muskingum River, then, was conceived as a particularly New England project, expanding the idea of a centrally-organized farming community into the West. Identifying healthful sites for the project, bringing Eastern medicine and health practice along, and adjusting to local disease risk

factors in Ohio formed one important component of the migrants' practice.

Environmental Health

The unglaciated soils of southern Ohio are filled with sand and gravel sediment, called outwash, that was pushed south by glaciers to fill the valleys formed during the Pleistocene Ice Age.¹² Like most of Ohio, a favorable mix of sand, gravel, and clay proved a hospitable home for a wide variety of crops, especially the all-important staples, corn and wheat.¹³ Contemporary accounts of the Ohio River Valley strongly emphasized the desirable farmland and navigable rivers, which were the only method of moving goods and people relatively quickly, and suggested the riverside settlement patterns of early colonial America. As early as 1784, George Washington advertised for tenants on his Ohio lands, hoping to lure them into the territory with promises of near-effortless cultivation:

it is almost superfluous to add, that the whole of it [the land] is river low grounds, of the first quality—but it is essential to remark that a great deal of it may be converted into the finest mowing grounds imaginable, with little or no labour, nature, and the water-stops which have been made by the beaver, having done more to effect this, than years of hard labour in most other rich soils.¹⁴

Washington's advertisement goes on to paint a near-utopian picture of the Ohio Country. The creation of a public image for the new territory as a healthful environment was crucial for attracting migrants from the eastern seaboard to carry out the plan to raise money through the sale of federal lands. Given eighteenth-century opinions of the effects of local environment on health, making the argument for an easily-domesticated landscape was crucial to the nationalistic project. Land was seen as valuable insofar as it could be made to resemble the European, and by extension, Eastern American, image. Throughout the European colonization movement, "many felt....that the wilderness of the new [North American] lands was a lesser and degenerate version of the old world and could be suitably altered to fit European habitation."¹⁵ Therefore, Washington's repeated assertions that so little needed to be done to "improve" the Ohio Country lands made them the ideal venue for expansion. Despite a carefully constructed rhetoric

about a "wilderness," that could easily be converted into a "garden," white migrants to the Northwest Territory did not find the virgin landscape they advertised. Surveyors and settlers alike were surprised to find ancient and architecturally complex burial mounds near the Ohio River, indicating patterns of native settlement and environmental transformation stretching back centuries or possibly millennia. A mythology based on classical archetypes was quickly fabricated to explain these sophisticated structures, and everyone from the Ohio Company officers to President Washington theorized that an extinct civilization, analogous to the Federalists' own assumed mythic past, were responsible for the mounds. This signaled that the environment near the rivers was historically endorsed for settlement, and the mounds were quickly incorporated into Marietta's local landscape as examples of orderly construction. The local tribes were thought by the white settlers to have no heritage in or connection to the mounds because they incorrectly perceived the native effect on the land as negligible or nonexistent; the opposite of their own minutely detailed plans for subjugation of the territory.¹⁶

As both surveying and military activity in the Northwest Territory increased, many added their own commentary on the new country and its virtues. Travelling in 1786 with a company of soldiers, Sergeant Joseph Buell remarked on March 24 that after a mild winter "the air clear and the troops healthy," approving the salutary nature of the environment.¹⁷ Buell did still harbor climatological concerns, however, as troop and officers began to fall ill in May. Buell wrote:

the weather is very hot, and we have had no rain for a long time. The men begin to be sickly, and though this is called a healthy place, we expect the troops will suffer a great deal, as the climate is very different from that in which they have formerly lived.¹⁸

Notably, the adjustment to a new climate is seen as the disease-causing agent. This was common to beliefs about contagion of the time, which credited bad air, corrupted water or soil, and other environmental factors with disease. The quick spread of "the fever" through the troops indicates some kind of contagious disease and could be one of many crowd diseases. Previous entries detailing food scarcity, frequent

drunkenness among the men, and long tours of duty likely wore down the immune systems of the company, making them more vulnerable to whatever illness Buell attributes to the so-called "healthy place."

For many, the Fort at Pittsburgh served as the gateway to the West and the first taste of a different climate. One officer travelling through the Northwest Territory, Colonel John May, writes: "This most certainly is a different climate and a different world. The storms in New England come from the northeast, the storms here from the southwest."¹⁹ Somewhat poetically, he adds "I am truly, truly tired of this world of clouds," as he waited for the boat to arrive that would take him to the settlement site for Marietta.²⁰ May raved about his new land grant in the Ohio Country, detailing the richness of the soil, the abundance of game, and carefully noting the ample rainfall and relative depth of the river.²¹ At this early stage of settlement, minor health concerns were handled among the soldiers with home remedies and "handiness." An air of self-confidence prevailed among this advance guard, even before the trappings of Eastern society, like doctors and drugs, had made their way west. May documents a homemade cure of spice leaves steeped in vinegar to cure his severe poison ivy, contracted from clearing his land for planting. A copperhead bite was dealt with by a neighbor across the river who was thought to have a knack for healing. Unfortunately, May does not record if the bitten soldier recovered of the bite after the neighbor's ministrations.²² Despite the frequent downpours, the soldiers' efforts at land clearing and cultivation seem not to have been troubled by excessive flooding or mosquitoes, even during the summer months. Some explanation may be found in the location of the early settlements. Hugging both banks of the Ohio and Muskingum rivers, the settlements were established to take advantage of easy transportation along the rivers.²³ As this part of Ohio was still heavily forested, it is possible that trees overhanging the Muskingum River helped prevent soil erosion and helped excess water to be channeled back into the water, instead of the fledgling settlement.²⁴ Unbeknown to the settlers, the very "wilderness" they worked assiduously to domesticate may have contributed to the "healthfulness" of the place. Writing retrospectively in 1838, an early Ohio settler named Caleb Atwater believed that the regular fevers of the early Ohio settlements were simply the hallmark of a "new country"

getting its footing, and that Ohio would come to be known as "one of the healthiest regions in the world."²⁵ Atwater's observations tended to lionize the white pioneers of Ohio settlement, and played into the narrative that the Northwest Territory wanted only proper domination by virtuous landowners to perfect it. The environmental changes wrought by the migratory flood after the native tribes were subdued and removed are presented as improving an already-healthy and prosperous landscape, rather than depleting its value. Atwater argued that the rapid deforestation and cultivation of Ohio augmented its already salutary climate:

The forests are cleared off, to a great degree, over a large portion of our territory...the whole surface of our soil, even in the woods, has become dry, compared with what it was twenty years since. The whole atmosphere is drier than formerly, and the fogs and mists which once rose from the earth every morning, and fell down upon it every evening in the form of a heavy dew, are no longer seen, felt, or known amongst us.²⁶

The prioritization of a "dry" climate as climatologically healthier than a "wet" one is clearly demonstrated here, as well as the aggressive 18th-Century attitudes towards "wilderness" that must be made fit for man's habitation.²⁷

An environment conducive to the military was not a trivial matter; security was very much on the minds of the migrants in the 1780s and'90s. Buell's journal details multiple altercations with members of the local tribes and the uneasiness of the raw soldiers in unfamiliar territory. These tensions formed the backdrop to the Ohio Company's efforts and were a major issue of United States' rudimentary national security policy. Though Ohio Company rhetoric downplayed the growing ire of local tribes and actually asserted that their incursions into Native-occupied land would be welcomed, tensions were building toward open conflict in Washington County in 1791. Across Southern Ohio, in fact, an open state of war existed at various times between 1783 and 1795. These conflicts between white settlers and the Miami, Shawnee, Delaware, Ottawa, Ojibwa, Wyandot, Chippewa, Potawatomi, and Sauk, sometimes in alliance, are collectively known as the Northwest Indian Wars and were only truly concluded with Tecumseh's

death in 1813.²⁸ Security was the overwhelming priority for white settlers of this period, even occasionally, as we will see, at the cost of public health policy.

Rufus Putnam sought to promote the new town in his letter to New York journalist Isaiah Thomas in the spring of 1788. Environmental descriptions of the area center on the arability of the land, the presence of important commodities like salt and timber, and the navigable rivers.²⁹ Amiable dinners with the commander of Fort Harmar and the chief of the local Delaware tribe seem to be sufficient to settle tensions arising from past wars and ongoing rumors of conflicts and murder. Putnam conveys the sense of a situation well in hand, with any unforeseeable circumstances easily dealt with by the Company. While the favorable physical and environmental characteristics of the land are certainly well-documented, it is important to recall the immense profitability inherent in land speculation in the 1780s and'90s. Ralph Dexter has argued persuasively that early published descriptions of the Ohio Territory in the Eastern United States and in France represented propaganda more than scientific, naturalistic description.³⁰ The first settlers arrived in the summer of 1788. An unknown record keeper listed the names of 48 men, including General Putnam himself, who arrived at Marietta on April 8. Of those men, eleven were joined by their families within the next year.³¹ These men, many of them officers, were paid by the Company and formed an advanced guard, preparing for the waves of migrants who would quickly follow, though many of them did continue to live in the territory. Settlement accelerated guickly; 84 men came at their own expense later in 1788. An additional 153 men arrived in 1789 and 200 in 1790.³² Of these 437 men, at least 73 are known to have brought their families. Though some of these migrants went to establish other nearby communities, including the French-American settlement of Gallipolis, the land rush to Marietta had officially begun.

Several doctors were dispatched to Marietta, but concerns seem to be focused more upon the war with local tribes than with disease. The tense military situation with the Ohio tribes led to betterequipped doctors being supplied to the Northwest Territory than such a small settlement may have otherwise warranted.³³ In fact, physicians' appointments to the local Fort Harmar were routinely posted every

three months, because it was assumed that violence could erupt at any time, and it would take too long for the news reach Massachusetts in time for them to dispatch aid.³⁴ Doctors trained in New England were considered a mark of pride for the town. As part of the elite class of Eastern migrants, there "were physicians of sterling qualities and genuine merit," eager to be part of the heralded settlement project.³⁵ At least four physicians travelled to Marietta as early as 1788-9, though the Cambridge-educated Dr. McIntosh was waylaid by smallpox in Pittsburgh. He recovered, and continued on to establish his practice in Marietta.³⁶

Smallpox Outbreak

The year 1790 proved to be one of trial for the Ohio Company. In January of 1790, a boat on its way to Kentucky left an extremely ill man and his family on the shores of the Ohio River.³⁷ Mr. Welch was isolated in a vacant home—"The Boston House"—with a small number of volunteer nursing attendants. He was guickly diagnosed with smallpox, leading to the first public health crisis of the fledgling community. A public town meeting (in best New England tradition) was called, and a mass inoculation program was decided upon. Hildreth writes, "This was the first time it [smallpox] had occurred among the people, and it was greatly dreaded."³⁸ The Ohio Company settlement at Marietta thus offers a perfect test case to examine the relationship between epidemic and endemic smallpox in North America. Smallpox is caused by the virus Variola, which exists in two strains: Variola Major and Variola Minor. In the seventeenth and eighteenth centuries the Variola virus took advantage of growing populations, especially in cities, to find an endless source of victims. In each area, smallpox would eventually settle into an endemic pattern and established smallpox as a well-known childhood disease in western Europe and some of the eastern United States. Because previous exposure to Variola produces future immunity, most European-born adults had been exposed and were not susceptible to future outbreaks. This meant that while smallpox was terrifying for parents with vulnerable young children, its endemic manifestations posed less risk of infecting adults and thus destabilizing the economically productive members of a community. But endemic patterns were not established everywhere. As Elizabeth Fenn notes in her study of Variola's career in North America:

eighteenth-century North America was different [than urban Europe]. It had neither the population density nor the transportation networks needed to sustain the ongoing, endemic presence of the virus. The result was that years could pass between outbreaks, allowing the number of susceptibles to balloon as native-born Americans across the continent came of age without exposure to the virus. ³⁹

Marietta, along with other settlements in the Northwest Territory, is a perfect example of this phenomenon. Previous exposure to *Variola* was spotty among the adult population. Smallpox therefore posed an epidemic threat, with the possibility to sweep through the community and cripple the nascent settlement project. The age of the migrants played an important role here. "Until the close of the [Indian] War, the Emigrants who came into the settlement were mostly Young or Middle Aged; Valetudinariens [sic], none."⁴⁰ The youthfulness of the migrant population undoubtedly seemed a boon to the settlement project, but it concealed the weakness of lacked smallpox immunity. The Ohio Company's ability to deal with the smallpox scare would prove a crucial element to its success.

Inoculation, combined with quarantine, were the key to halting smallpox's progress in the area. Mr. Welch, patient 0, was isolated in a small house built for the purpose, where he "died after only a few days."41 Though little is documented about his particular symptoms, it seems likely that his disease must have reached the so-called "eruptive" phase to be so easily recognized for the boat to Kentucky to eject him and his family. Everyone without previous exposure to smallpox was asked to relocate to a series of homes at a distance from the main settlement to be inoculated en masse. Most agreed, though some stayed in their homes to receive treatment. Some of the temporary houses erected during the crisis housed upwards of 20 people. Typical of inoculation, which transmits live matter into a patient's skin, some patients suffered a mild form of the disease after the treatment. Others simply caught smallpox through standard transmission, proving that the guarantine efforts were not completely foolproof. The hosts of the unfortunate Mr. Welch did not escape smallpox unscathed. Mr. Owens had acquired immunity to smallpox, but his wife was not so fortunate: "Mrs. Owens took it in the Naturel [sic] way; her symptoms continued &

[the fever] now high, & when the pock came out she was almost disfigured & refused to be moved."⁴² Other sources note Mrs. Owens' unofficial medical assistant role during the outbreak:

Mrs. Owens performed very valuable humane services during the prevalence of the small-pox in Marietta in 1790, and from this fact, and also, perhaps, in consideration for her being the first woman inhabitant of Marietta, the Ohio Company gave her one of the donation lots of one hundred acres in extent.⁴³

Two physicians oversaw the inoculation attempts—Dr. Jabez True and Dr. Farley—and out of over 100 people inoculated, only two died, both elderly women. Six who had contracted the infection before they could be inoculated died. Overall, the program was deemed successful by the governors and doctors of the town.

Previous Accounts of Smallpox in the Northwest Territory

The Northwest Territory was not unfamiliar with *Variola*. In 1787, a Moravian missionary named David Zeisberger noted that the townspeople of Sandusky suffered a smallpox outbreak. The difficulty of containing the smallpox virus, once it arrived, sparked fears in other isolated Ohio towns. Zeisberger's community along the Huron River, following standard quarantine practice, shunned the infected town: "we let none other of our number go there, that the disease may not be spread here."⁴⁴ The smallpox epidemic raged for months, effectively cutting off the missionary from his former church in Sandusky. White settlers and the local Wyandot tribe appear to have been equally vulnerable to the outbreak. Zeisberger records on October 12:

The smallpox makes great havoc among the Wyandots both side of the lake. It is noteworthy that it affects just these and no other [native] nations...Many houses in Sandusky have lost all their dwellers, stand empty, and there are said to be hardly so many alive as have died.⁴⁵

At this point in the outbreak, Zeisberger was aware of about 90 deaths among the Sandusky settlement, plus those among the Wyandot. Had members of other tribes acquired immunity from previous interactions with smallpox carriers, leading to Zeisberger's observation that they seemed not to contract the disease? Was the Moravian community too

isolated or under-resourced to pursue a variolation campaign, as the Ohio Company settlement at Marietta did successfully only three years later? At this time, settlements were often quite small, even under 200 people among some of Zeisberger's Moravian church plants. Perhaps the disease simply took hold too rapidly in both the Moravian and Wyandot communities of Sandusky for effective treatment and restabilization. The 1787 Sandusky case provides a useful contrast to the 1790 Marietta outbreak. Both the proportional severity of the death toll and the obvious fear of Zeisberger's community of the disease's spread illuminate the existential threat to westward expansion proposed by smallpox. Fully equipped with numerous Eastern-trained physicians and quick access to variolation material, the Ohio Company settlement was successfully able to defeat this obstacle to Eastern-style community establishment.

Despite the success of the 1790 inoculation campaign, Variola was not quite through with the settlers of southern Ohio. In 1792 many inhabitants of Marietta retreated to Campus Martius in light of the open war with the Lenape and Wyandot and the 1791 massacre of white settlers in the nearby village Big Bottom. Campus Martius contained rows of block houses, fortified by a wall.⁴⁶ Though sensible from a public defense standpoint, the close confinement of so many for a protracted period likely contributed to the outbreaks of smallpox and scarlet fever. Nutritional deficiency accompanied the disease, as mills were in short supply and farming efforts were restricted because of the war.⁴⁷ The isolation efforts in 1790 were not pursued in 1792 because military security in light of the open warfare with the tribes was deemed a more serious threat than disease. Once again, in 1793, smallpox reared its head among the soldiers of Fort Harmar. As with the 1790 outbreak, a policy of isolation and containment was pursued, which seems to have solved the immediate problem, though it is noted that "several of the inhabitants took the disease, and some died. Since that [year] the small pox has not prevailed in Marietta."⁴⁸ Just three years after the arrival of the ill-fated Mr. Welch, then, the town of Marietta and surrounding communities had established through natural immunity and variolation a resistance to smallpox that negated it as an existential threat.

Transition to Childhood Diseases in the Northwest Territory

Though one of the most-feared epidemic threats of the time, smallpox, had been neutralized, there was still work to do for Marietta's physicians. A subtext to the generally triumphant narrative of the Ohio Company was the prevalence of childhood illness among the settlers. The tone with which outbreaks of diseases like measles and undifferentiated "sickness" are related differs from that of diseases that threatened the adult population. The presence of childhood epidemics that are less likely to affect the mature members of the community represents the adaptation of the population to certain microbes.⁴⁹ In fact, the first manifestation of this came before the smallpox crisis, when measles broke out in 1789. This seems to have been an exclusively childhood illness in the settlement, but was compounded by a late frost that damaged much of the corn crop of Marietta and nearby Belpre.⁵⁰ Several children died from measles that winter and many of the migrants, resources exhausted from the journey west, suffered hunger in this supposed land of plenty. Scarlet fever was also a frequent specter in Marietta. With several hundred occupants by 1790, Marietta presented a community of families, which meant children. This, unlike the almost entirely adult male population of nearby Fort Harmar, presented the population density necessary to sustain a scarlet fever outbreak.⁵¹ While Marietta appears to have escaped with relatively mild outbreaks of this childhood disease, the nearby town of Belpre was traumatized by an outbreak that was "sudden and violent in its attack and very fatal; some of the children dying in twenty-four hours."⁵² The confidence in trained physicians and Eastern medicine seems to have wavered here, as "medicine seemed to have little or no effect." The progress of the disease through the town was swift and brutal, taking with it between ten and fifteen children. Because the overall threat to the community was less, however, these diseases did not present the same threat level as smallpox.

Epidemic to Endemic Disease

Hildreth goes on to note that "intermittent fevers" and "bilious fevers" bothered the Belpre community periodically, suggesting that these were versions of malaria that resulted from a nearby swamp, though the symptomatic description is too thin to allow modern readers to concur with complete confidence.53 Joseph Barker confirmed that this seasonal complaint typically ran from August until spring and linked it to the lack of maple sugar, apparently a crucial dietary supplement for the early settlers.⁵⁴ His appeals to proper diet indicate the importance placed upon external health influences, rather than principles of personto-person disease transmission. Barker goes on to note that Belpre's doctor, who had been trained at Boston Medical College, attained a reputation for curing these seasonal fevers. His remedies included light fare, followed by heavy doses of laudanum, and then full meals. This regimen was repeated until the fever ended. While the laudanum, a common opiate treatment of the time, undoubtedly provided symptomatic relief, it is unlikely to have affected the course of a fever. The leader of Marietta himself, General Putnam, contracted the "fever and ague" in 1792, but apparently recovered quickly and remembered his first meal after the fever: "a profusion of Bear Meat, Venison, & Turkey."55 While undoubtedly inconvenient and unpleasant, the intermittent fevers of the 1790s came to be seen as a minor annoyance; a hurdle any green settler must overcome. In fact, the "seasoning" of migrants to a new climate was a widely accepted phenomenon of the 1700s. In a study of New England men over age 20, like the participants in the Ohio Company settlement project, between 1740 and 1880, researchers found that only 27.5% of the men's adulthood years were spent in their birth towns.⁵⁶ The seasoning process applied to western migrants as well as those moving to urban areas, with the different risk factors associated with place linked both to the change itself and to the particular environmental conditions of any given place. This attitudinal shift about periodic disease outbreaks constitutes a dramatic contrast to the unanimous alarm inspired by smallpox in 1790 and '92.

After the conclusion of the Northwest Indian War, life along the Muskingum returned to normal for the New England and French migrants in the Ohio settlements. The Ohio Company as a business

concern had withered by 1796, but it was no longer needed to sustain Marietta.⁵⁷ After the war ended, physicians like Jabez True could again travel to visit their patients in far-flung homesteads, "ride[ing] twenty miles through forests and over bridgeless streams."⁵⁸ Though the forested terrain still presented challenges, consolidation of the towns and improved communication with the East prevented Marietta from becoming an isolated community that could again play host to epidemic-causing viruses like *variola*.

⁴ Shannon, "The Ohio Company," 403.

¹ Timothy J. Shannon, "The Ohio Company and the Meaning of Opportunity in the American West, 1786-1795." *The New England Quarterly* 64, no. 3 (1991): 393-413. doi:10.2307/366349.

² Martin Andrews, *History of Marietta and Washington County, Ohio, and Representative Citizens*, (Chicago: Biographical Publishing Company, 1902), 58-60.

³ Ohio Company of Associates, "Records of the Origins and Proceedings of the Ohio Company," 1786-1786, Manuscripts and Documents of the Ohio Company of Associates, Marietta College Library, 7-8.

⁵ Kim M. Gruenwald, "Marietta's Example of a Settlement Pattern in the Ohio Country: A Reinterpretation," *Ohio History* 105 (1996): 126-144.

 ⁶ For in-depth consideration of the first Ohio Company, which existed from 1747-71 and was abandoned because of the onset of the Revolutionary War, see George Mercer, 1733-1784, Lois Mulkearn, and Darlington Memorial Library. *George Mercer Papers Relating to the Ohio Company of Virginia [in the Darlington Memorial Library]*, (Pittsburgh: University of Pittsburgh Press, 1954).
⁷ Menassah Cutler, "OHIO COMPANY: At a Meeting of the Directors and Agent of the OHIO COMPANY," *Worcester Magazine ... Containing Politicks, Miscellanies, Poetry, and News (1786-1788)*, Sep 1787; 3, 24; American Periodicals pg. 314, Last Updated May 18, 2010,

https://search.proquest.com/docview/88893330?accountid=26417.

⁸ "Manasseh Cutler Letter to Rufus Putnam," February 12, 1788, Manuscripts and Documents of the Ohio Company of Associates, Marietta College Library. ⁹ "Rufus Putnam Draft Letter to Mr. Heckinwilder [sic]", February 2, 1788, Rufus Putnam Papers, Marietta College Library.

¹⁰ "Rufus Putnam Draft Letter to Mr. [Fisher] Ames," 1790, Rufus Putnam Papers, Marietta College Library.

¹¹ Frazer Dorian McGlinchey, "A Superior Civilization: Appropriation, Negotiation, and Interaction in the Northwest Territory, 1787-1795," in *The Boundaries between Us: Natives and Newcomers along the Frontiers of the Old Northwest Territory, 1750-1850*, ed. Daniel P. Barr (Kent: Kent State University Press, 2006), 118-142.

¹² Michael C. Hansen, "The Ice Age in Ohio," Ohio Department Of Natural Resources Division Of Geological Survey, Last Modified 2017, https://geosurvey.ohiodnr.gov/portals/geosurvey/PDFs/Education/el07.pdf. ¹³ For Rufus Putnam's views on the importance of these staple crops to the fledgling community, see: Rufus Putnam Draft Letter to [Isaiah] Thomas, May 5 1788, Rufus Putnam Papers, Marietta College Library. ¹⁴ "George Washington Advertisement of lands for lease on the Ohio and Great Kanhawa [sic] Rivers", April 2, 1784, Rufus Putnam Papers, Marietta College Library. ¹⁵ Anita Guerrini, "The Pathological Environment." The Eighteenth Century 31, no. 2 (1990): 173-79. http://0www.jstor.org.maurice.bgsu.edu/stable/41467748. ¹⁶ Barr, The Boundaries between Us, 122-130. ¹⁷ Samuel P. Hildreth, *Pioneer History: Being an Account of the First* Examination of Ohio Valley, and the Early Settlement of the Northwest Territory; Chiefly from Original Manuscripts (Cincinnati: H.W. Derby & Co., 1848), 142. ¹⁸ Ibid., 155. ¹⁹ Julius Dexter, Robert Clarke, and Manning F. Force, eds. Journal and Letters of Col. John May, of Boston, Relative to Two Journeys to the Ohio Country, in 1788 and 1789 (Cincinnati: Robert Clarke & Co., 1873), 53. ²⁰ Dexter, et. al., Journal and Letters of Col. John May, 54. ²¹ Ibid., 50-91 ²² Ibid. 70. ²³ Dudley Woodbridge, "Map, 1793, Appropriated Lotts," Manuscripts and Documents of the Ohio Company of Associates, Marietta College Special Collections. ²⁴ Milton Bernhard Trautman, The Ohio Country from 1750 to 1977: A Naturalist's View (Columbus, Ohio State University, 1977), 3. ²⁵ Caleb Atwater, A History of the State of Ohio, Natural and Civil, (Cincinnati: Gleazon & Shepard, 1838), 101. ²⁶ Ibid. ²⁷ Guerrini, "The Pathological Environment," 178. ²⁸ Barr, The Boundaries between Us, 118-142. ²⁹ Rufus Putnam Draft Letter to [Isaiah] Thomas, May 5 1788, Rufus Putnam Papers, Marietta College Library. ³⁰ Ralph W. Dexter, "Early Descriptions of the Natural Environment of Ohio (1788): Science or Propaganda?", Environmental Review 5, no.2 (Autumn 1981): 78. ³¹ Unknown, "Names Of The Men Hireed [Sic] By The Ohio Company... & Arrived At Marietta 7th Of April 1788," Rufus Putnam Papers, Marietta College Library. ³² Unknown, "Names of Settlers who Arrived at Marietta in 1788, 1789, and 1790," Rufus Putnam Papers, Marietta College Library. ³³ Marilyn Van Voorhis Wendler, "Doctors and Diseases on the Ohio Frontier,"

The Ohio History Journal 89, No. 2 (1980), 222-240.

³⁴ Blazier, Joseph Barker Recollections, 15.

³⁷ The smallpox scare summarized here was drawn from the following sources: George Jordan Blazier, ed., *Joseph Barker's Recollections of the First Settlement of Ohio*, (Marietta: Marietta College, 1958), 16-17; Martin R. Andrews, ed. *History of Marietta and Washington County, Ohio and Representative Citizens*, (Chicago: Biographical Publishing Company, 1902), 87-88; The Washington County Historical Society, *History of Washington County, Ohio*, (Cleveland: H.Z. Williams & Bro. Publishers, 1881) 52-53; and Hildreth, *Pioneer History*, 263-4.
³⁸ Hildreth, *Pioneer History*, 263.

³⁹ Elizabeth A. Fenn, *Pox Americana: The Great Smallpox Epidemic of 1775-82,* (New York: Hill & Wang, 2001), 28.

⁴⁰ Blazier, Joseph Barker Recollections, 18.

⁴¹ Andrews, *History of Marietta and Washington County*, 87.

⁴² Blazier, Joseph Barker Recollections, 17.

⁴³ Washington County Historical Society, *History of Washington County*, 52.

⁴⁴ Eugene F. Bliss, Trans. & Ed., *Diary of David Zeisberger, A Moravian Missionary Among the Indians of Ohio: Translated from the Original German Manuscript and Edited*, (Cincinnati: Robert Clark & Co., 1885), 362.

⁴⁵ Bliss, Diary of David Zeisberger, 373.

 ⁴⁶ For a useful diagram of Campus Martius' layout and its relation to the Muskingum River, see: "A Plan of Fort Campus Martius," Manuscripts and Documents of the Ohio Company of Associates, Marietta College Library.
⁴⁷ Hildreth, *Pioneer History, 334.*

⁴⁸ Ibid., 337.

⁴⁹ Dorothy Crawford, *Deadly Companions: How Microbes Shaped our History,* (Oxford, Oxford University Press, 2007) 33-34; 60.

⁵⁰ Hildreth, *Pioneer History*, 288.

⁵¹ Crawford, *Deadly Companions*, 114.

⁵² Hildreth, *Pioneer History*, 379.

53 Ibid.

⁵⁴ Blazier, Joseph Barker's Recollections, 18.

55 Ibid.

⁵⁶ Alice B. Kasakoff and John W. Adams, "The Effects of Migration, Place, and Occupation on Adult Mortality in the American North, 1740-1880," *Historical Methods: A Journal of Quantitative and Interdisciplinary History* 33, no. 2 (2000), 115-130.

⁵⁷ Shannon, "The Ohio Company and the Meaning of Opportunity," 412.
⁵⁸ History of Washington County Ohio, 405.

³⁵ The Washington County Historical Society, *History of Washington County, Ohio,* 405.

³⁶ Edmund Cone Brush, "The Pioneer Physicians of the Muskingum Valley," *Ohio Archaeological and Historical Quarterly* 3 (1891), 245.