

## Chapter 7

# The Geography of Health and the Making of the American West: Arkansas and Missouri, 1800–1860

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In the autumn of 1815, Justus and Eliza Post and their young children arrived in St Louis after a long, arduous journey from New York. They came to establish themselves in the Missouri Territory, early movers in a westward tide of American emigration that would by mid-century stretch to the Pacific Ocean. In correspondence with his older brother John, back in Vermont, Justus Post made explicit the hopes that had animated him in this “remove” and guided his impressions of the “new” territories beyond the Mississippi. Post sought land on which to establish his family, and he also planned to profit from volatile prices by purchasing tracts for later resale to other emigrants and investors. Speculator and farmer, Post looked to the bottomland of the Missouri with a calculating and hopeful eye.<sup>1</sup>

His impressions are telling. Immediately after arriving in St Louis, Justus Post reported back to John that “I see nothing to hinder its being an extremely healthy

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<sup>1</sup> Justus Post, Philadelphia, to John Post, Addison, Vermont, 19 August 1815, and Justus Post, St Louis, to John Post, Addison, Vermont, 11 August 1816, Justus Post Papers, Missouri Historical Society, St Louis, Missouri (hereafter MHS). All further references to the Post correspondence are from Justus Post, in St Louis, to John Post, in Addison, Vermont. See William E Foley, ‘Justus Post: Portrait of a Frontier Land Speculator’, *Missouri Historical Society Bulletin*, October 1976, 36: 19–25; and on the role of land speculation more broadly, Jeffrey S Adler, *Yankee Merchants and the Making of the Urban West: The Rise and Fall of Antebellum St Louis*, Cambridge and New York, Cambridge University Press, 1991, pp. 19–22.

country”.<sup>2</sup> A year later, in August 1816, he wrote that he had found an attractive area near the city, “& as it is such a healthy section of the country I think probable I shall establish myself there”.<sup>3</sup> Throughout the two brothers’ extensive correspondence, Justus Post emphasized the healthfulness—in his own and many others’ eyes—of the region which he and Eliza had come to claim.<sup>4</sup> His letters ultimately worked their desired purpose: after much urging, John and Elizabeth Post and their family emigrated to the region in 1821.<sup>5</sup> In the attention given the relationship between health and environment, as in the pattern of interlinked family emigration, this story is typical of encounters by prospective owners and cultivators with the natural environs of the American Western borderlands.<sup>6</sup>

Why people like Post would employ such categories of analysis and praise in descriptions of places new to them remains a compelling but undeveloped question within emerging discussions of geographies of medicine and health. Current scholarship focuses on medical geography as an aspect of consciously-enunciated and often professional science. This approach to medical geography—as other essays in this volume demonstrate—invites a range of fruitful investigations about both professional discourse and the historical understanding of climate, disease, and environmental distinctiveness. Yet it offers little to help understand or interpret statements like Justus Post’s. Medical geography in the professional domain is but one aspect of a larger preoccupation with connections between place and health<sup>7</sup> reflected in the ambitious concerns of the Post brothers’ correspondence. Even as Alexander von Humboldt formulated his isothermal zodiacs and Daniel Drake prepared his magisterial study on the diseases of the North American interior—even as the formal outlines of nineteenth-century medical geography were being drawn—land-hungry American settlers drew on common perceptions about the geography of health to understand the natural world they came to claim.<sup>8</sup> Newcomers like Justus Post came to define themselves and their very physical identity in the same terms in which they understood the lands on which they lived and worked.

Reading together personal correspondence, medical writings, emigrants’ and travellers’ guides, and even adventure stories from before the American Civil War of the 1860s, this account explores how migrants to the future states of Arkansas and

<sup>2</sup> 26 November 1815, Justus Post Papers.

<sup>3</sup> 19 August 1816, Justus Post Papers.

<sup>4</sup> See 23 August 1816 and 7 October 1817, Justus Post Papers.

<sup>5</sup> For a brief history of that family, see the glowing biography of their son Erastus Post in William L. Thomas, *History of St Louis County, Missouri: A Story that Attracts by its Recital of Past Achievements; Its Record of Earnest Endeavor and Sure Development to Present Greatness and its Future filled with Roseate Promises*, St Louis, Chicago, and Philadelphia, S J Clarke Publishing Co., 1911, vol. 2, p. 208.

<sup>6</sup> For similar correspondence between an emigrated brother and one back in northern New England, see ‘The Lowell Letter’, *Flashback* [journal of the Washington County, Arkansas historical society], 1981, 31 (4): 5–9. Justus and Eliza Post later lost most of their holdings in the financial crisis following the panic of 1819.

<sup>7</sup> On popular texts as part of the history of medical geography, see Alan Bewell, ‘Jane Eyre and Victorian Medical Geography’, *ELH*, 1996, 63 (3): 773–808; and Michael Owen Jones, ‘Climate and Disease: The Traveler Describes America’, *Bulletin of the History of Medicine*, 1967, 41, (3): 254–66.

<sup>8</sup> I use the terms “settling”, “settler”, and “settlement” intentionally, to emphasize the rhetoric of settling or calming “wilderness”—domesticating it in every sense—which accompanied the American westward move.

Missouri understood the health of their bodies and the environments in which they moved.<sup>9</sup> This rich and varied literature of settlement reveals a worldview in which human beings and their environments existed in a dynamic balance: the “health” or “sickliness” of land could be conveyed to its human inhabitants, and they in turn could alter the “salubrity” of a place just as they altered its vegetation or topography.

Few of the people whose works inform this study are historically significant as individuals. Their accounts instead speak for the ordinary quality of concern for personal and environmental health. Moving through ideas about the human body and about natural terrain, this essay brings to the fore connections that were immediately and intuitively apparent to Eliza and Justus Post and their contemporaries. Drawing in broad outline the characteristics of American migration into early Arkansas and Missouri establishes the central importance of agricultural land in the ambitions of American and European newcomers.<sup>10</sup> Understanding their claims on land, however, requires understanding nineteenth-century notions of the human body as a dynamic system requiring active and attentive management.

Descriptions of the factors that rendered land healthy or unhealthy reveal that the natural environment was perceived in similar ways. Terrain possessed “health” just as the body did: different attributes of landscape could be healthy or sickly, and—like the body—could change with natural conditions or human intervention. Exploring the notion of miasma provides a link between these ideas of health and place. Miasma was thought to be specific to location and to carry essential qualities of a place into the human frame, linking body and natural environment in ways inextricable and inescapable. Like illnesses of the body, miasmas could be intensified or alleviated, and were understood to be produced by disruptions to a natural state. This emphasis on processes of change proves crucial. Beliefs about cultivation, the most fundamental of the changes American settlers saw themselves making to their environments, undergird the organic relationship between self and place that animated American Western settlement.<sup>11</sup>

<sup>9</sup> On the role of stories, letters, and promotional literature in American migration to the region, see Adler, op. cit., note 1 above, especially chapter 3. On travellers’ guides and promotional literature of the period, see M H Dunlop, *Sixty Miles from Contentment: Traveling the Nineteenth-Century American Interior*, New York, BasicBooks, 1995.

<sup>10</sup> This essay treats “immigrants” as a category, emphasizing that the sense of what was “healthy” or not was remarkably constant across the many immigrants making their way to Missouri and Arkansas: Irish, French, German, English, and Yankee settlers reacted similarly to many situations. Aesthetics related to the judgement of countryside as healthy or sickly did, in some cases, have cultural resonances (see Eduard Zimmerman, ‘Travel into Missouri in October, 1838’, translated by William G Bek, *Missouri Historical Review*, October 1941, 9 (1): 33–43, p. 41). This essay, however, explores the commonality underlying these areas of division.

<sup>11</sup> For work on perceived environments of health, see Philip D Curtin, ‘The Promise and the Terror of a Tropical Environment’, in idem, *The Image of Africa: British Ideas in Action, 1780–1850*, Madison, University of Wisconsin Press, 1964, pp. 58–87; Dane Kennedy, ‘A Climate of Concern’, in idem, *Islands of White: Settler Society and Culture in Kenya and Southern Rhodesia, 1890–1939*, Durham, Duke University Press, 1987, pp. 109–27; and H Roy Merrens and George D Terry, ‘Dying in Paradise: Malaria, Mortality, and the Perceptual Environment in Colonial South Carolina’, *The Journal of Southern History*, 1984, 50 (4): 533–50. On the search for health as a primary motivation for American migration see John E Baur, ‘The Health Seeker in the Westward Movement, 1830–1900’, *The Mississippi Valley Historical Review*, 1959, 46 (1): 91–110; and Billy M Jones, *Health-Seekers in the Southwest, 1817–1900*, Norman, University of Oklahoma Press, 1967. Other scholarship deals with travel and health in the nineteenth century more broadly: see Esmond R Long, ‘Weak Lungs on the Santa Fé Trail’, *Bulletin of the History*

### The “Far West”

In the early nineteenth century, the territory immediately west of the Mississippi River represented both the imaginative and the substantive “Far West” of American settlement.<sup>12</sup> It was the furthest reach of an American “frontier” that had begun with the Alleghenies and would by mid-century encompass the overland trails to the Pacific Coast. The Arkansas-Missouri region, part of the 1803 Louisiana Purchase, was organized first as “Missouri Territory” in 1812, but was later to become two separate American states.<sup>13</sup> The area offered much to land-seekers. Rich acreage in mid and upper Missouri, especially bottomland along the Missouri and Mississippi Rivers and their smaller tributaries, drew farmers frustrated by the rocks of New England, the soil exhaustion of tobacco country, and higher land prices of the East. The Ozark and Boston Mountains of north and west Arkansas and the Ozark Plateau of lower Missouri held game, mineral deposits, and small plots affordable for struggling families. Swampland through which horses, oxen, mules, and travellers passed only with difficulty meant that migration to southern and eastern Arkansas lagged far behind that to Missouri, but the fertile soil of the Mississippi floodplain was by mid-century to draw planters engaging in large-scale cotton production.<sup>14</sup>

Though mining was a significant industry in southern Missouri, American settlement of the region rested primarily upon agricultural cultivation. Smaller farms were characterized by family labour, perhaps augmented by that of a few slaves, while more substantial operations harnessed large crews of slaves to work the fertile soil. Whether sizeable plantations in central Missouri or one-family households in northern Arkansas, farms were seen by Americans and European migrants as effecting

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*of Medicine*, July 1940, 8 (7): 1040–54; Sheila M Rothman, *Living in the Shadow of Death: Tuberculosis and the Social Experience of Illness in American History*, New York, BasicBooks, 1994; and Kenneth Thompson, ‘Wilderness and Health in the Nineteenth Century’, *Journal of Historical Geography*, 1976, 2 (2): 145–61.

<sup>12</sup> For characterizations of the region as “Far West,” see Friedrich Gerstäcker, *Wild Sports in the Far West: The Narrative of a German Wanderer beyond the Mississippi, 1837–1843*, first published in German, 1844; translated into English by Harrison Weir (London, George Routledge, 1854; reprinted Durham, NC, Duke University Press, 1968) and Theodore Pease Russell, *A Connecticut Yankee in the Frontier Ozarks: The Writings of Theodore Pease Russell*, ed. James L Keefe and Lynn Morrow, Columbia, University of Missouri Press, 1988, Introduction, p. 1. Recent scholarship furnishes a number of reflections on metaphors of American “frontier” experience: see Annette Kolodny, *The Lay of the Land: Metaphor as Experience and History in American Life and Letters*, Chapel Hill, University of North Carolina Press, 1975; Patricia Nelson Limerick, *The Legacy of Conquest: The Unbroken Past of the American West*, New York and London, W W Norton, 1987; and Richard Slotkin, *The Fatal Environment: The Myth of the Frontier in the Age of Industrialization, 1800–1890*, New York, HarperPerennial, 1994 [1985].

<sup>13</sup> In 1813, Arkansas became a county within Missouri Territory; in 1819, it was named a territory. After bitter sectional debate ending in the Missouri Compromise, Missouri joined the Union as a slave state in 1820. Arkansas followed in 1836. On the historical geography of the region, see Tom Foti, *Arkansas: Its Land and People*, Little Rock, Arkansas Environmental and Conservation Education Office, Arkansas Department of Education, 1976; and Milton D Rafferty, *Historical Atlas of Missouri*, Norman, University of Oklahoma Press, 1981, and idem, *Missouri: A Geography*, Boulder, CO, Westview Press, 1983. On growth and development in the territorial period, see S Charles Bolton, *Remote and Restless: Arkansas, 1800–1860*, *Histories of Arkansas*, ed. Elliott West, Fayetteville, University of Arkansas Press, 1998; and idem, *Territorial Ambition: Land and Society in Arkansas, 1800–1840*, Fayetteville, University of Arkansas Press, 1993; and William E Foley, *The Genesis of Missouri: From Wilderness Outpost to Statehood*, Columbia and London, University of Missouri Press, 1989.

<sup>14</sup> Bolton, *Territorial Ambition*, note 13 above, pp. 73–4.

a drastic change in the use of land. Reflections on American settlement generally ignored or effaced the agricultural practices of the Ouachitas, Caddoes, Osages, Missouris, Illinois, and other tribes whose land was being overrun, or of the Cherokees, Sauks, Foxes, Kickapoos, Shawnees, and others who were also emigrating—often under forced treaties—to parts of the region.

Many American emigrants came from the upper South and the lower Middle West, some from the Eastern seaboard. As Justus Post observed in the autumn of 1816, “[i]t does appear as if all Kentucky are on the road for the country in the fork of the Mississippi & Missouri”.<sup>15</sup> Though families entered from many regions within Europe (especially the British Isles), German immigration was particularly heavy and influential, spurred both by political turmoil of the 1840s and by widely-read emigrants’ guides promoting the region.<sup>16</sup> Single men, families, and whole communities emigrating together flowed into the region through the Ohio and Mississippi river systems, settling first in clusters along the Missouri, Arkansas, and Mississippi rivers.<sup>17</sup> Population swelled, as year by year woodland, prairie, and bottomland became cultivated, roads were laid, and the landscape was altered by American and European newcomers.<sup>18</sup>

The Arkansas and Missouri territories loomed unknown to many land-seekers and potential settlers. Many newcomers found land that was substantially different from what they had left. Thick, oozing swamps hindered their horses’ progress. Settlers from heavily-forested regions were unaccustomed to the “prairies”—sections of tall-grass—they encountered nestled even among hollows of the Ozarks. The hot, moist air of humid Arkansas and Missouri summers made travel and work laborious, slow, and uncomfortable. Changeable winter weather—balmy weeks followed by sudden cold snaps—challenged accepted patterns of farm and home. Added to climate and topography was the perception that the area was, in the words of Eliza Post, a “wilderness among the Indians”.<sup>19</sup> Strangeness both physical and cultural greeted those venturing into the realm beyond the Mississippi.

<sup>15</sup> 20 November 1816, Justus Post Papers.

<sup>16</sup> Russel L Gerlach, *Immigrants in the Ozarks: A Study in Ethnic Geography*, Columbia and London, University of Missouri Press, 1976; and Rafferty, *Historical Atlas of Missouri*, note 13 above, sections 33–39.

<sup>17</sup> On patterns of American emigration, see Malcolm J Rohrbaugh, *The Trans-Appalachian Frontier: People, Societies, Institutions, 1775–1850*, New York, Oxford University Press, 1978.

<sup>18</sup> Missouri in 1810 contained close to 20,000 inhabitants; by 1830, it boasted over 140,000 (Rohrbaugh, op. cit., note 17 above, p. 163). Arkansas grew more slowly: the 1830 population was just over 30,000 (Bolton, *Territorial Ambition*, note 13 above, p. 28).

<sup>19</sup> Eliza Post Memorandum Book, MHS, quoted in Foley, ‘Justus Post’, note 1 above, p. 20. Though other women concurred with this characterization of the Arkansas-Missouri region as “wilderness” (see Journal of Ellen Stetson, 25 November 1821, Small Manuscripts Collection, Box XVIII, Number 2, Arkansas History Commission, Little Rock (hereafter AHC)), that sentiment was shared by many of their male peers. Men expressed ambition about land more frequently than women, and men in a household (like Justus Post) were often the ones to urge emigration of friends and family members. At the same time, many of their wives, daughters, and mothers expressed similar ambitions—and many male migrants were also ambivalent about the process of westering. Certainly, in evaluating land for its healthfulness, men and women shared both intense interest and similar analytic frameworks. On the gendered aspects of American western movement, see Susan Armitage, ‘Through Women’s Eyes: A New View of the West’, in Susan Armitage and Elizabeth Jameson (eds), *The Women’s West*, Norman, The University of Oklahoma Press, 1987, pp. 9–18; Joan E Cashin, *A Family Venture: Men and Women on the Southern Frontier*, New York, Oxford University Press, 1991; John Mack Faragher, *Women and Men*

In large measure, intense interest among Westerners about how this new environment would affect their health reflected the wide-spread ill-health of the early nineteenth century. Migration and re-settlement in sparsely-populated areas meant that even accustomed sicknesses were exacerbated by distance from friends, kin, and established patterns of care. Farm accident, illness, nutritional deficiency, and difficult childbirth could cripple the emotional strength and productive capacity of a family. The toll of new diseases was heavy. Endemic malaria—the dreaded “ague and fever”—bedevilled inhabitants and filled the often disparaging accounts of the region, while cholera and other infectious diseases swept through in periodic outbreaks.<sup>20</sup>

The literature of settlement reflects these concerns. Many descriptions of early Arkansas and Missouri took care to characterize which diseases were common in which places.<sup>21</sup> Personal letters, too, were packed with news of the health of family members and with reports on the diseases of the region. This health news helped to maintain connection among families separated by migration.<sup>22</sup> Yet comments about land also reveal a more general and overarching sense of “healthfulness” or “sickness” associated with specific regions.

Justus Post participated in a widespread set of conversations. In 1831, L D Pitts, from Westmoreland, Virginia, wrote to a family friend who had already emigrated to the new territories to seek advice about whether he should move to Missouri. In particular, he pressed, “Is it thriving & healthy?”<sup>23</sup> Virginia farmer Thomas Humphreys, who moved to St Louis in 1835, recorded in his diary that he had decided not to offer a bid on one available plot “owing to the bad health of the place”.<sup>24</sup>

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*on the Overland Trail*, New Haven and London, Yale University Press, 1979; Annette Kolodny, *The Land Before Her: Fantasy and Experience of the American Frontiers, 1630–1860*, Chapel Hill and London, University of North Carolina Press, 1984; Katherine G Morrissey, ‘Engendering the West’, in William Cronon, George Miles and Jay Gitlin (eds), *Under an Open Sky: Rethinking America's Western Past*, New York and London, W W Norton and Company, 1992, pp. 132–44; and Lillian Schlissel, *Women's Diaries of the Westward Journey*, New York, Schocken Books, 1982.

<sup>20</sup> On health in the period, see Samuel Dorris Dickinson, ‘Health and Death in Early Arkansas, 1541–1803’, History of Medicine Associates Research Award Study, University of Arkansas for Medical Sciences Library, Little Rock (hereafter UAMS), 1987; Sally McMillen, ‘Obstetrics in Antebellum Arkansas: Women and Doctors in a New State’, in *Contributions to Arkansas Medical History, History of Medicine Associates Research Papers, No. 1*, ed. Edwina Walls, Charlotte, NC, Delmar Printing Company, 1990, pp. 64–88; K David Patterson, ‘Disease Environments of the Antebellum South’, in Ronald L Numbers and Todd L Savitt (eds), *Science and Medicine in the Old South*, Baton Rouge and London, Louisiana State University Press, 1989, pp. 152–65; Todd L Savitt, ‘Black Health on the Plantation: Masters, Slaves, and Physicians’, in *ibid.*, pp. 351–68; Mart A Stewart, ‘What Nature Suffers to Groe:’ *Life, Labor, and Landscape on the Georgia Coast, 1680–1920*, Wormsloe Foundation Publications, No. 19, Athens and London, University of Georgia Press, 1996; and Orville W Taylor, ‘... a good deal of sickness ...’, in *idem, Negro Slavery in Arkansas*, Durham, NC, Duke University Press, 1958, pp. 150–67.

<sup>21</sup> See, for example, Robert Baird’s emigrants’ guide: “Sore eyes may be mentioned as a prevailing disease of the western states ... Dyspepsia, and liver complaints of a chronic kind, are troublesome maladies in the Mississippi states, especially in the cities.” (Robert Baird, *View of the Valley of the Mississippi, or the Emigrant's and Traveler's Guide to the West*, Philadelphia, H S Tanner, 1834, p. 86.

<sup>22</sup> On the function of letters in the context of nineteenth-century American social mobility, see Joan D Hedrick, *Harriet Beecher Stowe: A Life*, New York and Oxford, Oxford University Press, 1994, pp. 77–82; and Ronald J Zboray, ‘The Letter and the Fiction Reading Public in Antebellum America’, *Journal of American Culture*, Spring 1987, 10 (1): 27–34.

<sup>23</sup> L D Pitts, Westmoreland, Virginia, to Meredith M Marmaduke, Jonesboro, Missouri, 6 December 1831, Sappington Family Papers, 1810–1978, Box 2, 1830–1838, MHS.

<sup>24</sup> Thursday, 17 December 1835, Diary of Thomas K Humphreys, 1835–1842, MHS.

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Irish immigrant Anthony Doyle, writing in 1819 to his brother in Carrick, echoed these concerns, commenting that “I will in the course of this season go out to enter 320 acres of land in some healthy place where there is good land . . .”.<sup>25</sup> The very terseness of many descriptions speaks for a shared set of assumptions and beliefs: brief references to “insalubrious” or “healthy” land assumed that readers would understand and share the framework in which such judgement was made. Women as well as men participated in this geography of health: Cynthia Thrall, a missionary to the Cherokees in the 1820s, described a proposed new mission site approvingly, not least because it was “said to be healthy”.<sup>26</sup> As professionals and as private citizens, publicly and in personal correspondence, those going West described the new regions they found as “healthy” or “sickly”.<sup>27</sup>

### **Managing the Body**

The popular geography of health employed and elucidated by early-nineteenth-century Westerners was integrated with a cosmology of the body in which balance and management were governing principles. Careful management of the body and ability to modulate its inner mix of rising and falling forces were conceptually linked with the human interventions affecting the “health” of land in new environments.

Despite many and competing medical theories—during the first half of the nineteenth century homoeopathy, hydropathy, Thomsonianism, and other medical theories battled “regular” medicine for adherents—most Americans were essentially pragmatic about their health care. Gathering from a wide set of techniques and schools, they relied upon neighbours, relatives, and—especially those moving West—on home health manuals.<sup>28</sup> Uniting many early-nineteenth-century systems

<sup>25</sup> ‘Meet Me in St Louis—1819’, *Missouri Historical Society Bulletin*, January 1951, 7 (2): 182–4, p. 182.

<sup>26</sup> Cynthia Thrall, Dwight Mission, Arkansas, to Lydia [Shinn], 29 September 1828, Cynthia Thrall Correspondence, 1828, Small Manuscript Collection, Box XXIII, Number 16, AHC.

<sup>27</sup> See the Secretary of War, Washington, DC, to Daniel Bissell, 24 April 1804, in Clarence Edwin Carter (compiler and ed.), *The Territorial Papers of the United States. Vol XIII: The Territory of Louisiana–Missouri 1803–1806*, 28 vols, Washington, United States Government Printing Office, 1948, p. 20. On environmental history as interwoven with and inextricable from the history of human perception and action, see William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England*, New York, Hill and Wang, 1983; idem, *Nature's Metropolis: Chicago and the Great West*, New York and London, W W Norton, 1991; and idem (ed.), *Uncommon Ground: Rethinking the Human Place in Nature*, New York and London, W W Norton, 1996; and Richard White, *The Roots of Dependency: Subsistence, Environment, and Social Change among the Choctaws, Pawnees, and Navajos*, Lincoln and London, University of Nebraska Press, 1983; and idem, *The Organic Machine*, New York, Hill and Wang, 1995.

<sup>28</sup> See, for example, William Buchan, *Domestic Medicine: Or, a Treatise on the Prevention and Cure of Diseases, by Regimen and Simple Medicines . . .*, Boston, Joseph Bumstead, 1809; or John C Gunn, *Gunn's Domestic Medicine, or Poor Man's Friend, in the Hours of Affliction, Pain, and Sickness. . . expressly written for the benefit of families in the western and southern states . . .*, Facsimile edition, Knoxville, University of Tennessee Press, 1986 [1830]. Health manuals were seen as part of the tools of immigration: see Kolodny, op. cit., note 19 above, p. 142; and Hermann Steines, St Louis, 17 February 1834, to Friederich Dellmann, in William G Bek, ‘The Followers of Duden: Second Article’, *Missouri Historical Review*, 1920, 14 (2): 217–32, p. 225.

of healing and treatment, however, was consonance about fundamental aspects of bodily functioning.<sup>29</sup>

In the early nineteenth century, the healthy body was seen as essentially a system in balance. When out of proper order, or “deranged”, human bodies were ill.<sup>30</sup> Such imbalance within the body was internal and invisible, but it was made manifest in observable symptoms. Feverish sweating, laboured breath, or inflamed rashes all signalled the state of the unseen bodily interior. Swollen gums in a teething infant, warned medical authorities, were not merely a local inflammation, but the painful, angry symptom of a “disordered state of the system” that could amplify and “aggravate” the destructive power of a disease like cholera.<sup>31</sup>

Older medical texts named the forces within the body as humours, while common usage emphasized sensations of fullness, heaviness, constriction, heat, or congestion. The future African explorer Henry Morton Stanley described an attack of ague during years as a teenager in Arkansas as beginning with “a congealed feeling as though the blood was suddenly iced”; John Gunn’s domestic health manual warned that in severe ague “the blood determines to the head,” resulting in brief delirium.<sup>32</sup> A “dreadfull thunder storm and wind”, wrote one English immigrant from the 1840s Ozark Mountains, “scared me and threw the blood to my head”.<sup>33</sup> A sense of the importance of intangible, circulating inner force is evident in the advice of Dr Hardage Lane, a St Louis doctor who counselled during the cholera epidemic of 1849 that tourniquets be applied to the arms and legs of those who had collapsed, to limit circulation and “husband the vital power”.<sup>34</sup> Flows and fluxes with differing

<sup>29</sup> On disease etiology and conceptions of the body, see Charles E Rosenberg, *The Cholera Years: The United States in 1832, 1849, and 1866*, Chicago and London, University of Chicago Press, 1962; and idem, ‘The Therapeutic Revolution: Medicine, Meaning, and Social Change in 19th-Century America’, in idem, *Explaining Epidemics and Other Studies in the History of Medicine*, Cambridge, Cambridge University Press, 1992, pp. 9–31; and John Harley Warner, *The Therapeutic Perspective*, Cambridge, MA, Harvard University Press, 1986. For domestic medicine, see Emily K Abel, ‘Family Caregiving in the Nineteenth Century: Emily Hawley Gillespie and Sarah Gillespie, 1858–1888’, *Bulletin of the History of Medicine*, 1994, 68: 573–99; Elizabeth Barnaby Keeney, ‘Unless Powerful Sick: Domestic Medicine in the Old South’, in Numbers and Savitt (eds), op. cit., note 20 above, pp. 276–94; and Judith Walzer Leavitt, ‘“A Worrying Profession”: The Domestic Environment of Medical Practice in Mid-19th-Century America’, in *Sickness and Health in America: Readings in the History of Medicine and Public Health*, 3rd edition, ed. Judith Walzer Leavitt and Ronald L Numbers, Madison, University of Wisconsin Press, 1997, pp. 145–60.

<sup>30</sup> See John J Walker, St Louis, to Thomas H Walker, Brownsburgh, Rockbridge County, Virginia, 15 February 1834, Walker Letters, MHS, and Gunn, op. cit., note 28 above, pp. 19 and 49. Ill-health was in anthropologist Mary Douglas’s terms a kind of dirt: matter out of order. See her *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*, London and New York, Routledge, 1991 [1966].

<sup>31</sup> Gunn, op. cit., note 28 above, p. 348, and Daniel Drake, *Natural and Statistical View, or Picture of Cincinnati and the Miami Country, Illustrated by Maps. With an Appendix, Containing Observations on the Late Earthquakes, the Aurora Borealis, and South-west Wind*, Cincinnati, Looker and Wallace, 1815, p. 186.

<sup>32</sup> Henry Morton Stanley, *The Autobiography of Sir Henry Morton Stanley*, ed. Dorothy Stanley, Boston and New York, Houghton Mifflin, 1909, p. 156; Gunn, op. cit., note 28 above, p. 133.

<sup>33</sup> Rebecca Butterworth, ‘Back Woods of America’ [Outland Grove, Arkansas], to her father, W W Barton, Rochdale, Lancashire, England, 5 July 1846, in Charlotte Erickson, *Invisible Immigrants: The Adaptation of English and Scottish Immigrants in Nineteenth-Century America*, Documents in American Social History, Ithaca and London, Cornell University Press, 1972, p. 176.

<sup>34</sup> Quoted in James Neal Primm, *Lion of the Valley: St. Louis, Missouri*, Boulder, CO, Pruett, 1981, p. 162.



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strengths and attributes (like Lane's "vital power") characterized the human body.<sup>35</sup>

Health was the result of the regulation and moderation of these forces in the body's interior. Starving, stimulating, heating, cooling, bleeding, "puking", and purging a sick person could change the internal balances affecting sickness. Heeding the evidence of the sick body, healers helped along what were perceived as natural bodily processes of illness.<sup>36</sup> Therapies replicated the heat and sweat or the draining exhaustion of high fever, the surface irritations or rashes of pox, and the profuse and liquid bowel movements of intestinal ills. Rubbing the chest with a strong-smelling, heated concoction might lead congestion in the lungs to the skin and then out of the body; blistering an extremity could counterbalance and draw out a fever; smelling salts or other stimulants could pique a sluggish body into response. Bleeding could restore balance to bodies congested with too much blood, and could carry off malign humours along with a pan of the rich, warm, sanguine fluid.<sup>37</sup>

Moments of change were times of danger. Sudden shifts within the body, whether of heat or of intense emotion, could create or intensify illness.<sup>38</sup> Changes of place were particularly crucial for the interior balances of health. Nineteenth-century American settlers inhabited a world in which people belonged innately in certain types of places—and not in others.<sup>39</sup> Moving to somewhere new—especially somewhere with drastically different climate and surroundings—threatened the "fit" between person and environment. Medical and migration advice concurred on the dangers of emigration. Such warnings highlight the disjuncture between the rapid social mobility of the American nineteenth century and an ideology of health which emphasized balance and stasis: the dramatic geographic movement which characterized American social life offered fundamental threat as well as potential liberation.

Moving out of one's racial environment required a process of gradual acclimatization, or "seasoning". In his influential 1829 German immigrants' guide, author Gottfried Duden advised his readers that

... the farmer who suddenly changes from the German farm life to the work of tropical plantations without intermediate stages exposes his physical constitution to the most dangerous disturbances. Settlements at the mouth of the Arkansas are perhaps already too far south.<sup>40</sup>

<sup>35</sup> For development of the idea of humoral theory as flow, see Barbara Duden, *The Woman Beneath the Skin: A Doctor's Patients in Eighteenth-Century Germany*, translated by Thomas Dunlap, Cambridge, MA, and London, Harvard University Press, 1991, particularly chapter 2. Though Duden's work is based upon the records of an eighteenth-century German physician, her insights are extremely helpful in clarifying nineteenth-century American primary sources.

<sup>36</sup> Gunn, *op. cit.*, note 28 above, p. 133, and Rosenberg, 'Therapeutic Revolution', note 29 above, p. 46.

<sup>37</sup> On bleeding in domestic therapy, see Gunn, *op. cit.*, note 28 above, p. 197. Beliefs about the necessity of drawing off powerful forces by cutting or interacting with surfaces resonated with everyday experience, as when those baking bread would score across the top of a loaf to keep the rising dough from splitting unevenly in the oven. My thanks to Madeline Mullen, Countway Library Rare Book Room, for this insight.

<sup>38</sup> For one reference to cholera induced by fear and apprehension, see the diary of N D Allen, 1819–1888, Webster Groves, Missouri, entry for 1849 [probably late summer], MHS.

<sup>39</sup> Such views influenced rationalizations for slavery: Gary Puckrein, 'Climate, Health and Black Labor in the English Americas', *Journal of American Studies*, 1973, 13: 179–93.

<sup>40</sup> Gottfried Duden, *Report on a Journey to the Western States of North America and a Stay of Several Years Along the Missouri (During the Years 1824, '25, '26, and 1827)*, translated and edited by James W

Duden's caution reflects both medical understanding and views of the territory beyond the Mississippi. He characterized the "mouth of the Arkansas"—in present-day south-east Arkansas—as "tropical". Though later generations would call Missouri "Mid-West" and Arkansas, less assuredly, "Mid-South" or "South-Central", Duden's readership understood the area chiefly in terms of dangerous southern heat. Sudden confrontation with this environment could create "dangerous disturbances" in immigrants' systems.

Instead, Duden advised a process of "intermediate stages" of settlement, in which immigrants' bodies would re-adjust gradually to their changed surroundings. Settlement from north to south (whether from the German states or New England) would ideally take several years, with travellers' bodies given a healthfully long time to adjust to each stage of the move. Similar common wisdom advised migration only in cold months, past the "sickly season" of summer and early fall. Justus Post, for instance, advised his brother that:

[E]migrations to this or any other country should always be made in the fall, especially when the distance is great, otherwise the arrival would be made in the heat of summer, when even the fatigues of travelling in the heat of the sun would of itself be sufficient to produce disease. You must not place your heart on a farm at the mouth of the Ohio; it will not do at present. You must come to that point by degrees; it is in too low a latitude (37°) for a man of 45° north to strike the first dash. You will find the country above the Missouri to suit you and the people of your country best.<sup>41</sup>

Post's admonitions reflect geographic and medical commonplace. Heat was itself a potent source of illness, especially for bodies accustomed to cooler temperatures. John Post, moreover, was a man of a different "country" than his brother in the mid-Mississippi valley: his body must be given the proper time in which to change allegiances.

Nineteenth-century Americans lived in a delicate matrix of interaction between forces external and internal. Health was based upon careful monitoring and intervention in one's self and one's environment. Heightened vigilance to the many threats offered by the outside world was crucial to managing individual well-being. As one 1842 medical work asserted,

From the days of Hippocrates, the records of medical philosophy demonstrate that the phenomena of life are not the result of original organization only; but that the moral, intellectual, and physical capacities of man are subject to the influences of those causes, the aggregate of which constitutes climate.<sup>42</sup>

Every aspect of the external environment had potential consequences for the inner workings of the human body. With the same intensity with which they scrutinized

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Goodrich, et al. [Originally printed Elberfeld, Sam Lucas, 1829] Columbia and London, State Historical Society of Missouri and University of Missouri Press, 1980, p. 246.

<sup>41</sup> 23 August 1816, Justus Post Papers.

<sup>42</sup> Quotation from a review of Samuel Forry, *The Climate of the United States and its Endemic Influences. Based on the Records of the Medical Department and Adjutant General's Office, United States Army*, New York, 1842, by "C.C." for *The Western Journal of Medicine and Surgery*, 1843, 7: 142–53, 146.

bowel movements or symptoms of fever, Americans of the early nineteenth century observed specific aspects of the natural world.

### **“The Health of the Country”**

Common geography of health associated “healthfulness” or “sickliness” with specific aspects of the natural world and with specific sites.<sup>43</sup> In general, environments were healthful when they possessed a balance of attributes: somewhat elevated above bottomlands, but not *too* high; near good sources of water, but not overly wet and swampy; with refreshing breezes, but not harsh winds; and in a region of even and un-dramatic seasonal change. Land, however, was no more static than the body: human intervention could alter the health of terrain just as it could alter the balances that determined individual health. Differing aspects of the natural world were indicative of the perceived healthfulness of the environment, and they often symbolized the emotional and economic consequences of uprooting and migration.

Many Westerners—lonely or tremulous even in their ambition—named the familiar as healthful. German immigrant George Engelmann, a physician and botanist, commented in 1837 on a family in south-east Missouri:

The previous nights we stayed with a very poor family from South Carolina. Here among the hills they had been stricken by the fever. They complained much about the cold and unhealthy country, and also wanted to go on to Texas. These people had picked out land that was overgrown with pine trees, since they had been accustomed to that kind from their youth, and since they believed it was most wholesome to live in such an environment.<sup>44</sup>

Familiarity was intertwined with “wholesomeness”. Suspicion of change and desire for the “accustomed” had resonances within the understanding of health; such feelings could justify and even determine important settlement choices. Implicit in such accounts is an ascription of healthfulness to the prior or home environment. This nostalgia reveals both the relational, comparative nature of evaluations of healthfulness and the often severe emotional consequences of westward migration.<sup>45</sup> The language of the geography of health gave voice to a yearning for home, and it validated migrants’ visceral sense that cross-country or trans-continental migration was threatening in profound and pervasive ways.

Concerns about the healthfulness of land reflect settlers’ anxieties about their place in a new country. In many reports, economic priorities were seen as being at odds with good health. Descriptions of the health geography of a region were often closely linked with descriptions of economic and agricultural (and sometimes geologic) potential. These elements appear, however, in uneasy relationship: sometimes land was described as being “healthy and fertile”, but more often it was “rich but sickly”. One Missouri surveyor, for instance, reported in 1814 that:

<sup>43</sup> See James H Cassidy, ‘Medical Men and the Ecology of the Old South’, in Numbers and Savitt (eds), *op. cit.*, note 20 above, pp. 166–78.

<sup>44</sup> William G Bek, ‘George Engelmann, Man of Science’, part 3, *Missouri Historical Review*, June 1929, 23 (4): 517–35, p. 526.

<sup>45</sup> On late-nineteenth-century pathologies of nostalgia, see ‘Remembering Nostalgia’, in Lisa Marie Herschbach, ‘Fragmentation and Reunion: Medicine, Memory and Body in the American Civil War’, PhD thesis, Department of the History of Science, Harvard University, 1997, and forthcoming from Harvard University Press.

The Land between Saint Francis and Black River . . . is principally a low, Flat Country, interspersed with many marshes and Cypress Swamps, and occasional Ridges or Islands of rich and excellent Land, covered with Cane &c. well qualified for raising Stock—This tract of Country cannot be healthy.<sup>46</sup>

Similarly, a St Louis resident reported to a friend in Kentucky that nearby bottomland was “one of the most desirable places a farmer could wish—but—Fever & ague is prevalent in it”.<sup>47</sup> These passages reveal ambivalence in relationships to land: settlers needed rich, well-watered, “excellent” soil, but those rich fields could also produce sickness.

Many observers regarded elevation as an important aspect of a region’s healthfulness. Higher situations were generally held to be more “salubrious” than lower ones. In 1814, for example, one newcomer remarked to the Surveyor for Missouri that the western part of St Genevieve County was “remarkably high and healthy”.<sup>48</sup> In contrast, the Governor of Arkansas complained to the Secretary of War in 1820 that the land given displaced Choctaws was “too low & sickly, they cannot stop there”.<sup>49</sup>

Even elevated sites, however, could be compromised by nearby lowlands from which winds could blow harmful seeds of disease. A fort in western Arkansas Territory was unhealthy, reported Captain John Stuart in 1833, because:

. . . the point itself is about Fifty feet above the level of the river at low water and it is nearly . . . surrounded by bottom or Swampy land . . . and that portion of the land considered highlands is almost as unhealthy as the low lands, from the circumstance of its being flat . . . land, and a great portion of it is in small basins or Pools in which the rain water stands continually from the commencement of the rainy season in the fall, until it is evaporated by the sun in the Months of July, August, and September.<sup>50</sup>

Land on which stagnant water was often to be found in standing pools could be “almost as unhealthy” as low-lying land. Proximity to river bottoms and “Swampy land” overrun with seasonal floods compromised the otherwise beneficial effects of elevation.

<sup>46</sup> William Russell, St Louis, to William Rector, Surveyor for Missouri, 20 April 1814, in Carter, op. cit., note 27 above, vol. 14, p. 755.

<sup>47</sup> James Clemens, Jr, St Louis, 4 October 1816, to Isachar Pawling, Danville, KY, reprinted in Missouri Historical Society *Glimpses of the Past* 3, July–September 1936 (7–9): 135–7, p. 137.

<sup>48</sup> William Russell, St Louis, to William Rector, Surveyor for Missouri, 20 April 1814, in Carter, op. cit., note 27 above, vol. 14, p. 753.

<sup>49</sup> James Miller, Gov. of Arkansas Territory, Fort Smith, to William H Crawford, the Secretary of War, Washington, DC, 11 December 1820, in Carter, op. cit., note 27 above, vol. 14, p. 246. This observation allows a glimpse, filtered and refracted, of the views of those involved in American settlement from the other side. In a number of instances, Indian Agents writing to government officials in Washington commented on the healthfulness (in their own and in Native Americans’ perspective) of the land granted to forcibly-removed native groups. (See, for example, Thomas L McKenney, Dept. of War, Office of Indian Affairs, to John Cocke, Chairman of the Committee of Indian Affairs, U.S. House of Representatives, Washington, 14 March 1826, in Carter, op. cit., note 27 above, vol. 20, p. 206.)

<sup>50</sup> Capt. John Stuart, Fort Smith, Arkansas Territory, to Col. R Jones, Adjutant General, Washington, DC, 19 September 1833, in Carter, op. cit., note 27 above, vol. 16, p. 794. Stuart’s complaints did him little good: he died in 1839 in the Cherokee Nation, not far from the site which he found so insalubrious, “after an illness of five weeks”. (*Arkansas State Gazette*, 2 January 1839.)

Stuart's account indicates the importance accorded the qualities of water.<sup>51</sup> Springs of warm or mineral waters were universally seen as salutary.<sup>52</sup> Texts often distinguished between free-flowing, sweet water, needed both for human consumption and for crops, and stagnant, potentially putrefying water.<sup>53</sup> A young German sent as a scout for family immigration wrote home in 1834 to describe farms near Washington, Missouri. He reported that "The soil is very good, the location healthful and the water excellent".<sup>54</sup> Aspects of water embodied and reinforced the situation of land. Any water that did not flow freely, however, could be dangerous: George Engelmann reported in 1835 a long-standing and, he thought, mistaken "conviction among the pioneers that well water is unhealthful and much inferior to spring water".<sup>55</sup> Whether in nearby, stagnant swamps, or ingested directly into the body, reports reveal an implicit assumption that qualities of water would impart themselves to the human body, with good or ill effect.

Heat and humidity—the most foreign of the elements of environment which many settlers encountered—were dreaded and feared.<sup>56</sup> Botanist and naturalist Thomas Nuttall decried the "gloomy mantling" of the long moss which betrayed the "unhealthy humidity" of the climate in southern Arkansas and northern Louisiana.<sup>57</sup> Travellers and newcomers to Arkansas and Missouri almost universally reflected one Danish observer's opinion of St Louis that "[t]he summer here is hot and not healthful".<sup>58</sup> Long summers meant long growing seasons—but suffocating humidity and crippling heat could threaten human well-being.

Anything unaccustomed could represent a threat. This aspect of health geography is reflected in Dr W J Goulding's 1840 'Medical Topography of Central Arkansas', a report which combined medical observation with forthright civic boosterism.<sup>59</sup>

<sup>51</sup> On the relationship between the "wetness" of an environment and its perceived healthfulness, see Roger A Winsor, 'Environmental Imagery of the Wet Prairie of East Central Illinois, 1820–1920', *Journal of Historical Geography*, 1987, 13 (4): 375–97.

<sup>52</sup> See 'The Hot Springs in Arkansas', translated in Jerome Jansma and Harriet H Jansma, 'George Engelmann in Arkansas Territory', *Arkansas Historical Quarterly*, Autumn 1991, 50 (3): 225–48.

<sup>53</sup> On the "unhealthiness" of "stagnating lagoons", see Savoie Lottinville (ed.), *A Journal of Travels into the Arkansas Territory during the Year 1819*, by Thomas Nuttall, F.L.S., Norman, University of Oklahoma Press, 1980, p. 254.

<sup>54</sup> Hermann Steines' family later immigrated as a large group to Franklin County, Missouri. William Bek, 'The Followers of Duden', *Missouri Historical Review*, April–July 1920, 14 (3): 442.

<sup>55</sup> Letter written 26 May 1835, published in Engelmann's journal 'Das Westland', translated by and reprinted in William G Bek, 'George Engelmann, Man of Science', part 2, *Missouri Historical Review*, April 1929, 23 (3): 427–46, p. 440.

<sup>56</sup> On fear of heat and the sun in the European colonial context, see Dane Kennedy, 'A Climate of Concern', op. cit., note 11 above; idem, 'The Perils of the Midday Sun: Climatic Anxieties in the Colonial Tropics', in John M MacKenzie (ed.), *Imperialism and the Natural World*, Manchester and New York, Manchester University Press, 1990, pp. 118–40; and Karen Ordahl Kupperman, 'Fear of Hot Climates in the Anglo-American Colonial Experience', *William and Mary Quarterly*, 1984, 41: 213–40.

<sup>57</sup> Lottinville (ed.), op. cit., note 53 above, p. 254.

<sup>58</sup> Frank G Nelson, 'A Danish Account of Missouri in 1839', *Missouri Historical Society Bulletin*, July 1977, 33 (4): 265–81, p. 267. See also Charles Caldwell, 'Thoughts on the Means of Preserving Health, in Hot Climates; Being an Introductory Lecture, Delivered on the 6th day of November, 1832', *Pennsylvania Journal of Medicine and Allied Sciences*, 1833, 4: 357–77.

<sup>59</sup> W J Goulding, M.D., 'Medical Topography of Central Arkansas; being Observations on the Locality, Climate, and Diseases of the City of Little Rock and vicinity, in the year 1840', *The Western Journal of Medicine and Surgery*, May 1843, 7: 321–28.

Goulding's concerns reflect both professional trends—particularly the interest among doctors and other practitioners in medical geography and topographies—as well as commonplace agricultural concerns.<sup>60</sup> In one passage, Goulding explained recent widespread sickness as the result of “winds coming upon us during the hot season from an unusual or unfavorable quarter”.<sup>61</sup> Goulding's emphasis upon the “unusual” and therefore harmful nature of certain air currents reveals a deep and abiding suspicion of any but the most regular and rhythmic change. Missouri farmer John J Walker commented to a relative in 1837 that “[o]wing to the frequent & sudden changes we have had during the last Winter colds have been very prevalent, and severe”.<sup>62</sup> The rapid transitions of “variable climates” could themselves produce and encourage disease.<sup>63</sup> Winds, therefore, like seasons, were to be expected; winds from “an unusual quarter”, worried observers like Goulding, could sicken and harm.

Frequent attention to predictability as healthful reveals resonances between the geography of health and the economic and familial concerns of people who were closely dependent upon agricultural labour. Predictability was valued and safe; surprising change was threatening. Early frosts, sudden storms, or unseasonable weather could all be devastating to a successful crop cycle. As John Walker noted in 1834, a recent “cold, hot wet & dry” spring—one incorporating changeable and contradictory elements—was “a very unpromising one for Crop[p]ing”.<sup>64</sup> Just as such unusual seasons imperilled a family's financial future and livelihood, they could also threaten its very physical well-being. Ultimately, though observers might try to pinpoint the “salubrity” of a region, its changeability might frustrate not only their analysis, but their economic ambitions.

Appraisals of the healthfulness of land were a way of comprehending and defining a natural environment that could be capricious and threatening—or simply very far from home. The geography of health pervasive in writings from pre-Civil War Arkansas and Missouri was expressive of medical understanding and of agricultural

<sup>60</sup> The drive to compose observations on local climate and disease conditions was particularly characteristic of frontier areas—including Missouri and Arkansas—since it was an aspect of the professional discipline in which practitioners in non-metropolitan places could take part and to which they could contribute. See, for example, Daniel Drake, M.D., ‘A Sketch of the Climate of the Valley of the Mississippi’, *Western Journal of the Medical and Physical Sciences*, April, May, and June, 1832, 6 (1): 2–22; idem, *A Systematic Treatise, Historical, Etiological, and Practical, on the Principal Diseases of the Interior Valley of North America, as they Appear in the Caucasian, African, Indian, and Esquimaux Varieties of its Population*, 2 vols., Philadelphia, Grigg, Elliot & Co., vol. 1; New York, Mason & Law, 1850; Leo Twyman, M.D., ‘On the Medical Topography of Saint Charles County, Mo.’, *Missouri Medical and Surgical Journal*, 1845, 1: 25–32.

<sup>61</sup> Goulding, op. cit., note 59 above, p. 327.

<sup>62</sup> John J Walker, St Louis, to Thomas H Walker, Brownsburgh, Rockbridge County, Virginia, 13 March 1837, Walker Letters, MHS.

<sup>63</sup> Drake, op. cit., note 31 above, p. 180; see also C B Welch, Assistant Surgeon, to the Surgeon General, Fort Smith, Arkansas Territory, 28 February 1834, in Carter, op. cit., note 27 above, vol. 11, p. 917.

<sup>64</sup> John J Walker, St Louis, to Thomas H Walker, Brownsburgh, Rockbridge County, Virginia, 9 June 1834, Walker Letters, MHS. See Everard B Dickinson, North Fork, Izard County, Arkansas, to ‘My Dear Parents’, [Mr and Mrs Philo Dickinson; no location given], 2 May 1850, collection H.4, box 1, folder 54, Archives of the University of Arkansas at Little Rock (hereafter UALR), for similar criticism of “backward Spring” as unhealthful.

concerns, of the anxieties as well as hopes associated with the project of American Western settlement. Common health geography melded a sense of the body's interior balances with an attention to the balances within the external world: between wet and dry seasons, for example, or between the need for water and fear of the harmful qualities of bad water. In familiar and reassuring ways, a widely-shared geography of well-being provided parallels between lived experience and intellectual understanding. Throughout the writings of the antebellum period runs a sense that proximity to "sickly" elements of the natural world was dangerous for human bodies. Implicit in this medical cosmology is the notion that environment can impart its properties to its inhabitants. The mechanism through which this influence was thought to operate was the invisible but amply-felt qualities of air.

### Miasma

Surrounding and filling the human body, air was an almost palpable presence for those who described early Arkansas and Missouri. Vulnerable at every breath, Westerners regarded airs—for there were many kinds—with deep and well-discussed suspicion. Harmful air carried miasmas, the invisible but insidious vapours of disease. With every breath of miasmatic air, early settlers and migrants respired the very stuff of illness.<sup>65</sup>

Like a malevolent sprite, miasma was at once wispy and possessed of great power, ethereal in nature but chillingly forceful in effect. Like fog or mist, miasmas moved in and through air. They could emanate from stagnant water, from earth, and from objects undergoing change of state. Transferring the essence of ill-health from external objects or sites to the interior of the human body, miasmas reveal the intimate and profound connections between environment and self.

Fear of miasma registers in many early-nineteenth-century admonitions about "unhealthy fog".<sup>66</sup> Accounts are often unclear about whether the visible moisture of fog *signified* miasma or *was* miasma, but the presence of fog was strongly indicative of the presence of miasmatic influences. Justus Post, for instance, wrote to his brother in 1818 with instructions on how to make the journey to Missouri. River travel held particular dangers, prompting Justus to warn John to "bring along medicine for the children & mind they do not get sick on the road—When on the Ohio keep them close in the boat whenever there is a fog, else they will have the ague & fever".<sup>67</sup>

Miasmas were strongly correlated with bad smell and with foul odours. Unpleasant odours that prompted recoil and disgust were taken as signs of harmful miasma

<sup>65</sup> Contemporary usage encompassed "miasm" or "miasma" for the singular; "miasms," "miasmas," or "miasmata" for the plural. On miasma, see Caroline Hannaway, 'Environment and Miasmata', in W F Bynum and Roy Porter (eds), *Companion Encyclopedia of the History of Medicine*, London and New York, Routledge, 1993, pp. 292–308; Vivian Nutton, 'The Seeds of Disease: An Explanation of Contagion and Infection from the Greeks to the Renaissance', *Medical History*, 1983, 27: 1–34; and Owsei Temkin, 'An Historical Analysis of the Concept of Infection', in idem, *The Double Face of Janus and Other Essays in the History of Medicine*, Baltimore and London, Johns Hopkins University Press, 1977, pp. 456–71.

<sup>66</sup> See Henry Vest Bingham, 'The Road West in 1818: The Diary of Henry Vest Bingham', *Missouri Historical Review*, October and January 1945, 40 (1–2): 21–54 and 174–204, p. 46.

<sup>67</sup> 1 February 1818, Justus Post Papers.

penetrating the human body. Many prophylactic measures functioned to fill the air with other powerful smells, to counteract miasmatic influences. Domestic manuals recommended bags of strong-smelling asafetida tied around the neck, while the Commission of Public Health in St Louis during the 1849 cholera epidemic advised members of the public to burn tar, coal, and sulphur to cleanse the air.<sup>68</sup> The “sense of smelling”, as the noted Philadelphia physician Benjamin Rush termed it in 1805, was thus a powerful tool in understanding and interpreting human relationship to the environment.<sup>69</sup> Like elevation, wind direction, heat, or humidity, miasmas were equally intelligible to nearly illiterate subsistence farmers and to trained, “regular” physicians. Foul smell and clinging fog were meaningful to every farm woman or planter who encountered them.

Miasmas were commonly seen as the products of rot and decay. In his cataloguing of the many causes of miasma, Benjamin Rush listed examples of both animal and vegetable matter in a state of putrefaction: “the canvas of an old tent” could be responsible, as could damp cotton, “old books, and old paper money, that had been wetted, and confined in close rooms and closets”, “the entrails of fish”, or, more ominously, “human bodies that have been left unburied upon a field of battle”.<sup>70</sup> Anything decomposing—no matter how innocuous its uncorrupted state—was potentially harmful. This ascription of miasma to objects in a state of decay or putrefaction reveals once again an emphasis on processes of change: like a human body vulnerable during a moment of transition, matter changing form, losing its material integrity and becoming slime or mulch, could exude foul and harmful essences as a by-product of that shift.

Many accounts use miasma as an overall indicator and characteristic of the health of a local environment. As he described his journey through bottomland along the Kaskaskia River in lower Illinois in 1838, the travel writer Edmund Flagg characterized the environment itself as noxious:

As I wandered through this region, where vegetation, tower[ed] in all its rank and monstrous forms, . . . I thought I could perceive a deadly nausea stealing over my frame, and that every respiration was a draught of the floating pestilence. I urged onward my horse, as if by flight to leave behind me the fatal contagion which seemed hovering on every side; as if to burst through the poisonous vapours which seemed distilling from every giant upas [poisonous tree] along my path.<sup>71</sup>

The whole environment worked in concert against Flagg’s health. “Floating pestilence” threatened him with smothering malevolence. Trapped within towering vegetation, “rank and monstrous”, he was forced to inhale “poisonous vapours”

<sup>68</sup> Keeney, *op. cit.*, note 29 above, p. 290; Patrick E McLearn, ‘The St. Louis Cholera Epidemic of 1849’, *Missouri Historical Review*, January 1969, 63: 171–81, pp. 176–7.

<sup>69</sup> Rush, *An Inquiry into the Various Sources of the Usual Forms of Summer & Autumnal Disease in the United States, and the Means of Preventing Them. To Which are Added, Facts, Intended to Prove the Yellow Fever Not to Be Contagious*, Philadelphia, J Conrad, 1805. On the cultural importance of smell, see Alain Corbin, *The Foul and the Fragrant: Odor and the French Social Imagination*, Cambridge, MA, and London, Harvard University Press, 1986.

<sup>70</sup> Rush, *op. cit.*, note 69 above, pp. 6–10.

<sup>71</sup> E[dmund] Flagg, *The Far West: or, A Tour Beyond the Mountains . . .*, New York, Harper & Brothers, 1838, vol. 2, pp. 201–2.



emanating from all around. The entire scene arrayed itself against him. Miasma was not one isolatable element, but a defining characteristic of the natural world. It was everywhere intrinsic to a terrain both hostile and toxic.

Yet environment was not separate from human activity, but encompassed it. Not only the “outside” natural environment, but the interior spaces of human dwellings were subject to miasmatic influences. Miasmas penetrated and compromised indoor environments. Buildings and homes in early Arkansas and Missouri mitigated the crueller aspects of weather, providing shelter from the worst of the summer sun and winter wind and cold. Yet the rude construction of hastily-built homes—priority was often given to establishing the first crop—offered only incomplete protection from other forces of the natural world. Clay and woodchips that chinked together the spaces between hewn or round logs in many cabins were vulnerable to icy air drafts in winter, especially in the first year, when unseasoned logs would shrink and settle.<sup>72</sup> Cabins with few or no windows held in stifling warmth during the summer. Heat, miasma, and atmospheric constitution pervaded cabins as well as river bottoms, affecting settlers in their beds as well as intrepid travellers out on horseback.<sup>73</sup>

Many early Arkansas and Missouri residents made clear their concern for the miasmas emanating from dirt floors. Geologist and naturalist Henry Rowe Schoolcraft commented on his 1819 journey through Arkansas, for instance, that “Mrs. H tells me, she has not lived in a cabin which had a floor to it for several years; that during that time they have changed their abode several times, and that she has lost four children, who all died before they reached their second year”.<sup>74</sup> Dirt floors connoted low, rough, wild living in the early nineteenth century.<sup>75</sup> They also carried the stigma of bringing occupants that much closer to the source of potentially harmful or even lethal emanations.<sup>76</sup>

Scientific explanations reinforced common perception. One army doctor at Fort Smith, Arkansas, explained in 1834 that miasma tended to rise because its specific gravity was less than that of air; high ground could therefore in some instances be less healthy than low. In addition, he observed, humid air carried miasma more effectively than dry, “in consequence of the particles of miasmatic poison attaching themselves to the humidity of the air and thereby being carried by the wind”.<sup>77</sup> Another 1843 medical author similarly noted that a region’s healthfulness was dependent upon “the admixture of terrestrial emanations dissolved in its [the

<sup>72</sup> On the problems of chinking between logs, see Charles McRaven, *Building the Hewn Log House*, Arkansas College Folklore Monograph Series, Hollister, Mo., Mountain Publishing Services, 1978, pp. 42–3; and Paul Faris, *Ozark Mountain Folks: The Way They Were*, Little Rock, Rose Publishing Co., 1983, pp. 91–2.

<sup>73</sup> On the lack of contrast between indoor and outdoor that could characterize settler construction, see Dunlop, op. cit., note 9 above, pp. 34–5.

<sup>74</sup> Milton D Rafferty, *Rude Pursuits and Rugged Peaks: [Henry Rowe] Schoolcraft's Ozark Journal, 1818–1819*, Fayetteville, University of Arkansas Press, 1996 [1819], p. 74.

<sup>75</sup> See ‘Women of the Backwoods’, originally written in 1845 for a German audience, in Friedrich Gerstäcker, *In the Arkansas Backwoods: Tales and Sketches*, translated by James William Miller, Columbia and London, University of Missouri Press, 1991, pp. 48–61, p. 49.

<sup>76</sup> By the late nineteenth century, exposure to outside air was proclaimed as part of the West’s “wilderness cure”. See Thompson, p. 153, and Jones, both op. cit., note 11 above.

<sup>77</sup> C B Welch, Assistant Surgeon, to the Surgeon, Fort Smith, 28 February 1834, in Carter, op. cit., note 27 above, vol. 21, p. 918. My thanks to S Charles Bolton for this source.

atmosphere's] moisture".<sup>78</sup> Whether as attached particles or as "dissolved" emanations, miasmas inhabited air in ways that scientific interpreters saw as consistent with their understandings of the natural world.<sup>79</sup>

Specific sites were characterized by miasmas, but human intervention in the environment had the capacity to produce miasmas or heighten their effects. Henry Marie Brackenridge's 1814 emigrants' guide placed harmful miasma in the context of a host of threats to health generated by human action:

Much depends on the care which the settler takes in avoiding whatever may tend to produce sickness. The scorching heat of the sun is universally agreed to be unfavourable to health. Night dews and exhalations are not less so. The food of most of the settlers, is calculated to generate bile; great quantities of fat pork, seldom any fresh meat, or vegetables, and large quantities of milk and coarse corn bread are used. The mephitic exhalations from putrid vegetables, and from enormous masses of putrifying [*sic*] trees, in the new clearings, also contribute to this insalubrity. The fields of corn, with which the settler surrounds his cabin, are thought by many, to be another cause; the foliage of the corn is so rich and massy, that it shades the earth, and prevents the action of the sun from exhaling unwholesome damps.<sup>80</sup>

This passage reveals several major themes of cultural concern about the environment. Intense heat and sun, inadequate and monotonous food, human transformations of the natural environment in the process of clearing and cultivation, and resultant putrescence all combined to create an environment of almost unrelenting insalubrity. Miasmas appeared as mysterious and poisonous forces breathed out from rotting vegetation. Disturbed subterranean forces which could not find release from the ground because the "rich and massy" maize shielded the sun's purifying rays appeared as unhealthy miasmas, "mephitic exhalations from putrid vegetables, and . . . putrifying trees". Vegetation breathed—exhaling poison—much as the human body did. This ascribed embodiment underscores the interrelationship between humans and their environment.

Such passages reveal that bodies were seen to share important characteristics with their natural environment. Disturbance and sudden change could throw off balance natural environment just as human body. The responses of each were functionally identical: wet, bad-smelling, disease-bearing secretions flowed alike from persons or places insalubrious. Trees and rotting vegetation exhaled miasma much as human beings breathed out their foul humours of disease. This identity of structural response, moreover, extended to the moment of greatest environmental threat to human health: the process of cultivation.

<sup>78</sup> "C.C.," review of Forry, *The Climate of the United States*, note 42 above, p. 145.

<sup>79</sup> This early-nineteenth-century scientific interest in the relationship between miasma and air is a continuation of earlier seventeenth- and eighteenth-century explorations into the chemical nature and composition of air (see Hannaway, *op. cit.*, note 65 above).

<sup>80</sup> Henry Marie Brackenridge, *Views of Louisiana, Together with a Journal of a Voyage up the Missouri River, in 1811*, Pittsburgh, 1814 (reprint in facsimile, Chicago, Quadrangle Books, 1962), bk. 2, pp. 111–12.

### Cultivation

European and American migrants perceived stark differences between “wild” landscape and that which had been “improved”.<sup>81</sup> Land by itself was passive, inert, and difficult to value. It had potential, certainly—but stood in need of human intervention. Cultivation was the crucial process through which the essence and value of land would be transformed.

Views of uncultivated land varied. Everard Dickinson’s enthusiasm typifies that of a young wanderer. A bachelor of 33 when he left his job as a shop clerk in Hartford, Connecticut, Dickinson sought economic advancement and personal opportunity in the frontiers of Arkansas. In 1848, he wrote to his parents in Springfield, Massachusetts, about his experiences in the Ozark Mountains. “In my Judgement”, he assured them, “this is a healthy country”. A year later, he declared that “[t]his Wild and new Country suits me first rate, & it is a healthy region I think so [much so] as any part of the Union”. Wildness, newness, possibility, and health bore a close and interdependent relationship. He much preferred Arkansas, he informed his parents, to the “those old thick settled countries” back East.<sup>82</sup> Happy to be in a “Wild and new Country”, Dickinson saw its wildness and newness as related to robust possibility—for adventure, economic independence and good health. More commonly, however, “wild” land was seen as standing in need of good management. Terrain left to run riot—landscape uncultivated or “unimproved”—was wasted and worth little. The act of farming was a morally as well as economically significant transformation of the natural world.

For early-nineteenth-century American settlers, interaction with land was a crucial process. Agriculture was necessary to live, and was in popular understanding—and, increasingly over the period, in governmental regulation—integral to taking legal ownership of land. “Squatters” who “improved” land were seen as having rights to it that were eventually codified in the 1841 Preemption Act, which gave those who had farmed a plot precedence in its purchase. Cultivation thus represented a physical change of state, a step toward legal change of state, enormously difficult labour, and the process that determined whether the family, household, or settlement would survive. Many different activities—by adults and their children, women as well as men—enabled and enacted the establishment of a farm household. Cutting trees, fitting a kitchen, hauling rocks, feeding the family from the carefully-managed supply of cornmeal, burning out stumps, building implements for house and field, breaking paths to water-source and fields, establishing a garden plot, ploughing land: these

<sup>81</sup> On views of American “wilderness”, see Cronon, *Changes in the Land*, note 27 above; Kolodny, *Lay of the Land*, note 12 above, and idem, *The Land Before Her*, note 19 above, and Roderick Nash, *Wilderness and the American Mind*, 3rd ed., New Haven and London, Yale University Press, 1982 [1976].

<sup>82</sup> See Everard B Dickinson, Buffalo City, to Mr and Mrs Philo Dickinson, Hartford, Connecticut, 22 September 1848; and Dickinson, North Fork, Izard County, Arkansas, to Mr and Mrs Philo Dickinson, Springfield, Massachusetts, 22 June 1849 and 21 June 1850, collection H-4, box 1, folder 54, UALR. Arkansas had in 1848 been a state for thirteen years: “newness” was in the eye of the beholder. For similar praise of the region as a hunter’s and wanderer’s paradise, see Gerstacker, *Wild Sports*, note 12 above, and idem, *In the Arkansas Backwoods*, note 75 above. For one account of Dickinson’s experiences in Arkansas, see Donald Harington, *Let Us Build Us a City: Eleven Lost Towns*, San Diego and New York, Harcourt Brace Jovanovich, 1986, pp. 150–6.

and other labours of settlement were both the practical and the symbolic appropriation of natural terrain.

In many accounts of the period, cultivation was seen as capable of producing numerous changes—to climate, to soil, and to surrounding vegetation. Early-nineteenth-century accounts pre-figure later assertions about the Great Plains that “rain follows the plow”.<sup>83</sup> Throughout the nineteenth century, many Americans confidently assumed that cultivation itself would effect shifts in climate. In the first chapter of his extremely successful novel *The Pioneers*, in which several characters travel by sleigh in upstate New York, James Fenimore Cooper explained that “[m]any of the American sleighs are elegant, though the use of this mode of conveyance is much lessened with the melioration of the climate, consequent on the clearing of the forests”.<sup>84</sup> Author of the consummate nineteenth-century frontier narrative, Cooper reflected common understanding. A German visitor to Missouri in 1838 wrote of the terrible winter he was experiencing, regretting that “there is no such thing in Missouri as a winter which approaches the rainy season of the tropics. There will be no change in the climate of the state until clearings and tilling of the soil have done their work”.<sup>85</sup> As farmers worked the land, changing its nature, they trusted that their transformation of the soil would work changes upon the rest of the environment, rendering it more hospitable, and “meliorated” to human habitation.<sup>86</sup>

Cultivation appears in these and other accounts as a crisis—a potentially productive, cathartic crisis affecting all aspects of the environment. Furthermore, the crisis of cultivation paralleled that of disease: when accomplished, crisis changed the entire state of the body (human or land); when blocked or only incompletely unfolded, it had the capacity to yield great harm. In the human body, crises of health had to be resolved by drawing out destructive essences: draining pus, lancing a boil, vomiting, experiencing diarrhoea, sweating. Many therapeutic interventions, in home therapies as well as in professional medicine, were geared toward producing this crisis in which the body would let off built-up and harmful forces. These crises of health—often associated especially with critical moments in fevers—were dangerous. They could end in death, or they could lead to the resolution of the disease. Critical moments in a fever or an illness were thus occasions for heightened

<sup>83</sup> This theory, promoted by western boosters, notably U.S. Geological Survey geologist Ferdinand V Hayden, came to guide and justify positive evaluations of land in the Western U.S. in the 1860s and 1870s. It was enshrined in federal policy by the Timber Culture Act of 1873, which granted quarter-sections of land to heads of household cultivating 40 acres of trees in specified Western regions for ten years. The Act, intended to transform arid lands into humid, cultivable tracts through the cultivation of trees, was a dismal failure. See Richard White, “*It’s Your Misfortune and None of My Own*”: A History of the American West, Norman and London, University of Oklahoma Press, 1991, pp. 132–3 and 150–1.

<sup>84</sup> James Fenimore Cooper, *The Pioneers*, New York, Washington Square Press, Inc., 1962 [1823], p. 3.

<sup>85</sup> Zimmerman (trans. Bek), op. cit., note 10 above, p. 41.

<sup>86</sup> As Clarence J Glacken has observed, interest in human effects on climate had deep roots in European culture; see Clarence J Glacken, *Traces on the Rhodian Shore; Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*, Berkeley, University of California Press, 1967 [2nd ed. 1973], pp. 129–30; also pp. 685–93 on late-eighteenth-century debates over effects of cultivation in the young U.S.

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vigilance and medical attention. Even a seemingly productive crisis could be pathological, if effected too suddenly. John Gunn's *Domestic Medicine* advised that those with

... ulcerous sore legs ... if of long standing, should be cautious how they heal them suddenly, without purifying and preparing the system for the change;—because the sudden suppression of a habitual discharge, without this previous purification, almost invariably seats some new disease on a vital organ, or produces death by APOPLEXY.<sup>87</sup>

Stopping or reversing the process of expulsion of harmful matter had grave consequences.<sup>88</sup> Suppressing the body's natural inclination to cast off what is harmful impelled it inward, where it might have worse effects. Gunn's capital letters highlight the anxiety produced by crisis gone awry.

Frustrating the process of cultivation could create identical pathology in land. Benjamin Rush pointed to incompleteness of clearing as the cause of disease. Cutting down trees could expose land to the sun's rays and create sickening miasmas. Therefore, he cautioned, "the cultivation of a country should always follow the cutting down of its timber, in order to prevent the new ground becoming, by its exhalations, a source of disease".<sup>89</sup> In Rush's account, human action in clearing trees created an environment of disease. Cultivation stirred up insalubrity in the environs.<sup>90</sup> Cutting the soil, however, provided release for disturbed forces and allowed a place to remain healthful. Human presence disturbed the natural balance, creating harmful influences—for which a source of release must also be provided. If—and only if—generated forces were properly released, balance and healthfulness could be re-established.

Cultivation required proper management for successful resolution. Brackenridge's 1814 travellers' guide observed of Missouri that "[t]he settlements of this territory, have in some measure obtained the character of being unhealthy. There is no doubt, but that [in Missouri], as in other parts of the western country, which have not been properly put under cultivation, autumnal fevers will prevail".<sup>91</sup> In this passage, the crisis has been inappropriately managed: cultivation has not been "properly" effected. The "patient"—the land itself—is susceptible to further imbalance and sickness. This had important human consequences. People living in "unhealthy" regions absorbed the imbalance and illness of land to their own detriment.

Settlement and order meant good health, but the disorder or derangement of transition brought disease. An implicit bargain exists in these accounts: cultivation ultimately brought health, but at the potential cost of the health of those who brought about the transition from forest to field. An 1848 *Emigrant's Hand-Book* provided a general description of the process in strongly evocative language:

The forest is levelled, hundreds of trees moulder and putrify about the cabin; the stagnate

<sup>87</sup> Gunn, *op. cit.*, note 28 above, p. 242.

<sup>88</sup> "Costiveness" (constipation) was a frequent worry. See Rafferty, *op. cit.*, note 74 above, p. 70.

<sup>89</sup> Rush, *op. cit.*, note 69 above, pp. 57–8.

<sup>90</sup> See Cassidy, *op. cit.*, note 43 above, p. 168.

<sup>91</sup> Brackenridge, *op. cit.*, note 80 above, p. 111.

waters which, while shielded from the action of the sun by the forest, had remained comparatively innocuous, exposed now to the burning rays of the sun, and rendered more deleterious by being filled with trunks and branches of decaying trees, and all kinds of putrid vegetation, become laboratories of miasma, and generate on every side the seeds of disease.

That, however, was not the end of the process: the successful resolution of the transition was keyed directly to the civilizing influence of population and plough. The *Hand-Book* continued:

Yet, where the forest is cleared away, and the land has been for a sufficient time under cultivation, and is sufficiently remote from stagnate waters, [it] may be considered as healthy as any other country . . . in proportion as the country becomes opened, cultivated, and peopled—in proportion as the redundance and rankness of natural vegetation is replaced by that of cultivation, the country becomes more healthy.<sup>92</sup>

Cultivating land released harmful essences associated with the tumult of change of state from wilderness to arable plot. Seized incompletely, the process was unhealthful. Fully complete, however, cultivation brought order—proper order—and health to the natural world.

In this and similar accounts, the release of bad essences was seen to create balance in new constraints. These ideas parallel the portrayal of menarche, teething, or other changes of state as crises. Body and land worked in similar ways; processes that were understood in the human body played themselves out in predictable ways in the natural environment, and vice versa. Consonance between the lived experience of human bodies and of natural terrain reinforced the understanding of each.

Moreover, that which created transformation was in each case parallel. Cultivation worked on soil as medicine worked on the body; bodies became healthy in the same ways that land became productive. Cultivation was a healing process performed on earth which recapitulated the initially-disruptive but ultimately health-producing interventions of domestic therapy. Levelling forests and draining swamps released their miasmatic, disease-bearing potential, in a manner resonant with the “letting” of bad essences associated with pre-Civil War medicine. The crisis of cultivation and the crisis of sickness unfolded the same way because miasmas and humours functioned with the same principles, producing the same changes in earth or in body.

In both bodies and terrain, forces exuded from sick or decaying matter could cause disease and ill health, but their release allowed the land or the body to readjust and become once again healthy or fertile. Sensual similarities link the two processes. The release of miasma and of foul smells from land and water would be familiar to people for whom emetics and purges were part of both medical practice and home

<sup>92</sup> *The Emigrant's Hand-Book; or, A Directory and Guide for Persons Emigrating to the United States of America; Containing Advice and Directions to Emigrants, but Especially to those Designing to Settle in the Great Western Valley. And also, a Concise Description of the States of Ohio, Indiana, Illinois, Michigan, Wisconsin, Missouri and Iowa, and the Western Territories; and including a Statement of the Modes and Expenses of Travel from New-York to the Interior, and an Extensive List of Routes in each State by Steamboats, Railroads, Canals and Stages. Accompanied with a Correct Traveling Map of the United States*, New York, J H Colton, 1848, p. 46. The author claims to be quoting the noted travel writer Timothy Flint in this passage: many travel and emigrants' guides borrowed freely from one another's descriptions.

pharmacopoeia. Human body and natural world paralleled each other, responding to similar stimuli in similar ways.

In both human bodies and bodies of land, protean essences of the interior could be aggravated by localized interactions on the skin or the surface of the land. In certain respects, these operations were visually as well as functionally parallel. Clearing land changed the surface of terrain. Cutting trees and burning away covering vegetation bared and disrupted discrete patches of previously well-covered soil. This action could be seen as identical to plastering or blistering the human body: all create localized regions in which negative forces are drawn to the surface and released. The sun, let in to bake previously unexposed areas, drew out bad essences like the effect of heat on the human body, whether through cupping or hot plasters. Similarly, the long, parallel furrows produced by harrow and plough in planting crops of maize, wheat, or cotton scored the surface of the land in ways that looked and functioned like the parallel bloody stripes of a scarificator or a blood-letter's knife. Establishing themselves upon the land and working it to make it productive, early-nineteenth-century planter families employed techniques recapitulating therapies of professional and home-based health care. They wrought a domestic, and domesticating, medicine upon the land.

Cultivation *cured* wilderness, managing a transformation between states. Yet just as healing could require either comforting therapies or violent action upon the sufferer's body, the processes of cultivation demanded a range of interactions: action and passivity, operations performed upon the soil as well as the long wait for seed to flourish, cows to bear, or seasons to shift. The sameness of cultivation and domestic healing reflects images of power and control, but also nurture, care, and even helplessness. Resonances between the two processes reflect settlers' many levels of relationship with their bodies and natural environments. The forces governing both body and the natural landscape were only incompletely understood, and they were never fully mastered. Lack of control and acknowledgement of dependence—on others, on weather, on the will of God—marked the experiences of both sickness and cultivation. Understandings of cultivation reflect the power felt by those who successfully established a household, cultivated the soil, and created of the land sustenance for their families. They also reflect the less powerful aspects of the process of settlement. Accounts of the early American settlement of Arkansas and Missouri place the human self in the position of land: full of potential, but requiring careful ministrations to go through desperately-sought transformations. The geography of health offered a double identity, both as powerful cultivator and as vulnerable land, to the newcomers who engaged in a complex set of interactions with terrain around them.

The many meanings underlying the concept of cultivation of the Missouri–Arkansas region reveal the occasional powerlessness of men and women who worked with fierce energy to heal sick relatives and to establish families upon “new” land, but who in neither case could be sure of understanding and controlling all the factors intrinsic to these parallel crises. In the language of American Western settlement, a language long associated with mastery, conquest, and domination, appear grace-notes of tenuousness, vulnerability, and intimate ambiguity.

## Conclusion

Americans of the early nineteenth century did not move only upon the country, or across it or over it. Rather, they moved *within* a natural environment whose manifestations were everywhere around and in them. The dirt in their hands, the loam and detritus under their children's bare feet, the air, moisture, wind and heat that surrounded and buffeted them: all of these made up "the country" that could be either healthy or sickly—or an ambiguous mixture of the two. Western migrants experienced a host of sensations and interactions with their environment and then characterized it as a whole entity: "this country is sickly" or "this is a healthy region". Not disease only, but the entire surrounding world was implicated in such judgement.

The manifold aspects of the popular geography of health resonated with meaning to Western newcomers of the early 1800s because they rested upon a fundamental intertwining of the functioning of human bodies with that of the natural world. In employing the frameworks of health and environment, nineteenth-century American settlers reveal that they understood their terrain by extension of the ways in which they understood their own bodies. The same processes and the same compulsions acted upon their own frames as on the land they sought to till.

"Thinking with" a popular geography of health, emigrants to Arkansas and Missouri categorized the health of the environments they encountered. Elevation, qualities of waters and winds, familiarity, unpredictability, and sundry minute characteristics of the natural world could render it healthy or disease-ridden; changing conditions—whether produced by human or natural agency—could alter the healthfulness of land just as they could the health of the body. Ever-present and powerful miasmas conveyed the essential sickliness of putrid or rank waters, plants, or objects to the vulnerable recesses of the human body. Through miasmas, the earth reached out and into human bodies, conjoining with them to impart its properties. Early-nineteenth-century accounts reveal a blurring of categorical differences between natural world and individual self. Both body and environment were in thrall to similar forces, could be operated upon by similar procedures, and had to endure violent—if cathartic—crises. Common perception of environment and of human health led early-nineteenth-century emigrants to Arkansas and Missouri to understand terrain to operate as their own bodies did. They saw themselves in the land, and the land in themselves.

Land had meanings both political and economic, social and deeply personal. Implicit recognition of fundamental sameness between nature and human body created ownership and intelligibility for what was unknown, unclaimed, and feared. The geography of health appropriated, familiarized, and helped make *American* an environment perceived as unknown and potentially harmful. That which was external, new, wild, and feared became understood in similar terms as the reality of each settler's body. This very link to the familiar, however, signals the many meanings of the natural world.

The fundamental link between actions of body and environment revealed in the early-nineteenth-century geography of health expresses the destabilizing potency of



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the only partially understood. Parallels between land and body, between medical practice and the practices of cultivation, express the limits of full comprehension and possession. The language of health and land centres on the everyday, private experience of the lived human self, one which was dependent upon forces both interior and exterior. Yet bodies were only incompletely understood, the forces besetting them only incompletely catalogued, just as land was only ever incompletely brought under control. Bodies could be watched, shepherded, treated, and often restored to health when thrown into sickness's disarray. They were also easily "deranged", subject to myriad influences from within and without. Understanding the environment and the body as mutually influencing and mutually intelligible expresses both dominance and vulnerability, linkage and lack of control. "Healthy" land, like a "healthy" body, was in dynamic tension, never fully at rest, and never fully mastered.

The geography of health expressed a volatile mix of susceptibility to land and to bodily ills, and power over them. It expressed the possibilities of both balance and disarray, dread illness and robust health, success and economic failure. When Arkansas and Missouri newcomers like Justus Post termed the land they wished to settle "healthy", they not only revealed important aspects of how they understood their own bodies to work, but they drew on a powerful set of resources for understanding and interpreting land. Taking it into their conceptual framework, seeing land and body as operating in the same ways, American settlers transformed a landscape they experienced as wild and inchoate into the familiar and understood. Employing a resonant language of healthfulness, they expressed their own relationship with the natural world as simultaneously intimate and tenuous. The popular geography of health upon which they drew allowed—indeed, demanded—a range of conceptual and emotional responses that reflect the ambiguous and always freighted passion attending American settlement of the early "far West".