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"An Army of Tubercular Invalids": New Mexico and the Birth of a Tuberculosis Industry

JAKE W. SPIDLE, JR.

The White Plague, or tuberculosis, dominated New Mexico medicine at the end of the nineteenth century and during the first decades of the twentieth and cast a long shadow into the future as well. It was one of the central factors in the foundation and development of hospitals across the state; it was the main reason for the migration of hundreds of physicians to the state; and it heavily influenced the basic structure and differentiation of the state's medical profession. But the importance of the tuberculosis industry (for such it swiftly became) hardly stopped there. Simply put, it was one of the basic factors in the peopling and development of the state in the critical decades just before and after statehood.

New Mexicans are keenly aware of the importance of the cattle and mining industries in the early history of their state. They are not so conscious of the central role played by the tuberculosis business. It was nothing less than co-equal in importance to cattle and mining. Erna Fergusson wrote of Albuquerque in the 1920s and 1930s that the town had only two industries, the Santa Fe railroad and tuberculosis; and a Roswell physician observed of his hometown in 1910, "Were it not for

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this reputation [as a haven for lung patients], Roswell today would still be only a cow-camp."¹ At the end of the nineteenth century New Mexico became known as "nature's sanatorium for consumptives," and a flood of pulmonary invalids sought refuge here.² A Santa Fe physician, himself a tuberculosis victim in his youth, summarized the phenomenon:

The Spaniards had gone North and West, seeking golden cities to loot and pagan souls to save. The Anglo-Saxons went West to seek land and gold and to save their health.³

For most Americans of the twentieth century tuberculosis is a faintly anachronistic term. To the degree that it enters our consciousness at all, it is largely an unpleasant historical memory. A few Americans are aware of its continued significance in developing countries around the globe, where it remains a major public health problem. It also constitutes a surprisingly resilient, worrisome menace among our American Indian people.⁴ This attitude of disinterest is a recent phenomenon. It stretches back no further than a generation or so, to the advent of effective drug therapy against the disease in the late 1940s and the early 1950s. Prior to that discovery, tuberculosis—most commonly called "consumption" in the English-speaking world because it seemed literally to eat away its victim's flesh—was one of the most dreaded and historically momentous of human-disease foes.

The White Plague has been a tragically familiar companion of humankind as far back as we can see in human history. Bone lesions in Egyptian skeletal remains dating to 3000 B.C. testify to the disease's presence, and various kinds of evidence confirm its existence in ancient Chinese and Indian societies as well. The Greeks of the ancient world suffered its ravages, as did the Romans of the imperial era.⁵ Steadily, throughout the medieval and Renaissance periods of Western history, the affliction exacted a punishing toll in human misery and mortality. Tuberculosis reached a terrible climax from the seventeenth through the nineteenth centuries when it was the most fearsome killer of Western society. In the seventeenth century, John Bunyan called it "the captain

^{1.} Erna Fergusson, *Our Southwest* (New York: Alfred Knopf, 1940), p. 228; Charles M. Yater, "Therapetitic [*sic*] Notes—Status of Tuberculosis in Roswell," *New Mexico Medical Journal*, 5 (August 1910), 270–72.

^{2.} Paul M. Carrington, "The Climate of New Mexico, Nature's Sanatorium for Consumptives," New York Medical Journal, 86 (July 6, 1907), 1–10.

^{3.} Julius Lane Wilson, "The Western Frontier and Climate Therapy," *Journal-Lancet*, 86 (December 1966), 564–67.

^{4.} For an appraisal of the continuing impact of tuberculosis on the American Indian, see J. M. Samet et al., "Respiratory Disease Mortality in New Mexico's American Indians and Hispanics," *American Journal of Public Health*, 70 (May 1980), 492–97.

^{5.} Henry A. Sigerist, A History of Medicine (2 vols., New York: Oxford University Press, 1951, 1961), 1: 53–54.

of the men of death," the respectful label enshrined ever since in medical history textbooks. In America the nineteenth century was called "the century of tuberculosis," for it was the leading cause of death throughout that century and into our own.⁶ The mortality figures associated with the disease were frightening—at the end of the century tuberculosis consistently claimed 150,000 lives in the United States every year—but these statistics only begin to suggest its full impact. For every death attributed to the malady, there were another ten to twenty victims suffering in some stage of the disease. Nor was it any respecter of persons. Among the famous tuberculars of history were Keats, Shelley, Schiller, Elizabeth Browning, Thoreau, the Brontë sisters, Chopin, Balzac, Robert Louis Stevenson, Cecil Rhodes, Niccolo Paganini, and Ralph Waldo Emerson.

The special horror of tuberculosis was the slow, lingering death so characteristic of the disease and the futility of the treatments available for it. As late as the end of the nineteenth century therapy for this dread ailment was little better than at the time of Hippocrates, and in many ways it was worse. Some of the fourth century B.C. contemporaries of Hippocrates had been on the right track, prescribing good food, mild exercise, and change of climate for the problem. Other antique remedies were less savory, involving medicines with ingredients such as liver of wolf, boiled in wine; lard of a thin sow fed on herbs; bouillon made from the flesh of an ass; dried rosin from the lung of deer; and the eating and drinking of filth, based on the logic that the more offensive the remedy, the more likely it was to drive from the patient's body the malignant substances that caused the disease.⁷ Certainly, the so-called heroic therapy employed against the disease in the eighteenth and early nineteenth centuries-purging, vomiting, sweating, diuresis, blistering, and bleeding-was utterly ineffective and undoubtedly sped the disease's progress in many cases. The great American physician, and signer of the Declaration of Independence, Benjamin Rush, reported bleeding his consumption patients two or three times a week, taking six to eight ounces at a sitting, and recommended long journeys on horseback between bleedings.⁸ The second half of the nineteenth century, however, witnessed the gradual abandonment of heroic therapy and the substitution of more moderate, conservative treatment of the disease. Even so, a century ago a tuberculosis diagnosis sent a chill down the anxious patient's spine, and was regarded as something akin to a death sentence. Upon the development of his first pulmonary hemorrhage, the

^{6.} Esmond R. Long, "Tuberculosis in Modern Society," *Bulletin of the History of Medicine*, 27 (July–August 1953), 301–19.

^{7.} Julius H. Comroe, Jr., "T.B. or Not T.B.? Part II: The Treatment of Tuberculosis," American Review of Respiratory Disease, 117 (February 1978), 379–89.

^{8.} Ibid.

poet Keats, trained as a physician, observed with resignation, "That drop of blood is my death warrant, I must die," and a year later he was indeed dead, at age twenty-five.⁹ So grim was the prognosis for the disease, and so ineffectual all therapies for it, that the French physician Sigismond Jaccoud lamented, "The treatment of tuberculosis is but a meditation on death."¹⁰ Within that depressing scenario a new form of tuberculosis treatment called "altitude therapy" developed in the middle of the nineteenth century. New Mexico and the Rocky Mountain West suddenly took on special prominence as a great natural spa.

Even before tuberculosis patients began to look to the mountains for salvation. New Mexico enjoyed a reputation for the special salubrity of its climate, particularly for its beneficent effects on people with "weak lungs," As the exploration of the Rockies proceeded, accounts of the special healthiness of the region began to appear. Zebulon Pike in 1810. Dr. Edwin James of the Long expedition in 1823, Josiah Gregg in 1844. and Captain John Frémont in 1845 all noted the unusual healthiness of the region. Gregg was particularly influential in establishing the reputation of the area as a health sufferers' paradise. William Bucknell and party had opened the sixty-year-long history of the Santa Fe Trail in 1821, and Gregg made the first of several treks to Santa Fe ten years later. In his famous Commerce of the Prairies: Or the Journal of a Santa Fe Trader during Eight Expeditions across the Great Western Prairies, and a Residence of Nearly Nine Years in Northern Mexico, first published in 1844, Gregg testified to the curative properties of the wagon-train trek down the trail and of the upland region, which was its goal:

Among the concourse of travelers at this starting point [Independence, Missouri], besides traders and tourists a number of palefaced invalids are generally to be met with. The prairies have, in fact, become very celebrated for their sanitative effects . . . owing, no doubt, to the peculiarities of diet and the regular exercise incident to prairie life, as well as to the purity of the atmosphere of those elevated unembarrassed regions. An invalid myself, I can answer for the efficacy of the remedy, at least in my own case.¹¹

More emphatic still, and explicit in linking the glorious climate of the Rockies and relief from pulmonary ailments, was the account published in 1847 by the young English adventurer George Frederick Ruxton, describing his explorations of the area around Pikes Peak:

^{9.} Cited in Harry F. Dowling, *Fighting Infection: Conquests of the Twentieth Century* (Cambridge, Massachusetts: Harvard University Press, 1977), 70.

^{10.} Selman A. Waksman, *The Conquest of Tuberculosis* (Berkeley: University of California Press, 1964), 96.

^{11.} Josiah Gregg, Commerce of the Prairies, ed. Milo Milton Quaife (Lincoln: University of Nebraska Press, 1967), 21.

It is an extraordinary fact that the air of the mountains has a wonderfully restorative effect upon constitutions enfeebled by pulmonary disease; and of my own knowledge I could mention a hundred instances where persons whose cases have been pronounced by eminent practitioners as perfectly hopeless have been restored to comparatively sound health by a sojourn in the pure and bracing air of the Rockey Mountains, and are now alive to testify to the effects of the reinvigorating climate.¹²

Similar reports multiplied as increasing numbers of people traveled down the Santa Fe Trail, with almost all accounts insisting on the curative properties of the West's pristine air, its glorious sunshine (especially in the Southwest), and the generally tonic effects of the region's altitude and its outdoor life. The response to such tidings was rapid. As both Gregg's and Ruxton's accounts observe, as early as the 1830s and the 1840s pale-faced invalids were beginning to trickle across the prairies, seeking salvation in the favored mountain country of the West.

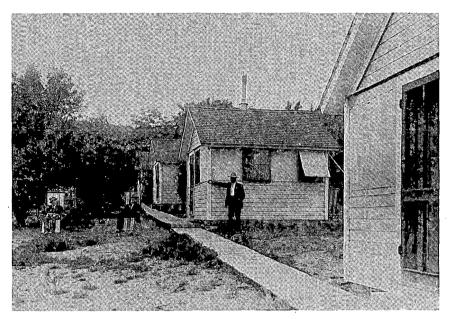
In New Mexico the stream of health-seekers was accelerated by the annexation of the region to the United States in 1846. The presence of the U.S. Army afforded at least a modicum of security and stability for would-be immigrants, and, just as importantly, the reports of army officers and medical men stationed in the new territory lent a vital boost to the region's growing reputation for salubrity. Army surgeons reported glowingly on the health conditions of the region and particularly emphasized the virtual freedom from tuberculosis of soldiers stationed in the area.¹³ These army reports, coupled with those of the Santa Fe Trail pilgrims, contributed enormously to the relatively quick emergence of New Mexico as a "salubrious El Dorado."¹⁴ More basic still, however, was the rise of new medical doctrines in the latter half of the nineteenth century.

The second half of the nineteenth century was arguably the most creative and revolutionary epoch in the entire history of medicine. Among the major developments of that period were Pasteur's germ theory and the bacteriological revolution that it initiated; the discovery and development of both general and local anesthesia for surgical purposes; the

^{12.} Cited in Frank B. Rogers, "The Rise and Decline of the Altitude Therapy of Tuberculosis," *Bulletin of the History of Medicine*, 43 (January–February 1969), 1–16.

^{13.} Julius L. Wilson, "Pikes Peak or Bust: An Historical Note on the Search for Health in the Rockies," *Rocky Mountain Medical Journal*, 64 (September 1967), 59–62. The strength and consistency of those reports ultimately led the federal government to choose New Mexico as the site for the first two federal sanatoria in the country—one at Fort Bayard, in October 1899, and the second at Fort Stanton, in November of that year.

^{14.} This felicitous phrase is that of Karen Shane, in "New Mexico: Salubrious El Dorado," New Mexico Historical Review, 56 (October 1981), 387–99. This is the best general account of New Mexico's emergence as a kind of gigantic natural spa.



Patients "chasing the cure" in 1918 at Valmora Sanatorium. Photo courtesy of Dr. Carl H. Gellenthien, Valmora.

pioneering work in antiseptic surgery; the birth of modern chemotherapeutics; the root-and-branch reform of nursing effected by the inestimable Florence Nightingale; the discovery of the X-ray; and much else that is fundamental to modern medical science and health-care delivery. In that fertile milieu of radical thought and experimentation, ideas achieved a prominence that greatly boosted New Mexico's growing acclaim as a convalescent's haven. One such idea was the notion, supported by an increasingly convincing body of evidence, that altitude possessed special curative power in the treatment or relief of miscellaneous and sundry human ills, and lung problems in particular. The basic logic of altitude therapy rested on the assumption of good, or at least better, air at high altitudes—cleaner, fresher air without the pollutants of lower climes—and on the ostensibly beneficial effects of reduced air pressure.

At least as early as Hippocrates, of course, medicine had preached the therapeutic value of good air, but it remained for the nineteenth century to elaborate that homespun wisdom into a science. Particularly important in that process were the contributions of two European physician-researchers, the German tuberculosis specialist Dr. Hermann Brehmer and a London chest-doctor Hermann Weber. In 1854, Brehmer opened an experimental hospital for tuberculosis patients in the German

village of Göbersdorf. Through his doctoral research, Brehmer had become convinced of the therapeutic effects of altitude in cases of early tuberculosis, and the institution at Göbersdorf was designed to test his theory. He also preached the importance of abundant, rich food and regular exercise for victims of the disease, and in the 1870s Brehmer's theories and results began to attract wide attention.¹⁵ The publication of two important essays-"On the influence of Alpine climates on pulmonary consumption" and "On the treatment of phthisis by prolonged residence in elevated regions"-by Weber was particularly important in drawing attention to Brehmer's work and in promoting convalescence at high altitudes for tuberculars.¹⁶ Weber had worked and studied in the Swiss Alpine resorts of Davos and St. Moritz, and from his experience there, he was persuaded of the importance of altitude therapy for the victims of a wide variety of lung diseases, especially tuberculosis. In his work, he catalogued a half-dozen advantages associated with high altitude: the diminished humidity of the air; the dryness of the soil; low temperature: the relative absence of manmade and natural pollution; the greater number of clear days; and the higher percentage of ozone in the air. Weber made very little effort to correlate his observations with hard physiological data, but argued basically from empirical observation and the tenets of common sense. His work, combined with that of Brehmer, attracted widespread interest, most of it quite favorable, and won general acceptance within influential medical circles. Among the reasons for its attractiveness, of course, was the fact that it provided a patina of scientific respectability or logic to the traditional belief in the power of mountain air.

The development of this formal altitude therapy in Europe immediately imparted renewed vigor and enhanced credibility to the arguments of those who had already, for some decades, insisted on the special salubrity of the mountain West. In linking their arguments to the work of Weber and the school he established, American physicians in both the East and the West began to explain the special health advantages of the Rockies by reference to the new "science." Several Colorado and New Mexico doctors, for example, became advocates of the theory

16. On Hermann Weber and the history of altitude therapy in general, see Rogers, "Rise and Decline," 5-6.

^{15.} R. Y. Keers, *Pulmonary Tuberculosis: A Journey Down the Centuries* (London: Baillière Tindall, 1978), 75–77. One of Hermann Brehmer's patients, Peter Dettweiler, who became his pupil, opened a similar institution at Falkenstein in Germany's Taunus Mountains in 1876. Dettweiler, however, was less convinced than his teacher of the salutary effect of altitude itself; instead, he was persuaded that it was the fresh air which was the critical factor. Exposure to fresh air, whatever the altitude, was the absolutely indispensable or essential element for recovery. This uncertainty—what, exactly, was it that most benefited well into the twentieth century.

that a line of immunity from tuberculosis existed at approximately five thousand feet above sea level. This notion was dressed up in full scientific regalia (including capital letters-The Line of Immunity) and was explained as "that elevation of some particular locality or country at which the atmospheric air is free of germs and enjoys the unobstructed effects of heat, light, and electricity."¹⁷ For many Rocky Mountain physicians, the explanation for the special salubrity of the home environs became elementary: above the five-thousand-foot line germs simply found it hard to exist. One Chicago enthusiast pushed this idea so far as to argue that in the Rocky Mountain country putrefaction of meat was a rare phenomenon, with meat curing naturally in the open air.¹⁸

The Line-of-Immunity thesis was just one of a broad variety of explanations for the special power of mountain climes. The dryness of the air at high altitude, for example, was frequently cited as the critical element in ensuring the special salubrity of the highlands, as was the equability of temperature, and particularly the absence of severe extremes. According to some, the "rarefaction" or thinness of the air was the key determinant, for "the patient is obliged to breathe more fully and deeply than in low-lying localities, and in this manner the lungs are expanded and stimulated to healthy development."19 A Colorado physician-theorist was impressed with what he called the "diathermancy" of the mountain air, by which he meant its increased capacity to transmit radiant heat, and by the atmospheric electricity of the mountain country: "You get up in the morning from your negative electric bed to stretch yourself in the positive electric air."20 Buttressed by powerful "scientific" arguments such as these, altitude therapy became firmly rooted in the armamentarium of nineteenth-century American medical thought and practice, reaching an apogee at the end of the century and slowly fading thereafter. For obvious reasons, it especially charmed physicians and lay boosters of the mountain West, even though very little hard evidence was ever adduced to support it. It proved a potent factor in the growing attractiveness of New Mexico as a health resort particularly suited to the recovery of tuberculars.

But there was more to New Mexico's appeal than just its mountains. Its climate, in general, was held up by medical men in the territory and elsewhere as extraordinarily well suited to the treatment of invalids with bad lungs. An eastern physician enumerated an entire laundry list of the territory's climatic advantages:

Wilson, "Pikes Peak," 59–60.
George M. Kellogg, "New Mexico as a Health Resort," *Journal of the American* Medical Association, 27 (September 12, 1896), 582-84.

^{19.} Rogers, "Rise and Decline," 7.

^{20.} Charles Denison, quoted in Rogers, "Rise and Decline," 8-9.

The climate of New Mexico, though far from ideal, can only be understood and appreciated by comparison with that of other states and countries. A survey of its climatic conditions, such as its altitude, its southerly latitude, its even average temperature, its low humidity, the small amount of precipitation, its excess of sunshine, the minute amounts of aqueous vapor contained in its atmosphere, its isolation from large population centers, its great distance from large bodies of water, its immunity from high winds and sandstorms, and its freedom from unsanitary surroundings, should convince the reader that there does not exist a better or more ideal climate for the elimination of disease and the restoration of health.²¹

The hymns of praise to the New Mexico climate sometimes reached surprising levels of exaggeration. For example, a French scientist-physician, a Parisian M.D., and a member of the Société Medicale de Paris no less, claimed to have spent more than two years traveling across North, Central, and South America seeking the absolutely best possible spot to establish a sanatorium for consumptives. In a letter to the editor of the Journal of the American Medical Association, he spelled out the desiderata: altitude between four and five thousand feet: not too hot nor too cold; minimal rain; no fog; limited snow; pure air; and so forth. After traipsing all across the Western Hemisphere, he finally found his perfect spot-the San Agustín plain of central New Mexico. It met all of his demanding climate criteria, and he noted: "There is a peculiarity in this country. No sooner does any one get there than he feels happy!"22 Such effusions became almost a commonplace in medical literature at the end of the century, reaching a climax in the judgment of an eminent Toronto physician, J. F. Danter. Danter visited New Mexico Territory in 1891 as the officially deputized Special Commissioner of the American Health Resort Association. He was charged with responsibility for evaluating the region's claims as a tubercular's haven, and he left the territory a true believer. His report asserted that New Mexico was superior "to any other part of the United States or the world in helping to cure the consumptive."23

Among the general chorus of praise, there were a few naysayers or discordant voices, who insisted that there was another side to the territory's rosy image. For example, a Virginia physician, who had brought his sick wife out to Carrizozo, complained in a public letter about the exaggerated claims made on behalf of New Mexico:

It is true that we have only about twelve rainy days a year, that the

^{21.} Dr. Curtis Bailey, quoted in "New Mexico as a Health Resort," *Journal of the American Medical Association*, 31 (November 12, 1898), 1179.

^{22.} Journal of the American Medical Association, 18 (February 27, 1893), 274.

^{23.} Cited in Shane, "Salubrious El Dorado," 391. (Emphasis added.)

sun shines all the time and that the temperature is seldom too hot or too cold. But there are many disadvantages to which attention should be called. During the past four months the wind has blown two-thirds of the time so hard that my wife has not been able to stay outdoors, and during the entire year the wind and dust have kept her more closely housed than the rain did in Virginia. Often for two months at a time we do not have enough rain to dampen the ground. In 1903 it did not rain for nine months. The dust is as fine as meal and very irritating on account of its excessive alkalinity. Four days at a time I have seen the wind raise so much of this dust that the view was obstructed as completely as in a fierce snowstorm. There are a few towns high up in the mountains or in small ravines where there is more rain or where the wind is not so bad, but I have described the conditions prevailing in 75 per cent of New Mexican towns.²⁴

Such criticism was rare, however, and informed medical opinion at the end of the century emphatically shared the judgment of one of New Mexico's tuberculosis specialists, Dr. H. B. Masten, that "New Mexico possesses a climate that is not surpassed, even if it is equalled, by that of any other part of the world."²⁵ With such acclaim, it is not surprising that the tide of invalids seeking healing in New Mexico began to swell.

The trickle of weak-lunged travelers heading toward the Southwest in the years after the opening of the Santa Fe Trail accelerated with every passing decade, and particularly as altitude therapy and the spreading reputation of the region for salubrity took hold. Sizable numbers of tuberculars were settled in Albuquerque and Santa Fe as early as the 1850s and 1860s.²⁶ But the hard journey across the prairies by horseback or wagon took from two to three months to complete, and it demanded considerable physical strength and resiliency of those who traveled it. Stagecoaches were somewhat quicker, but they were expensive and physically draining as well. Getting to the "Well Country" (a term often used by local boosters of New Mexico) remained a major problem long after the region's reputation was solidly established. It was a bottleneck limiting utilization by suffering consumptives of the region's pristine air and abundant sunshine. The arrival of the railroad in New Mexico at the end of the 1870s finally resolved the difficulty, and the trickle of health-seekers swelled to a flood. Within a brief time, care of the tuberculars became big business in New Mexico. From the 1880s

^{25.} H. B. Masten, "New Mexico as a Health Resort," New York Medical Journal, 76 (September 6, 1902), 414–17.

^{26.} Billy M. Jones, *Health-Seekers in the Southwest*, 1817–1900 (Norman: University of Oklahoma Press, 1967), 87.



Varieties of tuberculosis therapy are illustrated in these two photographs taken at Valmora Sanatorium ca. 1931. The young woman, a victim of tuberculosis of the larynx, is holding her tongue down using the mirror to focus the sun's rays on her throat. This treatment was called heliotherapy. The male patient suffers from a suppurative disease of the lung and is attempting to drain fluid from his lungs. This technique was called postural drainage. Courtesy Dr. Carl H. Gelenthien, Valmora.

until the start of the Second World War the "lungers" came by the thousands.

The question of exact numbers is an exasperating one. Most of the estimates made by those who lived through New Mexico's tuberculosis era and by students of the subject are frustratingly vague and subjective. Words like "numerous," "large," "significant," "thousands," and even "enormous" are bandied about, but there were no census-takers stationed at the borders demanding sputum samples of every immigrant to the region. Though indisputably accurate statistics do not exist, it is nevertheless possible to make reasonably solid judgments about the numbers of people involved. It is almost surely safe, for example, to conclude that around 1920 approximately 10 percent of the state's total population consisted of health-seekers, and to that number should be added their dependents. From town to town the percentage of tuber-culars varied widely with many towns made up predominantly of "lungers" and their families, while others for various reasons remained largely unaffected by the influx. The first attempts at estimating the numbers of

the health-seekers were made during the height of the phenomenon by contemporaries impressed with the scale of the immigration. For example, an eastern journalist writing in 1910 about Colorado, Arizona, and New Mexico suggested that "if the health-seekers and their families were to leave, the country would probably lose more than half of its population."²⁷ Though there was certainly a good measure of hyperbole in that judgment—and the journalist gave no evidence for his estimate he was probably right, at least for some New Mexico communities. That was definitely the conclusion of the best contemporary study of the health-seeker migration, a detailed investigation carried out in 1913 by a United States Public Health Service physician named Ernest Sweet.²⁸ Sweet concluded that in the majority of New Mexico towns (except for the mining communities) anywhere from 20 percent to 60 percent of all households had at least one family member who was tubercular, and his investigation proved that approximately 90 percent of those consumptives were not native.²⁹ Silver City was the most extreme case, and, in Sweet's opinion, "Were all the consumptives to leave ... Silver City would become a mere spot in the desert."30 He calculated that 80 percent of the families of that Grant County town sheltered at least one tubercular.

Several other New Mexico towns were not far behind. Socorro, Las Vegas, Raton, Las Cruces, Roswell, and others were all heavily influenced by the migration, each of them with a strong majority of their families including at least one "lunger." Even so large a town (comparatively) as Albuquerque bore distinctly the impress of the phenomenon, with perhaps as much as 50 percent of its citizenry consisting of consumptives and their relatives.³¹ Dr. LeRoy Peters, one of the state's most prominent tuberculosis specialists, estimated that in 1915 Albuquerque had more than 2,500 consumptives among its 11,020 citizens, with his figures comparing very closely to those of Sweet.³² For the state in general, there were in 1913 probably around 30,000 resident health-seekers within its total population of 330,000. One of every eleven New Mexicans of that era had come seeking the cure.³³ Large numbers came,

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^{27.} Cited in Francis T. B. Fest, "The Consumptive's Holy Grail," *New Mexico Medical Journal*, 5 (March 1910), 117–20.

^{28.} Ernest A. Sweet, "Interstate Migration of Tuberculous Persons, Its Bearing on the Public Health, with Special Reference to the States of Texas and New Mexico," *Public Health Reports*, 30 (April 1915), 1059–91, 1147–73, 1225–55.

^{29.} Ibid., 1071, 1066-67.

^{30.} Ibid., 1250.

^{31.} Ibid., 1071.

^{32.} LeRoy Peters, "What New Mexico Needs Most in Tuberculosis Legislation," *New Mexico Medical Journal*, 15 (March 1916), 29–33.

^{33.} Sweet, "Interstate Migration," 1071.

and the migration was still increasing as of 1913. The flight of healthseekers to New Mexico and the West generally began to slow somewhat in the 1920s, but throughout the twenties and thirties and into the forties their numbers remained significant. The Albuquerque Civic Council estimated that for that city alone at least 350 to 500 health-seekers (plus families, in the case of many) were arriving every year as late as the end of the thirties.³⁴ Given the state's limited population base in the first half of this century, it was a population influx of enormous significance.

What kind of people were these health pilgrims of the tuberculosis era, and how did New Mexicans react to these particular strangers in their midst? The refugees were mostly young people in their twenties and thirties, for it was part of the special savagery of tuberculosis that it struck down young adults in the prime of their lives with special frequency. At the beginning of this century, pulmonary tuberculosis claimed in any given year fully one-third of all the young adults who died in the productive years between fifteen and forty-four years of age. The New Mexico health-seekers fit that national pattern, for most of them were young people, with the over-forty group rarely represented.³⁵ They were predominantly male. A sample of a thousand health-seekers in El Paso, made around the start of the First World War, produced 715 males and 285 females,³⁶ and figures for New Mexico would surely be little different. Pulmonary tuberculosis itself showed no such marked sex preference. The great predominance of men in the health-seeker sample is a reflection of the greater independence and mobility among American males of that era than among females. Sociologically, they represented the spectrum of America's populace, although there was a slight tilt toward the upper end of the social ladder. One authority has called the "lunger" exodus "a selective process" that stocked western cities "with educated. upper-middle-class, professional people, often the fathers or grandfathers of today's civic leaders"; and that judgment seems, by and large, accurate.³⁷ The other end of the social spectrum, however, was also represented in New Mexico. Silver City doctors, for example, certainly judged the clientele at the two federal sanatoria in the state harshly:

Without a doubt no other institutions, outside those of a penal character, or insane asylums, can show quite so inferior a class of patients as these two have to accept. Their patients are mostly soldiers and sailors: equally improvident, thoughtless, dissipated, ungrateful, and to a great extent syphilized.³⁸

^{34.} Fergusson, Our Southwest, 229.

^{35.} Fest, "The Consumptive's Holy Grail," 118.

Sweet, "Interstate Migration," 1245.
Wilson, "The Western Frontier and Climate Therapy," 566.

^{38.} Earl S. Bullock and C. T. Sands, "Twelve Years of Pulmonary Tuberculosis Treat-

There may indeed have been something to that unequivocal indictment of the patients at the federal institutions, but, in general terms, the healthseekers were important contributors and valuable additions to New Mexico society.

For their part, New Mexicans were generally inclined to welcome the health-seekers, greeting them with sympathy and encouragement. To their great credit, simple compassion and concern for their stricken brothers and sisters seem to have been the controlling elements in the reactions of most New Mexicans. If their glorious sunshine and magnificent mountain air might ease the physical ills of these unfortunate health-seekers, then so be it and welcome. There were also many, however, who were quick to appreciate the economic opportunities inherent in the phenomenon. There was an immediate need, of course, for hospital construction to take care of the more desperately ill among the invalids, and the great majority of them would have to seek out local physicians for proper medical supervision while they "chased the cure,"39 but the economic impact did not stop there. Hotels and boardinghouses profited from the steady tide of "lungers" and their families; real-estate agencies, moving and storage companies, and service industries were beneficiaries of the influx. Other spinoff businesses (including funeral homes for the unsuccessful or for those who came too late) were boosted by the arowth of the migration.

State and local government agencies and business circles quickly organized themselves to respond to the opportunities and responsibilities associated with the tuberculosis industry. As early as 1880, the arrival of the railroad had prompted the territorial government to establish a Bureau of Immigration to help promote the territory and encourage the investment of money and people in it. Over subsequent years the bureau issued reams of promotional material, with much of it emphasizing the state's special salubrity. An explicit appeal to consumptives and to physicians caring for them was commonly a part of that propaganda. As an example, one of the bureau's 1881 publications wrote of Grant County: "For all pulmonary complaints there is not a more congenial spot on the top of the earth. Here you inhale the pure, fresh, life-giving and invigorating air."⁴⁰ Other official and nonofficial agencies also played a part in boosting the territory. Albuquerque's Commercial Club,

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ment in the West," *Journal of the American Medical Association*, 52 (June 19, 1909), 1973–80.

^{39.} This superficially curious phrase was ubiquitous during the era of the "lungers," but there is no formal study of its origins. It surely had something to do with the flight of tuberculars from their homes in quest of recovery, chasing the will-o'-the-wisp of good health. It may also have had to do with the most prominent physical symbol of sanatorium life, the chaise lounge on which tubercular patients took their daily rest.

^{40.} Cited in Shane, "Salubrious El Dorado," 388-89.

forerunner of the Chamber of Commerce, encouraged its members to take advantage of all opportunities to publicize their city as a healthsufferer's paradise, and promoted the health industry in other ways as well. It organized and financed advertising campaigns—its secretary in 1915 coined a new slogan for the city: "Albuquerque, New Mexico, where the sick get well and the well get prosperous!"⁴¹—and directly invested some of its funds in helping tuberculosis-related enterprises get off the ground. One prominent example reveals that in 1907–1908, when the Presbyterian Church was considering Albuquerque and a number of other Southwest cities as a possible site for a church-sponsored tuber-culosis sanatorium, the Commercial Club offered to raise two thousand dollars to help purchase a site for the institution.⁴²

Similarly, both state and local governments offered various incentives to facilitate the development of the health industry. The territorial legislature in 1903 offered exemption from taxation for a period of six years to any company willing to invest one hundred thousand dollars in construction of a sanatorium.⁴³ City governments tried various stratagems to encourage this kind of development. When foundation of a sanatorium by the Methodist Church was under discussion in 1917, the city of Albuquerque was eager to help, offering to waive sewer-connection charges for the new facility. The next year, however, the city fathers refused to deal expeditiously with a request for the city's cooperation in the establishment of a "Booker T. Washington Memorial Sanatorium," and the proposed institution came to naught. The plan was essentially killed by delays.⁴⁴ There were obvious limits to what kinds of tuberculosisrelated enterprises would be encouraged. This entrepreneurial response to the influx of health-seekers ought not to be considered callous or heartless exploitation of the unfortunates flocking to New Mexico. Although it was indeed opportunist and hardheaded, there is virtually no evidence of flagrant exploitation of the tuberculars over the half-century span of the health-seeker era. It would be foolish, however, to ignore the pragmatism that accompanied the honest desire to help in the reaction of New Mexico and its citizens to the development.

New Mexico's doctors joined enthusiastically in the promotion of their home as a haven for consumptives. They made sure, for example, that the territory was prominently represented in national organizations

^{41.} Journal of the American Medical Association, 65 (October 2, 1915), 1194.

^{42.} Marion Woodham, A History of Presbyterian Hospital, 1908 to 1976, with an Update through 1979 (Albuquerque: Presbyterian Hospital Center, 1980), 2. It appears, however, that the club did not deliver on its pledge. See Stephany Wilson, "The Passing of an Era: Presbyterian Sanatorium Coming Down," Inside: The Presbyterian Hospital Center Magazine, 1 (1967), 4.

^{43.} Journal of the American Medical Association, 41 (December 5, 1903), 1432.

^{44.} Shane, "Salubrious El Dorado," 394-95.

and conferences associated with the war against tuberculosis. No fewer than seven New Mexico tuberculosis specialists from around the territory trekked to New York City in 1901 to represent New Mexico at a meeting of the American Congress of Tuberculosis, and Dr. Francis Crosson of Albuquerque delivered a paper on "The Sanatorium Treatment of Tuberculosis in New Mexico."45 Additionally, they pounded away at their typewriters, producing numerous articles for both local and national journals. Much of that writing was straightforward boosterism, touting the advantages of New Mexico for consumptives; but they also published guite respectable research reports and clinical studies, an activity which at least indirectly served to emphasize the fact that New Mexico and its physicians were in the forefront of research and treatment of the disease.⁴⁶ And they cultivated and preserved an extensive network of medical contacts around the nation in order to keep in touch with ongoing research and study in their field and to keep themselves and their region in the mainstream of the burgeoning tuberculosis industry.

Consistently through the half-century of the "lunger" era, New Mexico welcomed and encouraged pulmonary immigrants. As late as 1932 the Albuquerque Civic Council, especially created to boost the city's renown as a health center and funded by a special tax levy, was still billing Albuquerque as "the heart of the health country."⁴⁷ There was, however, another side to that coin, for a kind of backlash to the flood of tuberculars, at least to some elements among them, did in time develop. The objections voiced against the health-seekers were broadly of two types. First, some New Mexicans began to fear the spread of the disease, to worry about the effects on healthy natives of so many pulmonary patients coughing, wheezing, and spitting invisible death all about them. And second, while tuberculars flocking to the state with sufficient money to take care of themselves in their exile were one thing, impecunious consumptives, sitting on the curbsides, spitting in the roadway, and depending on the largess and goodwill of New Mexicans for their care were quite another.

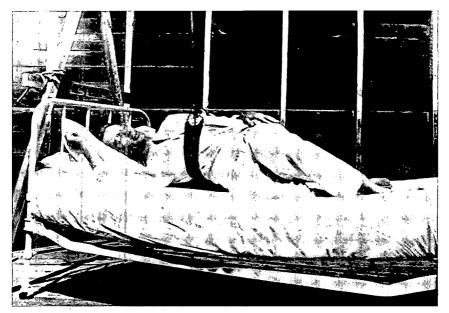
Although the basic studies in the 1860s of the French army surgeon

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^{45.} Journal of the American Medical Association, 36 (May 18, 1901), 1405.

^{46.} See, for example, Bullock and Sands, "Twelve Years of Pulmonary Tuberculosis Treatment," 1973–80, for a good example of the genre. Drs. Bullock and Sands, who were themselves "lungers," practiced in Silver City at the Cottage Sanatorium. Bullock was one of the grand old men of New Mexico tuberculosis specialists, practicing in Silver City from 1899 until 1926, when he returned to his native Michigan. He published numerous papers and personally taught and influenced several waves of New Mexico lung specialists. Dr. Sands worked, studied, and sought to recover from his own case of tuberculosis with Bullock's help. Sands left Silver City for Las Cruces, but he died there of pulmonary tuberculosis at age thirty-three in 1916.

^{47.} See its publication, *Sunshine and Health in Albuquerque* (Albuquerque: Civic Council, 1932), 3.



This tuberculosis therapy at Valmora Sanatorium was intended to limit the patient's chest motion in order to allow his lungs to rest. A belt hoist was slung around the thorax. Courtesy Dr. Carl H. Gellenthien, Valmora.

Jean Villemin had strongly suggested the contagiousness of tuberculosis, it was not until after the discovery of the tubercle bacillus in 1882 by the German bacteriologist Robert Koch that the idea began to take firm root in the public consciousness. Initially, there was relatively little worry about the communicability of the disease, but shortly after the turn of the century the general public grew increasingly concerned about the spread of the germ by spitting, sneezing, and coughing. That increasing anxiety took form in different ways, with the passage of restrictive public-health legislation as one of its more conspicuous and constructive manifestations. One of the major reasons for the formation of the New Mexico Society for the Study and Prevention of Tuberculosis, organized at the 1909 annual meeting of the New Mexico Medical Society, was "to promote interest in the fight against tuberculosis and to stimulate on the part of the people a desire for laws offering some degree of protection against the large number of alien consumptives who annually flock to our doors."48 In his 1908 presidential address to the New Mexico Medical Society, Dr. Robert E. McBride, a distinguished Las Cruces physician who, incidentally, had come to New Mexico in 1904

^{48.} Peters, "What New Mexico Needs Most in Tuberculosis Legislation," 229.

for the sake of his wife's health, expressed the growing alarm felt by many in the territory and hinted at the prospect of strong measures:

The army of tubercular invalids should be brought under some sort of control; promiscuous expectoration should be stopped and every possible means taken to prevent these unfortunates from becoming a danger to the population. I would not have you understand that I advocate the plan that forbids them the right to search for health in this glorious climate, but I most assuredly do believe that in return for the health-giving properties of our glorious climate they should be willing to submit to some legal regulation. Just what, is the question, but if we put our heads together I am sure that we can evolve some plan whereby they may be made comfortable and yet not be a source of danger.⁴⁹

President McBride's mention of "the plan that forbids them the right to search for health in this alorious climate" referred to the fact that there already existed widespread public sentiment, not only in New Mexico but also in other areas strongly affected by the "lunger" migration, in favor of legal barriers to control the influx. The suggestion was already bruited about that the federal government should step in and regulate the traffic by a system of inspection and by requiring the issuance of a permit to all infected interstate travelers. This was considerably more than just citizen grousing. The governor of Texas had already convened an interstate conference in Waco, Texas, to which delegates from Kansas, Utah, Colorado, Arizona, Oklahoma, and New Mexico had been invited to discuss the possibility of establishing a quarantine at state boundaries, which would permit passage only to special classes of health-seekers.⁵⁰ Such discussion eventually came to naught, but it was important in building public sensitivity to the issue and consensus on the necessity for public-health legislation to cope with the situation.

Despite its intensive exposure to the problem, New Mexico lagged behind most of the nation in establishing public-health laws for the control of tuberculosis. A law prohibiting public spitting was passed in 1907, slightly later than similar legislation elsewhere, but New Mexico officials were slow to see the wisdom of such basic steps as making tuberculosis a notifiable disease or requiring the fumigation of quarters vacated by tuberculars. Their dilatoriness was partially a function of the territory's general backwardness in the sphere of public health, but it was also a result of the concern of vested interests not to overreact and scare away

^{49.} Robert E. McBride, "The New Mexico Medical Society: Some Duties and Opportunities," New Mexico Medical Journal, 4 (September 1908), 10–15.

^{50.} Sweet, "Interstate Migration," 1086-87, 1160.

the health-seekers by a frenzy of restrictive legislation. Sadly, New Mexico was "ahead" in only one area of public-health legislation-its wellintentioned but ill-conceived 1901 law forbidding teaching in the public schools by tuberculars.51

The growing concern about the large numbers of tuberculars in New Mexico cities and towns was reflected also in the significant discrimination against health-seekers. Paradoxically, hospitals certainly held them at arm's length. In his 1913 tour through New Mexico and Texas, Sweet found that "the majority of privately owned institutions, unless of course they are conducted for that purpose, absolutely refuse admission to such cases."52 Viewed from the perspective of the hospital administrator, a tuberculosis case was the same as one of diphtheria or scarlet fever. It was dangerous to handle, other patients very commonly obiected, and nurses often refused to care for tuberculars. Under such circumstances, the seriously ill "lunger" newly arrived in Albuquerque or Las Vegas might indeed encounter problems in finding a hospital bed. Similarly, hotels and boardinghouses could be flagrantly discriminatory. The better hotels frequently would not take consumptives at all. When Colorado internist James J. Waring arrived in Colorado Springs in 1908, then a young physician seeking the cure for his case of pulmonary tuberculosis, the famous Antlers Hotel reluctantly agreed to take him, but made him promise to use the freight elevator.⁵³ Rejected by first-class hotels, the tubercular might find a modicum of comfort at a third-rate one, but even that might be only temporary. Sometimes, "having once passed muster, he finds that a more discerning clerk appears, or that another guest has complained of his presence, and he is politely informed that his room must be vacated."54 Often the only lodging available to the newly arrived health-seeker was the boardinghouse, and access to it might require quiet negotiation and perhaps even a small bribe for the owner, who would then introduce the new guest to his fellow boarders as a victim of "hay fever" or nervous trouble. A "lunger" who first sought refuge in Colorado wrote that he had to leave his first boardinghouse after three days when ten of his fellow boarders objected to his presence, but had better luck at a second:

As I entered the dining-room for the first time, I was introduced by the landlady to the assembled boarders as the gentleman whom

^{51.} I can find no record of any other state enacting such a law, at least not as early as New Mexico. On the whole subject of public-health laws against tuberculosis, see Philip P. Jacobs, compiler, The Campaign against Tuberculosis in the United States (New York: National Association for the Study and Prevention of Tuberculosis, 1908), 347-414.

^{52.} Sweet, "Interstate Migration," 1154.

Source and Decline of Altitude Therapy," 13.
Sweet, "Interstate Migration," 1152–53.

she had told them about—the one who came to Denver for his rheumatism. . . . It was surprising the number of diseases I found represented in that rooming house. But it was more surprising that everyone coughed—dyspeptics, rheumatics, nervous wrecks, heart patients, kidney patients, ear patients, Keely cure patients—all coughed.⁵⁵

Not all hotels and boardinghouses reacted to consumptives in the same way, and within particular businesses attitudes changed over time; but the growth of "phthisiophobia"⁵⁶ in the Southwest was definitely reflected in the lodging industry. It was also expressed in employment discrimination against the health-seekers. The New Mexico territorial law barring tuberculars from the teaching profession has already been mentioned, and in Arizona ranchers and businessmen put up signs declaring consumptives unwelcome, at least as jobseekers.⁵⁷ The fear of the contagion spread by the consumptives was compounded by economic resentment among a substantial segment of the working class in New Mexico. The influx of "lungers," especially those who had to look for work, drove wages down. One labor leader commented, "Between the Mexicans and lungers conditions are frightful."⁵⁸

Fear of the spread of the disease by the army of immigrant consumptives was clearly the major factor in the growth of a backlash against the "lungers" in the Southwest, and, regrettably, not all tuberculars exercised precautions to protect others. Those who had spent some time in government sanatoria or in one or another of the better eastern institutions had been well trained and carried sputum cups, but the vast majority of the consumptives, as well as healthy persons—turnof-the-century America was a society which spat—were careless with their sputum.⁵⁹ But fear of the bacillus broadcast about by the "lungers" was often accompanied and magnified by the sad fact that among the swarm of health-seekers debarking on railroad coaches all over the Southwest were many who had spent their savings for a ticket to the West.

The evidence regarding the dimensions of the indigent consumptives' problem is conflicting. Certainly, the descent of large numbers of moneyless health-seekers was a major problem in Colorado, California,

^{55.} Thomas Galbreath, quoted in Rogers, "Rise and Decline," 13.

^{56.} This is Sweet's term, coined from his observations on his 1913 tour of Texas and New Mexico. "Phthisis," of course, was from the old Greek word for "wearing away" and was a synonym in the nineteenth century for consumption. See "Interstate Migration," 1149.

^{57.} Clyde L. Gittings, "Arizona's Reputation as a Health Spa," Arizona Medicine, 40 (March 1983), 150-53.

^{58.} Sweet, "Interstate Migration," 1248.

^{59.} Ibid., 1083.

and Arizona as early as the 1880s and 1890s, presenting significant medical and social problems. New Mexico was apparently not affected as severely as those regions, but there were surely enough indigent "lungers" around to cause concern. Undoubtedly, the numbers and their impact varied greatly from place to place. Dr. C. M. Mayes of Roswell was worried enough about the number of indigent "lungers" in his town in 1909 to advocate a state-line guarantine to keep health-seekers out if they lacked sufficient resources to care for themselves. His concern. however, was mixed with compassion: "From a viewpoint of humanity or charity, if you like, there is no sadder picture anywhere than the indigent consumptive patient, and the picture becomes many times more sorrowful when they are cast among strangers, especially when the strangers (as we are) are overburdened with this class."60 Dr. C. M. Yater, his Roswell colleague, agreed about the severity of the problem, claiming that only 25 percent of those who arrived in Roswell chasing the cure were financially able to take care of themselves. In Silver City, Drs. Bullock and Sands thought their situation was almost as bad, judging that 50 percent of Silver City's arrivals were unable to bear the essential costs of convalescence.⁶¹ In Albuquerque the problem was serious enough in 1905 to prompt a special meeting of the town's associated charities to pass an indignant resolution of protest:

Resolved, that the physicians and authorities in other sections [of the country] be strongly censured for sending health seekers to Albuquerque and New Mexico when they have reached the stage where they are beyond help from climatical advantages or are without sufficient funds to support themselves for a period of at least six months, and that the press be urgently requested to give this resolution the greatest publicity.⁶²

In light of this growing problem, the advertising campaigns boosting New Mexico as the "Well Country" were modified to contain strong language that prospective health-seekers had better not come without being able to finance a year's sanatorium care at from fifty to one hundred dollars per month. But little dent was made in the numbers. As late as 1934, doctors in the Southwest were still complaining that "people [have yet to] learn that climate is valueless unless it is backed up by a healthy appetite, a contented soul, and an adequate pocket-book."⁶³

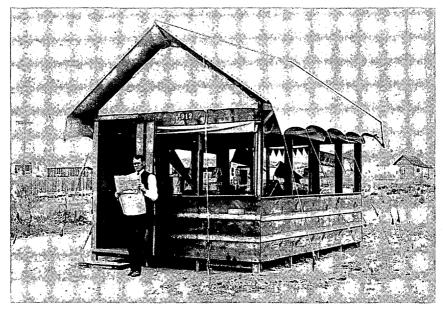
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^{60.} Gittings, "Arizona's Reputation," 152–53; Peters, "What New Mexico Needs Most in Tuberculosis Legislation," 230; C. M. Mayes, "The Indigent Consumptive Proposition," *New Mexico Medical Journal*, 5 (November 1909), 18–21.

^{61.} Yater, "Therapetitic Notes," 271; Bullock and Sands, "Twelve Years of Pulmonary Tuberculosis Treatment," 1978.

^{62.} Journal of the American Medical Association, 45 (December 16, 1905), 1880.

^{63.} Southwestern Medicine, 18 (January 1934), 33-34.



A typical tuberculosis cottage, with canvas roll-up shades, located at 912 S. Edith, Albuquerque. Courtesy of Albuquerque Museum Photoarchives.

Facilities for the care of the indigent sick were virtually nonexistent in New Mexico during the era of the health-seekers. For example, there was no state tuberculosis sanatorium until 1936, and it was intended properly for the care of New Mexico natives only and not for immigrants to the state. Private hospitals and sanatoria did what they could, but there were clear limits to the number of charity cases they could handle. Given these circumstances, an insidious, if understandable, practice called "passing on" became common in New Mexico and throughout the Southwest. Communities simply unloaded indigent consumptives on one another. It became common practice for charity organizations as well as for city and county agencies to dump their paupers, their insane, their criminals, and other undesirables, indigent consumptives included, upon neighboring cities. City officials of, say, Raton might "help out" a penniless "lunger" from the East by buying him a railroad ticket to Las Vegas. Southwestern city, county, and state officials complained bitterly that their part of the country had become "the dumping ground for the tuberculous poor of other states," but the problem was definitely an intrastate as well as an interstate one.64

^{64.} Sweet, "Interstate Migration," 1160, 1167--68.

Other factors also played at least minor roles in the growth of "phthisiophobia" among some New Mexicans. There were those, for example, who were already dreaming of the development of a gigantic tourism industry for the state and were fearful that tourists would not want to go where hordes of tuberculars crowded the countryside. Others were persuaded that western cities and towns by the end of the century simply did not need the tuberculars as badly as they once had, for the flow of healthy immigrants had grown sufficiently to provide for the developmental needs of the region.65 The full dimensions of this antitubercular sentiment, however, are difficult to gauge. The Public Health Service researcher who toured the state in 1913 thought it substantial, claiming there was no doubt that the majority of citizens thought the movement was harmful. What is certain is that the worriers and naysayers never generated any serious attempt to do anything about the tubercular traffic beyond innocuous (and largely unenforced) anti-spitting laws. The bulk of opinion seems actually to have rested with those who, while aware of the problems associated with the phenomenon, nevertheless were more impressed with its positive aspects or at least its unavoidability. Many also simply believed that a helping hand offered to these unfortunates was, after all, just the right thing to do.

Whether they were welcomed or not, this army of tubercular invalids claimed tough, frontier New Mexico as their own, changing it fundamentally in the process. New Mexico adjusted to accommodate the special needs and interests of these new citizens.

65. Ibid., 1149-51, 1245.

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