

“As False as the Black Prince of Hades”: Resurveying in Arkansas, 1849-1859

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IN APRIL 1856, A SURVEYOR NAMED Granville McPherson, toiling in the rugged hills north of present-day Harrison, Arkansas, was growing increasingly frustrated. The source of his aggravation was a deeply flawed original land survey filed by one of his predecessors, Charles H. Pelham. Years earlier, Pelham had sworn under oath that he had faithfully executed an original survey of this area to fulfill a contract with the U.S. government’s General Land Office (GLO). An accumulation of evidence suggested otherwise, however. Many in Arkansas were well aware of Pelham’s surveying inadequacies. Indeed, McPherson had been hired to fix more than one of Pelham’s suspect efforts.¹ Even an untrained eye could compare the plat maps of Pelham and McPherson and quickly recognize the discrepancies (Figure 1). One can only imagine what McPherson might have uttered to himself if he saw fit to label this particular example of Pelham’s work “as false as the Black Prince of Hades” in his official survey notes!²

Called by some the largest public works program in American history, the Public Land Survey System (PLSS) began operations in Arkansas in 1815 and ended just before the Civil War. During this period, deputy surveyors subdivided the state’s 34 million acres into parcels so that they

¹Tom Webb, “A Resurvey, the Work of a Deputy Surveyor,” *Point of Intersection* 11 (Fall 2011): 8; Tom Webb, “The Suspect Surveys of Deputy Surveyor Charles Pelham,” *Point of Intersection* 13 (Summer 2013): 8-9, 13.

²Granville McPherson, *Arkansas GLO Survey, Resurvey Interior T20N R20W*, Book 2308, p. 24. These records have been digitized and can be viewed at the website of the Arkansas Commissioner of State Lands, www.history.cosl.org/lp.htm.

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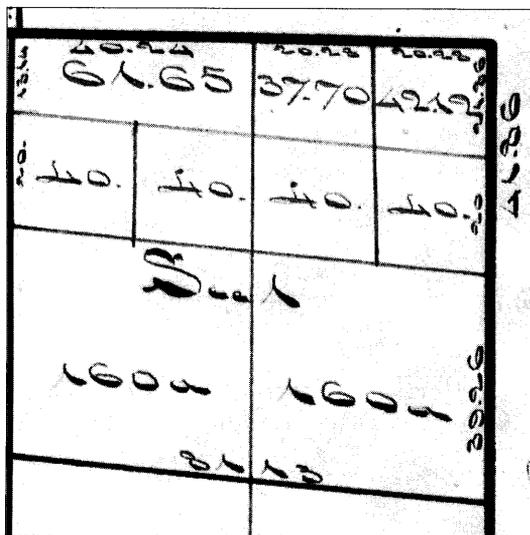
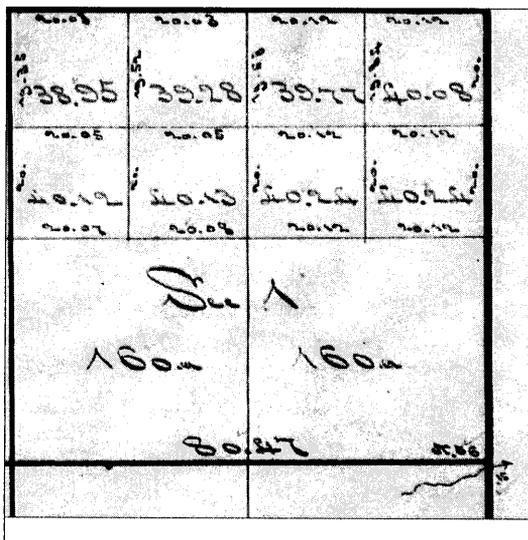


Figure 1. A comparison of Section 1 in T20N R20W (in present-day Boone County) showing the differences between the 1847 plat map drawn from Charles H. Pelham's original survey (top) and the one drafted from Granville McPherson's 1856 resurvey (bottom).

could be legally transferred from the public domain into state or private hands. This effort was directed by a surveyor general in a regional office who received an annual federal appropriation and theoretically answered to a commissioner in Washington, D.C.³ Surveyors general contracted with deputy surveyors such as Pelham and McPherson to perform the original surveys. The intricacies of the PLSS are described in numerous sources.⁴ This article will focus on the special type of survey that occasioned McPherson's engagement with the GLO. These "resurveys" represent a little-known chapter of Arkansas history.

What had gone so wrong with many of the original Arkansas GLO surveys as to justify the rather dramatic remedy of redoing them? From its inception, the PLSS was simply not designed to produce perfect surveys. Accuracy had to yield to expediency. Early GLO administrators emphasized the need to establish corners and boundaries of subdivisions above all else. The "ascertainment of precise contents" of original surveys proved only a secondary objective—primary importance was placed on the division of land as well as it could be done.⁵ Furthermore, the instructions given to the GLO surveyors that specified the details of the work, including the tools, data recording, marking, and monumentation, varied with the surveyor general issuing them and evolved over time. GLO surveyors in Arkansas worked under at least four different sets of instructions: the first issued by Edward Tiffin in 1815; the next issued by James Sevier Conway in 1833; followed by those of Edward Cross (1837) and William Pelham (1843).⁶ A consistent federal standard was lacking until 1862.⁷

³Richard L. Elgin and David R. Knowles, *The U.S. Public Land Survey System for Arkansas* (Little Rock: Land Survey Division, Arkansas Department of Agriculture, 2011), chap. 1, pp. 2-10. The surveyor general responsible for Arkansas was stationed in St. Louis, Missouri, until 1832, when a GLO office was created in Little Rock. The GLO was transferred from Treasury to the Department of the Interior when the latter was established in 1849.

⁴See, for example, Elgin and Knowles, *U.S. Public Land Survey System for Arkansas*; David A. Smith, "Preparing the Arkansas Wilderness for Settlement: Public Land Survey Administration, 1803-1836," *Arkansas Historical Quarterly* 71 (Winter 2012): 381-406.

⁵Roffie Burt, *The Survey of Mississippi's State, Indian, and Township Boundaries* (Jackson: Mississippi Association of Land Surveyors, 1982), 96-97.

⁶Pelham's instructions in 1843 were the first to specify a minimum threshold of accuracy in distance. Prior to this, the emphasis was on ensuring that proper parallels and angles were maintained. When inaccuracy was suggested by the failure to close a traverse on a controlling township corner or line, the measuring chains and compass were to be checked and adjusted as appropriate.

⁷A manual of standard instructions for surveyors general was issued in 1855; this manual was codified by Congress (12 Stat. 409) on May 30, 1862. John H. Moore, *Instructions to the Surveyors General of Public Lands of the United States, for those Surveying Districts Established in and Since the Year 1850; Containing, Also, A Manual of Instructions to Regulate the Field Operations of Deputy Surveyors* (Washington, DC: A. O. P. Nicholson, 1855); Lola Cazier, *Surveys and Surveyors of the Public Domain, 1785-1975* (Washington, DC: Government Printing Office, 1976), 112.

Quality control was inconsistent at best. Once the field work was completed, deputy surveyors sent their field notes (“returns”) to their GLO offices for further processing. There, office clerks used the returns to draft the official plat of each township and its component sections. Once drafted, plats that were correct on their face were approved by the surveyor general and then sent to local land offices with the tracts shown approved for sale (or “patent”) to the public. Purchasers relied on the official plat and copies of the field notes to find and occupy their land.

In practice, though, the early PLSS had few safeguards to detect problematic surveys submitted to the surveyor general’s office. Clerks checked for obvious errors such as omitted measurements or the transposition of entries. However, it was virtually impossible to detect fraud or erroneous measurements from the notes alone. Surveyors were not required to check their work with redundant measurements or celestial observations for position. Under the PLSS system, the dimensions of regular sections and their subdivisions were to be one mile or some fraction thereof. Yet the instructions did not specify any limit to the deviation of the surveyor’s actual measurements from these nominal dimensions until 1843, toward the end of the original Arkansas surveys. Other problems were systemic: from the beginning, many GLO surveys were plagued with errors that, once established, were continually perpetuated.⁸ For example, the very first line run in Arkansas, upon which all subsequent work is referenced, the Fifth Principal Meridian, contains gross errors of measurement between 1.5 chains (99 feet) and 4 chains (264 feet) per mile. In addition, virtually all the controlling north-south lines (meridians) in Arkansas surveys are aligned about one degree east from true north, even though the deputy surveyors frequently checked the magnetic variation of their compasses with observations of the North Star. Generations of surveyors have wryly referred to this aberration as “the Arkansas Twist.”⁹

Even under the best of circumstances, surveying in antebellum Arkansas challenged both men and equipment. With very few roads or other means of transportation available to them, survey crews spent days or weeks isolated and at the mercy of the elements. Often stalked by hunger, ravaged by illness, and slowed by flooded river bottoms, impenetrable thickets, and, sometimes, tornado-ravaged forests, survey crews also encountered magnetic anomalies that affected their compass readings and

⁸These problems were not unique to Arkansas. In some districts in Mississippi, for instance, nearly all of the original surveys were voided; Burt, *Survey of Mississippi’s State, Indian, and Township Boundaries*, 100, 126. In 1845, Congress appropriated funds to correct “erroneous and defective surveys” in Louisiana, Illinois, Missouri, and Michigan; C. Albert White, *A History of the Rectangular Survey System* (Washington, DC: Government Printing Office, 1983), 103.

⁹Elgin and Knowles, *U.S. Public Land Survey for Arkansas*, chap. 2, pp. 7-11.

temperature extremes that lessened the accuracy of their distance-measuring metal chains.¹⁰ Though most deputy surveyors did the best they could under arduous working conditions, many were physically or mentally unsuited for the job.¹¹ Some were poorly trained and equipped; others were incompetent, negligent, or simply malfasant.

Compounding the physical and technical challenges of public land surveys was the pervasive political intrigue, nepotism, and corruption associated with patronage appointments.¹² Appointment as surveyor general and receipt of deputy surveyor contracts often came with considerable prestige and opportunity to profit. Not surprisingly, the GLO bureaucracy in Arkansas was dominated by the Democratic political faction known as the “Family” or “Dynasty” that controlled most government offices prior to the Civil War.¹³ During the antebellum period, members of the Conway and Rector families received scores of contracts for the survey of public lands—five Conways and ten Rectors served as deputy surveyors in Arkansas. Surveyor General William C. Rector taught his nephew James Sevier Conway the surveying business. Conway’s brother, territorial delegate Henry Wharton Conway, helped him secure a federal contract to survey the southwestern boundary of Arkansas in 1825.¹⁴ Territorial delegate Ambrose Hundley Sevier (another cousin to the Conways) used his connections with President Andrew Jackson to help James Conway get one of the contracts to survey the Arkansas-Louisiana line in 1830 and then helped him to become the first surveyor general of Arkansas in 1832. Conway held this position until 1836, when he resigned after being elect-

¹⁰The initial subdivision of the military bounty lands in eastern Arkansas in 1815-1816 was delayed, for example, by extensive flooding of the region; Smith, “Preparing the Arkansas Wilderness for Settlement,” 387-388.

¹¹According to one historian, James Sevier Conway’s survey of the Arkansas-Louisiana boundary proved so trying that following “the dreadful exposures of this service his usually strong constitution was so undermined that he never enjoyed good health afterward.” Fay Hempstead, *Historical Review of Arkansas: Its Commerce, Industry, and Modern Affairs* (Chicago: Lewis Publishing Co., 1911), 1:141.

¹²Josiah Shinn, *Pioneers and Makers of Arkansas* ([Little Rock]: Genealogical and Historical Publishing Co., [1908]), 387-400; Malcolm Rohrbough, *The Land Office Business: The Settlement and Administration of American Public Lands, 1789-1837* (New York: Oxford University Press, 1968), 187-191; Smith, “Preparing the Arkansas Wilderness for Settlement,” 388-406.

¹³While this faction coalesced following the death of Henry Wharton Conway after a duel in 1827, its roots go back to William C. Rector’s elevation to surveyor general of Missouri Territory (which included Arkansas) in 1816. Historian Josiah Shinn claimed, “General William Rector had more power, so far as determining the location of certain families was concerned, than the president of the United States”; Shinn, *Pioneers and Makers*, 106; Jeannie M. Whyne, Thomas A. DeBlack, George Sabo III, and Morris S. Arnold, *Arkansas: A Narrative History* (Fayetteville: University of Arkansas Press, 2002), 102-115.

¹⁴Delegate [Henry Wharton] Conway to the Secretary of War, March 2, 1825, *The Territorial Papers of the of the United States*, ed. Clarence E. Carter, vol. 19, *The Territory of Arkansas, 1819-1825* (Washington, DC: Government Printing Office, 1953), 784.

ed the first governor of the State of Arkansas.¹⁵ William Pelham, Charles H. Pelham's younger brother, served as surveyor general from 1841 until 1849, a decade after his marriage to Mary Ann Conway (sister of James and Henry Conway).¹⁶ Elias Nelson Conway, a prolific deputy surveyor and brother to Henry, James, and Mary Ann, served as Arkansas governor from 1852 until 1860, when their cousin Henry Massie Rector, surveyor general for Arkansas from 1855 until 1859, was elected.¹⁷

While many of these favored family members and associates were fairly competent surveyors, they felt considerable pressure to expedite the Arkansas GLO surveys and make lands available for sale. The meticulous work that proper surveys required tended to be slow, and there were limited numbers of qualified individuals capable of doing the work. But public land could not be legally patented prior to completion of an original survey. Politicians continually pressed the federal government for more platted lands upon which to settle a growing number of immigrants.¹⁸ From just over 52,000 persons at the cusp of statehood in 1835, Arkansas's population grew to almost 98,000 in 1840, nearly 210,000 in 1850, and over 435,000 by 1860.¹⁹

The pressure to speed the disposition of the public domain came not simply from politicians concerned about the welfare of settlers. Well-positioned individuals could make fortunes in the land business. On a steamboat between Napoleon and Arkansas Post, one early traveler found that a number of "considerable planters and landholders enlarged very much upon the value of Arkansas lands the fine crops and high prices representing 30 to 60\$ per acre & from their accounts my land [near Pine Bluff]

¹⁵Sevier helped boost fellow Democrat Edward Cross to surveyor general in 1836; Delegate Sevier to the [President], April 4, 1836, *The Territorial Papers of the of the United States*, ed. Clarence E. Carter, vol. 21, *The Territory of Arkansas, 1829-1836* (Washington, DC: Government Printing Office, 1954), 232, 238, 1207-1208; Rohrbough, *Land Office Business*, 280-282; Smith, "Preparing the Arkansas Wilderness for Settlement," 404-405.

¹⁶President Zachary Taylor appointed Lorenzo Gibson, a fellow Whig, to the post of Arkansas surveyor general in 1850. On April 7, 1853, newly-elected President Franklin Pierce, a Democrat, removed Gibson from office and replaced him with George Milbourne, the father-in-law of U.S. senator Solon Borland. Lynn Ewbank, "Lorenzo Gibson (1804-1866)," *Encyclopedia of Arkansas History and Culture*, www.encyclopediaofarkansas.net (accessed February 1, 2013); Senate of the United States, *Journal of the Executive Proceedings of the Senate of the United States of America From December 6, 1852, to March 3, 1855, Inclusive (Volume IX)* (Washington, DC: Government Printing Office, 1887), 158, 423.

¹⁷Dallas T. Herndon, *Centennial History of Arkansas* (Little Rock: S. J. Clarke Publishing Co., 1922), 1:275-276.

¹⁸Smith, "Preparing the Arkansas Wilderness for Settlement," 390-403.

¹⁹S. Charles Bolton, "Louisiana Purchase through Early Statehood, 1803 through 1860," *Encyclopedia of Arkansas History and Culture*, www.encyclopediaofarkansas.net (accessed August 12, 2014).

is very valuable.”²⁰ Given that many swamp lands were sold by the State of Arkansas at less than one dollar per acre, and even unimproved land was being resold at ten to twenty dollars per acre, land speculation was rampant.²¹

Under such circumstances it is not surprising that, in the rush to complete original land surveys, many would be poorly done. Most flaws were not identified until years later, when people tried to file claims for public lands they had occupied or acquired from the government by patent. Yet even during the territorial period, Arkansans complained about the quality of the survey work being done. For example, a letter from William Russell to Surveyor General William C. Rector bluntly noted:

in my traveling over the country I never made a business, of keeping notes of the particular Townships, Sections &c—That I considered to be badly surveyed—But under my contract to survey the confirmed claims of Arkansas, in connecting them with public lines &c—I had occasion to see and observe some of the public surveying. . . . And in some of the places where there were corners established in the timber, they were Mis-Marked—and in many other cases marked with very slight impression in the wood, as if done very hastily, or with a very dull Iron—so as to be deficult [*sic*], and in some cases impossible to distinguish the letters or figures, even in one year after the work was done. . . . The manner of surveying there [southeastern Arkansas] was done, was at the time a pretty General subject of remark and ridicule.²²

Russell had a vested interest in the business, being one of the most prominent land speculators in early Arkansas.²³ But his letter highlights a common problem—the inability to relocate the original survey’s monuments and witness trees. To ensure that parcels could be relocated by county surveyors or settlers “following in the footsteps” of the GLO surveyors, instructions included elaborate requirements for blazing boundary lines trees and scribing abbreviated locations on corner posts and witness trees. Relocation was impossible if these required markings and/or monuments

²⁰Charles Sydnor, “Diary of a Journey in Arkansas in 1856,” *Mississippi Valley Historical Review* 22 (December 1935): 421.

²¹*Ibid.*, 419-423; Robert W. Harrison and Walter M. Kollmorgen, “Land Reclamation in Arkansas under the Swamp Land Grant of 1850,” *Arkansas Historical Quarterly* 6 (Winter 1947): 374-375.

²²William Russell to William Rector, April 15, 1824, *Territorial Papers of the United States*, 19:643.

²³Shinn, *Pioneers and Makers*, 107; Smith, “Preparing the Arkansas Wilderness for Settlement,” 394-395.

were missing. Sometimes they disappeared because witness trees died. Corners could be destroyed or obscured by the passage of time. But the pressure to get more land surveyed also contributed to the problem. Because deputy surveyors were paid a specific rate for each mile of line run, they had an incentive to find shortcuts. One was to run the lines and set the corners but dispense with the laborious marking of trees, and fabricate the information required for witness trees at corners.²⁴

As complaints from landowners and county surveyors poured into the surveyor general's office in Little Rock, deputy surveyors were dispatched to investigate the claims. Frequently, the retracing surveyors found the distances and/or bearings differed significantly from those shown on the plat and notes—or, worse, they found no evidence that the survey had been done at all. At this point, the term “fraud” entered the reports, indicating their predecessors had deliberately entered false statements in their notes. But what could be done? Fixing the problem of a defective original survey was no small task. Both the original legislation and later instructions provided to surveyors general were silent on how to correct fraudulent surveys. Under the laws that established the PLSS, recovered corners that had been set in the original survey were the actual, controlling corners of the subdivision even if the platted distances along the boundaries between them did not agree with its actual, found position.²⁵ They could not be moved, nor could the boundaries of privately held tracts defined by them be altered. However, a surveyor general could order additional work in a platted township prior to its plat being certified and sent to the land office. It was also accepted that if a platted township had not really been surveyed at all, a complete survey of the township could be ordered.

Retracing the original survey was the first step in a resurvey. The surveyor first ascertained the actual locations of corner monuments and other evidence (for example, witness or boundary line trees). Most of the Arkansas resurveys were (and still are) “dependent,” meaning that existing corners and evidence were used to reestablish missing or “lost” corners using

²⁴Another shortcut was “stubbing out” the boundary lines on the north and south sides of sections. These lines were to be run east from one section corner to the other and then back west to correct any mis-closure and to set the quarter corner at the midpoint. A stubbed out line was run only about half way, at which point a usually misplaced quarter corner was set and the line abandoned. In some cases these east-west lines were not run at all and no quarter corner set. J. L. Young, “That Ain’t the Way I Heard It!” (lecture, Arkansas Association of Registered Land Surveyors Conference, April 19, 1979, Hot Springs, AR).

²⁵According to this 1805 law: “The boundary lines, actually run and marked in the surveys returned by the surveyor-general . . . shall be established as the proper boundary lines of the sections, or subdivisions, for which they were intended, and the lengths of such lines, as returned . . . shall be held and considered as the true length thereof.” Section 2, Act of February 11, 1805, 2 *Stat.* 313; Lowell O. Stewart, *Public Land Surveys: History, Instructions, Methods* (Ames, IA: Collegiate Press, 1935), 27-29.

a technique known as proportionate measurement. A resurvey might entail just a particular corner, a few subdivision lines, all of the section lines, or meanders of navigable bodies of water.²⁶ In principle, resurveys were intended to reweave the worn and ragged fabric of a carelessly wrought original survey into a seamless and serviceable whole. Not surprisingly, though, GLO commissioners were hesitant to see their budgets drained in duplicated effort and very concerned that the boundaries of settled tracts in defective townships not be disturbed by resurveys. After all, the public land system rested on a singular commitment to provide settlers with certainty in the boundaries of land they had acquired.

The GLO office in Washington resisted the efforts to do extensive (and expensive) resurveys of settled lands. Its preference was to move on to portions of the vast public domain still requiring initial surveys and to close regional offices as soon as feasible. Surveyors general and deputy surveyors, on the other hand, were reluctant to lose lucrative business. And, at this time, it was the surveyor general who usually decided whether to order a resurvey, the decision being reported to Washington only after the fact. The need to resurvey became one of the justifications for a series of Arkansas surveyors general opposing the closing of the Little Rock GLO office after the putative completion of the initial surveys in 1848.

Rather than winding up the work of his office and bundling off his records to the state when directed to do so, Lorenzo Gibson, the new surveyor general for Arkansas, sent a troubling report to the secretary of the interior in October 1849. Gibson had reviewed the notes in 500 field books and found “*prima facie* evidence” of fraud and forgery in the original GLO surveys.²⁷ Throughout his tenure, Surveyor General Gibson beseeched his supervisors in Washington for direction and support in dealing with flawed surveys.²⁸ As evidence, Gibson attached a letter his

²⁶Elgin and Knowles, *U.S. Public Land Survey System for Arkansas*, chap. 3, pp. 2-4.

²⁷Lorenzo Gibson, “1849 Annual Report of the Surveyor General of Arkansas,” *Executive Documents Printed by Order of the Senate of the United States During the First Session of the Thirty-First Congress, 1849-1850, Volume II, No. 1* (Washington, DC: Wm. M. Belt, 1850), 313. Gibson stated that his predecessor apparently did not feel authorized to conduct resurveys until the rumors of fraud and forgery became “well established truths.”

²⁸Lorenzo Gibson, “1850 Annual Report of the Surveyor General of Arkansas,” *Executive Documents Printed by Order of the Senate of the United States During the Second Session of the Thirty-First Congress, Volume II, No. 2* (Washington, DC: Union Office, 1851), 60-63; Lorenzo Gibson, “1851 Annual Report of the Surveyor General of Arkansas,” *Message From the President of the United States to the Two Houses of Congress, at the Commencement of the First Session of the Thirty-Second Congress, Part III* (Washington, DC: A. Boyd Hamilton, 1852), 87-93; Lorenzo Gibson, “1852 Annual Report of the Surveyor General of Arkansas,” *Executive Documents Printed by Order of the Senate of the United States, Second Session, Thirty-Second Congress, 1852-1853, Volume I, No. 1* (Washington, DC: n.p., 1853), 175-199.

office had received from Izard County surveyor Cyrus Crosby, who wrote of the need to:

bring to light the long “hidden things of dishonesty” . . . the errors are such that no compass, chain, or even surveyor is required to detect them at once. Any backwoodsman, who can read field-notes, can distinguish a pine from a post-oak, or a cedar from a black jack [oak]. In one instance which I examined, where the notes designated pines as the index [witness] trees, all were post-oaks: in another, where nothing but post-oaks were called for, all were pines: in a third, where cedars are specified, I found black oaks and pines . . . and as to their relative position to the corner, compared with the notes, *none* can be found to coincide. In short, the errors are so general in all respects, that particular specifications are deemed needless, and but one conclusion is forced upon the mind of the observer; which is, that these notes were never taken upon the field-work.²⁹

Such irregularities were of great concern because many settlers were refusing to “enter” (formally acquire) lands they were occupying because of the lack of reliable surveys.³⁰

To bolster his case, Gibson detailed his personal dealings with Charles H. Pelham:

finding them [Pelham’s survey notes] without the affidavit required . . . and replete with manifest errors, and bearing the impress of great carelessness and disregard both of law and instructions, I gave notice to Colonel Pelham that, before any further instructions could be issued to him from this office, it would be necessary for him to repair hither and explain satisfactorily, if he could, the nature of his work.

After some months delay he visited the office, but utterly failed to make the required explanations; whereupon I informed him I should abrogate his contract entirely, and appoint some competent person to examine his work, and as much thereof as should be found to be “faithfully and correctly executed according to law and the instructions of the surveyor general” should be paid for; but upon a more critical examination . . . I found that there was no possible way of legalizing the work, as Colonel Pelham could

²⁹Gibson, “1849 Annual Report,” 324.

³⁰*Ibid.*, 324-325.

not *safely* swear that the work had been *faithfully* and *correctly* done, nor could the deputy who might be intrusted [*sic*] with its examination make the required affidavit, unless he had done the *entire* work, or had had it “executed under *his immediate personal superintendence*.”³¹

Pelham had filed original surveys of over 200 townships in Arkansas between 1821 and 1843.³² After annulling Pelham’s unfinished contracts and reassigning them to others, Gibson requested \$15,000 to pay for correcting 4300 miles of “old, fraudulent, and erroneous work,” much of which was Pelham’s.³³

Resurvey of some of the problematic surveys could be easily justified to Washington. For instance, Pelham had filed some grievously flawed surveys of the boundary between Arkansas and Missouri that necessitated correction once recognized (Figure 2). Other claims of fraud were not nearly as convincing. Many were a matter of interpretation of what constituted sufficiently deficient. A combination of inadequately defined enabling legislation, inconsistent policies, procedures, and regulations between GLO offices (and surveyors general), and a lack of case law meant that there was no concrete standard for surveyors general to apply and no set process for resurveys to be conducted—nor would there be until the early 1880s.

Whether it was due to the examples of large-scale fraud such as that perpetrated by Pelham or the efforts of politically connected Arkansans to continue accustomed patronage, Washington tolerated resurveying for the better part of a decade after the initial surveys were completed. Petitions to resurvey came from Arkansans of every political stripe. Whig appointee Gibson’s admonitions were later championed by his Democrat-appointed successors, George Milbourne and Henry Massie Rector. According to Milbourne:

The propriety of resurveying townships disposed of by the government, on account of the destruction by time or accident of the marks of a survey originally good, may perhaps be questioned;

³¹Gibson, “1850 Annual Report,” 61 (emphasis in original).

³²Webb, “Suspect Surveys,” 8-9, 13; Webb, “Resurvey,” 8-9, 16. Charles Pelham’s brother, Surveyor General William Pelham, a Whig in the early 1840s, changed his party affiliation in 1845 to Democrat and apparently fired all in the GLO office that had voted for the Whig candidate Henry Clay. Pelham lost his job after Whig Zachary Taylor was elected president in 1848; Fred Roeder, “Surveyor of the Public Domain—A Portrait of William Pelham,” *American Surveyor* (April 2009) www.amerisurv.com/content/view/6050/136/ (accessed April 16, 2014).

³³Gibson, “1850 Annual Report,” 62, 66. Gibson also requested an additional \$3600 to finish up a number of other field work efforts, and \$9560 to operate the Little Rock office for another fiscal year.

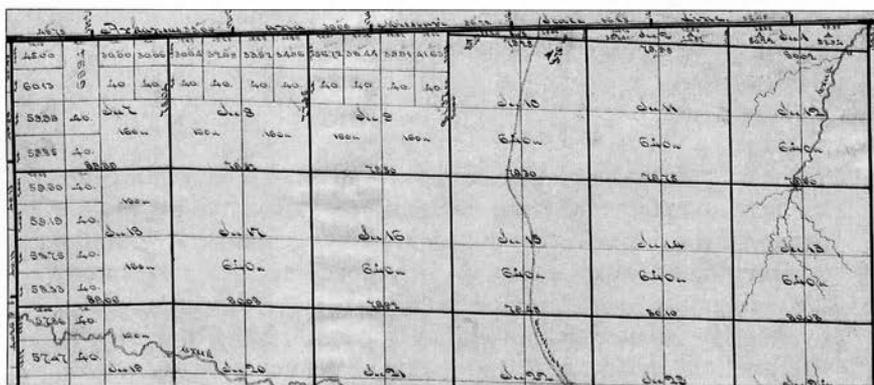


Figure 2. A comparison of a portion of the plat maps of T21N R21W (in the northwest corner of present-day Boone County) drawn from the 1847 survey of Charles Pelham (top) and the 1856 resurvey by Granville McPherson (bottom). Pelham's survey has an angle in the Arkansas-Missouri state line and substantially more land north of sections 7 through 12 than found in McPherson's resurvey.

but where the surveys have not been made, or have been executed in an erroneous or fraudulent manner, so that the field-notes and plats by which the lands are sold present a different state of facts from that found to exist in the field, it is clearly the duty of the government, in justice to those whom she has disposed of the land, to cause a faithful and accurate survey of the same to be made.³⁴

Surveyor General Rector listed eighty-eight townships surveyed by Pelham in which “the field notes of which, it now appears from satisfactory evidence, are either in part or wholly fabricated or erroneous.”³⁵

Prolonging the resurveying effort became part of the surveyor general’s job—the more they looked, the more problems they found. As Surveyor General Rector stated in one of his annual reports:

The great difficulty in adjusting the lines of some of the resurveys, owing to the value of the lands entered, calls for the highest exercise of skill and judgment. Under the liberal appropriations supplied to this office by Congress, it shall be my endeavor to perform the greatest good to the greatest number, protecting the interests of the private citizens, and at the same time jealously *guarding the rights* of the general government.³⁶

Rector later wrote:

The hardy and industrious citizens of that remote region of country have no redress for these evils but in the timely action of your department . . . it will give me pleasure to co-operate with it [the resurveying of fraudulent work] in any way necessary to remedy the great injury to which this State of Arkansas has been subjected by these aggravated evils. Regions of country hitherto thinly settled are now, under the liberal grants of the general government, becoming populated with an intelligent, agricultural people; and metes and bounds, hitherto unnoticed and unsought for, are now

³⁴George Milbourne, “1855 Report of the Surveyor General of Arkansas,” *Volume 1, Executive Documents Printed by Order of the House of Representatives During the Second Session of the Thirty-Third Congress, 1854-’55* (Washington, DC: A. O. P. Nicholson, 1855), 148.

³⁵Henry Massie Rector, “1856 Annual Report of the Surveyor General of Arkansas,” *Executive Documents Printed by Order of the Senate of the United States, Third Session, Thirty-Fourth Congress, 1856-1857, Volume 1* (Washington, DC: A. O. P. Nicholson, 1857), 285-286.

³⁶Henry Massie Rector, “1855 Report of the Surveyor General of Arkansas,” *Part I. Message from the President of the United States to the Two Houses of Congress at the Commencement of the First Session of the Thirty-Fourth Congress* (Washington, DC: Beverley Tucker, 1855), 224-225.

subject to close and rigid examination. This results in the discovery of errors in the measurement of lines and disagreement in areas, as compared with the quantity found on the ground with that shown on the official plat of entry.³⁷

By 1856, Surveyors General Milbourne and Rector had determined at least 131 townships (over 83,000 acres) in Arkansas needed to be resurveyed. Rector produced a map that illustrated the extent of the problem, as well as the large portions of eastern Arkansas that had already been resurveyed. Pelham's poor work even merited specific mention in this map's legend (Figure 3).³⁸ To help reassure his supervisors that resurveying would not create a new set of problems, Rector emphasized:

it is but proper to observe, that none but the most reliable and competent men are employed as deputies in the field. The notes of the field-work, when returned to this office, are not approved without a rigid scrutiny into their merits. A strict observance of the general and special instructions issued to deputies is exacted, and the work executed must be done in the most careful and correct manner.³⁹

One such "reliable and competent" man was Caleb Langtree, who received numerous contracts to resurvey parts of Arkansas. Langtree (originally Lanktree) was born in Londonderry, Ireland. His first recorded appearance in Arkansas came as one of A. M. M. Upshaw's assistant agents and conductors in the removal of Chickasaws to Indian Territory in 1837.⁴⁰ A civil engineer by training, Langtree was employed as a draftsman, clerk, and occasional deputy surveyor by several Arkansas surveyors general.⁴¹

³⁷Henry Massie Rector, "1858 Report of the Surveyor General of Arkansas," *Executive Documents Printed by Order of the Senate of the United States, First Session, Thirty-Fifth Congress, and Special Session of 1858, Volume 1* (Washington, DC: William A. Harris, 1858), 160, 162-163.

³⁸The entire map may be viewed at www.alabamamaps.ua.edu/historicalmaps/us_states/arkansas/index_1850-1880.htm.

³⁹Rector, "1855 Report of the Surveyor General of Arkansas," 224.

⁴⁰We know little of Langtree prior to his arrival in Arkansas. One of his later writings listed him as a twenty-eight year resident of Little Rock, suggesting that he settled in Arkansas around 1838; J. A. Dibbell, C. Langtree, and Liberty Bartlett, "The Inviting Fields of Arkansas," *De Bow's Review* 2 (1866): 408. Langtree married Eliza Josephine Eulalie Farley on November 28, 1839, in Arkansas County; Jordan R. Dodd, ed., *Arkansas Marriages: Early to 1850* (Bountiful, UT: Precision Indexing Publishing, 1990), 127. However, he is not listed in the 1840 census records for Pulaski or Arkansas Counties. According to the 1850 census of the free persons of Little Rock, the thirty-six-year-old Langtree and his wife, Eliza, had four daughters; U.S. Census Bureau, *1850 Census of Little Rock, Pulaski County, Arkansas*, freepages.genealogy.rootsweb.ancestry.com/~ouisersplace/census/c068.htm (accessed August 22, 2012).

⁴¹In 1847, the U.S. government listed Langtree as a draftsman for the District of Arkansas in Little Rock who was "paid by the piece"—rather, apparently, than being a salaried employee. U.S.

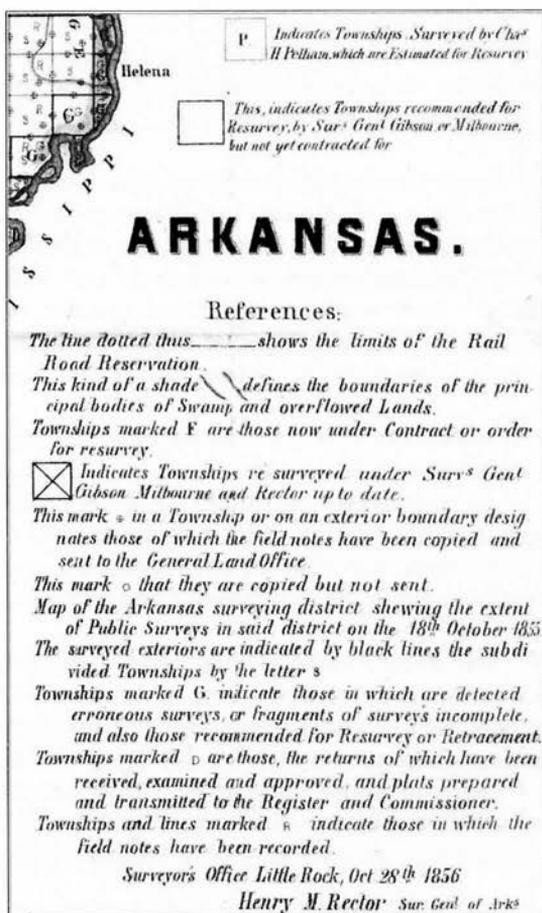


Figure 3. The legend from Rector's 1856 GLO map of Arkansas contains a special designation for townships completed by Charles Pelham that have been singled out for resurvey work.

Langtree was closely linked to Henry Massie Rector, having worked with him in the GLO office as well as a number of other undertakings.⁴²

Department of State, *Register of All Officers and Agents, Civil, Military, and Naval, in the Service of the United States, on the Thirtieth September, 1847, With the Names, Force, and Condition of All Ships and Vessels Belonging to the United States, and When and Where Built; Together With the Names and Compensation of All Printers in Any Way Employed by Congress, or Any Department or Officer of the Government* (Washington, DC: J. & G. S. Gideon, Printers, 1847), 29. Langtree was also known for his copyrighted sectional map of Arkansas of 1849 (updated in 1866).

⁴²In 1851, Langtree was appointed secretary of a convention to encourage internal improvements (particularly railroads) in Arkansas, which had Rector as its president; "State Internal Improvement

Although he had worked for the GLO since at least the early 1840s, much of Langtree's field work involved resurveys between 1855 and 1858. In 1842, Langtree had subcontracted Township 18 South, Range 9 West (T18S R9W, located in present-day Ashley County) to a different deputy surveyor, Columbus Whitten.⁴³ Whitten apparently failed in this effort, requiring a resurvey by Langtree in October 1855. According to Langtree's resurvey notes, Whitten had:

after running a few lines irregularly, finally abandoned it, after having sworn to execute the whole—The reason probably was that said township was wholly uninhabited [*sic*] & almost impassable from thickets . . . finally after due reflection and believing none of the right[s] of the residents settlers will be injured thereby . . . I conclude the best policy to make an entire resurvey of the whole township.⁴⁴

This case emphasizes how resurveys affected not only would-be settlers, who needed to be able to find lands they had purchased, but those that had already established their homesteads by preemption ("squatting"). Only thirteen years after Whitten had given up on this isolated part of Ashley County, Langtree returned to find an abundance of farms, cleared land, roads and trails, and homesteads (Figure 4).

Langtree began his resurvey of T18S R9W by traversing the south and eastern boundaries of this township. He first attempted to relocate the original line along a township set by deputy surveyor Nicholas Rightor in December 1827. Dubious of the accuracy of Rightor's work, Langtree decided to redo the whole township. While laying in this boundary, Langtree crossed a road that ran south toward the "famous Sulphur Springs," located a few miles southwest of the present-day site of Crossett.⁴⁵ By the time he reached the southwestern corner of T18S R9W, his contempt for the accuracy of Rightor's work was palpable:

Convention in Arkansas," *American Railroad Journal* 816 (December 6, 1851): 780.

⁴³The instructions issued in 1837 by Surveyor General Cross said nothing about subletting surveys, while those produced by Surveyor General Pelham in 1843 specifically prohibited deputy surveyors from subcontracting their work to others; Elgin and Knowles, *U.S. Public Land Survey System for Arkansas*, app. F, 1; app. G, 1. Rampant subcontracting to less capable individuals in the preceding decades undoubtedly contributed to Pelham's rule change.

⁴⁴Caleb Langtree, *Arkansas GLO Survey Original Field Notes and Meanders for Township 18 South Range 9 West* (hereinafter Langtree, *Arkansas GLO Survey T18S R9W*), Book 2289, p. 1.

⁴⁵Shortly after Langtree's work was completed, slave labor built a resort facility and racetrack at Sulphur Springs that operated into the early twentieth century, after which the springs were acquired by a family that bottled "Ashley Mineral Spring Water" for regional distribution. "Springs Was Resort, Picnic Area For Settlers," *Ashley News Observer Centennial Keepsake Edition* (Crossett), June 9, 1999, p. 3E.

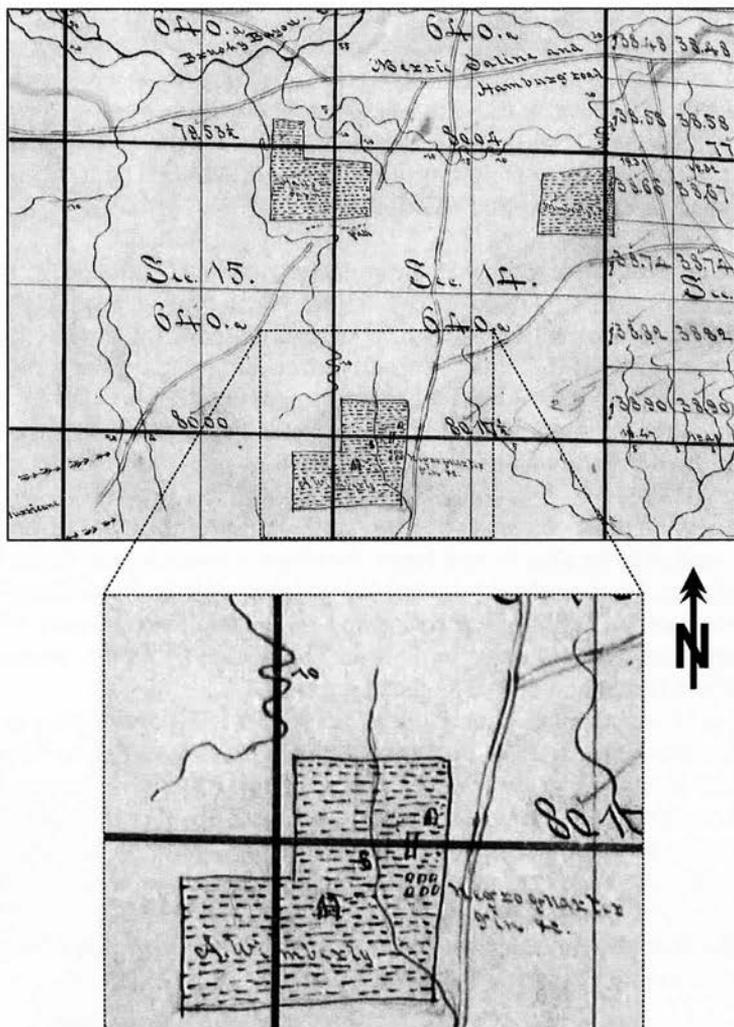


Figure 4. Details of a GLO plat map from T18S R9W (now in Ashley County), showing features noted by Caleb Langtree during his 1855 resurvey of this township. The inset shows the A. Wimberly property, including the approximate location of the family home (large building in center), “negro” (slave) quarters (six small squares on east side of the dashed area, which defined a cleared field), and a gin (rectangle just north of slave quarters).

A reference to the old notes [by Rightor] of this line, will Show that it must have been run with Superb precision, having only fallen 1 link in the 6 Miles, and yet he who takes the trouble to Come with me to this Cor[ner] will observe another old line, and if he takes the trouble to measure it will find that it is 47 [links, about 31 feet] due South from this Cor[ner].⁴⁶

While thirty-one feet over the course of six miles may seem trivial, Rightor's corner was certainly not as claimed in the original notes, and the acreage indicated on the plat map for the bounded parcels was incorrect. Was this an example of incompetence, fraud, or both? Rightor was a prominent resident of antebellum Arkansas, with important friends in high places, but this did not keep large portions of his surveying from being rejected by the GLO because of "errors." These affected the work of later surveyors, especially county surveyors who had to "break down" or lay out the interior boundaries of the sections.⁴⁷ However, much of Rightor's work remains as the official GLO survey, and he continued to secure GLO contracts for years afterward.

Langtree himself was not above reproach for the quality of his work. Rector directed him in 1855 to reexamine a survey he completed some years prior. According to his field notes, this resurvey was undertaken "at the request of the Citizens living on T15S R10W to correct the defective survey of said Township," though, as he had earlier remarked, "the East ½ of said Township being admitted on all sides to be a good survey."⁴⁸ After finishing this retracement and partial resurvey, Langtree stated:

it would have been more satisfactory to have made an entire re-survey of the above Township but the numerous small entries forbade it and when I have neither the time nor means to prosecute my researches further: the resident citizens are well pleased with the survey and I hope the honorable Surveyor General, who represents the United States Government in the surveying Department, will look with a lenient eye upon this Survey for I have made som[e] unaccountable [sic] wide closes but such as the[y]

⁴⁶Langtree, *Arkansas GLO Survey T18S R9W*, Book 2289, p. 6.

⁴⁷William McRee to George Graham, May 26, 1826, *The Territorial Papers of the United States*, ed. Clarence E. Carter, vol. 20, *The Territory of Arkansas, 1825-1829* (Washington, DC: Government Printing Office, 1954), 255-256; Don C. Bragg, "General Land Office Surveys as a Source for Arkansas History: The Example of Ashley County," *Arkansas Historical Quarterly* 63 (Summer 2004): 169.

⁴⁸Langtree, *Arkansas GLO Survey T15S R10W*, Book 2130, p. 1.

are, I have put them down, having no inclination or time for a Resurvey.⁴⁹

With this, Langtree admitted that his original work was not exemplary, but he believed it to be good enough, especially given the apparent satisfaction of the local residents.

In many of these problematic townships, settlers had quit waiting for the GLO to correct things. At one location in T18S R9W, Langtree noted:

I am informed that corners can be found from which there are no lines in any direction—could I find any lines I would feel compelled to retrace them as the land is all entered hereabouts, but as I can find no lines, I am forced to disregard these loose irregular and defective surveys—and to commence the whole work as I have already done—De-Novo.⁵⁰

People had apparently purchased a patent at the land office or put in formal claims to the lands based on occupation and improvement, locating their boundaries using unofficial surveys that were technically illegal or by their own reckoning. Langtree used these irregular surveys to further justify his obliteration of the existing monuments and resurvey of the entire township. Langtree also encountered monuments left by others that he considered flawed, including one location that he noted “County Surveyors Stole 2 links West”—this suggests the corner was improperly moved, possibly to favor a particular landowner.⁵¹

Langtree wasn't the only “reliable” man engaged in the Arkansas GLO resurveying effort, nor was he the most loquacious. Born in Tennessee (probably in 1827), William Granville McPherson was the oldest of the nine children of Alexander McPherson and Serena Allen Johnson.⁵² As a youngster, McPherson apprenticed as a printer for the *Arkansas Times and Advocate*, edited and later owned by Albert Pike.⁵³ In 1845, McPherson

⁴⁹Ibid., 24.

⁵⁰Langtree, *Arkansas GLO Survey T18S R9W*, Book 2289, p. 12.

⁵¹Langtree, *Arkansas GLO Survey T8S R15W*, Book 2115, p. 17.

⁵²Alexander McPherson (b. 1797, d. Aft. 1870), familytreemaker.genealogy.com/users/m/c/p/Linda-Spires-Mcpherson/WEBSITE-0001/UHP-0227.html (accessed August 22, 2012).

⁵³Granville McPherson (b. 1826, d. 12 Jun 1887), familytreemaker.genealogy.com/users/m/c/p/Linda-Spires-Mcpherson/WEBSITE-0001/UHP-0153.html (accessed August 22, 2012); Webb, “Retracement,” 17; Webb, “Granville McPherson’s Long Traverse,” *Point of Intersection* 12 (Spring 2012): 8; Charles E. Creager, John G. Hough, and James A. Latham, *History of Free Masonry in Oklahoma* (Muskogee, OK: Muskogee Print Shop, 1935), 83-84. McPherson wed his first wife, Sophronia Ann Lewis, on October 18, 1849, in Saline County, Arkansas, and is listed as a farmer in the 1850 Census; Dodd, *Arkansas Marriages*, 150; U.S. Census Bureau, *Schedule I.—Free Inhabitants in*

first appeared in the GLO notes as an axman working on the survey crew of his uncle, Samuel Johnson, and by October 1847, Johnson had wryly promoted his ambitious nephew to “Superintendent [*sic*] of the chaining and blazing & occasional Compass bearer.”⁵⁴ In July 1853, McPherson received the first of his resurveying contracts as a deputy surveyor. Interestingly, his friendship with the Whig Albert Pike did not prevent him from getting lucrative contracts with the GLO office in Little Rock, which had long been dominated by the Family.⁵⁵ In keeping with common practice, McPherson frequently hired his relatives to work on his surveying crew, including two brothers, his father, and an uncle.

McPherson’s resurveys took him to all but the western counties of the state. He traversed the “Granite Mountains” (nepheline syenite outcroppings southeast of Little Rock), closed lines on the Missouri border and the old Cherokee Boundary near Morrilton, sketched out the now vanished streets of Lewisburg (Conway County), traced the track of the new railroad being built to Memphis, and found on the St. Francis River what he described as: “the ruins of an encampment where some religious [*sic*] denomination worshiped their Creator in by gone days. This has the most ancient appearance of any place I have seen in the State of Arkansas. Near by stands a Beech bearing the date 1661.”⁵⁶ His “date” notwithstanding, it seems highly unlikely that McPherson would have seen physical evidence of a campsite dating to the mid-seventeenth century. Time and the elements would have destroyed most signs of a temporary occupation, and there is no documentary evidence of Europeans in Arkansas between de Soto’s entrada in the 1540s and Father Jacques Marquette and Louis Joliet’s expedition along the Mississippi River in 1673. Rather, he possibly encountered the vestiges of a camp meeting that may have been held a few years earlier. Such religious gatherings were fairly common on the frontier and had occurred in Arkansas as early as the 1820s.⁵⁷ In fact, McPherson himself recorded some details of such a meeting place near what is now Gillett in southern Arkansas County: “An old camp ground . . . Methodist I suppose from the arrangement of the tents.”⁵⁸

the District of Saline in the State of Arkansas, argenweb.net/saline/sal50c.html (accessed August 22, 2012). In the 1860 Census, McPherson listed his profession as surveyor.

⁵⁴Samuel Johnson, *Arkansas GLO Survey T20N R4E*, Book 1707, p.1.

⁵⁵It is possible that the Family’s influence over the day-to-day operations of the Arkansas GLO had waned by this time, particularly given the need for skilled surveyors whatever their political affiliation.

⁵⁶Granville McPherson, *Arkansas GLO Survey, Resurvey Exterior T4N R4E*, Book 8, p. 738.

⁵⁷Nancy Britton, *Two Centuries of Methodism in Arkansas* (Little Rock: August House, 2000), 32-37. The arrangement of the remains of these structures as drawn in McPherson’s plat map mirrors the “hollow square” description of the 1820s Ebenezer campground in Hempstead County.

⁵⁸McPherson, *Arkansas GLO Survey T6S R3W*, Book 2235, p. 25.

These quotations highlight one of the most historically useful aspects of the GLO resurveys in Arkansas—they occurred late in the antebellum period, following years of settlement and development. Many of the earlier surveys described relatively empty landscapes; this was often not the case by the mid-1850s. For instance, while resurveying an area in Dallas County, Langtree mentioned a fence, farm, and house of a “Mr. Bird,” followed shortly thereafter by “a Kiln and house for the manufacture of earthen [*sic*] ware 2 [chains] East & a Sawmill about 10 [chains] E.” He later observed “Arch Hays House, garden & negro quarters” and used as a witness tree “a Red Oak 8 [inches diameter] standing as a Shade tree in Squire Fullers yard . . . This post stands in an orchard and from it, the Cupola of the Court House in Princeton [bears] N 12°W.”⁵⁹

The resurvey notes of both Langtree and McPherson are also replete with their observations of the natural environment. Surveyor General William Pelham’s 1843 instructions clearly directed that “[no] memorandum or writing of any description should be made in your field book except such as relates exclusively to the surveys.”⁶⁰ Fortunately, McPherson was a blatant and effusive violator of this dictum. His notebooks are a journal of the many-hued face of the country and a candid expression of the difficulties he faced. Often, the orderly march of his notes wandered off on a stroll through the distractions offered by the countryside. Returning to camp one evening in November 1854, he penned this paean to dusk on the prairie in his field book:

This is one of the most lovely evenings I ever saw it is sunset and our shadows have lengthened o’er the level plain if I were not departing from my instructions I would say something in regard to the sublimity of a sunset on the prairies. But it would be well enough for I don’t suppose that I could say anything worth the attention of those who would see it.⁶¹

McPherson ended up being scolded for his florid prose by the GLO office staff that inspected his field notes. In one part of a resurvey of a township in Arkansas County, he opined: “an Old field that has been worn out & thrown out for many many years. It looks as though it might have been cleared & tilled a Short time after the first morning dawned and creation

⁵⁹Langtree, *Arkansas GLO Survey T8S R15W*, Book 2115, pp. 1, 38, 50. Dallas County had an early pottery industry spring up around clay deposits in the area, and the Bird Kiln dates to 1843. Julie Vosmik, *History and Architectural Heritage of Dallas County* (Little Rock: Arkansas Historic Preservation Program, 1991), 4-7, 15.

⁶⁰Elgin and Knowles, *U.S. Public Land Survey System for Arkansas*, app. G, 5.

⁶¹McPherson, *Arkansas GLO Survey, Resurvey Interior T5S R3W*, Book 2234, p. 3.

I reckon the Nabab who first Settled it has long since been Mouldering in the Silent Tomb.” A GLO clerk wrote in the margins of his notes: “Your literary talents are respectable but out of place here.” McPherson then penned his response at the top of the page: “They are only some foolish fancies of a Man born and died in the back woods. Excuse them & I will not do so again.”⁶² But, McPherson repeatedly ignored this promise. His flair for dramatic observations may have been inspired by Pike’s example as a romantic chronicler of frontier scenes.

As noted earlier, however, Charles H. Pelham was the subject of McPherson’s most colorful prose. And with good reason—few others had as much history with Pelham as McPherson. Most of the dozens of McPherson’s 1850s resurveys followed Pelham’s footprints into infuriating mazes of omitted corners, false notes, badly marked lines, blatant shortcuts, and botched measurements. For example, McPherson’s investigation into Pelham’s original survey of a township near the Missouri line found “the survey of township 19 north, range 21 west has been very Erroneously executed and the Citizens say that about one half of the corner trees are improperly marked.”⁶³ McPherson’s resurvey of an adjacent township corrected a striking kink Pelham had placed in the Arkansas/Missouri state line arising from his failure to actually run his subdivision lines to their intersection with the Missouri line (Figure 2). In February 1855, McPherson adopted an expedient approach to spare his very cold hands the exposure of writing “as it consumes too much time (unnecessarily I think) to describe the difference between the [bearing] trees I find marked at a corner & those called for [in Pelham’s notes]. I will just simply say in such cases False Notes.”⁶⁴ As time and the miles passed, his fulminations became both eloquent and damning: “Pelham’s corner is about 8.5 ch. South and 3 ch. East—his notes for this corner as foreign from truth as Heaven is from Earth,” and later, “Some places 3 lines blazed & other places none at all. But it is not to be supposed that the axe was very carefully attended to when the chain was so perfectly reckless—a discrepancy of 13.00 chains in 4 miles.”⁶⁵

As the years passed, the pleas for continued funds to resurvey in Arkansas received an increasingly hostile reception in Washington. In June 1857, GLO commissioner Thomas Hendricks sent Rector a letter directing any citizens or government surveyors to submit complaints about the quality of the surveys directly to his office in Washington for resolution

⁶²McPherson, *Arkansas GLO Survey T6S R3W*, Book 2235, p. 4.

⁶³McPherson, *Arkansas GLO Survey, Resurvey Interior T20N R21W*, Book 2280, p. 27.

⁶⁴McPherson, *Arkansas GLO Survey, Resurvey Interior T6N R16W*, Book 2270, p. 12.

⁶⁵McPherson, *Arkansas GLO Survey, Resurvey Interior T20N R21W*, Book 2280, p. 5; McPherson, *Arkansas GLO Survey, Resurvey Interior T5N R4E*, Book 2123, p. 47.



Granville McPherson, likely during his years as a newspaper editor in Oklahoma. *Courtesy Don Watson.*

and if the claim could not be supported by evidence “[or] the field marks have been suffered to be obliterated by the purchaser or purchasers thereof, then, in that event, no steps will be taken by the department in directing a resurvey of lands thus situated.”⁶⁶ The addition of these burden-of-proof requirements and the necessity of dealing with a distant government office effectively silenced most complaints about surveying inadequacies. Though this bureaucratic response seems harsh, Commissioner Hendricks was determined that this remedial work not be paid for out of his limited budget. Furthermore, plats of the complete original surveys had served as the basis for thousands of sales. As seen in the field notes of Langtree and McPherson, many of these tracts were occupied and improvements built, so the appearance of government surveyors re-running settled lines caused public outcry. After all, the GLO had not sold settlers precise measurement but a tract with certain boundaries, and the original plats provided an ample, if rarely perfect, basis for a sale to take place and legally defensible tenure to take hold.

Even though the resurveys of Langtree and McPherson, and an abortive effort to correct the Choctaw boundary in 1858, showed a need to reexamine large portions of the public land survey in Arkansas, GLO commissioner Hendricks ordered Surveyor General Rector to wrap up his

⁶⁶From a letter by Hendricks to Rector included in Rector, “1857 Annual Report of the Surveyor General of Arkansas,” 175-176.

work.⁶⁷ Unswayed, Rector requested \$9300 for the fiscal year ending on June 30, 1860, to continue at least the office work. It was rejected.⁶⁸ The first round of GLO resurveys ended on March 12, 1859, with the closing of the Little Rock GLO office.⁶⁹ Henceforth, property owners, local surveyors, and the legal system were left to unravel the skein of flawed surveys.

This rather inglorious end to the Arkansas GLO resurveying operations made for considerable uncertainty regarding the original surveys in parts of the state well into the twentieth century. At the closure of the Little Rock GLO office, sixty-four of Pelham's suspect surveys remained to be resurveyed.⁷⁰ A whole series of litigations between the federal government, private landowners, and a number of companies arose over the execution and interpretation of the original GLO surveys, some of which took decades to resolve.⁷¹ Many of the most egregiously fraudulent surveys had occurred in northeastern Arkansas. In one such opinion rendered on November 5, 1917, the U.S. Supreme Court rejected certain claims placed on "Moon Lake" in Mississippi County because the survey showing the area as a body of water was a "fraud or mistake" and ordered a resurvey based on that principle.⁷²

⁶⁷The Choctaw Reservation's eastern border with Arkansas Territory had been defined in a January 1825 treaty to run due south from a point on the Arkansas River 100 paces east of old Fort Smith to the Red River. Surveyors contracted by the commissioner of Indian affairs (notably, *not* the GLO) later determined that James Conway's original survey did not follow the meridian specified in 1825 and that its westward divergence "had led to serious encroachment upon the Indian lands." Derek R. Everett, "On the Extreme Frontier: Crafting the Western Arkansas Boundary," *Arkansas Historical Quarterly* 67 (Spring 2008): 15-16; W. David Baird, "Arkansas's Choctaw Boundary: A Study of Justice Delayed," *ibid.* 28 (Autumn 1969): 209-213; J. A. Williamson, "Resurvey of the Boundary Between the State of Arkansas and the Indian Territory," *Annual Report of the Commissioner of the General Land Office for the Fiscal Year Ending June 30, 1878* (Washington, DC: Government Printing Office, 1878), 22-23.

⁶⁸Henry Massie Rector, "1859 Annual Report of the Surveyor General of Arkansas," *Volume 1, Executive Documents Printed by Order of the Senate of the United States, Second Session, Thirty-Fifth Congress, 1858-1859, and Special Session of the Senate of 1859* (Washington, DC: William A. Harris, 1859), 196-224.

⁶⁹Elgin and Knowles, *U. S. Public Land Survey System for Arkansas*, chap. 1, p. 10.

⁷⁰Webb, "Suspect Surveys," 8-9, 11. In the intervening years, the U.S. Department of the Interior's Bureau of Land Management, successor to the GLO, has conducted dependent resurveys of parts of sixteen of these, and private surveyors have toiled in the thickets of the remaining forty-eight. As mentioned earlier, the "dependent" resurvey process identifies existing corners and evidence to reestablish lost corners using proportionate measurement; Elgin and Knowles, *U.S. Public Land System for Arkansas*, chap. 3, p. 3. A few of the resurveys were what are called today "independent" resurveys where the recovered original corners were so sparse or so mislocated that they could not be used as control, and the township was entirely resubdivided without reference to the original corners or plat.

⁷¹Elgin and Knowles's textbook contains a chapter filled with key state and federal court decisions related to the PLSS.

⁷²*Lee Wilson & Company v. United States*, 245 U.S. 24; U.S. Department of the Interior, *Manual of Instructions for the Survey of Public Lands of the United States, Bureau of Land Management Technical Bulletin 6* (Washington, DC: Government Printing Office, 1973), 173-175. Interestingly,

Ultimately, the policy established in 1857 by Commissioner Hendricks for Arkansas prevailed in federal legislation. In 1879, new regulations clearly established that the commissioner alone could approve plats. The practice of hiring private contractors to conduct original surveys of public domain lands was halted in 1910, making the deputy surveyors federal employees whose work was subject to close supervision and scrutiny. It is now the policy of the U.S. Department of Interior's Bureau of Land Management (the successor to the GLO) that resurveys will not be ordered unless no evidence remains of the purported original survey because of the total absence of marks. Since 1859, resurveys of parts of Arkansas have been sporadically conducted to address specific issues or settle litigation.⁷³ As of today, at least 185 Arkansas townships have been resurveyed, or about 12 percent of the total.⁷⁴ Although the early resurveys failed to correct all of the shortcomings of the original GLO surveys, they do provide historians a rich glimpse of Arkansas during the late antebellum period. This legacy may be of little comfort, however, to surveyors, who still have to deal with the consequences of these shortcomings over 150 years later.

this case contributed to the acceptance of a new scientific discipline. The U.S. Department of Justice summoned Dr. Henry Chandler Cowles, a botany professor at the University of Chicago, to testify that the vegetation growing on the area in question was not consistent with recent riparian forest (i.e., had not arisen after the survey's completion) but rather that of an old, well-developed forest that had grown on the site for centuries (suggesting the claim was fraudulent). The Court's acceptance of Dr. Cowles' concepts of forest succession helped lay the foundation for ecology as sound science. Henry Chandler Cowles, "The Economic Trend of Botany," *Science* 41 (February 12, 1915): 227-228; Victor M. Cassidy, *Henry Chandler Cowles: Pioneer Ecologist* (Chicago: Kedzie Sigel Press, 2007), 68-118.

⁷³Webb, "Suspect Surveys," 8-9, 11.

⁷⁴Richard L. Elgin, *The U.S. Public Land Survey System for Missouri* (Jefferson City: Missouri Society of Professional Surveyors, 2013), chap. 2, p. 41.