Lead Mining and the Survival and Demise of French in Rural Missouri

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Article abstract
Old Mines is just about all that remains of French Missouri, a remnant of eighteenth century French and Spanish colonial ambitions. Rich lead deposits attracted the early French to what is now Washington county. The demand for hand dug lead (tuf) and later barite permitted French miners to continue their mode of production with its linguistic and cultural complementarities until World War II. Since, the Missouri French have been gradually disappearing. Yet even at moments of virtual cultural and linguistic collapse, voices are raised in an effort to rectify the situation.
LEAD MINING AND THE SURVIVAL 
AND DEMISE OF FRENCH IN RURAL MISSOURI 
(LES GENS QUI ONT PIOCHÉ LE TUF)

by

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RÉSUMÉ

Gerald L. GOLD : La survivance du français chez les piocheurs de tuf du Missouri

Tout ce qui reste du Missouri français, c’est Vieilles Mines : un résidu des ambitions coloniales française et espagnole du 18e siècle. La présence de riches gisements de plomb servit à l’époque d’appât pour attirer, dans ce qui est aujourd’hui le comté de Washington, plusieurs coloniaux. La demande pour le plomb (arraché à la main à même le tuf), et plus tard pour la barite, permirent aux mineurs français de conserver, et ce jusqu’à la dernière guerre mondiale, une certaine authenticité dans leur mode de vie, leur langue et leur culture. Mais depuis, les Français du Missouri disparaissent petit à petit. Pourtant, au moment de l’effondrement apparent de la langue et de la culture, certains cherchent à renverser la vapeur, et à insuffler une nouvelle vie à cette culture moribonde.

MOTS-CLÉS : Missouri, plomb, tuf, survie culturelle

ABSTRACT

Old Mines is just about all that remains of French Missouri, a remnant of eighteenth century French and Spanish colonial ambitions. Rich lead deposits attracted the early French to what is now Washington county. The demand for hand dug lead (tuf) and later barite permitted French miners to continue their mode of production with its linguistic and cultural complementarities until World War II. Since, the Missouri French have been gradually disappearing. Yet even at moments of virtual cultural and linguistic collapse, voices are raised in an effort to rectify the situation.

KEY WORDS : Missouri, lead, tuf, cultural survival
Tom Thebeau peered down and brought his full eighty-three years of experience into a single thought on the origin of the name Old Mines.

C'est tout le mon' qui a pioché du tuf. Old Mines!
That's why they call it Vieilles Mines in French.

Thebeau and his wife perceive their social universe from a log cabin among a grouping of households on a steep hill several thousand yards from St. Joachim Church in Old Mines, Missouri. They are part of what remains of French Missouri, an outpost of l'Amérique française that grew out of French and Spanish colonial ambition in the Upper Mississippi Valley. The colonial interest of France was primarily in the lead mines of the interior, a resource that was already familiar to the Missouri Indians. Salt and furs were also of importance, but it is lead mining that provides a consistent linkage from the early 18th century to the present.

Lead miners were only partially immersed in the wage economy. Living in social and physical isolation, controlling the simple mining technology for digging lead (and later barite) pits, the miner supported himself with the domestic economy of la basse-cour and with hunting and gathering from the Ozark countryside. They resisted increased demands on their labour and maintained close kinship and ritual relations at the neighbourhood level. The demand for hand-dug lead and barite (le tuf) permitted the miners to continue their mode of production with its linguistic and cultural complementarities until the Second World War when mechanization and the extension of state services undermined their way of life.

The merchant class of French Missouri that was most involved in the lead trade, lived among the traders, boatmen, and farmers of Ste. Geneviève and the surrounding “American Bottoms”. Although the merchants were of the same Québécois origin as the miners, and only fifty miles or less of countryside separated their communities, they were to take very different paths of mobility after the Louisiana Purchase. The merchants were a “refuge” group in that their concentration in Ste. Geneviève was the result of American extension into French Illinois and favourable conditions that prevailed there under Spanish rule (1763-1801). But the bourgeoisie of Ste. Geneviève was no match for the Yankees and Germans and they were absorbed into the new order rather than molding it to their own institutions and language. In the river community of Ste. Geneviève, this absorption was effective by the third quarter of the 19th century; in the hamlets of French lead miners, an economic and social enclave had formed which was much more resistant to Americanization.

In this exploratory paper, published sources are combined with interviews and observations from a brief field trip to Old Mines and Ste. Geneviève that the author made in 1977. The objective is to seek a linkage between the historical settlement and trade pattern and the creation of a French enclave in the Old Mines area of Washington County, Missouri, in what was the French and Spanish administrative district of Ste. Geneviève. Petty commodity production in lead and barite ore is here considered to be a situation in which French village culture flourished in the Ozark Hills. With the end of artisanal mining, and with no further institutional support, the miners seem to be taking the assimilation route that the merchants followed three or four generations earlier. Yet even at moments of virtual cultural and linguistic collapse voices are being raised in an effort to rectify the situation.
The Indians of this region may have already developed a lead trade by the 18th century, trained in the fire-power of lead by the *coureurs de bois* or by the Joliette and Marquette expedition of 1673 (Thwaites, 1903, p. 299-301). Whether or not the mines were pre-colonial in origin, it is certain that the French relied heavily on the Indians as prospectors and, in the case of Julien Dubuque, who negotiated with the Saulk and Fox at Prairie du Chien, Indians carried out both the mining and "smelting" of 'French lead' (ibid., p. 313-316).

At first the French relied on slaves. After a brief and rather unproductive monopoly by Governor Crozat, Philippe François de Renault began mining in the Potosi area (figures 1 and 2) in what was then known as the Mine à Breton. But despite de Renault's 500 slaves from Santo Domingo and other slaves who worked for Ste. Genevieve merchants after the founding of that village in 1735, the Missouri lead mines were critically short of labour. Free-lancers, using the same techniques as the Indians were thus able to find a niche in this area as early as the 18th century (Thwaites, 1903, p. 308-310). Lead mining, in the late 18th and early 19th centuries, seems to have been a part-time preoccupation for many of the households in Ste. Genevieve and a direct or indirect interest of most merchants (Rozier, 1890, p. 96).

This involvement of the population in the lead mining and lead trade incorporated several important Americans immediately before and after the Louisiana Purchase. Men like Moses Austin, introduced 'modern' mining (with shafts) to Mine à Breton, renamed Potosi after its Mexican counterpart. Austin added to Missouri's first reverberatory furnace a sheet lead shop and a grist mill (completed before 1802). With striking persistence, the Old Mines French still refer to Moses Austin's town of Potosi as Breton, pronounced 'Barton'. One might speculate that perhaps Asa Breton was more important to the miners than the American, Austin.

Breton was a native of France... born in the year 1710, served in the armies of France... In the year 1755 he took part in the defeat of Braddock's troops at Fort Duquesne, now Pittsburgh. Breton came to Upper Louisiana, now Missouri and became a hunter and a miner. Whilst hunting he discovered the "Breton Mines" [1763]... he lived with the Micheau family... two miles above the then town of Ste. Genevieve... In his old age, he would walk to the church regularly every Sabbath day to Ste. Genevieve. He died March 1st 1821, and was buried in the Catholic cemetery by Reverend Father Henry Pratte, parish priest. He lived to the extraordinary age of 111 years. (Rozier, 1890, p. 91).

It should be stressed that the development of lead *per se* and the existence of mining entrepreneurs, was not unusual in the history of the Ozarks which went through numerous boom and bust cycles of intensive capitalist extraction (salt, iron, etc.) in which growth was always eclipsed by the availability of new transportation, cheaper resources and more plentiful supplies, or of alternative investments for capital (Sauer, 1920, p. 81). For example, a similar boom in metal production occurred in nearby Iron Mountain (Rozier, 1890, p. 92ff; Writer's Program N.D., p. 539). What is unique about the lead mines is their intimate association with one ethnic group, the Missouri French.

The French mining settlements in the hinterland of Ste. Genevieve formed a single interconnected region as early as 1800 when ties of marriage and of trade gave settlements such as Mine à Breton, Mine La Motte, Vieilles Mines, and St. Michaels (Sauer, 1920, p. 81 from Houck, 1908) an overarching regional identity. Ste. Genevieve was the most suitable point for trans-shipment of the lead to New Orleans in a perilous journey with
Figure 2

WASHINGTON COUNTY:
MISSOURI FRENCH CULTURAL HEARTH
flat-bottomed or keel boats (Ellis, 1929, p. 34-35). The ore was brought to the Mississippi from the interior settlements on pack horses and then taken from Fort de Chartres to Ste. Geneviève by charette. The Ste. Geneviève French merchants were the beneficiaries of this trade until the Louisiana Purchase, after which St. Louis profited from the steamboat age and from its more strategic river junction location.

The Spanish plan to complete the exploitation of Missouri resources was to resettle French refugees from Illinois and the American states on the alluvial farmland of the river bottoms. This led to the founding of several settlements including New Bourbon, which added 461 persons to Ste. Genevieve in 1797. These were to have been granaries for the plantations of Louisiana and the Gulf Coast (Sauer, 1920, p. 87). However, even in Lower Louisiana where the Spaniards allotted extensive farmlands to transplanted Acadian exiles, the French-speaking peasants could not be coerced into making their region a net exporter of grains. Most cultivation in the French-speaking riverine villages was done in the grand champ (common field) and little effort was made by the colonial authorities to develop the upland regions for agriculture. The merchants’ interest in lead and salt, and the New Orleans luxury trade, and the reluctance of the farmers to produce more than required for subsistence made the opening of new agricultural land and technologies all the more difficult. Much of the technological conservatism of the French population was reflected in the mining of lead and tuf.

LES PIOCHES — THE DIGGING’S

In his travels through the French lead mines in the early 19th century, Timothy Flint described the principal diggings in terms of mining companies: “Barton [Mine à Breton], Shibboleth, Lebaum’s, Old Mines [Vieilles Mines], Astraddle, La Motte, a Joe, Renault’s, New Diggings, Liberty, Cannon’s, Silver’s, A. Martin & c.” (Flint, 1828, p. 86). The countryside was already heavily scarred from pit mining.

Coarse and dilapidated air furnaces, immense piles of slags and all the accompaniments of smelting, show in how many deserted places these operations have been performed. The earth, thrown up in the diggings, has portions of oxidized minerals, and acquires in the air a brilliant reddish hue; and the numberless excavations have the appearance of being graves for giants. It is a hundred years since the French began to dig lead in this region. (Flint, 1928, p. 87)

The miners worked the lead pits until the companies that bought their cart loads of lead closed, but the demand for barite, at first discarded in the diggings, extended the life of the lead fields to the present day.

Flint recognized the value of barite in the production of white lead, and lamented the limited attempts to manufacture “white lead or even sheet”. He observed that “no part of the country, west of the Mississippi, so earnestly invited manufactures, especially those of lead” (Flint, 1928, p. 87). This was to become a reality in nearby St. Louis where plants such as the Collier White Lead and Oil Works, established in 1837 by the Americans “Dr. Reed” and Henry T. Blow, became the largest and most heavily-capitalized white lead producer in the American West (Dacus and Buel, 1878, p. 243-244). Meanwhile, the production of lead, and later of barite, continued to be a low-paid and under-capitalized operation that could fit into the domestic mode of production of the French-speaking families.

The ready availability of lead and barite as “float” ores accessible with pick and shovel in shallow surface pits, the absence of any tax on production or rent on mineral rights, and the constant market demand for lead and its by-products, were sufficient to assure a continued presence of miners and miners (Sauer, 1920, p. 83). If labour was not sufficiently
available to constitute a permanent work force, it may have been due to the reluctance of the French miners to give up the security of la basse-cour or of marginal farming for an occupation that fluctuated with the booms and busts of early American industrial capitalism.

Mining was also seen by its promoters as a seasonal and part time occupation. As Moses Austin, the founder of Potosi (Mine à Breton), optimistically pronounced in an 1804 report to the new U.S. regime: “every farmer may be a miner, and, when unoccupied on his farm, may, by a few weeks’ labor, almost at his own door, dig as much mineral as will furnish his family with all imported articles” (Sauer, 1920, p. 83). Nonetheless, by the end of the 19th century, the French were not competing with other immigrant groups for the rights to the diggings. Mining was low-paid, dangerous and under-capitalized. What began as a lucrative option had become part of a multi-resource strategy among people who had few other options (Gerlach, 1976, p. 151).

In the 1930’s, barite was still mined with a bucket and a scrap lumber windlass from holes that were no deeper than 20 feet. Picks and shovels loosened the ore which was filtered through a home-made wooden “rattle box” to separate the barite from the dirt. In earlier days the lead was taken to one of some twenty small smelters on the minefields (of which the ruins of only one smelter remain). However, during the period of barite mining, the hand-picked loads of ore were carried to a processing point where the mining company paid the miner for his load, crushed the ore and sent it on by rail. The introduction of power shovels in the thirties gave jobs to a few of the miners, but the “others simply retired to live on welfare or no income at all” (Gerlach, p. 151). Far advanced from the désolation witnessed by Flint, “the land became so exhausted after the mechanized mining a crow had to bring his own food to fly over it” (Ibid.).

The present génération of Old Mines residents of over age sixty is a group that remembers their lead mining days in vivid, though not necessarily affectionate terms.

Rosie Pratt, raised near the lead field at Mine à Canon, remembers the arduous and low pay:

C’était dur dans ce temps-là. Piocher des fois toute la semaine pour un load de tuf. Ils ont toujours des moulins. Le mon’ i’ travaille toujours au moulin, mais i’ pioche plus le tuf avec leurs mains... avec le pic. Oh ! Pauv’ vieux Pop i’ venait de piocher et là pis i’ enssissait su’ la petite galerie là, pis tout mouillé, mouillé de suer... C’est terrible comme le monde a travaillé...

It was rough in those days. Picking as much as a week for a load of tuf. They still have mills. People still work at the mill, but they don’t pick tuf with their hands... with a pick. Oh! Poor old Pop would come back from picking and set himself down there on the little galley. Well he was all wet, wet with sweat... Its terrible how people worked.

‘Noo’ Coleman, recalls how he began lead mining:

I’ piochait tout. Tout le monde la même chose. C'est lui [son père] qui m’a montré comment partir. Mon premier jour... le premier trou.

They all picked. Everybody the same thing. It’s [my father] who showed me how to get started. The first pit.

Despite the hardships of mining, the former miners fondly remember when they were free from the constraints of buying their food and reliant on their own domestic production.

On achetait pas grand’ chose. On élevait des couchons, un boeuf, et on a pioché. On a acheté la farine, le sucre, le café. On faisait le boudin, des andouilles, le boulli. La chasse des lapins... des écureuils... rien d’aut’. We didn’t buy much. We raised pigs, a cow, and we picked. We bought flour, sugar, coffee. We made the boudin, the andouilles, the boulli. We hunted rabbits... squirrels... nothing else.
THE FRENCH VILLAGES

Writing in 1935, Ward Allison Dorrance reported that there were “few Créoles [the name used in Missouri for the Missouri French] to be found today in the towns along the river, with the exception of Festus and Crystal City, where many of them are employed in the factories. Sainte-Geneviève has no more than a score of families which have remained definitely French.” (Dorrance, 1935, p. 43). Germans had moved into the coastal settlements and even into interior hamlets like French Village and Bonne Terre. The Old Mines area, then, and now, is the only concentration of French speakers in the Ste. Genevieve District.

Washington County is unique in its region in that the French village of Old Mines and the surrounding Union Township (90% of Old Mines Parish) had a population density of 43 per square mile in 1930 and of 40,4 per square mile in 1970—about three times as high as the rest of the county (Gerlach, 1976, p. 154). The village itself dates back to the early 18th century and French miners were living there when Moses Austin founded Potosi. There has been little historical out-migration from Old Mines, and in the mid 19th century numerous families moved in as part of an effort “to escape the Americans and stay among their own kind” (Gerlach, 1976, p. 152).

The St. Joachim Church in Old Mines, built in 1828 is one of the oldest west of the Mississippi, and many of the homes are log cabins and sloped-roof Québec-influenced dwellings that have been in the same family for several generations. Physically and socially Old Mines became an enclave, a last line of defence, in which the most important groups are family-centred networks. Most residents live in ‘hollows’ or settlements of about 15 households, each with a minimum of three extended families and 3-10 units of each family (Gerlach, 1976, p. 154). Within these units—like “Thebeau Town”—visiting reciprocity and work parties took shape.

As in other regions of l’Amérique française, the residents of Old Mines know each other by their sobriquets and even place names may be different in local French than they are in English. For example, “Barton”, as mentioned earlier, is always used for Potosi; Gros Vesse (big fart) was the name of one of the most reputed story-tellers in the early part of this century. These are the people and places of what was a colloquial and familiar milieu in which travel occurred over Frog Hill, primarily between Old Mines and “Barton”, the service centre, and to hamlets such as Racola, Richwoods, Canon Mines, Tuf, and La Motte.

There were frequent bals and more frequent veillées in which the population took an ardent interest in listening to the conteurs. So great was this interest in tales, that in the thirties, Joseph Médard Carrière was able to find more folk tales in current use than folk songs, many fewer of which had been retained (Carrière, 1937, p. 8). Prior to Carrière’s research the telling of contes was not even separated from the business of pit mining.

One hears often at Old Mines of several conteurs who used to be asked by miners working in the same field to tell the famous story of Renaud de Montauban. As this modern version of the old medieval favorite took a whole day to tell, the listeners got together and gave the story-teller a big pile of barite before he would begin. No longer can anyone be found in Old Mines who knows the tale from beginning to end. (Ibid., 16n)

The “communitas” (Turner, 1969) that linked this dispersed population of francophones was renewed several times a year through feast days such as New Year’s Eve when the Guignolée was sung from door-to-door and Mardi Gras, with its door-to-door mumming. Most writers who have reported on Old Mines single out La Guignolée as the
most important ethnic institution of the Missouri French (Dorrance, 1935, p. 36 and 43; Carrière, 1937, p. 6-7). Some go as far as noting that *La Guignolée* is "staged" in Ste. Genevieve and authentic in Vieilles Mines (Gerlach, 1976, p. 155). André Gladu, in his film on Vieilles Mines, singles out *La Guignolée* as the last institutional thread of a dying culture with their past traditions (Gold, 1978). Significantly, in the several interviews carried out rather randomly in Vieilles Mines in 1977, respondents offered to sing or play (on the fiddle) *La Guignolée*. One retired miner explained that this was a festive occasion that demanded generosity of everyone and that everyone, then, partake in the generosity of others.

In ‘avait un qui était le lecteur... pis i’ [les gens] donnaient une petite tarte, ou ben une galette ou une poule. Des fois i’y avaient ramassé 25 sous. Apè ça pis i’ donnaient une danse et tous les aut’ ça qui avaient donné avec la guignolée... i’ payaient rien et pis les aut’ i’ payaient 25 sous... danser tout la nuit et pis manger ça i’ voulaient manger. À peu près 5 ou 6 ans, ça c’est gone. Fini.

(Nou’ Coleman, retired miner)

There was a crier... and they gave a small pie, or a cake or even a chicken. Sometimes they got 25 cents. After that they held a dance. And those people who gave the Guignolée, they paid nothing while the others paid 25 cents... to dance all night and eat what they wished. Its been five or six years that its been gone. Finished.

The Mardi Gras, seen in retrospect, was less important. It was a time when house-to-house visitors donned masks and, as in Louisiana, sang a distinctive Mardi Gras song.¹

These community ties have all but eroded in Vieilles Mines where no more than several hundred people still speak French,² and many of these speak French with nowhere near the frequency of thirty years ago. The church, which was never an agent of cultural retention has not, until recently, expressed an interest in cultural revival. Significantly, the potential French elite, the old French trading class and professionals of the river towns, is no longer identifiable as an ethnic-based class group.

"C’EST PAS LA MÊME CHOSE ANYMORE."³

There have been no French language schools in the Ste. Genevieve District since the Louisiana Purchase and compulsory education after the First World War made no allowance for the unilingual francophones arriving in schools. More significant was the end of pick and shovel mining in the late thirties, which eliminated French as a language of work in the lead fields. Removed from its family sanctum and from relations of work, and lacking elite support, the Missouri French lost their speech community. Those who continued to speak French have become isolated and alienated, if not deeply ashamed to use their language.

Tom Thebeau shows acute sociological insight on the problems of Missouri French-speakers:

All the old people are dead. Only youth remain, but youth doesn’t know [French]. That’s the way we have forgotten. There are not many who speak French there. They die your know. That’s all gone out!... All my kids were French, and they can’t talk... [ils ont appris] en français... mais après qu’i sont mariés, i’ont pas charré un mot.

Tous les vieux sont morts. Ça resse de jeunes, pis les jeunes i’connaissent pas. C’est comme ça nous aut’ on a oublié. [Sur les Créoles de "Bar-ton"] I’na pas beaucoup qui charre français là bas. They die you know. That’s all gone out!... All my kids were French, and they can’t talk... [ils ont appris] en français... mais après qu’i sont mariés, i’ont pas charré un mot.
Carrière commented on the "decay" of Missouri French in the thirties, and that many children who listened to the conteurs were only passive bilinguals (Carrière, 1934, p. 15). In other words, the phasing out of French as a language of socialization coincided with the phasing out of family labour and of petty commodity production in barite mining.

The Catholic Church, officially the religion of most people in Old Mines, never instituted an ethnic parish system in Missouri such that the Church would have come to the defence of the French language. The last French mass read in Ste. Genevieve was in 1893 (Dorrance, 1935, p. 46) and, in 1977, Vieilles Mines respondents do not remember hearing a French church service. Dorrance writes of a Father Tourenhaut, a Belgian Creole from St. Louis, who tried at the turn of the century to encourage the preservation of French in the Ste. Genevieve Church and in the interior villages, but apparently little came of his efforts (Ibid., p. 43).

The respondents in Vieilles Mines were quite aware of the failure of the Church in preserving their French, and most knew only portions of French prayers that they had learned from one of their parents or a relative. If anything, the Church has encouraged a feeling of inferiority over the French that is spoken:

(Le curé) parle en français. C’est pas même français que moi je parle. L’vient de St. Louis, mais il est Bohémien. Ia des choses qu’i comprend mais pas beaucoup...

Mes prières i’sont en anglais, moi j’avais accumulé pour longtemps, longtemps à prier en français. Et pis là on a commencé à prier en anglais. [pourtant son père disait ses prières en anglais].

The priest speaks French. Its not the same French as I speak. He comes from St. Louis, but he’s a Bohemian. There are things that he does not understand well.

My prayers are in English, but I long had the habit of praying in French. Then we started praying in English. (My father even said his prayers in English).

French in Missouri, unlike contemporary Louisiana, is no longer a language of local politics. Furthermore the key informants assert that medical care is not available to them in French, although this may have been so in their fathers’ generation. Some of the small merchants in Vieilles Mines are French speaking. French may have been important only recently as a language of local commerce. It would be interesting to know whether the miners were able to communicate to the mining companies in French when negotiating purchase of their lead or barite. But this, and other specific sociolinguistic questions must wait for further research.

In what looks like a hopeless situation for Missouri French, there is a locally-sponsored movement to teach French to school children and anyone else who is interested. In 1977 these classes were organized by a parish worker who had called a meeting of all interested parties. In 1979 they were taught once a week, voluntarily and without remuneration, by a professional teacher from St. Louis. The course, complete with eight prepared packaged lessons in which the Missouri French dialect is stressed, is regularly attended by twenty people of all ages. Concurrent with this movement, Charlie Pashia, a well-known local fiddler and French speaker has become involved in francophile folk festivals in St. Louis and other places, attended by folk revival musicians from Louisiana, North Dakota, and New England. These events, like the earlier efforts of Père Tourenhaut, are followed with interest by the older generation, but in the absence of any social context for French use, they are unlikely to have a marked effect on the future of the francophones of the Missouri Ozarks.
NOTES

1 Tom Thebeau remembers this much of the song:
À Paris, y'a trois filles, une qui coude et une qui file (repeated twice)
O les bons mardi-gras, les bons mardi-gras.
The lyrics bear no resemblance to the Mardi Gras song still sung in Southwestern Louisiana.

2 1970 Census records report 15,086 mother tongue French in Missouri and 196 in Washington County. The number of French speakers in Old Mines appears to be underestimated by the census.

3 Mlle Rosie Pratt, Vieilles Mines. Mlle Pratt used a similar expression ("C'est pus comme ça anymore") in a film by André Gladu (Gold, 1978).

BIBLIOGRAPHY

CARRIERE, Joseph Médard (1937) Tales from the French Folk Lore of Missouri. Evanston, Northwestern University Press.
DACUS, J.A. and BUEL, James W. (1878) A Tour of St. Louis; or the Inside Life of a Great City. St. Louis, Western Publishing Co.
FLINT, Timothy (1828) A Condensed Geography and History of the Western States or the Mississippi Valley. V, II. Cincinnati, William M. Farnsworth (reprinted by Scholars’ Facsimiles and Reprints, Gainesville, Fla.)