



Part of Franquelin's Map of 1688 Showing Iowa-Land for the First Time.

SPANISH MINES: AN EPISODE IN PRIMITIVE AMERICAN LEAD-MINING.

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In 1788 Julien Dubuque began mining lead ores on the west bank of the Mississippi river in northeastern Iowa, within the corporate limits of the present city bearing his name. Dubuque gave the place the name of "Spanish Mines," and the tract granted him by Spain eight years later was thus distinguished by patent. The year 1788 is thus commonly regarded as the date of discovery of the lead and zinc deposits in Iowa.

A century and a quarter has passed since Dubuque first began mining. It now appears that an even longer period had elapsed before Dubuque's time in which lead was taken out of Iowa-land. Moreover, the first knowledge and mining of lead in America belongs properly to the present Dubuque region. The circumstances surrounding this early development of the oldest industry of our State have at this time a special interest.

The mineral galena, the common ore of lead occurring in bright sparkling masses, appears to have been known to the aborigines of the Mississippi valley long before the advent of white men. It is found in many tumuli of the Mound-builders. It was brought in by the Indians to some of the very first French posts established in the region. In the first half of the last century the Sioux Indians of Minnesota and Iowa were accustomed to inlay with metallic lead in geometric designs their catlinite pipes. This was probably not a recently acquired accomplishment; but had its origin in the long ago.

As early as 1634 Europeans had already penetrated nearly or quite to the Mississippi river. In order to stimulate the hunting of the fur-bearing animals the French soon introduced the use of firearms among the Indians; and with it grew a strong demand for ammunition. As the traders garnered furs

they also kept a sharp lookout for minerals suitable for moulding into bullets. Their Indian allies early conducted them to the district long afterwards designated as the Dubuque country, where they found ample deposits of the mineral they so much sought. So rich proved the mines that they soon in fame surpassed even the fur interests.

The early history of lead mining in northeastern Iowa is inseparably interwoven with that of southwestern Wisconsin and northwestern Illinois. Geologically there is only a single circumscribed field. The division of the lead bearing country by the Mississippi river did not deter the early traders from dealing on both sides of the great stream. Even Julien Dubuque operated in Illinois as extensively as he did in Iowa.

The first white man to visit the lead region and to leave a record of his movements was a Frenchman by the name of Jean Nicolet.* In the autumn of 1634, after having discovered Lake Michigan, this explorer entered Green bay, and passed up Fox river to the portage to the Wisconsin. Although he appears not to have actually passed over or descended the latter stream to the Mississippi river, as Neil* and others have fancied, and thus reached the district in which the lead abounds, he seems to have made the Indians fully acquainted with the use of firearms. Whether he saw or even heard of lead among the Indians is not clearly recorded.

When, twenty-five years later (1659), Radisson and Grosseilliers* entered the region they visited among others the Mascoutin Indians, probably in the vicinity of the present city of Dubuque. "In their country are mines of copper, of pewter, and of lead. There are mountains covered with a kind of Stone that is transparent and tender, and like to that of Venice." This reference to pewter suggests that they also noted the occurrence of zinc. These travelers actually reached the Mississippi river and spent some time upon its banks.

Marquette and Joliet, in 1673, followed Nicolet's route to the grand portage of the Fox river, passed over to the Wis-

*Shea: *Discovery and Exploration of Mississippi Valley*, p. 20, 1853.

*History of Minnesota, p. 101, 1882.

*Colls. State Hist. Soc. Wisconsin, Vol. XI, p. 93, 1888.

consin river, thence down that stream to the Mississippi river and on to the latter's lower reaches. Marquette's Journal* published sixteen years later makes numerous references to the minerals of the Upper Mississippi valley. On his voyage down the great river he passed the lead region, where mining was perhaps going on, at least he must have had some direct knowledge of the location and product.

In 1687 Joutel* notes in his Journal that there were mines of lead in operation. Hennepin's map of the Upper Mississippi made the same year (1687) shows lead mines located near the present town of Galena, Illinois.

The evidence appears ample to sustain the contention that by the Indian fur hunters and doubtless by many of the early French voyageurs who left no written record of their work, as Mills has suggested,* lead was mined and smelted in a crude fashion before the year 1650. This was about the same time that the first mining of the mineral was undertaken in other parts of our country. Along the Atlantic border mining of lead near Austinville, in Wythe county, Virginia, and at Middletown, Connecticut, commenced in 1650. In the same year lead mining was first carried on in Pima county, Arizona. Thus in the three most distant parts of our present National domains lead mining was simultaneously begun.

Although Nicolas Perrot has been sometimes credited with the first discovery of lead ores in the Upper Mississippi region, in 1682,* the mineral had already been mined there for a quarter of a century, and perhaps for a very much longer period before.

Perrot had been in the Upper Mississippi region since 1675, when he passed up the Fox river.* In the succeeding five years he appears to have visited most of the western tribes of Indians. In 1681 he was engaged in the district in trading. It may be that he discovered lead at this time. He probably was acquainted with its occurrence and mining several years before he actually began operations and built his trading-post

*Jesuit Relations and Allied Documents, Vol. LVIII, p. 94, Cleveland, 1899.

*Journal, historique, 1687, Paris, 1713.

*Boundaries Prov. Ontario, p. 6, Ottawa, 1877.

*Irving: Trans. American Inst. Mining Eng., Vol. VIII, p. 498, 1879.

*Stickney: Parkman Club Pub., No. 1, p. 5, Milwaukee, 1895.

below the mouth of the Wisconsin river, at a point which appears to have been nearly opposite the present city of Dubuque. This was in 1690; and at the same time he opened mines and erected a furnace.* His sudden determination to engage in mining after the Pottawattamies had brought him samples of lead ore from one of the small tributaries of the Mississippi river must have had other reasons than mere announcement of discovery. Within three weeks after this occurrence he had built a post and had begun mining ore.* Franquelin's *Carte de l'Amerique Septentrionale*, of 1688, already had mines located below the mouth of the Wisconsin river. According to the reports of the time "The lead was hard to work, because it lay between rocks and required blasting; it had very little dross and was easily melted."

During the same year lead was brought to Fort Crève Cœur, near the present site of Peoria, on the Illinois river, from the Indian mines on what is now known as the Galena river.* The earliest mining of lead on Iowa territory thus dates definitely back at least to the year 1690.

Five years later one Le Gueur also located a trading-post on an island a few miles above Perrot's, where the lead from the neighboring hills was regularly brought.

By the end of the seventeenth century lead mining in the present Dubuque district had assumed considerable proportions on both sides of the river. This is well shown by the unusual activity displayed by Le Sueur. As early as 1683, with the express view of establishing trade relations in the region, Le Sueur had, with Perrot, visited the Upper Mississippi country. After spending several years in exploratory effort* in this region he was finally, ten years later, made commandant at Chequamegon bay. His trading post, built in 1695 on Isle Pelee, in the Mississippi river, above Lake Pepin, became, according to Charlevoix, the center of commerce for the western parts.

*Colls. Wisconsin State Hist. Soc., Vol. XIII, p. 273, 1895.

*Parkman Club Pub., No. 1, p. 11, 1895.

*Hunt's Merchant's Magazine, Vol. XVIII, p. 285.

*Shea: Early Voyages up and down Mississippi, p. 89, Albany, 1861.

During his residence of a decade and a half in this region Le Sueur had become acquainted with its mining possibilities, particularly of the lead, copper and green earth. First knowledge of the latter he perhaps derived from some associates of La Hontan, who, in the winter of 1688-9, had gone up the mythical Rivière Longe—probably the present Cannon river and the upper reaches of the Minnesota river together—and doubtless had discovered the large deposits of green shales so prominently displayed at the mouth of the present Blue Earth river. The locality was in the country occupied by the Aïouez (Ioway) Indians.

At all events Le Sueur returned to France and succeeded in gaining from the King a commission to open the mines. Finally joining interests with D'Iberville, he got back with a numerous body of miners to the New World in 1699. The carpenter of the expedition was named Penicaut, who was also the narrator. Margry* refers to Penicaut's account of the lead region as follows: "We found both on the right and left bank the lead mines, called to this day the mines of Nicolas Perrot, the name of the discoverer." The Galena river is alluded to as the Rivière a la Mine; and a league and a half upstream was found a mine on the prairie. This was in August, 1700.

The important point to note in the present connection is that the Le Sueur party found mines opened and in operation on the west bank of the Mississippi on what is now the site of the city of Dubuque. This was eighty years prior to the reputed first finding of lead in Iowa-land by the wife of Peosta, Chief of the Fox Indians, who eight years later transferred her rights to Julien Dubuque.

Le Sueur wintered at the mouth of the Blue Earth river, where he built a stockade which he named Fort l'Huillier, after one of the King's chief collectors who had assayed the ore in 1696. With the opening of spring, Le Sueur, having extracted a quantity of ore, placed four thousand pounds aboard his boats, descended the Mississippi river and returned to France.

*Mém. et doc. pour servir la l'histoire der origines Francaises des pays d'outre-mere, t. V, p. 412.

He appears also to have discovered some lead ore farther up the Mississippi river than any mines then opened, at a point which corresponds to the present site of the town of Potosi, Wisconsin. Here he extracted a quantity for his own immediate use.

Probably taking advantage of the information imparted by Le Sueur, as well as of that indicated on Hennepin's map of 1687, De l'Isle's map of Louisiana, published in 1703, notes the location of lead mines at both the present sites of Galena and Dubuque. The map of North America, published in London, in 1710, by John Senex, also notes lead mines on both sides of the Mississippi river at the Dubuque point.

The famous Crozat patents only incidentally affected the Upper Mississippi region, as all efforts at mining were confined to the Missouri district. These patents from Louis XIV. were issued in 1712. In the present connection they are of interest from the fact that they granted for a term of fifteen years a complete monopoly of trade and mining in Louisiana. Special privileges applied to the discovery and operation of mines, among which, the rights were granted in perpetuity. Little advantage was taken of the patents by Crozat himself, no mining was begun, and he soon transferred his interests, in 1717, to the "Company of the West," which was at that time under the guidance of John Law.

Le Guis, in 1743, found a thriving mining camp on the present Galena river,* some twenty mines being in operation in this locality alone. Buache's "Carte physique de Canada," published in 1752, has located upon it the Upper Mississippi lead mines. Guettard* at this time described the mines as very rich.

At the end of the seven years' war between England and France, in 1762, the latter ceded to the former, Canada, together with all her possessions east of the Mississippi river. A short time before France also turned over to Spain all of her possessions west of the river. A notable and immediate

*Wallace: Illinois and Louisiana under French Rule, p. 274, Cincinnati, 1893.

*Hist. de l'Acad. Royale des Sciences, 1752, p. 189.

result was the diversion of the French trade of the Upper Mississippi region from its eastern course to the St. Lawrence to a southern direction. British traders pushed westward to the limits of the newly acquired English possessions, and beyond.

In 1766, Jonathan Carver* reached the Upper Mississippi lead field by the Wisconsin River route. He locates on his map important lead mines at the Blue mounds, in Wisconsin, in the largest hill of which were extensive mineral deposits. In the chief town of the Sac Indians, large bodies of lead ores were also noted. Carver returned by the Wisconsin river and the Great Lakes to Boston, and thence to England, where he made arrangements for another expedition to the interior of America. In 1774 all preparations being completed the party was about to set out when England's trouble with the colonies compelled the abandonment of the project.

Previous to the year 1769 there had been, in the Mississippi valley, no individual concessions of lead lands granted. On July 5th of that year one Martin Miloney Duralde filed an application for a tract three arpents wide and the usual (40 arpents) deep, along what is now the Galena river, across the Mississippi from the present site of the city of Dubuque. The grant was signed by Louis St. Ange de Bellerive, the captain-commandant of the Illinois, and by Joseph Labuxière "attorney of the attorney-general, judge, etc., of the royal jurisdiction of the Illinois for the French." In that day it was the custom for the Spaniards to confirm all French land grants. Duralde appears never to have taken up his tract of lead land; perhaps for reason of the fact that he soon found that it was on English territory.

Although the first mining* within the limits of the present State of Iowa is commonly claimed to have begun in the year 1788 and first operations ascribed to Julien Dubuque, Le Sueur almost a century before found lead mining flourishing on the west bank of the Mississippi, while both white man and Indian

*Travels through Interior Parts of North America, in years 1766-8, p. 47, Dublin, 1779.

*Leonard: Iowa Geol. Surv., Vol. VI, p. 15, 1897; also, Calvin and Bain: Ibid., Vol. X, p. 481, 1900.

had probably engaged in taking out ore from the district for more than half a century longer. Schoolcraft,* who visited the Dubuque lead region in 1820, states that Dubuque's rich discoveries of lead ores were made by the wife of Peosta, a warrior of Kettle Chief's band of Foxes. This reputed discovery has a tinge of romance, as well as a dash of Twentieth Century business method.

As already stated, mining in the vicinity had already been in progress for more than a hundred years and was still in a flourishing condition when Dubuque appeared upon the scene. He sought to control the industry. Born in Canada, of Norman parentage, he is described as a man of wonderful energy and singular popularity among the Indians. By divers machinations he secured from the full council of Fox and Sac Indians permit peacefully to operate the mines. Thereby he established a monopoly of all lead lands on the west side of the Mississippi river. Later (in 1796) he had the Indian grant confirmed by Carondelet, governor of Louisiana, under the title of the "Mines of Spain." Soon, on the east side of the river, the entire lead-bearing districts of what are now Wisconsin and Illinois, were in the hands of Dubuque's men. He built and operated the furnaces. He conducted extensive prospecting parties. He controlled the boats which carried the product down the river to market. In gaining absolute supremacy over the lead industry he displayed remarkable talent. For whatever lead ores he purchased he established the rate. In market he fixed the price of the refined product. By a hundred and twenty-five years he anticipated the policies of the Guggenheims and the American Smelting and Refining Company.

*Narrative Journal of Travels to Northwest and Sources of Mississippi River, etc., p. 348, Albany, 1821.

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