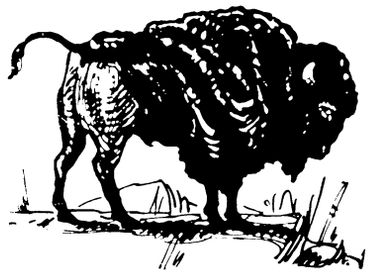
GEOGRAPHY

# NATURE RAMBLINGS

*by Frank Thone*



**Bison and Empire**

BISON herds, that thunder through a thousand tales of the Old West, provided the prime motive for the most ambitious project undertaken by the French in the seventeenth century for the exploration and settlement of interior North America.

This is brought out sharply by a new translation of Father Louis Hennepin's *Description of Louisiana,* which was an account of his labors in the upper Mississippi valley, published by the University of Minnesota Press. The translation is by Miss Marion E. Cross, and is the first rendition of Father Hennepin's book into English for more than fifty years. The earlier translation, by the historian John G. Shea, is now almost as rare as the 250-year-old French original.

Father Hennepin, a Recollect Franciscan, was associated with the Sieur Robert Cavelier de la Salle, one of the most romantic and energetic of the great Frenchmen who undertook to open up the North American continent before the British conquest of Canada. LaSalle became convinced that a great source of wealth existed in buffalo robes, which could be obtained by trade with the Indians who constantly hung on the flanks of the vast bison herds that then extended far east of the Mississippi.

He took his project to Colbert, most powerful of the ministers who served Louis XIV, and, according to Hennepin: "In view of the difficulty of transporting buffalo hides by canoe, he begged Colbert to grant him the commission for the discovery of the mouth of the great Mississippi river, for there ships could be built to carry the hides to France."

And so the project was launched. Father Hennepin seems to be somewhat nettled that Jolliet pushed in ahead of La Salle's more leisurely preparations and made first discovery of the upper Mississippi. He hints blame at a rival religious society, the Jesuits, though he does not name Father Marquette, who accompanied Jolliet.

La Salle's exploration, if slower in starting, appears to have been more thorough and aimed at more permanent occupation of the territory. Certainly Father Hennepin, acting in a sense as his publicity agent (his book was a best seller all over western Europe) boosted the country in language that any modern Midwestern Chamber of Commerce might do well to copy:

"The soil is exceptionally fertile. Those limitless prairies are dotted with forests of full-grown trees where every sort of building timber is to be found . . . Vessels could be built at that place to transport the wood, and the wood could serve as ballast for the vessels. All the French ships could be built from it, which would be a great saving to the state and would give time for the regrowth of trees in our exhausted forests."

With all his enthusiasm for the rich land of the prairies, Father Hennepin never forgot that he was a missionary. His pages abound with pious concern for the souls of the Indians (though he didn't like their manners) and he actually welcomed capture by a band of the Sioux, even when he thought they might kill him. That capture proved a good thing in the long run, for when he finally won his freedom and returned to base, he had seen the headwaters of the Mississippi.

*Science News Letter, November 19, 1938*



BIOGRAPHY

## Da Vinci Shown as Modern Scientist by His Notebooks

LEONARDO da Vinci, genius who wrought in turbulent Italy at about the time of America's discovery, is remembered chiefly as a painter, although his finished works are relatively few. Most of us would name off the Last Supper and Mona Lisa, and then confess ourselves stuck. But even experts cannot count more than a dozen or so pictures they are really sure of.

On volume of product, scientists might fairly claim the great Florentine as their own, for he observed, experimented, speculated, and filled endless notebooks on the whole alphabet of the sciences, from astronomy to zoology. These notebooks, written in his curious mirror-writing (Leonardo was left-handed) and illustrated with drawings such as only Leonardo could make, have come down to us as one of the monuments of the Renaissance, awesome but almost undeciphered.

Leonardo left many things unfinished when he died, among which was a project to arrange his notes in systematic order and publish them. It has remained for a modern author to carry out this project: the famous notebooks, critically translated into English, have at last been made available in two sumptuous volumes, under the editorship of Edward MacCurdy.

Dipping into these books at almost any page, one is left in almost breathless astonishment at this many-sided modern of 400 years and more ago. Among his projects for flying machines is one for a quite practical-looking helicopter. He gave directions for making a wax cast of the ventricles or interior cavity of the brain, which is basically the same method used nowadays by anatomists. His ideas on the origin of fossils, and on geology generally, smack of the twentieth century.

Perhaps because he was a painter, and hence especially interested in optics, he was particularly shrewd in his speculations in this branch of physics, and also in astronomy. He saw the sun as we do today, as the ultimate source of all life energy; and his explanation of why stars do not shine by day is essentially the same as you can find in any present-day astronomical reference book.

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PHYSIOLOGY

## A Good Meal

● "Dare we ask if the head of your house is one of those positive gentlemen who asserts that a substantial meal consists of bread, meat, and potatoes, rounded out to belt-pressing proportions with apple pie and coffee, who is, possibly, a bit contemptuous of a fresh salad? If so, he will probably come to no good end —and that all too soon. Something is almost certain to go wrong with his inner and intricate machinery."—Harry N. Holmes in HAVE YOU HAD YOUR VITAMINS? (*Farrar & Rinehart*).

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