

# *Sources of the Mississippi* *by Major Z. M. Pike* *1810*

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Edwin St.

*Lieut. Z. M. Pike*

AN ACCOUNT OF EXPEDITIONS  
TO THE  
**Sources of the Mississippi,**  
AND THROUGH THE  
WESTERN PARTS OF LOUISIANA,  
TO THE SOURCES OF THE  
ARKANSAW, KANS, LA PLATTE, AND PIERRE  
JAUN, RIVERS;  
PERFORMED BY ORDER OF THE  
**GOVERNMENT OF THE UNITED STATES**  
DURING THE YEARS 1805, 1806, AND 1807.  
AND A TOUR THROUGH  
THE  
**INTERIOR PARTS OF NEW SPAIN,**  
WHEN CONDUCTED THROUGH THESE PROVINCES,  
BY ORDER OF  
THE CAPTAIN-GENERAL,  
IN THE YEAR 1807.

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By MAJOR Z. M. PIKE.

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*ILLUSTRATED BY MAPS AND CHARTS.*

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PHILADELPHIA:

PUBLISHED BY C. & A. CONRAD, & Co. No. 50, CHESNUT STREET. SOMER  
VELL & CONRAD, PETERSBURGH. HONSAL, CONRAD, & Co. NORFOLK.  
AND FIELDING LUCAS, Jr. BALTIMORE.

John Eiams, Printer.....1810.

## TO THE PUBLIC.

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BOOKS of travels, journals and voyages, have become so numerous, and are so frequently impositions on the public, that the writer of the following sheets feels under an obligation to explain, in some measure, the original circumstances that led to the production of this volume. Soon after the purchase of Louisiana, by an enlightened administration, measures were taken to explore the then unknown wilds of our western country, measures founded on principles of scientific pursuits, combined with a view of entering into a chain of philanthropic arrangements for meliorating the condition of the Indians who inhabit those vast plains and deserts. His excellency, *Merriwether Lewis*, then a captain of the first regiment of infantry, was selected by the President of the United States, in conjunction with capt. *C. Clarke*, to explore the then unknown sources of the Missouri, and I was chosen to trace the Mississippi to its source, with the objects in view contemplated by my instructions; to which I conceived my duty, as a soldier should induce me, to add an investigation into the views of the British traders in that quarter, as to trade, and an enquiry into the limits of the territories of the United States and Great Britain. As a man of humanity and feeling, I made use of the name of my government to stop the savage warfare which had for ages been carried on by two of the most powerful nations of Aborigines in North America. Why I did not execute the power vested in me by the laws of the country, to ruin the British traders and enrich myself, by seizing on the immense property of the North West company, which I found in the acknowledged boundary of the United States, will be explained by my letter to Hugh McGillis, Esq. to whom I owe eternal gratitude for his polite and hospitable treatment of myself and party.



## [ 4 ]

In the execution of this voyage I had no gentleman to aid me, and I literally performed the duties (as far as my limited abilities permitted) of astronomer, surveyor, commanding officer, clerk, spy, guide, and hunter ; frequently preceding the party for miles, in order to reconnoitre, and returning in the evening, hungry and fatigued, to sit down in the open air, by fire light, to copy the notes and plot the courses of the day. On my return from the Mississippi voyage, preparations were making for a second, which was to be conducted by another gentleman of the army ; but general Wilkinson solicited as a favor that (which he had a right to command) viz. that I would agree to take charge of the expedition. The late dangers and hardships I had undergone, together with the idea of again leaving my family in a strange country, distant from their connections, made me hesitate ; but the ambition of a soldier, and the spirit of enterprize, which was inherent in my breast, induced me to agree to his proposition. The great objects in view by this expedition (as I conceived) in addition to my instructions, were to attach the Indians to our government, and to acquire such geographical knowledge of the south-western boundary of Louisiana as to enable government to enter into a definitive arrangement for a line of demarkation between that territory and North Mexico.

In this expedition I had the assistance of lieutenant *James Wilkinson*, and also of doctor *John H. Robinson*, a young gentleman of science and enterprize, who volunteered his services. I also was fitted out with a complete set of astronomical and mathematical instruments, which enabled me to ascertain the geographical situation of various places to a degree of exactitude, that would have been extremely gratifying to all lovers of science, had I not been so unfortunate as to loose the greater part of my papers by the seizure of the Spanish government.

With respect to the great acquisitions which might have been made to the sciences of botany and zoology, I can only observe, that neither my education nor taste led me to the pursuit, and if they had, my mind was too much engrossed in making the arrangements for our subsistence and safety, to give time to scrutinize the productions of the countries over which we travelled, with the eye of a *Linnaeus* or *Buffon*, yet doctor *Robinson* did make some observations on those subjects which he has not yet communicated. With respect to the Spanish part, it has been suggested to me by some respected friends, that the picture I drew of the manners, morals, &c. of individuals, generally of New Spain, if a good likeness was certainly not making a proper return for the hospitality and kindness with

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which those people honored me ; those reasons have induced me to omit many transactions, and draw a veil over various habits and customs which might appear in an unfavorable point of view, at the same time that I have dwelt with delight on their virtues.

There has not been wanting, persons of various ranks, who have endeavored to infuse the idea into the minds of the public, that the last voyage was undertaken through some sinister designs of general Wilkinson ; and although this report has been amply refuted by two letters from the secretary of war, published with this work ; yet I cannot forbear in this public manner, declaring the insinuation to be a *groundless calumny*, arising from the envenomed breasts of persons, who through enmity to the general, would in attempting his ruin, hurl destruction on all those, who either through their official stations or habits of friendship, ever had any connection with that gentleman.

As a military man—as a soldier from the time I was able to bear arms, it cannot be expected that a production of my pen can stand the test of criticism, and I hope by this candid appeal to the justice and indulgence of the learned, to induce them, to spare their censure if they cannot award their praise.

The gentleman who prints this work, knows under what a variety of disadvantages it has gone to the press.\* At a distance during its publication, and engaged in my professional duties, it was impossible to give to it that attention, which in order to reach its proper degree of correctness such a work necessarily would require.

(Signed)

Z. M. PIKE.

\* THE PUBLISHER owes it to truth, and to colonel Pike, to state that he very much doubts whether any book ever went to press under so many disadvantages as the one now presented to the public. Some of those disadvantages must be obvious to every man who reads the work ; but there were many others of a nature not sufficiently interesting for publication, yet of sufficient magnitude to retard the work, embarrass the publisher, and impose more anxiety than has fallen to his lot in the various books which he has published. It is however, confidently believed, that notwithstanding all those circumstances, the JOURNAL and its APPENDIXES will be found particularly interesting and pregnant with important information.

TO THE PRESIDENT  
AND MEMBERS OF THE U. S. M. P. S.

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*FELLOW SOLDIERS AND CITIZENS,*

IN presuming to claim your protection and patronage for the following production, I feel less diffidence, knowing, that the very institution of the society will plead in my favor, it being avowedly formed for the promotion of military knowledge.

The work is merely a volume of details, and if it should be found that in the relation, I have delivered myself with perspicuity and exactitude, it is the highest meed of praise that I claim. When I touched on abstract subjects, or presumed to hypothesize, I have merely suggested doubts without conclusions, which, if deemed worthy, may hereafter be analyzed by men of genius and science. It being a work which has arisen from the events of youthful military exertions, the author, perhaps, has the most just and well founded ground for a hope that it may receive the solicited approbation of your honorable institution.

I am, gentlemen, with the greatest respect and high consideration,

Your obedient servant,  
Z. M. PIKE, Major,  
6th Regt. infantry, M. U. S. M. P. Society.



## APPENDIX TO PART II.

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A DISSERTATION

ON THE SOIL, RIVERS, PRODUCTIONS, ANIMAL AND VEGETABLE,  
WITH GENERAL NOTES ON THE INTERNAL PARTS OF LOUISI-  
ANA, COMPILED FROM OBSERVATIONS MADE BY CAPT. Z. M. PIKE,  
IN A LATE TOUR FROM THE MOUTH OF THE MISSOURI, TO THE  
HEAD WATERS OF THE ARKANSAW AND RIO DEL NORTE IN  
THE YEARS 1806 AND 1807; INCLUDING OBSERVATIONS ON THE  
ABORIGINES OF THE COUNTRY.

FROM the entrance of the Missouri, on the south bank, the land is low, until you arrive at Belle Fontaine, four miles from its entrance. In this distance are several strata of soil, one rising above the other. As the river is cutting off the north point, and making land on the south, this is well timbered with oak, walnut, ash, &c. &c.

From Belle Fontaine to St. Charles, the north side of the Missouri is low, bounded on its banks by timbered land, extending from half a mile to one mile from the river. On the south side the bottoms are narrow, the hills frequently coming in on the river. Six miles below St. Charles, on the south side, in front of a village called Florissant, is a coal hill, or as it is termed by the French, La Charbonniere. This is one solid stone hill, which probably affords sufficient fuel for all the population of Louisiana. St. Charles is situated on the west side of the Missouri, where the hill first joins the river, and is laid out parallel to the stream.



The main street on the first bank, the 2nd. on the top of the hill. On this street is situated a round wooden tower, formerly occupied by the Spaniards as a fort or guard house, now converted into a prison. From this tower you have an extensive view of the river below. St. Charles consists of about 80 houses, principally occupied by Indian traders or their engagees. It is the seat of justice for the district of St. Charles.

From St. Charles to the village of La Charrette, the west side is generally low, but hills running parallel at a great distance back from the river: on the south side, more hilly with springs. Scattering settlements on both sides.

La Charrette, is the last settlement we saw on the Missouri, although there is one above, at a saline on the west side. From La Charrette to the Gasconade river, you find on the north, low land heavily timbered. On the south, hills, rivulets and a small number of small creeks; very high cane. The Gasconade is 200 yards wide at its entrance; is navigable at certain seasons 100 miles. At the time we were at it, it was backed by the Mississippi, but was clear and transparent, above their confluence. On the opposite side to their confluence, commences the line between the Sac Indians and the United States.

From the Gasconade to the entrance of the Osage river, the south side of the river is hilly, but well timbered. On the north are low bottoms and heavy timber; In this space of the Missouri, from its entrance to the Osage river, we find it well timbered, rich soil, and very proper for the cultivation of all the productions of our middle and western states. It is timbered generally with cotton wood, ash, oak, pecan, hickory and with some elm; but the cotton wood predominates on all the made bottoms. From the entrance of the Osage river, to the Gravel river, a distance of 118 miles, the banks of the Osage are covered with timber, and possess a very rich soil. Small hills, with rocks, alternately border the eastern and western shores; the bottoms being very excellent soil, and the country abounding in game. From thence to the Yungar, the river continues the same appearance; the shoals and islands being designated on the chart. The Yungar (or Ne-hem-gar) as termed by the Indians, derives its name from the vast number of springs at its source; it is supposed to be nearly as extensive as the Osage river, navigable for canoes 100 miles, and is celebrated for the abundance of bear, which are found on its branches. On it hunt the Chasseurs du Bois of Louisiana, Osage, and Creeks (or Muskogees) a wandering party of which have established themselves:

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Louisiana; and between whom and the French hunters, frequent skirmishes have passed on the head of the Yungar.

A few miles above this river, the Osage river becomes narrower, and evidently shews the loss experienced by the deficiency of the waters of the Yungar. On the E. shore is a pond of water, about 20 paces from the bank of the river, and half a mile in circumference; it was elevated at least 20 feet above the surface of the river. This appeared the more singular, as the soil appeared to be sandy, from whence it would be concluded, that the waters of the pond would speedily discharge itself through the soil into the river; but there appeared to be no reason for any such deduction.

From thence to a few miles below the Park, (see chart) the banks of the river continue as usual. We now, for the first time, were entertained with the sight of prairie land, but it still was interspersed with clumps of woodland, which diversified the prospect.

In this district the cliffs which generally bordered one of the sides of the river, were covered with the largest and most beautiful cedars I ever saw. From thence to the Grand Forks, the banks of the river continue the same, but from hence up to the Osage town, there is a larger proportion of prairie. At the place where Mr. Chouteau formerly had his trading establishment, the east bank of the river is an entire bed of stone coal; from whence by land to the villages, is but 9 miles, but by water at least 50. The country round the Osage villages, is one of the most beautiful the eye ever beheld. The three branches of the river, viz: the large east fork, the middle one (up which we ascended,) and the northern one, all winding round and past the villages, giving the advantages of wood and water—and at the same time, the extensive prairies crowned with rich and luxuriant grass and flowers—gently diversified by the rising swells, and sloping lawns—presenting to the warm imagination the future seats of husbandry, the numerous herds of domestic animals, which are no doubt destined to crown with joy those happy plains. The best comment I can make on the navigation of the Osage river, is a reference to my chart and journal on that subject. From the last village on the Missouri to the prairies on the Osage river, we found plenty of deer, bear, and some turkies. From thence to the towns, there are some elk and deer, but near the villages they become scarce.

From the Osage towns to the source of the Osage river, there is no difference in the appearance of the country, except that on the south and east, the view on the prairies becomes unbounded, and is

only limited by the imbecility of our sight. The waters of the White river and the Osage, are divided merely by a small ridge in the prairie, and the dry branches appear to interlock at their head. From thence to the main branch of said river, the country appeared high and gravelly ridges of prairie land. On the main White river is large timber and fine ground for cultivation. Hence a doubt arises as to the disemboguing of this stream. Lt. Wilkinson from some authority, has drawn the conclusion, that it discharges itself into the Arkansaw, a short distance below the Vermillion river—but from the voyages of capt. Maney, on the *White* river, the information of hunters, Indians, &c. I am rather induced to believe it to be the White river of the Mississippi—as at their mouths there is not so great a difference between their magnitude; and all persons agree in ascertaining that the White river heads between the Osage river, Arkansaw and Kanzas rivers, which would still leave the Arkansaw near 800 miles more lengthy than the White river. From these proofs, I am pretty confident in asserting, that this was the White river of the Mississippi which we crossed. At the place where we traversed it, the stream was amply navigable for canoes, even at this dry season (August) of the year.

Up this river to the dividing ridges, between it and the Verdigrise river, the bottom is of some magnitude and importance, but the latter river is bounded here in a narrow bed of prairie hills, affording not more than sufficient timber for fire wood for a limited number of inhabitants for a few years. From the Verdigrise, our course again lay over gravelly hills and a prairie country, but well watered by the branches of the Verdigrise and White rivers (alias Grand river.) From this point to the source of White river, there is very little timber, the grass short, prairies high and dry. From the head of White river over the dividing ridge between that and the Eastern branch of the Kans river, the ridge is high, dry, and has many appearances of iron ore, and on the West side some spaw springs—Here the country is very deficient of water, from the East Branch of the Kans river (by our route) to the Pawnee republic on the republican fork, (see chart) the prairies are low, high grass, and the country abounds with salines, and the earth appears to be impregnated with nitrous and common salts. The immediate border of the republican fork near the village is high ridges, but this is an exception to the general face of the country. All the country, between the forks of the Kans river, a distance of 160 miles, may be called prairie, notwithstanding the borders of wood land which ornament the banks of those streams, but are no more



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than a line traced on a sheet of paper, when compared to the immense tract of meadow country.

For some distance from the Osage villages, you only find deer, then elk, then caribou and finally buffalo. But it is worthy of remark, that although the male buffalo were in great abundance, yet in all our route from the Osage to the Pawnees we never saw one female. I acknowledge myself at a loss to determine, whether this is to be attributed to the decided preference the savages give to the meat of the female; and that consequently they are almost exterminated in the hunting grounds of the nations—or to some physical causes, for I afterwards discovered the females with young in such immense herds, as gave me no reason to believe, they yielded to the males in numbers. From the Pawnee town on the Kansas river, to the Arkansas, the country may almost be termed mountainous, but want of timber gives the hills less claim to the appellation of mountains. They are watered and created as it were by the various branches of the Kans river. One of those branches, a stream of considerable magnitude (say 20 yards) which I have designated on the chart by the name of the Saline—was so salt at where we crossed it, on our route to the Arkansas, that it salted sufficiently, the soup of the meat which my men boiled in it. We were here, very eligibly situated, had a fresh spring, issuing from a bank near us; plenty of the necessaries of life all around, viz: buffalo; a beautiful little sugar loaf hill, for a look out post; fine grass for our horses; and a saline in front of us. As you approach the Arkansas (on this route) within 15 or 20 miles the country appears to be low and swampy; or the land is covered with ponds extending out from the river some distance. The river at the place where I struck it, is nearly 500 yards wide, from bank to bank. Those banks not more than four feet high, thinly covered with cotton wood. The north side a swampy low prairie, and the south a sandy sterile desert. From thence, about half way to the mountains, the country continued the low prairie hills, with scarcely any streams putting into the river; and on the bottom many bare spots, on which when the sun is in the meridian, is congealed a species of salt, sufficiently thick to be accumulated, but it is so strongly impregnated with nitric qualities, as to render it unfit for use until purified. The grass in this district on the river bottoms, has a great appearance of the grass on our salt marshes. From the first south fork (see chart) the borders of the river have more wood, and the hills are higher, until you arrive at its entrance, into the mountains. The whole of the timber is cotton wood, from the entrance of the Arkansas, in the



mountains, to its source, a distance of about 170 miles; (by the meanders) it is alternately bounded by perpendicular precipices in small narrow prairies, on which the buffalo and elk have found the means to arrive, and are almost secure from danger, from their destroyer—Man.

In many places the river precipitates itself over rocks, so as at one moment to be visible only in the foaming and boiling of its waters; at the next moment it disappears in the charms of the overhanging precipices.

The Arkansaw river, taking its meanders agreeably to Lt. Wilkinson's survey of the lower part, is 1981 miles from its entrance into the Mississippi to the mountains, and from thence to its source 192 miles, making its total length 2,173 miles, all of which may be navigated with proper boats, constructed for the purpose; except the 192 miles in the mountains. It has emptying into it, several small rivers navigable for 100 miles and upwards.\* Boats bound up the whole length of the navigation, should embark at its entrance, on the 1st of February; when they would have the fresh quite to the mountains, and meet with no detention. But if they should start later, they would find the river 1500 miles up nearly dry. It has one singularity, which struck me very forcibly at first view, but on reflection, I am induced to believe it is the same case with all the rivers which run through a low, dry, and sandy soil in warm climates. This I observed to be the case with the Rio del Norte, viz: for the extent of 4 or 500 miles before you arrive near the mountains, the bed of the river is extensive, and a perfect sand bar, which at certain seasons is dry; at least the water is standing in ponds, not affording sufficient to procure a running course. When you come nearer the mountains, you find the river contracted, a gravelly bottom, and a deep navigable stream. From these circumstances it is evident, that the sandy soil imbibes all the waters which the sources project from the mountains, and renders the river (in dry seasons) less navigable *five hundred miles*; than 200 miles from its source. The borders of the Arkansaw river may be termed the paradise (terrestrial) of our territories, for the *wandering savages*. Of all countries ever visited by the footsteps of civilized man, there never was one probably that produced game in greater abundance, and we know that the manners and morals of the erratic nations, are such (the reasons I leave to be given by the ontologists) as never to give them a numerous

\* See Lt. Wilkinson's report of the lower Arkansas.

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population ; and I believe that there are buffalo, elk, and deer sufficient on the banks of the Arkansaw alone, if used without waste, to feed all the savages in the United States territory one century. By the route of the Arkansaw and the Rio Colorado of California, I am confident in asserting (if my information from Spanish gentlemen of information is correct) there can be established the best communication on this side the Isthmus of Darien between the Atlantic and Pacific oceans, as, admitting the utmost, the land carriage would not be more than 200 miles, and the route may be made quite as eligible as our public high ways over the Alleghany mountains. The Rio Colorado is to the great Gulph of California, what the Mississippi is to the Gulph of Mexico, and is navigable for ships of considerable burden, opposite to the upper part of the province of Senora.

From the Arkansaw to the Rio del Norte (the route I passed) the country was covered with mountains of small prairies, (as per chart) but the game became much more scarce owing to the vicinity of the Spanish Indians and the Spaniards themselves.

In this western *traverse* of Louisiana, the following general observations may be made, viz : that from the Missouri to the head of the Osage river, a distance in a straight line of probably 300 miles, the country will admit of a numerous, extensive and compact population ; from thence on the rivers Kanes, La Platte, Arkansaw, and their various branches. It appears to me to be only *possible*, to introduce a limited population on their banks. The inhabitants would find it most to their advantage, to pay attention to the multiplication of cattle, horses, sheep, and goats ; all of which they can raise in abundance, the earth producing spontaneously sufficient for their support, both winter and summer, by which means their herds might become immensely numerous ; but the wood now in the country, would not be sufficient for a moderate share of population, more than 15 years, and then it would be out of the question to think of using any of it in manufactories, consequently their houses would be built entirely of mud-brick (like those in New Spain) or of the brick manufactured with fire. But possibly time may make the discovery of coal mines, which would render the country habitable.

The source of the La Platte, is situated in the same chain of mountains with the Arkansaw, (see chart) and comes from that grand reservoir of snows and fountains which gives birth on its north eastern side to the Red river ;\* of the Missouri, (its great south west-

\* The yellow stone river of Lewis.

tern branch) and the La Platte ; on its south western side, it produces the Rio Colorado of California ; on its east the Arkansaw, and on its south the Rio del Norte of North Mexico. I have no hesitation in asserting, that I can take a position in the mountains from whence I can visit the source of any of those rivers in one day.

Numerous have been the hypothesis formed by various naturalists, to account for the vast tract of untimbered country which lies between the waters of the Missouri, Mississippi, and the western Ocean, from the mouth of the latter river to the 48° north latitude. Although not flattering myself to be able to elucidate *that*, which numbers of highly scientific characters, have acknowledged to be beyond their depth of research ; still, I would not think I had done my country justice, did I not give birth to what few lights my examination of those internal deserts has enabled me to acquire. In that vast country of which we speak, we find the soil generally dry and sandy, with gravel, and discover that the moment we approach a stream, the land becomes more humid with small timber ; I therefore conclude, that this country never was timbered, as from the earliest age, the aridity of the soil having so few water courses running through it, and they being principally dry in summer, has never afforded moisture sufficient to support the growth of timber. In all timbered land, the annual discharge of the leaves, with the continual decay of old trees and branches, creates a manure and moisture, which is preserved from the heat of the sun not being permitted to direct his rays perpendicularly, but only to shed them obliquely through the foliage. But here a barren soil, parched and dried up for eight months in the year, presents neither moisture nor nutrition sufficient, to nourish the timber. These vast plains of the western hemisphere, may become in time equally celebrated as the sandy deserts of Africa ; for I saw in my route, in various places, tracts of many leagues, where the wind had thrown up the sand, in all the fanciful forms of the ocean's rolling wave, and on which not a speck of vegetable matter existed.

But from these immense prairies may arise one great advantage to the United States, viz : The restriction of our population to some certain limits, and thereby a continuation of the union. Our citizens being so prone to rambling and extending themselves, on the frontiers, will, through necessity, be constrained to limit their extent on the west, to the borders of the Missouri and Mississippi, while they leave the prairies incapable of cultivation to the wandering and uncivilized aborigines of the country. The Osage Indians

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**To The Public.**

BOOKS of travels, journals and voyages, have become so numerous and are so frequently impositions on the public that the writer of the following sheets feels under an obligation to explain, in some measure, the original circumstance that led to the production of this volume. Soon after the purchase of Louisiana, by an enlightened administration, measures were taken to explore the then unknown wilds of our western country, measures founded on principles of scientific pursuits, combined with a view of entering into a chain of philanthropic [sic] arrangements for meliorating the condition of the Indians who inhabit those vast plains and deserts. His excellency, *Meriwether Lewis*, then a captain of the first regiment of infantry, was selected by the President of the United States, in conjunction with capt. *C. Clarke*, to explore the then unknown sources of the Missouri, and I was chosen to trace the Mississippi to its source, with the objects in view contemplated by my instructions; to which I conceived my duty, as a soldier should induce me, to add an investigation into the views of the British traders in that



quarter, as to trade, and an enquiry into the limits of the territories of the United States and Great Britain. As a man of humanity and feelings, I made use of the name of my government to stop the savage warfare which had for ages been carried on by two of the most powerful nations of Aborigines in North America. Why I did not execute the power vested in me by the laws of the country, to ruin the British traders and enrich myself, by seizing on the immense property of the North West company, which I found in the acknowledged boundary of the United States, will be explained by my letter to Hugh McGillis, Esq. to whom I owe eternal gratitude for his polite and hospitable treatment of myself and party.

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In the execution of this voyage I had no gentleman to aid me, and I literally performed the duties (as far as my limited abilities permitted) of astronomer, surveyor, commanding officer, clerk, spy, guide, and hunter; frequently preceding the party for miles, in order to reconnoitre, and returning in the evening, hungry and fatigued, to sit down in the open air, by fire light, to copy notes and plot the courses of the day. On my return from the Mississippi voyage preparations were making for a second, which was to be conducted by another gentleman of the army; but general Wilkinson solicited as a favor that (which he had a right to command) viz. that I would agree to take charge of the expedition. The late dangers and hardships I had undergone, together with the idea of again leaving my family in a strange country, distant from their connections, made me hesitate; but the ambition of a soldier, and the spirit of enterprize, which was inherent in my breast, induced me to agree to his proposition. The great objects in view by this expedition (as I conceived) in addition to my instructions, were to attach the Indians to our government, and to acquire such geographical knowledge of the south-western boundary of Louisiana as to enable government to enter into a definitive arrangement for a line of demarcation between that territory and North Mexico.

In this expedition I had the assistance of lieutenant *James Wilkinson*, and also of doctor *John H. Robinson*, a young gentleman of science and enterprize, who volunteered his services. I also was fitted out with a complete set of astronomical and mathematical instruments, which enabled me to ascertain the geographical situation of various places to a degree of exactitude, that would have been extremely gratifying to all lovers of science, had I not been so unfortunate as to loose [sic] the greater part of my papers by the seizure of the Spanish government.

Wish respect to the great acquisitions which might have been made to the science of botany and zoology, I can only observe, that neither my education nor taste led me to the pursuit, and if they had, my mind was too much engrossed in making the arrangements for our subsistence and safety, to give time to scrutinize the productions of the countries over which we travelled, with the eye of Linnaeus or Buffon, yet doctor Robinson did make some observations on those subjects which he has not yet communicated. With respect to the Spanish part, it has been suggested to me by some respected friends, that the picture I drew of the manners, morals, &c. of individuals, generally of New Spain, if a good likeness was certainly not making a proper return for the hospitality and kindness with . . .

[ 5 ]

which those people honored me; those reason reasons have induced me to omit many transactions, and draw a veil over various habits and customs which might appear in an unfavorable point of view, at the same time that I have dwelt with delight on their virtues.

There has not been wanting, persons of various ranks, who have endeavored to infuse the idea into the minds of the public, that the last voyage was undertaken through some sinister designs of general Wilkinson; and although this report have been amply refuted by two letters from the secretary of war, published with this work; yet I cannot forbear in this public manner, declaring the insinuation to be a *groundless calumny*, arising from the envenomed breasts of persons, who through enmity to the general, would in attempting his ruin, hurl destruction on all those, who either through their official stations or habits of friendship, ever had any connection with that gentleman.

As a military man – as a soldier from the time I was able to bear arms, it cannot be expected that a production of my pen can stand the test of criticism, and I hope by this candid appeal to the justice and indulgence of the learned, to induce them, to spare their censure if they cannot award their praise.

The gentleman who prints this work, knows under what a variety of disadvantages it has gone to the press.\* At a distance during its publication, and engaged in my professional duties, it was impossible to give it to it that attention, which in order to reach its proper degree of correctness such as work necessarily would require.

(Signed)

Z.M. PIKE.

\* THE PUBLISHER owes it to truth, and to colonel Pike, to state that he very much doubts whether any book ever went to press under so many disadvantages as the one now presented to the public. Some of those disadvantages must be obvious to every man who reads the work; but there were many others of a nature not sufficiently interesting for publication, yet of sufficient magnitude to retard the work, embarrass the publisher, and impose more anxiety than has fallen to his lot in the various books which he has published. It is however, confidently believed, that notwithstanding all those circumstances, the JOURNAL and its APPENDIXES will be found particularly interesting and pregnant with important information.

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**TO THE PRESIDENT  
AND MEMBERS OF THE U.S.M.P.S.**

*Fellow soldiers and citizens,*

IN presuming to claim your protection and patronage for the following production, I feel less diffidence, knowing, that the very institution of the society will plead in my favor, it being avowedly formed for the promotion of military knowledge.

The work is merely a volume of details, and if it should be found that in the relation, I have delivered myself with perspicuity and exactitude, it is the highest meed of praise that I claim. When I touched on abstract subjects, or presumed to hypothesize, I have merely suggested doubts without conclusions, which if deemed worthy, may hereafter be analyzed by men of genius and science. It being a work which has arisen from the events of youthful military exertions, the author, perhaps, has the most just and well founded ground for a hope that it may receive the solicited approbation of your honorable institution.

I am, gentlemen, with the greatest respect and high consideration,

Your obedient servant,  
Z. M. Pike, major,  
6<sup>th</sup> Regt. infantry, M. U. S. M. P. Society.

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## APPENDIX TO PART II A DISSERTATION

On the soil, rivers, productions, animal and vegetable, with general notes on the internal parts of Louisiana, compiled from observations made by Capt. Z. M. Pike, in a late tour from the mouth of the Missouri, to the head waters of the Arkansaw and Rio Del Norte in the years 1806 and 1807; including observations on the aborigines of the country.

FROM the entrance of the Missouri, on the south bank, the land is low, until you arrive at Belle Fontaine, four miles from its entrance. In this distance are several strata of soil, one rising above the other. As the river is cutting off the north point, and making land on the south, this is well timbered with oak, walnut, ash, &c. &c.

From Belle Fontaine to St. Charles, the north side of the Missouri is low, bounded on its banks by timbered land, extending from half a mile to one mile from the river. On the south side the bottoms are narrow, the hills frequently coming in on the river. Six miles below St. Charles, on the south side, in front of a village called Florissant, is a coal hill, or as it is termed by the French, La Charbonniere. This is one solid stone hill, which probably affords sufficient fuel for all the population of Louisiana. St. Charles is situated on the west side of the Missouri, where the hill first joins the river and is laid out parallel to the stream.

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The main street on the first bank, the 2<sup>nd</sup> on the top of the hill. On this street is situated a round wooden tower, formerly occupied by the Spaniards as a fort or guard house, now converted into a prison. From this lower you have an extensive view of the river below. St. Charles consists of about 80 houses, principally occupied by Indian traders or their engagees. It is seat of justice for the district of St. Charles.

From St. Charles to the village of La Charrette, the west side is generally low, but hills running parallel at a great distance back from the river: on the south side, more hilly with springs. Scattering settlements on both sides.

La Charrette, is the last settlement we saw on the Missouri although there is one above, at a saline on the west side. From La Charrette to the Gasconade River, you find on the north, low land heavily timbered. On the south, hills, rivulets and a small number of small creeks; very high cane. The Gasconade is 200 yards wide at its entrance; is navigable at certain seasons 100 miles. At the time we were at it, it was backed by the Mississippi, but was clear and transparent, above their confluence. On the opposite side to their confluence, commences the line between the Sac Indians and the United States.

From the Gasconade to the entrance of the Osage River, the south side of the river is hilly, but well timbered. On the north are low bottoms and heavy timber; In this space of the Missouri, from its entrance to the Osage river, we find it well timbered, rich soil, and very proper for the cultivation of all the productions of our middle and western states. It is timbered generally with cotton wood, ash, oak, pecan, hickory and with some elm; but the cotton wood predominates on all the made bottoms. From the entrance of the Osage river, to the Gravel river, a distance of 118 miles, the banks of the Osage are covered with timber, and possess a very rich soil. Small hills, with rocks, alternately border the eastern and western shores; the bottoms being very excellent soil, and the country abounding in game. From the thence to the Yungar, the river continues the same in appearance; the shoals and islands being designated on the chart. The Yungar, (or Ne-hem-gar) as termed by the Indians, derives its name from the vast number of springs at its source; it is supposed to be nearly as extensive as the Osage river, navigable for canoes 100 miles, and it's celebrated for the abundance of bear, which are found on its branches. On it hunt the Chasseurs du Bois of Louisiana, Osage, and Creeks (or Muskogees) a wandering party of which have established themselves . . .

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in Louisiana; and between whom and the French hunters, frequent skirmishes have passed on the head of the Yungar.

A few miles above this river, the Osage River becomes narrower, and evidently shows the loss experienced by the deficiency of the waters of the Yungar. On the E. shore is a pond of water, about 20 paces from the bank of the river, and half a mile in circumference; it was elevated at least 20 feet above the surface of the river. This appeared the more singular, as the soil appeared to be sandy, whence it would be concluded that the waters of the pond would speedily discharge through the soil into the river; but there appeared to be no reason for any such deduction.

From thence to a few miles below the Park, (see chart *[not available in this document]*) the banks of the river continue as usual. We now, for the first time, were entertained with the sight of prairie land, but it still was interspersed with clumps of woodland, which diversified the prospect.

In this district the cliffs, which generally bordered one of the sides of the river, were covered with the largest and most beautiful cedars I ever saw. Thence to the Grand Forks, the banks of the river continue the same, but thence up to the Osage town, there is a larger proportion of prairie. At the place where Mr. Chouteau formerly had his trading establishment, the east bank of the river is an entire bed of stone coal; from whence by land to the villages, is but 9 miles, but by water at least 50. The country round the Osage villages. is one of the most beautiful the eye ever beheld. The three branches of the river, viz: the large east folk, the middle one (up which we ascended,) and the northern one, all winding round and past the villages, giving the advantages of wood and water – and at the same time, the extensive prairies crowned with rich and luxuriant grass and flowers – gently diversified by the rising swells, and sloping lawns – presenting to the warm imagination the future seats of husbandry, the numerous herds of domestic animals, which are no doubt destined to crown with joy those happy plains. The best comment I can make on the navigation of the Osage river, is a reference to my chart and journal on that subject. From the last village on the Missouri to the prairies on



the Osage river, we found plenty of deer, bear, and some turkeys. From thence to the towns, there are some elk and deer, but near the villages they become scarce.

From the Osage towns to the source of the Osage River, there is no difference in the appearance of the country, except that on the south and east; the view on the prairies become unbounded, and is . . .

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only limited by the imbecility of our sight. The waters of the White river and the Osage, are divided merely by a small ridge in the prairie, and the dry branches appear to interlock at their head. From thence to the main branch of said river, the country appeared high and gravelly ridges of prairie land. On the main White River is large timber and fine ground for cultivation. Hence a doubt arises as to the disemboguing of this stream. Lt. Wilkinson from some authority, has drawn the conclusion, that it discharges itself into the Arkansaw, a short distance below the Vermillion River – but from the voyages of capt. Maney, on the *White* river, the information of hunters, Indians, &c. I am rather induced to believe it be the White river of the Mississippi – as at their mouths there is not so great a difference between their magnitude; and all persons agree in ascertaining that the White River heads between the Osage River, Arkansaw and Kanes [sic] rivers, which would still leave the Arkansaw near 800 miles more lengthy than the White river. From these proofs, I am pretty confident in asserting, that this was the White River of the Mississippi which we crossed. At the place where we traversed it, the stream was amply navigable for canoes, even at this dry season (August) of the year.

Up this river to the dividing ridges, between it and the Verdigrise river, the bottom is of some magnitude and importance, but the latter river is bounded here in a narrow bed of prairie hills, affording not more than sufficient timber for the fire wood for a limited number of inhabitants for a few years. From the Verdigrise, our course again lay over gravelly hills and a prairie country, but well watered by the branches of the Verdigrise and White rivers (alias Grand river). From this point to the source of White river, there is very little timber, the grass short, prairies high and dry. From the head of White river over the dividing ridge between that and the Eastern branch of the Kans River, the ridge is high, dry, and has many appearances of iron ore, and on the West side some spaw springs – Here the country is very deficient of water, from the East Branch of the Kans river (by our route) to the Pawnee republic on the republican fork, ( see chart *[not available in this document]*) the prairies are low, high, grass, and the country abounds with salines, and the earth appears to be impregnated with nitrous and common salts. The immediate border of the republican fork near the village is high ridges, but this is an exception to the general face of the country. At the country, between the forks of the Kansas River, a distance of 160 miles, may be called prairie, notwithstanding the borders of wood land which ornament the banks of those streams, but are no more . . .

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than a line traced on a sheet of paper, when compared to the immense tract of meadow country.

For some distance from the Osage villages, you only find deer, then elk, then cabrie and finally buffalo. But it is worthy of remark, that although the male buffalo were in the great abundance, yet in all our route from the Osage to the Pawnees we never saw one female. I acknowledge myself at a loss to determine, whether this is to be attributed to the decided preference the savages give to the meat of the female; and that consequently they are almost exterminated in the hunting grounds of the nations – or to some physical causes, for I afterwards discovered the females with young in such immense herds, as gave me no reason to believe, they yielded to the males in numbers. From the Pawnee town on the Kansas River, to the Arkansaw, the country may almost be termed mountainous, but want of timber gives the hills less claim to the appellation of mountains but want of timber gives the hills less claim to the appellation of mountains. They are watered and created as it were by various branches of the Kans river. One of those branches, a stream of considerable magnitude (say 20 yards) which I have designated on the chart by the name of the Saline – was so salt at where we crossed it, on our route to the Arkansaw, that is salted sufficiently, the soup of the meat which my men boiled in it. We were here very elibibly situated, had a fresh spring, issuing from a bank near us; plenty of the necessaries of life all around, viz: buffalo; a beautiful little sugar loaf hill, for a look out post; fine grass for our horses; and a saline in front of us. As you approach the Arkansaw (on this route) within 15 or 20 miles the country appears to be low and swampy; or the land is covered with ponds extending out from the river some distance. The river at the place where I struck it, is nearly 500 yards wide, from bank to bank. Those banks not more than four feet high, thinly covered with cotton wood. The north side a swampy low prairie, and the south a sandy sterile desert. From thence, about half way to the mountains, the country continued the low prairie hills, with scarcely any streams putting into the river and on the bottom many bare spots, on which when the sun is in the meridian, is congealed a species of salt, sufficiently thick to be accumulated, but it is so strongly impregnated with nitric qualities, as the render it unfit for use until purified. The grass in this district on the river bottoms, has a great appearance of the grass on our salt marshes. From the first south fork (see chart *[not available in this document]*) the borders of the river have more wood and the hills are higher, until you arrive at its entrance, into the mountains. The whole of the timber is cotton wood, from the entrance of the Arkansaw, in the . . .

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mountains, to its source, a distance of about 170 miles; (by the meanders) it is alternately bounded by perpendicular precipices in small narrow prairies, on which the buffalo and elk have found the means to arrive, and are almost secure from danger, from their destroyer – Man.

In many places the river precipitates itself over rocks, so as at one moment to be visible only in the foaming and boiling of its waters; at the next moment it disappears in the charms of o'er hanging precipices.

The Arkansaw river, taking its meanders agreeably to Lt. Wilkinson's survey of the lower part, is 1981 miles from its entrance into the Mississippi to the mountains, and from thence to its source 192 miles, making its total length 2,173 miles, all of which may be navigated with proper boats, constructed for the purpose; except the 192 miles in the mountains. It has emptying into it, several small rivers navigable for 100 miles and upwards.\* Boats bound up the whole length of the navigation, should embark at its entrance, on the 1<sup>st</sup> of February; when they would have the fresh quite to the mountains, and meet with no detention. But if they should start later, they would find the river 1500 miles up nearly dry. It has one singularity, which struck me very forcibly at first view, but on reflection, I am induced to believe it is the same case with all the rivers which run through a low, dry, and sandy soil in warm climates. This I observed to be the

case with the Rio del Norte, viz: for the extent of 4 or 500 miles before you arrive near the mountains, the bed of the river is extensive, and a perfect sand bar, which at certain seasons is dry; at least the water is standing in ponds, not affording sufficient to procure a running course. When you come nearer to the mountains, you find the river contracted, a gravelly bottom, and a deep navigable stream. From these circumstances it is evident, that the sandy soil imbibes all the waters which the sources project from the mountains, and renders the river (in dry seasons) less navigable *five hundred miles*; than 200 miles from its source. The borders of the Arkansaw river may be termed the paradise (terrestrial) of our territories, for the *wandering savages*. Of all countries ever visited by the footsteps of civilized man, there never was one probably that produced game in greater abundance, and we know that the manners and morals of the erratic nations, are such (the reason I leave to be given by the ontologists) as never to give them a numerous . . .

\* See Lt. Wilkinson's report of the lower Arkansaw.

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population; and I believe that there are buffalo, elk, and deer sufficient on the banks of the Arkansaw alone, if used without waste to feed all the savages in the United States territory one century. By the route of the Arkansas and the Rio Colorado of California, I am confident in asserting (if my information from Spanish gentlemen of information is correct) there can be established the best communication on this side the Isthmus of Darien between the Atlantic and Pacific oceans, as, admitting the utmost, the land carriage would not be more than 200 miles and the route may be made quite as eligible as our public high ways over the Alleghany mountains. The Rio Colorado is to the great Gulf of California, what the Mississippi is to the Gulf of Mexico, and is navigable for ships of considerable burden, opposite to the upper part of the province of Senora.

From the Arkansaw to the Rio del Norte (the route I passed) the country was covered with mountains of small prairies, (as per chart *[not available in this document]*) but the game become much more scarce owing to the vicinity of the Spanish Indians and the Spaniards themselves.

In the western *traverse* of Louisiana, the following general observations may be made, viz: that from the Missouri to the head of the Osage river, a distance in a straight line of probably 300 miles, the country will admit of a numerous, extensive and compact population; from thence on the rivers Kanes, La Platte, Arkansaw, and their various branches. It appears to me to be only *possible*, to introduce a limited population on their banks. The inhabitants would find it most to their advantage, to pay attention to the multiplication of cattle, horses, sheep, and goats; all of which they can raise in abundance, the earth producing spontaneously sufficient for their support, both winter and summer, by which means their herds might become immensely numerous; but the wood now in the country, would not be sufficient for a moderate share of population, more than 15 years, and then it would be out of the question to think of using any of it in manufactories, consequently their houses would be built entirely of mud-brick (like those in New Spain) or of the brick manufactured with fire. But possibly time may make the discovery of coal mines, which would render the country habitable.

The source of the La Platte, is situated in the same chain of mountains with the Arkansaw, (see chart *[not available in this document]*) and comes from that grand reservoir of snows and fountains which gives birth on its north eastern side of the Red river;\* of the Missouri, (its great south wes- . . .

\* The yellow stone river of Lewis

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tern branch) and the La Platte; on its south western side, it produce the Rio Colorado of California; on its east the Arkansaw, and on its south the Rio del Norte of North Mexico. I have no hesitation in asserting, that I can take a position in the mountains from whence I can visit the source of any of those rivers in one day.

Numerous have been the hypothesis formed by various naturalists, to account for the vast track of untimbered country which lies between the waters of the Missouri, Mississippi, and the western Ocean, from the mouth of the latter river to the 48° north latitude. Although not flattering myself to be able to elucidate *that*, which numbers of highly scientific characters, have acknowledged to be beyond their depth of research; still, I would not think I have done my country justice, did I not give birth to what few lights my examination of those internal deserts has enabled me to acquire. In the vast country of which we speak, we find the soil generally dry and sandy, with gravel, and discover that the moment we approach a stream, the land becomes more humid with small timber; I therefore conclude, that this country never was timbered, as from the earliest age, the aridity of the soil having so few water courses running through it, and they being principally dry in summer, has never afforded moisture sufficient to support the growth of timber. In all timbered land, the annual discharge of the leaves, with the continual decay of old trees and branches, creates a manure and moisture, which is preserved from the heat of the sun not being permitted to direct his rays perpendicularly, but only to shed them obliquely through the foliage. But hence a barren soil, parched and dried up for eight months in the year, presents neither moisture not nutrition sufficient, to nourish the timber. These vast plains of the western hemisphere, may become in time equally celebrated as the sandy deserts of Africa; for I saw in my route, in various places, tracts of man leagues, where the wind had thrown up the sand, in all the fanciful forms of the ocean's rolling wave, and on which not a speck of vegetable matter existed.

But from these immense prairies may arise one great advantage to the United States, viz: The restriction of our population to some certain limits, and thereby a continuation of the union. Our citizens being so prone to rambling and extending themselves, on the frontiers, will, through necessity, be constrained to the limit their extent on the west, to the borders of the Missouri and Mississippi, while they leave the prairies incapable of cultivation to the wandering and uncivilized aborigines of the country. The Osage Indians . . . (*the rest not available*)