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Zebulon Pike: Great American Explorer or Climate Spy?

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Zebulon Pike:

Great American Explorer or Climate Spy?

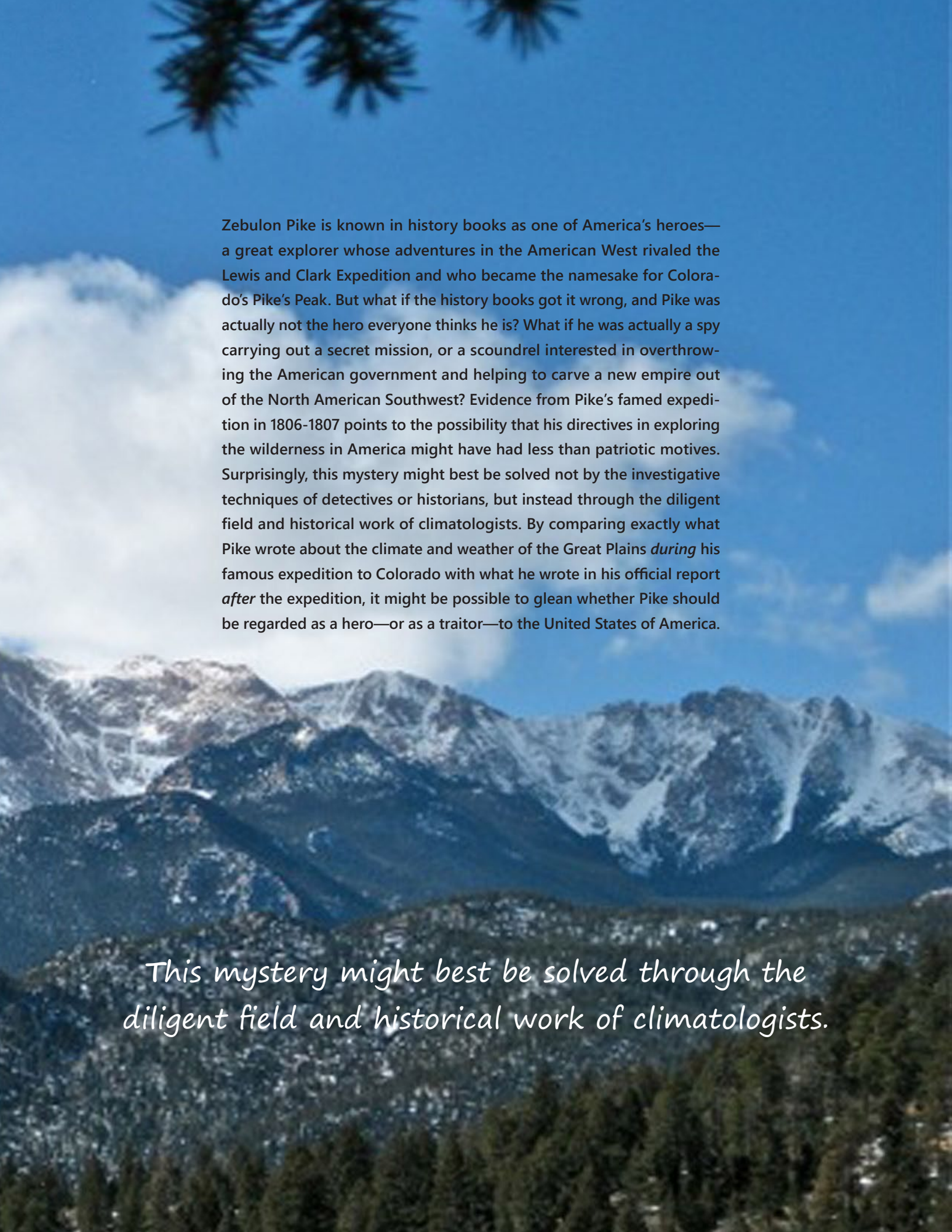
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Photo: Pike's Peak in winter (USDA Forest Service)



Zebulon Pike is known in history books as one of America's heroes—a great explorer whose adventures in the American West rivaled the Lewis and Clark Expedition and who became the namesake for Colorado's Pike's Peak. But what if the history books got it wrong, and Pike was actually not the hero everyone thinks he is? What if he was actually a spy carrying out a secret mission, or a scoundrel interested in overthrowing the American government and helping to carve a new empire out of the North American Southwest? Evidence from Pike's famed expedition in 1806-1807 points to the possibility that his directives in exploring the wilderness in America might have had less than patriotic motives. Surprisingly, this mystery might best be solved not by the investigative techniques of detectives or historians, but instead through the diligent field and historical work of climatologists. By comparing exactly what Pike wrote about the climate and weather of the Great Plains *during* his famous expedition to Colorado with what he wrote in his official report *after* the expedition, it might be possible to glean whether Pike should be regarded as a hero—or as a traitor—to the United States of America.

This mystery might best be solved through the diligent field and historical work of climatologists.



Perhaps this
historical
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Zebulon Pike.

"A Chart of the Internal Part of Louisiana," from *An Account of Expeditions to the Sources of the Mississippi and through the Western Parts of Louisiana ...* Philadelphia: C. & A. Conrad, 1810 (Wikimedia)

The Legend of Zebulon Pike

Before we can examine Pike's climate and weather discussions, we first need to refresh ourselves regarding the accepted Pike story. The specifics of the Pike "legend" are pretty straightforward. Following the successful expedition of the great explorers Meriwether Lewis and William Clark across the northwestern Great Plains to Oregon, Lieutenant Pike in 1806 undertook a scouting expedition across the then-unknown southern extremes of the Louisiana Purchase along the Arkansas River. Facing monumental and life-threatening challenges from native Americans, the environment, the weather, and even the Spanish military, he and his men journeyed westward, discovered the mountain in Colorado that now bears his name, and then were captured and held prisoners by the Spanish. After 6 months of captivity in the hands of the Spanish Empire in New Mexico, Pike was released and eventually wrote a detailed public report on his expedition before being killed

by the British in a closing battle of the War of 1812. Many history books regard him as a true American hero, of the caliber of Lewis and Clark.

Unfortunately, our evaluation of the weather experienced by the Pike expedition and what Pike wrote about that climate afterwards suggests that perhaps this historical judgment glosses over some critical and unflattering facts about Pike, his expedition, and his linkage to infamous superiors.

The Burr Conspiracy

To fully appreciate the Pike Expedition of 1806–1807, we must put the expedition into the context of the major political scandal of that time: the potentially treasonous plot against the government of the United States known as the Burr Conspiracy. The Burr Conspiracy was orchestrated by a highly placed cabal of U.S. army officers and southern landowners led by infamous former

United States Vice President Aaron Burr. According to the accusations later raised against him, Aaron Burr's ultimate goal was to create, by armed rebellion, an independent nation to the west of the Mississippi River, perhaps in the region associated with the southern Louisiana Purchase, but primarily linked to Southwest lands claimed by the Spanish.

Was Pike explicitly involved? While no "smoking gun" documents exist to prove or disprove Pike's direct participation in the Burr Conspiracy, several aspects of the expedition deserve attention. First, in contrast to the famous Lewis and Clark expedition, Pike's expedition was not conceived and authorized by the President of the United States at the time, Thomas Jefferson. Instead, the expedition was set up through military channels without direct presidential oversight; in particular, it was authorized by Pike's commanding officer, General James Wilkinson. Interestingly, James Wilkinson was one of Aaron Burr's primary associates and possible co-conspirators. Indeed, Wilkinson eventually faced military court martial because of his likely involvement in the Burr conspiracy (although the general was ultimately found not guilty of treason against the United States).

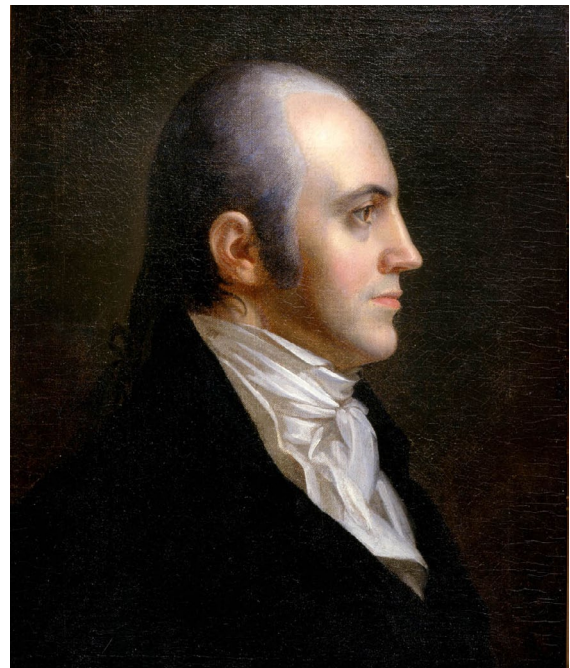
Second, General Wilkinson appointed a nonmilitary observer to accompany the Pike expedition, a man named Dr. John H. Robinson. Why Robinson, a civilian, was assigned to the military scouting expedition and what the true nature of his mission was are unfortunately two secrets known only to Robinson and Wilkinson. No existing documents shed light onto this mystery man's role, but he apparently was working under Wilkinson's direct orders and was not officially part of the U.S. military. Some historians have speculated that he might have been a courier assigned to take secret letters from Wilkinson and Burr to the Spanish.

Third, some of the specific orders from Wilkinson to Pike involving the precise purpose and goals of the expedition were either verbal, or the written records have been lost to history. Indeed, after the expedition returned and Wilkinson was undergoing his trial for his part in the Burr Conspiracy, Wilkinson wrote an interesting letter to Pike (during the time in which he stridently was denying his involvement with Burr):

Pike's expedition was not conceived and authorized by the President of the United States at the time.

You will hear of the scenes in which I have been engaged, and may be informed that the traitors whose infamous designs against the constitution and government of our country I have detected, exposed, and destroyed, are vainly attempting to explain their own conduct by inculcating me; and, among other devices, they have asserted that your's and lieutenant Wilkinson's [the General's son who also was on the expedition] enterprise was a premeditated co-operation with Burr ... let it then suffice to you for me to say, that of the information you have acquired, and the observations you have made, you must be cautious, extremely cautious how you breathe a word, because the publicity may excite a spirit of adventure adverse to the interests of our government, or injurious to the maturation of those plans, which may be hereafter found necessary and justifiable by the government.¹

Fourth, it is clear that General Wilkinson had engaged Pike at the very least to spy on the Spanish, although no written order confirming that has ever been uncovered. At the time of the expedition, tension between the expanding



Aaron Burr, portrait by John Vanderlyn (Wikimedia)



"Pike's Peak and the Garden of the Gods, Colorado," from Hayden, F.V., 1883, A report of progress of the exploration in Wyoming and Idaho for the year 1878: 12th Annual Report of the U.S. Geological and Geographical Survey of the Territories, pt. 1, 809 p., pt. 2, 503 p. (in Ronald R. Wahl and David A. Sawyer, *MRLC2000 Image Data and Geologic Mapping*; <http://pubs.usgs.gov/of/2002/of02-370/wahl.html>)

United States and Spain was high. In 1806 almost every American citizen expected a war with Spain. It was critical that information about the Spanish possessions in Mexico and the Southwest be acquired. Indeed, in a letter to Wilkinson, Pike noted:

... as to the mode of conduct to be pursued towards the Spaniards I feel more at a loss: as my Instructions lead me into the Country of the [Indians]—part of which is no Doubt claimed by Spain—although the Boundary's between Louisiana & N. Mexico have never yet been defined—in consequence of which should I encounter a [Spanish] party ... [I would] signify our intention of pursuing our Direct route to [southern US military posts]—this if acceded to would gratify our most sanguine expectations; but if not [would] ... secure us an unmolested retreat.... But if the Spanish jealousy, and the instigation of traitors, should induce them to make us prisoners of War—(in time of peace) I trust to the magnanimity of our Country for our liberation—and a Due reward to their opposers for the Insult, & indignity, offer'd their National Honor.

Many historians agree that Pike's eventual capture by the Spanish in New Mexico—Pike claimed that he and his

men had become "lost" and accidentally strayed into Spanish territory—was because Pike (and perhaps the mysterious Dr. Robinson) were using the expedition as a cover to spy on the Spanish in present-day New Mexico.

But given the close association between Burr and Wilkinson, the question can be raised as to whether the covert purpose of the Pike exploration was to scout the land for Burr's ultimate formation of a new nation in the region. And, if so, how much did Pike know and contribute to the subterfuge?

One big clue lies in the weather reports produced both during and after the expedition.

Was the Expedition Report "Weather-Doctored"?

Of particular interest are the environmental and weather descriptions made by Pike in his field notes and then later in his published report. We suggest that if Pike's expedition was, in fact, meant to help facilitate the Burr-led settlement of the Great Plains and Spanish Southwest, any blatantly negative weather and environment descriptions given in Pike's post-trip report would serve two purposes for Pike, and through him, his superiors Wilkinson and Burr: 1) it would discourage migration into that area (and leave the door open for a Burr movement into the region), and/or 2) it could possibly justify any claim by

Wilkinson and Burr (if they were charged with treason against the United States) that they wouldn't have really wanted to invade such an inhospitable region.

One very critical word that could especially aid Wilkinson's and Burr's empire-building designs for the Great Plains is "desert." If people in the eastern United States believed that the Great Plains were a "great American desert," then the region would be considered inhospitable and unproductive, and therefore of little interest to the expansion proponents of the United States. When we look at Pike's field notes, we discover only one single mention of the word "desert" when referring to the Great Plains. Upon reaching the Great Bend of the Arkansas River, Pike does refer for the first and only time to the presence of a desert, likely a small sandy expanse caused by the shallowness of the river:

The Arkansas [River], on the party's arrival, had not water in it six inches deep, and the stream was not more than 20 feet wide, but the rain of the two days covered all the bottom of the river which in this place is 450 yards from bank to bank, which are not more than four feet in height, bordered by a few cottonwood trees on the north side by a low swampy

prairie, on the south by a sandy sterile desert at a small distance.

Other than this single passage, no further mention is made of "desert" east of the "Mexican Mountains" (Rocky Mountains). Indeed, the specific term "desert" doesn't even appear in Pike's "Table of Names"—a glossary of the various geologic and environmental terms he uses in his report. Instead, the term that Pike consistently uses to refer to the land east of the Rocky Mountains is "prairie." According to Pike's Table of Names, a prairie is defined *not* as a desert, but instead as simply "a natural meadow."

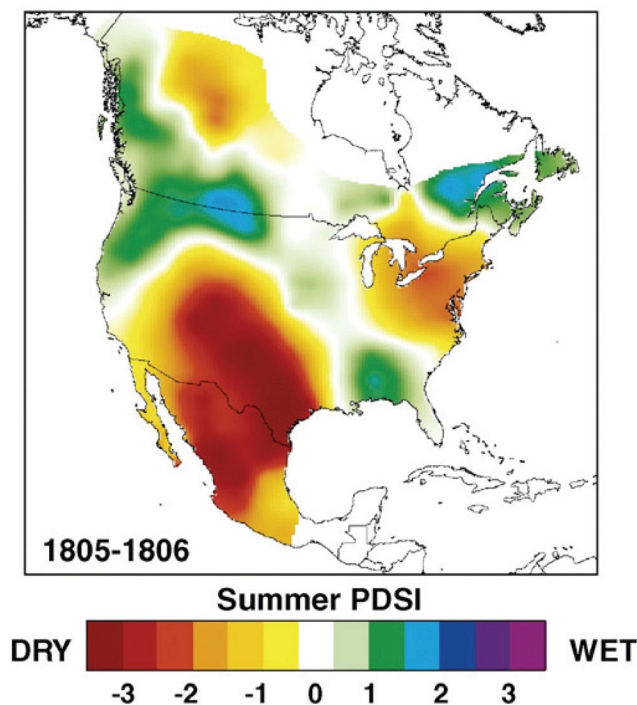
Pike reinforces this idea of the Great Plains prairie being a "natural meadow" throughout his numerous daily entries into his journal. For example, he makes mention of numerous buffalo herds supported by

abundant prairie grass: "I stood on a hill, and in one view below me saw buffalo, elk, deer, cabrie [pronghorn], and panthers." The next day, Pike adds, "On the march we were continually passing through large herds of buffalo, elk, and cabrie; and I have no doubt that one hunter could support 200 men." Indeed, the initial portion of the Pike expedition by boat up the Missouri and Osage rivers took 37 days, and Pike notes that rain fell on 13 of these days.

Robinson might
have been a courier
assigned to take
secret letters to
the Spanish.



The Arkansas River from the top of Mount Petit Jean. (Wikimedia; ErgoSum88)



Interestingly, upon his eventual return (after capture and release by the Spanish), the entire tenor of Pike's description of the Great Plains undergoes a marked change—almost a complete reversal from his earlier notes. Upon his return, Pike writes the following in his published 1810 public report of the climate and environment of the Great Plains:

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 waves, 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.

That rather definitive statement by Pike on the desert-like character of the Great Plains only came after he had been released as a prisoner by the Spanish and was again in contact with Wilkinson. Correspondence between Wilkinson and Pike indicates that Pike by this time had become well aware of the ongoing trials involving the members of the Burr conspiracy.

The "Real" Climate of the Great Plains in 1806

But the question might be posed as to whether Pike's final report was perhaps more accurate than his field notes? Do the available data suggest wetter or dryer conditions during Pike's expedition in 1806–1807?

Noted tree-ring climatologists Ed Cook, David Meko, and others have identified the specific number and location of regions with reconstructed precipitation (derived from tree-ring analysis) indicating strong drought conditions. The early part of the first decade of 1800s did see strong drought in the Southwest and Great Basin regions of North America, with wetter conditions progressively eastward. However, a new tree-ring reanalysis of that time by Cook and colleagues indicates that throughout the Great Plains region, conditions by the end of Pike's expedition were trending wetter (as the Great Basin drought of 1806 began to lessen by 1807).²

In a similar fashion, a few readings taken by weather instruments in the early 1800s for areas near the southern Louisiana Purchase exist for comparison. In particular, John Breck Treat, who was trained in making weather observations in a similar manner as the great explorers Louis and Clark, made a detailed series of weather observations for the region of Pine Bluff, Arkansas, during the period 1805–1808 specifically for the President of the United States, Thomas Jefferson. Treat noted in a cover letter to Jefferson in 1809 that he made his observations in *Arkansa in Louisiana*, and wrote to Jefferson that "if from their perusal you can derive, either information or amusement, respecting the climate of this part of our country, your acceptance will be highly gratifying." Modern analysis of those records indicates that precipitation values (particularly in the winter of 1806–1807) were near normal, exhibiting monthly variations typical of the mid-continent. No "desert" conditions were reported by Treat. So the reconstructed climate appears to coincide with Pike's tenor

Pike had become well aware of the ongoing trials involving the members of the Burr conspiracy.

of “wet prairie” observations *during* the trip, and not the pessimistic “desert” climate scenario that Pike described in his final, public report.

The Verdict on Pike

Did Pike “doctor” the weather in his final report at the secret urging of General Wilkinson? Unfortunately, we will likely never know. Many of Zebulon Pike’s original papers and correspondence were long ago destroyed by a fire in Philadelphia. So we are left with circumstantial evidence. We believe that Pike’s marked change in the characterization of the Great Plains—from the generally upbeat climate descriptions in his field notes to the published report’s “barren soil, parched and dried up for eight months in the year, presents neither moisture nor nutrition sufficient, to nourish the timber”—at the very least suggests a possible cover-up.

A conspiracy theorist might also see a strong correlation between Wilkinson’s order to Pike that “you must be cautious, extremely cautious how you breathe a word [of the information you have acquired, and the observations you have made], because the publicity may excite a spirit of adventure adverse to the interests of our government,”

*“the publicity may
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and the statement that Pike made in his final report that knowledge of the “desert” conditions of the Great Plains “may arise one great advantage to the United States, viz. The restriction of our population to some certain limits.” Was Pike attempting through that statement to dampen the “spirit of adventure” as his commander had ordered?

So while we have tantalizing circumstantial evidence, the fundamental question of Pike’s possible role in the Burr Conspiracy still remains unanswered. Was Pike’s final report a deliberate example of “climate mis-information” to aid Burr and his fellow conspirators, or was it his true impression of the Great Plains climate? Unfortunately, the truth may never be completely known.

References

- 1 The Journals of Zebulon Montgomery Pike (with letters and related documents), Edited by Donald Jackson, 1966, Volume 2. University of Oklahoma Press, Norman, OK.
- 2 Cook, E.R. and Krusic, P.J., 2004. North American Summer PDSI Reconstructions. IGBP Pages/World Data Center for Paleoclimatology Data Contribution Series #2004-045. NOAA/NGDC Paleoclimatology Program.



Bison in a prairie, conjuring an image of the scene that likely confronted Pike. (NPS Photo)