“Not Maps At All” – What Is Persuasive Cartography? And Why Does It Matter?
by PJ Mode


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www.WashMapSociety.org
From the Editor

Who would have thought back in 1984, when they saw eight mimeographed pages stapled in one corner, and called issue 1 of The Portolan, that it would grow to the product in your hands (or viewing online) today? As the longest serving Editor of this journal, I must say that I could not be doing this without the willingness and cooperation of so many members, and non-member contributors too. You write book reviews, biographic notes and articles. Others present talks and then agree to write some of the articles you read, in that way connecting distant members with the Society. Editorial Advisory Board members review select articles to insure they meet quality standards.

I am proud to say that The Portolan has been published on-time and consistently since 1984. It is received at MANY noted institutions and libraries and by readers throughout North America and over 20 countries across the seas. The reach is great, and I am heartened by the many people I have encountered worldwide who are immediately familiar with this journal and its content.

Available now to all members is online access to all current and past issues, and we are improving the quality of the digital product. If you wish you can download an issue to your tablet and view it with enlarged font and great color clarity.

This current issue starts with one of my favorite cartographic items—persuasive cartography—I have some in my collection and never tire of examining these maps with a message. Look above and you will see the magnificent feast that awaits in this issue.

Enjoy the holiday season. You will be receiving the next issue in March.

Tom
A Mystery Lake in Southern Colorado

by Wesley A. Brown

On the General Land Office map of Colorado for the year 1863, commonly known as the third territorial map, a large lake is shown in the San Luis Valley of southern Colorado. (Image 1). At 21 miles long by 6 miles wide, the lake is gargantuan compared with Grand Lake, Colorado’s largest natural lake, which measures a mere 1.5 miles by .75 miles. (Image 2). From this date onward, many maps, although not all, show the monster. By the 1880’s, the huge lake had disappeared; in its place are small ponds like those shown on modern maps. How did the great San Luis Lake come to appear on the map? Was it a mirage or could it have been a massive


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body of water now much reduced? This paper attempts to answer these questions.

Let us begin with a description of the area as we know it today. (Image 3). The San Luis Valley is surrounded by several mountain ranges, the two most imposing being the Sangre de Cristo range to the north and east and the San Juans to the west. Between all the mountain ranges is the largest park in the state, a flat opening in the mountains running at its greatest extension 80 miles north from the New Mexico border and up to 40 miles wide. Our focus is on the northern portion of the valley.

In the late Tertiary, great convulsions and folds created the mountains; sometime later, downward thrusts formed a vast interior void that was filled with an ancient lake; the evidence can be seen as the Great Sand Dunes National Park. Over eons, the sediment from the surrounding

Image 2. (Detail)

mountains filled the valley, so that today it is extremely level. (Image 4). The northern half of the valley forms a closed basin with its lowest point at San Luis Lake, Head Lake, and several small ponds. The valley is very arid for Colorado, with average rainfall between 6 and 10 inches per year. However, the mountains that surround the valley gather considerable precipitation that descends in numerous streams. In an unusual phenomenon, these strong flows from the upper reaches “disappear” into the porous sandy alluvium in the valley; the streams simply seem to vanish. Here standing groundwater a few inches in depth is common, resulting in large marshes. Water not only stands on the surface but is found below. At shallow depths, there are impermeable sediments under which exist significant water reservoirs, now tapped by many artesian wells.

Let us focus our attention on how the valley was mapped in the nineteenth century. The earliest detailed mapping of the San Luis Valley was by Captain John W. Gunnison of the Topographical Engineers in 1855. His map shows many streams from the north and east flowing down from the mountains and disappearing in the valley which has no lakes at all. The renowned map drawn by Baron F.W. Von Egloffstein to illustrate the careful surveys of Captain John N. Macomb in 1860 shows a similar view. (Image 5).

In 1861, shortly after signing legislation to form the Colorado Territory, President Abraham Lincoln appointed Francis Case to serve as Colorado’s first surveyor general. Case produced the first map of the territory by November of the same year. (Image 6). This map shows streams descending into the upper San Luis Valley, little tufts that may represent marshes, and the legend Bay of San Luis. When Case created his second territorial map on September 1, 1862, he removed the reference to the Bay of San Luis and reverted to the “empty” valley image of the earlier period. In 1863, the work of the new surveyor general, John Pierce, was published, and it introduced the monster San Luis Lake. (Image 2) This new portrayal, containing the giant lake, was reproduced in the next General Land Office Map of Colorado, issued in 1866. (Image 7). A comparison of this close-up image with that of a modern Google Earth Satellite close-up image (Image 8) of the same area and scale reveals how enormous the lake shown in the General Land Office map is compared with its actual size today.

During the next few years, the huge lake appeared on several works by commercial mapmakers, including the map by J.H. Bonsall and E.H. Kellogg from 1872. (Image 9). And why not? The monster lake appeared on no less an authority than the official government map of Colorado. Frank H. Gray shows the monster in his popular atlas of 1873. H. L. Thayer shows the huge lake in his 1871 map of Colorado. However, New York publisher J.H. Colton must have had doubts about the size of the lake because his map of 1871 shows three smaller lakes in a large marshy area; the largest of the three is only 7 miles across (down from 21 miles in 1863). Even so, it was still an exaggeration of today’s lake, which is slightly less than 1 mile across.

How did the giant lake first appear on the third territorial map of 1863? While doing research in the Library of Congress, I happened across two versions of Frederick

Image 7. (Detail) Map of Public Survey in Colorado Territory. To accompany report of the Surveyor General, John Pierce, Dept. of Interior, General Land Office, 1866.

Ebert’s map of Colorado printed by Jacob Monk in 1862. The published map, the first detailed one of Colorado, shows no San Luis Lake. (Image 10). Also in the library was a second copy of the map with many hand-written additions of towns. (Image 11). This map, which had nail holes in the corners, was used by the early Post Office in the 1860’s to record routes and new post offices. It was deposited by the Post Office into the Library of Congress on July 5, 1900. On it, various streams flowing from the mountains are shown in print vanishing into the center of the San Luis Valley and then are extended in ink by hand to empty into a giant hand-drawn lake. When I compared this map with the third territorial map, I noted a remarkable resemblance. (Image 12). Because the office of the Surveyor General and the Post Office were both at 14th and Larimer streets in Denver and very possibly in the same building, it seems reasonable to assume that John Pierce consulted the Post Office’s manuscript (Image 11), for up-to-date information and lifted the new aquatic feature. I believe that the manuscript emendations made on the Post Office map in late 1862 or early 1863 were the source of the grandest of Colorado lakes. The widely distributed 1863 General Land Office map (Image 12) that showed the mythical lake became the model for many other map-makers.¹

How might rainfall relate to the mystery? There are over 100 precipitation measuring stations in Colorado, but only one has records from the period in question. The records from Fort Garland, situated a few miles southeast of the mythical lake, show an unusual period of annual precipitation: between 11 and 14 inches in each of the six years from 1854 to 1859. This rainfall is almost double the normal, and such high figures for more than even two years in a row have not appeared since. After six years of excessive precipitation, could the unusually flat basin in the upper San Luis Valley have filled to a sufficient depth to give the impression of lake water? Might a spectator looking west from Mosca Pass on the Sangre de Cristo range have observed the reflection of the setting sun on the broad marshlands below and formed the impression of a giant lake, which he subsequently placed on the Post Office map?

In the 1870s, a period of great governmental surveys across the West, high standards were the norm. Three of


[Image 10] (Detail) Map of Colorado Territory, Embracing the Central Gold Region. Drawn by Frederick J. Ebert under direction of Governor William Gilpin. Published by Jacob Monk, Philadelphia, 1862.
these surveys covered the San Luis Valley, and they all fail to show evidence of the giant lake. First Lieutenant E. H. Ruffner’s survey of the south-central mountains of Colorado published in 1873 shows only marshy land with tiny lakes. (Image 13). First Lieutenant George M. Wheeler’s survey sheet 61(D), issued in 1878, shows an image much like that on the modern map. Finally, the Hayden Survey (Image 14). of Colorado published in 1877 shows a similar modern view. After the release of these surveys, maps begin to change and by 1880, when high volumes of Colorado maps began to be printed by the likes of Louis Nell, G.F. Cram, and Rand McNally, the San Luis Lakes take their modern small form and the giant lake is seldom seen.

We cannot leave this story without evaluating the role that Colorado’s first governor William Gilpin might have had in the mythical lake (Image 15). The West Point graduate had distinguished himself on Lieutenant John Frémont’s 1853 expedition to survey the South Pass route across the Rockies and as a major during the Mexican-American War. He was a renowned orator and writer, who used maps to illustrate his belief that Colorado’s natural attributes would spur many across the nation to flock to Denver, which would then become a principal transportation hub. His knowledge of the terrain and fervent belief in its potential in concert with pre-Civil War politics prompted President Lincoln to appoint Gilpin as Colorado’s first governor. Yet, the Rocky Mountain News reported in 1862 that Gilpin was not much of a scientist or scholar “but simply a man who drew beautiful maps and had a large vocabulary.”

When Gilpin examined Ebert’s draft of his great territorial map created “Under direction of the Governor
William Gilpin, the huge lake was not present and Gilpin probably did not care. His view, however, was about to change. Gilpin, who fell in love with the valley in 1844, had secured an option for 100,000 acres of land in the upper San Luis Valley shortly before leaving office. By early 1863, he had secured options on five-sixths of the ownership of the Sangre de Cristo estate, a Mexican land grant of one million acres just southeast of the mystery lake. The publication of the 1863 General Land Office map showing the huge San Luis Lake near his property must have been a boon. His principal activity in the years that followed was raising money to pay for and then selling off interests in this massive property including partnering with English promoter William Blackmore, who produced the splendid promotional book Colorado: Its Resources, Parks and Prospects in 1869. Thus Gilpin, with vast land holdings adjacent to the mythical lake, had a great incentive to believe in its existence.

The first written account I uncovered describing the enormous lake comes from a published writing of Governor Gilpin on July 5, 1866. Gilpin reports, "The San Luis Lake, extending south from the point of the foothills, occupies the centre of the park for 60 miles, forming a bowl without any outlet to its waters....The confluent streams thus converging into the San Luis Lake are thus 19 in number." Gilpin’s huge San Luis Lake would appear on several of his maps during the period through 1874. My favorite, published in the Colorado Chieftain newspaper in 1870 and pictured here, is typical of Gilpin’s conception of the mighty body of water. Perhaps we have Governor Gilpin to thank for a fascinating mythical lake that lingered on maps years after government surveyors had removed it from official reports.

ABOUT THE AUTHOR
WMS member Wes Brown co-founded the Rocky Mountain Map Society in 1981. He has been an avid map collector for 40 years specializing in early world maps and maps of the exploration and development of Colorado and the west. He resides in Denver, Colorado and uses topo maps weekly as a Field Active member of Alpine Rescue Team.
A Mystery Lake in Southern Colorado


Image 16. (Detail) Map of the San Luis Parc “Colorado Territory” and Northern Portion of New Mexico. 1870

ENDNOTES

1 Many other topographical features first shown on the published Ebert map are also reproduced on the third territorial map further supporting the belief that John Pierce used the Ebert map as a source document.

2 Thomas L. Karnes. William Gilpin, Western Nationalist, Austin, University of Texas Press, 1969, p. 300.

3 The map must have been completed very early in 1862 if not late 1861 because it was published “Under the direction of Governor William Gilpin” who was removed from office in April 1862.

4 Although the 1865 and 1866 editions of the 1862 Ebert map did not show the great San Luis Lake, it suddenly appeared on the 1869 reprinting of the 1862 map showing the properties for sale in the Blackmore promotional book associated with Gilpin.

5 Another reference to the huge lake in Blackmore, 1869, is a reprint of an undated essay by Edward Bliss in Gold Fields of Colorado (date unknown), which is probably a summary of Gilpin’s account. He reports, “Near the centre of the park is the Sahwatch, or San Luis Lake, a body of water some 60 miles in extent, into which flow nineteen streams. This lake has no visible outlet, but is supposed to discharge its surplus water through subterranean channels.” During his career, Bliss (1822–1877) was an editor of the Rocky Mountain News, and wrote several essays promoting the mineral wealth of Colorado.

6 In The Parks of Colorado. p.1, William Gilpin, signed “San Luis di Calebra, July 5, 1866,” held in the Denver Public Library. This may be a reprinting of an earlier writing by Gilpin.

7 Map of the San Luis Parc of Colorado Territory and Northern Portion of New Mexico. Printed on verso of “Supplement to the Colorado Chieftain. Pueblo, Colorado, May 19, 1870” by Governor William Gilpin.