



MAPPING AMERICA'S PROGRESS

Viewing the West Through a 19th-Century Mapmaker's Eyes

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Alvin Jewett Johnson, like his American counterparts, sought to bring geography into the home of the average American. Johnson was one of the three major American commercial atlas makers who published just after the Civil War. A latecomer to the map publishing business, he produced atlases from 1858 until his death in 1884, his son continuing the successful firm into the 1890s. Johnson's obituary noted that he had amassed a fortune of \$1 million by the time he died.

Like his main rivals, Samuel Augustus Mitchell and Joseph W. Colton, Johnson also competed in the well-established European cartographic marketplace. Unlike world atlases produced by European mapmakers, however, those published by Americans highlighted maps of the United States. Often overlooked as major cartographic achievements today, the post-Civil War atlases merit due consideration. They give important clues about what the public considered to be most significant developments in western America at that time. These mapmakers were attempting to document a rapidly changing landscape—lightly charted lands that were evolving first into territories and then into states. The new information revealed optimism, so much so that the changes they incorporated in their maps were sometimes real and sometimes merely envisioned. Johnson is the least well-known of the three American commercial cartographers. His surviving atlases (and some individual maps that have been cut from other atlases) must suffice to demonstrate his understanding of westward expansion. Johnson's maps well illustrate his intention of bringing the American public the most up-to-date geographical information about the expanding United States.

Examination of Johnson's maps shows clearly that they grew out of an evolving American mapmaking tradition spawned by the printing of William Clark's map of the Lewis and Clark expedition. In 1814 vast quantities of new geographic information became available to the nation when Congress authorized the printing of Clark's monumental map. Literate, ordinary citizens of the day would not have owned a copy. Rather, it was thanks to the efforts of commercial mapmakers that this information seeped into the American consciousness.

Walter Ristow, the eminent Library of Congress cartographer, identified seven American publishers successful in the atlas business before the Civil War; all were based in Philadelphia or New York. They were Mathew Carey, John Melish, Henry Tanner, Fielding Lucas, Anthony Finley, S. Augustus Mitchell, and Joseph H. Colton and Sons. Interestingly, these men were not all cartographers; most came out of a tradition of engravers. They published American maps mainly as part of world atlases; consciously or unconsciously, they contributed to the establishment of an American mapmaking tradition.

Two of these early publishers—Johnson’s eventual rivals—Mitchell and Colton, opened their doors in the 1830s. Another, Henry Tanner, claimed in 1819 that his *New American Atlas* was important in establishing the American cartographic tradition. In his words, “Our geography is so rapidly progressive, that no European publication can keep pace with our improvement and the extension of our settlements.”

Tanner’s atlas, however, was so expensive (\$30) and printed in such an unwieldy format that it did not reach many people. Both Mitchell and Colton sold their atlases in Europe, but increasingly they sought to reach the American market by offering atlases at a reasonable price. Their efforts were successful because population growth was accompanied by increased interest in American geography. The Civil War itself also stimulated interest in maps. Maps of battle locations were printed in newspapers and available to the public at that time. On every hand there was a great demand for maps and related knowledge. As historian David Buisseret put it, “By the middle of the century, a substantial proportion of the population was able and willing to acquire books containing descriptions and topographic views of their country.”

Public land surveys were undertaken, but the General Land Office (GLO) was only just ahead of—and often just behind—settlers pushing into the Midwest and the Far West. Roads, canals, and railroads were constructed and a transcontinental route already envisioned. Gold discoveries lured people to California even as large numbers of immigrants arrived from Europe seeking new opportunities in the West. Towns and then counties sprang up. The economy was growing.

Johnson, starting out in map publishing just before the Civil War, was part of the growing group of American atlas makers seeking to accommodate this new thirst for information. He went to New York from the Midwest in 1856 and started his own publishing business two years later. Not much is known about Johnson’s life, but he had been an atlas canvasser or salesman for his future rival, the J. H. Colton Company, also of New York; so he knew how to sell atlases door-to-door. Nevertheless, he must have recognized that he was entering a business where Mitchell and Colton were already well-established; if he were going to compete successfully, his atlases would have to be somehow better or different.

It is curious—and the relationship is far from clear—that Johnson’s first published atlas in 1859 was in fact an edition of Colton’s *General Atlas*. It was published both in New York and Richmond, Virginia, where Johnson’s first business partner, Ross Browning, lived. Later editions of the atlas were published only in New York, indicating that Johnson determined that the Union was a better place for his business.

In 1860 the first atlas under Johnson’s own name was published as *Johnson’s New Illustrated (Steel Plate) Family Atlas with Descriptions Geographical, Statistical, and Historical*. It actually incorporated many of Colton’s maps. The title page of this world atlas stated that it was produced “under the supervision of J. H. Colton and A. J. Johnson” and he was “Successor to J. H. Colton.” As Johnson researcher and collector Ira Lourie points out, this was not exactly the case since Colton continued to produce his own atlases until the 1890s. They were, in fact competitors. The reference to Colton, however, remained on Johnson’s *Family Atlas* until 1866. After that time, all the maps were Johnson’s own, and no longer Colton’s.

“Steel plate” refers to an engraving process invented in 1804 by which the engraver could maintain the detail of design but produce many more copies than with the soft copper plates previously in wide use in America and Europe. Another process, lithography, which involved a

reverse transfer to a lithographic stone, was also employed in mapmaking at that time. Both Mitchell and Colton adopted the new steel plate technology in the 1840s, unlike the others on Ristow's list, enabling them to move ahead of their competitors. It was logical that Johnson, as "successor" to Colton, followed in his footsteps and used the same printing process. Interestingly, all three failed to take advantage of a new printing process that became popular in the 1870s, known as wax engraving. This process greatly reduced the cost of maps without sacrificing detail and, as a history of map publisher Rand McNally notes, "The introduction of this single technique was responsible for the Company's instantaneous success in mapmaking."

During the Civil War, Johnson updated his atlases annually. The source of his information was the government's General Land Office surveys and their accompanying field notes. This can be confirmed, even though Johnson's business records have apparently not survived, by comparing his maps with similar GLO maps and by noting also that several of his maps reference government sources. For example, a map of North America produced by Johnson in 1861 states: "Compiled, drawn, and engraved from U. States Land and Coast Surveys...." Johnson also produced U.S. military maps, included in atlases from 1861 to at least 1865, and indicated there that his information was obtained from the War Department in Washington (figure 1, page 17).

Although Johnson's source of information did not differ from Mitchell or Colton, the number of editions of Johnson's maps produced in a year with only slight corrective changes suggests that Johnson may have found continual updating a means of obtaining a competitive edge against his more established competitors. Not only were the maps updated but the typeface and borders often changed as well. Ira Lourie has meticulously charted these changes by style and year (figure 2).

All the maps were hand-colored with bright, appealing colors. The colors changed from map to map, suggesting a sales technique, but the consequence of this for us today is that it is extremely difficult to know which edition some of the now loose maps came from. Lourie has concluded that there were new editions produced every year from 1860 to 1887, except for four years in the 1870s and one in 1882. Some years had more than one edition, as will be noted.

Johnson's recognition of both the public's need to know timely details of the Civil War and his need to distinguish himself from the Mitchell and Colton atlases is demonstrated by his early atlases. For example, the military map included in his 1861 atlas contains far more detail than Mitchell's map of the same subject. Johnson's map shows the country divided into military districts (but not states) and includes insets of major southern harbors. The 1862 edition of his military map (figure 1) instead shows the outlines of all the states and territories, a united country dotted with forts. "A Chronological History of the Civil War" was included in the 1864 atlas, providing supplemental information for the atlas buyer. This was noted on the frontispiece of the 1864 atlas (figure 3).

The continual updating of these maps, to say nothing of the production details, such as hand coloring of the maps, suggests that Johnson had large numbers of employees. Veterans, of course, were a likely pool of workers. It is therefore unusual that relatively few atlases remain today after being such a popular item at a point in our history only just over 100 years ago. There are only 16 Johnson atlases preserved in the Library of Congress, not even one for each year of production.

Johnson's maps present a remarkably correct recording of the changes in territorial and state boundaries. It is significant that Johnson was aware of these rapidly changing descriptions; in

actuality, some of this information might have been lost to us in the present day were it not for the 19th-century atlas makers who brought it to the attention of the American public. For example, the 1860 *Johnson's Family Atlas* includes 23 United States maps, 7 of which are of the West, including 1 of Washington and Oregon (figure 4, page 19).

Washington Territory is shown split off from the Oregon Territory, an event that occurred in 1859 when Oregon achieved statehood; Washington includes land that later become part of Montana and Idaho. Nebraska Territory, which was gradually reduced in size as new territories were created in the 1860s, is shown lying to the east. Washington Territory's surveyed counties hug the coast, painted in blue, pink and yellow. The line of the proposed Pacific railroad, from Isaac Stevens's 1855 survey, is marked, indicating a future route to these new counties. The exact location of forts such as Colville and Owen suggests protection from the Indian tribes whose lands are only broadly noted. The map highlights topographic features, including rivers and rapids; mountains are indicated by hachures, marks then popular for showing elevation.

Nebraska is correctly shown on this map, extending from the 40th parallel to the Canadian border. Rivers and mountains are recognized but there are no counties, as these have not yet been delineated. Towns, however, soon appear in eastern Kansas, as shown on the 1862 atlas version of the Nebraska/Kansas map. Interestingly, on that map the south fork of the Platte River includes the notation that it is "630 miles to Auroria," a burgeoning mining area in what was to become Nevada.

By 1862 Johnson's atlas map of the region shows a much different Nebraska Territory (figure 5). Inexplicably, Nebraska is depicted as sharing its western border with Oregon when, in fact, its neighbor to the west had been Washington Territory since 1859. The territorial configuration soon changed again. Johnson's 1863 atlas depicts a Washington and Oregon more recognizable to modern-day viewers. Idaho Territory was born in 1863, carved out of Washington, Dakota, and Nebraska. Missoula County in Idaho Territory is indicated, as is one other unnamed county. Indian tribes like the Spokane are given specifically delineated locations. Individual mine sites highlight the discovery of gold and silver. However, this map shows both Idaho Territory and a portion of Dakota Territory as occupying the same area. A later edition was made to correct mistakes, removing the erroneous reference to Dakota and labeling it all Idaho.

The 1864 map of Washington, Oregon, and Idaho shows the establishment of Montana Territory, with Idaho reduced to its present size. Dakota Territory still lies south of Montana but with no real border defined between them. Johnson's 1864 atlas map of Nebraska, Dakota, Colorado, Montana, and Kansas shows all of Dakota—what remained of it after Montana Territory was carved out of it earlier that year (figure 6).

In the 1865 atlas map of Nebraska, Dakota, Idaho, and Montana, a new territory has been mapped and identified, although it would not officially exist until 1869 (figure 7). This was Wyoming, and it seems to have a strange boundary that corresponds to the Dakota boundary in the previous map. Inquiry into the unusual shape of Wyoming brought the answer from experts and novices alike: Johnson must have made a mistake. A similar map by Mitchell showed that he had the same shape on his map. Did they both err, or were they correct?

The confusion was a result of the constantly shifting territorial boundaries: before Montana Territory was created, Idaho Territory east of the Continental Divide was moved temporarily back into what had been Dakota Territory. Then Montana was given its boundaries as shown in figure 6. A portion of Dakota Territory—the "Dakota sliver"—was accidentally excluded. This

omission was not discovered until Wyoming was surveyed in 1868-69. A separate act of Congress was considered necessary in 1873 to bring the slivered portion of land into Montana. So Johnson had not made a mistake, and if the GLO map of 1864 is examined, the source of Johnson's information is evident (figure 8).

As time went on, the geographic features and Indian tribes that had filled earlier maps gave way to counties and towns. Johnson wrote in 1879, in the introduction to his *New Universal Cyclopedia of Useful Knowledge*: "It has been the aim...to include every town in the United States and Canada having a population 1,000 and over, as well as every place of historic interest, though its population falls short of that figure."

His detailed maps of each state show hundreds of towns and cities across America. Through Johnson's incessant search for survey information and his quest for accuracy—whether for competitive ends or otherwise—he succeeded in bringing the new optimistic view of the nation's western lands to those who bought his atlases. Boundaries, railroads (real and proposed), mines, and forts were the new definers of space, and he included them. It is clear that Johnson followed and reinforced the mapmaking tradition that Henry Tanner defined in 1819—a tradition emphasizing America's westward progress across the continent.

SIDEBAR: A Word About Distribution

Rather than selling through bookstores, which were not available to rural America, map publishers, like book publishers, hired canvassers to scour the countryside selling their atlases door-to-door by subscription. Johnson's sales technique has been described as aggressive: certainly he was able to stay competitive against the more established Mitchell and Colton. Johnson himself had been a canvasser, and his second partner, Benjamin Ward, was in charge of Johnson's atlas subscriptions in Cleveland and Chicago.

Selling atlases could be a lucrative business. Although operating in a slightly different market than world atlases, some county atlas firms in Chicago were said to gross as much as \$1million a year. Canvassing was, however, hard work. An atlas canvasser had to appeal to a farmer's wish to be educated—or at least his wish to appear so. A subscription list with the names of his neighbors displayed boldly on it was a useful sales tool. A surviving diary of a canvasser for the J. H. Colton firm in 1857 bemoans the fact that he was only guaranteed \$6.50 for every \$15 atlas he sold. Sales apparently were slim in his assigned territory (small towns along the Mississippi), and he was barely able to secure food and lodging for himself and his horse while paying the freight on the books he ordered from Colton. And, alas, the Mitchell salesman had preceded him! Johnson's canvassers undoubtedly faced similar obstacles.

Finally, not every potential client was enamored with book canvassers. A classic response was Bates Harrington's 194-page diatribe against atlas canvassers published in 1879, which stated: "Atlas men work upon the vanity of the public: book men hold up the attractive bait of pictorial contents and set forth the fact that the world is going crazy over the particular work that they are selling and finally bear down with incessant palaver until there is no getting rid of them except by a subscription."

And, no doubt, potential sales were thwarted by farmyard greetings like this one: "My shotgun is loaded with dry peas that I will shoot into any agent that comes to my place."

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