

Geological and geographical atlas of Colorado and portions of adjacent territory

1877 and 1881 editions

Ferdinand Vandeveer Hayden (1829-1887) explored much of the western United States from the 1850s to the early 1880s. In 1877 and 1881 Hayden oversaw the systematic survey of the new state of Colorado. Like many atlases from the 19th century, sheets from these atlases were often removed from the bound volume over time. Unfortunately, the lack of an accurate publication date on the sheets makes it difficult to know which sheet was issued with which atlas.

The following pages provide guidance on dating Hayden's Colorado atlas sheets, noting distinguishing features, map credits, and sheet titles. Multiple copies of original bound atlases were used to establish what each sheet edition should look like, and what features differentiated them from each other.

Fields

Sheet: Plate number, or short description of what the sheet covers, if no plate number is present

Page: Some sheets were printed with page numbers in the corner margins. Where available, that number is listed here.

Title: Title transcribed from the plate

Date: Denotes the edition of the atlas containing this plate

Distinguishing features: Narrative description of features shown, or not shown on the plate that assist in differentiating one atlas edition from another. In most cases, more distinguishing features exist on the plates than are listed.

Copies in DPL: Number of copies of this sheet held by Denver Public Library. This includes both bound and unbound copies.

Map Creator(s): When individuals involved in the creation of the map are listed, those names are listed in a formalized way.

Map Credit Notes: Transcription of the map credits from the map, or noting when the map is uncredited.

Sheet	Page	Title	Date	Distinguishing features	Copies in DPL	Map Creator(s)	Map Credit Notes
Title	n/a	Geological and Geographical Atlas of Colorado and portions of adjacent territory	1877	"1877" is present in large font below title and credit	8		
Title	n/a	Geological and Geographical Atlas of Colorado and portions of adjacent territory	1881	"1881" is present in large font below title and credit	10		
Legend	n/a	List of Sheets / Legend	1877	No distinguishing features between the 1877 and 1881 editions.	8		
Legend	n/a	List of Sheets / Legend	1881	No distinguishing features between the 1877 and 1881 editions.	10		
1		Triangulation Map of Colorado	1877	There is a "Green River" south/southeast of Pueblo, between the St. Charles and Huerfano Rivers. In the 1881 edition this is corrected to read "Greenhorn River"	9	Wilson, A.D. [Allen David Wilson, 1844-1920]; Gardiner, James T. (James Terry), 1842-1912	Map credit: "By J.T. Gardner and A.D. Wilson" (Work of primary triangulation begun by Gardner (1873-1875) and completed by Wilson.
1		Triangulation Map of Colorado	1881	There is a "Greenhorn River" south/southeast of Pueblo, between the St. Charles and Huerfano Rivers. This was corrected from 1877, which labeled this the "Green River"	9	Wilson, A.D. [Allen David Wilson, 1844-1920]; Gardiner, James T. (James Terry), 1842-1912	Map credit: "By J.T. Gardner and A.D. Wilson" (Work of primary triangulation begun by Gardner (1873-1875) and completed by Wilson.
2		Drainage Map of Colorado	1877	Railroad lines end at Canon City, with lines to the west. No railroad SW of Julesburg on Nebraska border.	9	Wilson, A.D. [Allen David Wilson, 1844-1920]; Ladd, Story B. (Story Butler), 1851-1933; Bechler, Gustavus R.; Gannett, Henry, 1846-1914; Chittenden, George B. [1849-1939]	Map credit: Topography by A.D. Wilson, G. R. Bechler, Henry Gannett, G.B. Chittenden, and S.B. Ladd"
2		Drainage Map of Colorado	1881	Railroad lines extend well to the west of Canon City and Julesburg. 1881 edition contains numerous other railroad lines on this sheet that are not present in the 1877 edition. Note that text below title still reads "March 1877" on 1881 edition.	9	Wilson, A.D. [Allen David Wilson, 1844-1920]; Ladd, Story B. (Story Butler), 1851-1933; Bechler, Gustavus R.; Gannett, Henry, 1846-1914; Chittenden, George B. [1849-1939]	Map credit: Topography by A.D. Wilson, G. R. Bechler, Henry Gannett, G.B. Chittenden, and S.B. Ladd"
3		Economic Map of Colorado	1877	Railroad lines end at Canon City, with lines to the west. No railroad SW of Julesburg on Nebraska border.	9		No map credit given
3		Economic Map of Colorado	1881	Railroad lines extend well to the west of Canon City and Julesburg. 1881 edition contains numerous other railroad lines on this sheet that are not present in the 1877 edition.	9		No map credit given
4		General Geological Map of Colorado	1877	Railroad lines end at Canon City, with lines to the west. No railroad SW of Julesburg on Nebraska border.	9		No map credit given
4		General Geological Map of Colorado	1881	Railroad lines extend well to the west of Canon City and Julesburg. 1881 edition contains numerous other railroad lines on this sheet that are not present in the 1877 edition.	9		No map credit given
5	77	North-western Colorado and Part of Utah [topographic]	1877	Fold in center of plate falls cleanly between the "R" and "A" of "COLORADO" in the map title.	9	Ladd, Story B. (Story Butler), 1851-1933; Bechler, Gustavus R.; Gannett, Henry, 1846-1914; Chittenden, George B. [1849-1939]	Map credit: "S.B. Ladd, G.R. Bechler, H. Gannett, and G.B. Chittenden, Topographical Assistants"
5	77	North-western Colorado and Part of Utah [topographic]	1881	Fold in center of plate falls approximately 2mm into the "R" from the right side of the letter of "COLORADO" in the map title.	9	Ladd, Story B. (Story Butler), 1851-1933; Bechler, Gustavus R.; Gannett, Henry, 1846-1914; Chittenden, George B. [1849-1939]	Map credit: "S.B. Ladd, G.R. Bechler, H. Gannett, and G.B. Chittenden, Topographical Assistants"
6	78	Northern Central Colorado [topographic]	1877	North of Denver, the Colorado Central Railroad goes briefly north before turning west. There is no railroad north of that until you see the Boulder Valley Rail Road.	9	Bechler, Gustavus R.; Ladd, Story B. (Story Butler), 1851-1933 ; Gannett, Henry, 1846-1914	Map credit: G.R. Bechler, S.B. Ladd, and H. Gannett, Topographical Assistants"
6	78	Northern Central Colorado [topographic]	1881	North of Denver, the Colorado Central Railroad as well as the "Proposed Denver, Rollinsville and Western R. R." are shown.	9	Bechler, Gustavus R.; Ladd, Story B. (Story Butler), 1851-1933 ; Gannett, Henry, 1846-1914	Map credit: G.R. Bechler, S.B. Ladd, and H. Gannett, Topographical Assistants"
7	83	Central Colorado [topographic]	1877	Atchison, Topeka, and Santa Fe Railroad extends to Canon City in SE corner of map. No railroads west of Canon City.	9	Wilson, A.D. [Allen David Wilson, 1844-1920]; Bechler, Gustavus R.; Gannett, Henry, 1846-1914; Chittenden, George B. [1849-1939]	Map credit: A.D. Wilson, G.B. Bechler, H. Gannett, and G.B. Chittenden, Topographical Assistants"
7	83	Central Colorado [topographic]	1881	Denver and Rio Grande Railroad extends west from Canon City, and SW to Silver Cliff.	9	Wilson, A.D. [Allen David Wilson, 1844-1920]; Bechler, Gustavus R.; Gannett, Henry, 1846-1914; Chittenden, George B. [1849-1939]	Map credit: A.D. Wilson, G.B. Bechler, H. Gannett, and G.B. Chittenden, Topographical Assistants"

Sheet	Page	Title	Date	Distinguishing features	Copies in DPL	Map Creator(s)	Map Credit Notes
8	84	Western Colorado and Part of Utah [topographic]	1877	Shows Salt Lake Wagon Road in NW corner of map but no railroads nearby.	9	Gannett, Henry, 1846-1914; Wilson, A.D. [Allen David Wilson, 1844-1920]	Map credit: "Henry Gannett and A.D. Wilson, Topographical Assistants"
8	84	Western Colorado and Part of Utah [topographic]	1881	Shows Salt Lake Wagon Road in NW corner of map, with railroad line labeled "Approximate location of the proposed Utah extension of the Denver and Rio Grande Railroad".	9	Gannett, Henry, 1846-1914; Wilson, A.D. [Allen David Wilson, 1844-1920]	Map credit: "Henry Gannett and A.D. Wilson, Topographical Assistants"
9	97	S.W. Colorado and Parts of New Mexico, Arizona and Utah [geology and economic]	1877	No railroads visible on map. Silverton and Durango not shown on 1877 edition (not yet established)	9	Chittenden, George B. [1849-1939]; Wilson, A.D. [Allen David Wilson, 1844-1920]	Map credit: "G.B. Chittenden and A.D. Wilson, Topographical Assistants"
9	97	S.W. Colorado and Parts of New Mexico, Arizona and Utah [geology and economic]	1881	Denver and Rio Grande Railroad line shown in 1881 edition, from the SE corner of map up to Durango and north to Silverton. Durango, Silverton, and other towns established between 1877 and 1881 were added in 1881 edition.	9	Chittenden, George B. [1849-1939]; Wilson, A.D. [Allen David Wilson, 1844-1920]	Map credit: "G.B. Chittenden and A.D. Wilson, Topographical Assistants"
10	98	Southern Central Colorado and Part of New Mexico [topographic]	1877	Feature named "Sand Spring" about 15 miles west of Fort Garland. Denver and Rio Grande Railroad extends only as far as La Veta.	9	Wilson, A.D. [Allen David Wilson, 1844-1920]	Map credit: "A. D. Wilson, Topographical Assistant"
10	98	Southern Central Colorado and Part of New Mexico [topographic]	1881	Feature named "Washington Spring" about 15 miles west of Fort Garland. Alamosa added to 1881 edition. "Proposed line" of D&RG railroad shown going north from a point just to the east of Washington Spring, along the east of what is now Great Sand Dunes National Park.	9	Wilson, A.D. [Allen David Wilson, 1844-1920]	Map credit: "A. D. Wilson, Topographical Assistant"
11	77	North-western Colorado and Part of Utah [geology and economic]	1877	Map credits in lower left margin extend to about the 109°12' mark just above the text. Fold in center of plate falls cleanly between the "R" and "A" of "COLORADO" in the map title.	9	Marvine, A.R.; Peale, A. C. (Albert Charles), 1849-1913; Endlich, F. M. (Frederick Miller), 1851-1899; White, Charles A. (Charles Abiathar), 1826-1910	Map credit: "A.R. Marvine, A.C. Peale, E.M. Endlich, and C.A. White, Geological Assistants"
11	77	North-western Colorado and Part of Utah [geology and economic]	1881	Map credits in lower left margin extend to about the 109°09' mark just above the text. Fold in center of plate falls approximately 2mm into the "R" from the right side of the letter of "COLORADO" in the map title.	9	Marvine, A.R.; Peale, A. C. (Albert Charles), 1849-1913; Endlich, F. M. (Frederick Miller), 1851-1899; White, Charles A. (Charles Abiathar), 1826-1910	Map credit: "A.R. Marvine, A.C. Peale, E.M. Endlich, and C.A. White, Geological Assistants"
12	78	Northern Central Colorado [geology and economic]	1877	North of Denver, the Colorado Central Railroad goes briefly north before turning west. There is no railroad north of that until you see the Boulder Valley Rail Road.	9	Marvine, A.R.; Peale, A. C. (Albert Charles), 1849-1913; Holmes, William Henry, 1846-1933	Map credit: "A.R. Marvine, A.C. Peale, and Wm. H. Holmes, Geological Assistants"
12	78	Northern Central Colorado [geology and economic]	1881	North of Denver, the Colorado Central Railroad as well as the "Proposed Denver, Rollinsville and Western R. R." are shown.	9	Marvine, A.R.; Peale, A. C. (Albert Charles), 1849-1913; Holmes, William Henry, 1846-1933	Map credit: "A.R. Marvine, A.C. Peale, and Wm. H. Holmes, Geological Assistants"
13	83	Central Colorado [geology and economic]	1877	Atchison, Topeka, and Santa Fe Railroad extends to Canon City in SE corner of map. No railroads west of Canon City.	9	Endlich, F. M. (Frederick Miller), 1851-1899; Peale, A. C. (Albert Charles), 1849-1913; Holmes, William Henry, 1846-1933	Map credit: "F.M. Endlich, A.C. Peale and "Wm. H. Holmes, Geological Assistants"
13	83	Central Colorado [geology and economic]	1881	Denver and Rio Grande Railroad extends west from Canon City, and SW to Silver Cliff.	9	Endlich, F. M. (Frederick Miller), 1851-1899; Peale, A. C. (Albert Charles), 1849-1913; Holmes, William Henry, 1846-1933	Map credit: "F.M. Endlich, A.C. Peale and "Wm. H. Holmes, Geological Assistants"
14	84	Western Colorado and Part of Utah [geology and economic]	1877	Shows Salt Lake Wagon Road in NW corner of map but no railroads nearby.	9	Peale, A. C. (Albert Charles), 1849-1913; Holmes, William Henry, 1846-1933	Map credit: "A. C. Peale and Wm. H. Holmes, Geological Assistants"
14	84	Western Colorado and Part of Utah [geology and economic]	1881	Shows Salt Lake Wagon Road in NW corner of map, with railroad line labeled "Approximate location of the proposed Utah extension of the Denver and Rio Grande Railroad".	9	Peale, A. C. (Albert Charles), 1849-1913; Holmes, William Henry, 1846-1933	Map credit: "A. C. Peale and Wm. H. Holmes, Geological Assistants"
15	97	S.W. Colorado and Parts of New Mexico, Arizona and Utah [geology and economic]	1877	No railroads visible on map. Silverton and Durango not shown (not yet established)	9	Endlich, F. M. (Frederick Miller), 1851-1899; Holmes, William Henry, 1846-1933	Map credit: "Wm. H. Holmes and F.M. Endlich, Geological Assistants"
15	97	S.W. Colorado and Parts of New Mexico, Arizona and Utah [geology and economic]	1881	Denver and Rio Grande Railroad line shown in 1881 edition, from the SE corner of map up to Durango and north to Silverton. Durango, Silverton, and other towns established between 1877 and 1881 were added in 1881 edition.	9	Endlich, F. M. (Frederick Miller), 1851-1899; Holmes, William Henry, 1846-1933	Map credit: "Wm. H. Holmes and F.M. Endlich, Geological Assistants"

Sheet	Page	Title	Date	Distinguishing features	Copies in DPL	Map Creator(s)	Map Credit Notes
16	98	Southern central Colorado and Part of New Mexico [geology and economic]	1877	Feature named "Sand Spring" about 15 miles west of Fort Garland. Denver and Rio Grande Railroad extends only as far as La Veta.	9	Endlich, F. M. (Frederick Miller), 1851-1899	Map credit: "F.M. Endlich, Geological Assistant"
16	98	Southern central Colorado and Part of New Mexico [geology and economic]	1881	Feature named "Washington Spring" about 15 miles west of Fort Garland. Alamosa added to 1881 edition. "Proposed line" of D&RG railroad shown going north from a point just to the east of Washington Spring, along the east of what is now Great Sand Dunes National Park.	9	Endlich, F. M. (Frederick Miller), 1851-1899	Map credit: "F.M. Endlich, Geological Assistant"
17	n/a	Geological sections: western half	1877	Faded lettering visible between "GEOLOGICAL" and "SECTIONS" at top of page in 1877 edition. Fold in center of plate falls along the left side of the second "C" in "ACCOMPANY" in "SECTIONS TO ACCOMPANY SHEET XV".	8		No map credit given
17	n/a	Geological sections: western half	1881	Fold in center of plate falls along the right side of the second "C" in "ACCOMPANY" in "SECTIONS TO ACCOMPANY SHEET XV".	10		No map credit given
18	n/a	Geological sections: eastern half	1877	Fold in center of plate falls about 2mm to the right of the "L" in "GEOLOGICAL" at the top of the page	8		No map credit given
18	n/a	Geological sections: eastern half	1881	Fold in center of plate aligned with the right edge of the "L" in "GEOLOGICAL" at the top of the page. Some gaps in coloration near left edge of sections B and C that are not present in the 1877 edition.	10		No map credit given
19	n/a	Panoramic views: the Pikes Peak Group...	1877	1877 edition has a noticeable gap in the center panoramic along the left side between the frame and the edge of the wash.	9	Holmes, William Henry, 1846-1933	Signed: "W.H.HOLMES 1874" (top and bottom panoramics), and "W.H.HOLMES 1873" (center panoramic)
19	n/a	Panoramic views: the Pikes Peak Group...	1881	1881 edition printing aligned the frame and the overlaying wash closely.	9	Holmes, William Henry, 1846-1933	Signed: "W.H.HOLMES 1874" (top and bottom panoramics), and "W.H.HOLMES 1873" (center panoramic)
20	n/a	Panoramic views: Twin Lakes...	1877	Dark wash used on illustrations. Letter / print alignment highly similar to 1881 edition.	9	Holmes, William Henry, 1846-1933	Signed: "W.H.HOLMES 1875" (top panoramic) and "W.H.HOLMES 1876" (bottom two panoramics)
20	n/a	Panoramic views: Twin Lakes...	1881	Lighter wash used on illustrations compared to 1877 edition.	9	Holmes, William Henry, 1846-1933	Signed: "W.H.HOLMES 1875" (top panoramic) and "W.H.HOLMES 1876" (bottom two panoramics)