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The California Indian in Three-Dimensional Photography

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EARLY-DAY stereoscopic photographs provide a truly unique and valuable resource for study of the California Indian. Immensely popular during the nineteenth and early twentieth centuries, the twin-imaged stereograph card is much more than a quaint anachronism. When viewed today, such images are often our only pictorial link with many cultural and historical aspects of Indian life during the past century. Most important, however, is the fact that the stereograph is the only early photographic medium able to recreate visual and spatial understandings that approximate direct human vision. In this regard, the stereoscopic photograph is without peer.

Not surprisingly, stereoscopic photography was destined to become the most significant and influential mode of visual communication in the period between the mid-1850's and World War I. Often likened to an early form of television, the stereoscopic viewer with its accompanying basket of stereo cards, served the cultural and informational needs of Americans during the years of rapid change which followed the Industrial Revolution (Taft 1938: 167-185).

The stereograph brought the "World" into the parlor. Far-away places and historic happenings; occupational modes and mechanical innovations; renowned statesmen and stage personalities; the fine arts and Victorian humor; all became common knowledge through this pervasive medium. To study the development of the stereoscope in the United States is to participate vicariously in the modes, aspirations, and other phenomena of adolescent America. This article is intended to provide the reader with an overview of the history of stereoscopy and a concise look at photo-stereoscopic imagery as it relates to the Indians of California.

THE STEREOGRAPHIC IMAGE

The principles of binocular vision—the mental fusing of slightly dissimilar images, seen separately by our two eyes, into one image with three-dimensional characteristics—were known in ancient times. However, it was not until 1832 that Sir Charles Wheatstone actually discovered how to produce this effect artificially by viewing two "flat" pictures drawn from slightly differing viewpoints through an instrument called a stereoscope. At mid-century, the application of this splitimage phenomenon to photography heralded the onset of an enormously successful exploitation of the public's fascination with "real" space (Lindquist-Cock 1970:361-362).

The first published mention of a stereoscopic photograph (stereodaguerreotype) seems to have been made in the little-known English publication, *The London Mining Journal*. A little later, in an excerpt based on this mention, the *Scientific American* of May 8, 1852, reported having seen "stereoscopic daguerreotypes at the establishment of Messrs. Voightlander and Evans at Knightsbridge," explaining:

... two distinct copies of the same image are simultaneously taken in two different cameras ... the two daguerreotypes so taken are placed in a peculiarly constructed box, termed a stereoscope, which admits a view of one picture to the right eye only, and the other to the left ... [Scientific American, May 8, 1852].

Also in 1852, the Boston firm of Southworth & Hawes showed a stereoscopic daguerreotype of the Greek sculpture "The Laocoön" in the Boston Athenaeum; the June issue of the magazine To-day found "the illusion . . . absolute." The success of this venture prompted them to build a "Grand Parlor and Gallery Stereoscope" which resembled a piano and contained a dozen pairs of stereoscopic daguerreotypes which the visitor changed by turning a crank (Newhall 1976:46).

From its inception, the idea of daguerreotype likenesses in stereo excited the imagination of the American public. Still, the process was cumbersome and impractical for the average client because of the difficulty of arranging and viewing the twin daguerreotypes. Thus, the process remained moribund until the invention of a device known as the Mascher Stereoscopic Case. Patented on March 8, 1853, this clever device enabled the gallery patron to conveniently house his stereoscopic likeness in a case that also held its own built-in viewer. The development of the Mascher Case made it possible for the subsequent wildfire expansion of the stereo daguerreotype from coast to coast (Brey 1978:14-19).

San Francisco "daguerrean" Robert H. Vance may have been the first to advertise the new procedure in California. His advertise-

ment, which began on November 21, 1853, announced: "... Just received, per Wells, Fargo & Co. and Adams & Co. Expresses, a fine lot of Stereoscopic Cases..." His advertisement, however, goes on to imply that the process was already in use in the San Francisco area: "... we would say, do not condemn the Stereoscopic Daguerreotype until you pay us a visit and see a PERFECT ONE, as many taken in this city are very imperfect" (San Francisco Commercial Advertiser, November 21, 1853).

Soon the process was available in Sacramento, San Jose, Marysville, and other nearby towns in the central California region. However, despite the great fanfare, the stereoscopic daguerreotype was not a commercial success. Costing about \$15 per sitting, the process was beyond the means of the average patron. This, coupled with many new innovations and improvements in photography, led to a rapid decline in its popularity (Palmquist 1979). By 1856, the stereoscopic daguerreotype procedure was all but obsolete and there are no known instances in which the process was used to capture the features or environs of a California Indian.

Another process to emerge during the mid-1850's was the stereograph on glass (albumin transparency). Cheaper than the stereo daguerreotype, the glass stereograph was produced by printing a collodion (wet-plate) negative onto sensitized glass. This process enjoyed some popularity until the early 1860's. Still other processes related to wet-plate photography were also used for brief periods, including views on porcelain and even stereo tintypes; however, they are very rare (Darrah 1977:15-16).

It was not until the advent of paper prints mounted on cards that stereo photography was able to reach its productive potential. Introduced commercially by the Langenheim Brothers of New York in 1854, the familiar paper stereo view remained popular well into the twentieth century. There were three basic advantages of the card over the glass stereographs which accounted for its immediate success: "... it was cheaper, it was not fragile and it could be viewed comfortably" (Darrah 1964:14). Or, as Oliver Wendell Holmes wryly observed, "Twelve glass views examined in bright sunlight are good for one headache."

By 1858, paper stereographs were well on their way to becoming established in several of the major eastern cities. In New York, the Langenheim Brothers, long famous as the foremost producers of glass stereographs, began to issue card stereos in greatly increased numbers. Other firms now began to take advantage of the easier and cheaper paper process and also entered the burgeoning market. The Edward Anthony Company (later E. & H. T. Anthony Company) began its climb to preeminence as one of the most important American stereopublishers in the summer of 1859. By the end of 1860, no fewer than two hundred United States photographers were actively producing stereoscopic images (Darrah 1977:21-24).

The stereoscopic movement was world-wide. The principal cities of Europe were every bit as anxious to obtain views of frontier America as Americans were to revitalize the binding links of culture and family origin. In 1862, the London Stereoscopic Company sold nearly a million views, with Ferrier of Paris a close second. In America, Edward Anthony, one of the many United States stereo producers, sold several hundred thousand stereographs during the year 1861-62. At this point, more than a thousand photographers had entered the American marketplace to produce an unbelievable output which numbered in the several millions (Darrah 1964:8).

In less than a single decade of stereo photography, there were photographers, manufacturers, promoters, salesmen, stereoscopic emporiums, and of course—collectors. The craze for the stereoscope and the stereo-

graph had reached an incredible momentum. Baudelaire, speaking at the Salon of 1859, may well have said it best: "A thousand hungry eyes were bending over the stereoscope, as if they were the peepholes of infinity."

THE AMERICAN INDIAN IN STEREO

Although later than sooner, it was inevitable that someone would turn his double-lens camera on the Native American. The first known instance in which the American Indian was pictured by a stereographer dates from the Lander expedition in the summer of 1859. Sponsored by the Federal government, this exploring party was detailed to survey a wagon road in the mountainous territory west of the Mississippi along a route often known as the northern branch of the Oregon Trail. The expedition was led by Fredrick West Lander, a colonel in the United States Army and included a squadron of army troops for protection from Indian marauders. Rolling stock consisted of mule and horse-drawn covered wagons typical of the period (Snell 1958; Hendricks 1964; Bendix 1974).

Albert Bierstadt, destined to become one of America's best known landscape painters, joined the Lander expedition in St. Louis in April, 1859. Col. Lander's official report of the journey, describes Bierstadt's purposes:

A. Bierstadt, Esq., a distinguished artist of New York, and S. F. Frost, of Boston, accompanied the expedition with a full corps of artists, bearing their own expenses. They have taken sketches of the most remarkable of the views along the route, and a set of stereoscopic views of emigrant trains, Indians, camp scenes, etc., which are highly valuable and would be interesting to the country. I have no authority by which they can be purchased or made a portion of this report [House Executive Document 64, 36th Congress, 2d Session, 1860-61: Maps and Reports of the Fort Kearny South Pass].



Fig. 1. Lawrence & Houseworth/Thomas Houseworth & Co. #595—[California] Indian Hunter [ca. 1864]; uncut stereo half. Courtesy of the Society of California Pioneers.



Fig. 2. Lawrence & Houseworth/Thomas Houseworth & Co. #601—An Indian Rancheria in the Sierra Nevada Mountains [ca. 1864]; uncut stereo half. Courtesy of the Society of California Pioneers.

It is a great shame that Lander could not afford to obtain a set of Bierstadt's stereoscopic views for his report. Sadly, only eleven (10 different) examples of these views are known to exist, although an 1860 catalogue lists at least 51 titles from this series (Snell 1958:4-5; Bendix 1974). Approximately one-third of these titles indicate that the subject matter included Indians or Indian sites. Bierstadt, in a letter to the *Crayon*, substantiates his success in obtaining stereographs of Indians, and suggests that the "candid" approach was best:

We have taken many stereoscopic views, but not so many of mountain scenery as I could wish, owing to various obstacles attached to the process, but still a goodly number. We have a great many Indian subjects. We were quite fortunate in getting them, the natives not being very willing to have the brass tube of the camera pointed at them. Of course they were astonished when we showed them pictures they did not sit for; and the best we have taken have been obtained without the knowledge of the parties, which is, in fact, the best way to take any portrait [Crayon, September 1859:287].

In an earlier letter to the *Crayon*, Bierstadt makes his sojourn sound like a pleasure jaunt: "We have a spring-wagon and six mules and we go where fancy leads us." However, a note of caution is evident as he continues, "We often meet Indians, and they have always been kindly disposed to us and we to them; but it is a little *risky*, because being very superstitious and naturally distrustful, their friendship may turn to hate at any moment . . ." [*Crayon*, July 10, 1859].

This caution was well justified when we consider the fate of another cameraman of the Plains Indians. In 1866, Ridgeway Glover, a young Philadelphia photographer, set out "to illustrate the life and character of the wild men of the prairie." At Fort Laramie, he wrote of his exploits, including "a good picture of the

Fort; also a group of eight Brulie Sioux and six Ogholalla." Later, he accompanied an army train which was attacked by Indians and Glover records that: "I desired to make some instantaneous views of the Indian attack, but our commander ordered me not to." Only a short while later this daring cameraman was killed by a war party of Arapahoes (Watson 1951:13).

The troubled years that accompanied the Civil War saw a significant reduction in the number of photographers actively working in the West. However, by 1866, a series of about 40 stereographs were produced by the team of Illingworth & Bill who had journeyed to Montana with Captain J. L. Fisk's exploring expedition. This series included "forts, Indians, and wagon trains" (Darrah 1977:92).

By the start of the 1870's a rather large number of Federal geographical and geological surveying parties were active on the frontier. Nearly all included photographers as valued members of their exploring teams. This intense and detailed interest in the West led to the production of many memorable images of American Indians, including a large number of important stereographs (Taft 1938:277-310; Darrah 1977:92-95; Oestreicher 1977; Grey 1978).²

EARLY PAPER STEREOGRAPH PRODUCTION IN CALIFORNIA

Before discussing the stereographs of Native Californians, it seems important to touch on the nature and extent of stereograph production in California after the daguerreotype era. Although the wet-plate was used to produce photographs on paper in the San Francisco area no later than 1855, paper stereographs in California are not known prior to June, 1859. Charles Leander Weed (1824-1903), the photographer involved in producing these early stereos was already experienced in producing images on paper, but was not known to have used stereoscopic equipment

prior to his historic visit to Yosemite Valley during the summer of 1859.

On June 18, 1859, at 11:25 A.M., Weed made the "first ever" photograph to be taken in Yosemite Valley (Hood 1959:83). Fittingly, he selected 2500-foot-high Yosemite Falls for his initial subject before moving on to picture many of the famous vistas and landmarks of the valley. During this pioneering visit, Weed is known to have produced at least twenty large glass-plate negatives and forty stereo views of the Yosemite area (Hood 1959:82).³

Although no Indian subjects are known for this series in Yosemite, Weed produced at least one Indian view in 1859 or early 1860. This view, labeled "#64—The Pitt River Indians, Visiting San Francisco," is listed in E. Anthony's catalogue of 1860. The E. Anthony Company was a New York stereopublishing firm which acquired Weed's early negatives of Yosemite and the San Francisco region.⁴

Another significantly-early California stereophotographer was the renowned land-scape photographer, Carleton E. Watkins (1829-1916). Probably inspired by Weed's efforts, Watkins made approximately one hundred glass stereoscopic views of Yosemite in the summer of 1861. Again, no views of Indians are known, yet Watkins later produced stereo views of Indian activities in Yosemite, Mariposa, and Mendocino County regions. Both Weed's and Watkins' Indian stereographs will be discussed shortly.

Still other California photographers turned to part-time stereo production in the mid-1860's. However, with the exception of Alfred A. Hart of Sacramento, few issued more than a limited quantity of such work. Hart was best known for his stereographic views of the Central Pacific Railroad, taken between 1863 and 1869. A number of Indians (mostly Nevada-area families) appear in conjunction with many of Hart's railroad stereographs. These same images were later

published by Watkins (Turrill 1918:35; Palmquist 1978).

It should be noted that the correct attribution of a specific stereograph to a particular photographer is often difficult. This is especially true because so many of the commercial stereopublishers purchased, leased, or pirated their negatives from many different cameramen without crediting them. Thus, Weed's 1859 stereo views of California were published by the New York firm of E. Anthony without credit in 1860 (Naef et al. 1975:80). However, for the most part, Weed's later images were published by the San Francisco firm of Lawrence & Houseworth.

CALIFORNIA INDIAN STEREOGRAPHS BEFORE 1875

The precise number of stereographs which show Indian life in California prior to 1875 is not known. However, with the exception of some miscellaneous examples, the vast majority of such work appears under the imprint of the three big stereopublishers of San Francisco: Lawrence & Houseworth (Thomas Houseworth & Co. after 1867), Carleton E. Watkins, and Bradley & Rulofson. As far as is known, these firms published the works of A. A. Hart, E. J. Muybridge, C. E. Watkins, Louis Heller, and C. L. Weed.

After 1870, three large eastern stereopublishers issued stereo views of California including examples of Indian activities: J. P. Soule (Boston), E. & H. T. Anthony (New York), and Kilburn Bros. (New Hampshire). Soule appears to have used the same photographer(s) as Houseworth & Co. Thomas C. Roche photographed on behalf of E. & H. T. Anthony while Edward Kilburn represented the Kilburn Bros. (Darrah 1977:98).

The earliest stereograph of a California Indian appears to be the 1859 image of the visiting Pitt River group, already mentioned. By 1864 a number of such views appear under the Lawrence & Houseworth imprint. These



Fig. 3. Lawrence & Houseworth/Thomas Houseworth & Co. #603—Washoe Indians—Lake Tahoe [ca. 1864]; uncut stereo half. Courtesy of the Society of California Pioneers.



Fig. 4. Lawrence & Houseworth/Thomas Houseworth & Co. #1284—The Old Dug-Out at the foot of Donner Lake [ca 1867]; uncut stereo half. An example of an early-day stereograph which was included in a pictorial series, but which contains an Indian artifact within its composition. Courtesy of the Society of California Pioneers.



Fig. 5. Carleton E. Watkins #223—At the Rancherio, Mendocino County, California. Watkins' Pacific Coast [ca. 1867]; stereo half. Courtesy of the California State Library.

examples were probably taken by Weed and include a variety of Indians in groups. Individual portraits and examples of Indian habitation are also found in this series. George S. Lawrence (an optician and jeweler) opened his first shop in San Francisco in 1851; and Thomas Houseworth, also an optician, officially joined him in partnership on May 15, 1855 (San Francisco City Directory 1856).

It appears that a series of Sacramento flood stereographs (1862) constitutes Lawrence & Houseworth's earliest attempt at stereopublishing. The firm prospered and soon offered one of the finest inventories of California imagery, eventually boasting over 3000 titles. The firm also was highly respected for the excellent quality of its stereographs. Houseworth became the sole proprietor in 1867, and the firm (Thomas Houseworth & Co.) remained exceedingly vigorous until a general business depression stuck San Francisco in the mid-1870's.

A total of ten Indian stereographs are listed in the Lawrence & Houseworth catalogue for 1866.⁵ This group is numbered from #595 to #604 (see Fig. 2), and comprises the only Indian stereographs issued by Lawrence & Houseworth/Thomas Houseworth & Co. until about 1873. At that time, Houseworth issued a set of seven stereo views of "Arizona Indian Chiefs." Taken indoors at Houseworth's studio, these are listed as numbers #1215 thru #1221 (Houseworth 1874).⁶

The 1864 (or earlier?) Lawrence & Houseworth stereographs were most likely photographed by Weed with one or more assistants during an extensive tour of the Sierra Nevada foothills, Yosemite, etc. Several of the Indian stereographs offer splendid glimpses of baskets, necklaces, clothing, implements, etc., as well as the physical characteristics of the subjects. At least two images, "595—Digger Indian Hunter" (Fig. 1) and "597—Digger Indian Squaw," exhibit an unexpected dignity and charm. This is unusual considering the

prevailing prejudices and ill-concealed contempt of the White establishment towards the Native Californian, which is reflected even in these photographs by their demeaning titles. Other views picture various living environs near Knight's Ferry in Stanislaus County (Lawrence & Houseworth 1866).

It appears likely that Lawrence & Houseworth totally sponsored the 1864 expedition. It was an extensive tour designed to gather a wide selection of California imagery for sale in their newly-opened branch office in New York as well as local distribution. In many ways the trip was typical of the times, consisting of a combination of travel accommodations that included camping out as well as stay-overs at rural inns. The principal mode of conveyance is pictured in stereo "691— Photographing in the Sierra Nevada Mountains," which shows the cumbersome photographer's wagon typical of traveling gear used for on-site photography. In addition to the stereo views, Lawrence & Houseworth also offered mammoth-plate (17 x 22 inch) images of Yosemite which were taken by Weed during the summer of 1864.7

Carleton E. Watkins' Indian stereographs are plentiful, but not well-documented. Active in Yosemite as early as 1861, Watkins achieved his greatest recognition for views showing California's natural landforms rather than human-centered phenomena. In 1864, he returned to Yosemite to photograph for the United States survey team led by J. D. Whitney. He revisited Yosemite in both 1866 and 1867, providing an enduring legacy of mammoth-plate and stereo views of this magnificent region (Grenbeaux 1977; Hickman 1977; Naef et al. 1975:79-124).

In 1867, Watkins capitalized on his outstanding reputation by opening his Yosemite Art Gallery at 425 Montgomery St., San Francisco. The establishment of this gallery was also marked by a deliberate program of stereograph publishing. Watkins counted on



Fig. 6. Carleton E. Watkins #4438—Indian Huts, San Gabriel [ca. 1875 or later]; stereo half. Courtesy of the California State Library.

his commercial stereo card production to help defray his day-by-day gallery and showroom expenses (Palmquist 1978:242-243).

Watkin's stereo views of Indian activities in Mendocino are well-known. Other examples include views of native life in Yosemite. However, in an effort to bolster his stereo trade, Watkins obtained photographer A. A. Hart's negatives of the Central Pacific Railroad which also included a number of views of Paiute and Shoshone Indians (Turrill n.d.).8

A very interesting and valuable series titled "Hieroglyphic Rocks on the Yuba River, near Crystal Lake" by Hart was included among the negatives acquired by Watkins. These are particularly useful in stereo. Such views provide modern scholars with an ideal comparison of a site in pioneer times with the same setting today.

In like manner, Watkins became the eventual owner of a valuable set of stereo negatives of the Modoc Indian War (1972-73) by Fort Jones photographer Louis Herman Heller (1839-1928). These images form an important visual document of Indian activity in California. This series of views, together with a similar set produced by Eadweard J. Muybridge (published by Bradley & Rulofson) illustrate the outstanding ability of the stereograph in documenting the terrain and relationships of the battle sites of this tragic Indian/White confrontation. These images and the circumstances of their origin have been previously discussed (Palmquist 1977).

During the mid-1870's, Watkins lost many of his negatives to Isaiah West Taber (1830-1912) due to a business debt (Palmquist 1978: 255-257). Watkins remembered this loss bitterly:

The old negatives are gone . . . as well as everything else that I had. In other words that d--- thief of a crook has got everything away from me, and I don't propose to cry about it, but to give him h---[correspondence to his wife, Watkins' file, Yosemite National Park].

This loss was very damaging to Watkins because Taber immediately began to issue these same views as his own. Consequently, many of Watkins' Indian subjects may be found under Taber's imprint. In desperation, Watkins re-photographed many of his most famous views and began a "Watkins' New Series" (Palmquist 1978:256).9

Eadweard J. Muybridge (1830-1904), may well be California's master of stereography. In 1867, Muybridge spent five months producing wet-plate negatives in the Yosemite area (Hood and Haas 1963:7-13; Hendricks 1975:17-19). Published under his pseudonym "Helios" these views (including over 100 stereographs) were artistically provocative as well as technically competent.

At least one Indian stereograph resulted from this visit: "31—The Deserted Village" (Fig. 7). However, it was Muybridge's growing reputation as a landscape artist which was to lead to the production of a fine series of Indian stereos in 1872. At this time, photographer Muybridge and landscape painter Albert Bierstadt became friends. They shared a great deal, particularly in the way that they perceived nature and the western landscape. Like a painter, Muybridge concentrated on the more transient and romantic aspects of nature: "moonlight, mist, shadowy textures, reflections, the effects of clouds, light and rainbow" (Hood and Haas 1963:13).

Delighted with each other, the two men traveled together to the Yosemite and Mariposa regions in the summer of 1872. This fact is clearly documented by two Muybridge stereographs showing Bierstadt at work sketching an Indian village. A total of sixteen images of Native Californians (#1571 thru #1587) were made during their excursion (Bradley & Rulofson 1873:31) (Figs. 10, 11).

These Muybridge views were published by Bradley & Rulofson, who began to issue almost all of his work after 1872. By 1873, Muybridge's stereograph output had exceeded



Fig. 7. Eadweard J. Muybridge #31—The Deserted Village [1867]. Courtesy of the Bancroft Library, University of California, Berkeley.



Fig. 8. Eadweard J. Muybridge #1573

—Indian Encampment on the
Merced [1872]; stereo half.
Courtesy of the Bancroft
Library, University of California, Berkeley.

1600 titles (Bradley & Rulofson 1873). This number also includes the outstanding Muybridge stereographs of the Modoc War. These battle site views of April-May, 1873, well-illustrate Muybridge's mastery of stereophotographic techniques. The nature and circumstances which surround the production of this important series of Indian stereographs has been discussed by Palmquist (1977). Mention should also be made of Muybridge's stereographs of Alaska's natives which were taken in 1868.

When examining the Muybridge stereos of Indian life made in 1872, it is often difficult to move beyond the prejudicial and demeaning captions and into the pictorial worth of the images. Titles such as: "1577-A Log of Piute Bucks" or "1584-A Group of Mariposa Belles" often obscure the fact that these photographs provide a useful source of information concerning Indian sites and activities. For example, views such as: "1574-Piute Chief's Lodge" (Fig. 9) and "1585—Bath House in the Yosemite" (Fig. 12) are finely detailed photographs of Indian structures. When viewed in a stereoscope, the added illusion of threedimensionality greatly adds to our understanding of these scenes and allows for the perception of a meaningful relationship between these structures and surrounding environs.

At the beginning of the 1870's, several large eastern stereopublishers began to seek California imagery. In 1870, John Payson Soule of Boston, published about 250 stereo photographs of California. These included Yosemite, the Calaveras Big Trees, redwood logging on the Mendocino Coast, and many other subjects. However, fewer than ten of these views picture Indian activity. A few, such as "1107—Digger Indians at Ten Mile River, Mendocino Co." provide a first-rate glimpse of a native village. Note should also be made of view "23331—Digger Indian, California," which was issued by the Keystone

View Company in the 1890's. A comparison of this Keystone image with the previously mentioned Soule image, clearly shows that they were made at the exact same site (and camera position) and within a short time of each other. This observation should serve as a warning in our attempts to assign dates to such views offered by stereopublishers who inherited earlier works.

In June 1871, Thomas C. Roche, photographed in Yosemite for E. & H. T. Anthony Company of New York. The resultant views were marketed under the series title "Glories of Yosemite," and include some excellent views of Indian acorn storage methods in the Yosemite region (Fig. 13). Such work was not easy however. On June 10, 1871, Roche sent a progress report concerning his work in the Yosemite Valley which provides a most valuable idea of the problems attendant to wetplate photography in the field:

It is very difficult to work long with the same bottle of collodion, as it is very hot (110°) that it thickens up after you coat five or six plates, and flows like syrup. Collodion in this state becomes very tender . . . So far my work is all right, and plenty of it. I have about one weeks more work in the valley, and then, if I can get a good man and pack-mule, I will make a trip to Lake Tenaya and the highest range of the Sierras, fifteen thousand feet above the sea. This will take time, out and back, nearly two weeks. I have had no less than six different men to help me. They will not work when it comes to starting at 3 A.M. and tramping all day long. They prefer to pick up jobs around the valley [Anthony's Photographic Bulletin 2, 1871:268-269].

The summer of 1871 saw the arrival of several other eastern stereophotographers in Yosemite. Not all of these newcomers were successful in their attempts to capture the western scene, as shown by T. C. Roche's continuing report:





Fig. 9. Eadweard J. Muybridge #1574—Piute Chief's Lodge [1872]; stereo Fi half. Courtesy of the Bancroft Library, University of California, Berkeley.

Fig. 10. Eadweard J. Muybridge #1576—A Summer Lodge in the Yosemite [1872]; stereo half. Courtesy of the Bancroft Library, University of California Berkeley.



mite Fig. 12. Eadweard J. Muybridge #1587—Bath House in the Yosemite cali-



Fig. 11. Eadweard J. Muybridge #1582—Making Bread in the Yosemite [1872]. Courtesy of the Bancroft Library, University of California, Berkeley.

There is a Mr. Garrett of Wilmington, Del., photographing here (Yosemite). He came out by steamer . . . He got his traps and big photo tent in here; but the packtrain mule, in coming up at night, undertook to ford the stream, when he rolled over with all the photo traps, and was drowned. A man swam out and tied him to a tree until morning, when they went out in the river and cut the boxes off. All his things were soaking wet [Anthony's Photographic Bulletin 2, 1871:268-269].

Many of these visitors produced a few views of the local Indians. Others, like J. J. Reilly formerly of Niagara Falls, New York, came to stay. Reilly produced many stereographs of California Indians during the 1870's. A well-organized and experienced stereophotographer, Reilly pitched his photo tent in Yosemite and associated himself in a number of liaisons in order to capture a wide market. Some of these associations include Reilly & Ormsby, Reilly & Spooner, and Reilly & Hazeltine. When this latter partnership dissolved, Martin Mason Hazeltine took over from Reilly and continued the stereograph business in Yosemite.

Although Yosemite was a principal focal-point for stereograph production, such activity was not limited to this area. Hazeltine, for example, made a number of excellent views showing the Pit River Indians of northern California (Fig. 19). Likewise, Daniel Sewell of Sonora also produced some early examples of local natives in the mid-1860's. Interestingly, this particular view is not a true stereo, having been made by a single-lensed camera. Sewell may not have owned a stereo camera, and merely traded on his clients' gullibility by mounting two identical images side-by-side on the stereo mount. In early-day photography such tricks were not uncommon.

Another interesting (and very rare) set of nine stereographs showing Camp Gaston (Humboldt County) was produced by Amasa Plummer Flaglor (1848-1918) about 1874. Camp Gaston was the principal military headquarters for a large inland region and also administered the Hoopa Indian Reservation (Palmquist and Kilian 1978).

Beyond a doubt, many other photographers produced stereographs of Indian matters in the period prior to 1875. California was aswarm with such activity and the problem of identifying the contributions of these early photographers is often limited only because of the small number of copies which may have been produced.

CALIFORNIA INDIAN STEREOGRAPHS AFTER 1875

The selection of 1875 as a date of change in stereograph production is merely an arbitrary one. Some stereophotographers continued their efforts for many years and produced thousands of stereo views. Others, worked only for a brief time leaving a sparse (if any) legacy of their efforts. However, one significant trend does become evident by the mid-1870's. By this time, many of the earlier photographers had lost, sold, or leased their negatives to successors. By whatever means, many of these previous stereographic negatives were being reissued under new imprints.

This reprinting of older negatives is confusing at best. New production becomes mingled with the old. Often the same image can be observed on the cards of several different publishers and the identity of the original photographer is lost. This process became more complex as time passed, so that by the 1890's giant stereopublishers such as Underwood and Underwood had acquired hundreds of thousands of negatives from all periods of production. Dating of these works becomes very difficult. Even worse, the proper subject identification of an earlier view was often misplaced or deliberately altered.

In California, after 1875, Watkins continued to issue new titles while I. W. Taber continued to issue Watkins' earlier works

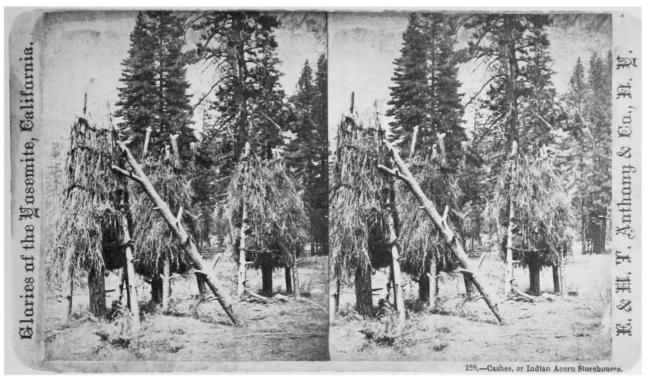


Fig. 13. E. & H. T. Anthony & Company #128—Cashes [sic.], or Indian Acorn Storehouses [1871]. Courtesy of Mr. Lou Smaus.

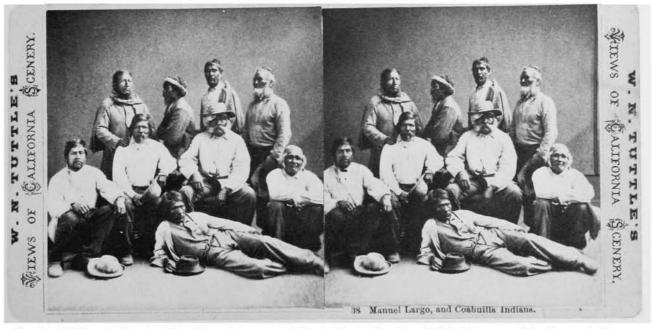
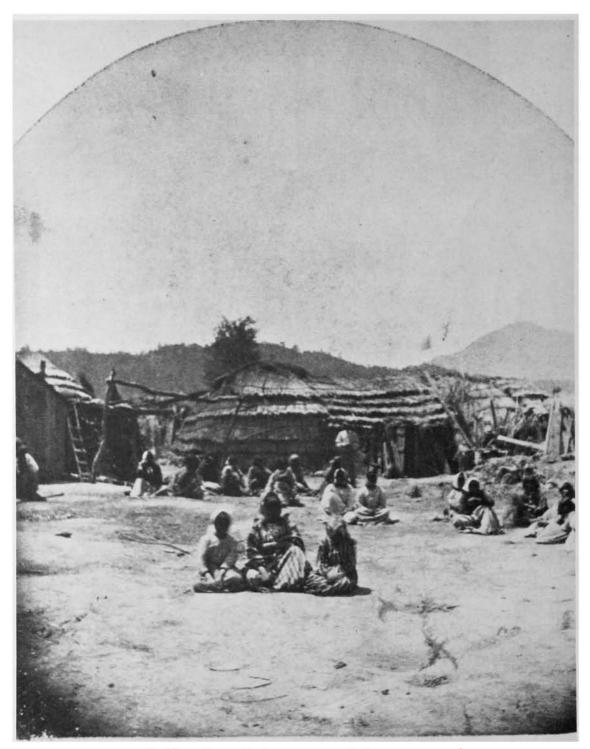


Fig. 14. William N. Tuttle #38—Manuel Largo, and Coahuilla Indians [ca. 1874]. Courtesy of the Bancroft Library, University of California, Berkeley.



Indian Camp, Lake county, Cal.

Fig. 15. R. E. Wood stereograph—Indian Camp, Lake County, Cal. [ca. 1880's]; stereo half. Courtesy of the Bancroft Library, University of California, Berkeley.



Fig. 16. C. W. Mills stereograph—[Basket making on the Hoopa Indian Reservation] [ca. 1905]; stereo half. Mills was a physician with a hobby of stereophotography. He produced many views of Humboldt County, including many scenics and genre scenes such as this one. Author's collection.



Fig. 17. M. M. Hazeltine—POKOTUCKET, The Indi[a]n Chief who first led the Americans into Yo-Semite [ca. 1870's]. Courtesy of the Society of California Pioneers.

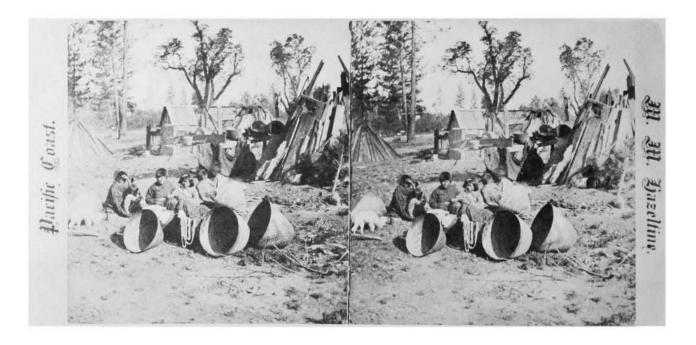


Fig. 18. M. M. Hazeltine-[Indians in Yosemite] [ca. 1870's]. Courtesy of the California Historical Society.



Fig. 19. M. M. Hazeltine—[Pit River Indians] [ca. 1870's]. Courtesy of the California Historical Society.

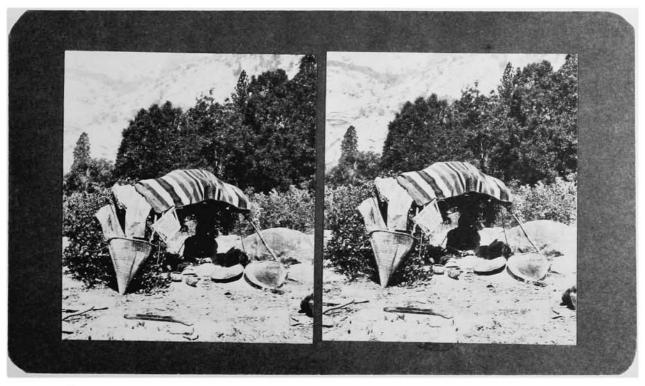


Fig. 20. J. T. Boysen—[Basket making in Yosemite] [ca. 1890's]. Courtesy of Mr. Lou Smaus.



Fig. 21. George Wharton James—[Mohave man with pierced nose] [ca. 1890-1905]; uncut stereo half. Courtesy of the Southwest Museum.



Fig. 22. George Wharton James—[Ramona at grave of Allessandro] [ca. 1890-1905]. Courtesy of the Southwest Museum.

under the Taber imprint. Hazeltine continued in Yosemite and Stockton. S. C. Walker and Gustav Fagersteen operated a partnership in Yosemite during the 1880's. Many other photographers visited Yosemite and elsewhere to produce views for the insatiable needs of the giant national and international stereo publishing firms.

To the south, W. N. Tuttle produced Indian stereographs in the Santa Barbara area about 1875. A wide-ranging photographer, Tuttle produced views throughout California and in many partnerships: Tuttle & Muzzall, Tuttle & Lee, Tuttle & Fitzgerald, and Tuttle & Johnson to name only a few.

Joseph C. Parker, another photographer with an intense proclivity for associating himself in a wide variety of partnerships, operated in San Diego. His stereo trade list includes views such as: "138—Lower California Indians Dressed for Feast Dance." Others include A. C. Varela in Los Angeles, Hayward & Muzzall in Santa Barbara, E. A. Bonine in Pasadena, and J. C. Brewster in San Buenaventura. 10

Another fine stereophotographer of California Indians was R. E. Wood of Santa Cruz. Wood ranged over a large area that extended from Mono County through Siskiyou County, and included a wide range of subject matter. Several views of "Indian Camps" taken in Lake County exist from the early 1880's (Fig. 15).

As the nineteenth century waned, a new concept of the status of the American Indian began to emerge. As always, the photographers of the time produced images that were reflective of prevailing attitudes. In many cases, the earlier photographs had served to perpetuate the myth of Indian savagery and depravity. These attitudes toward the American Indian in the 1850's and 1860's had led to a determined program of annihilation and wholesale destruction. What military might could not accomplish was finished by disease,

abuse, and dishonorable government subjugation. With the exception of a handful of early photographs showing American Indians still on their tribal lands, most Indian photographs are caricatures of a national racist attitude towards Indians. Often Indians were photographed like caged animals, and later when the threat of retaliation was past, as curiosities:

[The photographers] . . . lent themselves, even eagerly in some cases, to the creation of numerous stereotypic Indian images . . . The "Carnival Indian" as an acceptable photographic stereotype grew in popular esteem; it was after all safe. It became almost faddish for photographers to attempt endless, patronizing variations of the defeated antagonist . . . [Weinstein 1978:4].

However, as increasing public sympathy for the plight of the Native American developed during the 1870's and 1880's, certain humanistic feelings began to surface in photographic depiction. Among these were the idealized concepts of Rousseau's "Noble Savage" which postulated "man at harmony with Nature." Photographers showed an awareness of this trend by posing their Indian subjects in heroic (if ludicrous) poses. Others began to document the inevitable demise of a decimated population whose end was imminent.

Some members of this latter group were not photographers in the traditional sense, but used photography to document the rites and customs of Indian culture. Writers, romantic adventurers, evangelists, and the like often vacillated in their perceptions of the mystical aspects of the Native American:

Chauvinistic feelings and cheap romanticism dominated many Indian photographers' images after 1885. There were floods of dreary, albeit popular views of "Lo! the poor Indian" astride his tired pony, feathered, buckskinned, weary

warriors, engaging toothless papooses, etc. [Weinstein 1978:4].

Not all romantics were so insensitive to the meanings of Indian culture. Southwestern writer George Wharton James (1858-1923) is one of those who recognized the value of scientific investigation and who (for the most part) skirted the pitfall of romantic mythological plunder. James spent decades writing and lecturing about the wonders of the Southwest, especially Indian life. Photography was one of his most valued means of gathering and displaying the multiple facets of Indian culture:

With his camera James recorded the customs, manner of life, ceremonies, arts, occupations, and games of the Hopi, Wallapi, Yaqui, Navajo, Mojave, Yuma, Apache, Chemeheuvi, Havasupai, Pima, Zuni, Pueblo, and Paiute tribes. The former preacher also made a fine photographic study of the mission Indians living at Temecula, Pala, and the Cahuilla rancherias near Palm Springs [Kurutz 1978:193].

James commonly employed a stereoscopic camera as well as a larger field-type instrument. The stereo negative was useful in several ways: first to produce stereographs, and second for printing lantern-slide transparencies which he often used in his public lectures. James was eclectic and prolific. Hundreds of twin-imaged prints and negatives taken by James are known, many of which provide useful glimpses of native cultures between 1890 and 1905 (Fig. 21).

Also valuable is the fact that James took views of ordinary situations as well as posed photographs. These "casual" photographs are certainly not as esthetically handsome as the stylized works of Karl Moon or Edward S. Curtis, yet such works are often much more valuable to students of Indian cultures because of their lack of artifice. James, of course, used many of these views in his books on the South-

west, including numerous examples which were intended solely for the illustration of basket designs and the like.

In the long run, most of James' stereo negatives did not end up as finished stereo-graphs—probably because they did not have enough popular sales potential. An exception was a series of stereographs which illustrate the very popular and romantic story of "Ramona" (Fig. 22). Taken as a group, James may well have produced the single largest body of California Indian stereographs.

At the turn of the century, stereo photography diminished in popularity. This was due largely to an intense competition in the marketplace caused by mass-production methods. The economic promise that had attracted so many early-day photographers was gone. About this time, with the exception of the largest companies, stereophotography became more of a pastime than a serious undertaking.

Truly, the phenomenon of stereoscopic photography has provided an important "window" to the events and customs of times long-past. The fact that stereographs were so widely published (and therefore widely available), together with their unique ability to render the illusion of three-dimensionality, has provided a valuable pictorial resource which has been too long neglected or overlooked—in a sense, they really are "the peepholes of infinity."

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NOTES

1. There is some disagreement as to whether Albert Bierstadt actually photographed the Lander Expedition stereographs, or whether they simply represent ". . . the artistic taste of Mr. Albert Bierstadt, who selected the points of view." The best discussion of this argument is found in Lindquist-Cock (1967:69-81).

- 2. A listing of stereophotographers noted for their stereo views of American Indians between 1860-1892 is found in Darrah (1977:167-168).
- 3. It is possible that Weed's first set of 1859 Yosemite stereographs were printed on glass, and that the same wet-plate negatives were later used to prepare paper stereograph prints under the auspices of the Edward Anthony Co. of New York in 1860 (Pauline Grenbeaux, Personal Correspondence).
- 4. The 1860 Anthony catalogue contains a total of 77 California views taken by Weed. Numbers 1 though 41 picture Yosemite, while the remainder show San Francisco, Sacramento, and environs. It has been suggested that this catalogue was actually issued in May of 1860.
- 5. It is uncertain whether these views were taken prior to 1864, in 1864, or 1865. Nor is it known whether they were all taken by the same photographer.
- 6. Houseworth produced a number of Indianrelated photographs on cabinet cards during the 1870's. These were apparently not issued as stereographs. Lawrence & Houseworth, however, did issue many of its stereo halves on carte de visite mounts called "Album Views." These latter used the same catalogue number and title as the stereo originals.
- 7. A great deal of mystery still surrounds the identity of the photographers who worked for the Lawrence & Houseworth/Thomas Houseworth & Co. firm. C. L. Weed, C. E. Watkins, E. J. Muybridge, or even A. A. Hart, are all suggested as having produced photographs for this publisher.
- 8. Although Hart was established in Sacramento, many of his views were taken in Nevada. Many of these tribal families were nomadic and moved back and forth between Nevada and California.
- 9. It is difficult to determine how many of the "Watkins' New Series" actually picture California Natives. Although Watkins produced a large number of stereographs at this time they are scarce, and listings of these views by title is not particularly helpful—#4438 Indian Huts, San Gabriel, is one of the few exceptions.

10. For a comprehensive listing of *possible* stereophotographers of California Indians, see Darrah (1977:197-198).

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