Stereo-photography Development

“The Significance of Stereo-photography in the Development of American Society”
By William Allen Zulker

Few people today are aware of the various ways that stereo-photography significantly contributed to the development of American Society. The common impression is that those fascinating three-dimensional pictures only provided parlor entertainment on a dull Sunday afternoon prior to the advent of the horseless carriage. But that in itself was quite an accomplishment.

When photography was first invented in 1839 there were no television sets, no radios, no high-fi, no stereo or cassette players, no Internet, and only a few magazines and newspapers for the local residents. The primary mode of travel was by horse and buggy. The “Iron House,” as the railroads were called had been introduced in the United States only a few years earlier in 1830. Even so, Peter Cooper’s locomotive “Tom Thumb” had lost its race against a stage coach horse at Baltimore. It would be many more years before tourism - dependent upon railroads, automobiles and airplanes - would become a possibility for the average person. The Grand Canyon, Niagara Falls, Palestine and Greece would simply remain as names of places that few people ever hoped to visit. To see only pictures of New York City, Washington D.C., Philadelphia and the Liberty Bell was all that one could possibly expect. The sight of those fascinating pictures in three-dimensional life-like reality was a thrilling experience.

A family could spend a rainy day enjoying the vivid details of a beautiful landscape or the breath-taking suspense of Blondin’s tight-rope walk above the rapids at Niagara Falls. Strangely-dressed people from India, China, Greece, and other far away places were brought into the parlor by use the stereoscope. In addition there were the comical cards and stories like the “New French Maid,” “The Hen-pecked Husband,” and “The Celebrated Violinist.” The amusing or entertaining characteristics of the stereograph reveal only a part of the significance of this 19th Century invention.

Stereo-photography was also big business during a period of early America for more than fifty years. Dr. William Darrah, considered to be one of the most significant authorities on the subject, compiled an index of more than 6,000 American and Canadian photographers who produced stereographs. In a personal visit and conversation, he admitted to this writer that his list was probably only 50% or 60% complete. I personally have stereo-cards in my collection produced by photographers that were not included in Darrah’s index. Darrah concluded that there were probably 12,000 or more such persons. He further estimated the number of different views or titles to exceed 6 million. Of course, many photographers “shot” the same or similar picture of a tourist attraction and developed a trade list averaging 500 titles. Multiplying that number by 12,000 photographers, Darrah obtained the figure of 6 million distinct views. No one can accurately estimate the total number of pictures reproduced as stereo-cards.

It is interesting to note, however, that by 1873 the Kilburn Brothers factory in Littleton, New Hampshire was employing fifty-five operators and clerks, and had a production capacity exceeding two-thousand cards each day. Even a small establishment manufacturing 300 cards a week could produce 15,000 cards a year.
Employment in the actual production of the stereo-card is only one area showing the economic significance of stereography. One must also consider the scope of the photographic industry in the manufacture of cameras, lenses, chemicals and photographic paper. More than 15,000 reams of printing paper was required annually by the E.H. Anthony Company during the 1860’s. The albumenized paper used in photography meant the need for tens of thousands of chicken eggs, from which the albumen was obtained.

Then too, the sale of the stereo-cards resulted in the employment of thousands of individual distributors and many stereo-view shops. A stereo-view emporium was a shop where one could purchase stereo-cards and a variety of stereo-viewers or stereo-scopes, as they were called. Some innovative entrepreneurs utilized the horse and buggy as well as the bicycle in their travels from town to town huckstering their pictures. By the end of the 19th century the Underwood brothers, Ben and Elam, were providing 25,000 stereographs a day. Each year they sold over 300,000 stereo-graphs.

During the “Gay Nineties,” from 1890 to 1915, the American economy was agricultural. Most farmers were well off and could easily purchase stereoscopes and stereographs from door to door salesmen. The Underwood Brothers employed as many as 3,000 college and university students as salesmen. Each summer the other three large distributors, the Keystone View Co., H.C. White and James M. Davis, each employed another one thousand students. The countryside was crowded by stereo-salesmen. Many families bought large quantities of stereo cards. One such salesman, Mr. George E. Hamilton, a Rhodes scholar and a member of the Newcomen Society of England remembers his own enthusiasm "with which he set forth in the summer of 1900 from Manchester College in Indiana, fired with zeal to carry travel information about the world to the farms of Ohio and Indian." He also found great interest in the purchase of the "comic" cards and the "sentimental" series previously mentioned.

Further indication of the effect that the stereograph and stereoscope had upon the business world of that day is in the area of advertising. The backs of many stereograph cards advertised products such as wallpaper, school books, woolen yarns, gas fixtures, French china, tobaccos, groceries, hay, straw, and even men's shirts made to order.

The Quaker Oats Company produced several hundred titles of litho-print cards and at one time included a card in each box of "Pettijohn" which was flour used in the making of bread, rolls, and pastry. These "premium cards" helped increase the volume of sales for department stores, farm dairies, newspapers and garden nurseries. The Sears Roebuck Company of Chicago promoted their own establishment through a series of fifty black and white stereo cards picturing a tour through the various phases of their business.

A third aspect of the significance of stereophotography in the early development of American society is seen in its impact upon the educational system of the day. The "Home Library" sets became increasingly popular. Parents concerned with the education of their children could hardly say no to a salesman arriving at their door. The Keystone View Company sold a World Tour set of 1200 stereographs in well-designed boxes that looked like a book. The "books" could then be placed on a shelf, impressing everyone visiting the home. The photograph on each card was described in a printed text on the back of the card by the famous world traveler and lecturer Burton Holmes.

Schools and colleges also saw the significance of these visual aids to education. Several educational psychologists, including Dr. James R. Angell of the University of Chicago, promoted the use of the stereoscope and cards. One said: "If a stereoscopic
photograph of a place is used with certain accessories (as special maps which show one's location, direction, and field of vision, etc.), it is possible for a person to lose all consciousness of his immediate bodily surroundings and to gain, for a short time at least, a distinct state of consciousness or experience of location in the place represented."

Several sets were selected for schools by both the Keystone and the Underwood companies. One estimate is that there were 10,000 elementary schools that had bought the Keystone "600 Set" of stereo cards. In 1944, The American Council of Education recommended that there be thirty-five stereoscopes for every four hundred students. Though the advent of the motion picture machine and the electrified slide projector enabled all students in a classroom to see the same picture simultaneously, there was the loss of the seemingly magical nature of the three-dimensional picture after the old-fashioned hand-held stereoscope ceased to be used.

Among the early users of stereo-photography were medical schools who taught their medical interns by use of colorful three-dimensional descriptive stereo-views of skin diseases and the human anatomy. One box of these stereo-views owned by the writer is cloth-covered and contains a wooden Holmes-type stereoscope with a metal hood, and one-hundred thirty-two view cards measuring 5"x13"x5". The back of each card provides a detailed description of the disease such as pellagra, eczema, dermatitis, syphilis, etc.

The box, titled "The Stereoscopic Skin Clinic" is listed as "an atlas of diseases of the skin," with the text by S. I. Rainforth, A.M., M.D. produced in 1914 by the Medical Art Publishing Co., 227 W. 71st Street, New York.

The Keystone View Co. of Meadville, PA produced "Stereoscopic Studies, Edinburgh Anatomy" for the internist, prepared by Professor D.J. Cunningham under the authority of the University of Edinburgh. Black and white stereographic photographs were pasted at the bottom of a stiff card 7"x9." At the top of the card is a very detailed description of the picture. As the internist viewed the three-dimensional picture through the stereoscope, he needed only to lift his eyes above the scope to see the description.

In the writer's collection there are four boxes of these medical studies, each of them in the form of a book. They are titled:
"Section I - Thorax" (contains 44 stereographs);
"Section II - Head and Neck - Internal Anatomy of the Face" (contains 20 stereographs);
"Section II (sic) - Head and Neck - Abdomen" (contains 39 stereographs);
"Section IV - Temporal Bone - Internal Ear" (contains 36 stereographs).

I am sure that additional boxes with other medical studies must have been available and hope that someone will publish their findings.

The stereograph was also found useful in the legal system. In an issue of Stereo World, Volume 7, No.1, March-April 1980, my article "The Stereograph in Court" told of a court case that involved two neighbors and the dispute between them regarding floodwater damage. By the use of three-dimensional stereograph pictures, the case was legally settled in favor of the defendant.

Though there must be many other stories of the ways that stereo-photography has been used, one other will be mentioned here.

During military conflicts, aerial photography with the use of stereo-cameras enabled military strategists to identify specific targets by estimating the height and size of a building on an otherwise flat map. One cannot over-estimate the importance of this usage at such a crucial time.
The significance of stereo-photography has been demonstrated throughout many years, and surely, new usages will be found in the future.

*******

Dr. William Allen Zulker, retired clergyman, was formerly the Assistant to the President of Eastern University, St. Davids, PA. Several years ago, he also served as the part-time volunteer Eastern Regional Director of the National Stereoscopic Association, and was the Curator of the Oliver Wendell Holmes Stereoscopic Research Library. He has contributed several articles to Stereo World.
zulker@comcast.net
williamzulker.com