

Olmstead Hydroelectric Plant

Sagebrush Archeology, Inc.

The history of Olmstead begins with the entry of Lucien L. Nunn into the mining business. In the 1880's, Nunn acquired the Gold King Mining Company in Ames, Colorado. Due to the high price of coal (\$40 to \$50 a ton), which was needed to operate the ore processing mill, Nunn and his brother, Paul N. Nunn, along with George Westinghouse, began to experiment with a 6-foot Pelton water wheel to generate alternating current. In 1890, Nunn put the first commercial alternating current power plant, which transmitted 3000 volts three miles, into operation at Ames. In 1894, the Ames plant was furnishing power to all the mines in the Telluride area. With this success, Nunn formed the Telluride Power Company, which would eventually service more than twenty towns and cities in Colorado, Idaho, Montana, and Utah.

In 1895, Nunn constructed his first hydroelectric power plant in Utah. Located in Logan Canyon the plant was named the Hercules Power Plant. At the same time, he began building another facility three miles up Provo Canyon, named Nunn's Power Plant. The latter works produced the longest high power transmission line (32 miles) at the time. The line from the Nunn plant to the gold mines at Mercur, Utah, carried 44,000 volts of electricity to the mills and was charged on January 7, 1898. However, as the demand for more power by the mine owners increased, the need for a larger facility became apparent.

In 1903, Nunn started construction on Telluride's new hydroelectric power plant at the mouth of Provo Canyon. Completed in 1904, this facility contained not only a modern power plant but the Telluride Institute, a laboratory, company offices and his own personal residence. The new plant was named in honor of Fay Devaux (Fred) Olmstead, an assistant to Paul Nunn, who died of tuberculosis before the completion of the plant.

Finding that few, if any, men knew much about electricity, Nunn began to train men at his Ames plant as early as 1890. This was the beginning of the Telluride Association. Nunn founded and endowed the Association with grants to Cornell University in order to meet the demand for electrical engineers. When Nunn laid out the plans for Olmstead, he included a building for more in-depth education. This building, named the Telluride Institute, contained living quarters, library, classrooms and kitchen. An affiliated structure was the laboratory constructed across the lawn. Students studied history, English, German, algebra, geometry, physics, drawing, public speaking and theory.

The Telluride students were divided into three groups, each group having different responsibilities. One group was called the "first year" or 24-hour men. These persons only studied when time and work permitted. Another group, the "5-hour" men, worked five hours a day and studied the rest. The last group consisted of the "scholarships." These men had no regular duties and were committed to study, research and experimentation. During the early period of the Institute, old students and workers became exasperated with some of the young students and referred to them as "pinhead." This term eventually became a sign of distinction, meaning well-trained, dependable and disciplined.

Although power plants were springing up in small towns, these companies were small, unreliable and could produce only limited amounts of power. Utah Power and Light saw an opportunity to unify the plants into one integrated system and make it more dependable. In 1912, UP&L was incorporated and began to purchase other power companies, including the Telluride Power Company, which encompassed the Olmstead Power Plant and facilities.

After acquiring numerous power plants, UP&L began a program of creating a power grid and upgrading existing facilities. In 1922, a fourth water driven generator was added to Olmstead. Other improvements consisted of alterations to the pressure box, head gate, dam and addition of a fourth penstock. At first, classes were suspended at the Telluride Institute, but after a 10-year hiatus, training classes again were held.

During the Great Economic Depression of the 1930's, UP&L saw an opportunity to stimulate sales of electrical appliances by bolstering the construction of new housing. Their concept was the *House of Ideas*. This Art Modern style house, constructed at Olmstead, contained the most up-to-date electrical appliances. The *House* opened on May 28, 1937 and by July 18th was visited by 10,384 people.

Over the years, Olmstead has had several of its original buildings torn down while the powerhouse and much of the water delivery system remain intact. The destroyed structures include the two story office building, two cottages, an oil tank, an oil shed, a paint shed, a warehouse, and a garage. Two additional cottages were dismantled in 1937, in order to make way for the *House of Ideas*. The warehouse was replaced with a larger metal maintenance building. The dam and head gate were relocated and rebuilt in 1947, along with the replacement

of the flume in 1948. The water delivery system from the pressure box to the powerhouse and tail race remain unaltered. The remaining structures appear unchanged since their construction in 1904.