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SUPERIOR'S GLOBE ELEVATOR: Monument to the Glory Days of Grain

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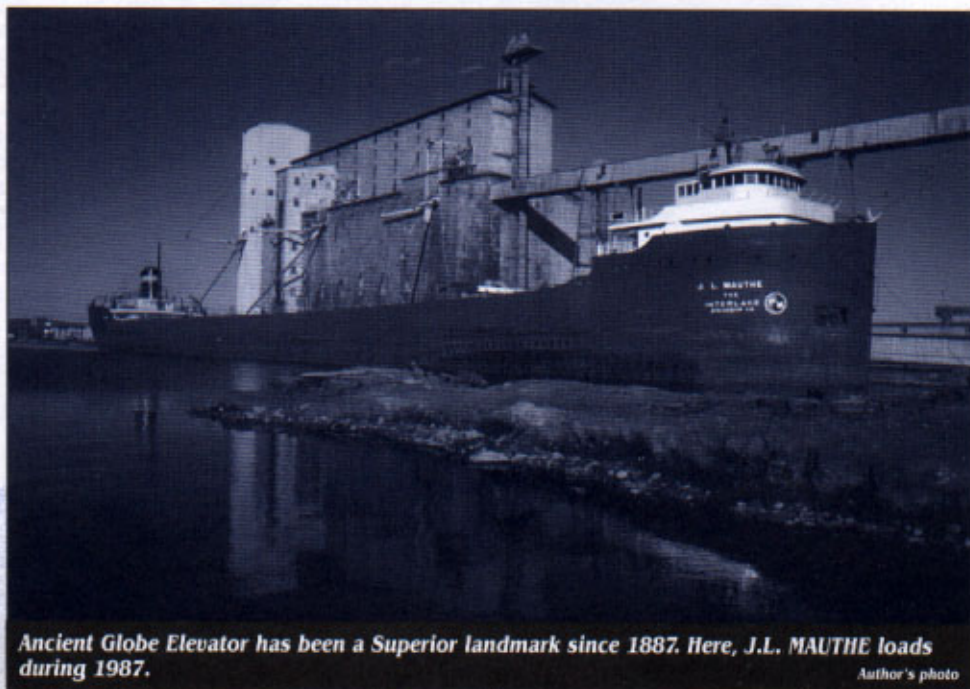
One of the unique features of the Duluth-Superior waterfront is its grain elevators. For more than a century they have dominated the view from the Duluth hillside along Rice's Point. In Superior they've stood fortress-like, holding the key to the self-proclaimed "City of Destiny." Photographers have long captured these impressive edifices, freezing in time their monumental stature.

The importance of these structures has been strongly linked to both cities, as these images portray the elevators in rich hues, almost transcending their industrial setting.

The railroads were largely responsible for the expansion of the west and the opening of the grain markets. In the post Civil War era, men like Jay Cooke and James J. Hill led the drive with their dreams of empires. The relay of grain by the railroads through Duluth and across the waters of Lake Superior grew rapidly as a force in the delivery of wheat to the eastern seaboard.

Grain handling in Duluth began in the 1870s with construction of the city's first two grain elevators. The 1880s brought explosive commercial growth to Duluth and its grain business. In her book *Wheat and the Farmer in Minnesota*, Henrietta Larson noted this period as the one which put Duluth on the map. "The change which more than any other affected Minnesota's wheat trade in the late seventies and the eighties was the rise to a position of importance of the local primary markets, Minneapolis and Duluth ... the phenomenal rise of Duluth as a wheat market began at that time."

The race by the railroads for supremacy in the grain trade at the head of the lakes expanded into Wisconsin in 1886 with construction of an elevator at West Superior. Completion of the wood-framed structure by the Great



Ancient Globe Elevator has been a Superior landmark since 1887. Here, J.L. MAUTHE loads during 1987.

Author's photo

Northern Railroad opened the flood gates of development in Superior that would dominate the Twin Ports for the next decade. It was during this period that the Globe Elevator was constructed. Today, the Globe is the lone surviving elevator built in the Twin Ports prior to the turn of the century. Soon it too will disappear from the harbor landscape.

The Sawyer grain elevator system was built in the city of West Superior in

1887. Located on land owned by the Chicago, Minneapolis, St. Paul and Omaha Railroad, the elevator was built by A. J. Sawyer, a Duluth grain merchant.

The new elevators were a departure from the norm in elevator construction at the head of the lakes. It was the first time a real "system" was constructed at one time. Up to this point the systems operating in Duluth – the Union Improvement Elevator Co. and the Lake Superior Elevator Co.¹ – had each built elevators as stand-alone terminals. Consorts, or annexes, were added later to expand capacity. Superior's lone terminal elevator, Great Northern's Elevator A built in 1886, was also a stand-alone structure with capacity of just under two million bushels.

The Sawyer site contained three major structures: a workhouse and two annexes. All three were laid out in a linear fashion, running north and south, parallel to the Omaha track bed. Capacity of the workhouse was one million bushels, while Houses 2 and 3 were each rated at one million bushels.² All the structures were wood-frame construction with ironclad exteriors.

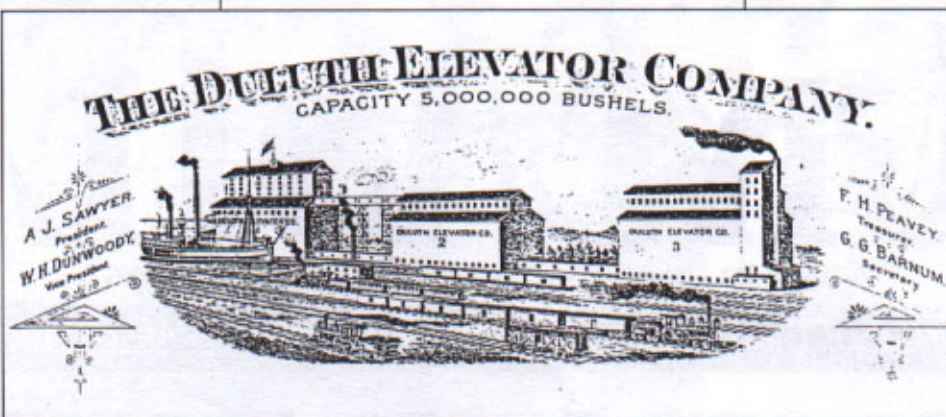
Contractor for the Sawyer System was J. T. Moulton and Sons from Chicago. A. J. Sawyer placed the design and development of his elevator system into the hands of a man considered to be the foremost expert in elevator construction. In 1870 Joseph Moulton³ constructed the first

grain elevator at Duluth, and he was responsible for construction of all subsequent elevators in Duluth at that time.

Typical for the day, a sawmill was set up at the construction site. The Sawyer System looked to the forests south of West Superior for lumber. Trees were felled along the Pokegama River and hauled by horse teams to the rail lines. The logs were loaded onto flat

cars to be transported to the elevator site. Lumber for the structures was then cut to specifications as needed.⁴

Like most structures this size, the Sawyer elevator complex presented an impressive amalgam of dimensions and statistics. The system was built at a cost of \$700,000 with a capacity of five million bushels. The main workhouse was the largest of the three structures, with outside dimensions of 88 feet by 468 feet, and 77 feet in height. Fifteen 1,000-bushel Fairbanks scales were used to weigh grain and more than 13,000 feet of conveyor belts linked the system, driven by 520-horsepower steam engines operating at 65 revolutions per minute driving 16,000- and 26,000-pound flywheels. A 65-



Imposing letterhead from early correspondence of Duluth Elevator Co. The name proved unpopular in West Superior.

Author's collection

foot-high chimney capped off the boiler at No. 1 house.⁵ To complete the three buildings, more than 12 million feet of lumber was used. Enough nails to fill 10,000 kegs held it all together.

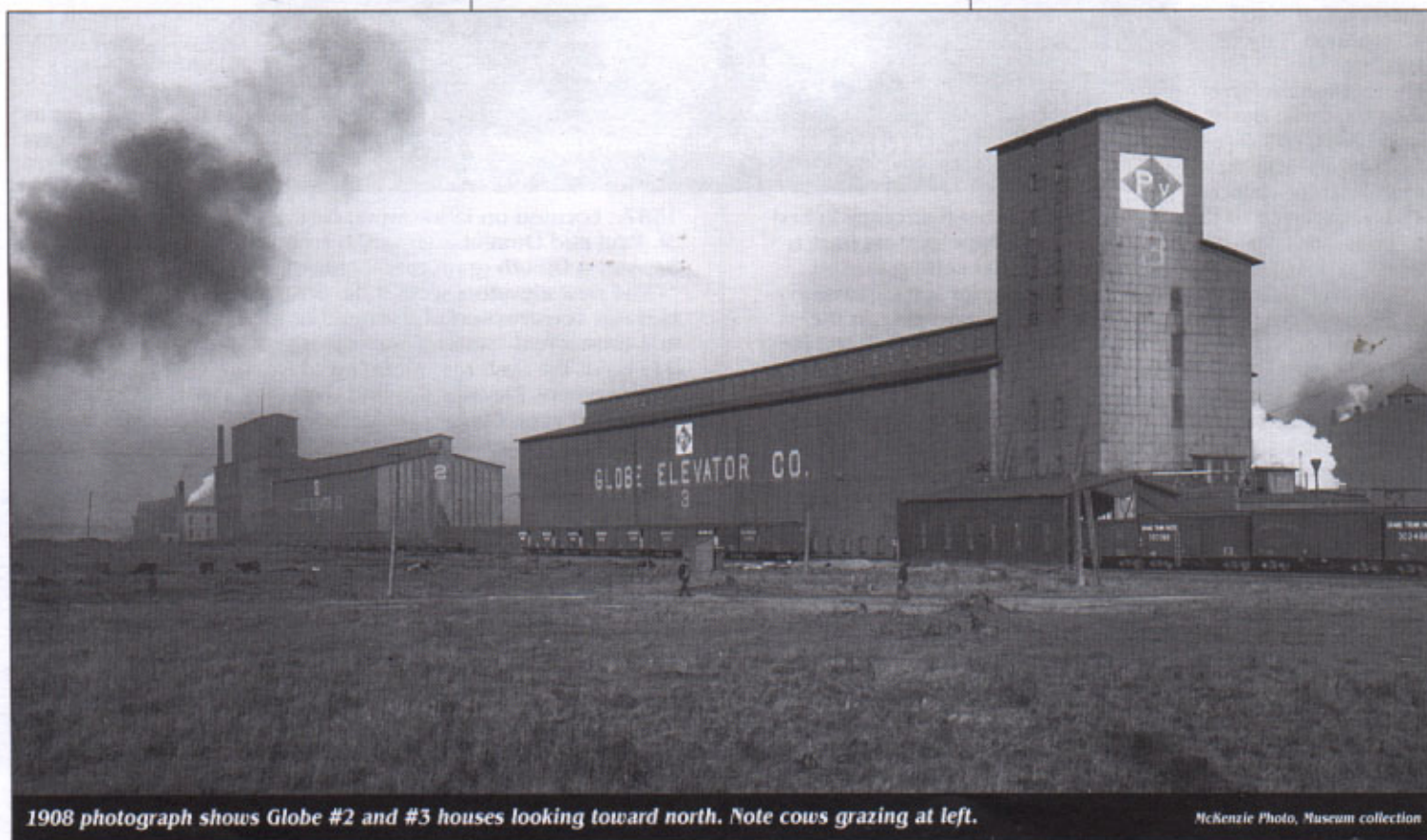
Construction of a grain elevator generated many jobs in the young community. Between 2,000 and 3,000 men were employed during the course of the project.

The labor force at the lakehead was made up largely of immigrants. They were a rugged bunch, often separated by language and culture yet brought together by a passion to succeed in their new land. Many would remain in the Duluth-Superior area, adding to the diversity of the Twin Ports' cultural melting pot.

company, along with president A. J. Sawyer, were W. H. Dunwoody, vice president; G. G. Barnum, secretary; and Frank H. Peavey, treasurer.⁶ Peavey soon would become company president and go on to play a pivotal role in its future.

Citizens of Superior naturally took immediate offense at seeing the word "Duluth" prominently displayed upon the walls of the new elevator. Rather than accord the new company its due respect, the Superior newspapers referred to the structures as "the Sawyer System."

At this time the F. H. Peavey Co. was a growing force in the Midwest grain business. Frank Peavey expanded his business along with the growth of the railroads by continually adding to his



1908 photograph shows Globe #2 and #3 houses looking toward north. Note cows grazing at left.

McKenzie Photo, Museum collection



Imposing "#1 house" was photographed in 1908. With a million-bushel capacity, it was still "state of the art" at the time.

McKenzie Photo, Museum Collection

12, 1894, under the laws of West Virginia. The new Globe Elevator Company was capitalized at \$900,000. George Peavey was named president. His new board of directors included S. H. Harris as general manager and treasurer.¹⁰

Peavey's move to the forefront of grain handling in Superior continued with the purchase of the Belt Line Elevator System in 1896. The Belt Line, in only its third year of operation, was financially unstable and had been the subject of takeover rumors throughout the summer of 1896. Albert Harrington, president of the Belt Line, sold his shares to S. G. Peavey of Minneapolis, effectively giving control of the elevator system to the F. H. Peavey Co.¹¹ The new board of directors reflected Peavey's control. Edmund J. Phelps was

series of line elevators. Line elevators were the initial receiving points of grain from the farmers. Once grain was processed through the line elevator, it was moved to larger terminal elevators in places such as Chicago, Milwaukee, Minneapolis and later Duluth.

To stay on top of the growing business, Peavey moved his base of operations out of Iowa to Minneapolis, a major hub for the grain beginning to flow out of the Red River Valley. His initial involvement in Superior with the Duluth Elevator Co. three years later gave Peavey the opportunity to operate in the port without the heavy investment in building a facility.⁷ Peavey did not overlook the value of the lakehead as a natural hub for moving wheat from the Minnesota and North Dakota farm lands.

A shift of power within the Duluth Elevator Co. occurred in late 1884, after the death of A. J. Sawyer, in favor

of the Peavey interests.⁸ In August it was announced the Duluth Elevator Co. would be reorganized, with the elevators at West Superior coming under the operation of the new Globe Elevator Co. as a division of the F. H. Peavey Co. The following year the influential Frank Peavey would appoint his son George as president of the young elevator company.

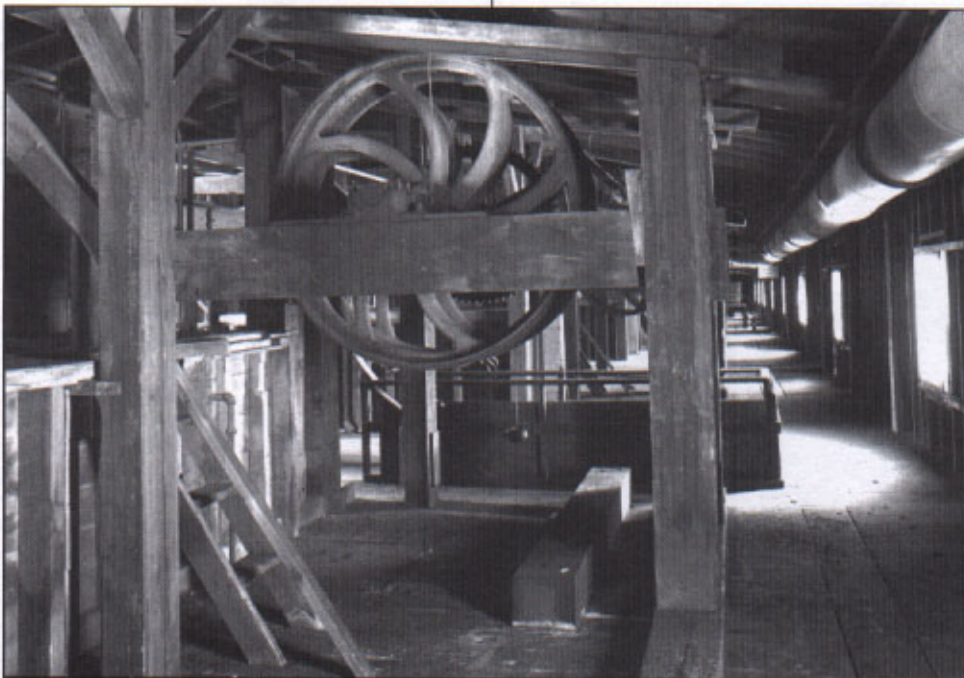
To the residents of Superior it was cause for celebration to do away with the one thing that irritated the hell out of most of them. As the *Evening Telegram* proudly reported, "The name, 'The Duluth Elevator Company,' painted in big letters has always been an eyesore to Superiorites, and has led to no end of misunderstanding, which has tended to hurt the town. In the course of a few days these elevators will bear the name of the new corporation, 'The Globe Elevator Co.'"⁹

The incorporation took place Sept.

retained as president and manager of the Belt Line. Globe Elevator Co. operated the Belt Line for many years under an annual lease agreement.¹²

The newly formed Globe Elevator Co. set to work in 1895 to upgrade a deteriorating foundation at House No. 3. Only two years earlier the *Superior Leader* boasted about the stability of the same elevator. "Although situated on the edge of the water, the earth on which they stand is of such a character that while one end of these houses is built on piles, and the other end on stone wall resting on clay, neither roof nor floor has ever settled out of line, notwithstanding No. 3 was stored at one time in 1888 with 2,170,000 bushels of wheat - a weight of over 65,000 tons." Two years after those words were written, the elevator had begun to sag. By 1895 the No. 3 house was nearly eight inches out of line.

Work began at Globe to place a new



"Head floor" with original rope pully drive wheels.

Author's photo

stone foundation under the timber frame. The elevator was jacked up to a height sufficient to support the work. Timbers were also replaced inside the annex. Additional work was done to upgrade the engine room at House No. 3, including installation of a new boiler system. In addition, new machinery was brought in capable of handling flax and barley. Both were new crops coming into their own at the head of the lakes.¹³ The era of King Wheat was beginning to fade across the northwest.

Work at the Globe continued into the next century virtually unchanged. The 1920s were boom years for the Twin Ports grain business, and growth in grain shipments forced elevator operators to expand their operations. A number of annexes were built during this time, significantly increasing the port's overall capacity. It is interesting to note that Globe was one of only two elevators in the Twin Ports that did not undergo major expansion during the annex construction boom. With implementation of new construction materials such as tile, steel and concrete, the ravages of fire among the wooden elevators, and the high insurance costs for wooden elevators, the Globe became one of the last wood-frame elevators left in the Twin Ports.

Despite its wood frame, Globe survived one of the most devastating fires to sweep Superior's waterfront. The blaze began in Great Northern's Elevator A on a November night in 1907 and raged unchecked through the night, laying waste to everything in its path. In addition to Elevator A, the fire consumed nearly all of Superior's flour mills along the Tower

and Hughitt Avenue slips, as well as eight homes on distant Connor's Point. The Globe's sprinkler system – and a lot of luck – were credited in large part with saving the complex.¹⁴ The Globe's luck with fire would also hold up in 1941 when the neighboring Great Northern Elevator X was consumed by flames.

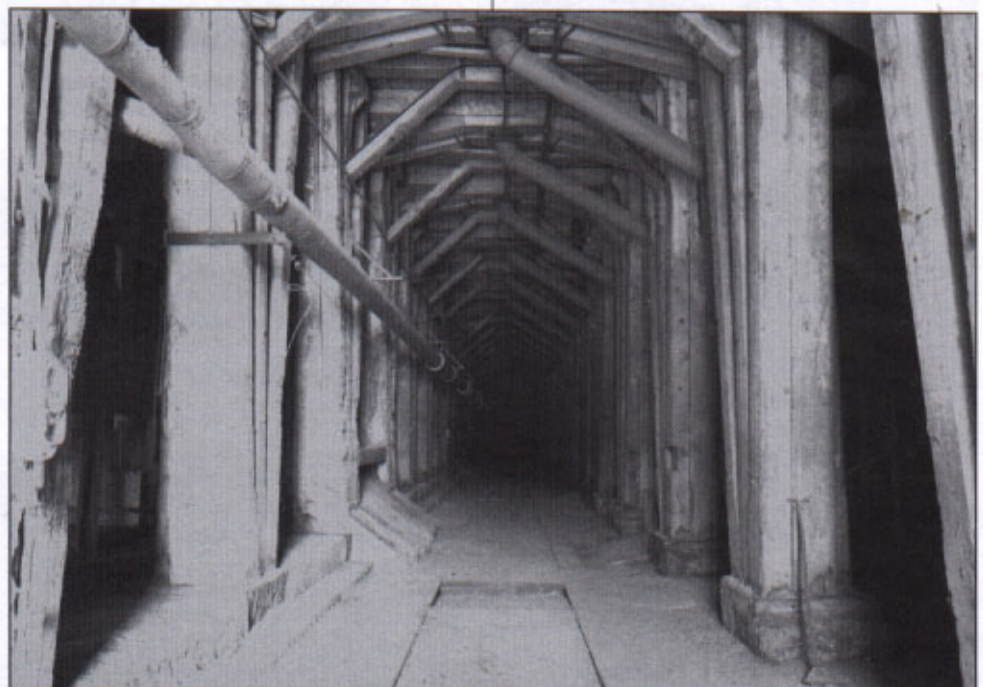
While Globe escaped the flames, it was not immune to change. The summer of 1941 marked the official end of the Globe Elevator Co. At a July 15 meeting, the board of directors, led by president Fred B. Wells, voted to liquidate all property and assets to the stockholders

effective at the end of July. The property was distributed to the F. H. Peavey Co. A final September meeting by the board brought an end to the Globe Elevator Co.¹⁵

Globe had previously reincorporated under Minnesota laws in November 1915. Its predecessor, the Duluth Elevator Co., was officially dissolved in August 1915 as part of a reorganization by Peavey centered around its purchase of the Monarch Elevator Co.¹⁶ Despite the official demise of the Globe Elevator Co., the facility continued to be known as the Globe Elevator. Day-to-day operation continued with little change for the next four decades under F. H. Peavey and Company.

Most grain moved through Globe was loaded into Great Lakes freighters headed for Buffalo on the eastern end of Lake Erie. The boats would often come up from the lower lakes carrying coal used to heat homes and businesses in the Twin Ports. After discharging their cargo the vessels would shift to elevators such as Globe to take on a load of grain for the trip down the lakes. The opening of the St. Lawrence Seaway added a more international flavor to the vessels calling at Globe.

To many lake sailors it was always good news to be loading at Globe. Bob Stark, steward on the steamer JOHN J. BOLAND, remembers making trips into the elevator as recently as the late '60s aboard some of the Steinbrenner boats. "The older boats, you gotta consider that they were in port for two, three, four days. Sometimes six days at a time," he explained. "We used to load at the Globe Elevator, which was a good



Ground floor view shows truck dump.

Author's photo

elevator to load at if you lived up there 'cause it was slow." The slow pace usually meant at least an extra day in town to visit friends and family. Looking back on it now, Bob added a sentiment echoed by many sailors of that era. "I like that old slow grain pace. That was nice."¹⁷

In 1982 the Omaha-based commodity giant ConAgra purchased the Peavey Co. Peavey became the elevator division for ConAgra, and the Globe Elevator became part of the ConAgra conglomerate as a result.

ConAgra was interested in strengthening its commodities-handling position in the port. To accomplish this would require getting out of the Globe Elevator in the long run. Globe was one of two elevators that ConAgra had acquired at Superior, the second being Elevator M in the city's East End. The Globe facility was a great one when built in 1887, but after nearly a hundred years it was showing its age and no longer cost effective. Nor was Elevator M the answer for the volume of grain the company wanted to move through the harbor.¹⁸

ConAgra/Peavey believed the Continental Elevator on nearby Connor's Point would provide the facility needed in its distribution network. The company entered into negotiations with the owner of the elevator, Chicago and North Western Railway, and reached agreement on the purchase in early 1986.¹⁹

The Continental purchase spelled the end for the aging Globe Elevator. Peavey continued to operate the elevator during the transition until 1988, when the facility was closed.

To define the state of the terminal



Scale floor from West end.

Author's photo

elevators in Duluth-Superior today, there are several areas to examine. From an economic standpoint they still provide a large monetary base which can be measured yearly with the traffic of grain. The decade of the 1990s has, however, shown an overall decline in volume, a cycle that is not likely to change dramatically. Stability seems to be the key word in the harbor today. A century ago the grain elevators were struggling to keep up with the rapidly increasing volumes. It was a time when the Twin Ports grain industry reached peaks that may never be attained again.

Looking at the elevators from an

operational point, there are also noticeable differences. There are no longer any small or even medium-size operations in the Twin Ports. Control of grain flowing in and out of the harbor is done on trading floors hundreds or thousands of miles away. Grain is moved around the world electronically, transferred to remote locations in an age where buyers and traders seldom see an elevator let alone the bottom of a vessel's cargo hold. The action is controlled by major corporations and handled in multinational offices. The world of agriculture processing and merchandising exists in a culture where the room for error and loss is narrow; too slim for small organizations to survive. This is not unique to the Twin Ports, but is prevalent in other major grain markets as well.

Considered as an architectural group, the terminal elevators at Duluth-Superior provide a diversity unequalled anywhere. It has been more than a hundred years since the Globe Elevator system was constructed. It is the oldest terminal elevator in Duluth-Superior. It represents the last example of a wood-cribbed terminal elevator in the Twin Ports, and one of a handful remaining in the country. The same can be said of the Great Northern Elevator S with its steel construction, or General Mill's Elevator A, shaped with circular tile bins, or the old Peavey site with the first concrete silos built in North America. These elevators are a family album of grain-handling history at the head of the lakes. They have grown and changed with the city and region and have left



Beams and stairs on "garner floor," showing complexity of wooden-beam construction.

Author's photo



View of #1 house in 1930s shows addition of "marine leg" for unloading grain cargoes, one of very few at Head of the Lakes.

Harold Andresen collection, Canal Park Museum

their mark.

The twisted, rusted rail beds are gone now from alongside the Globe. The ground is littered with fragments of iron and timber. The buildings seem to sag not just from neglect, but from abandonment. The air of permanence is gone.

In 1994 the Globe Elevator site was purchased from ConAgra by parties not connected with the grain business. They intend to raze the structures and place a marina at the site. In the interest of preserving the historical significance of the site the copyrighted Globe name was acquired as part of the sale and there is some discussion of using timbers and artifacts from the elevator as part of the new development. Demolition of the structures is presently underway.

Appendix Wood Crib Construction

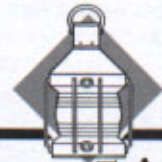
"For large bins, the 'crib' construction is most used. In this construction, pieces of 2" x 4", 2" x 6", or 2" x 8" are laid flatwise, so as to break joints and bind the structure together, and are spiked firmly. This makes a strong form of construction, and one very cheap with the former low price of lumber. Care must be used in filling elevators of this type for the first time, to fill all bins uniformly to prevent unequal settlement caused by the compression of the timber and the closing up of the horizontal joints. Cribbed timber bins have been known to settle 18 inches in a height of 70 feet. Timber elevators are liable to be destroyed by fire, and call for a very high rate of insurance."

Source: *Walls, Bins and Grain Elevators* Milo Ketchum, McGraw Hill Book Company Inc., New York, 3rd Edition 1929. p 297.

Footnotes:

- 1) The Union Improvement and the Lake Superior Elevator companies eventually merged into Consolidated Elevator Co.
- 2) "The New Elevator Systems," *Inter Ocean*, Oct. 15, 1887 (Superior Regional Center, WPA Project No. 10117), 14-15.
- 3) "A Great Elevator Architect," *The Inland Architect & News Record*, Oct. 1896, Vol. 28, p.28
- 4) Interview with Jay Van Horn, former elevator superintendent. Superior, Wis. Feb. 14, 1994
- 5) *Inter Ocean*, WPA Project No.10117
- 6) Sawyer Elevator System," *Superior Leader*, Mar. 12, 1893.
- 7) During its years in Superior Peavey never built a new structure, but only acquired or managed existing structures.
- 8) Peavey Company: Globe Elevator Co. minute books, p 22. (MHS Archives 145.K.20.11 (b))
- 9) "Coming Superior's Way" *The Evening Telegram* Aug. 8, 1894 (Superior Regional Center, WPA Project No.10157, Vol. 2. p. 44-45.)
- 10) Peavey Company: Globe Elevator Co. minute books, 1-3. (MHS Archives 145.K.20.11 (b))
- 11) Peavey Company: Belt Line Elevator Co. minute books, Aug. 13, 1896, 1-2, and Sept. 1, 1896. (MHS Archives, 145.K.20.3 (b)).
- 12) Peavey Company: Belt Line Elevator Co. minute books, November 4, 1901...initial lease agreement with Belt Line and Duluth Terminal Elevator and Globe Elevator Co. (MHS Archives: 145.K.20.11 (b)).
- 13) Flax and Barley both were first introduced in the Twin Ports market during the 1886-87 shipping season.
- 14) "Superior Waterfront Is Devastated By The Flames," *Duluth Evening Herald*, Nov. 10, 1907.
- 15) "Great Elevators and Mills Are Laid In Ruins By A Two Million Dollar Fire," *Superior Telegram*, Nov. 9, 1907.
- 15) Directors meeting, F. B. Wells, presiding...to adjourn Globe Elevator

- Company shareholders. Sept. 18, 1941. (MHS Archives: Peavey Company 145.K20.11, Box 33, pp 169-171, 177-179.)
- 16) The Duluth Elevator Company continued to operate a series of line elevators in the Red River Valley after incorporation of the Globe Elevator Co. in 1894.
- 17) Interview with Bob Stark, steward, S/S JOHN J. BOLAND, July 1996.
- 18) ConAgra still operates Elevator M but not as part of its Peavey Elevator division.
- 19) Chicago and North Western Railroad owned the elevator. Continental Grain operated it under a lease agreement. The railroad had exclusive rights for movement of grain to the elevator.



Among Friends



Mr. Russell is pictured during 1995 Association field trip on board WENONAH.

Richard Bibby photo

Long-time Association member and Duluth-booster Dudley J. Russell of Wayzata, Minn. passed away on Thanksgiving Day after a brief bout with leukemia. Russell, 83, worked in the grain and flour-milling businesses in Duluth and Minneapolis, but is best known for his civic service. He served the Kiwanis Club, the Minneapolis Citizens League, the Museum Association, and during the late 1950s, he was president of the Duluth City Council.

Russell was a Navy veteran and a well-known Lake Superior yachtsman; he also sailed on Lake Minnetonka. He was active in the United States Power Squadron, serving as Commander of both the Duluth and Minnetonka squadrons. In his retirement years, he was also a popular speaker; he addressed Association audiences on at least three different occasions. Dudley is survived by his wife of 55 years, Elizabeth M. "Bet" Russell.