Looking into the Archives: The Claybank Brick Plant Fonds

by Dana Turgeon

The Saskatchewan Archives is pleased to announce that the Claybank Brick Plant fonds is now available for public reference. This fonds includes an astonishingly complete set of operational records dating from the plant’s founding in the early 1900’s until its closure in 1989. There is a large textual records component, many architectural and technical drawings, and an extensive array of photographs. These records came from the Claybank Brick Plant, a National Historic Site owned by the Saskatchewan Heritage Foundation. The Claybank Brick Plant National Historic Site is located on Highway 339, approximately 1 hour Southwest of Regina, and 3/4 hour Southeast of Moose Jaw.

Brief History of the Plant

The Dirt Hills section of the Missouri Coteau, where the Claybank Brick Plant is located, is a “Whitemud” formation of the Cretaceous Period, when most of what is now Saskatchewan was covered by a giant sea. The clay in this area is plastic fireclay, an extremely heat-resistant material often referred to as refractory clay. In 1886 Tom McWilliams began to mine and sell the clay, but it was not until 1904 when McWilliams signed an agreement with Moose Jaw Fire Brick and Pottery Company that the industry took off. Plant construction began in 1912 and was completed in 1914; war and

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recession kept the plant closed until 1916, when it reopened under the name Dominion Fire Brick and Clay Products Ltd. In 1954 it was purchased by Redcliff Fire Brick and Clay Products (1954) Limited. In 1955 controlling interest was purchased by A.P. Green Fire Brick Company of Mexico, Missouri. By 1962 A.P. Green had complete control of the plant, although the company continued to operate as Dominion Fire Brick and Clay Products (1954) Limited until 1970. In 1971, the Claybank Brick Plant became a subsidiary of A.P. Green Refractories (Canada) Ltd. Faced with dwindling market share, changing technologies, outmoded equipment and corporate downsizing, A.P. Green closed the Claybank Brick Plant in 1989. Before its closure, the Canadian Broadcasting Corporation filmed the Plant in full operation. At that point in time, the fate of the plant itself was uncertain.

The plant's last owner, A.P. Green, donated the complex to the province in 1992. Designation as a Provincial Heritage Property and as a National Historic Site soon followed. However, designation alone does not save heritage sites. In this instance, the struggle to save the Claybank Brick Plant was with Mother Nature. The outbuildings began to deteriorate as the water table rose dramatically and salts in the soil started to attack and dissolve the building foundations. Two tornadoes stripped roofing off some structures and caused damaged to the historic landscape. Miraculously, no major structural damage resulted from these windstorms. Efforts to save the plant have involved both public and private agencies. The Claybank Brick Plant Historical Society was established in 1993 to help generate community support and to develop and deliver an interim interpretive program. At the same time, the federal and provincial governments entered negotiations on a cost-share program to fund repairs to the property. In 1999, an agreement was reached and Parks Canada agreed to contribute $1 million for specific work items over a five-year period. As part of the agreement, the Saskatchewan Heritage Foundation needed to raise matching funds as well as come up with a strategy to raise the remaining dollars to complete the project, estimated at several million. By the end of 1999, many of the basic repairs were completed, most of the drainage problem had been addressed, and work was beginning on converting the Bunk House into a Visitor Center.1

Appraisal and Acquisition

Staff from the Saskatchewan Archives (SAB) was involved in the 1989 heritage assessment of the Claybank Brick Plant site, when the site was being evaluated by the province of Saskatchewan as a potential heritage property. Acquisition of the records of the Claybank Brick Plant took place over a two-year period. Initial appraisal of the records took place in 1998, but as outbuildings on the site were repaired, additional records were discovered. The last accession was brought to the SAB in 2000.

The records that eventually became the Claybank Brick Plant fonds posed many challenges for appraisal archivists. When the Province of Saskatchewan first took over the site in 1992, many of the outbuildings were in poor condition. Some records had been stored in leaky buildings and had suffered serious damage from water and mould. Other records had suffered rodent damage or had been stored in dirty areas. Balancing the poor condition of the records was the fact that they records covered almost the whole time period of the plant’s operation.

Processing

Processing of the Claybank Brick Plant fonds began in the summer of 2000 under a Young Canada Works grant, a joint project of the SAB and the Department of Municipal Affairs, Culture & Housing. Over that
summer, records were cleaned, and most of the architectural drawings and maps were processed and recorded in a database. When the summer ended, processing was temporarily suspended. By 2001, processing began anew under the now-defunct SAB Backlog Project.

The Claybank Brick Plant fonds posed many challenges during processing. The first step was cleaning and assessment of the materials. Almost all of the records were dusty and dirty. Some items were also greasy or grimy. In addition, some of the records had been exposed to rodent feces, which are linked to the potentially fatal disease Hantavirus. Most records were cleaned under a fume hood using brushes and a vacuum cleaner, and staff used paper masks and other respiratory equipment to minimize their exposure to Hantavirus.

In addition to the already mentioned problems of water and mould damage, many of the records were fragile due to years of use and improper storage while other materials were awkward to handle because of their size. Mould is especially problematic in an archival setting, because it can spread to other uninfected records. It also poses a respiratory hazard to people. Because of these factors, mouldy items, fragile items and awkward-to-handle items were microfilmed. This project was completed in 2000. Unfortunately, due to the poor conditions of most of these materials and the health hazards posed, most of the original records had to be destroyed after filming.

The Claybank Brick Plant fonds contained many rolled documents. Some of these were architectural drawings and maps, while some of the rolled records were daily logs of the plant’s activities. The daily logs were cleaned and then flattened using a special archival press. These were then placed in oversize boxes and stored flat. Many of the architectural drawings and maps were quite fragile from frequent use. These delicate documents had to be encapsulated in Mylar to prevent future damage. The encapsulation of architectural and technical drawings was completed over the summer of 2000. Each map or architectural drawing was then described and entered into a database.

There was also a sizeable number of photographs included with the Claybank Brick Plant fonds. These photographs were placed in Mylar sleeves for protection, and were then placed in archival envelopes. Descriptions of the photographs were entered into a database.

Altogether, a total of 10 Archives staff members were directly involved with processing. They cleaned the records, created item-level descriptions of drawings, maps and photographs, created a textual file list, performed preventive conservation techniques on fragile materials, and created a full description of the records for public use.

The Claybank Brick Plant fonds

The Claybank Brick Plant fonds represents an astonishingly complete set of records concerning the operation of the Claybank Brick Plant over its ninety-odd years of existence. These records include textual records, architectural and technical drawings and photographs.

The fonds contains the original blueprints for most of the outbuildings on the Claybank Brick Plant. Also included are many maps and drawings of the rail spur and the hills themselves, including details on the composition of the clay hills. There are also a number of photographs of the plant’s buildings.

The Claybank Brick Plant manufactured a wide product line that included face brick, building tile, sewer tile, terra cotta, and pottery, but its primary product was fire brick. Fire brick was brick manufactured for use in locations where heat resistance was important. Claybank clay was world-renowned for its extreme heat resistance; Claybank bricks were used in locomotive engines, furnaces for steel and manufacturing industries, and in the Royal Canadian Navy’s Corvette-class warships.

The Claybank Brick Plant fonds contains a large number of technical drawings. Most of these were used in the construction of fire brick. Because fire bricks were used to line fire boxes of locomotives or ships, or were used in the construction of large furnaces for manufacturing, the shapes were not uniform. Often the bricks had to be created so that a curved oven or furnace could be built.
The photographs and drawings in the collection reveal significant information about the history of the plant and the people who worked there.

Top: Workmen fire up one of the kilns
Middle: A sketch of the roof angles for the construction of a new kiln
Bottom: The elaborate railway tracking in the clay pits

Consequently, many of these drawings are for “one-of-a-kind” hand moulded bricks designed to serve a particular purpose.

The Claybank Brick Plant also manufactured face brick that was used to construct buildings all over North America. The Bessborough Hotel in Saskatoon, Hotel Saskatchewan in Regina, Gravelbourg Cathedral in Gravelbourg and the Chateau Frontenac in Quebec City are just a few notable examples of buildings constructed of Claybank brick. Among the records of the Claybank Brick Plant, there are numerous photographs of the face brick products available from the Claybank Brick Plant. Many of these photographs are from a show album designed for sales. The photographs from this album are astonishingly clear and detailed, and will greatly interest architectural or urban historians. Claybank face brick received its desired colour through the use of coal heat. Therefore, when the beehive kilns were converted to natural gas in the 1960s, face brick production was halted.

The records of the Claybank Brick Plant include most of the sales, shipping and receiving records for both face brick and fire brick production. These records encompass nearly all of the changes in plant ownership. The sole exception are the papers related to the early years of plant operation when Tom McWilliams ran a one-person business selling bricks and clay. There are also extensive records on exploration, prospecting, engineering, and testing of clay, as well as “recipes” for various brick products produced at the plant. There are many advertising or promotional materials for the plant’s products, mostly dating from the 1960s and 1970s.

Bricks were fired in ten round, downdraft kilns, also called beehive kilns. Each kiln took one week to load, one week to fire and cool down, and one week to unload. Until the 1960s, each of the thousands of bricks was loaded by hand. The kilns burned lignite coal until the 1960s, when all but one was converted to natural gas.

Kilns periodically had to be rebuilt. The Claybank Brick Plant fonds contains records concerned with the rebuilding of the kilns at the Claybank Brick Plant. There are also many architectural drawings and technical drawings of the kilns themselves.

Because of its relative isolation, the Claybank Brick Plant
provided company housing for both married and unmarried workers. Management and their families lived in one of three company houses, rented for the nominal fee of $9 per month. Unmarried workers lived in “The Hotel”, a large bunkhouse. Chinese cooks staffed the kitchen there, providing cheap and tasty meals, as well as the occasional bottle of clandestine liquor, according to former employees.

Despite the dangers of the job, the Claybank Brick Plant had an enviable safety record. It had only one fatality in 75 years of operation. When A.P. Green Refractories Ltd. took over operations, safety improved immensely. Forklifts and palletization of bricks reduced back injuries, while hard hats, safety goggles and steel-toed boots reduced the number of accidents to virtually nil. By the time of the plant’s closure, it had operated over 3000 days without a lost-time accident, in spite of the fact that one of the kilns blew up in the 1970s due to a natural-gas explosion.

The Claybank Brick Plant fonds contains many records concerning personnel matters, union negotiations, worker’s compensation claims, labour relations, plant housing and social clubs at the Claybank Brick Plant. There are also samples of payroll records and time cards.

Most of this material is restricted as per the Freedom of Information and Protection of Privacy Act. Researchers wishing to access restricted material must contact the Provincial Archivist. There are a few photographs of early plant employees, as well as records on plant housing. These records are not restricted and may be accessed at the Saskatchewan Archives Board.

Accessing the Records

Researchers wishing to consult this material may consult the Regina office of the SAB at 3303 Hillsdale St. A full description of the records is also available on the Saskatchewan Archival Information Network (SAIN) at http://scau.usask.ca/sain/.

Endnotes

1 Frank Korvemaker, Heritage, Vol III, Number 4 (Fall 2000), 20-22