Rotary, Randolph Area Community Development Corp., and others urging VINS to come to Randolph.

Reportedly, VINS interest in Randolph has been spurred by an offer from Vermont Technical College of an attractive site at an attractive price.

VINS is also reported to be exploring fundraising possibilities in the Randolph area, and the availability of volunteers, upon whom it relies.

$4000 in cash to make improvements to their stores.

Proprietors of all five general stores gathered at Floyds Tuesday morning to receive the awards personally from Lyman Orton, whose family runs the Vermont Country Store in Weston. Al and Jan Floyd received the award on behalf of their store, and Robert and Catherine Romeo on behalf of the Trading Post.

Other winners this year were

Criteria included the goods and services that a store provides, the importance of the store's role, and the quality and impact of the proposed work on the store.

"It was such a treat to read the nominations," said Paul Bruhn of the Preservation Trust at Tuesday's ceremony, referring to the letters from community members that supported each store.

Floyd's, for instance, was cited in a letter from Vermont Technical

when he comes to the store.

In the case of the Trading Post, letters were received from the chair of the Select Board, a library trustee, a school board member, the principal, and others.

"It's a hard business to be a storekeeper," said Orton. And indeed, Rob and Catherine Romeo of the Trading Post said they live over the store and work 80 hours or

See **STORES** Page A-13

a late-night fight in Chelsea, and a fire in Orange, all on 911 reports.

However, police, who are required check on all E-911 "hang-ups"—especially when no one answers the return call—have also been sent off on a few wild goose chases.

Twice, during the past few weeks, Orange County deputies traveled to the source of the calls, only to learn they were "false alarms."

In one case, as it turned out, the address supplied by the E-911 oper-

facility, too.

Todd Deuso, manager of Casella's Montpelier Division, briefed the Select Board Tuesday on the changeover. The existing staff will continue to work at the transfer station, he said.

The hours will actually be expanded from what they have been the last 18 months. The transfer station will be open 7 a.m. to 4 p.m. Tuesday through Friday and on Saturday from 7 to 1.

See **CASELLA** Page 2

Branchwood Closing May End Long Tradition

By M. D. Drysdale

One hundred and thirty-odd years of lumber manufacuring has apparently come to an end at Branchwood, Inc. on Pearl Street in Randolph.

With its orders declining, Branchwood closed its doors at the end of August, said owner Clark Bothfeld of Northfield. The end came with hardly anybody noticing, he said, with a trace of regret. Neither the state nor the town nor Chamber of Commerce offered help in selling the business or prolonging its life, he said.

Yet probably no manufacturing business in Randolph's history is more intertwined with the history of the town and its people. Branchwood, still known to old-timers today as the L. W. Webster Co. or "Webster's Mill," is a direct link to the early days of West Randolph industry. Though it never employed more than 70 people, it involved at one time or another dozens of Randolph's important mercantile families, it sparked the purchase of major forest holdings in Central Vermont, and it insured a unique interior grandeur for Randolph's homes.

Bothfeld purchased the mill in November, 1971 from the L. W. Webster Co., owned by Kenneth Webster. At the time Bothfeld also owned a wood products firm in Northfield. As Branchwood, the company produced solid dimension lumber and edged, glued lumber and panels that would be used by furniture makers.

A sawmill was closed down in 1987, but the mill included a dry kiln and purchased, at one time, close to a million board feet of lumber a year, mostly pine.

Under Bothfeld's direction, Branchwood employed 30-35 people at first, but, during the last 20 years employment averaged just 20.

The company's quality wooden panels declined in popularity among a public satisfied with "made up wood" or particle-board, Bothfeld said. "Computer furniture is all like that," he pointed out.

Still, he thinks the mill is a viable business. "I wish somebody would buy it," he said this week. "It's an old building, but it's a good location and the equipment is good."

Unless an offer comes quickly, however, he will sell the equipment at auction, probably in January.

At the time of the final closedown, he said there were just a half-dozen employees. Henry Lefebvre, the oldest employee with about 50 years service, retired, and most of the others have found other jobs, Bothfeld said.

HERALD / JON OLENDER

Branchwood, Inc. on Pearl Street is the successor to Randolph's first steam-driven industry.

Herald of Randolph 12/98

A Significant History

At age 39, Leon W. Webster decided there wasn't a future in corsets.

As a result, he left the royal Worcester (Mass.) Corset Co. in 1919 and journeyed north to Randolph, putting up $30,000 of his own money and raising a similar amount from others, to buy the town's premier lumber mill.

The mill operated as the L. W. Webster Co. for the next 52 years under L. W. and his son Kenneth, until it was sold to Clark Bothfeld and became Branchwood in 1971.

The mill had been closed during World War I, but it already had a rich history. It had been founded in the 1860s as Abbots Steam Mill. Built a little ways away from the Third Branch, it was the first manufacturer in Randolph that relied on steam power rather than direct water power.

Its founding came just after the railroad swept through, and Slab City was becoming Randolph. Buildings were going up.

The American economy was going through market ups and downs, however, and most of them were felt here. The firm went into receivership in the late 1870s, and was eventually sold to the Tewksbury family, which already had several stores in town. In the crash of the early 1890s, the Tewksbury's ran into financial problems, too, and the mill was sold to E. F. Emerson (the name which is still on the company safe).

Emerson (for whom Emerson's Terrace is named) ran the mill until World War I, when it shut down. Enter

See **HISTORY** Page 2

Tracking down hang-ups, said Sheriff Sam Frank this week, can tie up officers for hours. State police, he said, are reporting the same problem.

Manpower Needs

In towns that have not yet completed their E-911 address and phone number data-banks, he said, "it is even more difficult for an officer to find a resident" on a hang-up check.

"There's not enough of us as there is," added Frank, who noted that law enforcement agencies have not received any extra funding for E-911 responses.

Frank said he was confident that any problems in the new E-911 system will be worked out.

The state, in fact, turned on the all-digital E-911 system without any fanfare on Nov. 17, just so bugs could be fixed before the system becomes widely publicized and used.

Sign Problem, Too

Some town officials are reporting their own E-911-related problems—often road signs.

Braintree, for instance, has gone to the trouble to erect new signs on every road in town, so that responding personnel can quickly find emergency sites.

However, since the signs went up today, reports Selectman Gary Hogg, four have been stolen.

At loss, he points out, not only costs the town the $75 to $100 it takes to buy and install the signs. It could, Kellogg soberly notes, cost a life.

Park officials, who have in the past cooperated with federal wildlife agencies to successfully improve peregrine falcon habitat in Vermont, are "excited" about the Indiana bat, said Diehl.

If studies show that Vermont has lots of little Indiana bats, she added, "We'll go head over tilt to try and save their habitat."

HISTORY

(continued from Page 1)

the corset manufacturer from Massachusetts, L. W. Webster.

Webster had grown up in Vermont and graduated from Randolph High School before he went to Dartmouth. He was classmates with both Genieve Lamson and Mary Morse Mason, both of whom now loom large in Randolph history. L.W.'s wife Geneva was a sorority sister of Grace Coolidge at UVM.

The mill specialized in builder's finish until the late 40's. Later products included millions of wooden bobbins for the textile industry, acres of box sides for the U. S. Navy, ships' hatches, glued materials for furniture.

Then came the Depression. Unlike the previous owners, L. W. weathered the storm without any layoffs, something the family is still happy about. "We just made bobbins and put them in every nook and cranny, hoping we could sell them some day," Ken Webster remembered this week. "My barn was full of bobbins."

Ken came on board in 1935, fresh out of Dartmouth. He took his first week's vacation in 1941—and that week the mill burned to the ground.

"We had no building, not much equipment, and no help," he remembered. World War II had drafted many of the men and put most of the rest at work in shipworks.

But the company pulled through, setting up at first in the Prince Street foundry and rebuilding in less than a year.

Needing lumber for the mill, the L. W. Webster Co. also put together large landholdings of forests in the area, mostly in the Braintree range. Purchases started in the 1930s, continued with purchases on Mts. Cushman and Rochester in Rochester Hollow in the 40s and a large parcel, the Webb lot, in East Granville in 1945.

Stephen Webster is now the principal caretaker of that acreage, which is professionally managed with conservation as the principal aim. Now that the mill itself is out of operation, these forest holdings may be the principal legacy of 130 years of Randolph industry.

Reason for Luxury Interiors

Visitors to the Victorian hom that line the streets in t "fairgrounds" section of Randol are in for a treat as soon as th open the front door.

The doors, windows, sashes, a interior woodwork of these hom are startlingly beautiful. The det work is especially surprising in town that didn't have a history wealth.

Randolph's beautiful interiors ar no accident. They wer manufactured here.

The stock-in-trade of the Pear Street mill—first Abbot's, then Tewksbury's, then Emerson's, then Webster's—was "builder's finish." It included doors, windows, sashes, and all the interior details that went into fine homes and offices. When Randolph people built homes in the late 1800's and early 1900's they had a ready supply of beautiful woodwork, and many examples of it around them.

Furthermore, E. F. Emerson, who ran the company from 1870-1914, also was a real estate developer, building many homes in Randolph. He made sure his wood products went into the homes—and future generations would thank him.

Later, after World War I, the L. W. Webster Co. gradually went out of the home market in favor of institutional work. Leon W. Webster, a Dartmouth graduate like his son Kenneth, had good contacts there, and as a result Webster wood products are everywhere in Hanover. The president's house, 10 dorms, the Tuck School, and 10 other college buildings were outfitted in builder's finish from Randolph.

So were Ira Allen Chapel at the University of Vermont, and Burlington's City Hall. St. Paul's School in Concord, N.H.

Gifford Housecall

Births

Thursday, Nov. 19: A daughter, Tia Rae Ferris, was born to Donna Ferris and Mathew Crisp of Randolph.

Friday, Nov. 20: A son, Zev Adam, was born to Rebecca (Jeran) and A.J. Ruben of Pittsfield.

The deepest spot in all the oceans, Challenger Deep, is 36,198 feet below the surface of the Pacific. If the highest mountain in the world, Mt. Everest, were put into Challenger Deep, more than a mile of water would cover the mountain.

(attached yellow sheets are conference notes that were later typed up on this sheet)

Building Materials Manufacturing

Was it deliberate that there is no reference to handcrafting of materials--this is all mass production. Should deal with it.
Effect of certain master builders in State--Asher Benjamin taught individuals style and influenced
Look at buildings--finish workers brought their own equipment.
Itinerant farmers went place to place--to the job site
The importance and existance of building craft production on site--pre mass production

#1 Manufacture and availability of tools--pre mass production
Mortar--lime kilns, plaster
Use of Portland cement not common til after 1900's.
Selection of building materials changed with the $ available
Bigger towns had fancier buildings
Impact of prosperity on building construction

#6 Clapboard mills
Clay needed--building type for it? Clay pits
Railways in some marble quarries run by steam machinery.
Harbor facilities for quarries--landing to load onto boats
Asbestos mines in northern Vermont

#7 Plaster business--how quickly was it available?
Determines interior construction
Most plastered originally where available, but some times it was added later
Exterior finishes--paint, whitewash--timing of what used when
What was Vermont importing and exporting when?
Prefab construction anywhere?
Lake Morey Inn first example of pre-fab construction
1850 New York State was shipping to west
When was a Grossman store first available? A consolidated place to get stuff? When was it identified as a business?
Use of catalogs to order
That outlet then becomes a building type--depot. When did hardward store start
1830 Tennessee Follett(?can't read notes . . .)--advertised and distributed building materials in Burlington--retail dealer.

Lime: 3 uses 1) flux in iron mfg
2) Agricultural fertilizer
3) Cement

BUILDING MATERIALS MANUFACTURING: notes

Brick Making

Arms, Florence C. "Vermont Brick Endures." Vermont Life. 9 (Autumn 1954):34-39.

Drury Brick Co. of Essex Jct. - oldest brick making company in Vermont, having been established in 1867 by Jacob K. Drury. (35)

Requires clay and sand (Champlain Valley very condusive to brick making)

"The first brick makers in the state were journeymen who came north and found natural materials to their liking. They made brick by hand from clay located near the site of the buildings erected, often from clay taken out of the cellar holes of houses they were to build.

"Lump lime mixed with sand was the mortar used.

Around 1850 brick yards sprang up all over Vermont, as the need for permanent brick buildings grew.

When Drury was first established it made unmarked, handmade "water struck" brick (used wet molds so brick would slide out easily).

Men put alternate layers of sand and clay in a pit, then added water and let it sit. Horses on sweeps were used to mix clay and sand in these old **pug mills** . A man shoveled clay from a pit into the pug mill. Then a man called a "striker" took the clay in wads in his hands and threw it into the wet molds. He filled the six spaces in each mold, then with a flat board struck off the extra clay. After the clay was molded it was dried for several days then set in kilns where they were burned. The kiln sheds had movable roofs. Brick fired entirely with wood in those days. They "burned kiln" for 7-8 days, then let brick cool in kiln sheds.

Machines greatly stepped up production c.late 19th century.

Around 1920 began using oil to burn brick. Finished with wood because that's what brought out the color.

"sand molded" brick. Put into molds first dusted with fine sand. But burned in same manner as water-struck.

PROPERTY TYPE: Building Materials Manufacturing

HISTORIC OCCURRENCE/SURVIVAL:

Brick yard/kilns found locally whenever clay available to make bricks; often for a one time purpose (to build a house, for ex.). Pits may survive. Larger brickyards/kilns (ex. Drury in Essex) gone.

Saw mills- town charters often encouraged establishment of saw mills (sometimes gave large parcels of land to first person to establish a saw mill in a town. Mills found whenever sufficient head of water. Very subject to freshets, floods destroying them, etc. Mid-to late 19th c. get subject to freshets, floods destroying them, etc. Mid to late 19th c. get larger mills that provided wood products to a large area. Mills very common everywhere until fairly recently. Probably many disappeared after deforestation. Often not substantially built so fall into ruin when not in use.

Blacksmith shops- also quite common, esp. in early years. Need for them disappears as get mass produced iron goods; also as automobile and tractors come in (no need for horse shoes, etc.)

Sash, blind, door shops- think they start appearing mid-19th c.
Quarry and finishing shops- mid 1800s and on... (very early 1800s in Middlebury marble)

Brickyard in Norwich Vt, early 19th c., supplied material for a number of homes in vicinity.

Blacksmith shop in Peacham, c.1830 (bob has slide)

Lime kilns- used in the manufacture of cement and mortar. As canals opened up interior resources, new industries such as the cement industry developed. Such industries helped fuel economic development.

SIGNIFICANCE:

Significance is- finding technologies and ways to make use of Vermont's natural resources. People very anxious at an early date to build comfortable homes, etc. so didn't live very long in temporary log cabins, etc.

Often get much inventions in order to manufacture these products (ex. Markwell with marble in Middlebury, for ex. is going to "Eastern markets." Lumber shipped up and down Lake Champlain. Rutland Marble used for many government buildings throughout the country, granite goes everywhere too. (as does slate)

Vermont slate contributed to Downing and Davis' "picturesque" movement in national architecture.

Much quarrying machinery and techniques invented in Vermont

- 'Brickyard Farm' once part of Udall - Boyd property in Queechee
- Foundation of sash + blind factory in Derby Ct

Brickyards - kilns, pug mills, drying racks, etc

IDEAL CHARACTERISTICS:

Many of these property types are now archeological sites.

Mills- many are waterpowered; will have waterwheels, etc. Belts and pulleys inside.

Steam power at an early date.

Buildings used to manufacture stone products often built of waste peices of stone (ex. marble works in Middlbury, and in W. Rutland)

Blacksmiths are wood or stone. Many just look like sheds but will have a tell-tale chimney.

Brickyard pits.

VARIATIONS:

CHANGES OVER TIME:

Deterioration, destruction.

Changes from waterpower to steam power, electric power.

Changes in technology and equipment used in these mfries.

Changes in building from one use to another; ex. saw mill to a grist mill.

NAMES/LOCATIONS OF SPECIFIC EXAMPLES FROM RESEARCH:

Saw mills- Hyde sawmill in East Bethel Village (still has waterwheel etc. inside)

Tunbridge Mill (combination grist mill/saw mill/wood working mill)

Lime kiln- we think there's one in Middlebury on the Case St Road. Johnson and Lathrop mills in Bristol still in use. (may not have historic parts left).

Blacksmith shop- Starksboro, Monktonborough

Glass Works- Lake Dunmore

Quarry and finishing shops- Marbleworks, Middlebury; W. Rutland; Proctor; Barre.

Burlington -sash and blind factory by waterfront
-glass works

Essex Jct.- Drury brickyard- only the stack left- see NR requests file

Plainfield brickyard- see village NRHD s of s

Vergennes- shade roller mill- on Otter Creek in Vergennes HD-NR

Pioneer shops in Burl. - furniture?

Winooski brick co.

2 brickyard archeol. sites in Rutland City near Rutland Fire Clay and south of Park Ave. - historic lumberyard on west st. in Rutland city- Gipson Lumber Co. building in downtown Brandon.

GEOGRAPHIC DISTRIBUTION:

Sawmills- everywhere there was enough waterpower

Brickyards- wherever suitable clay

Blacksmith shops- nearly every town

Sash, blind and door shops- in larger towns (ex. Middlebury, Smith & Allen) with access to lumber from the mountains.

RESEARCH QUESTIONS:

Did early brickmakers mark their bricks?

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CONSTITUENCIES:

Lumberyards
Architects
Institute of Building Crafts

EXTRACTIVE INDUSTRIES (Manufactures a products from soils extracted from the earth, i.e.- clay, sand,

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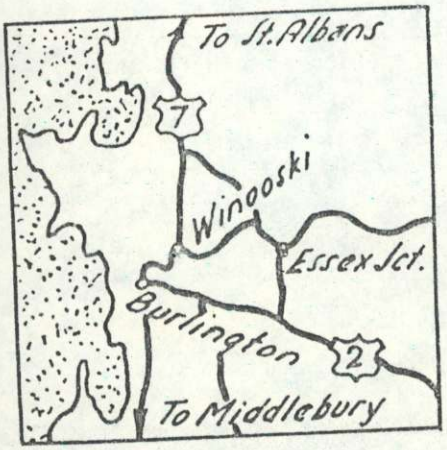
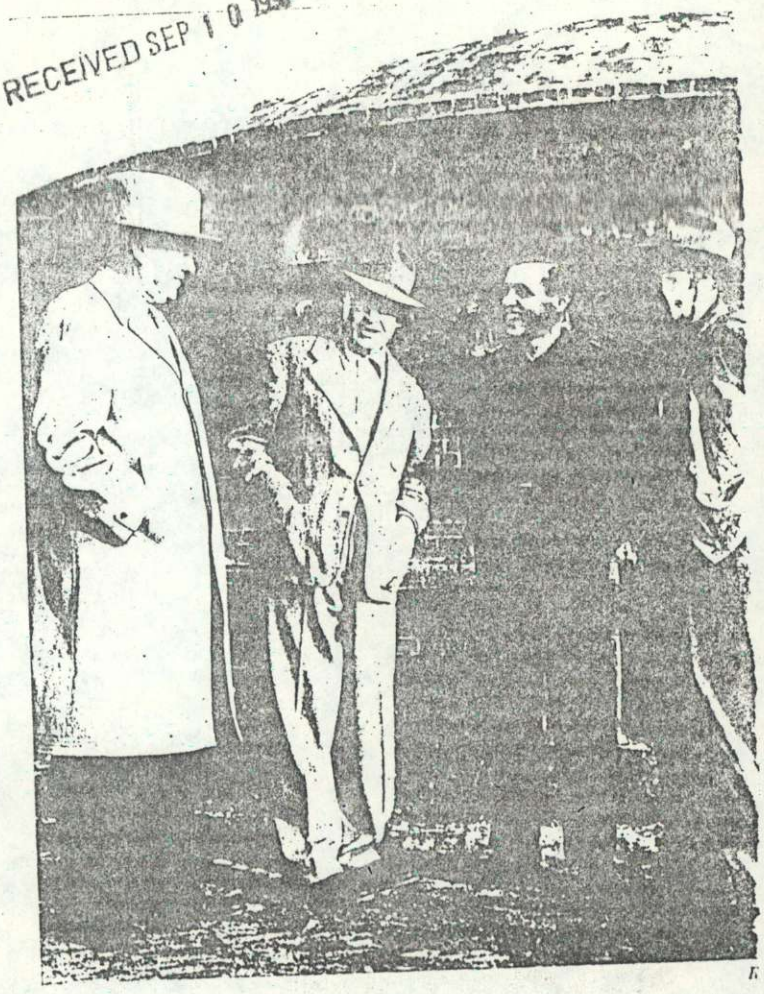
dures

The story of four generations of Drury brick makers.



LEFT: Beautiful Ira Allen Chapel at University of Vermont is built of Drury brick. Patriot Ira Allen gave the campus in 1791.



ABOVE: The third and fourth Drury generations carry on the old industry generation grows up. Left to right are: Max W., in charge of the office; who supervises manufacture; and the latter's sons, Donald B. and Harris

IN VERMONT it is not unusual for the ownership and management of a business to descend from father to son. Even in the Green Mountain state, however, it is most unusual to have the same successful business coming down through four generations with fathers and sons working together in the development of the enterprise.

The Drury Brick Company of Essex Junction is such a manufacturing center and it bids fair to carry on into the fifth generation of father and son activity. This company is now the oldest brick making company of Vermont, having been established in 1867 by Jacob K. Drury.

Jacob Drury was fortunate in selecting and buying his brickyard site in Essex, locating it on both sides of Indian Brook. On one side of the stream he had good beds of clay, on the other side the land was sand—a perfect condition for making brick.

The Drury firm must have hired all their workmen at first, since the main business of the father was shipping butter and cheese to Montreal. Shortly after the Civil War Jacob Drury was joined by his son, George, and they founded the brick making firm of J. K. Drury & Son.

Homer, the youngest child in a family of seven, was then in the grocery business. When his father died in 1889, the two brothers George and Homer joined forces and went into partnership, the brick business then becoming the firm of G. B. & H. D. Drury. The partnership was incorporated in 1897 as the Drury Brick & Tile Co.

Homer in his turn had five sons—Harris K., Max, Alan, Harley F. and Edwin Drury. Again war played its part in the family life, and Harris and Max left the University of Vermont to join the armed services during the first World War. Harris was an ensign in the Na when he received his discharg Max served in the Army Signa about the same length of time. joined the brick making firm a their terms of service. Shortly in 1920, the company was exp

Today the present plant is direction of the two brothers, Max, and they are making rapi the business, using new and mo ment. They employ about fo the brick making season, and w machines they turn out at lea many bricks as double that nu ployees could in the old days.

The first brickmakers in th journeymen who came north natural materials to their lil made their brick by hand fr cated near the site of the buil

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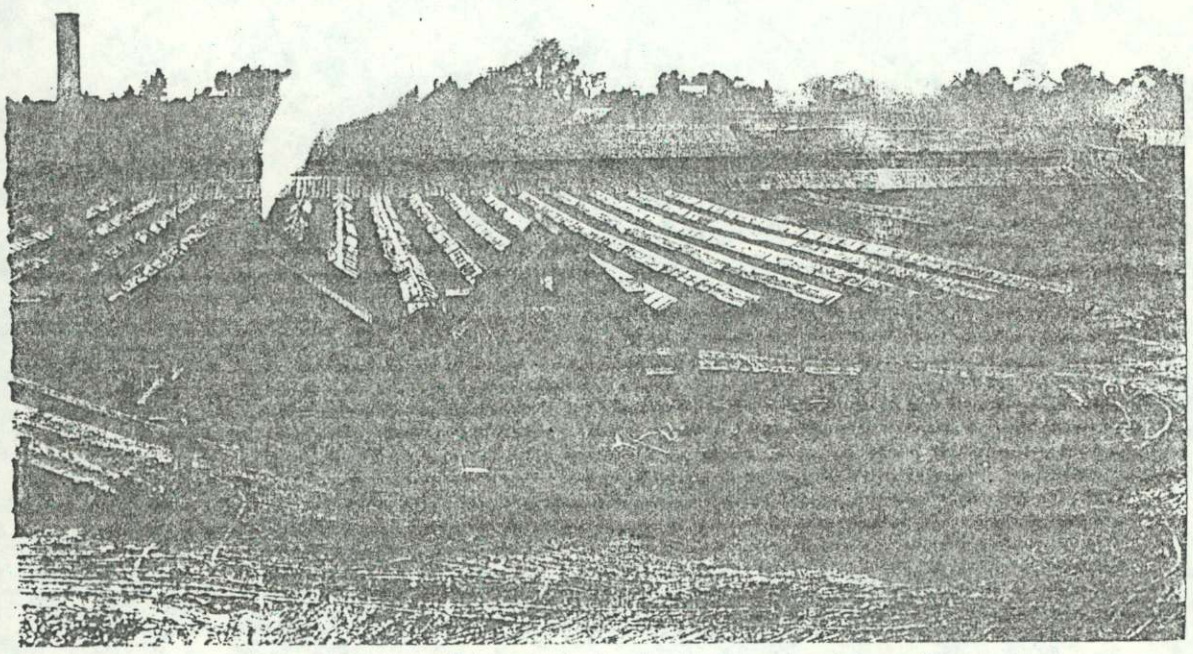

is an 1895 view of the Drury Brick Co., still located on Indian Brook in Essex Junction's outskirts. At this time, two years and enlarging, the establishment was turning out 48,000 bricks per day for the second generation of the Drury family.

mes from clay taken out of
of the houses they were to

tsmen had their own ways
brick layer on layer in the
e building. Some of them
h bond, which consists of
ses of headers and stretch-
the journeymen used the
sing a header and stretcher
h layer or course of brick.
d become acquainted with
nonters, some of them de-
and interesting pattern in
y saved the brick that had
black and used it to make
k wall. These checkered
some of the most beauti-
n Vermont. They are laid
Flemish bond, the black
as headers.

o commercial brick yards
the materials used were
The lovely rose-red brick
om their own clay pits.
Lump lime mixed with sand was the mortar used. They sawed the boards from trees that grew on the place. What enduring excellence they attained!

About 1850 brick yards sprang up all over northern Vermont, as the need for permanent brick buildings continued to grow. As times grew better, larger homes were required for more frequent entertaining and to house larger families. So brick replaced wood, and comfortable, spacious houses in the Georgian style, like the author's own, were built on almost every road in the state. These simple old brick homes have endured because they are well adapted to the New England climate. Brick houses are warm in winter; they are cool in summer and they require a minimum in upkeep. If they had not been built well, they would have vanished. Because Vermont brick endures, most of them are in constant use today.

It was not, however, until 1867 that Vermont's oldest brick making establishment came into being. Like the other companies in operation at that date, the brick the Drury Company made were unmarked, handmade "water struck" brick, which means that they used wet molds so that the brick would slide out easily.

Brick by definition is an oblong block of kneaded clay dried in the sun or burned in the kiln. "Water struck" brick may be recognized today because they are smoother and irregular in shape. In the "water struck" brick process men put alternate layers of clay and sand into a pit, then added water and let it set. Horses on sweeps were used to mix clay and sand in these old "pug mills." A man shoveled clay from the pit into the "pug mill." Then a man called a "striker" took the clay in wads in his hands and threw it into the wet molds. He filled the six spaces in each mold, and then with a flat board he "struck" off the extra clay, which explains the origin of his name. Such a man made 12,000 brick a day in twelve hours' work and then he went home.

After brick are molded, while the clay

still plastic, they are dried for several days and then set in kilns, where they are to be burned. The original Drury kilns were under sheds with movable roofs and the brick were fired entirely with wood, which was cheap and plentiful. They "burned kiln" for seven or eight days, and then let the brick cool in the kiln sheds.

The old brick were made without adding artificial color. Burning brick with wood brought out the beautiful rosy color. This red is produced in the firing process by oxidation, if there is a trace of iron in the original clay. In firing, the kilns are heated slowly and brought to a temperature of 1850° F. and this temperature is held for the last two days of burning. The color and hardness of the old "water struck" brick and "sand molded" brick were always conditioned somewhat by their position in the kiln—some might be overburned and some might be underdone.

"Sand molded" brick differ from "water struck" brick in the process of manufacturing. "Sand molded" brick are brick put into molds that are first dusted with fine

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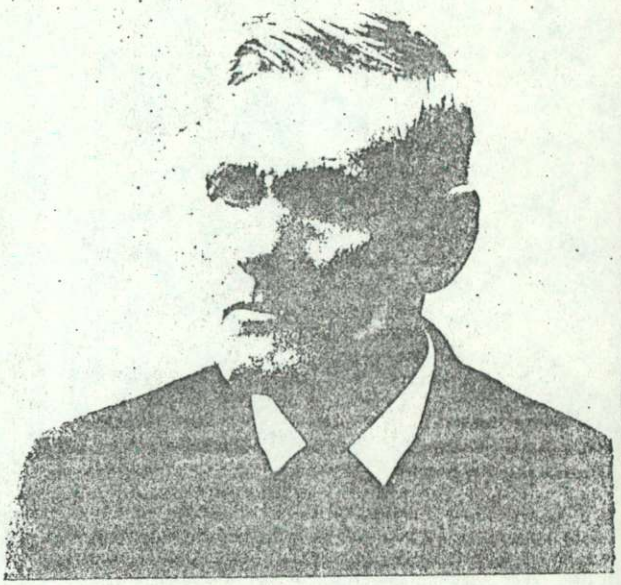
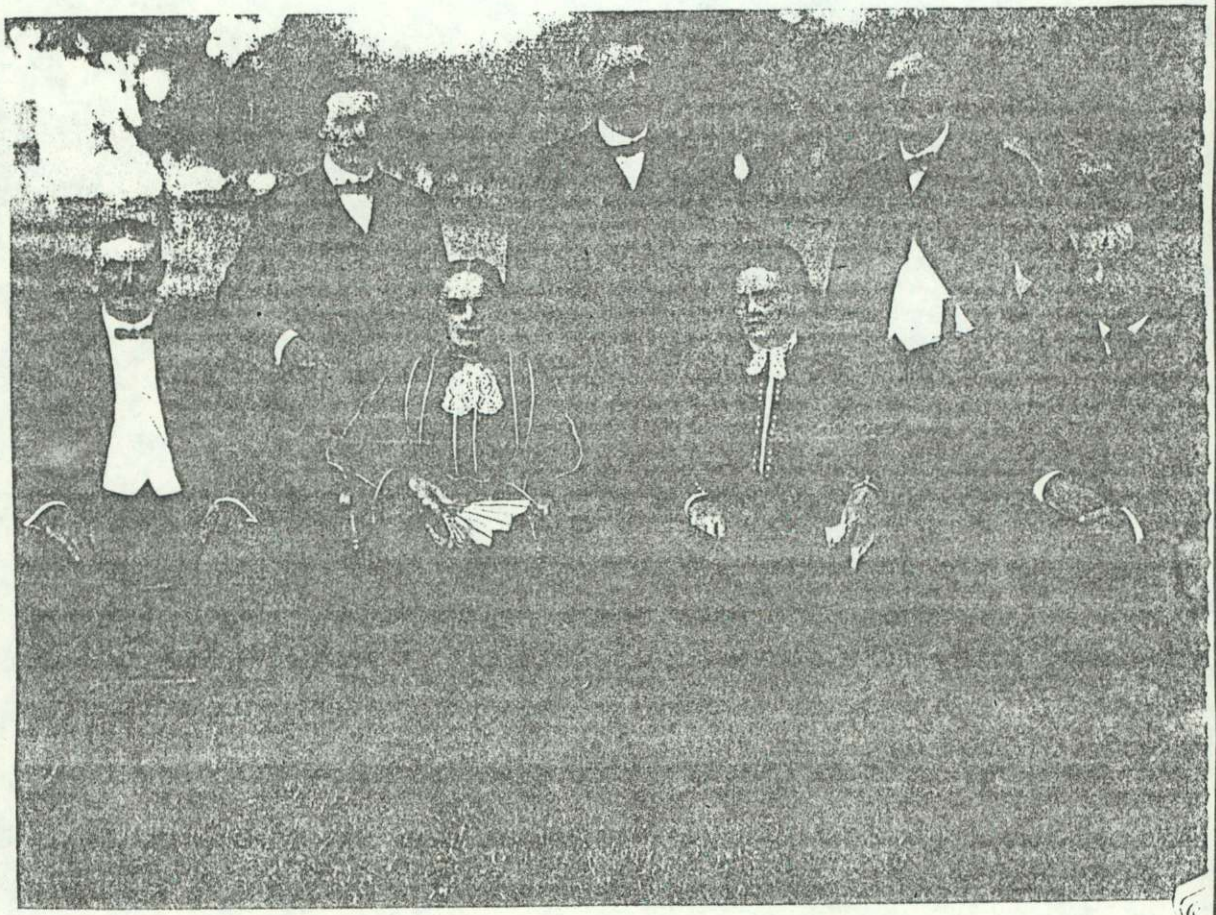


ABOVE: Founder of Drury brick company was Farmer Jacob K. Dru ganized the operation in 1867. Sons George and Homer later came in.

BELOW: The children of founder Jacob Drury. George (left) joined his father first. Homer, standing next, joined his broth



VERMON

the two kinds of brick in the same fashion with ıecessary for the Drury yard n hundred cords of wood a rn their product. Great care watching of the kiln was r that the bricks should not or underdone, and it still ight days to burn. The sand vere more regular and some-lthough they showed traces sting the molds. Using ma-he clay and sand, it was now p up production to 48,000 in a ten hour workday.

plant was rebuilt and en-and rebuilt again in 1910. In r change was made in the f the brick itself. By that ound easier and cheaper to by burning oil instead of ntly the amount of time ing was just the same. They e and a half days and then ood for one and a half days. with wood, because that ght out the color.

ocess of sand molded brick sful that between 1925 and re the Drury Brick Com-Max Drury worked in the vorked in the yard and also w farm that was bought in n had additional clay banks yard needed. Production ed up to 60,000 brick per 48,000.

ime new methods were put . In contrast with the old h were operated with the horse, two hundred thirty er is now used in prepara-ıg of the clay and sand into

l clay banks were close the clay was moved to the scoop wheelbarrows. Dur-ghty-six years the clay has so much land that it is now strial railway a distance of f a mile.

now won with a power rted in five-yard cars and large granulator, where it is % sand, and gradually fed ıtegrator consisting of two about one half inch apart. reaks up all lumps of clay nds the clay and sand. The n fed through a machine aner, where all small stones crushed to powder.

int the clay is conveyed to pug mills, one horizontal cal, where it is further pugged, or mixed, and necessary water added. This vertical pug mill is actually the upper part of the brick machine, and it feeds the clay mixture into the press where the molds are filled with seven brick. Previously the molds have been dusted with fine sand, which acts as a lubricant, so that the now plastic and sticky clay will readily slip out of the molds when they are inverted. The brick machine automatically sands the molds, fills them, strikes off the excess clay, dumps the brick onto pallets and returns the molds to the sander, ready for another cycle.

The pallets, loaded with seven brick each, are conveyed to long drying racks where they remain for one or two weeks, and where the mechanically combined water is removed by sun and wind. While losing this water the initial shrinkage of the brick takes place.

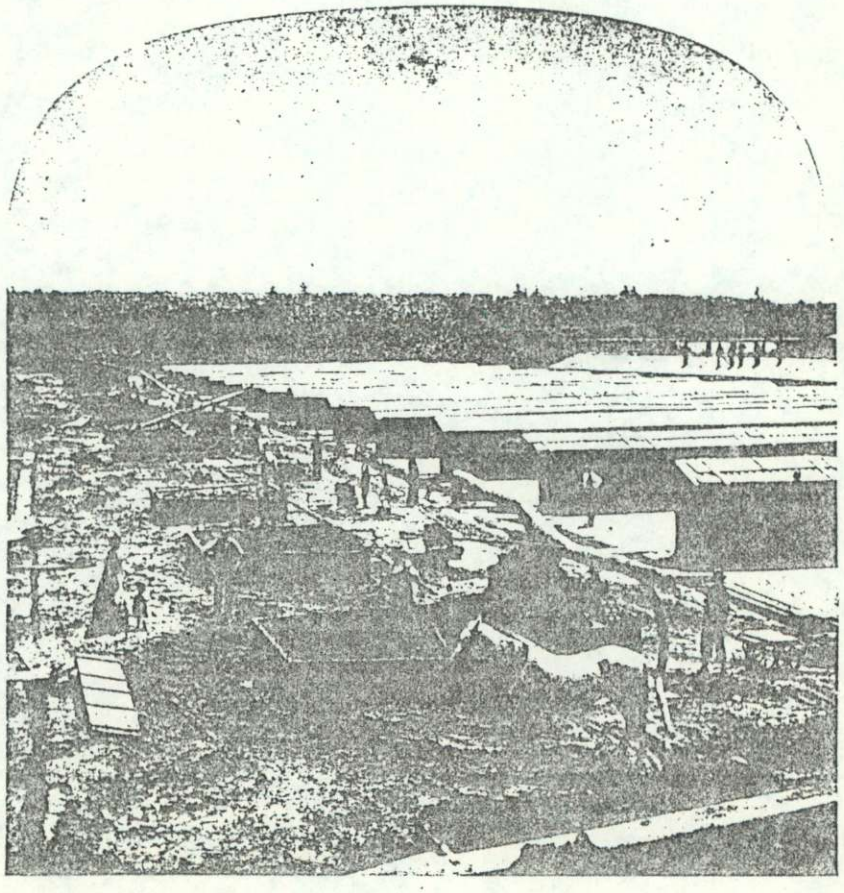
When dry the bricks are conveyed to the kilns and stacked on edge, with spaces between each pair or "hand" of brick, so the heat in the burning process may readily surround each brick. The brick kilns are actually large piles of brick so placed that heat from the fires may create a draft through the whole pile and bring it all up to a finishing temperature.

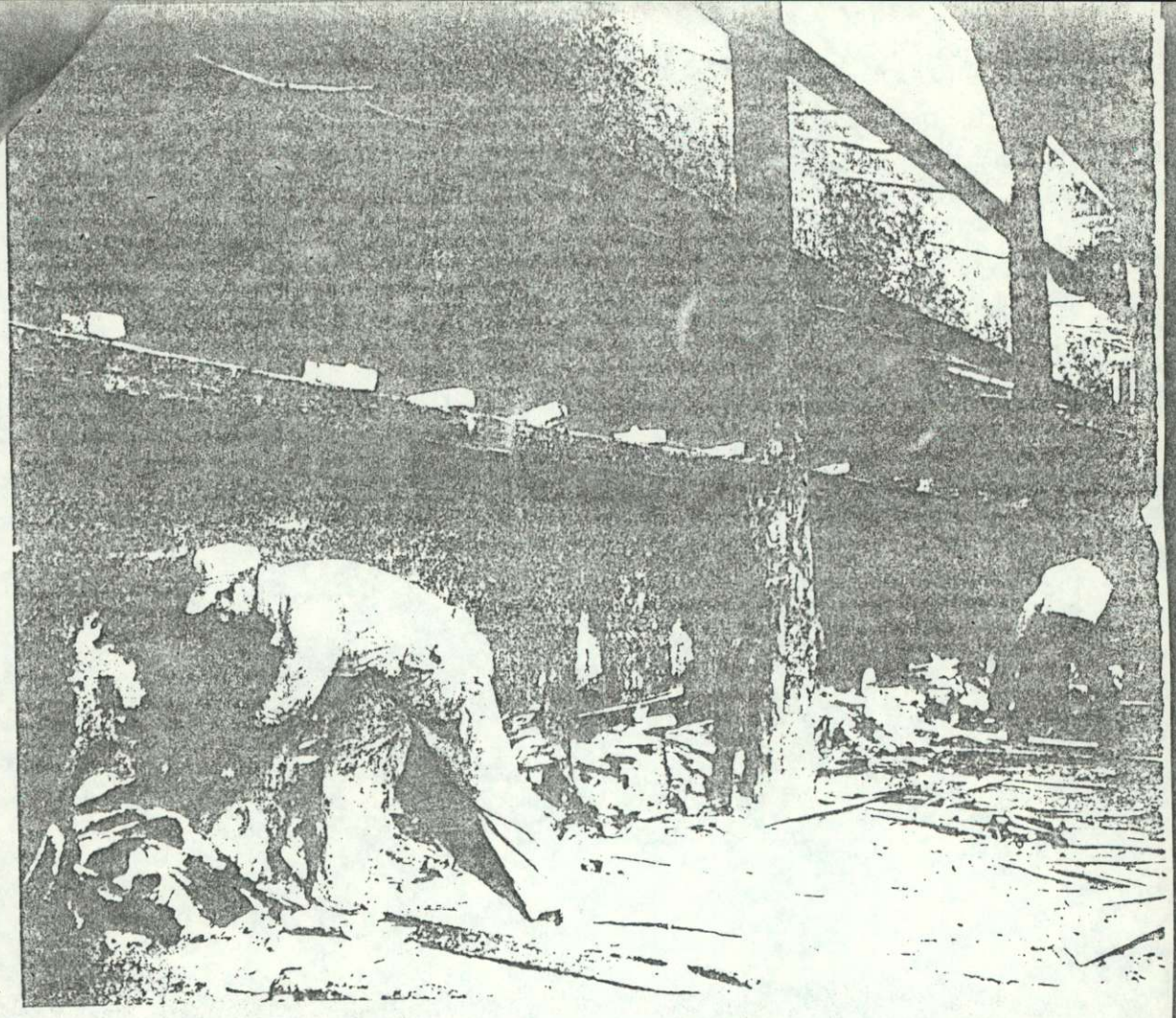
After the kiln has been completed, a battery of thirty-six oil burners is moved into place and low fires are started in the bottom of the kiln. The temperature is slowly raised during the next five days to 1850° F.

Much happens to the little blocks of clay during this period. When the bricks are first heated they expand slightly, but when they have reached high heat they begin to shrink, closing up the pores originally occupied by air and water, making them very dense, and thus able to stand the alternate freezing and thawing through many Vermont winters.

Mechanically combined water has been driven off by the time the temperature has reached 212° F. The chemically combined water is now gradually driven off too, until when the temperature reaches 572° F. the clay has lost its plasticity irrevocably. At about 900° F. the brick takes on a dull red color, which cannot be seen during

BELOW: This old stereo view of the Drury yards shows horses on sweeps mixing sand, and clay in the pug mills. Next "strikers" formed by hand the "water-struck" brick.





ABOVE: Today, toward the end of the 7-day "burn," wood is substituted for oil heat to bake the brick. This seems better the bricks' red color, perhaps due to the temperature fluctuations of the wood fire. Drury production is now about 60,000 br

daylight hours. From 1000° F. to 1450° F. the color brightens and all foreign matter is burned out. The temperature is now gradually raised to 1850° F. and held there until the burn is completed. The color of the brick in the kiln is now a bright yellow.

At the end of the fifth day the oil burners are taken away and the burn is completed with cordwood. The reason for the change is that the oil fires are very steady, while the rise and fall of the wood fires as fresh fuel is added and then burned down, seems to better oxidize the traces of iron in the clay, and bring out the red color of the burned clay.

Drury brick today are stamped with the firm name. They are finished hard burned and of low absorption. Such brick will endure for centuries. Layer upon layer of their rosy red product has been used in various buildings at Fort Ethan Allen since 1899, at St. Michaels College, and at the University of Vermont. The new wings of the Mary Fletcher Hospital adjacent to the University appear almost as part of the campus, because they too are built of Drury brick.

The Drury product appears in schools and public buildings all over the state, in post offices such as those at St. Albans and Rutland, and in public buildings like Burlington's City Hall and Memorial Auditorium. The newer State Hospital buildings at Waterbury are built of Drury brick. The Company also ships its product into New York state and into northern New Hampshire.

At the close of World War II, Harris, Jr. and Donald, sons of Harris, followed precedent and went into the business with their father and uncle. Harris, Jr. had been in the field artillery, and Donald, who went into the business in 1949, was an ensign in the Navy.

The entire "Drury tribe," as they call themselves, is very active in the town of Essex Junction. Harris has se lage trustee and president, w of the Ration Board in World has been manager of the Cham Exposition for sixteen years third son, Noel.

Max Drury, too, has served village offices and has two son a Navy flier, lives in Burlingt works with the General El pany. Robert is a sophom school.

Also coming along in the tion to take their proper place ness in due time are Harris I and Robert Rand Drury.

It would appear that these makers in Vermont are as dev art and as steadfast as their fo turn they are making a rich co our Vermont heritage just ancestors when they first la enduring old brick walls.

(The following article won second prize in the 1973 Folklor Research Essay Contest.)

HOW NATIVE VERMONTERS "BURNED KILN"

The art of brick making (burned bricks) dates back to Babylonian times. The chief occupation of the Israelites in bondage was brick making (clay and chopped straw with a paste of water--sun dried).

The word brick was derived from the Teutonic bricke--meanin dish or plate. The verb briken--to break. Also the French brique--a "broken piece."

Bricks were made extensively in Germany, Great Britain and Holland before New England was settled.

The first brick buildings in America were built on Manhatta Island in 1633 by a governor of the Dutch West India Co., from bricks imported from Holland.

In America, burned bricks were first made in New Haven, Conn., in 1650. The art slowly spread through New England.

In Franklin County, Vermont, in 1840 there were listed sales of brick and lime of $402,218.

Bricks were made from red-burning surface clay, which the homesteader either took from the cellar hole where he was to build the home, or from clay pits on his land, along a brook or river bank. This clay he fashioned by hand and burned in his ov home-made kiln (kill). Lump lime mixed with sand was the mortar used.

Soon journeymen traveled up through Vermont and, finding plenty of clay, sand and limestone deposits, began to make kiln Soon brickyards sprang up all over Vermont. As brick homes grew in popularity, they replaced wooden ones. Around 1840, on almo every road in the state, could be found these beautiful rose-re homes.

Brick production in commercial brickyards reached its peak in 1925 but not many private homes were erected after 1840.

Highgate, chartered in 1763, was first settled by Germans, mostly--soldiers who had served in the British army during the Revolution. In all probability, some of them were trained in t art of brick building. Finding a goodly deposit of blue clay, sand ridges and limestone deposits near Lake Champlain, a few miles distant (limestone, when burned, yields lime, which was used for the mortar to bind bricks together in building walls,

(continued)

...c.), it was only natural that a brickyard would be built.

... Captain Levi Hungerford purchased a 100-acre lot (92) on ...nd Hill, which encompassed the blue clay banks on both sides of ...he Missisquoi River. Running through the lot and emptying into ...he Missisquoi was a brook, later named Hungerford Brook.

If you were to go to Highgate Falls by the St. Albans road ...ou would see a small cement bridge on the outskirts of the vil...age. Do not cross the bridge, but follow, on foot, to the left, ...long the streambed down toward the Missisquoi River. There you ...ill find a circular stone about three feet in diameter; this was ...nce used in a grist mill erected here. This was also the site ...f the first brickyard as listed on a map of Highgate town in ...791.

In the Highgate records: The first brick house built was by ...homas Best in 1811; Heman Allen built a grist mill of brick in ...815; in 1819, SS Keyes built a brick house 20 rods south of the ...brick store owned by Henry Baxter; SW Keyes built a brick house ...n the east side of the green. Today you can see the Manor May...fair built in 1818; a former schoolhouse, 1835; the Episcopal ...church, 1831, and the Methodist church, 1868; and along the back ...roads are scattered the remains of many brick dwellings.

Brick clay is made up from felspathic and siliceous rocks decomposed and suspended in water deposited in geologic basins. They vary from very soft plastic, "Alluvial," to hard rock-like shales and slates. The "Alluvial" and drift clays used for brick making until modern times were found near the surface and were readily worked, requiring little preparation.

Clays or earths from which burned brick was made were of two types: Mostly hydrated aluminum silicates (the true clay substance), small amounts of carbonate of lime, more or less sand, and undecomposed grains of Feldspar, and oxide or carbonate of iron; they burned to a buff, salmon or red color. The other type contained considerable percentage of carbonate of lime in additic to as much as 40 per cent chalk; they burned to a sulphur yellow color. This type was called Malm. Number one type was widely distributed but the Malm type was found only with chalk or lime-stone formations. The percentage of clay substance 5-80% in ratio to the sand 5-80% influenced the hardness and durability of the burned brick, while the percentage of iron and other impurities affected the color; as well as the length of time it was fired: 2-10% iron--light buff to chocolate; 5-8% iron--red bric 3-4% alkalies or too hard firing--dark purple. Although the impurities helped wet clay to be more plastic, by forming a mucilage, they also made a patchy color, and pitted faces on the brick. The commonest soluble impurity, calcium sulphate, made a whitish scum which showed when the brick was dry. Magnesium

(continued)

crystals after the brick was built into posi-
that were strong and plastic--"fat" clay"--had a high
centage of the true clay substance and a low percentage of
nd. It took up a lot of water in "tempering" and dried slowly.
ese bricks shrunk a lot and were liable to lose their shape and
velop cracks in the drying and firing. "Fat" clays were im-
oved by the addition of coarse sharp sand, which reduced the
ngth of drying time and shrinkage.

The tempering of clay was done by allowing it to stand some
nths in a wet condition exposed to the weather and turning it
er several times.

The "tempered" clay was pressed by hand into a wooden or
tal mold or four-sided case without top or bottom, allowance
ing made for shrinkage of the brick in the drying and firing.
e molder stands at a bench or table, dips the mold in water,
water then sand, to prevent the clay from sticking, takes a
dely shaped piece of clay from an assistant, dashes this into
e mold which rests on a molding bench. He then presses the
ay into the corners of the mold with his fingers, scrapes off
y surplus and levels the top by means of a strip of wood called
"strike," and then he turns the brick out of the mold onto a
ard, to be carried to the drying-ground by another assistant.
e mold may be placed on a special piece of wood, called the
took-board," provided with an elevated tongue of wood in the
ater, which produces a hollow or "frog" in the bottom of the
ick.

The drying and firing of bricks in the early days was done
forming a series of rows or walls of the unfired bricks, placed
irly close together so as to form a rectangular stack called a
lamp." A certain number of channels, or fire-mouths, were
rmed in the bottom of the "clamp." Fires were kindled and
rdwood burned in the fire-mouths, letting the "clamp" go on
rning for seven or eight days. The "clamp" was then allowed to
ol, after which it was taken down and the bricks sorted; those
at were underfired being built up again in the next "clamp" for
firing. Sometimes the "clamp" took the form of a temporary
ln (kill), the outside being built of burned brick plastered
er with clay and the fire-mouths being larger and more carefully
rmed. "Clamp" firing was slow and also uneconomical, because of
regular heating and lack of control.

Brick kilns were of two main types, Intermittant and
ntinuous. The Intermittant, circular in plan, was a vertical
linder with a dome top. It consisted of a single firing chamber
which the unfired bricks were placed. In the walls were con-
ived a number of fire-mouths where cordwood was burned. In the
der form, known as the "up-draught kiln," the products of com-
stion passed from the fire-mouth through the flues into the

(continued)

ottom of the firing chamber and thence directly upward and out he top.

Even in the later days of brick firing the use of cordwood was preferred because the rise and fall of the wood fires as fresh fuel was added and then burned down helped oxidize the traces of iron in the clay and bring out the red, rosy color in the burned brick. This seven- or eight-day process was called "Burning Kiln."

The mortar used in building brick houses was made up of lime and sand.

The best sand came from a pit--sharp and angular--however, liable to be mixed with clay or earth which must be washed away. The sand was removed by screening or sifting. River sand was used but was not so good because the particles had been worn smooth. Sea sand was no good because it could not be freed of salt which attracts moisture, so the bricks would stay damp, also the particles are rounded from sea action. Blue or black mortar was made from foundry sand or blacksmith ashes instead of sand. Other substitutes for sand in mortar were: fine stone grit, thoroughly burned clay or ballast, old bricks, clinkers and cinders, being ground to a uniform size and screened from dust.

The lime in mortar was of several types but when limestone is burned the resulting product--lime--was what they used. Lime should be "slaked" before using. It is measured out, deposited in a heap on a wooden "bank" or platform and after being well watered, is covered with the correct proportion of sand. This retains the heat and moisture necessary to thorough slaking; the time required for this operation depends on the variety of lime, but usually a few hours to one and a half days. If done by hand the materials must be screened to remove any unslaked lumps of lime. The mass should then be well "larried"; mixed together with a long-handled rake called the "larry."

Now the mixed sand and slaked lime called the lime mortar should be tempered two days by covering with sacks. Then it should be turned and mixed just before using.

Brick laying should not be carried on at temperatures lower than 80 degrees Fahrenheit or higher than 100 degrees, according to the old-timers.

Several types of lime are: Lias lime--sets firm in water; Selenitic, invented by Scott 1822, is lias lime to which has bee added plaster of paris (takes a lot more sand than ordinary lime Portland--lime mortar to which portland cement has been added; Roman mortar--addition of Roman cement to lime mortar.

(continued)

Pargetting for rendering inside of chimney flues was one part lime to three parts cow dung, free from straw.

The actual methods of laying brick and the tools used are still in common use, and can be found described in most dictionaries.

Contributed by Eltha L. Morgan, Highgate Center

(My sources, besides various reference books, included discussions with old-time local residents and the Highgate town clerk's office records.)

DRIVING TURKEYS TO BOSTON

Years ago when the roads between the north country and Bost were little more than bridle paths, with the best only very narr dirt roads, the usual way of transporting what produce or stock the people had, and for which there was no local market, was to take them to Boston. This was done by ox-team or by driving droves of cattle and flocks of sheep over the road. Then they would bring back needed commodities which could not be raised on the farm.

Wild turkeys had practically been killed off years before, many people raised turkeys. In those days turkeys were not commonly used for food as they are today, but mainly at Thanksgivin or Christmas time, so it was hard to dispose of the surplus loca ly. Some enterprising farmers conceived the idea of driving a flock of turkeys to market. A number of farmers in the towns nc of Chester, Vt.--Andover, Ludlow, Weston, etc.--subscribed to this idea.

A big gobbler was selected as leader and had a collar or rc placed around his neck. A man walked ahead, leading him, and naturally the flock followed. Another man followed them in a bu with food for the turkeys, and to guard against stragglers and predators. Of course progress was slow, and they stopped for re at taverns along the way. The turkeys were fed and flew up intc adjacent trees to roost for the night. In the morning they came down for food, and the long journey would resume. Some of the weaker birds died, but the loss was more than made up by the nur bers added to the flock by farmers along the way. By this mean and by buying, selling and trading, they managed to reach the Boston market without too much depletion.

One of their regular stops was in Chester, where they stay overnight at a tavern on the road now called the Green Mountain Turnpike. The old inn is still there, occupied by descendants the original owners, an old Chester family by the name of Henry The road now comes out on Vermont 103. The old route from ther to Boston is uncertain, probably the Pleasant Valley Road.

Contributed by Gladys Baker

VERMONT DIVISION FOR HISTORIC PRESERVATION: THE STATE PLAN

CONTEXT: BUILDING MATERIALS MANUFACTURING

1) How it developed (geographic; cultural; social; other influences):
-many raw materials (stone, lumber,etc,) available in Vermont
-sawmills were often the first mills established in towns following settlement
-bricks for many early buildings were made on site
-slate manufacturing since early 19th c.
-demand for granite and marble for public and institutional buildings in late 19th and early 20th c.
-products shipped out of state as transportation improved
-mass production of wooden architectural components (Middlebury, Burlington)
-nails -handwrought by local blacksmiths - later wire nail production
-glass production
-paints - Brandon -iron ore deposits source of pigments
-interior features (marble and marbleized slate mantels, soapstone sinks, etc.)
-cast iron lintels

2) Limitations of development:
-availability of natural resources
-varying quality of natural resources
-limitations of technology for extractive products
-transportation limitations
-rising labor costs - strikes
-public tastes changing
-catalog sales of out of state materials

3) Known geographic distributions and patterns:
-Burlington - milled Canadian lumber into building components
-see Quarrying and Stone Milling for information on stone distribution
- Essex Junction - Drury Brickyard

4) Historic highlights (i.e., significant events [natural and social], people, technological advances, laws, social trends, etc.):
1848- first manufacture of roofing slate in VT - Fair Haven

conversion from vertical to circular saw
conversion from stacked kilns to modern kilns
conversion from handmolded to machine-made brick

5) Time frame: _____ (justification:

6) Property types known and/or expected:

brick yards, brick kilns
saw mills
lime kilns
Eagle Square factory
blacksmith shops
sash, blind, door shops
quarries and finishing shops
woodworking mills
workers housing
owners housing
shingle mills
glass works

7) Information gaps/research questions:

8) Biases:

9) Relevant constituencies:

Preservation Institute for the Building Crafts
vocational schools
builders and crafts unions and associations
AIA
local museums and historical societies
architectural historians

10) Selected bibliography:

Industry and Wealth of the Principal Points of Vermont, 1891
Industrial Vermont, Vt Bureau of Publicity, Office of the Secretary of State, 1914
Zadock Thompson's 1842 Vt Gazeteer
Hemenway
Child's
Smith county histories

Prepared by: Elsa Gilbertson, Leslie Goat, Nancy Solomon, Date: 9/85
Nancy E. Boone, Curtis Johnson

(attached yellow sheets are conference notes that were later typed up on this sheet)

Building Materials Manufacturing

Was it deliberate that there is no reference to handcrafting of materials--this is all mass production. Should deal with it.
Effect of certain master builders in State--Asher Benjamin taught individuals style and influenced
Look at buildings--finish workers brought their own equipment.
Itinerant farmers went place to place--to the job site
The importance and existance of building craft production on site--pre mass production

#1 Manufacture and availability of tools--pre mass production
Mortar--lime kilns, plaster
Use of Portland cement not common til after 1900's.
Selection of building materials changed with the $ available
Bigger towns had fancier buildings
Impact of prosperity on building construction

#6 Clapboard mills
Clay needed--building type for it? Clay pits
Railways in some marble quarries run by steam machinery.
Harbor facilities for quarries--landing to load onto boats
Asbestos mines in northern Vermont

#7 Plaster business--how quickly was it available?
Determines interior construction
Most plastered originally where available, but some times it was added later
Exterior finishes--paint, whitewash--timing of what used when
What was Vermont importing and exporting when?
Prefab construction anywhere?
Lake Morey Inn first example of pre-fab construction
1850 New York State was shipping to west
When was a Grossman store first available? A consolidated place to get stuff? When was it identified as a business?
Use of catalogs to order
That outlet then becomes a building type--depot. When did hardward store start
1830 Tennessee Follett(?can't read notes . . .)--advertised and distributed building materials in Burlington--retail dealer.

Building Materials

* Was it deliberate that there is no reference to handcrafting of materials - this is all mass production. Should deal with it -
Effect of certain master builders in State —
Asher Benjamin taught individual style + influenced

* Look at timelines - finish workers but their own equipment
Itinerant framers went place to place
Job site -
the importance + existence of building craft production on site - pre-mass production

1 Manufacture + availability of tools - ~~with~~ pre-mass production.

1 Mortar - lime kilns - plaster

* Use of Portland cement not ~~used~~ common after 1900's.

Selection of building materials changed w/ & available.
Bigger towns had fancier buildings.

* Impact of property on building construction

6 Clapboard mills
Clay needed - building type for it? Clay pits
Railways in some marble quarries run by steam machinery.
Harbor facilities for quarries - landing to load onto boats.
Asbestos mine in northern VT.

7 Plaster burner - how quickly was it available.
Determines interior construction.
Most plastered originally where available, but some - times it was added later
Exterior finishes - paint, whitewash - timing of ~~when~~ what used when.

? What was VT importing & exporting when.

7 Prefab construction anywhere
Lake Wobegon 1st example of pre fab construction.
1850 NY State is shipping lowest -

* When was a Grossmans 1st available - consolidated. When identified as a business

5 Use of catalogs to order
that outlet then becomes a building type - Dysot
when did hardware store start
1830 - Tennessee Tollett - adv & distributing building materials in Burlington - retail dealer

VERMONT DIVISION FOR HISTORIC PRESERVATION: THE STATE PLAN

CONTEXT: BUILDING MATERIALS MANUFACTURING

1) How it developed (geographic; cultural; social; other influences):
-many raw materials (stone, lumber,etc,) available in Vermont
-sawmills were often the first mills established in towns following settlement
-bricks for many early buildings were made on site
-slate manufacturing since early 19th c.
-demand for granite and marble for public and institutional buildings in late 19th and early 20th c.
-products shipped out of state as transportation improved
-mass production of wooden architectural components (Middlebury, Burlington)
-nails -handwrought by local blacksmiths - later wire nail production
-glass production
-paints - Brandon -iron ore deposits source of pigments
-interior features (marble and marbleized slate mantels, soapstone sinks, etc.)
-cast iron lintels

2) Limitations of development:
-availability of natural resources
-varying quality of natural resources
-limitations of technology for extractive products
-transportation limitations
-rising labor costs - strikes
-public tastes changing
-catalog sales of out of state materials

3) Known geographic distributions and patterns:
-Burlington - milled Canadian lumber into building components
-see Quarrying and Stone Milling for information on stone distribution
- Essex Junction - Drury Brickyard

4) Historic highlights (i.e., significant events [natural and social], people, technological advances, laws, social trends, etc.):
1848- first manufacture of roofing slate in VT - Fair Haven

conversion from vertical to circular saw
conversion from stacked kilns to modern kilns
conversion from handmolded to machine-made brick

5) Time frame:_____ (justification:

6) Property types known and/or expected:

brick yards, brick kilns
saw mills
lime kilns
Eagle Square factory
blacksmith shops
sash, blind, door shops
quarries and finishing shops
woodworking mills
workers housing
owners housing
shingle mills
glass works

7) Information gaps/research questions:

8) Biases:

9) Relevant constituencies:

Preservation Institute for the Building Crafts
vocational schools
builders and crafts unions and associations
AIA
local museums and historical societies
architectural historians

10) Selected bibliography:

Industry and Wealth of the Principal Points of Vermont, 1891
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Hemenway
Child's
Smith county histories

Prepared by: Elsa Gilbertson, Leslie Goat, Nancy Solomon, Date: 9/85
Nancy E. Boone, Curtis Johnson

VERMONT DIVISION FOR HISTORIC PRESERVATION

VERMONT HISTORIC PRESERVATION PLAN

CONTEXT: Manufacturing of Bldg Mtls.

1) Property types known and/or expected:

brick yards, brick kilns
saw mills
lime kilns - various types
Eagle Square factory

2) How it developed (geographic; cultural; social; other influences):

3) Limitations of development:

4) Known geographic distributions and patterns:

5) Historic highlights (i.e., significant events [natural and social], people, technological advances, laws, social trends, etc.):

6) Time frame:_____(justification):

7) Information gaps/research questions:

8) Biases:

9) Relevant constituencies:

10) Selected bibliography:

Prepared by: Peebles – notes Date:_____

also wall paper clapboards ~~[illegible]~~

(*) Cross-reference with: "Logging & Lumber Production" · "Small water powered mill production" ~~[illegible]~~

→ also with "Quarrying & Stone Milling" (marble, slate granite)

VERMONT DIVISION FOR HISTORIC PRESERVATION: THE STATE PLAN

CONTEXT: BUILDING MATERIALS MANUFACTURING (*)

1) How it developed (geographic: cultural: social: other influences):

- many raw materials (stone, lumber, etc,) available in Vermont
- sawmills were often the first mills established in towns following settlement
- bricks for many early buildings were made on site
- slate manufacturing since early 19th c.
- demand for granite and marble for public and institutional buildings in late 19th and early 20th c.
- products shipped out of state as transportation improved
- mass production of wooden architectural components (Middlebury, Burlington)
- nails -handwrought by local blacksmiths - later wire nail production
- glass production - at Lake Dunmore ~~[illegible]~~, in Salisbury (see attached)
- paints - Brandon -iron ore deposits source of pigments
- interior features (marble and marbleized slate mantels, soapstone sinks, etc.)
- cast iron lintels ← ← - architectural styles influenced use of building materials

lumber bricks slate granite, marble

wooden architectural components

see questions on p.2 (*)

2) Limitations of development:

- availability of natural resources
- varying quality of natural resources
- limitations of technology for extractive products
- transportation limitations
- rising labor costs - strikes; availability of labor, in general
- public tastes changing
- catalog sales of out-of-state materials

3) Known geographic distributions and patterns:

- Burlington - milled Canadian lumber into building components
- see Quarrying and Stone Milling for information on stone distribution
- Essex Junction - Drury Brickyard
- brickyards - ubiquitous? where? to what scale? for family use? commercial for a large area?
- glass production: Lake Dunmore in Salisbury, where else?

paints - where manufactured?

4) Historic highlights (i.e., significant events [natural and social], people, technological advances, laws, social trends, etc.):

1848- first manufacture of roofing slate in VT - Fair Haven

conversion from vertical to circular saw
conversion from stacked kilns to modern kilns
conversion from handmolded to machine-made brick

5) Time frame: from 1st settlement to 1940 (justification:

6) Property types known and/or expected:

brick yards, brick kilns	quarries and finishing shops
saw mills	woodworking mills
lime kilns	workers housing
Eagle Square factory	owners housing
blacksmith shops	shingle mills
sash, blind, door shops	glass works & factories

paint & pigment manufactories

nail factories (wrought iron, cut nails, etc.) wire nails, etc.

- how did need/demand for building materials influence/effect other industries? (iron for nails & ornaments? slate, granite mining? etc.)

CONTEXT: BUILDING MATERIALS MANUFACTURING (from family use to commercial to out-of-state markets?)

Questions:

9) Information gaps/research questions:
- history & development of Vt's glass industry?
- " " " " " brick " ?
- " " " " " nail " ?
- what ethnic groups were involved in different 'buildings' materials manufacture?
- what happened between 1900–1940?

8) Biases:
- many of the related site types are archeological sites – have not received much attention due to limited # of archeologists
- have no coherent picture of history & development of these manufactories.

11) Relevant constituencies:

Preservation Institute for the Building Crafts
vocational schools
builders and crafts unions and associations
AIA
local museums and historical societies
architectural historians, historians, archeologists
landowners
towns & local planners

10) Selected bibliography:

Industry and Wealth of the Principal Points of Vermont, 1891
Industrial Vermont, Vt Bureau of Publicity, Office of the Secretary of State, 1914
Zadock Thompson's 1842 Vt Gazeteer
Hemenway
Child's Gazetteers
Smith county histories
various censuses, including census of manufacturing for all different years

Vt. History (Index)

▷ was demand always local for all these products? did Vt. service regional or national markets with any of these products? how did this effect the industry?

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