The Lansdowne Iron Works NHS Lyndhurst, Ontario by Art Shaw 2018

The iron smelter begun in the rear of Lansdowne township in 1800, is considered the first successful attempt in Upper Canada to smelt iron from local ore. That conclusion was reached by The National Historic Sites and Monuments Board of Canada in 1932, when they designated it as a National Historic Site. It's chronological ranking in Canada as a whole, is hard to determine. The first, of course, was the 1000 year old Viking bloomery excavated at L'Anse Au Meadows, Newfoundland, in the 1970s. The most famous is Forges du St. Maurice near Trois Rivieres, Quebec, which operated from 1730 until 1883. Early attempts were probably made in Nova Scotia as well, and Lord Selkirk's diary refers to an attempt that had already failed by 1803 near Niagara.

The story of the Lansdowne Iron Works starts in 1783, when the wilderness that would become Lansdowne Township was included in the search to find lands suitable for settling the American refugee Loyalists. The area was included in the "Crawford Purchase" from the Mississauga Indians, which was still under negotiation in September 1783, when Gershom French, a Loyalist himself, was sent out from Montreal to tour the Ottawa, Rideau, and Gananoque Rivers in search of farm land and mill sites. He ascended the Ottawa River as far as the entrance of the Rideau River, then ascended the Rideau to its head at Big Rideau Lake. From there he crossed the watershed at Newboro and descended the Gananoque River back to the St. Lawrence. In his report he summarized: "From our entrance into the River Gananoncoui, to its fall into the St. Lawrence, I did not discover as much good land conveniently situated as would serve one farmer".¹ Following this report, Lansdowne and Leeds were ignored, and surveying proceeded elsewhere for settlement of Loyalists.

Competing claims

In retrospect, French may have been hiding some things. In the spring of 1784, his superior officer, Major Edward Jessup, made the following submission to Major Mathews, based on information that could only have come from Gershom French: "As iron is a necessary, expensive, and heavy article to transport and as we are told there is an iron oar (sic) bed and a good place to build iron works between the settlements of Oswatia (Prescott) and Cataraque (Kingston) I beg leave to suggest to his excellency that the setting apart of those lands (which are generally bad) for cutting cole wood and erecting iron works would be of infinite service to the new settlement – But if it should not be thought an object worth the attention of Government and the oar and woodlands etc. can be granted to a private person, I would undertake those works or to find persons that will."

¹ E. A. Cruikshank "The Settlement of the U E L on the Upper St. Lawrence and Bay of Quinte in 1784", Ontario Historical Society, 1934. page 18

The Crown Lands Office was under instructions that all mines were reserved for the Crown, so nothing resulted from the offer.

In 1793, Abel Stevens, from Pittsford, Vermont, answered Governor Simcoe's invitation to come to Canada and sign an Oath of Allegiance to receive land. He explored several locations in Ontario between Niagara and Port Hope. He was granted 200 acres in York Twp, but continued to explore, and was enamoured of a location in Bastard Twp. In February 1794, he brought the first of a large contingent of Baptist settlers, who made the first clearings along Plum Hollow Creek, about 5 miles upstream from the great falls on the Gananoque River. The land was only then being surveyed by William Fortune, so grants could not be specified by lot and concession numbers, and the settlers could not be confirmed on their improvements until the next summer.

In September 1794, Abel Stevens presented two petitions to the Executive Council in Newark, first for the privilege of harnessing both the falls on Plum Hollow Creek (Delta) and the great falls (Lyndhurst) for mills for his settlement, and second, for a whole township of land, which he would populate by bringing families from Vermont. Unknown to him, the policy of granting whole townships, on the promise of bringing in settlers, had been cancelled prior to his application. However, this prompted a competing petition by Justus Sherwood and Thomas Sherwood to locate the grants of 800 acres that they were owed, on both sides of the falls on Plum Hollow Creek. Stevens' claim was favoured because of the number of settlers he had already brought in, compared to Sherwoods who had not brought in any.²

In July 1795 he and each of his settlers, including his sons, were given 200 acres each in Bastard. In 1796, he was granted an additional 700 acres, including the falls at Delta, in recognition of his service in bringing in settlement.³ This grant included the falls at Delta, where he very soon built the first mill in the rear townships by damming Plum Hollow Creek.

Also in 1794, another petition was presented by Wm Patterson, Samuel Sheldon, and Elihu and Uriah Stevens (sons of Abel Stevens) claiming to have discovered a bed of iron ore, and requesting a grant of 1000 acres, including the falls on Plum Hollow Creek, and the privilege of mining iron and opening a smelter. In March that year, William Fortune had noted that, while surveying the south boundary of Bastard Twp. he observed a 10 degree deflection in his compass, indicating proximity to a large body of iron.⁴ It is possible that he imparted this observation to local settlers, and that the iron deposit was his discovery, rather than that of the petitioners'. This was the fifth proposal received by the Executive Council to open iron mines in Upper Canada, all of which were inadmissible because mines were still reserved for the crown, but it prompted Governor Simcoe to write to the Duke of Portland in England, questioning the policy.⁵

In July 1796, Stevens petitioned the Council, thanking them for the grant of "the half of the township of Bastard and Kitley"⁶ (he had only received 700 acres), claiming that he had already filled the good land with settlers, and requesting the remaining half of the two townships. The prompt reply was "*Not recommended*". He immediately presented yet another petition, once

² E. A. Cruikshank "The Activities of Abel Stevens as a Pioneer" Ontario Historical Society Papers and Records Vol XXXI, 1936, p 63

³ Wade Ranford "The History of Milling in Delta", Delta Mill Society 2006, p. 13

⁴ Glenn Lockwood "The Rear of Leeds and Lansdowne, 1796-1996"p28

⁵ Cruikshank, p 59

⁶ Cruikshank, p63

again praying for the grant of the great falls with surrounding lands for timber to furnish a saw mill for the flood of settlers he anticipated. In reply he was referred "to previous directions respecting Mr. Sherwood and the petitioner", which directions are unknown.

In September 1797, and again in February 1798, Stevens applied for the great falls, this time for the purpose of erecting iron works. Fortunately, by then, the Duke of Portland had replied to Governor Simcoe, concurring that the development of iron works would be beneficial to the Province, that only gold and silver mines would be reserved for the Crown, and the King's permission would be forthcoming. The Executive Council gave the endorsement "whenever the King's permission arrives, the prayer of this petition to be taken into consideration and the petitioner to be considered as having the first claim."⁷

This encouragement immediately brought on a new petition from Stevens in more definite terms: Your Petitioner being desirous to erect a Furnace &c. for the melting of Iron in the township of Lansdown and as the persons whose names are hereunto annexed have agreed to come into the Province in order to work them, your Petitioner prays for land for the aforesaid and for the use of the works as nearly adjacent thereto as may be, for which he is willing to pay sixpence per acre agreeable to the new regulations – that is to say 1200 acres for the use of the iron works, 600 acres for Ruel Keith, (the proposed foreman), and 200 acres for each of the other applicants" (19 in all). This was endorsed "To lie over for consideration after the new regulations are established, & the Surveyor General to reserve the land prayed for as near to the wishes of the Petitioner as circumstances will admit."⁸

In 1798, anticipating the need to transport the iron produced at the falls, Mathew Howard and 15 men, including Wm. Caswell (who owned the iron bearing lands), with Stevens' endorsement, cleared a road 31 miles from the Great Falls of the Gananoque River to Kingston Mills, including causeways at small streams, and 15 bridges of bigger streams, and 31 mile posts. Stevens petitioned on their behalf for 400 acres of land each, along the new road, which was granted, but required a payment of £10 for each lot, plus survey costs of 50S, and settlement duties, which made it unaffordable for the men. A second petition in February 1799 (In which the road is described at being *"from the Elizabethtown Road near William Caswell's in Lansdon* (Howard's Corners) *to Kingston Mills*", prayed for more time for the men to raise the money. The "Furnace Road" was the pioneer effort that evolved into present day Highway 15.

In February 1799, after promoting the furnace to possible investors, Stevens asked for further assurances in order to allay the fears of would-be backers.

"1st. The expenses of beginning an undertaking of this nature will nearly double at present what a similar enterprise will amount to ever afterwards, because the hammers, anvils, and all the iron works required, as well as expert workmen must be brought in from the United States of America.

 2^{nd} . As the expenses will be great so it will require the united purses and industry of many persons to meet the object, for it cannot be attempted under 3000 pounds.

 3^{rd} . Your petitioners mean to set up a furnace and bloomery, which will require a double set of workmen so that no less than fifty men will be employed daily.

4th. Your petitioners intend that the business should be divided into four equal shares and as the persons who are to embark their whole property and hopes in this undertaking are persons of respectability and character in their own country your petitioner is aware that they will not come

⁷ Cruikshank p 66

⁸ Cruikshank, p. 66

forward but upon the assurances of Government that they will be provided with suitable apportionments of the waste lands of the Crown in the vicinity of the manufactory nor can the workmen and labourers be persuaded to come into the Province without similar assurances.

Wherefore your petitioners humbly pray that your Honor will take their case into further consideration and order such allowances of land to be made to each of the associates – master workmen and labourers as in your Honors wisdom may seem meet, under His Majesty's New Regulations & with a reasonable time for the payment of the Fees of Office"

The reply was guarded:

"Six months are allowed to Mr. Stevens to lay before the Board a plan of what he proposes to do towards erecting iron works on the ground reserved for that purpose. The whole of this must be specific and final: he must disclose to us the names of his associates and their places of abode, etc, etc, in the States, he must state the sum that he and they can command & satisfy the Board by unexceptionable references that they can command it, lastly he must distinctly specify the progress that he will undertake to make annually in the business on pain, if not regularly performed, of forfeiting all that has been done. But both he and they must understand that they will not have any deed given to them or anything beyond the mere permission to erect works until the whole of their engagements are complied with"

Within days of this reply, Stevens returned the following detailed proposal, probably intending to satisfy all the above requirements.

'With regret your petitioners trouble your Honor again on the subject of the Gananoque falls and iron manufactory but as the object is of some public and much private importance they beseech your patience in granting them a rehearing as from the late declaration of the Honorable Executive Council on the subject they are enabled to perceive the intentions and to meet immediately the views of Government.

1st. In order to satisfy Government of their ability they bring forward E. (Elisha) Beeman who has an established credit in Montreal and who being bred to the business and having for a long time followed it in the neighboring states, now is in a twofold capacity to empower them to commence the intended manufacture – Should any doubt arise as to the sufficiency of your petitioners after being joined by the said E. Beeman they will give still additional security but as they expect no indulgence of grants from Government until they have made the necessary disbursements and brought their undertaking into a certain degree of maturity, they conceive a sufficient foundation laid for them to crave the favor of Government upon the following propositions.

 2^{nd} . Leave to uncap (dig up or mine) the bed of ore which lies within a lot of land already granted by the Crown, the proprietor of which has already consented to that measure.

 3^{rd} . Leave to put up at the Great Falls a forge of four fireplaces under the express stipulation that the same shall be complete and have manufactured iron within one year of the first day of June next.

4th. A continuation of the order of reserve upon the lands adjacent to the falls until your petitioners shall have had a reasonable opportunity of enabling themselves to the further consideration of Government and of submitting their pretentions to apply of locations herein – One mile on each side of the Falls your Petitioners humbly submit would be barely sufficient as in the event of success a town or village will speedily arise around them.

Your Petitioner humbly beg leave to state to your Honor that they intend to extend their design upon a much larger scale than one forge – They have a furnace and many forges in contemplation but treading upon uncertainty your Honor will approve their caution, a forge of four fire place will cost but four hundred pounds a great part of which will be saved by the manual labour of your Petitioners – The forge will make a complete experiment of the quality of the ore (and iron produced from it) and in the meantime your Petitioners will ascertain to a certainty the quality the mine will furnish.

Wherefore your Petitioners humbly await your Honor's decision and as in duty bound will ever pray"

To this was attached the following page of details of the calculation.

	Master Workmen	
1 Master Bloomer at each fire	3	
2 Master Colliers	2	
1 Carpenter	1	
1 Blacksmith	_1_	
	7	7
	Common Hands	
1 assistant bloomer at each fire	3	
3 assistant workmen for each collier	6	
2 cole carters	2	
5 wood cutters	5	
3 hands to ring the wood	3	
1 stocker (stoker?) to attend the bloomer	_1_	
	20	20
		Total 27

The Forge will consume each day that it goes the cole made from 9 cords of wood. It is supposed that fifty acres yearly will be sufficient reserve of wood for the said forge."⁹

No confirmation or reply to this proposal survives, and Elisha Beeman was never mentioned again. Stevens returned to Vermont to find other backers to form a company, and the six month time limit expired in August with no results.

The term "forge" in the previous and following proposals, clearly includes a "bloomery" in addition to a forge. A bloomery is the most primitive method of smelting iron from ore, not far advanced in the 1000 years since the Vikings did it on the Newfoundland coast. It employs a temporary clay furnace and a fixed amount of ore, surrounded by charcoal and blown with manual bellows. It takes a day to form a "bloom" from the charge of ore, at which point the enclosure is destroyed to remove the bloom and it is hammered by hand to consolidate it into wrought iron. This was the method required to prove that the ore would make iron and to justify the investment of a blast furnace.

In the summer of 1799, Mathew Wing of Augusta became very interested in the prospects of Stevens' venture. He sold his assets in Augusta, and paid Stevens for "his interest in the site", although Stevens had no legal interest. Wing then presented a petition of his own in February 1800, endorsed by Dr. Solomon Jones, for rights to develop the iron works, and timber lands to supply it. His reply was the exact wording given to Stevens the previous year.

⁹ Lockwood, p 60

Wallis Sunderlin arrives

About that time (winter of 1800) Wallis Sunderlin, an ironmaster and proprietor of an iron furnace in Tinmouth , Vermont, visited the site at the urging of Abel Stevens. He was sufficiently impressed at what he saw, that he returned to Vermont to liquidate his assets there, in order to enter into partnership with Mathew Wing to develop the iron smelter. Wing however (possibly in collusion with Stevens), rather than presenting a proposal to the Executive Council with Sunderlin as partner, proceeded instead to build a forge on the west side of the river adjacent to the falls. This was the first building in the complex of iron works and mills that evolved in the following years. The forge was finished in July 1800.

As Wing's forge was nearing completion, Sunderlin returned to the falls with his partner and foreman Ruel Keith, a dozen men, and equipment, ready to start construction. But by then, Mathew Wing appears to have changed his mind, and offered only to sell Sunderlin and Keith coal and ore, while retaining ownership of the land and resources. Ruel Keith immediately wrote a letter of protest to Stevens, who was then in Boston.

With the expiry of his six month limit looming, Wing wrote a hurried proposal to the Executive Council as follows, which was presented on July 26, 1800:

"Agreeably to the request of your Excellency in Council, your Excellency's Petitioner is ready to make proposals for working the iron ore in the above Township of Lansdown, as in duty bound will ever pray.

York, 26th July, 1800

Mathew Wing

Proposal for working the iron ore in the Township of Lansdown in the District of New Johnstown.

The forge is put up a	and expended on the building	£143
The irons are all pro	ovided	82
	Already expended	£225 Hal. Cy.
	Can command	200
	Total	£425 Hal. Cy.

I will have the works completed within six months from this date and make proper trial of the ore and if found good will make in the ensuing year twenty tons of iron.

All which is humbly submitted to your Excellency as you in your wisdom shall direct.

York 26th July 1800

Mathew Wing.

The endorsement is dated July 28: It appears that the Petitioner has presumed to erect workson the premises in question before he had permission to occupy them or had even given in hisproposals recommend that the order of 15^{th} February be rescinded.J Elmsley

Stevens' replied directly to the Lieutenant Governor at York, rather than to Ruel Keith at the falls. His letter took almost a month to arrive, and expressed his hope that the Executive

Council would give encouragement to Keith and Sunderlin, while still accommodating Wing, "<u>as</u> <u>the situation will admit of a forge and furnace both without the one interfering with the other</u> and as Mr. Wing doth decline building a furnace which is very necessary, pray the Honorable Council would take Mr. Keith and his partner's case into consideration and grant him such privileges as will accommodate them in that line". His inference here, is that they could be granted opposite sides of the river and carry on independently of each other. Then, not knowing that Wing had already been disallowed, Stevens revealed his complicity with Wing "to go forward and erect a forge which he engaged to compleat and make iron on or before the fifteenth day of December next and gave me bonds for hundred pounds forfeiture if not completed which bond I left with Mr. Ridout Acting Surveyor General at York".

Regardless of whether Wing had represented, and Stevens believed, that he actually did have permission to build his forge, or (more likely) they conspired together to defy government and make a proof of the ore by devious means, Stevens was likewise dismissed.

Three weeks later, on 9 September 1800, Wallis Sunderlin went to York personally to present his own petition.

"Your petitioner having for several years been engaged in the State of Vermont in a considerable manufacture of iron (whereof he was the proprietor) was some time past invited into this Province by the associates of Mr. Abel Stevens who pretended to be authorized by Government to set similar works on foot at the falls of the River Gananoque.

That you Petitioner came into this Province to make his arrangement accordingly with those persons but on his arrival he was informed that a Mr. Mathew Wing had been substituted in their stead, upon which your Petitioner, whose knowledge in the business and capital, was no less necessary to the latter than to the former of the parties was solicited by Mr. Wing to imbark in the undertaking under the encouragement which he pretended to have received from the Honorable the Executive Council, which being represented to your Petitioner in the most flattering colors made him to enter warmly upon the plan and to determine upon the sale of his property in the States that he might be enabled to carry into effect the object of his pursuit in this Country, he has accordingly disposed of his Manufactory in Vermont and is just returned into the Province with twelve able assistants and the necessary apparatus for prosecuting effectively his purpose but to his great mortification and detriment he finds that he has been imposed on by Mr. Wing.

That your Petitioner is wishing with your Excellency's permission to lay out from seven to ten thousand dollars between this and the first day of June next in effecting his works on which he will undertake that they will be in complete order and condition for business if it could meet with the approbation of your Excellency.

In the meantime he asks nothing of Government beyond the permission of entering upon the laborious and expensive enterprise and employing his workmen brought hither at a heavy expense and will leave it to the future consideration of your Excellency in Council to make such eventual arrangement as in your Excellency's wisdom may seem meet.

Therefore your Petitioner humbly hopes that as the public will benefit much by his endeavours and industry, your Excellency will grant him permission to imploy them upon this occation."

The reply was the same as given to Stevens and Wing, to which Sunderlin laid out these conditions on Sept. 11th:

"1st (I) Ask permission to employ my people as soon as soon as possible to erect a saw mill for the use of said works.

2ndly. To build a bridge across the head of the falls for the convenience of said works, said mill and bridge will be of great use to the public at large.

3rd. I do engage to erect a Furnace at said Falls of such size as shall be thought most useful, sufficiently large enough to cast all kinds of Furnace Ware that shall be necessary for the use of the people in this country, the expenses of building said furnace and flasks, and other necessary utensils sufficient to carry on said business will not be less than Seven thousand Dollars expenses, which property I have at Command and am ready and willing to put forward to same to promote the business, On Condition that I be allowed a sufficient tract of land for timber, coal and ore, to carry on said business to effect.

I hereby engage to have the whole works completed within twelve months from the first day of October next, otherwise to forfeit all claims and right to said premises together with my services and expenses."¹⁰

This proposal was accepted on Sept. 13th and he was approved to proceed with construction, while the Surveyor General was instructed to "*appropriate 2400 acres in such situation as the Petitioner shall point out, of which 1200 on his performing the conditions, will become his property on payment of fees under the New Regulations.*" Ten Thousand acres of swampy land further up the river were reserved to furnish a supply of bog ore, which was reported to exist there in considerable quantities and could easily be brought to the furnace in rafts.¹¹

Work began immediately.

That winter Sunderlin returned to Vermont to move his family to Canada, and may have also imported the furnace bellows at the same time. Difficulties prevented his return until April, when he revealed his partners as Daniel Sherwood and James Scovill of New Millford, Connecticut, and Samuel Barlow of New Fairfield, Connecticut.¹² Having claimed in his first petition, to have the necessary money on hand, it is not clear in what way Sherwood, Scovill (or Schofield?), and Barlow supported the enterprise, as no documentary evidence exists regarding official partnerships. Likewise, it is unclear if Ruel Keith was a partner (as he claimed in his letter of July 1800 to Abel Stevens in Boston) or only an employee. Daniel Sherwood acquired the Lot adjacent to Sunderlin on the west (Lot A, Con.10 Lansdowne), so he may have been present and involved to some extent. Bradley Barlow, presumably a relative of Samuel above, did buy a one third share in the works later.

With Sunderlin's continued sickness after his arrival in spring of 1801, it became obvious that there was too little time to complete his obligations in the 12 months given. On 15 May, 1801 he requested an extension of time, saying:

"That your Memorialist with his said associates has every reasonable expectation of completely fulfilling his undertaking by the first day of October next.

"That under the authority of the Honourable the Executive Council your memorialist began last fall to erect his works, has built a saw mill, and built a bridge over the river, and has brought from Connecticut a large pair of furnace bellows of the value of two hundred pounds, has built a furnace stack and arches of stone of the dimensions of twenty-two feet square and twenty-six feet high, and has

¹⁰ "The Lansdowne Iron Works" by William Russell, Parks Canada Manuscript Report Number 216, p. 430

¹¹ Cruikshank, p.77

¹² William Russell, p. 430

also built two frames, the one of the dimensions of fifty feet by eighteen to cover the furnace stack, and the other of the dimensions of fifty feet by thirty for a casting house and has expended in all the above work about four thousand dollars.

"That your memorialist went to the United States last winter for his family, and on his return by the new road between Lake Champlain and the river St Lawrence the snow suddenly went off and with the utmost difficulty and by dint of the most laborious exertions he was enabled to arrive in the Province but the fatigue he underwent threw him into a fit of sickness from which he has but lately recovered and which alone prevented him from sooner reporting to your Excellency the progress he has made in the said undertaking and his prospect of eventually completing it."

This was accompanied by a certificate from James Breakenridge listing the same accomplishments, and an extension was granted until April 1801. It is thought to be significant that there is no mention of the forge among his accomplishments, presumably because it was preexisting. The extension was granted, but by all accounts, their progress in the summer of 1801 was made difficult because of the continued sickness of Sunderlin and his men.

On 7 December, 1801, Dr. Solomon Jones of Augusta wrote: "On the 10th November last I visited the premises in Lansdowne (where) the iron works are erected and found things in the following order, a furnace built, the bellows lying within the building, a good saw mill, a good framed bridge across the stream well planked, a forge erected whereby I saw two bars of iron manufactured which appeared to be of good quality, a great quantity of coal wood made into pitts and a considerable quantity burned into coal. I have further to add that Mr. Sunderlin has been ill with the prevailing disease of the country and from the best information many of his workmen. I have been particularly attentive in making every inquiry respecting these gentlemen's conduct and find Mr. Sunderlin a most persevering man in the business as well as his associates, and the only reason the works are not in a greater forwardness in my opinion is entirely owing to the calamity before mentioned. I find that Ephraim Jones Esqr. has lately joined the association and embarked a considerable property which I think will add energy to the business."

On 17 December, Justice of the Peace Truman Hicock wrote:

"I herby certify that Mr. Wallis Sunderlin of the Township of Lansdowne, County of Leeds, and Province of Upper Canada, Founder, hath the principal part of the time since the month of march last, labored with much difficulty in making progress in his business in consequence of the ill state of health of both himself and family."

Neither of these testaments mention the fact that two daughters of Wallis Sunderlin died that year.¹³ Both these testaments were submitted by Sunderlin on 1 January 1802 in support of his claim that he had fulfilled his obligations and qualified for the promised grant of land. He was given 1200 acres of land in separate locations throughout the 9th, 10th, and 11th Concessions. Although the iron works was in Lot 2, Con. 10, his lots ranged as far away as Lot 15 in the 11th Concession.

In the summer of 1801, a damaging report was received by Majour General N C Burton at Montreal, that a plot was under way to foment a revolt in Upper Canada, and that 3 brother by the name of Keith, who were iron workers, would make pikes to arm the rebels. The reliability of the report was not trusted, but the shadow cast on the iron works in Lansdowne had its affect.

From Dr, Jones' description above, we see that very little had happened over the summer of 1801. His words **"a furnace built, the bellows lying within the building"** does not convey that the furnace was functional, or any closer to completion than it was in May, and nowhere is a

¹³ Anonymous "Sunderlin Genealogy"

water wheel mentioned. However, the forge (built by Mathew Wing) is mentioned for the first time, charcoal had been produced, and **"I saw two bars of iron manufactured"**. The production of iron, by whatever means, was probably the deciding factor in the grant. The summer of 1801 seems to have been devoted to burning charcoal and accomplishing Abel Stevens' goal of producing the first iron from the ore, presumably in the forge/bloomery built by Mathew Wing on the west bank.

The years of operation 1801-1811

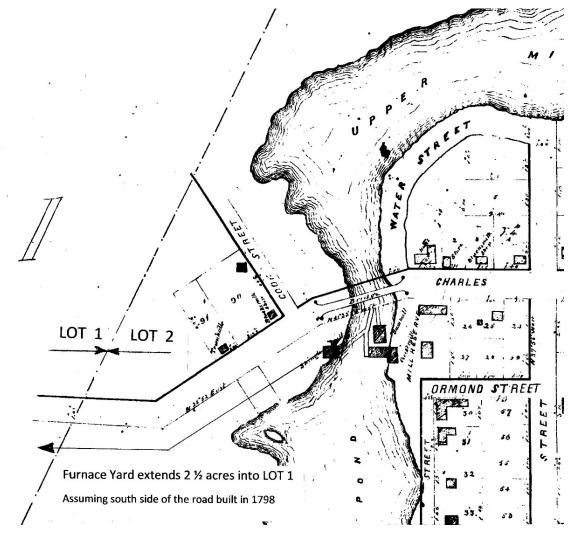
The grants for Sunderlin's lands were registered in 1803, as well as his lease of Clergy Reserve Lot 3 in the 10th Concession. In 1804 (and probably earlier) he began to sell off his lands to finance the completion of the furnace, while at the same time applying for a further 1200 acres which had been set aside for him. The investment by Ephraim Jones, described above by Dr. Solomon Jones in 1801, is believed to be in the form of a quarter share in the ironworks along with 182 acres of land in Lots 1 and 2, amounting to a value of £500, which was registered in 1803.¹⁴ This sale may have been necessary to compensate for the abdication of Ruel Keith, who had returned to Vermont by 1803¹⁵. Next, Sunderlin sold a one third share in the furnace and forge, with 20 acres of land in Lot 2, to Bradley Barlow of Fairfield, Vermont, for \$2,500.¹⁶ Then he borrowed from Ephraim Jones another £1189.8.5, secured by a mortgage against another quarter share in the furnace and forge, and all that remained of the 1200 acres of land.¹⁷ The mortgage was redeemable until 1809.

¹⁴ Leeds County Registry Office, instrument #63, Book

¹⁵ Lockwood, p.105

¹⁶ Leeds County Registry Office Instrument #56 18 Feb 1805

¹⁷ Leeds County Registry Office Instrument #63, 20 April 1805



1865 survey of the Village of Lyndhurst

This plan shows the mills standing out in the stream rather than on the river bank. It is believed that is a mistake. There is no other evidence of mills in that position. Surveyed by Walter Beatty for the Jones Estate. Plan #38, Land Registry Office. Additions by Art Shaw

The 1805 mortgage to Jones gives some clues to the extent and location of the "Furnace Yard", which, by name, seems to describe the areas surrounding the furnace and forge for storage of equipment, stocks of raw material, and products in process. The ownership of the Furnace Yard was divided among the partners according to their percentage of ownership in the furnace and forge. It totaled 6 acres, of which 3 ½ acres were in Lot 2 (where the furnace and forge were located), and 2 ½ acres in Lot 1. The yard in Lot 2 would be partly on each side of the river to serve the furnace on one side and the forge on the other, but the largest part appears to have been on the west side, where it continued into Lot 1, which is about 400' west of the river (see map above). The document also gave Jones a half share in the saw mill.

The second grant of 1200 acres was refused, with the obtuse comment "It is believed that Mr. Sunderlin is not the real petitioner on this occasion. Mr. Sunderlin has already had twelve hundred acres of land granted to him. The Prayer of this Petition cannot therefore be complied with and the Board is of the opinion that the land prayed for by the within petition ought to remain in the hands of the Crows for many years to come."¹⁸ The reply seems contrary to the endorsement of his proposal on 13th Sept. 1800, and may have been a result of the rumour of treason, or it could refer to the sale of the first 1200 acres to Ephraim Jones, who was always hungry for more land. Its result was to predetermine Sunderlin's eventual failure.

With the end of petitions and correspondence with Government, the progress of the iron works becomes vague, with only casual references gleaned from obscure places.

As he passed through Gananoque in January 1804, Lord Selkirk made the comment "The iron works attempted some miles up are doing very little – did not send down above one load of iron last season – the quality not esteemed – three men carry on the work in partnership & as I understand without any hired hands, do not agree well among themselves."¹⁹

This description of the output is consistent with a bloomery, and further evidence that the blast furnace was not yet in production. As a result of the sale of these various assets, the furnace seems to have eventually come into production, probably after 1805.

The low output of the works in the early years is attributable to the fact that the bloomery was the only means of smelting the ore, but the supply of ore also seems to have failed. Most of the lands owned and leased by William Caswell in the 12th and 13th Concessions of Lansdowne to supply iron, were Clergy reserve lots. In his final petition in 1807, Sunderlin claimed "the ore adjoining the works did not turn out as expected, but a loss to himself and no advantage to the country", and that "iron ore having lately been found on Lots No 11, 12 & 13 in the 13th Concession of Lansdowne, which lots are leased by William Caswell, reserving however the said ore for the disposal of the Crown. Your Petitioner therefore Prays your Excellency that he may be permitted to work said ore as it will in some measure remunerate him for the expenses he has already been at, as well as be an advantage to the Province". The Executive Council was in no mood to make an exception. Their cold reply contributed further to his failure, and may have been another reflection of a continuing suspicion of treasonous intent; "As mines and Minerals are retained by the Crown in all leases of the Crown and Clergy reserves, the Crown cannot recommend the Prayer of the within Petition." ²⁰

In February 1803, Justice of the Peace Thomas Smith, for whom Smiths Falls was later named, took a deposition by John Covell, accusing Wallis Sunderlin, Peleg Sunderlin, Steven Washburn, William Stevens, William Patterson, Abel Stevens Jr and Adam Shook of stealing 8 sleigh loads of iron ore from his property in the 2nd Concession of Montague Township, between Merrickville and Smiths Falls. The circumstances suggest that the ore was probably mined by prearrangement for that purpose, but Sunderlin's need for the immediate delivery of the ore, at some point overcame all other considerations, including his ability to pay. The extreme of taking eight teams of horses or oxen with drivers, 40 miles north through the wilderness in winter, and returning across frozen rivers and lakes with eight sleighs loaded with ore, is a testament to his desperation.

¹⁸ Cruikshank, p. 78-9

¹⁹ "Lord Selkirk's Diary 1803-1804" Patrick C T White editor; The Champlain Society 1958, p. 189

²⁰ Cruikshank p 79

A village grew up around the iron works, consisting of a number of log cabins for the workers and their families. As the iron works struggled, Sunderlin's income relied on the sawmill. In 1803 and 1804 Sunderlin ran a tavern besides his saw mill, and by 1806 he owned a "frame house under 2 stories",²¹ There was also a store house belonging to Ira Sunderlin, the clerk of the works "*five or six rods more or less from the bridge near the said furnace.*".²²

In 1809 a grist mill was added to the complex, the miller being William Jones, son of Ephraim Jones.²³ This was the same William Jones who, in 1810, began construction of a very fine stone mill on Plum Hollow Creek, replacing Abel Stevens first mill of 1796, which had burned. It was a textbook example of an "automatic mill", as described in contemporary books by Oliver Evans. In 1817 it was described as "*undoubtedly the best building of its kind in Upper Canada*"²⁴, and for many years the settlement was known as Stone Mills, in recognition of its stature. It still survives in Delta, and is now designated The Old Stone Mill National Historic Site.

In 1809, Sunderlin's option expired to redeem his ownership of the quarter share in the furnace and forge and much of the land in his original grant of 1200 acres, which he had mortgaged to Ephraim Jones in 1805. Instead of redeeming it, he sold it all outright to Jones for an additional £859.6.9, which left him with only 16.66% ownership, while Jones held 50% and Barlow 33.33%.

End of the iron works

The demise of the iron works is somewhat of a mystery. It was the result of a fire which seems to have destroyed the furnace and forge and both the mills in 1811, as attested to by Peter Howard in November 1818. "To whom it may concern, this is to certify that the situation where the ironworks and furnace was erected on what was called the great falls of the Gananoque under the firm of Sunderland and company, is now destitute of any works of any kind on it, the forge being consumed by fire upwards of seven years ago, the furnace all fallen down and rendered useless entirely, that Sunderland died at the time of the late war and his family moved to the U. States of America..."²⁵ It is the kind of story that should have become a local legend, but it is not documented, except for a clue published in the Brockville paper 124 years later: "Now for a bit of pioneer history that I picked up years ago. At the beginning of the War of 1812, the Americans, employed by Mr. Sunderlin, placed an American flag on their saw mill. A number of Loyalists from the township of Leeds came down to the "Falls" and pulled down the flag and attacked the workmen, who packed up and returned to the United States bag and baggage." ²⁶

The fact that this event was not celebrated by a local legend, could be because the facts would have incriminated some of the local Loyalists, causing it to be hushed. Previous accounts have suggested that Wallis Sunderlin died in 1811, which raised suspicion that the death was

²¹ Assessment records for Rear of Leeds & Lansdowne, on microfilm from PAO

²² This store house on a lot 13 rods square, is mentioned in the mortgage to Ephraim Jones in 1805.

²³ Source lost.

²⁴ The Gourlay Report

²⁵ Public Archives of Canada, Upper Canada Land Petitions "H", Bundle 11, 1816-19

²⁶ E. C. Wight "Reminiscences Relating to Furnace Falls" in the Brockville Recorder and Times, Oct. 1935

related to the fire, and Peter Howard's statement makes it sound like he died before his family moved back to the States. The Sunderlin family disappeared from the census of Rear of Leeds & Lansdowne in 1811, which agrees with the story that they returned to the USA immediately after the fire. However, recent evidence suggests Wallis Sunderlin died 15 August, 1812,²⁷ which separates his death from the event of the fire, and exonerates the local Loyalists from association with his death. Also, had the events been associated, the Sunderlin family would have raised an outrage as soon as they were safely on the American side of the river. So, although the conflict with the Loyalists may have been an epic event, it was not the cause of Wallis Sunderlin's death. Sunderlin remained on the assessment for Rear of Leeds & Lansdowne in 1812, and William Jones later stated he "*deserted from this Country and adhered to the enemy in the month of July, 1812*".

Lockwood suggests an alternative possibility, in that Sunderlin, before defecting to the American side, may have torched the iron works in spite, to ensure that no one else profited from his failure. It is noted however, that the amount of pure molten iron remaining in the firebox of the furnace when it last cooled (excavated during archaeology in September 2017) was large enough to support the suspicion that the furnace was in blast, and cooled unintentionally before the charge could be tapped, as would be the case if the bellows was destroyed by fire in mid-charge.

Speculation about the sources of iron.

Iron ore in the form of hematite, was discovered on private land adjoining Caswell's lease, but across the boundary in Bastard Township, and closer to Upper Beverly Lake. In Lots 23 and 25 in the 10th Concession of Bastard, and in the 9th Concession of Lansdowne, "scaly red *iron ore with seams and spangles of crystalline specular iron*" and "nodules and patches of *pure red hematite*" were still present in 1852, but "the thickness they display not exceeding a couple of inches".²⁸ It is not known if this is the source that was complained of in the 1807 petition, or if it was discovered after 1807, and may have accounted for the production figures given by William Jones in1816. The deposit was mined again in 1918-19, when "four car loads of ore, averaging 68% iron were shipped" on the Brockville and Westport Railway.²⁹

Large quantities of bog iron were also described in Bastard Lot 21 Con.7, two feet thick in places and of unknown extent.³⁰ There is no proof that this ore was used by Sunderlin, although a layer of iron bearing material found in one of the pits during archaeology in 2017, was tentatively identified as bog ore. A creek across this lot connects to the north end of Lower Beverly Lake, which could have facilitated transport of this ore to Furnace Falls.

If the ore smelted at Furnace Falls came from various sources, the analysis of the iron produced may also vary from one sample to another and complicate positive identification.

²⁷ Anonymous "Sunderlin Genealogy" provided by Doris Blackstock of New Mexico to Keith Sly, 1999.

²⁸ Geological Survey of Canada Annual Report 1851-52, p 81

²⁹ GSC Memoir 356, 1967, pp125-26

³⁰ GSC 1851-52, p 82

Speculation on the extent of the operation:

Nicholas Sliter, (Sunderlin's brother in law) came from Tinmouth, Vermont, in 1801 to work as a charcoal burner at the iron works. His son, Jeheil, wrote in 1858: "About the year 1800, a company was formed and a furnace built for the manufacture of iron at Furnace Falls (Lyndhurst). This was probably the first iron furnace set up in the Province. It was an old fashioned "Blast Furnace" in connection with which there was a forge for the manufacture of wrought iron, The ore was of inferior quality and had to be drawn a considerable distance, consequently the enterprise was not a financial success, being abandoned after two years trial. At one time an attempt was made to cast hollow ware for the use of the settlers, including pots and kettles, but proved a complete failure."³¹

Joel Stone of Gananoque (at the mouth of the Gananoque River) left among his papers the following notes and measurements of an iron furnace and forge, which were almost certainly taken at Furnace Falls. They seem to be his calculation of the potential profit in the iron business, and may indicate he was considering moving the operation to the falls at Gananoque where he owned the water rights.

"2^{1/2} tons Skeensborsch oar (sic) makes 1 ton of Iron --- 1200 bushel of coal will make up said oar – and the 1200 bushel will cost 600Wt of iron – we suppose that the oar costs 300Wt of s'd Iron-& the Bloomer takes 400Wt.

2178 Inches Solid in a bushel of wheat

<u>435</u> -1 fifth to be added

2613 Solid Inches in a bushel of coal—

The Cast iron Collor for the Shaft of the hammer wheel 4 feet 7 inches from the extreme parts or ends of the arms that lift the hammer – there must be 4 of said arms – The hammer Wheel 10 feet Diameter & 4 feet wide – from outside to outside and the Bellows Wheel 13 feet Diameter & about 3 feet wide from outside to outside --- the hammers and Anvils shod be Imported and the hammers Shod be about 4 and 5 Hundred Wt Each.³²

By his calculation, the expense in producing a ton of iron (at that time being 20 hundredweight or 2240 lbs), would account for 1300wt of the iron, and the profit would be about 700wt. His calculation doesn't seem to allow for forging the raw iron into saleable bars. It is interesting that the coal (charcoal) is the most expensive component in the formula, which is in keeping with Abel Stevens' proposal of 1799, where the manpower required to make charcoal was 12 men out of a total of 27.

If the hammers and anvils described existed at Furnace falls, they represent great potential for archaeology.

In December 1814, "Mr Smith (Smyth?), a Merchant of Kingston" proposed to take over the iron works, and with huge support from Government (300 men and £4000) to produce shot, shells, and ballast for the Navy within three months.³³

³¹ T H Leavitt "The History of Leeds and Grenville" 1879, reprinted by Mika Silk Screening Ltd. 1972, p 62

³² Joel Stone Papers, Queen's University Archives.

³³ Russell. P. 436

After the end of the War of 1812, competition resumed for the rights to reopen the iron works. The Navy was in favour of having a local supply of iron for operations on the Great Lakes. In response to an inquiry from Governor Sir Gordon Drummond, William Jones wrote:

"About 1200 Acres of land, together with the one equal half of the priviledge of water of the Falls On the Gananoqui River, is belonging to the heirs of the late Ephraim Jones, Esqr. Deceas'd which they will dispose of for three thousand pounds, the Other half of the priviledge of water together with all the remaining part of the land originally Granted from the Crown to Wallis Sunderlin Deceas'd, is claimed by Alien Enemies, Viz. Bradley Barlow of the State of Vermont claims 2 sixths by mortgae from the said Wallis Sunderlin, the other sixth is claimed by Ira Sunderlin, the eldest son and heir at law of the said Wallis Sunderlin who deserted from this Country and adhered to the enemy in the month of July, 1812 --- in the year 1800 a Furnace for the manufacture of cast iron, and a forge for the making of wrought iron was commenced on the said premises, by the aforesaid Wallis Sunderlin forming one half of the concern. ---Doctor James Schofield and Samuel Barlow the other part, put in motion in the year 1802, but for the want of property and proper management the said works was not sufficiently built – but notwithstanding such insufficiency they were made to produce – say One ton of cast iron pr day Consisting of Articles weighing from 500 to 10 lb. Viz – Forge hammers, Pots, Kettles and irons -- Likewise the Wrought Iron Works were made to produce 400wt pr day consisting of bar iron, Mill Irons Plow irons &c. ---

The said works was consumed by fire in the year 1811 - and if sufficiently Rebuilt might be made to produce two Tons of cast iron pr day, Viz. Shells, bolts, ship ballast Stoves and Likewise the Wrought Iron Works with the improvement of One additional fire might produce 800wt pr day consisting of bar iron square iron Mill Irons small anchors &c. – the aforesaid Foundry and Forge may with sufficient means be rebuilt and put in motion by the first day of June next – charcoal is procured at the Rate of 17/6 pr hundres bushels and sufficient means still Remain to procure a supply – On and Convenient to the said premises – I have also to Observe that I have been under the Necessity to consult Capt. Schofield On the above points, to enable me to Answer the several questions in you letter As he is fully Competent to give the Information Required. Mr Scholfield is very Anxious that the business might be prosecuted and I Consider him to be the most fit and proper Person to superintend such Works in this part of the country – and I think you may rely on his Observations in the memorial he desires me to forward."³⁴

This account, written by a contemporary witness, describes a higher degree of success than is supported by other sources, except for Joel Stone's jottings. In his opening (not quoted above) he claims "*I am not a proprietor in the premises hereafter described*", but his brothers were, which may have coloured the narrative.

Appended to Jones's letter was Ira Schofield's equally optimistic petition claiming to have "been to the expense of procuring every implement necessary to carry the Iron Manufactory into effect – and likewise to a considerable expense for the Discovery of in all probability a valuable Mine of Iron Ore, situate on a water connection to the falls on the Gananogui River..." and saying of the situation at the falls "... a certain part of which with the privilege of water is claimed by Alien Enemies, which encumbrance has long prevented him of

³⁴ Cruikshanck, p.80

procuring the privilege from the other legal proprietors and commencing the manufacture of Wrought iron."³⁵

From this beginning, the proposal to rebuild the iron works rose through the ranks of Government, supported by the Commander of the British fleet on the Great Lakes, and endorsed in a letter dated 10 January 1816 and carried to England by Sir Robert Hall, Commissioner of the navy Dockyard at Kingston, with the conclusion "*the establishment of these Works appears absolutely indispensable.*"³⁶

Another proposal dated 15 January 1816 was submitted by William Henderson of Kingston and Montreal, which was endorsed by Captain Owen, commanding the British Naval Forces on the Great Lakes, as follows:

"There are many who would gladly undertake the Works in question and among others the persons who claim a share of the Estate, but all others than Mr. Henderson have required not only the countenance but the Capital of Government which gives his proposal so distinct an advantage."

On the brink of Henderson's success, The United States offered to reduce armaments on the Great Lakes to the level required for collection of internal revenue. England agreed to reciprocate, and after signing the Rush-Bagot Treaty in April 1817, all military shipbuilding at Kingston ceased. The remaining war ships on the lakes were put in dead storage until some were eventually sold and others skuttled in Deadman's Bay under the guns of Fort Henry. The incentive to rebuild the Lansdowne Iron Works ended with the signing of the Rush Bagot treaty. Within a few years, more promsing iron works eclipsed the potential of Furnace Falls. The Long Point Furnace on Lake Erie began production in 1818 and gained widespread fame for their cast iron stoves. Then in 1822 the Marmora Iron Works commenced production, and Furnace Falls was forgotten.³⁷

Sunderlin's legacy

In their sojourn into Canada, the Sunderlin family made a valiant effort to succeed as pioneers of the iron industry in Upper Canada. They invested everything they had, financially and emotionally, and lost because of factors beyond their control. Two daughters, Bulah aged 14, and Sophia aged 9, died in 1801, probably in connection with the sickness that delayed work on the furnace that year, and a son named Peleg was killed in one of the mills in 1807 at age 22. Mrs. Sunderlin (Olive Lee) also bore two sons in Canada, named Elmsley in 1804, and Peleg in 1807, the latter so named for his older brother who died the same year. Their son Ira was married in Canada to Olive Avery in 1808, and their daughter Mary married Timothy Buell of Brockville in 1812.³⁸

David Lee, to whom Sunderlin sold the south 50 acres of Lot 2, was probably a close relative of Olive (Lee) Sunderlin, and Mary Lee, wife of Nicholas Sliter as well, both of whose families stayed in Canada for several generations.

³⁵ Cruikshank, p.81

³⁶ Cruikshank, p.82

³⁷ William Wylie "The Blacksmith in Upper Canada, 1784-1850", Langdale Press, 1990, p. 36

³⁸ Ibid

Later developments that affect the archaeology:

On the east bank:

Charles and Jonas Jones, the heirs of Ephraim Jones, inherited the land on which the village stood, by virtue of investments by their father in 1804, 1805, and 1809, and a half share in the water power and furnace yard, but were encumbered by the claims by Sunderlin and Barlow (referred to since the war as "Alien Enemies) for the other half of the water privilege. The ownership of the water rights and land was not cleared until the late 1820s, at which time the second 1200 acres that had been reserved in September 1800, for the use of the iron works, was still reserved for that purpose.

In 1827, the Jones brothers built a saw mill and grist mill on the east bank of the river.³⁹ They avoided building over the remains of the smelter stack in the fond hope that it could still be reactivated, despite Peter Howard's description from 1818 as:

"the furnace all fallen down and rendered useless entirely". They built the stone house, still standing on Jonas Street, at the same time.

The stamp (seen at right), is believed to be the stamp for barrels of flour produced in Jones's mill of 1827. In 1935 it was affixed to the original stone cairn commemorating the Lansdowne Iron Works National Historic Site, in the belief that it had been used to mark products of the iron furnace. It remained part of the cairn until about 2004, when it was removed for safekeeping, and deposited with The Old Stone Mill National Historic Site in Delta.



About 1836⁴⁰ a second dam was build at the lower end of the rapids below the mills, in order to power a carding mill. The "Carding Mill Dam" created the "lower mill pond", which was level with the outlet of the upper mills.

The 1828 grist mill operated under lease to numerous operators until 1868, when partners Henry Green and John Roddick purchased it from the Jones Estate. In 1881, after the dissolution of the partnership, Henry Green built the new brick mill beside it. The 1828 saw mill stood between the grist mill and the dam, and was rotting and worn out by 1865⁴¹. It would have been a "sash" or "frame" saw (straight blade with up and down action). It was replaced with a circular saw mill by Roddick and Green shortly after they purchased the village from the Jones Estate⁴².

After the brick mill was built, the Jones grist mill stood derelict until 1906, when it was demolished. While building the foundation of the brick grist and flour mill, a witness said that "they come across the ruins of the old furnace"⁴³.

³⁹ Lockwood p 196

⁴⁰ The carding machine was an asset described when the property was advertised for sale in 1837, Kingston Chronicle & Gazette, 4 January 1837

⁴¹ There are proposals for repairs to the mill dated 1865, saying that the material for a new mill should be sawn in the following year, as the old mill will not be operable any longer. NAC "Jones Papers" MG24B – Vol 154 – File 1853-1880

⁴² Anna Harvey "Lyndhurst 1794 – 1967", printed privately 1967, p. 9

⁴³ C E Wight, "Reminiscences Relating to Furnace Falls", Brockville Recorder and Times, Oct 1935.

The Lansdowne Iron Works NHS by Art Shaw

In 1892, R G Harvey bought both the mills at the auction for the estate of Henry Green. They continued in operation by his son Halladay Harvey until 1960, when the deterioration of the dam prompted the Dept. of Lands and Forests to confiscate the water rights and build a new dam. The brick mill stood derelict until 1967, when the superstructure was demolished. The wreckage of the mill, consisting of timbers, brick and machinery, buried the space adjacent on all sides, although some was salvaged by neighbours for reuse. The foundation of the brick mill stood solid for many years, and is slowly falling down at this writing. The archaeology in September 2017 was conducted surrounding these foundations, and the "bear"⁴⁴ from the iron furnace was recovered at that time.



The Green/Harvey Mill, on the east side of the river, is seen here about 1881 or '82 while the final details were still being completed, with the derelict Jones Mill of 1828 still standing close by and the saw mill at extreme right.

⁴⁴ The bear, according to Parks Canada archaeologist John Light, a specialist in iron working sites who visited here in 2001, is the remaining contents of the fire box of a smelter, left when the furnace cooled. It is a solid mass of melted iron, slag, ore, flux, and charcoal.

On the west bank:

The west bank was unoccupied for many years, until the Jonses built a shingle mill there, not long before they sold the village property. When Roddick and Green dissolved their partnership, Roddick took possession of the west bank and built a saw mill and grist mill in competition with Green. Those mills burned down in 1897, and new mills were built of stone. These are the mill s that show in the photos below.

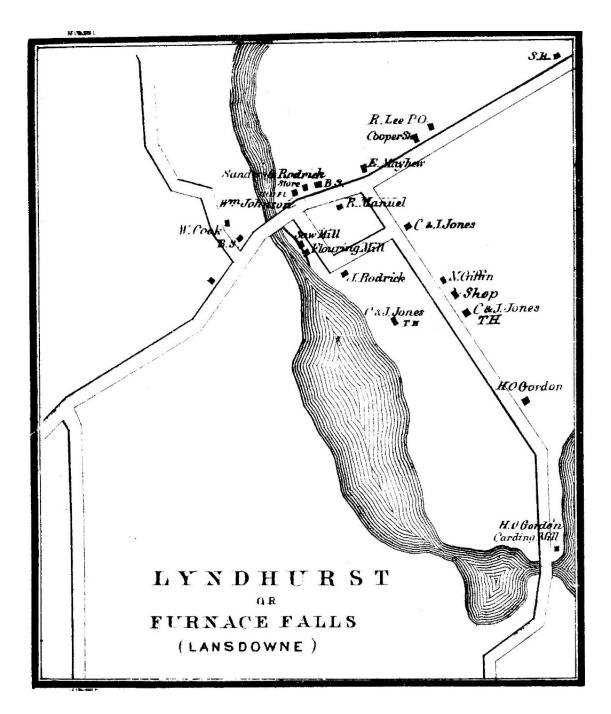
In 1912, George Roddick installed a hydro generator in the grist mill to supply the village, and built transmission lines to Athens and Delta. He died in 1922 and his widow sold the mills to the A C Brown Granite Co, whose quarry was adjoining on the west side. They went bankrupt and the generator was purchased by Ontario Hydro and shut down in 1929. Russell Elmy subsequently operated the mills until they burned down in 1953. The shell of the grist mill stood until at least 1960, at which time the property was sold to the owner of the house adjacent. In 2016, the house and property were purchased by the township of Leeds & 1000 Islands



Roddick/Elmy mills on the west side, taken from the bridge



Harvey/Green mills on the right, Roddick/Elmy mills on the left, from the lower mill pond, about 1907. This shows the water levels when the Carding Mill Dam was in place downstream.



This plan of Lyndhurst is from Walling's Map of Leeds & Grenville from 1861-62. It shows the saw mill and flour mill as they were situated within photographic record. The shingle mill is absent, but shows on the 1865 plan on page 11 above. The 1865 plan shows the mills standing out in the stream rather than on the river bank. It is believed that is a mistake. There is no other evidence of mills in that position.