Logging history of Lasqueti (Xwe?etay/Xwe”i”tay)

While doing my research on pre-settlement CDF forests, I picked up a lot of additional information about historical logging and logging on Lasqueti. Much of the logging history of Lasqueti needs to be interpreted from other areas, because I have found little direct information.

First Nation use:

The population of First Nations on Lasqueti was very affected by the epidemic of 1862 and their society was decimated; it is unknown how much of their oral history has been lost. We know from language studies that two different First Nation groups referred to Lasqueti as (Xwe?etay/Xwe”i”tay) meaning wedge/yew tree. It seems that there existed some trade in yew products from (Xwe?etay/Xwe”i”tay) in pre-settlement times. It also seems reasonable that the First Nation people residing on the island harvested cedar, Douglas-fir, maple, yew, and many other tree species for their own use and possibly trade while living on the island. Most coastal Salish also used the bark of cedar for mats and clothing. So there most likely was timber use and management in the pre-settlement period. Signs and evidence of First Nation use of the forest was probably obliterated by the early timber licencee’s cutting of the best timber along the coast of the island in late 1800’s to 1925. The exception to this is one historically modified cedar tree located near the coast (Lepofsky, 2021); hopefully more such trees or signs can be identified. By 2022 a number of Douglas-fir culturally modified trees or stumps with bark harvesting marks have been identified on the island (Lepofsky, 2022).

It has been well documented that First Nations on this coast used burning as a management tool. Burning an area to obtain young tree growth, which could be burned again to kill the small trees for easier creation of firewood, was a known First Nation management pattern. This made firewood collection and handling easier and probably sustainable. If the First Nation population was 700 to 2000, there was a real need for firewood that had to be collected without steel tools. The main other possibility for firewood collection was gleaning the forest, but this method presents problems for a large population remaining in one place as transportation distances from the firewood source increased. There were many other reasons First Nations used fire for management. Anthropologists have identified at least 70 different uses of fire among First Nations, including clearing travel routes, long-distance signaling, reducing pest populations like rodents and insects (ticks), firewood creation & harvesting, production of edge habitat for deer browse, and hunting. Another major reason was to protect village sites from wildfire by spring burning of dead grasses and brush to provide a green area around the village. Many plants were burned after harvest as part of farming native species. (Eg. Camus patches were burned after harvest.) So, areas of the island were burned every year to every few years during the pre-settlement period (see CDF & fire blog & 1875 Survey Analysis). How far the annual burning ran into the forest and how much and often the forest areas were burned is not known.

Fire scars and stand conditions (older than 110 years) may help answer these questions or are at least signs of some fires and possible use by First Nations. I have not discovered any research that used tree ages to help determine First Nation use on the coast, except for fire scars. Douglas-fir bark collection was another tree use that has been seen on Lasqueti (Lepofsky, 2022). Such collection and use has been closely related to First Nation clam harvest and storage in other locations. The Douglas-fir bark for long lasting heat was a highly regarded by First Nations.

Rat Portage Timber lease:

This was the only recorded timber lease mentioned by Elda Mason. There were other logging operations pre-1916 on Lasqueti, but they were probably oxen or horse logging on skid trails. I did find information about another lease just south of Tucker Bay (found at: https://www.bclaws.gov.bc.ca/civix/document/id/oic/arc_oic/0313_1892) of about 940 acres covering Conn Bay to Long Bay. It was Order in Council 313/1892 and the lease was for 21 years, so would run till 1913. Anything more, like whether anyone actually operated/logged this Hamilton Lumber & Manufacturing (for Knight Bros.) lease is unknown so far. The 1960 Forest Cover Map does indicate there was early logging up from about (Conn Bay to Tucker Bay before @1925) south of Tucker Bay and a small area south of Long Bay that was regenerated after (@ 1910). There were many other small areas around the coast (mostly at bays) that the Forest Cover Map (@ 1968) indicates were logged pre-1915 to 1925, from regeneration age of trees. Mason also indicates that there was a Japanese logging camp in Windy Bay logging before her uncle's Copley camp started in Rouse Bay about 1916. How many of the mapped areas were early timber leases is unknown. It is likely the logging out of Windy Bay-Rouse Bay was another timber lease; as was also likely the Japanese logging at Mud Bay, pre-Weldon Bay logging, Powderflask Cove, Anderson Bay, and other areas of False Bay were timber leases (un-documented at this time). More research into early timber leases and pre-emptions might give us a better picture of all the leases and the locations.

These pre-1900's leases were for areas with the best timber that timber cruisers could find. From history, the logging started on this harvesting (the Boat Cove lease) in 1898 (probably by Hillis Logging Company) with an upright windlass, (capstan, cathead, gypsy head) attached to a steam donkey engine powered with an upright boiler. The only other Hillis Logging Company reference I found was about a lawsuit in Washington state, so Hillis may have been a USA company or moved to the USA after 1910, or this lawsuit was by another Hillis Logging Company.

> In the 1882 "British Columbia Directory 1882-83" only Robert Stubbins, farmer was listed as a "Lasquitta" Island resident, but Mason has him on Jedidiah Island.
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> At: https://www.qbfhs.ca/1903-voters-list/ from BC Archives in 31 Aug 2005 Donna Fraser transcribed the local voters list for 31 Aug 1903 to have nine listed residences from Lasqueti Island. Five were loggers and four farmers/ranchers. Elda Mason listed three of the four farmer/ranchers, (Hugh Harry Higgins, John Heath, and Thomas Richardson) in her book; Osmond Nelson, farmer was not listed in Mason's book, but listed on the votes list. William Hodson, James Murphy, John Douglas McNeil, George Strachan were listed on the 1903 votes list as loggers and Peter Newberg as an engineer.

So, after 1903 Hillis Logging was probably still using the upright capstan donkey and between 1903 to 1910 bought at least another long pull donkey (more about this below). After 1888, timber licences/leases were supposed to be limited to 1000 acres (Pearse, 1992), but I have not been able to find the issue date of the timber lease to Rat Portage or from whom Rat Portage might have purchased the lease. The 1968 Forest Cover Map has about 120 Ha (296 acres) that were logged pre-1910 in the Boat Cove area, but the total lease was probably larger. The map also shows about another 65 Ha (160 acres) logged (to the north) in the next 20-year period. Alternatively, it may have burned in 1910 and was slower to regenerate (poorer site). It would be interesting to follow/research these two areas more. There were two recorded slash fires associated with this timber lease/operation (1910 & 1919).

The British Colonist for Aug 07, 1910 on page 21 reports a "serious brush fire raging on Lasqueti destroying much valuable timber". Buildings and logging equipment of the Hillis Logging Company was consumed by the fire. The fire has spread over a mile & is the biggest and fiercest seen on the island. (This was from a Naniamo report, of someone reporting from Lanzville to the British Colonist.)

The slash accumulation over the 13 years between 1898 and the fire in 1910 may have covered up to 290 acres, but it seems not all this area burned in 1910, since there was another fire in 1919 in the slash along Hemmis swamp (Mason). So, Hillis Logging probably was logging on the Rat Portage lease and the fire of 1910 destroyed enough equipment and remaining timber to make start-up uneconomical for either party or they brought in new equipment after the fire to clean up, or they had already gotten the best timber, or the time period for the lease was almost up, or any combination of these. Elda Mason reported another fire (1919) in the logging slash ("40 acre slash" p28) near Hemmis swamp (along main road), so this slash was either post 1910 logging or had been protected from the 1910 fire.

Another interesting thing was that though the Victoria paper reported 'timber destroyed', slash fires often slowed down as they entered the standing timber areas and allowed firefighters to get them under control. If the tree crowns are high above the forest floor, only brush and fallen branches can burn. As with most things biological, it depends, since slash fires often did burn standing trees, especially under dry and windy conditions. It was a dry summer in 1910, but the wind condition is unknown, so there seems to be little history of the fire in standing timber (timber" was often used to mean cut trees and partially logged trees at this time).

Hillis Logging Co. had been logging for twelve years by 1910, since the start up was 1898, so the area of slash was quite large for the 1910 fire. (Though Elda Mason [first book] has Rat Portage leaving in about 1911 [page 17] and Boldthen arriving in 1913 [page 10] to work for Rat Portage, but that is history and memory or an incorrect date not caught by editing.) After 1911, this logged area was bought up quickly, after it was brought on to the land market. It also seems many other coastal timber leases were also bought or preempted soon after they were logged.

Machinery used by Rat Potage/Hillis Logging

The vertical capstan, spool, steam donkeys were developed about 1880's and reached BC by 1890 and were mostly used to pull logs to the skid roads; which had cross logs arranged about 8 to 10 feet apart to reduce friction. Previously, teams and blocks and tackle were needed to snake the big logs to the skid road. Before steam donkeys, oxen teams often pulled up to 6 logs chained together over skid roads, but I have found little information on Rat Portages practices with the early steam yarder. As reported by Mason, a horse was used to drag the line back uphill to the logs. It took several winds (6 or more) around the capstan for the yarder to grip and pull the cable with a load of logs. How this machine was operated on Lasqueti is unclear, but loggers innovated and made do to move logs. Though elsewhere these machines were used to move the logs to the skid road, oral history has this one being used to also bring the logs along the skid road also.

Either the machine was relocated many times or there were probably multiple lengths of rope/wire rope used or the tangle of cable off the capstan would have been horrendous. Oral history has the steam donkey located on a man-made rock island within the bay, but this type of capstan donkey skidder had about a 300-foot reach (and from my map reading this rock pile is farther than 300 feet

from shore). So, if oral history is correct the man-made rock island would have been constructed for an additional newer steam donkey, than the first upright capstan machine. It is most likely that another steam donkey or two were purchased and used, as better machinery was developed during this 13-year period of logging (*probably after 1903 votes list as bigger machines required more people to operate*). I estimate that on average about 9.3 Ha (23 acres) were logged each year. Of course, this would have been less with one capstan steam donkey (early years [1898 to 1903?) and more after additional steam donkeys were added to the show, but that is how averaging works.

Illustrations of a vertical drum/spool/capstan donkey from BC Archives can be seen in (Logging: British Columbia's Logging History by Ed Gould) on page 54 & 55 of this type of donkey.

Another illustration is at: http://www.mendorailhistory.org/1_logging/steam_donkeys.htm

"John Dolbeer of Eureka, California changed logging forever in 1883 when he patented the first steam driven spool donkey. These simple, rugged machines were seen for decades in the woods, long after the arrival of more powerful and expensive steam yarders and skidders. The early spool donkey provided no system to return the rigging to the woods for the next log, necessitating a horse or manpower to do the job. The need to reach out further from the machine and solve the haul back problem led to the development of the "Improved" spool donkey about 1900.

On Dolbeer's first model, he wrapped a 150-foot, 4½ inch manila rope several times around a gypsy head (horizontally mounted spool) and attached the other end to a log. The steam donkey pulled the log toward the engine. The engine was moved in the woods by attaching the line to a tree and pulling itself along on its log skids.

Operating an early Dolbeer donkey required the services of three men, a boy and a horse. One man, the "choker-setter", attached the line to a log; an engineer or "donkey puncher", tended the steam engine; and a "spool tender" coiled the line after the spool. The boy, called a whistle punk, manned a communicating wire running from the choker setter's position out among the logs to a steam whistle on the donkey engine *(I'll bet whistle punks were latter on with newer steam donkeys that reached farther).* When the choker setter had secured the line running from the spool, the whistle punk tugged his whistle wire as a signal to the engineer that the log was ready to be hauled in. As soon as one log was in, or "yarded," it was detached from the line; then the horse hauled the line back from the donkey engine to the waiting choker setter and the next log.

In addition to the men operating the steam donkey a man was needed to chop wood for the boiler fire and, if the donkey was beyond the length of a hose from a stream, then a donkey or man with water bags was required to lug water from a water source to the machine." All early steam donkeys used a lot of water, as the steam was not collected for reuse.

Dolbeer Steam Spool Donkey - Vancouver Island BC Forestry Discovery Center

"This Dolbeer Steam Spool Donkey was built in San Francisco (1894) and is believed to be the first steam donkey used for logging in British Columbia. This Steam Spool Donkey was used around Chemainus, Vancouver Island, British Columbia by the Chemainus Lumber Company. It used a 5/8ths cable coiled in by a "spool-tender." The line was dragged back to the bush for more logs by a horse. The steam donkey was used to replace teams of Oxen that yarded and hauled logs prior to the application of steam in the bush. This particular machine is located at the BC Forest Discovery Centre in Duncan. It was nicknamed "Old Log Getter."

"This Spool Donkey design was used for nearly half a century, even as more advanced machines came into use. It was limited to a yarding distance of roughly 300 feet because there was no place to store cable other than carefully laying it on the ground, and the fact that there was no power to take the cable back to the woods for the next log. Despite its limitations, the simplicity of design and flexibility of the little machine to aid larger, more modern machines helped make the Dolbeer Spool Donkey a very popular logging machine."

Elsewhere I learned two points: Early spool steam donkeys were continued to be used to get logs to the skid roads, long after more complicated machines were developed. The spool/capstan steam donkeys were used in redwoods for a long time because of their power and control to move logs up to

a main line swing. So, the original capstan/spool donkey was probably used by Hillis Logging until the 1910 fire to bring logs to the more modern steam donkeys (early cold decking).

The skid trails of crosswise logs every 5 to 8 to 10 feet were engineered just like a rail line. They were laid out so there were no uphill pulls, because such would have slowed down the team's pulling a string of logs. Often the cross logs were carved to keep the logs centered. They were also angled on a curve so the log string would not take a short cut and jump across the curve to ride up on the inside of the curve. Crews could be from 4-13 working such a donkey (seem to have been 6 in 1903). **Logs had first to be barked on the skid side before they were skidded to reduce friction**, then moved on to the skid road, usually with block and tackle and teams. Then skidded down the trail.

On Lasqueti there were two other noteworthy factors that faced this logging show and it is unknown what happened and/or in what order or what years additional donkeys were added. As logging progressed, the skid road took a bend (about 90 degrees) to get to section 9. I wonder how the logs were snaked the over ½ mile to the corner and then around the corner? The other was the distance up the valley and to Ogden Lake was over a mile away. More powerful steam donkeys (with multiple drums) were developed in these 13 years and probably one or more steam donkeys were added to the original vertical drum donkey to overcome these difficulties.

A horizonal drum was the first improvement then double drums, then triple drums to even more drums. Also, what were called **Road** steam donkeys were built to pull logs long distances with extra-large horizonal drums for all the wire rope needed for a long pull. It probably took multiple swings to move the last logs from up in each valley to the west down to the water. Logging operations have always been trying to move logs with the least trouble; often multiple moves (swings) are done for each log. (Today the longest swing to water is usually by truck.) In early 1900's, **elsewhere**, it was recorded that up to four **road** donkeys were used to move logs along. The distance of transportation by oxen and horse along the skid roads was limited to maximum of 1 to 1.5 miles, but was usually shorter. This was extended by the use of multiple steam donkeys as these machines were improved. Vertical drum/capstan donkeys were originally limited to about 300 feet per pull, but steam improved so fast that by 1904 a Vancouver manufacturer advertised double drum **Road** steam donkeys, while a Seattle manufacturer advertised single, double, & triple drum steam donkeys with over 750 in operation out in the woods. Then by moving a donkey or using multiple donkeys, logs could be "swung" to the water. It was the distance of the multiple swings that governed logging distances at that time and equipment size limited how far different types of equipment (steam donkeys) could reach.

> In conversation with Karl Darwin, my memory is that Karl remembered a photo of a different type of rigging being used by Hillier Logging Company. Thank you, Karl and here is a reasonable explanation from my interpretation of history backing your thoughts up. This photo was likely toward the end of logging so the updated steam donkey gear was in the photo, not the capstan donkey gear. Karl thought it showed a haulback line with haulback blocks up the valley and the main line in a chute. This makes sense as it took 11 or more years to log as much as they did. There were a lot of improvements to steam donkeys over these years including the development of double drum donkeys and what were called **Road (long haul)** donkeys used to pull logs down skid roads. They probably bought a double drum **road** steam donkey for the main swing and used the spool donkey to get the logs to the skid road. These double drum

donkeys allowed a hall back line to pull the main line back out to the woods, so the horse was not needed for this task. **Road** engines were used to pull logs down skid roads operating at distances of ½ mile to about 1+1/3 mile, so this is probably the type of machine used to reach into section 12 & 15 and was located on the rock island out in the bay. More than likely two or more machines were used to Road the logs down the skid roads from the SE ¼ of section 11 and the SW section of section 8 down to the water because of the corner that needed to be turned. Another comment from Karl was that he remembered a chute/flume like structure in the picture (going up the NW valley). Chutes were quite commonly used at that time as another way to move logs and or shake bolts down hillsides. With a log pull that was not straight, loggers learned and tried out many things to make the job easier, so a chute to guide logs was a reasonable addition to a skid road, especially at a difficult spot. This part of our local history is from my assumptions from reading a lot of logging history and putting things together and backs up Karl's' interpretation of an old photo. I would love to see this photo if it still exists?

Horses were still being used on Lasqueti in 1915 -1917 at the Rouse Bay, Copley logging show. It is unknown how many other early loggers used teams of horses or oxen. Most of this early logging left trees under 18" diameter standing, as there was not a market for these smaller trees at that time.

General Logging history:

Elsewhere, oxen were used till about 1910 in different areas such as Denman Island, but whether they were ever used on Lasqueti has not been found, though it seems likely for other early logging on timber leases. As time passed, horses took over from oxen, still being used to skid logs on short skid roads, so oxen, horses, and early steam donkeys were all used to pull logs on "cross log skid trails" to move logs to the coast. I have seen written that it was the intercontinental railroad that helped move the quantity of horses (needed for horse logging) and allowed the increase of the horse population on the west coast. I had thought it would have been the need for grain to feed the horses (supplied by the railroad) that allowed them to take over from oxen, not that there were not enough horses on the coast before the continental railroad. Horses also had to be replaced more often than oxen, so more horses were needed. On the coast and probably Lasqueti, all the feed for both oxen and horses had to be transported to the outlying camps via steamship and this transportation issue was a major expense to logging before steam donkeys took over. And just as steam donkeys took over from oxen and horses, in the 1930's gas engines started to take over from steam on donkeys, and later diesel engines became more powerful than gas engines and were used to yard logs. Gas donkeys were often used as the cold-decking machines as they did not require a steady supply of water and wood to power them. Steam tractors and early gas tractors were used, but only had limited usability in coastal logging. At about the same time cats (tracked tractors) and trucks were starting to be used (1930's) on Lasqueti. Articulated rubber tire skidders were the next development (1955+).

Stock movement history from inland BC & Prairies:

Of course, cattle have been imported by boat since Hudson Bay Company time, and are still today shipped by boat. Hudson Bay Company imported cattle and horses by ship to (also Fort Victoria & Fort Langley), Fort Kamloops & Fort Alexandria in 1846 from Fort Vancouver on the Columbia River. A ship delivered the horses & cattle to top of Harrison Lake then they were trailed to Kamloops & some on to Alexandria over the Lillooet trail, so it was known transportation route. In 1877 the Lillooet cattle trail was explored for construction along an old First Nation trail, to provide meat (interior beef) for the population of coastal BC. I do not think it was ever improved too much as there was little cattle forage along the trail, so it was not widely used for bringing cattle from the interior to the coast.

Between 1858 to 1861 the main route to the Fraser river gold rush was the Douglas Road/Harrison route, (that followed part of the Lillooet cattle trail) that went from the head of Harrison Lake to Lillooet. It also seems 'interior of Oregon' cattle drives to the gold fields started two months after the first miners crossed the border along Okanagan trail in 1885, but these drives were all over land.

One year into the Fraser River gold rush (1859) the Fraser canyon trail was improved somewhat, with a contract for improvements to a mule trail condition being let in 1860. 1864 was the completion of a wagon trail up the Fraser River canyon. Interior ranches started in 1858, so it was the years from 1870 (after the gold ran out) to 1885 where easier routes for cattle to the coast were explored, but cattle were trailed to Yale and Hope for shipping to the Vancouver & Victoria markets. Then in 1885 the CP Railroad was finished and probably started transporting both cattle and horses to the coast.

As late as 1890 steamer (boat) travel was used between town & cities around the Gulf of Georgia and Puget Sound. In the USA Puget Sound cities and Vancouver were connected up by the Fairhaven and Southern Railroad in 1991 (mostly for coal shipping), whether there were inter-city railroads built before this unknow but it is unlikely as steamer boat travel was so well developed before this and the intercity terrain was rough and mountainous.

Johnny Osland and local oral history:

John Osland told me the history of logging around his area as he remembered it (Boat Cove and the center of the island). Rat Portage used the steam donkeys and cross-log skid roads to pull logs to the beach. Then when Cat tractors came along, at first tracked Cats dragged logs by draw bar to the beach, often using the same existing skid roads for the last part of the haul to the beach. Then Cats with arches were developed and could more economically drag logs even farther to the beach, because the arches reduced friction of a drag, so the swing got longer. The arched Cats did not even need cross-log skid trails, they made their own dirt trails. John said one of the first rubber-tired skidders on the coast was used on Lasqueti in the boat cove area or central part of the island. This skidder could reach even farther out/up from the beach because it was faster than a cat. He said this was a diesel electric skidder with an electric motor at each wheel. What is not known is whether this skidder had a built-in arch or pulled a track arch like a cat tractor. So until trucks became common, logging was always pulling logs from the woods to the beach.

The last major swing improvement was when trucks were introduced and started to be used. Trucks could now haul logs from anywhere on the island that a road could be developed to by a Cat dozer. On Lasqueti, loggers often improved the local roads so they could use trucks for transportation (Mason).

Evolution of LeTourneau equipment: Which of these diesel electric skidders was used on Lasqueti is unknown? The 1st diesel electric skidder was probably a LeTourneau which produced a 'Tourna skidder' (probably had each wheel turn, it also came with a built-in arch). Then the next model was a LeTournarch which was articulated (research has articulation developed about 1955). It seems the last model was an LeTourneau Electric Logger, but there is not much information available. A BC Archives photo p58 Gould shows a wheeled dozer with tracked arch about 1947-48, which looks like a Le Tourneau wheeled dozer. All of the LeTourneau machines were huge. About 1955 was when mechanical drive articulated wheeled skidders started to be built, Wagger was an early builder modifying front end loaders as skidders. Athey, Pettibone, Franklin, Can-Car, International, Cat, Clark, Timberjack, John Deere, and Garret were all early manufactures of skidders. (unknown source)

Ken Drusha "Tracks in the Forest" 1997 says Bob Tourneau began selling four wheel drive skidder (1951 Tourna-skidder), which could pull large turns for over distances of over three kilometers at high speed. Two years later (1953) introduced Tournarch a two wheel skidder with arch and had articulated turning. One year later it evolved into Electric-logger with electric motors that powered, braked, and steered; which was powered with a Buda 235 hp diesel powering the generator. Only 9 were sold in Canada but from John's description the machine used on Lasqueti was probably the Electric-logger. p93 & on p103 has a picture of Tournarch.

Mason's history is a bit different with the first tracked Cat being brought to the island in March of 1930 and it delivered a whole tree right up to the cookhouse. Then it was next used to make a road up from Lennies lagoon to the timber (where was this?). Mason recalled that the Cat pulled a trailing bar on tracks a "bummer" (historically a bummer was contraption to lift one end of the log to reduce drag) to transport the log. I could not find much about bummers, research showed two different images similar to the Mason photo. One is a set of wheels that lifted a log onto the wheels for ease of movement and reduce drag (see inset below). The second had a rail between tracks that had logs resting on it 'the bummer', this bummer had an arch affair to get the logs onto the "bummer", which is different than Mason's photo where no arch is visible. In Mason's first book, one can see a tracked implement (bummer?) in front, but she does not tell how the logs were loaded onto the rail supporting the logs (*loading was probably by a steam donkey*). Mason's photo (p112) shows three logs being moved, so it seems a donkey may have been used to load these logs. On the front is what looks more like a beam or rail over unpowered tracks, which appears to be the bummer. Mason said this bummer was probably a forerunner of cat arches. The name "bummer" seems to have been used to mean different types of equipment, all to help move logs. Today a clam bunk machine is a bit similar to such a bummer, holding the logs in a clap and allowing the back end of the logs to drag on the ground.

> The best photo and explanation of a wheel bummer I found is in USDA Tech. Bulletin #700, 1939, Costs of Tractor Logging in Southern Pine by Robert E. Worthington with a photo in Plate #1 third photo down with the team hooking up to the vertical bar of the bummer just before the log was raised by the pull and hauled away. The wheeled bummer would have been for smaller logs than what were on the west coast. On page 6 is the explanation: The team skidding (this was pre-bunching by a tractor with arch) employed a bummer equipped with low, solid wheels as a support for one log. The team was driven to the log an unhooked from the whiffletree and bar raised to vertical position besides the log. The two dog hooks were set in the log and the pull of the team righted the bummer and swung the log into its position on the bunk, where it was firmly held by the two hooks. Skidding distances did not exceed 400 feet. Any greater distance was usually by 4 or 8 wheeled wagons. This wheeled bummer would not have stood up to western log sizes. This paper also evaluated 6 and 10 ton arches, while on the west coast 10-20 ton log arches were used, ie. such as by Comox logging to move the big logs.
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> Another interesting photo about moving logs on wheels or a wagon is: One in Gould (p50) of a wagon or wheels chained to the largest log from Maple Bay area (probably near Duncan) and of the Garnett family & workers in early 1900's.

Both John Osland and Peter Forbs said the area on the north side of False Bay was logged 8+ times. John commented that in his area "It seemed as soon as one logger finished another logger came to enquire about logging farther out from the previous logging. With trees removed it seemed the next guy thought he could log farther into the hills or property and still make a living," said Johnny. That may have been as a result of both better machinery and/or technology development and/or the start of truck logging and/or differing logger perceptions as time passed. It soon became apparent that roads could be built almost everywhere and the trucks could haul logs from anywhere on the island. So, logging on Lasqueti made use of what they could (ie Mason p87, where Ralph Lewis hauled his house logs to the water on a trailer behind his truck for milling in Pender Harbor; Mason p65, Co-op Logging used a steam donkey they could still obtain in 1933).

Another pattern from logging:

After I finished a number of drafts, I realized there was another pattern to logging on the island I had just accepted as normal. Even in areas originally logged with no roads, that were logged before 1930, as steam donkey shows, these areas then had roads constructed through them to support (truck swing logging) out beyond the original donkeys or horse logging to reach into the hills and poorer trees. For most of the island it took trees to be of very low quality, very rough rock bound, or too small to be left

during the 1950's and early 1960's logging era. Cat logging and rubber tire skidders could reach almost everywhere and did. Often as this logging reached more into the rocks the logging became more selective and many times the poorest trees were left. When I was younger, I had walked these trails and knew about these roads/trails built through early logging, but had not thought of it as a pattern of changing technology. So, logging progressed through (oxen), horse, steam donkey via engineered cross log skid trails; to multiple steam donkey swings; to a combination of cat with arch and donkey to water; to cat and donkey to load trucks via roads; to wheeled skidder to log-loader or self-loading trucks; to excavator & wheeled skidder & self-loading trucks. There were also other combinations where a logger used multiple methods to swing logs from the stump to water. Elsewhere on the coast trains had become common (1910-1935), but Lasqueti was not large enough to warrant such an expense as building tracks for a railroad.

There may have been a skyline logging out of Windy Bay (west side of Tucker Bay) that took place. One can still see the large diameter (close to 3 inches) cable on the ground along the trail from sandy cove to Lennie Road (pre-1990). This was probably a steam donkey operation and probably was another **Road** steam donkey machine and may have been a standing skyline that was raised at the beginning of logging and did not come down till the end. Such lines were used to swing the logs collected by other donkeys to the water.

Mason has most of the logging till 1920 being by horse and small operations. Her pre-1920 logging in another areas of her book has these operations:

Kurtzhal's logging at south end Windy Bay & also Copley's were logging into Rouse Bay about this time from forest cover map (FCM), but they came after a Japanese logging show (Mason).

Mason's logging on west side of Boat cove, again not really shown on the 1968 FCM but there are gaps in the map here – there is indicated a stand with the correctly aged regeneration (not the disturbance though), about a quarter mile inland. Whether logging or disturbance started at the shore is unknown as the whole area was logged in the 1950's, so this early logging could have been relogged and the earlier evidence was hidden by the 1950's logging.

Art Brouse logging at Powder Flask Cove mostly section 4 with reaching up to section 5.

Douglas logging at Tucker Bay (Wesche timber) but the area nearer Tucker Bay seemed to be already logged, and some Wesche timber was logged latter probably 1920-1940. (This area near Tucker Bay may also be the area of Hamilton Lumber & Manufacturing (for Knight Bros.) timber lease of 1892 or Douglas was logging just inland of what was logged earlier in this area.)

Additional area logged pre-1920 from the 1968 Forest Cover Map were:
Small area inland from Norrish Bay (sec. 3).
First logging near Anderson Bay.
Three areas off Tucker Bay (Conn bay, Tucker bay, Long Bay [Curran], Present Sue & Peters cove).
Weldon shore area small part of section 26 and most of section 25.
Small area of section 32.
3-4 areas off False Bay close to shore.
An areas between Spring bay and Maple bay.

Possibly section 21
Possibly Scotty Bay/Maple Bay

Post 1920
Mason also has at least 4 camps logging pre-1930 with one continuing after 1930:
Clark & Klein sec 20
Japanese who left in 1928. I assume logged in False Bay then in Scotty Bay from her writing.
Pole camp near section 9 named Kilbey & Crouch. (This would have been younger trees probably 75-150 years old to make poles.)
Hearlson camp (Mason's writing makes this one sound as large camp).
Clark & Klein as mentioned above. Now logging near section 21 SW ¼ and maybe started closer to the beach. This was only ½ mile to beach unless logging also went into SE quarter of the section (ended about 1931)
Roy Seney first truck logger in 1936

So, after 1930, a combination of donkeys (mostly gas now) and cats were used for logging on Lasqueti. Donkeys were also probably limited in size on Lasqueti because there were not the trains to move the biggest donkeys that were developed from about 1910 onward. Trucks were starting to appear on Lasqueti, the first government gravel road truck came in 1935. There is one account of a truck moving firewood to a barge during the depression, probably 1934. Then Mason has the first logging to use trucks to haul the logs to the water starting in 1936. (This was a late start-up by trucks according to historical records from other areas of BC.) This truck logging started the logging boom on Lasqueti and recovery from the worst part of the depression. The donkeys, cats and now trucks allowed logging almost everywhere. (A bonus was the road improvements that loggers often had to make, so they could haul over the road.) Donkeys were used to load the trucks as well as pull logs.

Post 1947-late 1960's
Logging continued into the interior of the island that had not been logged so far, especially up into the hills and rocks, so this type of area was ripe for logging during this period. Mason has 14 logging operations working at one time during this period. Mason has the LMR outfit cold decking and swinging to the water with a gas yarder near Anderson Bay in 1946-1949. (This is probably the 220-P areas around Anderson Bay (1968 forest cover map). I wonder how long the swing into water was from the cold decks or if there were multiple swings used.) (If this mapped 220-P was the area logged, about 20 Ha (@50 Ac) would have been logged per year with using the single machine for both logging and swinging to the chuck.)

This post war logging era/boom lasted till about late 1960's, after 1964 the logging really slowed down with Lasqueti Fish doing a little on the island (Mason) and Texada till about 1976, with a small allowed annual cut (AAC) with a volume timber licence. Last area they logged was the SE ¼ section 9 in 1972, according to the forest cover map (all areas after 1968 were updates in different print type). I believe it was in the 1970's that the south slopes of Mount Trematon were also logged on private land. The 1970's probably ended the "so called" old-growth logging on Lasqueti.

There are patches that have never been logged of different age class's on the 1960 forest cover map and that I have seen around the island, but have not confirmed to age. The local conditions of single trees to patches of older trees is similar to other areas of north America that have been

disturbed/logged since settlement, where patches were left usually because of poor quality or to access them was too costly or impractical to access at the time.

A new look/consideration of the 1968 Forest Cover Map (FCM) has revealed additional information about this era. (After looking at the 1875 legal survey information and analysis of the pre-1875 fire.)

> After logging between 1947 to 1969: Much of the area regenerated quite well (*estimate 25%*). A smaller part was not-signifyingly-restocked (NSR) (*estimate 15%*). While estimated (*60+%*) was considered stocked with 41 to 80 year old trees directly after logging plus this area included successful regeneration within clear-cut areas. Of course, this was to 1968 inventory accuracy. So, a majority of the 1950-1970 logging was partial logging or contained trees that had regenerated at least pre-1907 within the stands logged (We need to find out better regeneration time period for these stands. I am sure there will be a large range of regeneration ages within these areas.)

Since about 1976 there has been some logging of the *second growth* (the trees were probably mostly younger original growth but regenerated in the 1800's), mostly to clear land for agriculture and home sites. The SE ¼ section 2 was logged and then developed into 10 acre lots. From the mid 1970's to about 2002 some regenerated "second growth" logging has been done and logs left the island. South end of the island, after being bought by Peter Pearse (W ¼ sec 3, NE ¼ sec 4, NE & SW & SE ¼ of sec 5, and maybe more) was logged and then sold off; SE ¼ section 2, SE ¼ section 14, NE ¼ section 22, SE ¼ section 12, SW ¼ section 5 (multiple times), patches by the Miller's, Darwin's, Johnson's, Millicheap's, Olesko/Defiori, and myself. Some these were thinning's and some more clear-cut. I only know of four of these areas being replanted, as many were sold for development afterwards. A study of the natural regeneration over these areas would be interesting. A large majority of the logging after mid 1980's has been for developing roads & home sites and the logs used locally or burnt. It seems, that the last use of the False Bay log dump was about 2002 and I have not heard of logs leaving the island since then (written in 2021). In 20I2 I was told the log dump was not going to be used for that purpose any more. I apologize for leaving anything out, I am sure this is not complete record of recent history of logging.

So, history is more than what happened but also why things happened. Farming/ranching was the first reason for the early settlers. Mason seemed to leave out most of the early logging of timber leases, yet these camps probably provided the first local market for produce and meat that enabled the farmer's to have a local market. Mining was reported as the first industry, but never seemed to employ many people, and closed in 1922. The shoreline logging leases seemed to lead to settlement of these semi-cleared areas in the early 1900's on Lasqueti. Fishing around the island and the fish buying scows provide some seasonal employment and a small market for farmers. The construction of the fish canning plant (1915-1925 [fire burnt the cannery]) helped employment and provided a local market for farm products. In 1926 the population was at a low of 111 islanders and 20 to 30 fisher families who lived on boats (Mason). In 1923 the union steamship stopped calling at Tucker Bay, so there was no outside market for farm production any more. In 1927 Union steamships started calling at False Bay till 1958, so there was a possible off-island market for farm production. Fishing continued to be an employer.

Then the depression in the 1930's helped maintain the island population. Throughout the depression there was little money, people moved off island, and others moved on to the island. It was during the depression that logging reverted back to steam donkeys, because elsewhere steam donkeys were being converted to gas engines. The first cat logging had already started, so machine development increased the reach inland for logging. Later in the depression (1936) trucks started to haul logs as it was possible to build road to most of the island. This log hauling by trucks also caused loggers to improved the public roads (Mason). Though the main logging boom did not start till after WW II. By 1965 the tree supply had almost run out and the island population decreased till about 1970 to about 60, after the Siderius commune left. (1967-1969 there was a commune on the island led by Ted Siderius and George Orton that grew to over 80 people [Mason].) Then in 1970 groups of 'back to the landers' started moving to the Island and the population jumped from 60 (after the commune left) to about 120 in two years. The school District became a major employer as the school filled up. Fishing continued to employ islanders, with Lasqueti Fish Company started in 1950's and other independent boat owners hiring islanders. The island population had to increase before farming sales on island could surpass off island sales (again depended on crop).

In 1986 the Federal Government started a forestry extension program which ended in 1996. The extension program (FRDA I & II) had the most participation here on Lasqueti, of any community in BC. Most participants mainly used the program to develop management plans. Since some of the professional foresters contracted to make these private land management plans had little experience with small landowner's goals, the plans sometimes did not meet landowner expectations. While at the same time some management plans completely met landowner goals. I was employed to reviewed some of these management plans as a forester-in-training, so had personal knowledge. Many or most of the participants later also joined the Managed Forest program, agreeing to reforest and meet five critical environment values for a supposed tax reduction. Originally these Managed Forest classified private lands were part of the Forest Land Reserve 1996-2004, but this designation was discontinued in 2004, thought the Managed Forest Classification continues. Most of the present large landholdings on Lasqueti are BC Assessment classified as Managed Forest classification today, even though some of these original large properties have been subdivided out or partially out of the Managed Forest classification (more research needed). What are today's goals for other large landowners is unknown, I know my goals have changed over the 45 years I have owned forest land, some of which was Managed Forest. I have been told another large holding is to be subdivided. Logging and/or subdivision (legal or by multiple ownership) or both seems to be the fate of most of the large sized parcels on the island, as ownership changes over time.

Summary of logging on the Unceded lands/Crown Lands: Timber limits/leases started in the late 1800's and the only one I have found/documented was a lease for the years 1892-1913, at the Conn, Tucker, & Long Bay area. These early timber leases probably ran their operational time period out before 1925 and then were bought or pre-empted. I have not been able to research, how the remaining crown lands were logged in the 1950-1960's or under what types of agreements. Under what types of licence the crown lands were logged in the era 1940-1969 is unknown. By 1970, Tom Millicheap and Pete Forbs had a small volume-based timber licence for the Lasqueti/Texada area which they sold; I believe they sold it in late 1970's, partially because the local community asked them to. This helped the community to pause logging on the crown land for over 40 years. Now the Nanoose Band or Snaw-Naw-As First Nation has a "First Nation Woodland Licence that includes most of two

areas of crown land on mid to eastern side of Lasqueti. Snaw-Naw-As have deferred logging on Lasqueti for the first planning period (about 5-10 years) pending community to community consulting.

The rest of the unceded/crown lands are still out there and available. What do we want to do?

Any mistakes or things left out are mine. Please contact me if you have questions or corrections.

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