



The Squeaky Wheel



Issue #39 – April 2021

MOTSOC VISITS FORT STONY BATTER

The MOTAT Society trip to Fort Stony Batter on Waiheke Island took place on 27th February - a beautiful sunny Saturday. Although we were scheduled to leave on the 10:00am ferry, some of our team of 18 were so keen they caught the 9:30 ferry, meeting the rest of the group at the Matiatia, Waiheke ferry terminal.

Our coach, provided by the Man O' War winery, was on time (thanks to our Secretary Jodie's wonderful organisation) and Evelyn, our driver, gave us a wonderful commentary on our 40-minute drive to the Stony Batter Reserve.

Waiheke is home to Ngāti Paoa who arrived on the waka Te Aroha. The original Māori name for Waiheke was *Te Motu-arai-roa*, 'the long sheltering island' but at the time the first European visitors arrived it was known as *Motu-Wai-Heke*, 'island of trickling waters'.



From the Onetangi turnoff we continued along a gravel road for 20 minutes. Evelyn then dropped us off for our 15-minute walk to the Fort Stony Batter entrance – a stroll along a farm road, through heritage Volcanic Boulder Fields with views out to Great Barrier.

We were met by Tim Moon, an archaeologist who has taken up a concession lease with the Department of Conservation to provide tours of the facility, while also undertaking restoration work to ensure that the history of the area is preserved.

The story of Fort Stony Batter is well documented, suffice to say that it is considered a major feat of engineering undertaken in a remote location and under the secrecy of wartime conditions. Three gun emplacements

were built as part of the defence complex to protect Auckland from German and Japanese invasion during World War II, mirroring developments at North Head and Rangitoto Island. The guns were never fired in anger.

Tim is a mine of information and a most genial host. He took us down into the tunnels (almost a kilometre long and extraordinarily wide) and showed us through the various components including gun pits, ammunition stores, plotting room, and engine room.

Despite descending over 100 steps into the bowels of

the complex, the last tunnel took us on the level out into the sunshine in one of the bush areas that are also part of the Department's protected area. From here we walked back to meet the bus and Evelyn then took us to Man O' War vineyard for lunch.



Waiheke is known as New Zealand's "Island of Wine," and there are 38 vineyards on the island. The vineyards at Man O' War Bay - named in the 1700s for the naval warships, whose masts were crafted from the magnificent

“What a great day out! Such a friendly and relaxed Group all enjoying the experience”

-Robyn & Richard Brown

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kauris growing there - has 4500 acres, 1000 cattle, and 4000 sheep.

After a delightful lunch at New Zealand's only beachfront wine tasting experience, we returned to the ferry for a leisurely trip back to the city, the perfect end to a tiring but wonderful day.

-By Alan Curtis

View more photos from this excursion on our website at www.motatsociety.org.nz/post/society-trip-to-fort-stony-batter or on our Pinterest account www.pinterest.nz/TheMOTATSociety/.



GRAHAM O'KEEFFE: MOTAT PRINT SHOP



Retirement is...

...something to do!

It was 2006 and I was considering setting up a print shop in the garage at home when Graham Judd suggested coming into MOTAT, now that's a good idea and the car can still use the garage.

The situation in the MOTAT print shop needed a little bit of TLC so with a bit of rearranging we could get some sort of system going. Hand setting of type in the centre, hand-fed machines to the left and automatic machines to the right with the replica 1450 year wooden press, (as used by Johannes Gutenberg) which happened to be built in the MOTAT railway workshop by the late Mr. Frank Brough, in the centre of the room.

The Print Shop became a working shop proficient enough to sell articles through the shop, the note pads, post cards, Christmas cards plus articles for other sections of MOTAT. The biggest achievement for the team was the series of "The Seven Booklets", each based on a month's activity for each section of MOTAT in 2012. It was also very pleasing to see people buying our stuff.

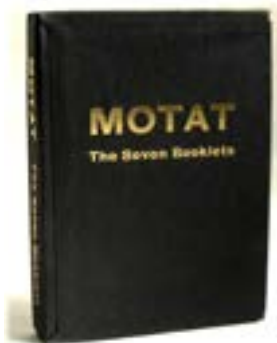
used for note pads so the flags it was! Well if they could only see the faces of the kids receiving them!



It gave me great pleasure when Willi Coenrardi gained two gold medals in the New Zealand Pride and Print awards in the Letterpress section, with a book of sketches printed on 1974 KSD Heidelberg cylinder press and bound commercially. This is when all the New Zealand printers are invited to supply printed material to be judged.

It has been great satisfaction to have had The Print Shop open throughout the years on Sundays, and when the public and printers from New Zealand and other countries take time out to visit it seems to make it all worthwhile. For this I would like to take this opportunity to thank my team for all of our achievements and working alongside other volunteers. It has been a wonderful experience and a period I shall remember. Also to MOTAT management for their assistance in getting The Print Shop set up to be a working shop, especially during the periods of the floods.

... Graham



The Print Shop was also able to produce something over 9,000 paper flags through eight years. This came about when a printer had cut some paper incorrectly and asked me if we could make use of it, as it was a coated stock it could not be



PRINT SHOP 1ST QUARTER MARCH 2021

The print shop holds a large amount of moveable metal type used for compositing and printing. All of this type has been accumulated through donations over the years. Our most valuable acquisition has been an almost complete collection of Garamond donated by Massey University five years ago. The collection includes regular, bold, and italic in point sizes 14 – 36. The type is in good quantities (the type trays are full) and very good quality. But that isn't the case with all of our type.



New volunteer Scott Pilkington and myself, have begun the process of assessing all of our moveable metal type in what we call a 'Type Census'. We began with two days dedicated to assessing the type in late January, using a form of our own devising to catalogue each tray of type: What typeface is it? What is the point size? What is the general condition of the type, including how complete the tray is? Are there missing letters? How full is the tray and is it still

usable? How well organised is the tray? Does the type need reorganising? Does the physical tray need repairs?

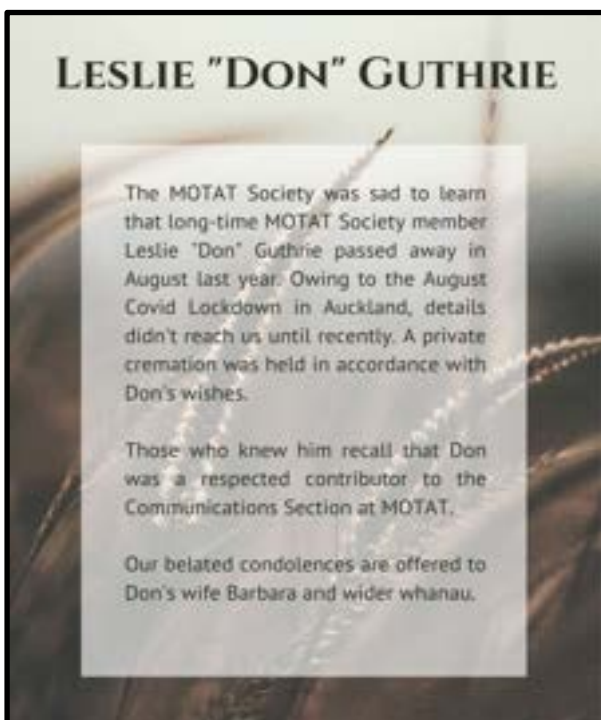
We organised for a light to be installed so that we could see what we were doing in a storeroom in February to assess the last load of trays. All of the information we gathered is being entered into spreadsheets for assessment. Scott and I will produce a report that gives a picture of the MOTAT type collection. The report will also include recommendations of which type is no longer of use (half empty trays with lots of



type missing) and can be scrapped, and, more importantly, what areas of our collection need attention, be that tray repairs, or buying new type to fill collection gaps. It may seem like boring administration, but the possibility of improving the collection is exciting!

-by Makyla Curtis

Photos courtesy of Scott Pilkington



“A1819” – THE ROYAL CONNECTION

Rail section is now two years into an extensive overhaul of A1819, a 1934 steel panelled carriage. This is the first major carriage restoration Rail Section volunteers have undertaken in a long time. The worn out state of the car and the 1980's graffiti scratched into the wooden panels don't betray the far more glamorous passengers this car once carried.



A1819 as restoration started. Hardly fit for a royal...for now.

Since the beginnings of royalty coming to the shores of New Zealand, the railways, being both the most comfortable and fastest means to travel over land, have featured in transporting royals from town to town. While it is impossible to tell now, the carriage we are now restoring once carried members of the royal family.

Winding back the clock to 1934, it was announced that the Duke of Gloucester was to conduct a tour of the North and South islands and the Railways Department was to provide royal trains for both islands. Being well before the introduction of a rail ferry, the NZR had to put together two full trains without it costing too much. (They were a government department after all).

As part of the regular programme of building carriages, 5 new first class cars were under construction at Addington Workshops. These were to receive the numbers A1819 – 1823. Instead of being fitted out as originally intended, the shells of these cars were used as a quick and cheap way to meet the needs of the royal couple and their staff. The cars became:

- A1819 – Royal Dining Car
- A1820 – Kitchen Car
- A1821 – Dining Car
- A1822 – Staff Sleeping Car
- A1823 – Staff Car

The cars were all fitted out with temporary partitions made of cheap plywood to provide the interior layout. Our car, A1819, the Royal Dining car, was also equipped with two mahogany stained dining tables, eight dining room chairs, a small serving table, a wine cupboard, and a storeroom. (There is little trace of this layout now. After the royal tour finished, the car returned to Addington workshops in June 1935 where the interior was knocked out and the cars were fitted out as first class cars. This was just a small part of the preparations, many cars were either modified while still under construction, rebuilt or pressed into service as is.)

Prince Henry, Duke of Gloucester arrived in Wellington on 15 December 1934. During his time in Wellington, he laid the foundation stone of Wellington station before travelling by rail to Hawke's Bay and then by road through Gisborne and Rotorua to Auckland. The rail trip took him over the Rimutaka incline, a well published photo of this survives.

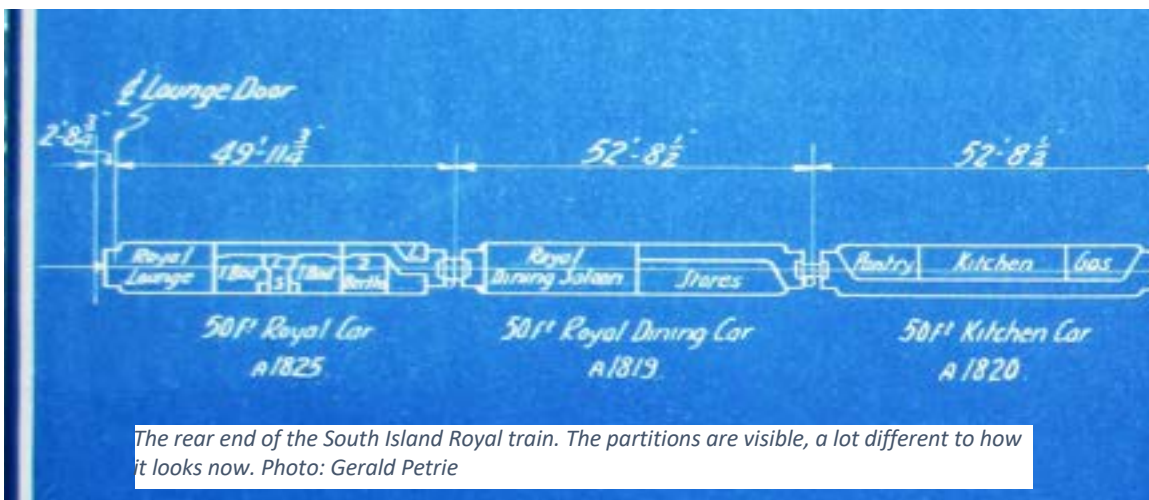
From Auckland the Duke travelled back through Taranaki to his ship in Wellington.

His trip on our car most likely started at Inangahua Junction, with the train travelling through Westport and Greymouth to Ross, before doing an overnight run over the Midland line to arrive in Timaru the following morning. The train then travelled South towards Invercargill before taking the route of the Kingston Flyer up to Queenstown. From here the Duke's tour travels by road, but possibly finished his trip 5 days later in our car with a ride from Ashburton to Lyttleton via Christchurch to board his steamer.

Little survives of the South Island rail tour these days. No photos of the train survive, only the NZR's records, newspaper clippings and an itinerary held and published by Archives NZ. Not too long ago, on a Facebook group some photos appeared of drawings done for the North Island and South Island trains. In the world of the old NZR, nothing could exist without at least one drawing having been done of the object, and two have survived. They clearly show our car, one of only two of the twelve cars in the South Island train that the Duke would have travelled in. The drawings also contain a few other gems, there being 715' 7 3/8" (218m) from the centreline of the engine driver's seat to the centreline of the lounge door of the royal car. This excluded

the Westland section, where the two A^B class engines were substituted by two of the older A class engines, making the length 706' 5 1/2" (215m).

From surviving reports the tour went well, with the Duke leaving throngs of enchanted people in his wake with his charm, although one



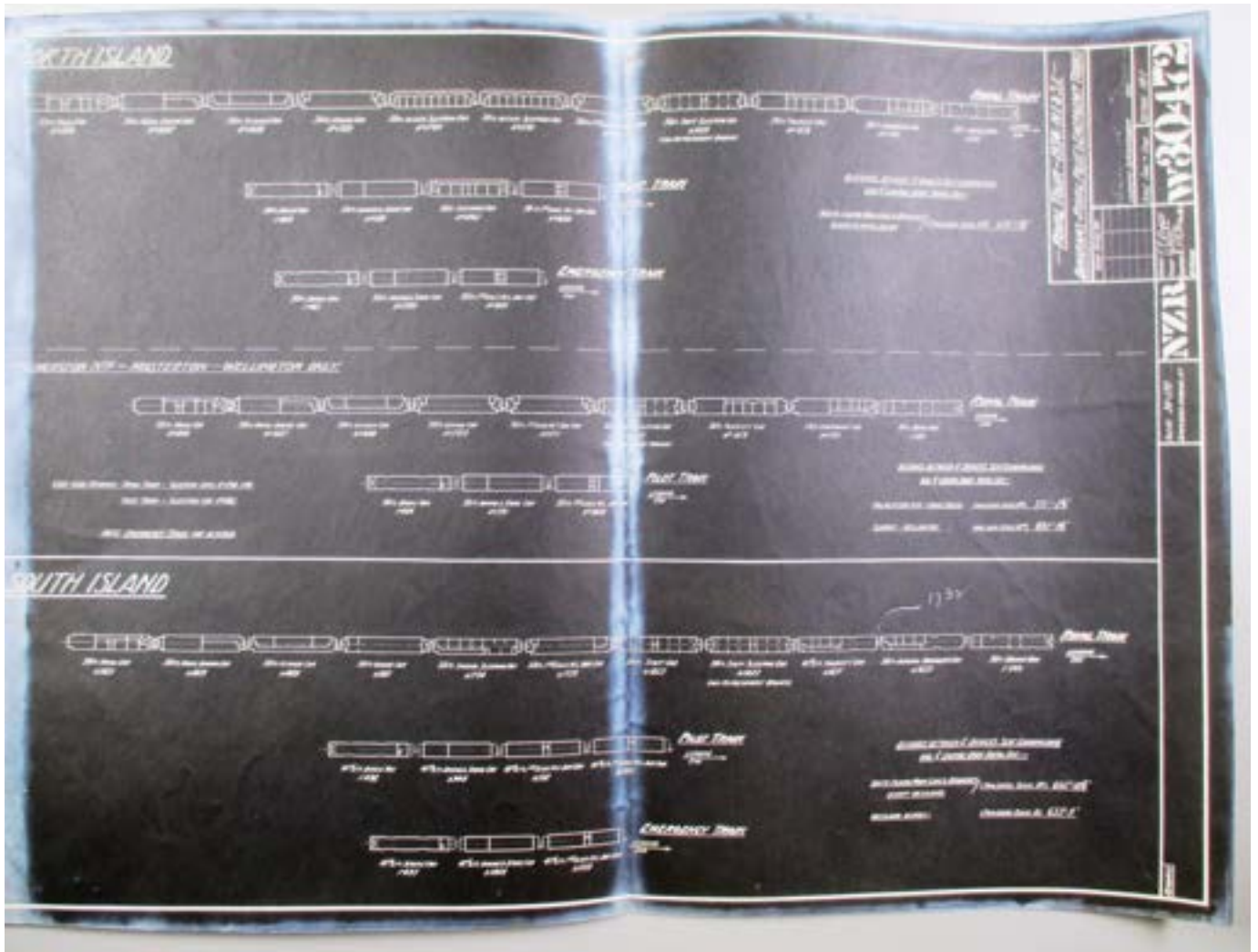
The rear end of the South Island Royal train. The partitions are visible, a lot different to how it looks now. Photo: Gerald Petrie

Australian newspaper did complain that the road convoy did travel a lot faster than what the reporter considered safe!

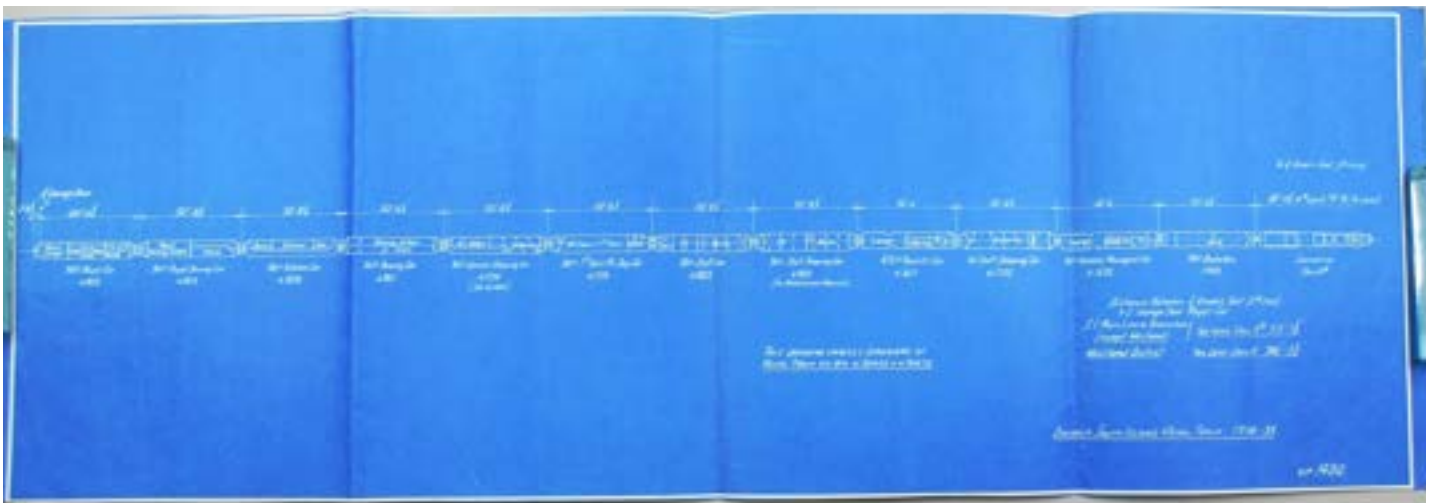
As for our A1819, after its return to Addington workshops to be converted to a 1st class car, it lived a long and uneventful life, being converted to 2nd class before

earning a retirement at MOTAT together with its close sister, the former AF1816, whose claim to fame is that it once tried to demolish Auckland's main signal box. But that, as they say, is a story for another day...

-By Rick Schreuder-



The North and South Island Royal trains. Also shown are the pilot trains that travelled ahead, and the emergency train that travelled behind the main train. Photo: Gerald Petrie



The complete South Island Royal Train with additional planning notes like train lengths, essential so that His Royal Highness' door lines up perfectly with the red carpet on the platform. Photo: Gerald Petrie

VACREATION – NZ INNOVATION IN 1923

Oh we are so spoiled in this twenty first century, and you know even in the twentieth it was heads up toward cruise with a constant stream of new ideas and inventions making life easier, at least for the western world. So easy in fact that complaints were being made to the suppliers of milk and cream in New Zealand about the variation in taste of butter! Appalling! How could this be?

It seems that the uncaring, deviant bovine population had no ethical awareness or consistency when eating their meals, they were eating a variety of grasses interspersed with weeds various and assorted and the adage that “we are what we eat” is revealed in the taste of the butter! Can you imagine onion weed and ginger butter! On second thoughts there’s probably a delicatessen opportunity in that.



Photograph from the No.8 Rewired webpage

Buut!!! Rewind to 1923 before the ubiquitous ryegrass grazing. Back then cream was often contaminated with outside flavours when the cow ate strong-flavoured weeds or grass. The flavour would find its way into the milk. As New Zealand was fast becoming an international favourite for milk exports a New Zealand inventor, one Mr H. Lamont Murray and his partner Mr Frank S. Board were trying to export to the United States. So they biffed their piles of mythical number eight wire and did some real engineering.

In 1923 Lamont and Board were about to open their own butter factory in Te Aroha and were unhappy about the method that was being used to pasteurise the cream for the butter. They designed and developed a very sophisticated machine which removed unwanted flavours leaving only the glorious pure taste of Anchor Butter. Of course, as usual there followed claims from the other side of the ditch as to who was first, but we place that alongside the Pavlova and Crowded House arguments. The undisputed winner was Mr H. Lamont, end of discussion...

It was thought back then that there's nothing worse than oniony, grass-flavoured cream! Who Knows? The established method of pasteurisation (basically boiling the cream and cooling it again) may have killed all the bad things in the cream like 99% of household germs, but it didn't help it to smell or taste better - it was not uncommon for cream to come out of the process tasting cooked, or of dandelions

and burdock, or worst of all even burnt, all costly and time consuming to remedy.

The VACREATOR process involves mixing the Vacreator’s pre heated steam directly with the cream in a vacuum which pasteurises and deodorises AND at the same time removes the unpleasant smell thus standardising taste and bouncing the evil no-good micro-organisms out into the ether making sure that T.B. and other dangers were eliminated from the end product. Clever eh?



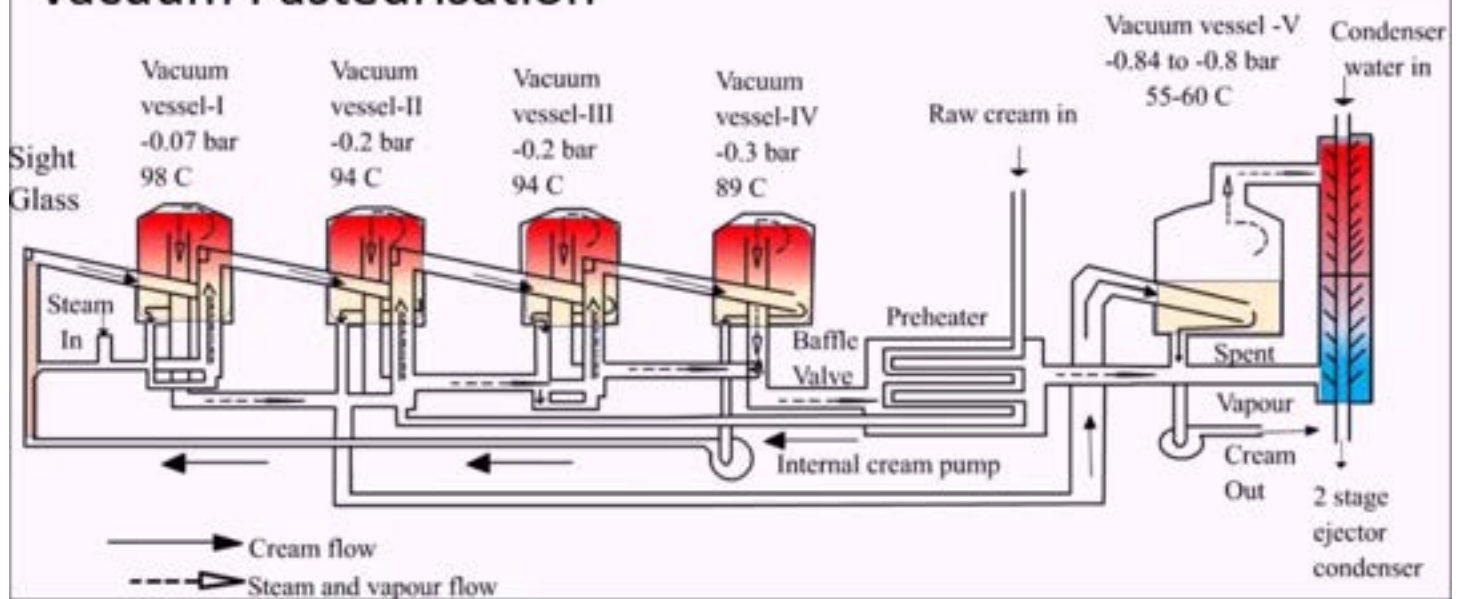
Photo courtesy of Walsh Library MOTAT.

We are so fortunate at MOTAT to have our very own Vacreator on display (albeit rather shyly) behind the print shop in M1. The Vacreator has been sectioned allowing the process to be visible but basically this is how it works - the cream is pressure driven through a pre-heater to the first of four vacuum chambers where it is mixed with steam each at 98C. Each chamber is at a slightly different vacuum, negative pressure, and the final chamber at a lower temperature. The processed fluid arrives at the vacuum vessel where it is cooled rapidly to around 55C and from there into the retaining vessel the steam is cooled in a condenser before being recycled and reheated to recirculate.

If you can find time do go and have a look at this vacuum/pasteuriser – THE VACREATOR. It looks so 21st century and yet its basic design is getting close to a hundred years ago, take a moment to pause and think about the millions of people who have benefitted from that design, including me and you, and reflect briefly that it all started here in NZ and there are plenty more inventions from here to reveal. Don't blink.

-by Henry Swan

Vacreation Or Vacuum Pasteurisation



Drawing Courtesy Anil Chaudhari, November 24, 2071

RICHARD FRANCIS WILSON

We are saddened to advise the passing of Richard Francis Wilson on February 4, 2021, after a short period of ill health. A family man with two young children, Richard was 32.

Richard was an enthusiastic volunteer worker at the M2 site with RAIL for several years and was a lively contributor with technical skills, a can-do attitude and eager willingness. He had a passion for involvement and busyness and was regularly an active part of the team. As a member of the MOTAT Society Richard served on the committee from 2014 to 2016.

MOTAT generously offered support to Richard and his family with a live day at the M2 site which ran into the evening involving workshop and Aviation tours, steam train rides, traction engines and military activities. It was pleasing that Richard was able to attend and enjoy the day with his friends and family, all funds raised going to the family.

The MOTAT Society offer their sincere condolences to Richard's wider family.

Rest in Peace, Richard



If you have an email or access to someone who can print it off for you, please sign up for our regular Events & Announcements email.

As well as advertising our own MOTAT Society Excursions and Events we also encourage affiliate organisations to let us know about their events so that we can promote them to our members.

Send your email address to admin@motatsociety.org.nz

MOTAT CONSERVATION TEAM UPDATE

ATB Sign (2014.297) Borer Treatment

This month the whole team worked on treating the Auckland Transport Board sign for active borer. Usually, we would freeze infested items to kill the borer, however at 3.1x2.5m the sign is too big to fit in even our freezer container. The sign was cleaned, with each flight hole individually vacuumed to remove frass before the holes were injected with permethrin to kill any remaining borer. As an extra precaution, the sign will be one of the first objects to undergo a passive anoxia treatment once the last of the necessary equipment arrives.

Once the borer treatments are finalised then the sign will be fully restored by filling the holes and retouching the painted areas.



ATB Sign (2014.297) undergoing flight hole treatment
Photo courtesy Kasserine Ross-Sheppard.

Jean Batten Stamp Project (16/059/001)

The collection of stamps associated with Jean Batten has now all been counted and sorted into country of origin. In total there are 2,122 individual items containing 3,514 stamps. As part of the sorting process, each item was measured to help determine storage requirements, totalling over 105 linear metres of stamps! Chelsea and Deborah have now begun the process of identifying each stamp in the Scott Catalogue, one of the main reference books used by collectors. Once the stamps have been identified, any requiring conservation treatment are passed to Kasserine who has begun to flatten those with bends or minor creases. As we are looking to avoid introducing moisture to the stamps as much as possible, these stamps are being dry flattened between weighted glass sheets or in a small press. Any items that cannot be flattened in this manner will undergo solubility testing with a view to gently humidifying them if possible.

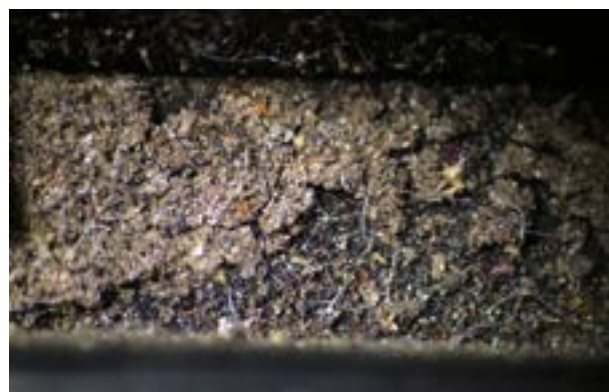
The Jean Batten Stamp project is an ongoing joint project with the library involving Chelsea Renshaw from the library team and Library volunteer Deborah Ross.



Stamps (10/059/001) prepared for flattening beneath glass plates
Photo courtesy Kasserine Ross-Sheppard.

Villiers Tip Top Ice Cream Motorcycle handle grip

While not on display with the rest of the motorcycle, the rubber handle grip has also been given a good clean by Theresa. The photo below, taken through a microscope, shows a conservator's eye view of the dirt encrusted in the grip.



Villiers Tip Top Ice Cream Motorcycle Handle grip (1964.152) and as seen through the microscope, showing dirt accretions
Photo courtesy Theresa Hy.

As only one of the handle grips is present, Theresa is currently looking into options for replicating it for future display purposes. Replicating Museum objects or portions of objects has a long history and ranges in approach from more traditional moulding and casting to rapid prototyping and 3D printing. We will investigate several options for replication of the handles inclusive of purchasing additional handles with the same model number.

-by Kasserine Ross-Sheppard, MOTAT