



ONslow HISTORICAL SOCIETY INC.

Established 1968

Newsletter

November 2021

Dear OHS Members

Here's the last Newsletter for 2021, a year which has been a most anxious and unsettled and we are still not finished yet. For OHS it has been a period of would we, wouldn't we, could we, couldn't we – in regard to our planned events. A friend called the year a “push-me-pull-you” time of uncertainty recalling the famous Dr Dolittle world of fiction much loved by my generation. Hugh Lofting was the popular author of these childhood stories. Many of you will be nodding in remembrance and agreement.

And so, we end the year with a cancellation of our proposed Christmas party. The Committee planned to include our two speakers, authors and historians Julia Millen and Anne Manchester into that event – a double act, so to speak. But the latter will have to wait until 2022; our thanks to them both for patience, understanding and their agreement to visit us next year. →

OHS Events

December 2021 – February 2022

Sunday 5 December 2021

Christmas Party 2021

Note: A change of date and arrangements.

Members will remember that we had to postpone the event planned for 19 September, “An afternoon with Wellington authors and historians Julia Millen and Anne Manchester”.

The result is that we have created a double act and are rescheduling it with our Christmas Party. The latter was planned for 3 December and is now moved to Sunday 5 December.

An afternoon with Wellington authors and historians Julia Millen and Anne Manchester and our Christmas Party 2021

Sunday 5 December at
K.A.T.E. ■ 3pm – 6.30pm

Waitangi Day Holiday Monday 7 February 2022

A Waitangi Day Holiday Walk in the Park

A 3–4 hour walk in Khandallah Park – A Recreational and Forest Park.

Starting at Simla Crescent Station at 1pm

Chris Horne will lead us again – remember the success of the 2021 Waitangi Day walk? The location has been specially chosen as our recent *Historian* has aroused fresh interest in the Park.

Refer to our invitation on page 3.



Sadly we couldn't launch the new *Onslow Historian* in October and a fun night was cancelled. The glowworms were ready for us – Norma Bryant had spoken to them – but we will restage that event some dark night in the future.

Fortunately, NZ Post were reliable and on deck and by now you will have received your copy of the *Historian*. A very quick response came in from OHS member Susan Trembath:

“...it was a lovely read, lots of memories, the witches hat swing, the spinning wheel, the big slide, the pool, the bush and my girls loved the train. When I was younger and then again in later years I used to take my girls and Mum to enjoy the Park and KAT productions...”

And it was very satisfying to hear from St Benedicts School – a note of thanks for the Society's hard work and dedication, and from the students of the Class of '53. Maxwell Bruce's photographs have been much admired. There have been many generous comments and extra copies purchased. Thank you, members.

Our next event is an outdoor activity on Waitangi Day 2022, see invitation to join us is on page 3.

On page 4 we have printed a facsimile of the original Mt Kaukau pamphlet that was published by the NZBC in 1967 when the Kaukau transmitter was launched. This is now a rare document copied from an original loaned by John Hume of Ohariu Valley. (It would have been included in our last *Historian* but I ran out of space.)

A plea for late payment for subscriptions is earnestly requested. I am concerned that over-dues may lead to removal from our membership list and I do not want to lose you! Payments are now required to be paid by cash through our letter box on the door at KATE, 86 Khandallah Road, or by internet: OHS ANZ bank account 01 0527 00006628 000.

In conclusion, festive greetings to you all. Looking forward to meeting again in 2022.

Judy Siers
President



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A Waitangi Day Holiday Walk in the Park

Join us for a 3–4 hour walk in
Khandallah Park – A Recreational and Forest Park

Waitangi Day Holiday Monday 7 February 2022

Meet at Simla Crescent Station, Khandallah Road, at 1pm

Chris Horne will lead us again – remember the success of the 2021 Waitangi Day Holiday walk? The location has been especially chosen as our recent *Historian* has aroused fresh interest in the Park. Chris writes:

“We’ll walk up and down tracks through beautiful native forest with trees large and small, fine ferns, agile vines and a regenerating understorey, and tiny creeks – tributaries of Tyer’s Stream. We can slowly observe botanic species and talk about them, and enjoy the sight and sounds of native birds.

“We’ll climb South Ridge Track to the Lookout for a spectacular view, perhaps climb to the summit of Mt Kaukau and descend by Middle Track. This will lead us to refreshments at Cafe du Parc at the entrance to the Park on Woodmancote Road. Some of you can finish there, others can return to Simla Crescent Station.”

Chris advises to wear sturdy shoes or light boots and clothing suitable for the weather. In a small pack carry clothing for cold or wet weather should that eventuate. Bring your mask, sun-block, personal medication and if you wish, walking poles.

Transport: catch the 12.32 p.m. Johnsonville Line train from Wellington Station or 12.30 p.m. train from Johnsonville; or use the Simla Crescent car park.



A scene in a New Zealand Forest near Porerua. In *Adventure in New Zealand*, Edward Jerningham Wakefield wrote of the virgin bush, west and north of Kaiwharawhara, containing webs of supplejack, vines and undergrowth between the noble forest trees of totara, rimu, matai, rata, hinau and many other varieties.

New Zealand Illustrated by George French Angus, published in 1846.



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The Mt Kaukau pamphlet



A LOOK AT MT. KAUKAU

OFFICIALLY OPENED BY THE RIGHT HONOURABLE
KEITH HOLYOAKE, C.H., PRIME MINISTER

22nd FEBRUARY 1967

A tower, a building, a powerful transmitter: that's a simple explanation of the NZBC's Mount Kaukau television transmitting station. However, look into this seemingly simple establishment, and it becomes a complex link in the passage of television from the studio to the familiar screen in your lounge.

Mount Kaukau represents a capital investment of approximately £400,000 in land, buildings and equipment. It serves an immediate area broadly bounded by Te Horo and the southern Wairarapa to the north, and coastal Marlborough to the south. Within this area there is a potential audience of 300,000 people. Relay stations carrying Wellington's programme to the Nelson, Wairarapa, Manawatu, Hawke's Bay and Taranaki districts boosts this to an audience in excess of 700,000.

The establishment of the station was a lengthy undertaking. From preliminary investigation to final completion took three years. Site testing began in February 1964 and continued for several months. Come, now, on a tour of the station and learn of effort, time and capital invested.

ACCESS

A twelve-foot wide road, one-and-a-half miles long, serves the station. It was designed and constructed by the Ministry of Works at an approximate cost of £16,000. Work began in February 1965 and the road was ready for traffic within six months. The grade varies from 1 in $4\frac{1}{2}$ to 1 in 10, the average being 1 in $6\frac{1}{2}$. Once to the top, visitors are treated to a magnificent view.

BUILDING

The ten thousand square foot building houses transmitting equipment, emergency generator, workshop and component store and domestic accommodation. It's solidly constructed, materials included four hundred tons of concrete and twenty-five tons of steel. There are minimum external openings, a design influenced by weather conditions on Kaukau. Wind velocities are often in excess of 100 miles per hour. Special wind locks are used for staff and vehicle entry to the building. Ground-level ventilation slots, running the length of the building, open into underfloor plenums to equalise wind pressures.

Construction began in mid-1965. With winter approaching, and possible restrictions on outside work, all pre-cast wall panels and pre-stressed floor planks were fabricated off the site and trucked in as required.

The dominant feature in the building is the huge transmitter hall, measuring eighty-four feet by thirty-one feet, with a twelve-foot-six stud. It can accommodate full technical facilities for two-channel transmission. Programmes transmitted come under supervisory control in the Main Control Room. If necessary, they can be originated from this room.

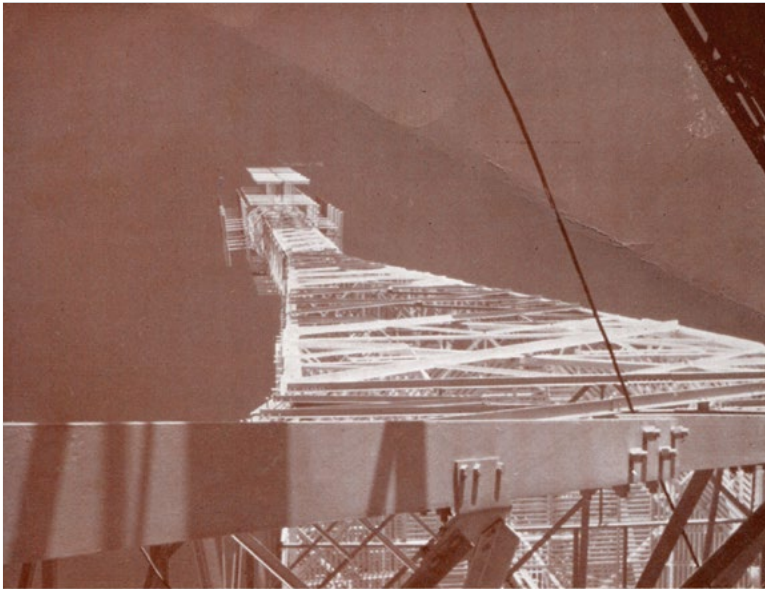
An equally important technical area is the Link Equipment Room. This contains the electronic equipment used in conjunction with the microwave linking circuits. All walls, the ceiling, and floor are lined with two layers of flat galvanised steel sheet to shield the equipment from outside electrical interference. In addition, every joint is soft soldered and each layer is electrically insulated from the other.

The building has a mechanical ventilation system capable of recirculating the heated air output from the technical equipment when necessary, to maintain comfortable working conditions. To prevent condensation of moisture inside the building during



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Thorpe, Cutter, Pickmere, Douglas

A striking shot of the tower, looking upward from the ground.

colder weather, electric heating maintains the inside temperature five degrees above surrounding conditions during the period when equipment is not in operation.

TOWER

The most striking part of the Mount Kaukau station is the big tower rearing four hundred feet skyward. This massive structure, with some 250 tons of steel in it, cost approximately £91,000.

As expected, the tower is very solidly constructed. The four foundations for the legs of the tower each contain some 250 tons of concrete. Allowance has been made for a wind load of 105 pounds per square foot. The maximum wind velocity, averaged over one minute, was taken as 160 miles per hour. All steelwork is galvanised and further protected by several coats of paint.

The aerial system is divided into two halves, each with feeders down to the transmitter. These feeders contain dry air under pressure to prevent the entry of moisture under conditions of high atmospheric humidity. All four faces of the tower hold radiating dipoles, a total of thirty-two altogether; these increase the transmitter's vision power from twenty to over one hundred kilowatts of radiated power, and sound power from four to twenty kilowatts of radiated power.

Erection time was seven months, with aerial adjustment continuing right through to December 1966.

MICROWAVE EQUIPMENT

Programmes are relayed from the WNTV-1 studios to Mount Kaukau on a microwave circuit. Since the transmitter is not in direct line of sight from the city studio because of surrounding buildings, and the microwave signals travel in straight lines, a

device to change the direction of the beam is necessary. This device, known as a beambender, is located on the Dominion Farmers building. It consists of two parabolic microwave aerials interconnected by a waveguide. One aerial receives the signal from the studio and the other redirects this to a receiving aerial on the Kaukau tower. Dual linkage circuits have been installed, the second serving as a stand-by in the event of the first failing.

TRANSMITTERS

Heart of the establishment are the sound and vision transmitters and associated equipment. These represent an investment of £110,000 and were supplied by the Marconi Company of England.

In actuality there are two vision and two sound transmitters. They operate together in conjunction with the aerial to give a combined effective power of one hundred kilowatts. If a fault develops in one, the other can continue broadcasting, thus avoiding a total loss of programme. Additionally, if necessary, one transmitter can be serviced while the other continues carrying the programme.

The full one hundred kilowatt power of the station is built up from the basic transmitter power in the following way: each vision transmitter is ten kilowatts, giving a combined twenty kilowatt power. Each sound transmitter is two kilowatts, giving a combined four kilowatt power. These basic powers are increased in the aerial by concentrating the radiation downwards and outwards to where people live so that the radiated power becomes one hundred kilowatts vision power and twenty kilowatts sound power. This is known as the Effective Radiated Power, the figure used to give a station's rating. Thus, Mount Kaukau is 100KW ERP, the vision power being generally used for the rating figure.

It is also interesting to note that vision and sound follow separate paths all the way through the transmission system up to the output of the transmitters. They are then combined and radiated from the aerials as one signal, being separated again in the later stages of your television receiver. Up to this point the vision and sound signals are monitored individually in the control room and processed and directed, still separately, to the vision and sound transmitters.

POWER SUPPLIES

The main power supply for the station was provided by Wellington's Municipal Electricity Department. It's a one-and-a-half-mile circuit, and has a present capacity of 350KVA which can be increased if necessary. Transformers in the building bring the power down to 400 volts.

A 375KVA diesel generator, which starts up automatically on failure of mains power, is installed for emergency use. It's designed to start on a power break of over ten seconds and be ready to carry a full load after a further ten seconds. Sufficient fuel is held to maintain six hundred hours of continuous operation under full load.

A smaller generator operates the building's water sprinkler system. Five steel tanks, collecting water from the roof, store 25,000 gallons for domestic and firefighting purposes.

This, then, is a broad picture of a modern television transmitting station. It is a complex, costly establishment, an integral part of New Zealand's television transmission network. Mount Kaukau stands supreme on Wellington's skyline—the important link between the television studio and the screen in your lounge.



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*Hello!
Boys and Girls*

**SANTA CLAUS
AT THE
D. I. C.
MAGIC CAVE**



Come, sail with Santa on the
Pirates' Galleon, bound for

Treasure Island

A SHIP. AN ENCHANTED ISLE.
PIRATES. FLYING FISH. TREASURE.



The Jolly Rogers flies above . . . adventure walks the sea-sprayed decks below. Come, youth and every grown up with a youthful heart . . . sail with Long John Silver and his rascally band bound for Treasure Island. It's the greatest Cave we've ever built. The Kiddies will love the ride on the Hispaniola as she butts her way through tropic seas. They'll see Flying Fish, Crocodiles, Animals, Pirates. They'll meet Santa Claus held captive in Ben Gun's Pirate Cave, and finally they'll get their treasure from the fairies on the enchanted Treasure Island.



The Social Review, 1 December 1934

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~ Chorus is the Society's major sponsor ~