



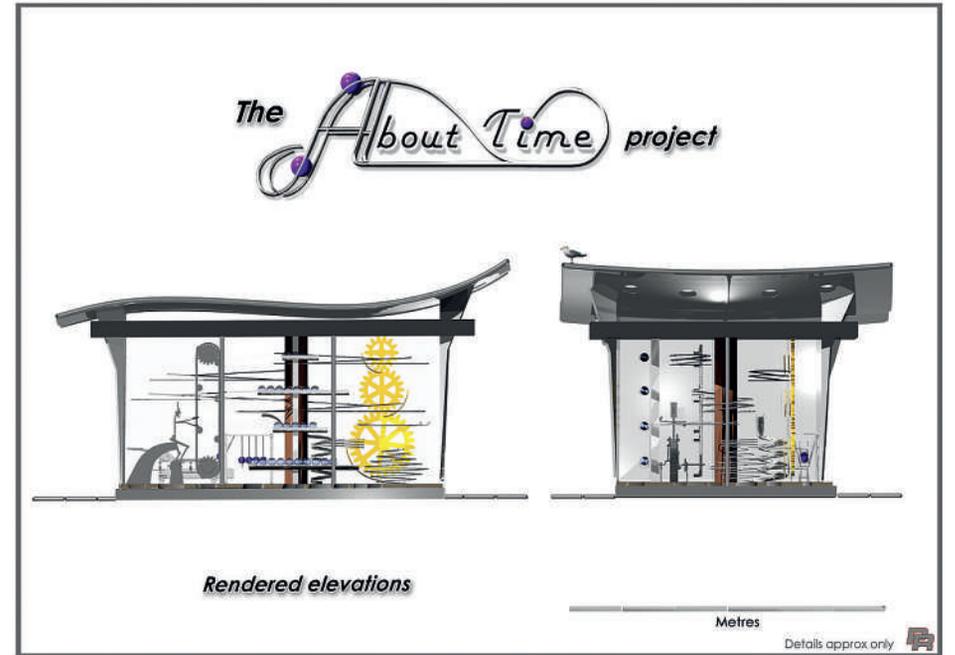
ABOUT THE CLOCK

THIS SCULPTURE REPRESENTS THE STORY OF A MEASURE OF TIME AND SEASONS THROUGH THE MARAMATAKA AS USED BY OUR TUPUNA (Ancestors)



Maramataka is our Māori Lunar Almanac/Oracle. The beginning of the month starts with the New Moon or with the Full Moon depending on the activity being carried out.

Planting, fishing and other important activities are governed by the rising and the setting of all phases of the moon, however it is important to note that the observation of signs eg. flowering of certain plants, the rising of certain stars and the flow ebb of the tides, were very powerful indicators of time.



What is it?

The project is a unique Rolling Ball Clock measuring 6m x 4m x 2.5m high with a striking wave form roof. This special glass enclosed kinetic sculpture comprises 35 “bowling balls” running on stainless steel tracks. They perform various physical motions like banked corners, loop the loop, ride in elevators etc as well as telling the time via timing racks. There will also be a strong cultural theme with a central Maori Pou created in stainless steel and copper, telling the story of Maramataka, the Maori Moon Calendar. The work is being led by carver Te Warihi Hetaraka, cultural advisor to the team, whose son Phillip has designed the central Pou. The art work also includes a small model of the Te Matau a Pohe lifting bridge and a Mechanical Pedaling “Man”.

What will it do?

The purpose of the project will be to create a world unique kinetic sculpture which not only tells the time but also provides a major tourist attraction with educational and cultural values. The sculpture has the potential to provoke, galvanise and educate, is a unique cultural project anchored in the community, harnessing the raw medium of balance, equilibrium, movement, gears, wheels and chains. Encompassing concepts from mathematics to physics it is sparked by a “Whangarei” sense of adventure, genuine creativity and the Kiwi “number eight wire” approach. It will be one of the highlights when experiencing the Hatea Loop Walkway in Whangarei.

Its secondary purpose is to stimulate interest and highlight the adjacent National Clock Museum, providing a portal for additional interest in time and the other clocks inside the museum.

Where will it be?

The site allocated by the Whangarei District Council is adjacent to the Claphams Clock Museum and beside the main walkway through the Town Basin.

What stage are we at ?

The clock enclosure and foundations have been designed. The project has an actual site with the geotechnical investigation completed, a Resource Consent and a Building Consent. The clock mechanism and guiding rails is almost completely designed and documented and a detailed cost estimate prepared.

Project timetable: completion in 2020

Once funding is complete the fabrication of the clock could be completed within 12 months by local suppliers and contractors.

Who will visit the Clock ?

- Tourists: Both local and international groups on the Hatea Loop Walkway
- Cultural Tours – Story of Maramataka
- Night Time: Theatre style lighting giving an additional 4-5 hours of exposure.
- Educational tours of school groups (with parents)

The Vision

The Whangarei District Council has a vision of the Hatea Loop Walkway being the “jewel in the crown” of Whangarei. We consider that the growth in tourism being driven by the Hundertwasser Art Centre now under construction, the Hihiaua Cultural Centre, the riverside hotel projects, and Camera

Obscura and when these are combined with the existing sculpture park, Te Matau a Pohe, Whangarei becomes a tourist destination in its own right. The additive effect of these activities would create a unique visitor experience which should attract increasing numbers of both local and international visitors.



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The About Time Project

ABOUT THE TEAM

HENK OOSTERBROEK

Henk Oosterbroek was born in Holland.

Started work at the age of 15 in the boatbuilding industry following his fathers and grandfathers footsteps. Emigrated to New Zealand in 1971 and continued in the boatbuilding industry.

Between 1975 and 1980 he has worked in various industries from general engineering to aluminium joinery and in the 1980 back to boatbuilding and started stainless steel fabrication in the early 2000 before retiring.

He developed a reasonable knowledge in different fields and was always ready for a challenge and problemsolving.

He has a can't do attitude.

PHIL COLLINS

I am the Senior Research & Development Engineer at Hansen Products and became involved with the About Time clock project over 8 years ago after being approached by Graham Brice.

Raised in Whangarei, and with a keen interest in engineering, I started a Fitting, Turning and Machining apprenticeship with the Whangarei Engineering Company (WECO) in 1979.

Following that, I spent five years at Long Life Tool Company, designing, building, operating and maintaining production equipment for jig saw blades.

In 1988 I joined Hansen Products, initially operating injection moulding machines, before learning and doing toolmaking then moving on to CAD design of their plastic pipe fittings and valves.

PHILLIP HETARAKA (son of Te Warihi)

Early childhood I was always captivated and infatuated by my surroundings, especially with things man-made. Fascination later developed into understanding how things were made. This involved a lot of taking apart and reconstructing. I always had a passion for art and was able to visually interpret my surroundings using any mediums available.

My influences have come from everywhere, but more so from my upbringing, family and friends.

My greatest inspirations are my parents.

I have produced several works, mostly in the form of contemporary Maori design, tamoko/tattoo work or corporate identity and branding. I have collaborated and worked alongside my father Te Warihi Hetaraka on a number of projects.

I have been and currently working as a Graphics Tutor at The Design School for the past 3-4 years and have had the privilege to pass on my knowledge and skills of the industry to those whom have walked through the doors.

My latest work are a series of greeting cards and digital prints illustrating my interpretation of Maori Mythology of the creation.

It is a privilege to be working alongside an



TEAM: from the left...
 Henk Oosterbroek - Boat builder/designer, Phil Collins - Design engineer, Te Warihi Hetaraka - Cultural Advisor, Graham Brice - Patron, Reg Shaw - Rolls Royce Draughtsman, Roger Reynolds - Electrical engineer, Vic Pitman (kneeling) - Chairman, Warren Thomas - Beca Project manager and Pete Romer - Graphic designer

amazing industrial artist Henk and his talented team on the 'About Time' project as his cultural advisor and korero designer. I saw this as an opportunity to unite all cultures together and to enhance the kaupapa and tikanga of this project by sharing the knowledge of our ancestors in regard to Maramataka Maori - The Maori Lunar Calendar.

GRAHAM BRICE

Born in the UK came to NZ with family in 1939 settled in Whangarei were father established an optometrical practice.

Schooling at Horahora, and Whau Valley primary's, attended Whangarei Boys High and then boarded at Kings college Auckland. Studied optometry in Auckland and then post graduation qualification in the UK

Returning to NZ joined father in Whangarei practice (now Specsavers) In 1956 married (Wendy) and now have 4 adult children

Has been involved in a number of community activities.

Past committee member;- Whangarei YHA;....

Whangarei Tourism Trust Board

Past secretary;- Whangarei Amateur Athletic Club, Olympic Swimming Pool Building committee

Past chairman;- Whangarei & District Road Safety Council... Whangarei Blood & Leukemia Foundation

Co editor with Chris Carey :- Destination NZ Cruising Guide to Northern Waters

Whilst a member of the then W.T.T, suggested that to boost interest in Claphams Clock Museum

an outside big version of a running ball clock be constructed. In 2008 a working group was formed

JOHN REGINALD SHAW

Being born in a farming village in the heart of Sherwood forest was very lucky. Had a wonderful place to play. In abandoned quarries, streams to fish and trees to climb. Village school.. A scholarship to a grammar school, an engineering apprenticeship. Tertiary studies at Peoples college in the shadow of Nottingham castle. Marriage to my fiancée Pam in 1966, moved to Rolls Royce as a draughtsman. 1968, why not go to N Z for a look? Never left! Trained as a metalwork teacher and teacher librarian. WBHS for 23 years, then WGHS for 17, retired last year. Four years ago was invited to "help" build the rolling ball clock model.

ROGER REYNOLDS

Roger Reynolds was born and bred in Whangarei where he trained as an Electrician. He has been involved in domestic, commercial, industrial & ship wiring, which involved lighting such things as sports fields, wharves, display lighting etc. He worked in wholesale, retail and procurement.

VIC PITMAN

Retired in August 2015 after 10 years professional truck driving in Whangarei.

Educated through Northern Primary, Intermediate and College from 1951 to December 1960.

Joined Post and Telegraph in 1961 as a Telecommunications draughtsman.

Working in Auckland, Papakura, Whangarei and Nelson drawing offices over 24-years.

Career change in 1985 - promotion in human resources, as a Senior Employee assistance advisor in Rotorua. Moving back to Whangarei in 2005.

Vic's involvement in volunteerism through Lions Clubs International since 1977, a keen petrol head and a part time assistant to a motorcycle journalist, road testing new motorcycles from 1985 to 2000.

WARREN THOMAS - PROJECT MANAGER

I retired to Whangarei 10 years ago and have only been involved for the past 5 years in the clock in various capacities. Before that my working career was as an engineer and project manager in the designing and building food processing factories in New Zealand, Australia and Malaysia. This work was for Beca a leading New Zealand consulting engineering firm.

PETER ROMER

From a Draughtsman in UK to teaching Maths, Science, Graphics and Design in NZ, Peter then developed a Graphics and Design business. Since retirement he's enjoyed designing publicity material for the Octagon Theatre, the Classic and Sports Car Club and the Rolling Ball Clock.

Peter has been part of the Ball clock team right from the beginning when Graham Brice, Brian Adcock and he were in Rotary together. It was Graham's idea that set the whole ball rolling! Peter's particular interests have been producing 3D images of the clock and the development of 'Pedal Man' leaving the mechanics of the actual clock to the other talented guys.

BRIAN ADCOCK

Brian Adcock joined the initial team very early in the project, as a colleague of Graham Brice and Pete Romer in Rotary. His background as a civil engineer and project manager was invaluable in those early days and his sense of humour and design skills added a special dimension to the team - he is sadly missed.

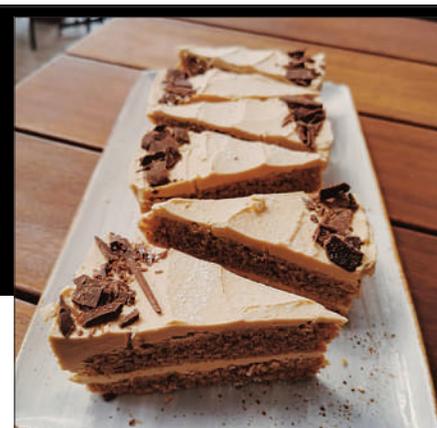
MALCOLM HAWTHORNE

Whangarei engineer Malcolm Hawthorn has been remembered as a wonderful, caring man, who dedicated his life to helping the community and developing engineering and young engineers.

Mr Hawthorn, a retired director of Hawthorn Geddes Engineers and Architects, and a former Whangarei district councillor. Mr Hawthorn was also a fellow of the Engineering NZ (formerly the Institute of Professional Engineers of NZ).

He was also a long-time member of the Whangarei Lions.

He was a founding member of the About Time Project team.



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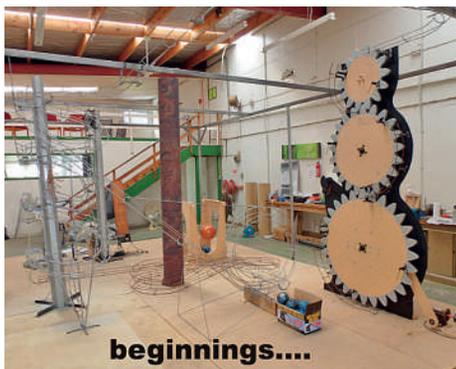
The About Time Project

CULTURAL

The clock tells the story of Maramataka, the maori moon calendar. The large wheel represents the sun, the centre wheel the ear and the top wheel and the moon. The balls on the racks are the stars. It is the position of the stars in relation to the moon that tells us when is the right time for planting, harvesting or fishing.



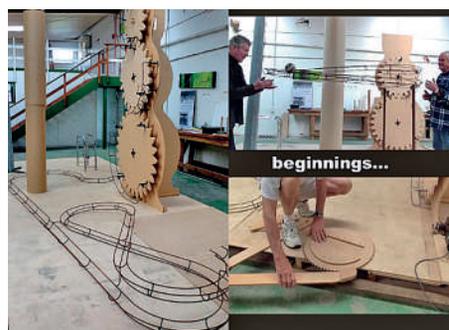
The first track



beginnings....



5. 36 and 30 seconds



beginnings...

cook | costello

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WHANGAREI ROLLING BALL IMPORTANT NEWS FLASH

COUNCIL PARTNERSHIP FUNDING GRANT

We have been successful in receiving an allocation of \$110,000 from the Whangarei District Council Partnership Fund. This is a source of funds for community lead projects within the district. It aims to deliver a unique attraction of artistic, cultural and educational merit. As a kinetic sculpture and working clock, it aligns with existing Town Basin amenities such as Clapham's Clock Museum and the Sculpture Trail. The council has accepted inheritance of the ongoing operation and maintenance cost of the amenity.

The net result of this funding allocation means

that we have met an initial fund-raising target of \$150,000 which will permit draw down of the Provincial Growth Funding and allow commencement of construction of the clock.

OPEN DAYS

Come and be amazed by the full sized working model we have built as a "proof of concept". This is located in a council workshop in Reyburn House Lane immediately opposite the Sculpture Park and beside Louie Berkers Panelbeaters. These open days will continue every Saturday morning from 10am to 1 pm.

On behalf of the Whangarei Community we are urging you to support our "About Time" Project. A group of highly talented engineers and designers have been working on this project for more than ten years.

These men are local heroes who have contributed their own money, thousands of hours and extraordinary expertise to bring this engineering masterpiece to our city. There is nothing else like it in the world! It will become the "Whangarei Rolling Ball Clock"

The government has contributed \$750,000 through the Provincial Growth Fund but before we can uplift this funding we need to raise \$150,000.

The Northland Community Foundation are our banking partners.

FUNDRAISING NEEDS TO CONTINUE:

1. Via our Givealittle page – or to our Facebook or website to find the link. This will provide you with an immediate receipt. <http://givealittle.co.nz/cause/about-time-rolling-ball-clock>
2. Go to Northland Community Foundation (<https://northlandcommunityfoundation.org.nz/donate/>). Use drop down menu to select About Time Rolling Ball Clock. This will produce an immediate receipt; and a bank transfer receipt will be sent.
3. Send a cheque to About Time Rolling Ball Clock, PO Box 3314, Onerahi.

LEVELS OF DONATIONS

Any donations are highly appreciated. However, if you would like your contribution to be recognised on the clock itself when it is showcased at the Whangarei Town Basin, you may choose from the following options:

- Pavers- These are triangle shaped pavers that will surround the ground below the clock.
- Pavers - \$500 Selling Fast
- Advertising Spaces- Sand blasted glass panel, which will surround the clock itself around the bottom area. This has a minimum advertising time of 10 years.
- 40 cm - \$2,000
- 1 metre - \$5,000



EDUCATIONAL

There is a lot of physics and science behind the ball movement. We have questionnaires that can be given out to school groups which ask for some calculations of the physics behind the clock.



SANDRA MCKERSEY

Sandra McKersey is a newcomer to the team and has thrown herself into fundraising with unbridled enthusiasm. She is so proud to be associated with this exceptional project and with this clever group of Whangarei engineers and designers. She is best known for establishing People Potential Ltd "and I love it here she said. This community is clever, creative and innovative".

JAN AHLERS

Jan Ahlers is committed to the fundraising for this amazing engineering project because she has admired for years the huge dedication just a few men have put into such an intricate and complex design.

She believes this Whangarei Rolling Ball Clock will not only become a drawcard for tourists, but will be a constant source of wonder and intrigue for regular users of the popular Loop Walk, young and old.

HOW FAST IS THE PEDAL MAN GOING? GOING?

Do the maths!

- Driving Geared Motor Speed is 2 rpm (revs per minute)
- Each sprocket set has the ratio of 52:14
- How many sets are involved?
- Pedal Man Speed = Motor Speed x (overall ratio)

What's your answer?

- Is it ? Look closely and see that there are three sprocket sets.

Calculation

- Number of teeth on driving (large) sprocket is 52 (Na)
- Number of teeth on driven (small) sprocket is 14 (Nb)
- Formula for overall ratio
= Na x Na x Na Nb x Nb x Nb
= 51.24



$$\begin{aligned} \text{Pedal Man Speed} &= \\ \text{Motor Speed} &\times 51.24 \\ &= 102.48 \text{ rpm} \end{aligned}$$

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Thank You
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THE ABOUT TIME PROJECT TEAM

Would like to thank our main contractor **Absolute Stainless Steel** for their fabrication equipment including an automated computer controlled stainless steel bending machine for the stainless steel rails.

OUR SUB CONTRACTORS:

- **Axia** for their 3D drawings to as-built
- **Ross Bourke** for the internal concrete finish
- **Cook Costello** for the structural design
- **Culhams Engineering** for their transport and craneage
- **GHK Piling** for the piling and foundations
- **Hubands Energy** for their expert advice on solar power
- **Metro Glass** for the glass enclosure
- **Ministry of Business (MOB)** for the \$750,000 through the Provincial Growth Fund
- **The Northland Community Foundation** our banking partners
- **Northern Advocate (NZME.)** for the advertising
- **TBN** for the lighting
- **Tui Technology Ltd** for the electrical and computer controls
- **Virgin Concrete** for the concrete supply
- Last, but not least **Whangarei District Council** for the \$110,000 grant from their Partnership Fund

Without all their support, we would not be able to create this outstanding and unique Clock.

Tena koutou, tena koutou, tena koutou katoa!

Opinion

EDITORIAL

Twelve good men and true no more

Graeme Barrow

When the first settlers from the United Kingdom arrived in New Zealand they brought with them the habits, the customs, and conventions of the countries they had left behind.

Some were excellent, some not – among the latter the first-past-the-post electoral system and jury system of criminal justice.

The Government of the day soon worked out that the first-past-the-post electoral system was inequitable, as there was a disparity in the value of votes. Small villages which had their own Member of Parliament got the same number of votes as larger villages which had their own MP. So they wisely got rid of it and introduced proportional representation.

But the by far more odious jury system remains, and it is a stain on the justice system.

In this New Zealand is in bad company, the only three other

The odious jury system remains, and it is a stain on the justice system.

countries which stick to it are Australia, the United Kingdom, and the United States.

In the US the system has become so perverted and abused that the system itself is the major criminal. Corporations spend hundreds of thousands of dollars investigating potential jurors, finding out their prejudices and their overall philosophies on the issues they will be confronting so that those who have views likely to be at odds with their client (the accused) can be challenged.

In civil cases there is an additional flaw. The party with the most money can hire the best lawyer.

A far, far better system is the inquisitorial system which operates in Western Europe where specially trained lawyers investigate with the aim of establishing the truth. It would not be practical to introduce that system here, but what would work far better would be judge alone, assisted, where desirable, by one or two assessors who would advise on complex matters. For instance, if the trial was about complicated corporate matters, two accountants or financial advisers could assist the judge.

The flawed jury system has to go. It defeats natural justice.

BODY'S VIEW



LETTERS

Time to thank Running Ball Clock team

I would like to take this opportunity to thank the *Northern Advocate* for their long-standing support for this project (Whangarei Running Ball Clock) and to express my grateful thanks and appreciation of the considerable work, thought and effort the committee members have put into the About Time Project.

Over the last 11 years the committee has, without publicity, been working away creating this amazing unique structure, which I am sure will "wow" the public.

Because of the reluctance to publicise the work in progress, the members concerned now deserve to be recognised for their outstanding creativity and "stickability".

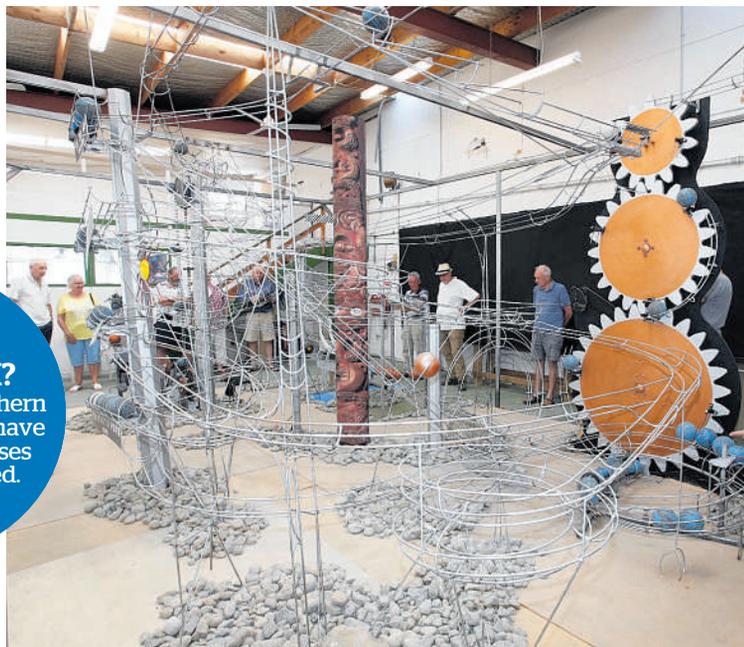
Firstly I would like to acknowledge the work by two of the eight founding members who have passed away – retired engineers **Malcolm Hawthorn** and **Brian Adcock** – both laid out a vision of a much more exciting and complicated work than I originally conceived.

The founding members, who deserve to be recognised, in no particular order are:

Phil Collins – design engineer
Henk Oosterbroek – boat designer

WHAT DO YOU THINK?

Email editor@northernadvocate.co.nz to have your say. Responses may be published.



Part of the Running Ball Clock at the Town Basin during an open day in 2017.

Te Warihi Heteraka – cultural adviser
Peter Romer – graphic design and photographer
Warren Thomas – project manager
Reg Shaw – engineering draughtsman.

Recently we have been fortunate to have gained the specialist skills of Philip Heteraka, creator of the central pou, a fascinating interpretation of Maramataka, the Maori moon

calendar, together with Roger Reynolds – lighting specialist.

The About Time Project would not have been possible were it not for the considerable financial assistance from the Provincial Growth Fund and the Whangarei District Council. Also, the tireless efforts of Sandra McKersey and Jan Ahlers with fundraising. As we are near enough to our target we have been authorised to start construction.

GUIDELINES

The Northern Advocate welcomes letters from readers. Please note the following:

- Letters should not exceed 200 words.
- They should be opinion based on facts or current events.
- If possible, please email.
- No noms de plume.
- Letters will be published with names and suburb/city.
- Include full name, address and contact details for our records only.
- Local letter writers given preference.
- Rejected letters are not normally acknowledged.
- Letters may be edited, abridged, or rejected at the Editor's discretion.
- The Editor's decision on publication is final.

Email editor@northernadvocate.co.nz or write to the Editor, Northern Advocate, 88 Robert St, Whangarei O110

The considerable co-ordination required is being overseen by our new chairman Vic Pitman (Whangarei Civic Honour Award).

I'm sure Whangarei will join me in complimenting all these helpers who have created this outstanding Whangarei Running Ball Clock sculpture.

Graham Brice (Past convener)
Patron



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