



Place, paint and pixels

Auckland's beloved technology museum introduces engaging new permanent exhibitions, unified with an energetic Resene colour palette.



For those who attended primary school last millennium, heritage and innovation were treated as distinctly different educational topics. But for today's young learners, the recently unveiled Te Puawānanga Science and Technology Centre at Auckland's Museum of Transport and Technology (MOTAT) offers a masterclass in how these subjects can – and should – be intertwined. After years of hard work, the centre stands as a landmark project that's holistically grounded in New Zealand's cultural identity while boldly projecting an inspiring vision for the next generation of innovators.

As New Zealand's science and technology playground, Te Puawānanga offers inventive opportunities for hands-on discovery. For designers, the centre is a blueprint for purposeful

placemaking. The design responds to its context with sensitivity and strength, drawing deeply from Te Ao Māori (the Māori worldview) while integrating cutting-edge spatial storytelling. It invites exploration, fosters connection and redefines how educational spaces can cater to all ages in how it presents knowledge, objects and stories in a range of participatory ways.

MOTAT Design Manager Jessica Gommers and Scott Parker of Scott Parker Creative led the design and production teams working closely with MOTAT Exhibition Designer Ruby Oliver and a host of illustrators, animators, creative practitioners, and fabrication specialists. Together, their passionate efforts culminated in three classrooms, a lounge, a breakroom and three innovative exhibition spaces: Te Tumu



left and opposite: When a key building's infrastructure needed an upgrade, MOTAT sought to create a hands-on, minds-on Science and Technology Centre for New Zealand. Redeveloped, refreshed and reprogrammed, the new permanent exhibition spaces that make up Te Puawānanga offer a contemporary visitor experience with plenty of creativity and delightful surprises that cater to visitors of all ages. In the Te Tumu area, young children can learn and play in a richly interactive environment that features Resene greens, golds and blues including Resene Saratoga, Resene Chelsea Cucumber, Resene Anise, Resene Hypnotic, Resene Ipanema, Resene Wild Willow, Resene Soft Apple, Resene Spinnaker, Resene Awash, Resene Charcoal and Resene Half Solitaire.

	Resene Half Solitaire		Resene Saratoga
	Resene Ipanema		Resene Smoke Tree
	Resene Hypnotic		Resene Salsa
	Resene Soft Apple		Resene Awash
	Resene Anise		Resene Spinnaker
	Resene Wild Willow		Resene Blue Charcoal
	Resene Chelsea Cucumber		Resene Charcoal

(the root or foundation), Te Puku (the belly) and Te Waha (the mouth or voice).

“The main inspiration for Te Puawānanga’s design came from our location, Te Wai Ōrea (Western Springs). The spring, which was Auckland’s first pumped water supply, was enabled by the pumphouse that still stands at MOTAT today. Te Puawānanga is named for a native flowering vine, also known as clematis, which grows on the forest canopy and represents the blossoming of knowledge,” says Jessica.

The colour palette for Te Tumu was inspired by the greens and yellows that can be seen during a morning sunrise by the lake in Western Springs. “Sunrise, an apt analogy, prompted the warm, calm palette we employed to welcome MOTAT’s youngest visitors and encourage them

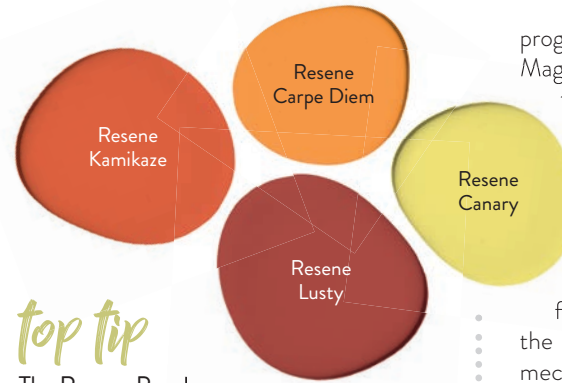
to start exploring. This highly tactile playspace has natural stained timbers with complementary textiles that tie into the Resene colour palette. Resene Saratoga, a rich bushy green, was chosen for its biophilic qualities as the main colour for Te Tumu. Our māra kai wall is segmented into ‘rays of light’ which represent the phases of the maramataka (Māori lunar calendar) related to growing, harvesting and storing kumara,” says Jessica. This indoor playground includes a Tāne Mahuta (the Māori Lord of the Forest) slide, puna (spring), waka (canoe), hīnaki (eel trap), māra kai (food garden), pūriri tree grove and harakeke (flax) wall.

In Te Puku, visitors of all ages can learn about the ideas, forces and technologies that shape our everyday lives as well as stories of innovators

and inventors from New Zealand. This space explores scientific and technological concepts such as light and colour, energy and matter, and forces and motion. Te Puku features a wide range of rich Resene colours to help define five distinct sections of content within the larger gallery. While developing their concepts, the project team discussed ideas of the belly, gut and heart and how they could tie these themes into a space filled with vigour, energy and heat. The deeply interconnected nature of our world is demonstrated in an animated film about the carbon cycle and Agents of Change, a gallery of illustrations by cartoonist Toby Morris which celebrates national stories of innovation. “Discussions and further thoughts about the warmth of a late summer afternoon inspired the

predominantly orange and red hue throughout,” says Jessica. “The Agents of Change wall is more than 30m long and features a sunset-inspired colour scheme to frame content that reverberates out from a central yellow core. The digital interface designs for the interactive Energy Machine were inspired by the human heart’s interdependent palette of red and blue to represent oxygenated and deoxygenated blood. The machine, which is bright orange, sits within a room painted in earthier Resene Smoke Tree with sightlines through to both the Resene Salsa walls which surround the Richard Pearse plane and the Resene Blue Charcoal exterior of MOTAT’s interconnected theatre.”









Designed with flexibility in mind, Te Waha is a multifunctional space for lessons, events and



top tip

The Resene Powder

Coating range includes favourite premade Resene colours and a bespoke service where your Resene colour is made for you to Resene colour standards. If you have regular ongoing demand for a specific Resene Powder Coating colour, it can be made and stocked for you. Find out more at www.resene.com/powdercoating.

 Resene Switched On	 Resene Irresistible
 Resene Tulip Tree	 Resene Flirt
 Resene Smoke Tree	 Resene Pompadour
 Resene Fire	 Resene Blackberry
 Resene Quarter Pohutukawa	 Resene Resolution Blue
 Resene Half Pohutukawa	 Resene Jacksons Purple

left: Since opening, Te Puawānanga has been recognised with multiple awards, including the 2025 Museums + Heritage Awards International Exhibition of the Year Award, three Designers Institute of New Zealand Best Design Awards and a Resene Total Colour Installation – Experiential – Product Award. A rainbow of Resene hues makes an impactful backdrop to the Agents of Change wall, including Resene Blackberry, Resene Half Pohutukawa, Resene Pompadour, Resene Flirt, Resene Quarter Pohutukawa, Resene Lusty, Resene Kamikaze, Resene Smoke Tree, Resene Carpe Diem, Resene Tulip Tree, Resene Switched On and Resene Canary.

programming. The Science Alive Te Manawa Magic Box is a 4m high mobile structure that facilitates design challenges, live demonstrations and object displays – and it even has its own robot to move it. The convergence of maths and art is explored in the Pattern Projection, where visitors can generate their own large-scale moving pattern onto the floor. The colour scheme in Te Waha, the innovation space, drew inspiration from mechanical drawings, engineers’ blueprints and science laboratories. Set against the base-build in Resene Half Solitaire, touches of crisp white Resene Alabaster and white birch plywood, the powdercoated aluminium used in the freestanding Science Alive Te Manawa Magic Box structure offsets Beats in Time, a display case that’s predominantly in Resene Resolution Blue.

Before exhibition design could start, the building was refitted with a new HVAC system and roof. Athfield Architects completed this first stage, which required the selection of base colour scheme to be used across the refurbished spaces. Resene Charcoal, a soft matte black, and Resene Half Solitaire, a warm white, were chosen to frame and delineate the building’s two main spaces and serve as a neutral backdrop for building out the exhibition-specific colour schemes.

Ultimately, Resene paint and wood stains became fundamental for creating cohesion across the various surfaces and materials used in the project. “Resene SpaceCote Low Sheen was used on all walls throughout the centre,” Jessica says. “As a washable and hard-wearing waterborne enamel, it was the best choice for this active and busy commercial interior. Resene SpaceCote Low Sheen was originally specified in the base-build documentation, the design and production teams particularly appreciated the finish it provided.”

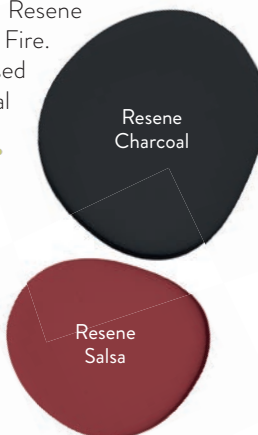
Big Colour Imaging Limited also used Resene SpaceCote Low Sheen to paint the

text labels which were used across the project. The text was then printed directly on top of pre-painted substrates using the company's flat-bed printer so they would blend flawlessly with the Resene SpaceCote Low Sheen walls to which they were applied. Three different Resene wood stains were also used for gallery titles and directional signage to create highly legible information while retaining the warmth, texture and character of the natural wood.

To create a unified scheme across MOTAT's entire Great North Road precinct, new


exterior colours were chosen to complement the brickwork on the pumphouse as well as Resene Irresistible, the vivid pink that was used to repaint Building 6 in 2019 – a project which won a Resene Total Colour Commercial Exterior Award. "The entire exterior of the building had been Resene Jackson's Purple for several years. This was updated to a tonal shift design using Resene Lusty and Resene Fire.

Resene Fire was used to create a horizontal



below left and right: For the past 10 years, the space that Te Puawānanga now occupies hosted temporary exhibitions which focused on building MOTAT's position as the Science and Technology playground for New Zealand. Recent exhibitions included Love/Science, Hohoko Akē Switch Up and Tūhuratia Exploded – all of which offered family-friendly interactive explorations of innovation from around the country. MOTAT Design Manager Jessica Gommers says learnings from these exhibitions helped inform the development of Te Puawānanga. A display celebrating New Zealand inventors like Richard Pearse and Dennison Tech are surrounded with vibrant Resene Salsa within the space's base palette of Resene Charcoal.

better together

Resene
Half Solitaire 

Many hands, heads and hearts made Te Puawānanga Science and Technology Centre possible. "Throughout the development of this project, we consulted with a wide range of knowledge holders to ensure content relevance and accuracy," says MOTAT Design Manager Jessica Gommers. "Local knowledge holder and storyteller Pita Turei was a key collaborator who shared narratives about our location along with his creative expertise. We sought input from Pūhoro STEMM Academy, who support young Māori and Pasifika into STEMM pathways. We worked with Ngāti Whātua Ōrākei to name the spaces and the building. The University of Auckland provided guidance on a range of science and mathematics topics. Our partners, Te Whai Ao Dodd – Walls Centre, were key advisors on the Light and Colour section. AUT and Aro Arataki Children's Centre guided us on early childhood education components for the Te Tumu gallery. Liliana Clarke was also a contributor to this gallery with her knowledge of maramataka and gardening. Bespoke joinery, built by Calavera Limited, includes the Tāne Mahuta slide, the nest, the puriri lifecycle display and bench seats in Te Tumu. In Te Puku, we worked with Satellite Media to create the bright orange Energy Machine, where visitors turn their chemical energy into sound, heat and kinetic energy. Once enough energy has accumulated, the machine releases a very loud Galilean cannon. The cannon balls were made by a company in Australia who also make toys for elephants."





- Resene Half Sea Fog
- Resene Half Solitaire
- Resene Popcorn
- Resene Canterbury Clay
- Resene Di Serria
- Resene Twine
- Resene Husk
- Resene Toffee
- Resene Canary
- Resene Switched On
- Resene Ipanema
- Resene Tulip Tree
- Resene Carpe Diem
- Resene Smoke Tree
- Resene Kamikaze
- Resene Fire
- Resene Copper Rust
- Resene Lusty
- Resene Salsa
- Resene Red Oxide
- Resene Blossom
- Resene Quarter Pohutukawa
- Resene Half Pohutukawa
- Resene Flirt
- Resene Pompadour
- Resene Blackberry

Resene Spinnaker

Resene Awash

Resene Blue Charcoal

connection between the building's two main entrances while Resene Red Oxide was selected as a tertiary colour to demote and integrate the large AHU ducts and support frame," Jessica explains.

Te Puawānanga has been the biggest project Jessica has helped deliver at MOTAT and a singular experience in her 25-year career of design and production in galleries, libraries, archives and museums. "With high ambition, a tight budget and timeframe, a spacious 2000m² footprint and an extended project team, it is also the most complex project I've

worked on. I love the colour, the broad stories and the inclusive narrative within our Agents of Change wall. I also love knowing it's conception, creation and delivery was truly a team effort," she says of the completed design.

Scott Parker worked with Athfield Architects on the base build redevelopment before working with Jessica on the spatial exhibition design. "The work on the base build was not only to tidy up the existing building and make sure it was fit for purpose but to also ensure it would aesthetically and texturally suit the exhibition fitout. The exhibition design really was a labour of love right

above and opposite: As part of the building's redevelopment, a base palette in Resene Charcoal and Resene Half Solitaire was applied. From here, the design team layered in different Resene colour palettes that would create unique identities for each of the different areas and exhibits that make up Te Puawānanga – and ultimately more than 40 different Resene paint colours were used in the project as well as three Resene wood stains. These include Resene Half Sea Fog, Resene Popcorn, Resene Saratoga, Resene Chelsea Cucumber, Resene Anise, Resene Hypnotic, Resene Ipanema, Resene Wild Willow, Resene Soft Apple, Resene Spinnaker, Resene Awash, Resene Smoke Tree, Resene Blackberry, Resene Salsa, Resene Bunting, Resene Unicorn, Resene Blue Charcoal, Resene Half Pohutukawa, Resene Quarter Pohutukawa, Resene Pompadour, Resene Flirt, Resene Lusty, Resene Kamikaze, Resene Carpe Diem, Resene Tulip Tree, Resene Switched On, Resene Canary, Resene Blossom, Resene Envy, Resene Di Serria, Resene Twine, Resene Husk, Resene Fiji Green, Resene Copper Rust, Resene Logan, Resene Toffee, Resene Canterbury Clay, Resene Fire, Resene Red Oxide, Resene Colorwood Rock Salt, Resene Colorwood Pitch Black and Resene Colorwood Sheer Black.

- Resene Colorwood Rock Salt
- Resene Colorwood Sheer Black
- Resene Colorwood Pitch Black

top tip

Contrast plays an important role in exhibition design. To ensure that your Resene colour selections have adequate contrast between them, check the difference between their light reflectance values (LRV). You can find the LRV printed on the back of your Resene colour swatch or on the online Resene Colour Library. LRVs are expressed as a percentage value from 0 to 100 that represent the amount of light they reflect back at the perceiver, with 0 being a pure black that absorbs all light and 100 being pure white that reflects back the maximum amount of light. Universal design organisations recommend a difference of 70% or more between two adjacent colours to ensure adequate contrast for those who are visually impaired.

from the overall experience planning through to how the space was broken down to what materials were used where and how everything was fabricated and installed,” he says.

Like Jessica, Scott loves what the entire team was able to come together to create. “It is not very often that you get to really push how a space can look and feel especially in an environment like MOTAT. We had so much support from the steering group and I think that really shows in the confidence of the space. My favourite element is probably the pūriri structure in Te Tumu. It is the first thing visitors see and I think it really sums up what we were trying to achieve – something welcoming, social, tactile and unexpected. From a colour perspective, I absolutely love the orange environment of the energy machine. It feels rich and playful with a hint to industry,” he adds.

“Since the opening of the centre, visitation to MOTAT has significantly increased, serving

as a strong indication of its relevance and the benefits it offers to schools and the greater community,” says Jessica. “Anecdotally, we’re noticing longer than average dwell times across the centre, with people spending higher than average lengths of time in spaces. Professor Sir Peter Gluckman described Te Puawānanga as a ‘critical asset’ for both Auckland and New Zealand to inspire the innovators and problem solvers of tomorrow and help future generations navigate a fast-changing world.” **BW**

To find out more about Te Puawānanga and MOTAT’s other incredible educational experiences, visit www.motat.nz.

design team leads Jessica Gommers with Scott Parker Creative www.scottparkercreative.com
interior fit out and joinery Dimension Shopfitters, www.dimensionshopfitters.co.nz
painting Basarab Painters, www.basarabpainters.co.nz
images Richard Ng

Jessica's top tips

- If you’re creating a physical environment, you need to step away from your desk to see and understand each colour at scale – in real life and under real lighting conditions. Resene A4 drawdown paint swatches are far more accurate than anything you can see or create on-screen.
- Make sure you understand how each paint colour behaves amongst all the other substrates, textures and finishes included in your design. This includes any digital screens or printed collateral included within the experience.
- Gather your material and physical samples to help remove assumptions and save misunderstandings throughout development and through to install. There is both an art and science to it, but at every stage, communication and clarity are key. If you can show your team or client exactly what you intend to do and then help your builder and painter deliver it exactly how you said you would, it’s bound to be a success!



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