# LearningSCAPES Creating Belonging:

Integrating Culture in Transformative Architecture





### **Title**

#### Creating Belonging:

# Intergrating Culture in Transformative Architecture

- Werner Naude
- DCA Architects of Transformation
- LearningSCAPES 2025
- New Horizons in Learning Environments



### Roadmap & Learning Objectives



#### Roadmap:

- Me, Myself and I
- Why belonging matters Dunn & Dunn + belonging
- Culture | People | Place (with case studies)
- Storytelling in design
- Toolkit & process
- Call to action

#### Learning Objectives:

- Understand why belonging enhances learning & project success
- Identify strategies to integrate First Nations & local cultures
- Analyse real-world case studies
- See how belonging underpins Dunn & Dunn factors

### Me Myself and I

#### A bit about me:

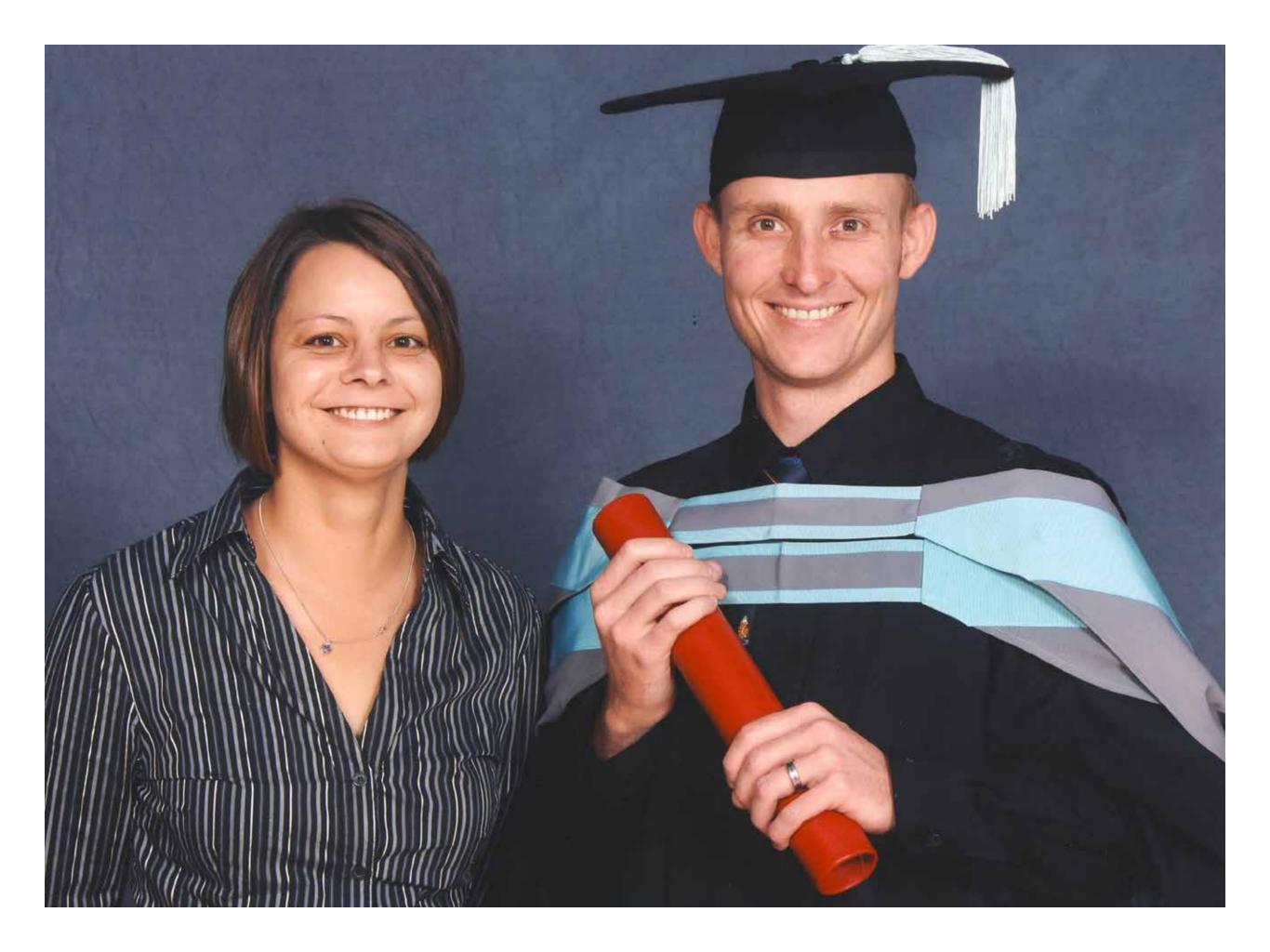
- The early years
- Education
- Starting again
- Family
- Fun

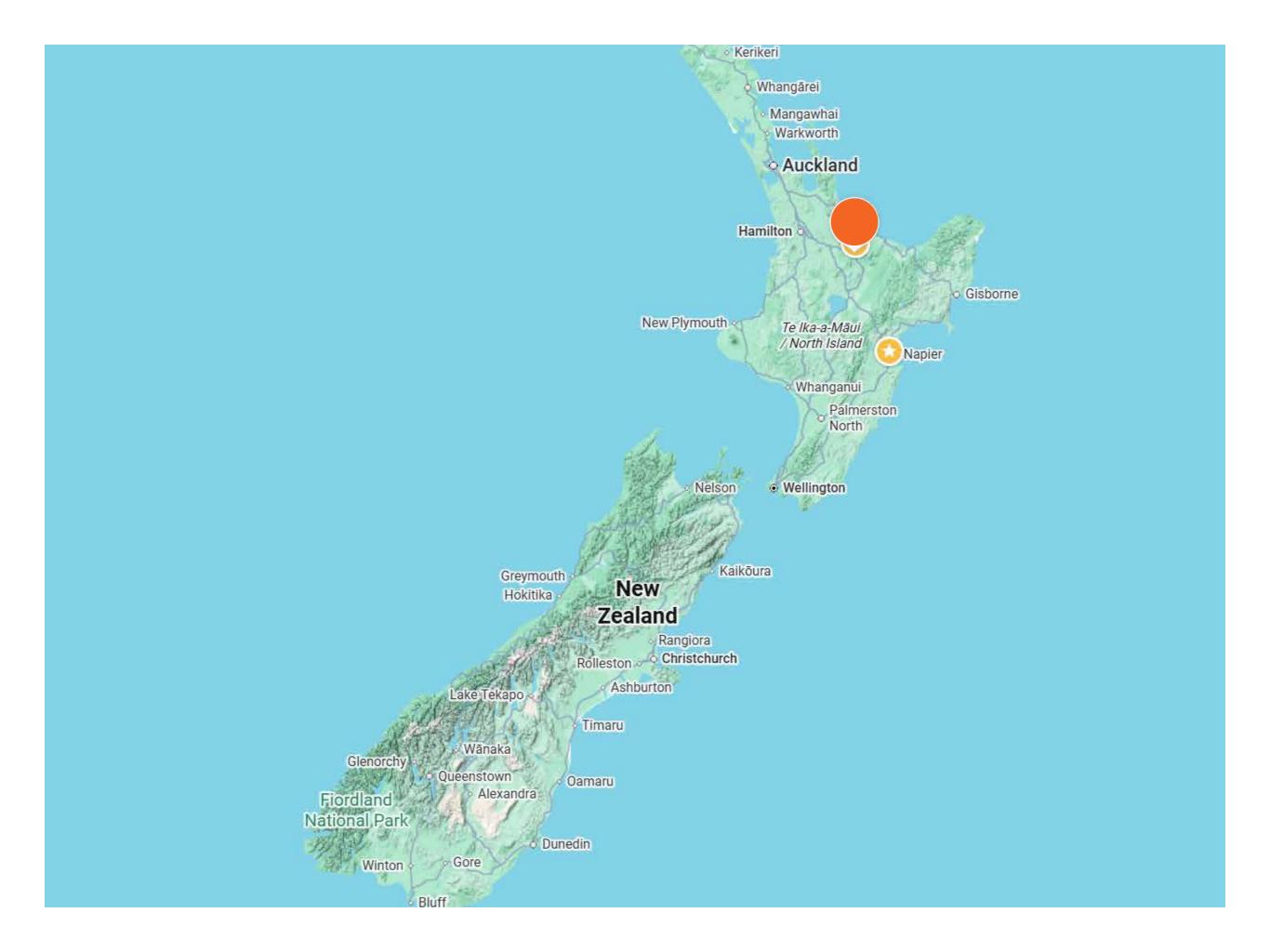








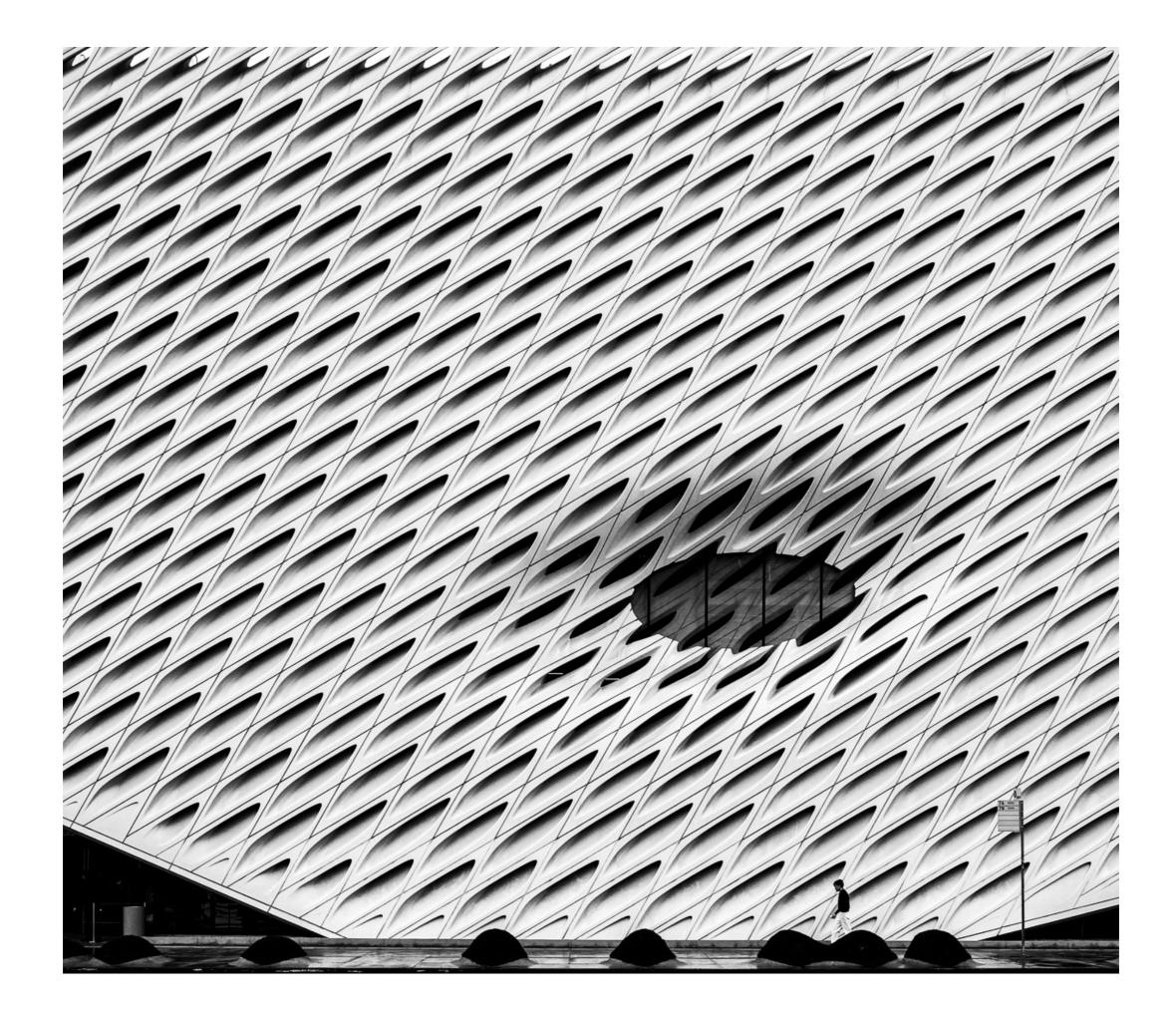


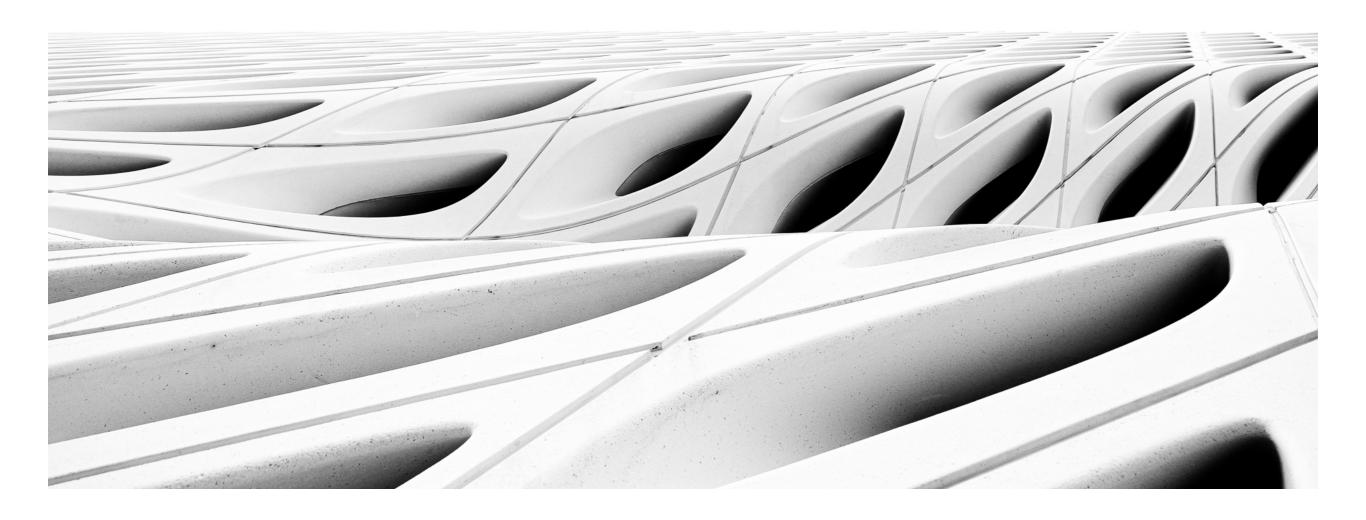


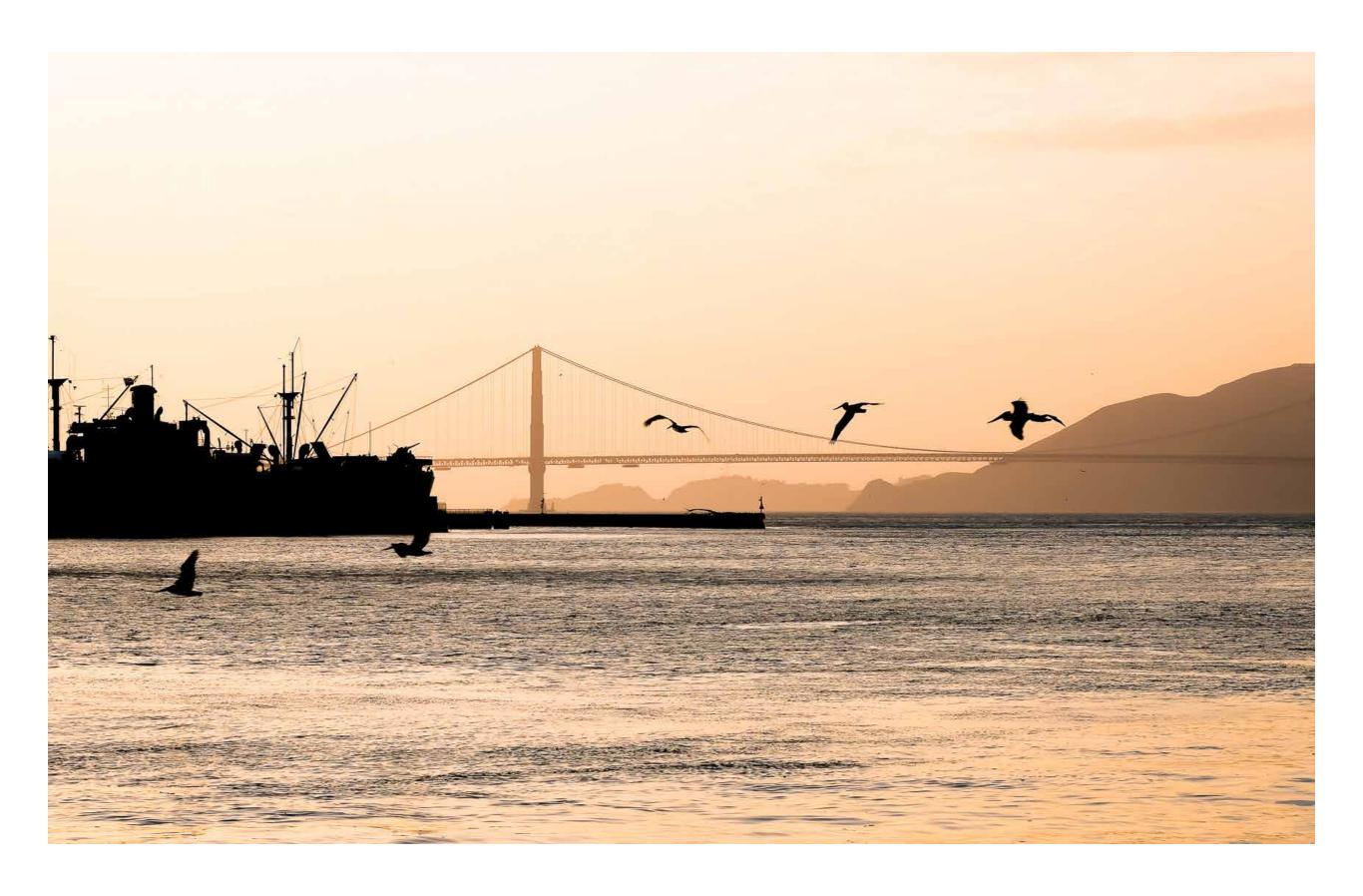


















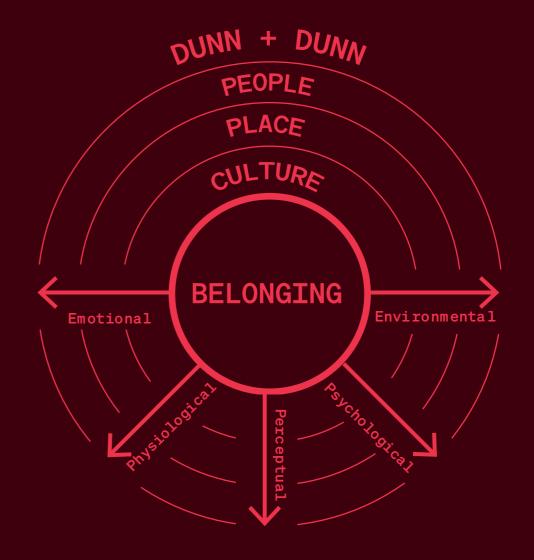
# Why Belonging Matters in Learning Environments

- Belonging drives engagement, persistence, and motivation
- In buildings, belonging emerges from culture, people, and place
- When present, projects achieve higher acceptance and sustained use
- Sets the foundation for Dunn & Dunn success



### Dunn & Dunn Recap + Belonging Link

- Dunn & Dunn model: Physiological, Emotional, Sociological, Psychological, Perceptual, Environmental
- Evidence base: 850+ studies across 135+ institutions (Meta analysis)
- Matching instruction/design to learning preferences improves outcomes
- Belonging strengthens each strand's effect





### **Stories and Belonging**



- People feel and think through stories
- Stories enhance emotional resonance, comprehension, recall
- They transmit culture, build trust, and mobilise vision
- In co-design, storytelling creates ownership
- Case study 1: Te Whānau-ā-Apanui + Story telling through patterns and integrating art in to the architecture
- Case study 2: Te Arawa Media + Story telling through patterns lighting and colour

#### Te Whānau-ā-Apanui







#### Te Arawa Media





# **Culture: Designing With, Not Just For**

- Integrate visible, local cultural elements in archicture, interior and color
- Align early with cultural principles
- Case study 3: Pukekohe High School + integration of Cultural symbolism in to contemporary form



#### Pukekohe High School



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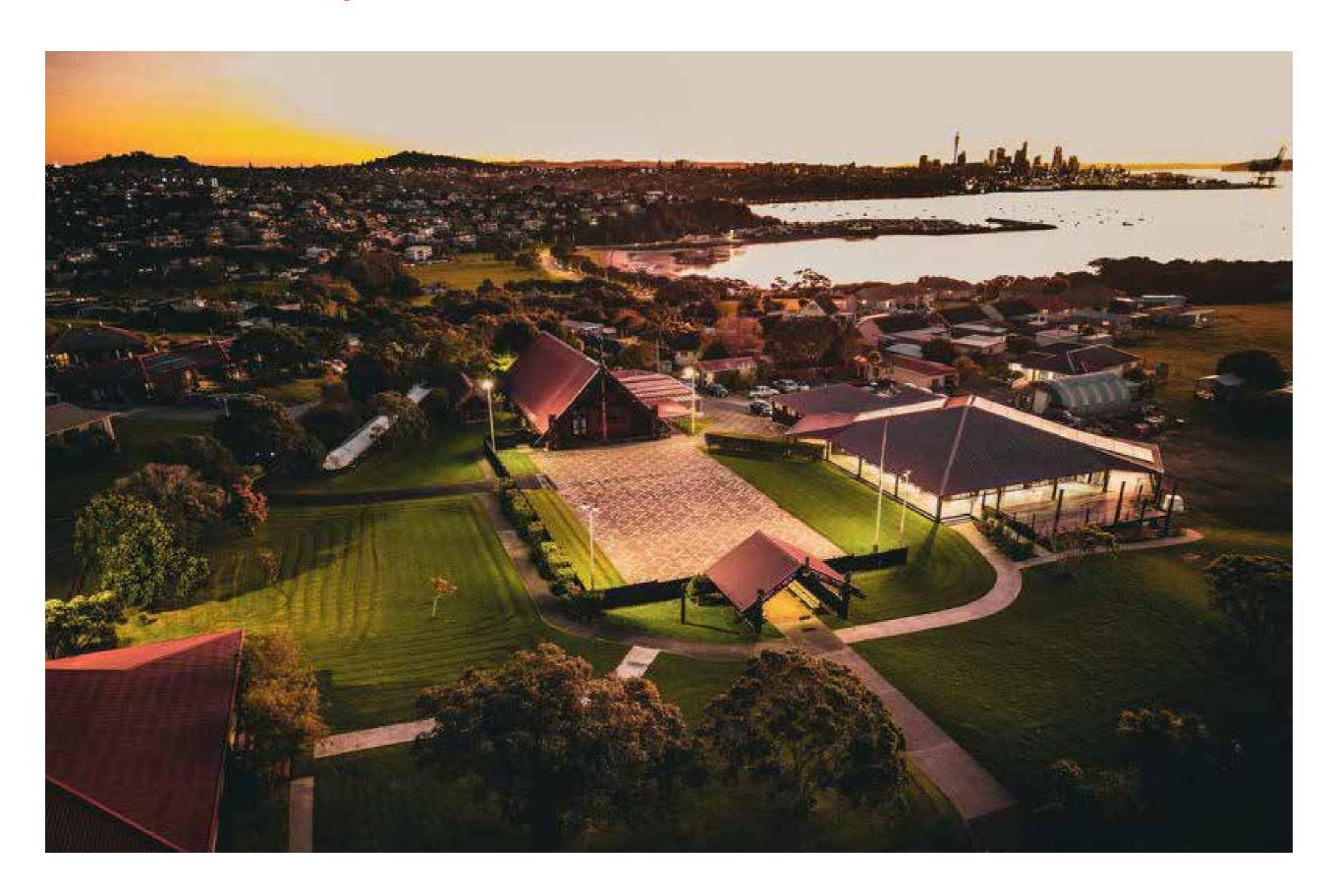


### People: Stories, Rituals, and Daily Life

- Design that reflects rituals, traditions, and social organisation
- Participatory methods: co-design, community engagement, all voices heard
- Vernacular research: form follows culture-in-use
- Case study 4: Te Rito o Manaaki ora + cultural principles drive plan from and vertical planning
- Case Study 5: Te Kura Kaupapa Māori o Te Wānanga Whare Tapere o Takitimu

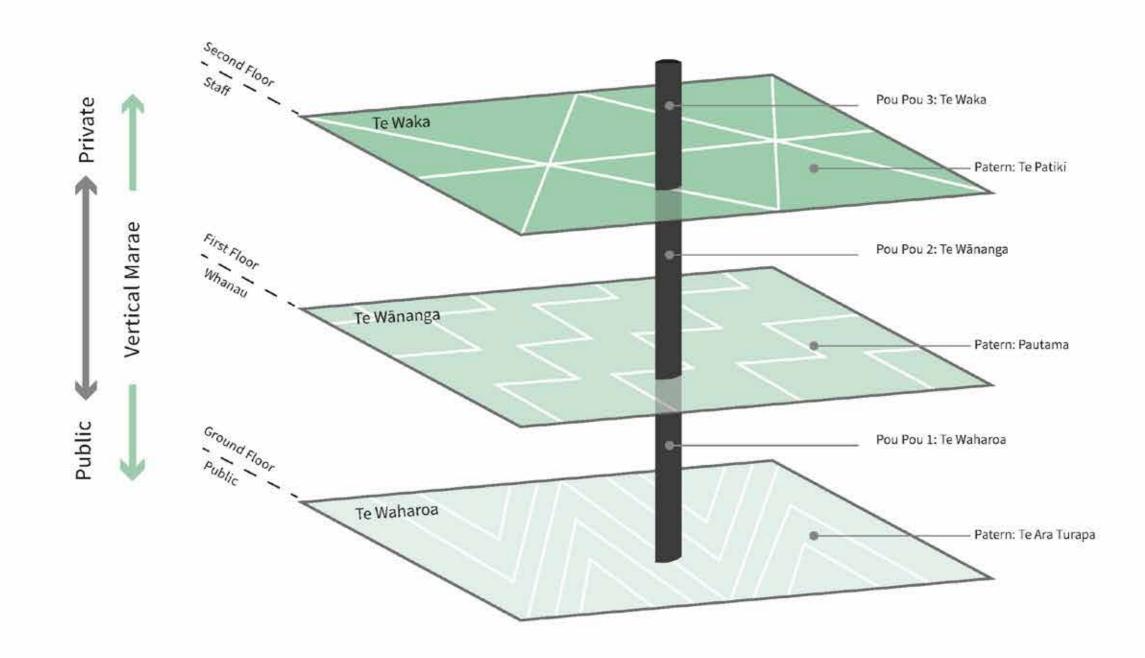


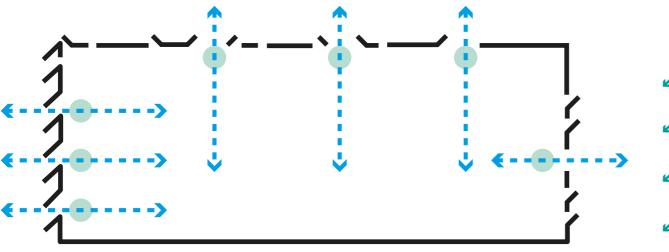
Māori Marae Ōrākei Marae, Ngāti Whātua (Auckland)



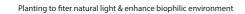
Te Rito o Manaaki ora



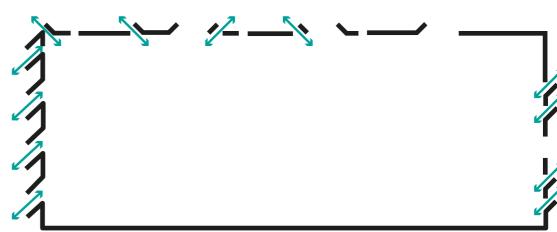




Large openings aligned with public/social spaces and circulation zones to bring natural light deep in to building footprint. Generous views to the exterior.

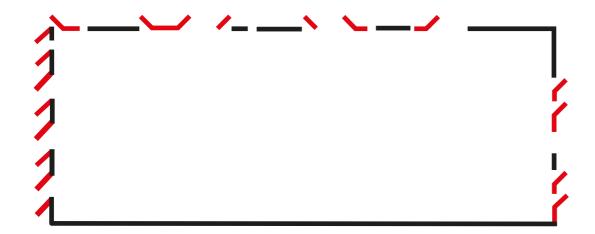


Building outline



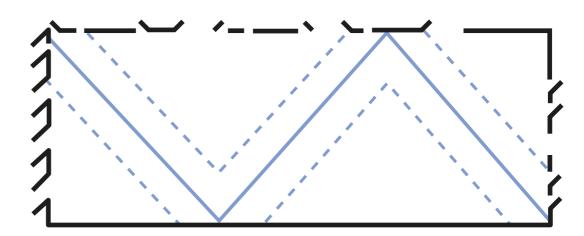
Framed views to the Rotorua town square and lake while maintaining privacy to interior spaces from neighbours..

Building outline



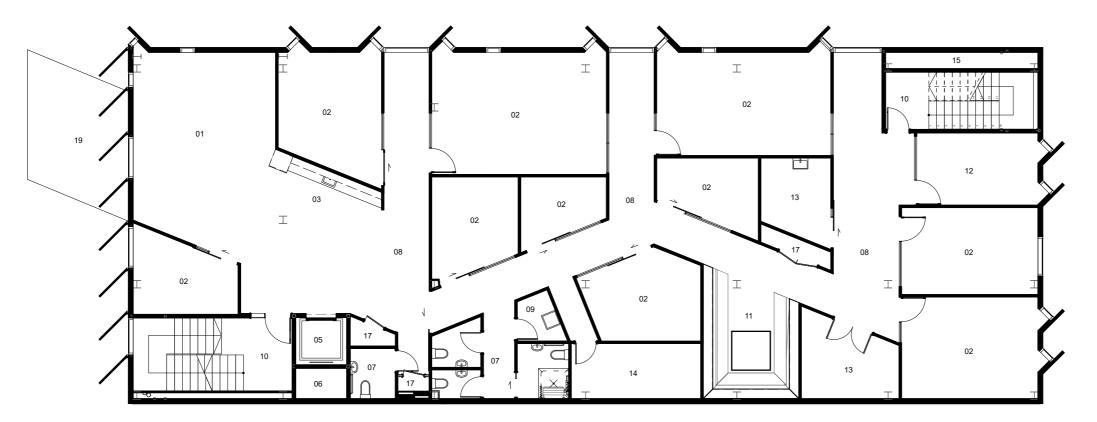
Undulating facade controls solar gain & glare, embodies cultural narrative, while providing diffuse natural light and privacy to councelling and work spaces.

Building outline



Kaokao/Niho Taniwha pattern use as main organising principle for interior spaces. Pattern signifies a connection to the past but also a place of safety and protection.

Building outline

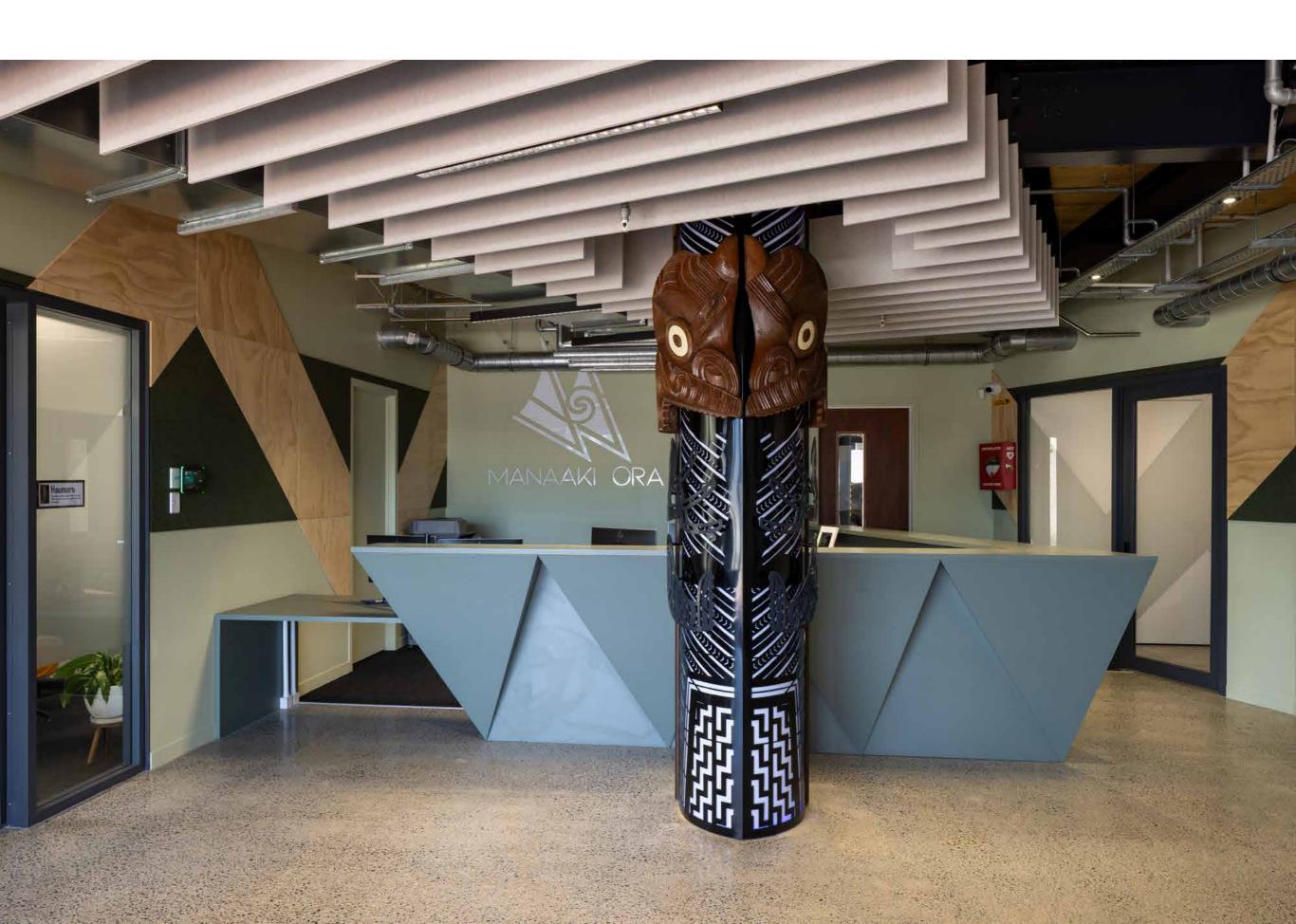


#### Key - Floor Plan

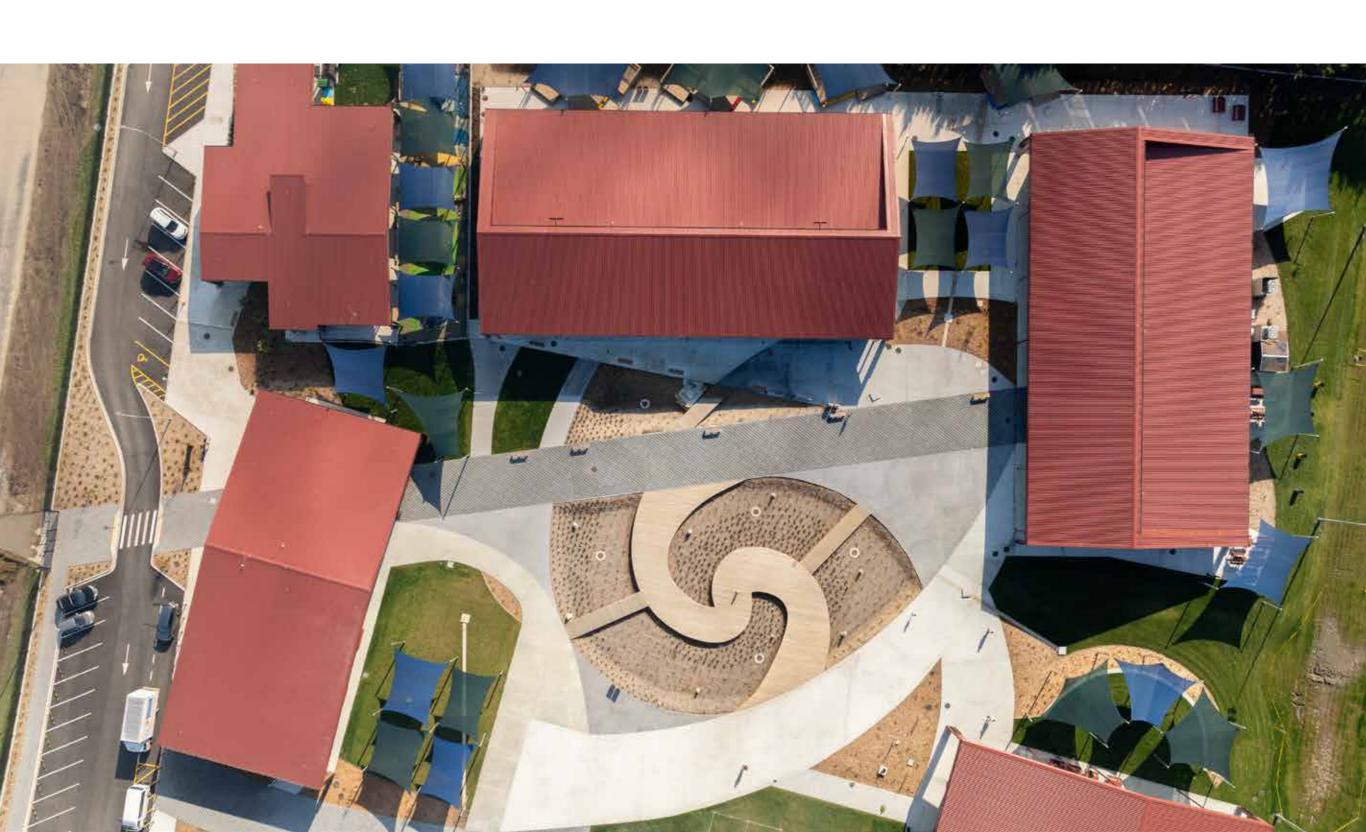
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16	Whanau Space Counseling Room Kitchen Lobby 1 Lift Service Riser 1 Toilets Corridor Cleaners Stairs Booth Consultation 1 Consultation 2 Storage Service Riser 2 Lobby 2 Services Veranda
18	veranda

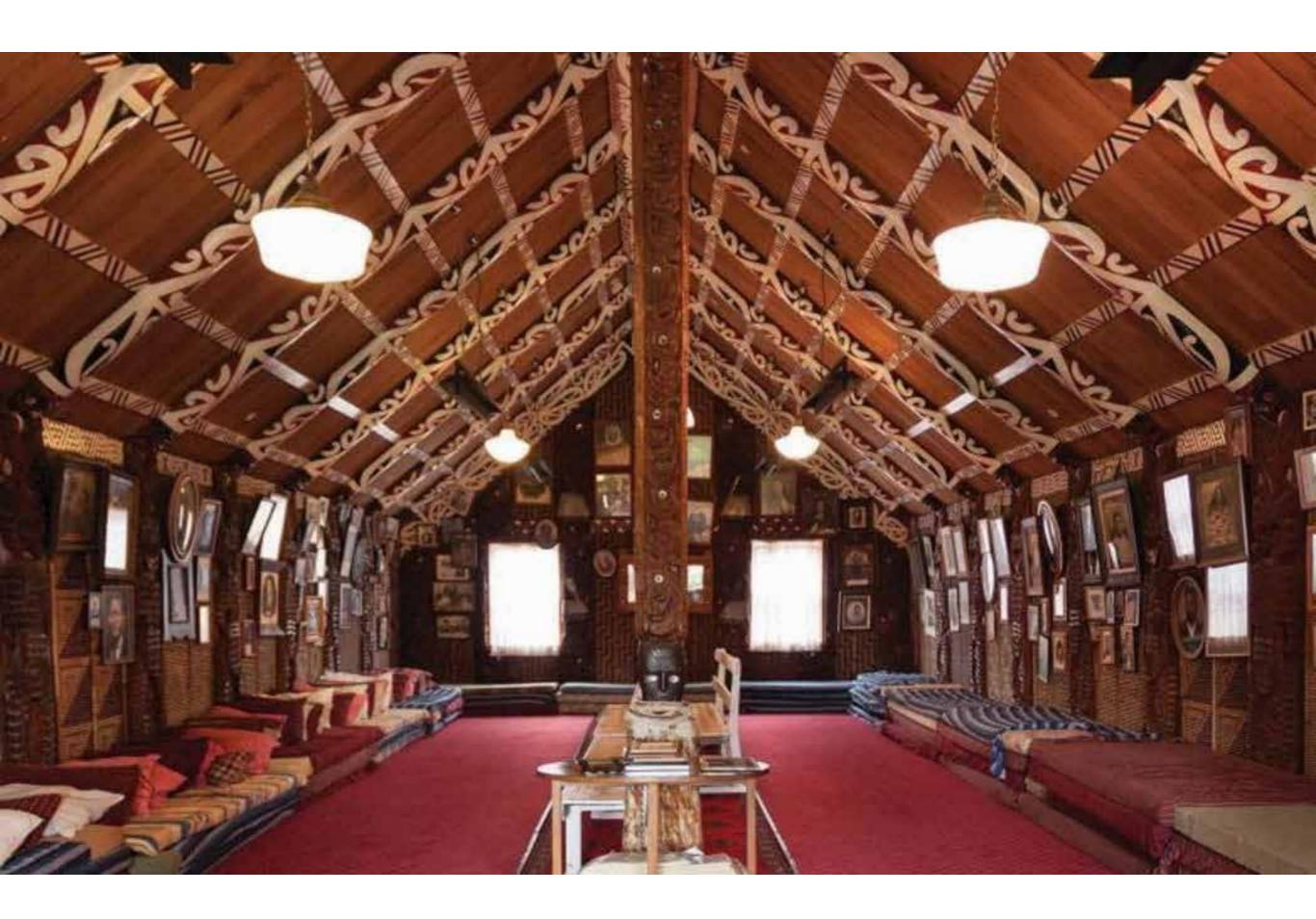


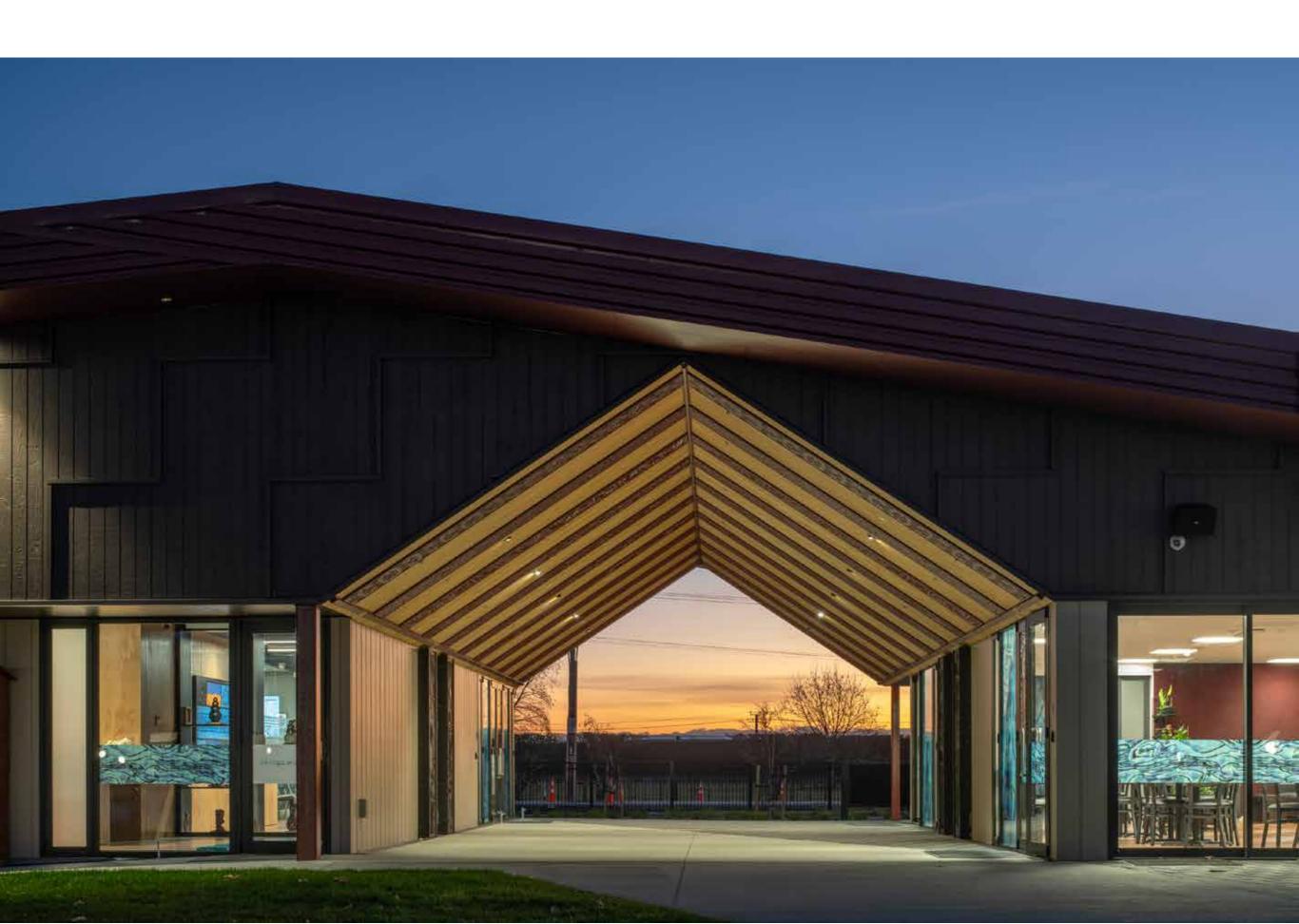




Te Kura Kaupapa Māori o Te Wānanga Whare Tapere o Takitimu









## Place: Climate, Landscape, Identity

- Respond to climate, geography, and material ecology, lay lines
- Critical Regionalism: energy + identity through local response
- Sense of place → attachment, satisfaction, engagement
- Case Study 5: ACG Sunderland
- Case Study 6: St.Johns Church











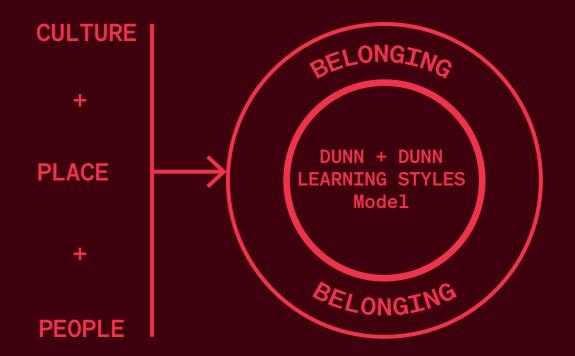


# Bringing It Together: Belonging × Dunn & Dunn



- Physiological/Perceptual: multisensory, culturally familiar cues
- Emotional: identity-affirming spaces

  → motivation, persistence
- Sociological: communal & ritual spaces → inclusive participation
- Psychological: narrative clarity helps global/analytic thinkers
- Environmental: context-tuned conditions 
  → comfort & focus



Strand	Academic Evidence	Link to Belonging
Physiological	Includes perceptual modalities (VAKT), intake, time of day, and mobility preferences. Matching instruction to these factors improves comprehension and retention (Oweini & Daouk, 2021	Spaces that accommodate movement, multisensory cues, and culturally familiar materials create comfort and self regulation, enabling deeper engagement
Emotional	Motivation, persistence, responsibility, and need for structure are critical predictors of learning success (Dunn, 1990; Rhoads, 2005).	Identity affirming environments elevate motivation and reduce stress, supporting sustained engagement.
Sociological	Preferences for independent, pair, peer, team, or adult led learning influence participation and outcomes (Mitchel, 2009).	Communal and ritual spaces encourage inclusive peer interactions and team learning, strengthening social cohesion.
Psychological	Global/analytic, impulsive/reflective processing styles affect comprehension and problem solving (Brand et al., 2002).	Narrative rich, culturally legible spaces support global thinkers' meaning making while providing structure for analytic learners
Perceptual	Visual, auditory, kinesthetic, and tactile preferences are linked to improved recall when matched in instruction (Fine in Honigsfeld & Dunn, 2009).	Multisensory design aligned with cultural context deepens memory encoding through emotional resonance.

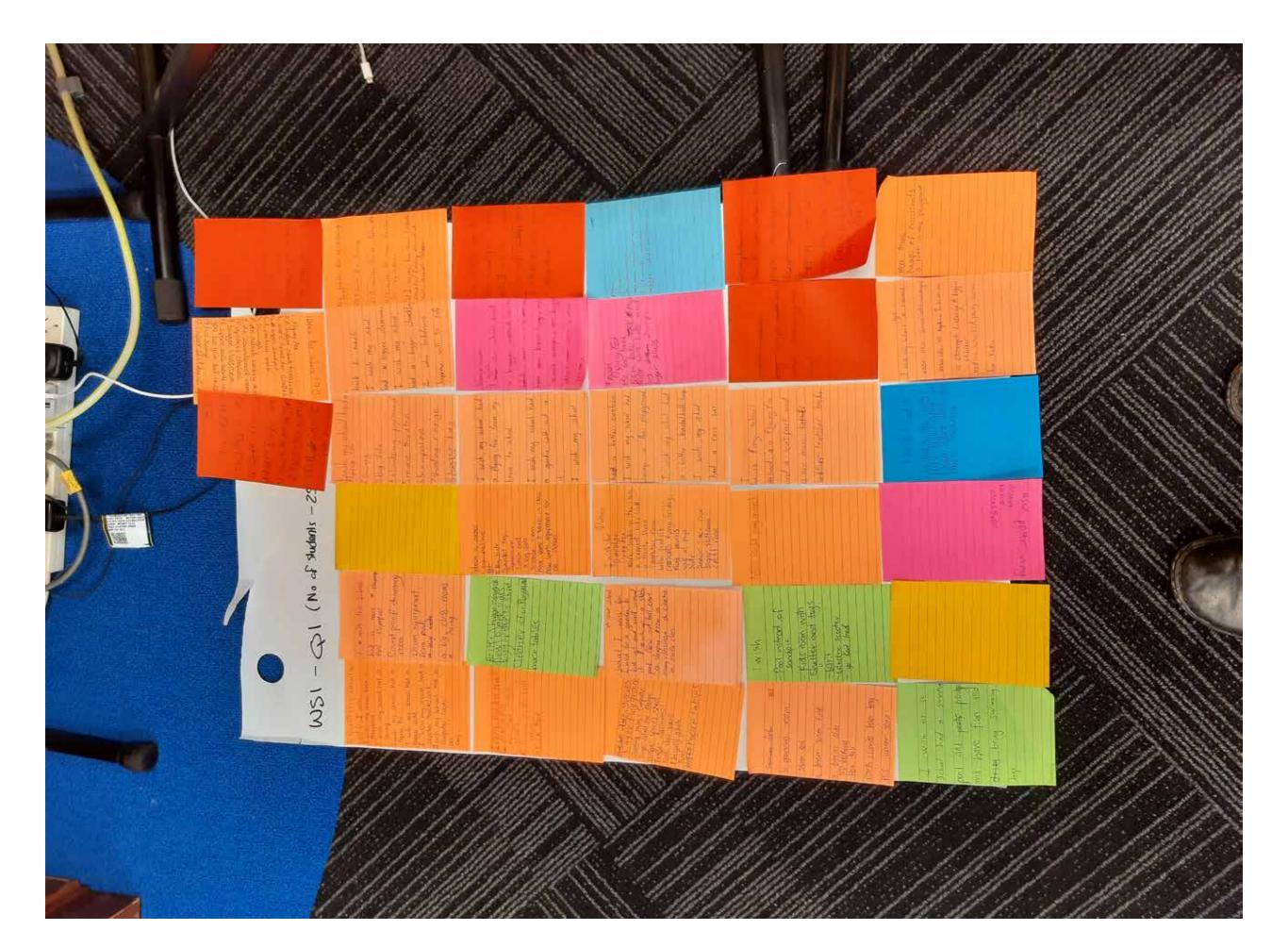


### Process: Co-Design & Trust

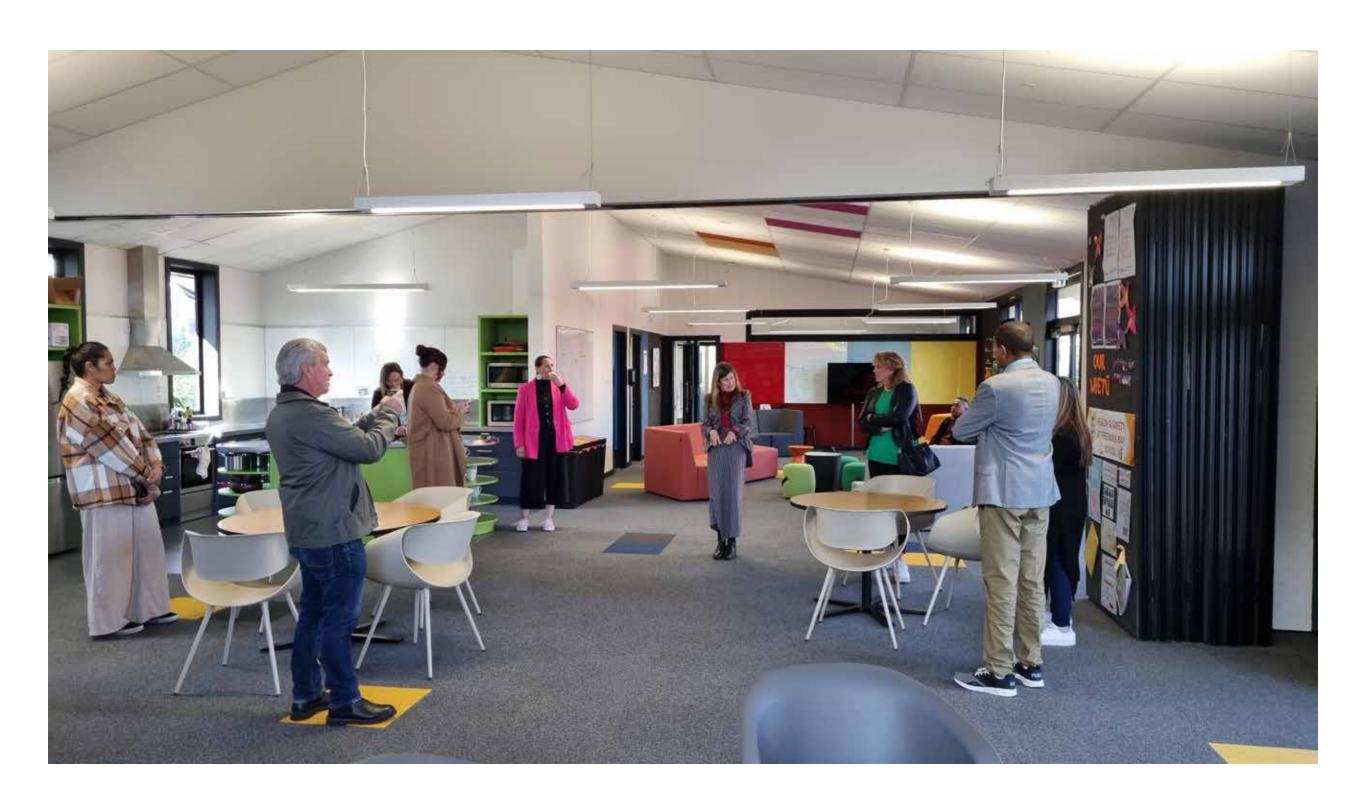
- Engage ALEP + First Nations + Community early
- Use community workshops, small group meetings, one to one conversations,
- Engagne local/community artists
- Ensure all voices heard
- Field Trips
- Ensure custodianship, authorship, and benefits remain with community
- Governance: feedback loops, to participants.
- Avoid tokenism, make it authentic and real
- Start small, test ideas, get feedback and prepare to fail and try again.

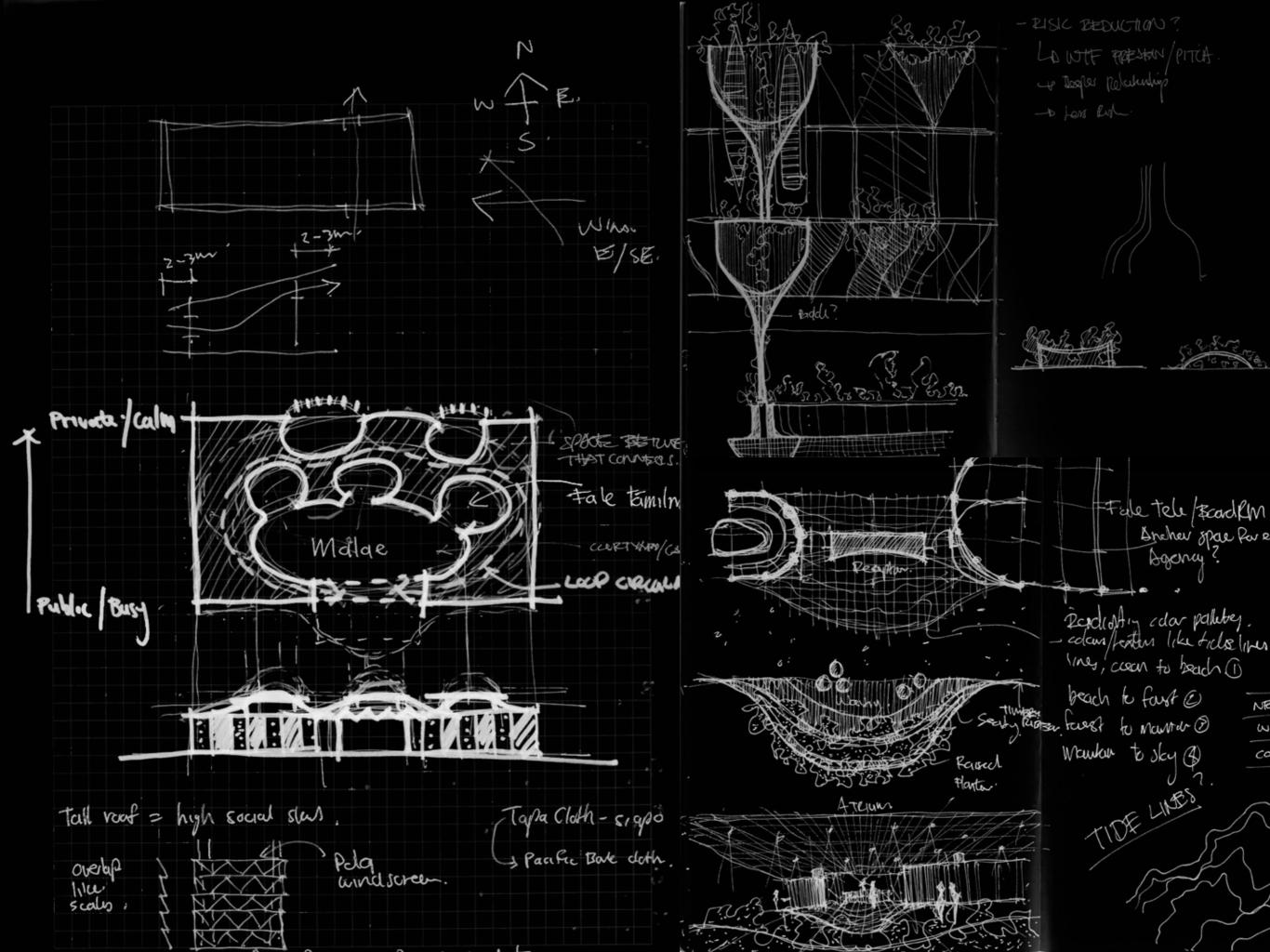












#### Lets Go!

- Start today !
- Engage: ALEP + First Nations/native/ local cultural experts + community
- Visit exemplars: observe what good / bad looks, feels, sounds like
- Design for multisensory learning: VAKT + culturally resonant cues
- Be Brave, it is worth it



Q&A

- Questions, reflections, local parallels
- What would success look like in your context?



#### **THANK YOU!**

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Spotify https://open.spotify.com/episode/2bbWgw9fSSZ1RFAqKIZzgH?si=FgvjJOscSjuI\_l-1mdRgHQ

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