



Spaces for Learning

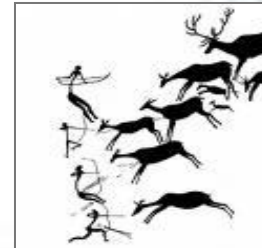
John Locke: University of Auckland
Bruce Sheerin: Ministry of Education

What the Presentation Contains

- Bruce:
 - Historical context of our building stock
 - Learning environments for the 21st Century
 - MOE policy changes to support the development of modern learning environments
 - Useful resources
- John:
 - Historical context of state schooling
 - Fundamental school design patterns
 - Metaphors for learning spaces

Economic paradigm shifts

Hunting/gathering



← 8000 BC

Farming



← 1800 AD

Making



← 2000 AD

Informing/
communicating



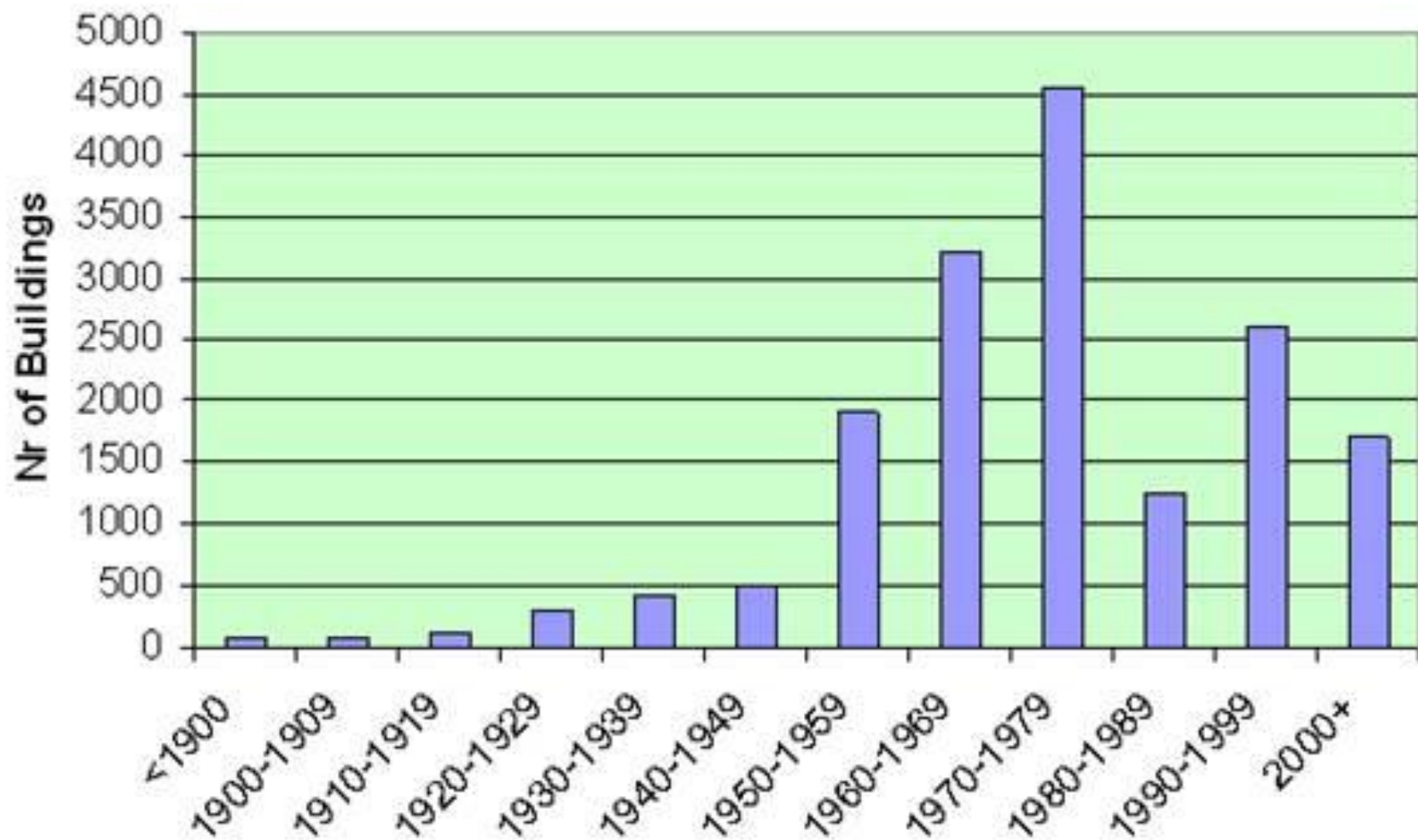
Learning in 21st century schools

**Learning involves
generating not storing**

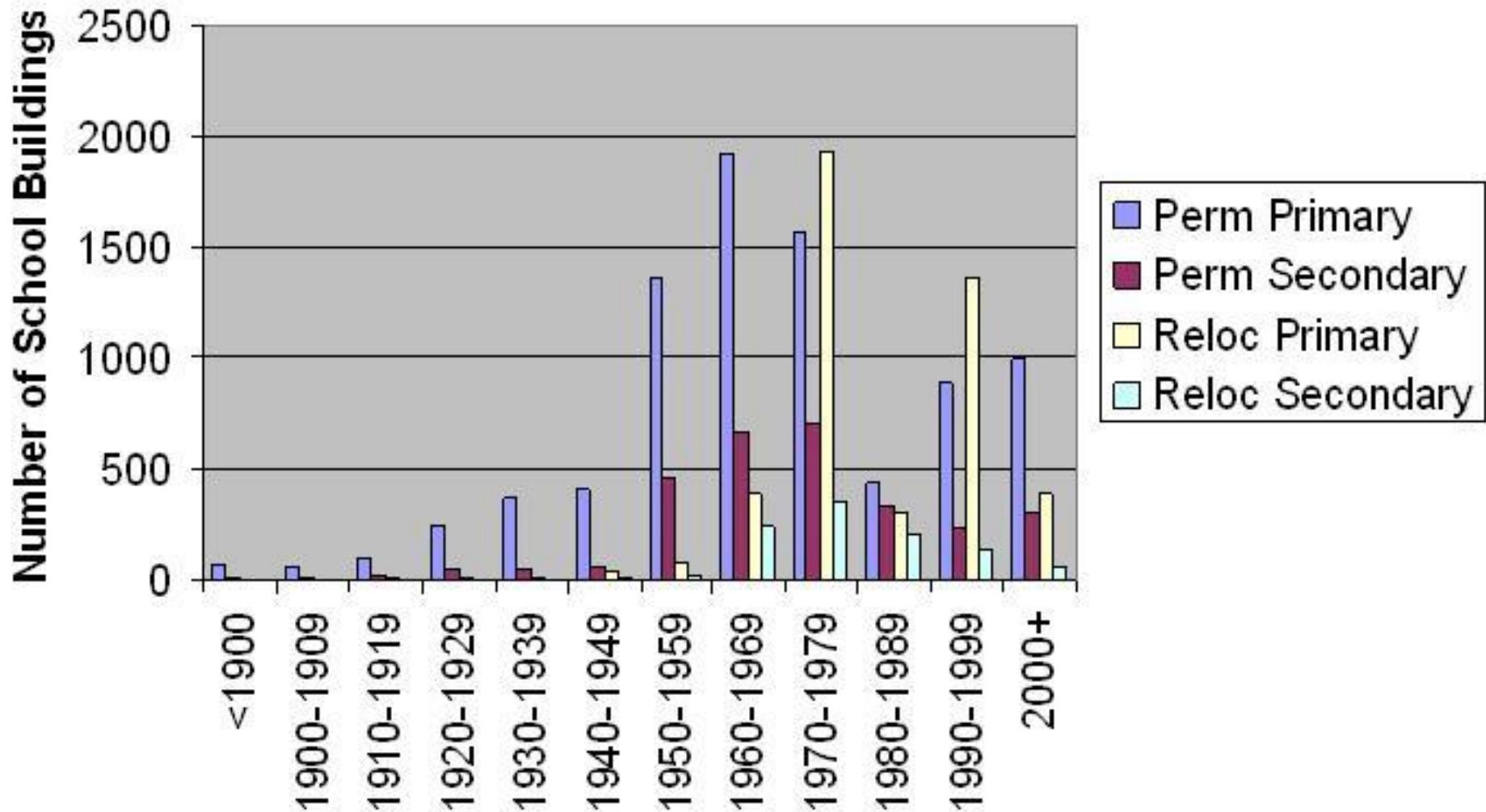
**Primarily a group not an
individual activity**

**Happens in a real world-
problem based context**

The Age of school buildings



Type of School Building



Design Logic of our Existing Stock

- Existing classrooms were built for the transmission style teaching and learning (i.e. sage on the stage or chalk and talk) 1950/60s
- Classrooms were designed in linear blocks for students sitting in desks in rows
- They lack flexibility
- You can not divorce the classroom of the future from thinking about the school of the future

Has Teaching Practice Really Changed?

- Many in education say teaching and learning has changed significantly in the last 40 years
- Yet why is it that many new and rebuilt classrooms are just a modern version of the old designs?
- To many teachers 'flexibility' simply means a larger box not a different box!
- What will be the tipping point that changes this?

What is changing

- Technology – is empowering students with knowledge and changing the way we work
- NZ Curriculum
- Understanding how students learn and ‘valuing’ their input - personalising their learning
 - ‘If you love what you are doing you will put your heart into it’*
- Making learning relevant

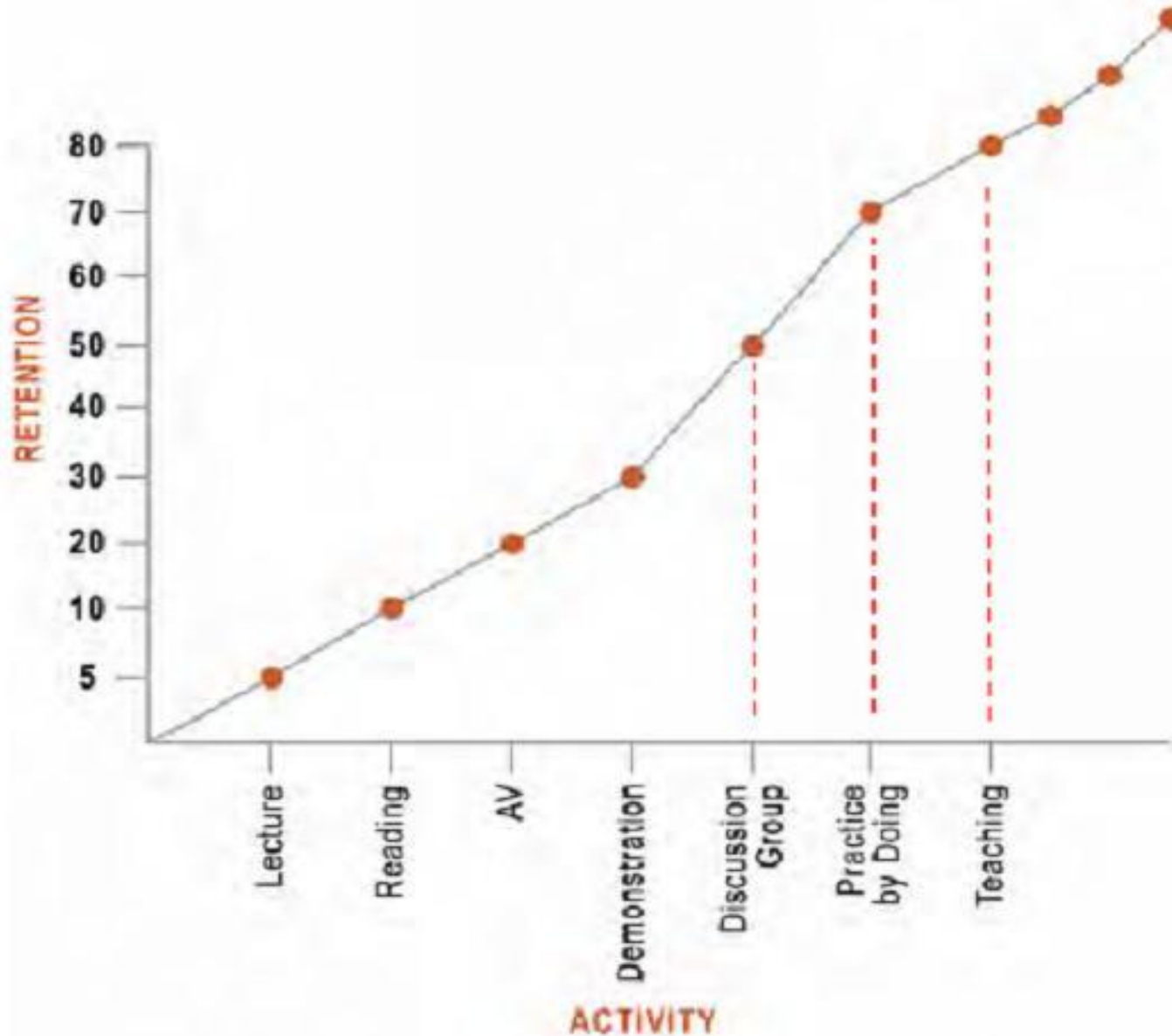
Curriculum - Key Competencies

- There will be more about having:
 - Students actively involved in decision making
 - Students initiating learning
 - Collaborating together
 - Making connections within and across learning areas
- This can be done in the existing 'box'but could it be done better in a different box?

What are we doing about it

- MOE
 - Nielson survey 2004
 - Designing Quality Learning Spaces books 2007
 - Learning Studio design
 - Developed a Modern Learning Environment self evaluation tool
 - Developing a Classroom Internal Environment self evaluation tool
 - Post Occupancy Evaluations of new schools
- Modern exponents of different design:
 - Prakash Nair – The Language of School Design
 - Kenn Fisher - Linking Pedagogy and Space
 - Architecture for Achievement
 - Victorian Dept Ed school design

Linking Pedagogy to Space - Effectiveness of learning modalities



Source: NTL Institute 'Retention Rates from Different Modes of Learning' (2000)

learning settings

... possible learning settings for various modes and group sizes. These multi-modal learning settings should be collocated and clustered to allow students to move around the various learning environments to suit the particular learning task

[20]

collaboration incubator



group learning



presentation space



teacher meeting space



resources, supply + store



specialised focus lab



project space + wet areas



outdoor learning



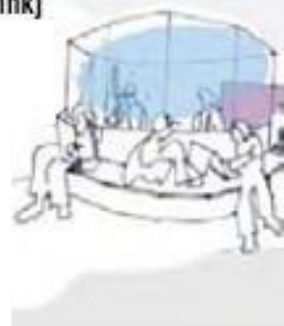
display space



breakout space



individual pod [place to think]



student home base

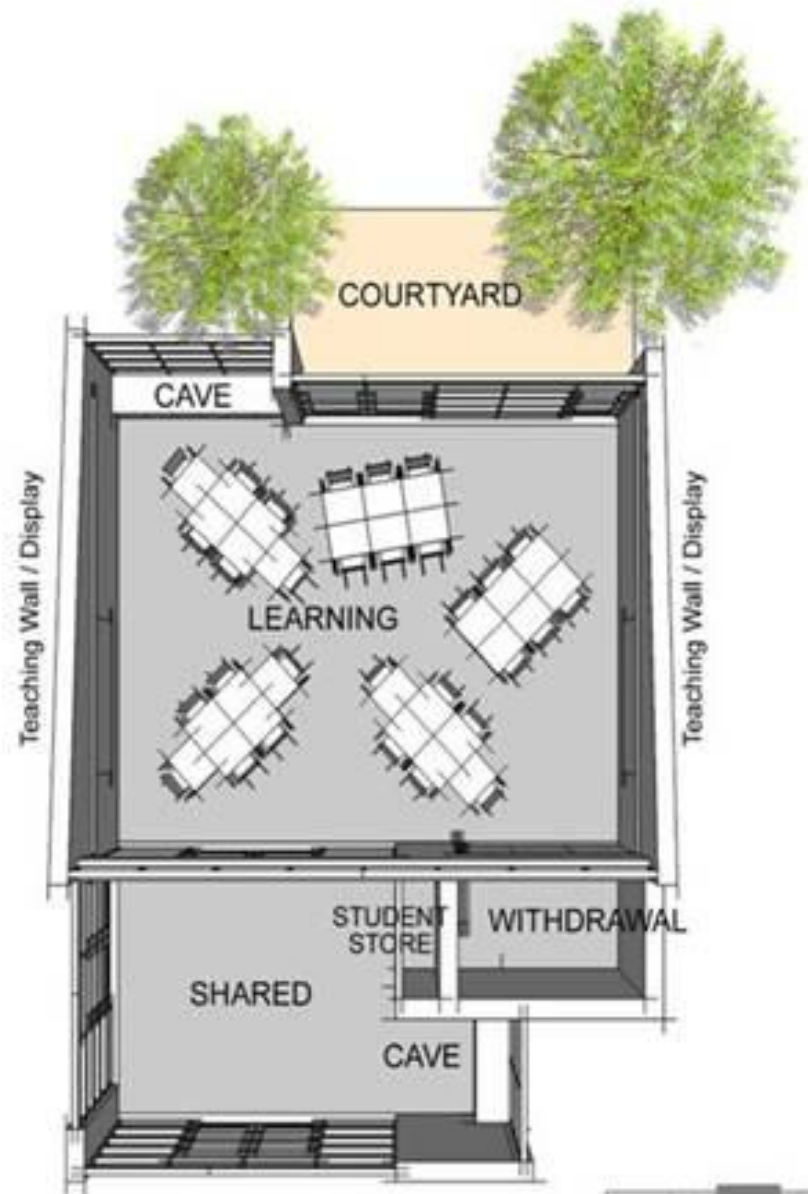


Learning Studio

Learning Studio Primary / Intermediate

Learning	65
Withdrawal	5.4
Shared Learning	25
Storage	1
Total Net	96.4
Gross Area (Wall Thicknesses)	4
Tota Gross	100.4
Maximum Student Numbers	32

Note: Actual student numbers will be lower than maximum as some students will be using the withdrawal and shared areas.



Learning Suite

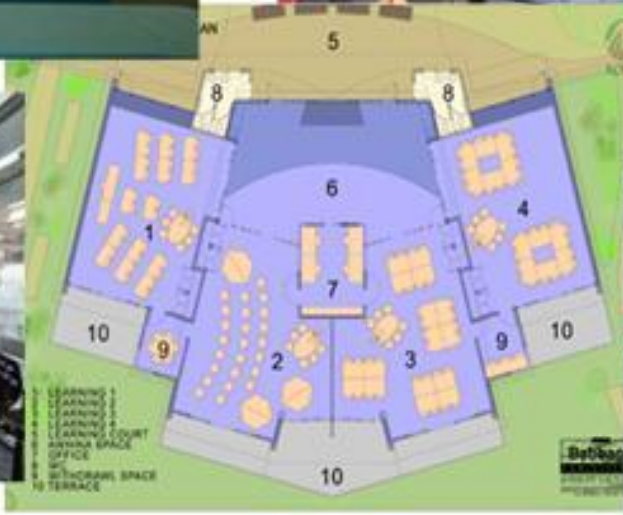
Learning Suite (Primary/Intermediate)

Area Schedule

Learning	4	x	65	260
Withdrawal	4	x	5.4	21.6
Shared Learning				98
Storage	4	x	1	4
Office				21.6
WC				10.4
Total Net				415.6
Gross Area (Wall Thicknesses)				25.6
Tota Gross				441.2

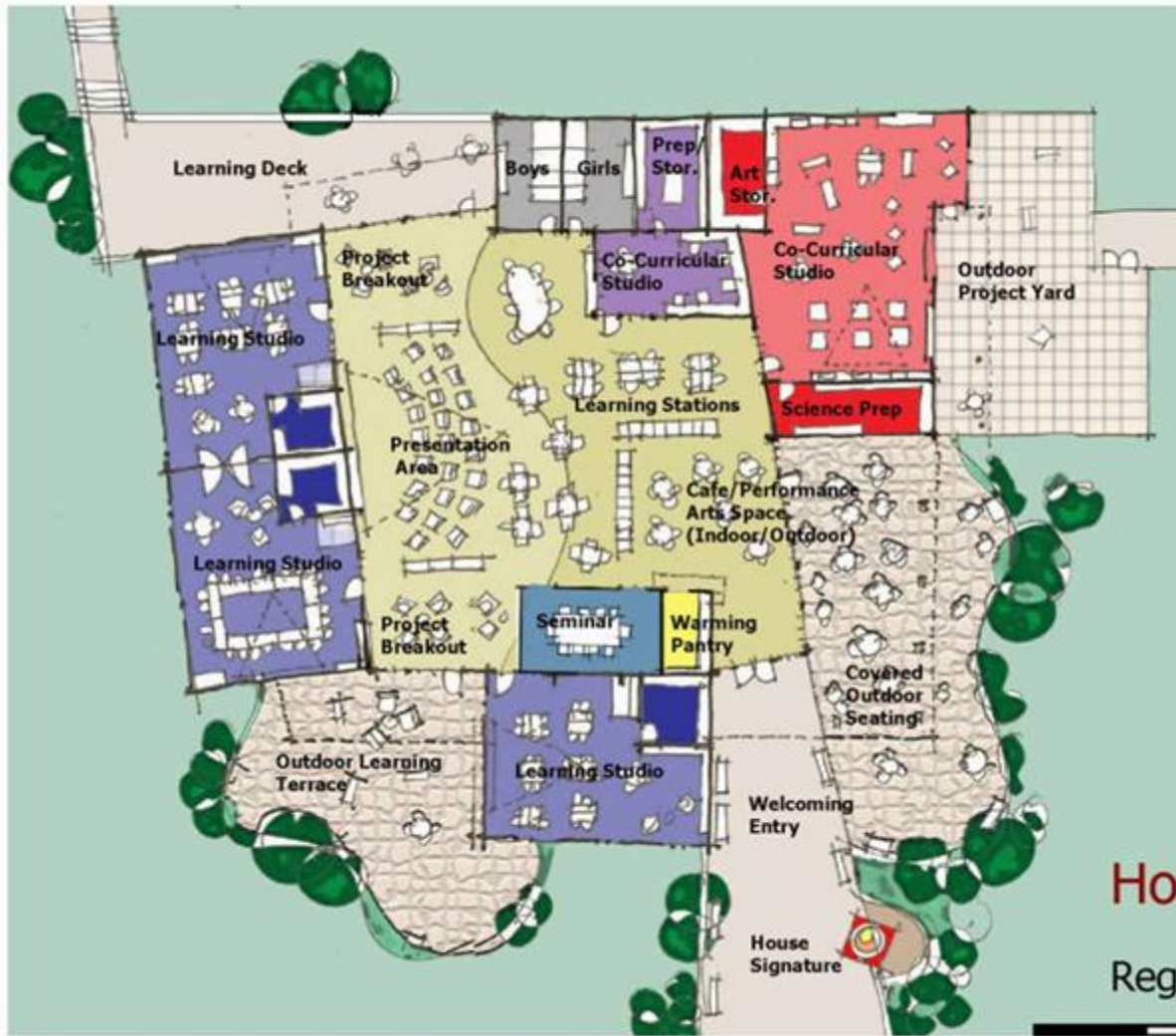
- Withdrawal_A
- Courtyard_B
- Shared Learning_C
- Learning_D
- Cave_E
- Teachers Work Room_F
- Disabled WC/WC_G
- Student Storage_H
- Teacher Storage_I
- Entry_J
- Movable Wall_K





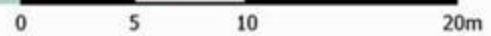
House (Whanau/ Fanau?)

Students are grouped into small learning communities of 125 supported by a team of teachers. Each House contains learning studios, collaborative as well as reflective spaces. Teachers/Advisors have their own shared office workplace.



Preliminary House Concept

Poriura College
Regeneration Project



22 April 2007

5 Year Agreement Funding

- Schools are required to have a ten year plan for maintaining and modernising their buildings
- Funded for this work via a 5 year funding agreement
- Comprises a base rate \$30 sqm plus catch up rate for past funding

Proposed Changes to 5YA funding

- Catch up funding will be for schools received less than \$30 sqm since 1993
- Top up funding available (\$43m pa) if
 - School has received less than \$40 sqm since 1992/93 and has:
 - Insufficient funds available to meet
 - a) Health and safety projects
 - b) Core infrastructure/services related projects
 - c) Core Modern Learning Environment standards

Modern learning Environments

6 Categories

- Learning Spaces
- Support spaces for students and teachers
- Furniture
- Environment
- Accessibility
- Community

3 Standards

- Core
- Moderate
- Advanced

Will it make a difference - does the evidence exist?

- BES says teacher makes the biggest impact, resources (including property) have only up to 20% impact
- No real research that shows property impacts on learning outcomes, possibly because it has not really been attempted, and it is hard to separate out the effect of the teacher
- Most research that supports the positive focuses on the obvious
 - acoustics
 - air quality
 - natural lighting
 - e-learning
 - maintenance
- However, lots of anecdotal evidence that it does have an impact and can change student learning

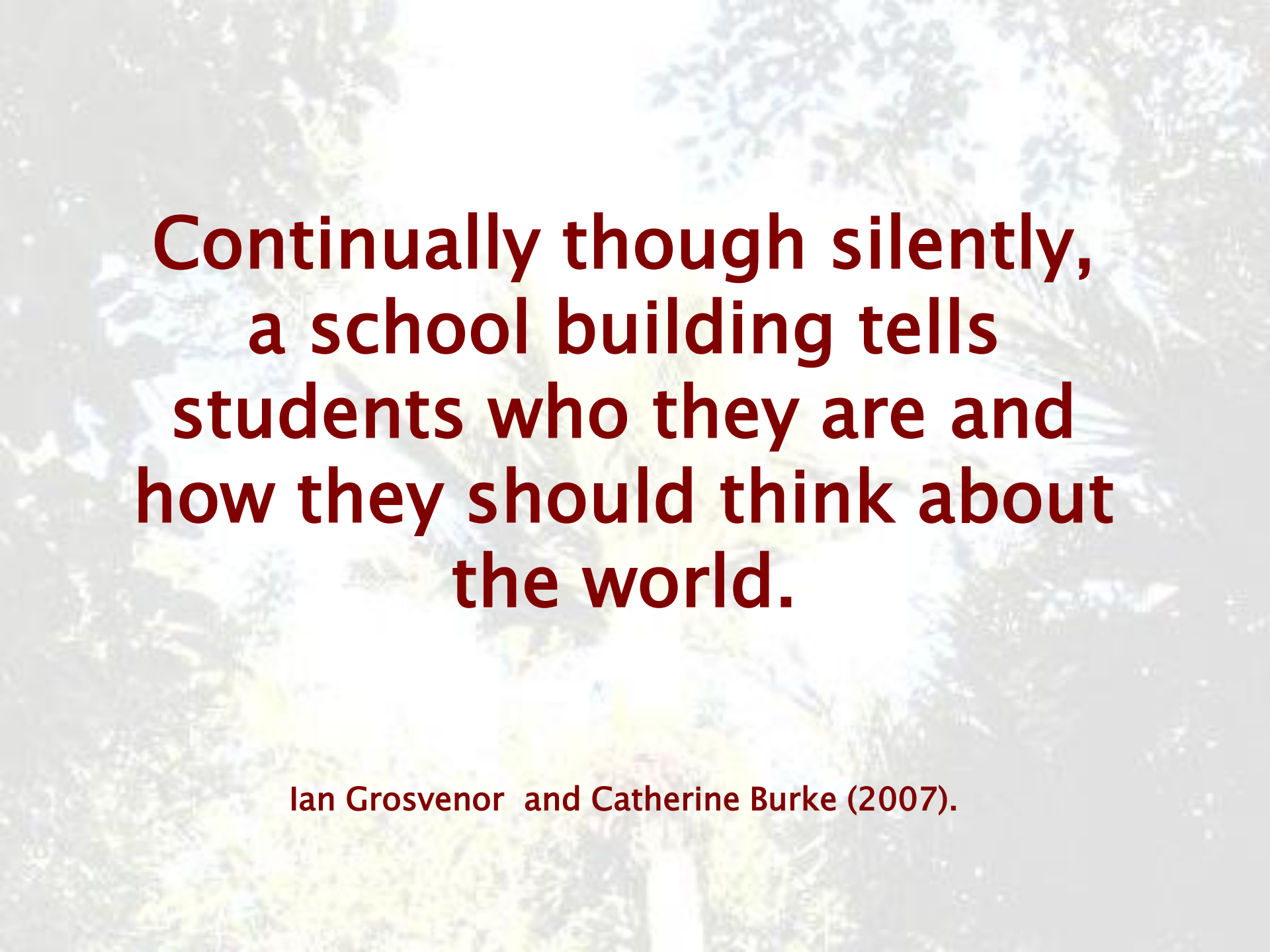
New Zealand curriculum

Vision – confident, connected, actively involved, lifelong learners

Principles – high expectations, T of W, cultural diversity, inclusion, learning to learn, community engagement, coherence, future focus.

Values – excellence, innovation, inquiry, curiosity, diversity, equity, community and participation, ecological sustainability, integrity, respect

Key competencies – thinking, using language, symbols and texts, managing self, relating to others, participating and contributing.



**Continually though silently,
a school building tells
students who they are and
how they should think about
the world.**

Ian Grosvenor and Catherine Burke (2007).



Chicago High School



ASB Centre Albany



Saltire Centre Glasgow





Buildings that foster


Belonging

Learning

Collaborating

Connecting

Changing



Belonging

Personalising, first impressions





CDDS Minneapolis



ASMS Adelaide



Mulernes Legatskole Denmark



Ormiston Road Senior High



Learning

Authentic, collaborative, creative

Learning space metaphors

Campfire

Watering hole

Cave

Forge

Pathway



Transfer

Exchange

Reflection

Creation

Access

**SCHOOL
LEARNING
SPACES**

**CLASS
ROOM**

**LABORA-
-TORY**

**WORK
SHOP/
STUDIO**

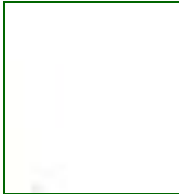
LIBRARY

GYM

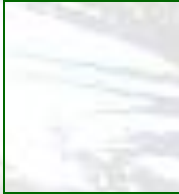
HALL

CAFE

CAMPFIRE



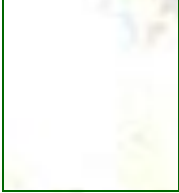
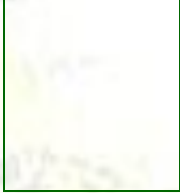
**WATERING
HOLE**



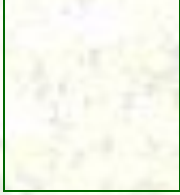
CAVE



FORGE



PATHWAY





Shakespeare

0

Bexfield Business Academy UK



Thomas Tallis School London



Reece High School Tasmania



ASHS Albany





John Mcglashan College Dunedin



Shenton School Perth

What sorts of learning spaces are these?



Google™

You Tube
Broadcast Yourself

facebook.

OTHER SPACES

CAMPFIRE

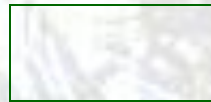
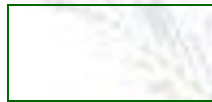
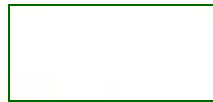
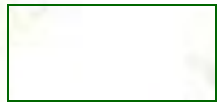
WATERING HOLE

CAVE

FORGE

PATHWAY

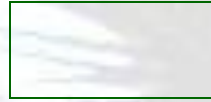
Commons



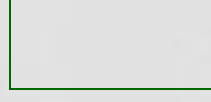
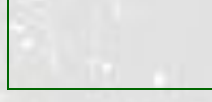
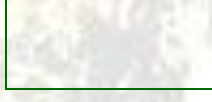
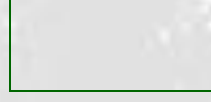
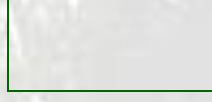
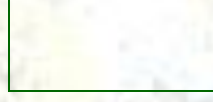
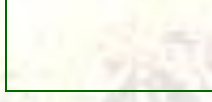
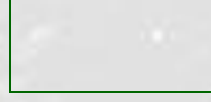
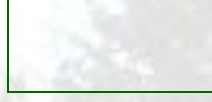
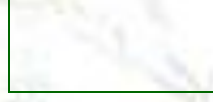
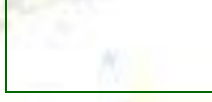
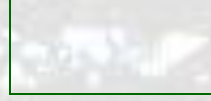
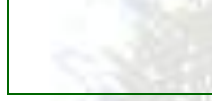
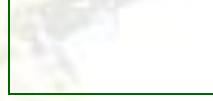
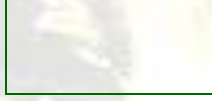
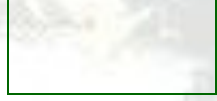
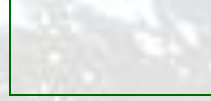
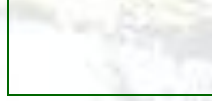
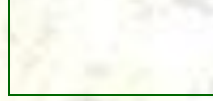
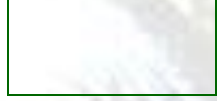
Pod



Studio



Plaza





**The right environment
to learn in:**

**Natural Light
Ventilation
Sound**

**Built-in learning
(marinade)**



A.11



John Locke – Principal

S 37° 01' 04.4"

E 174° 55' 08.7"



Mulernes Legatskole Denmark



A set of Scales

In Spanish they are called a 'Romana'
as scales like these were used by
Romans.



St Francis of Assisi School London









Spring

Stream



Collaborating

Enabling teachers to teach each other every day



Mulernes Legatsole:Denmark



Sevenoaks School: Perth

Teacher workspace

ASMS: Adelaide



2003

DEMENTIA SUPPORT

Handwritten notes and diagrams on the whiteboard, including a flowchart and mathematical expressions like $2003 \rightarrow 2004$ and $2004 \rightarrow 2005$.

DEMENTIA SUPPORT

Teacher prep



Connecting

Links between the school and the community





Sevenoaks School Perth





Brook Weston School: Slough

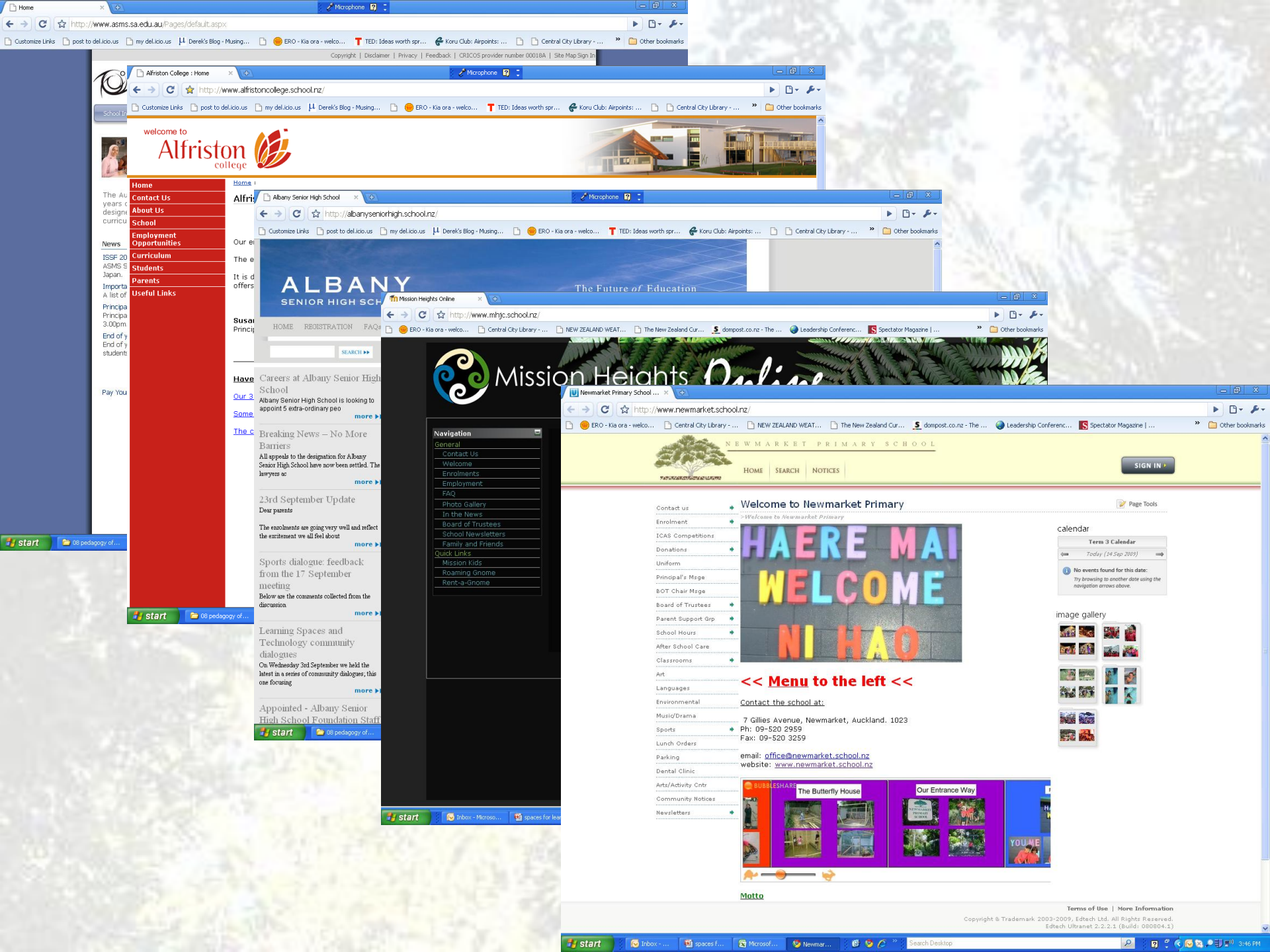


WELCOME TO THE HALL





Tokyo



Alfriston College : Home

http://www.alfristoncollege.school.nz/

welcome to **Alfriston college**

- Home
 - Contact Us
 - About Us
 - School
 - Employment Opportunities
 - Curriculum
 - Students
 - Parents
 - Useful Links
- The Au years design curriu
- News
- ISSF 20 ASMs S Japan
- Importa A list of Principa Principa 3.00pm End of y End of student
- Pay You

Alfri Albany Senior High School

http://albanyseniorhigh.school.nz/

Our ei

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It is d offers

ALBANY SENIOR HIGH SCHOOL

The Future of Education

Mission Heights Online

http://www.mhjc.school.nz/

HOME REGISTRATION FAQ

SEARCH

Mission Heights Delia

Have Our 3 Some The c

Careers at Albany Senior High School
Albany Senior High School is looking to appoint 5 extra-ordinary peo [more >](#)

Breaking News – No More Barriers
All appeals to the designation for Albany Senior High School have now been settled. The lawyers ac [more >](#)

23rd September Update
Dear parents
The enrolments are going very well and reflect the excitement we all feel about [more >](#)

Sports dialogue: feedback from the 17 September meeting
Below are the comments collected from the discussion [more >](#)

Learning Spaces and Technology community dialogues
On Wednesday 3rd September we held the latest in a series of community dialogues; this one focusing [more >](#)

Appointed - Albany Senior High School Foundation Staff [more >](#)

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 - In the News
 - Board of Trustees
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 - Family and Friends
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 - Mission Kids
 - Roaming Gnome
 - Rent-a-Gnome

Newmarket Primary School

http://www.newmarket.school.nz/

NEWMARKET PRIMARY SCHOOL

HOME SEARCH NOTICES

SIGN IN

Page Tools

calendar

Term 3 Calendar

Today (14 Sep 2009)

No events found for this date. Try browsing to another date using the navigation arrows above.

image gallery

Calendar thumbnails

Image gallery thumbnails

Haere Mai Welcome Ni Hao

Menu to the left <<

Contact us

Enrolment

ICAS Competitions

Donations

Uniform

Principal's Mgs

BOT Chair Mgs

Board of Trustees

Parent Support Grp

School Hours

After School Care

Classrooms

Art

Languages

Environmental

Music/Drama

Sports

Lunch Orders

Parking

Dental Clinic

Arts/Activity Cntr

Community Notices

Newsletters

7 Gillies Avenue, Newmarket, Auckland, 1023
Ph: 09-520 2959
Fax: 09-520 3259
email: office@newmarket.school.nz
website: www.newmarket.school.nz

The Butterfly House

Our Entrance Way

Motto

Changing

Buildings must be able to adapt to future changes

**Learning that involves creativity
and collaboration uses more
space than transmission from
an expert.**

Campfires = 2–3m² per learner

Watering holes and forges = <4m²

Caves = <5m²

**There is sufficient space in schools
the challenge is to gain access to it at
the right time**



St Knuds School: Denmark



Unlimited: Christchurch





Mission Heights Junior College



Reece High School
Realizing Potential

Reece High School

400 seat auditorium and canteen

Each room is separated by operable walls







**Whanau
Ground Floor Plan**

100 m²

70 m²

**Commons/
Atrium**

Workspace

Whanau
Leader

2 cubicles

Stairwell

70 m²

35m²

m²

70 m²

70 m²

105m²



**Whanau
Ground Floor Plan**

100 m²

70 m²

**Whanau
Leader**

Commons

**Teacher
workspace**

2 cubicles

Stairwell



Cramlington Community School: Newcastle UK



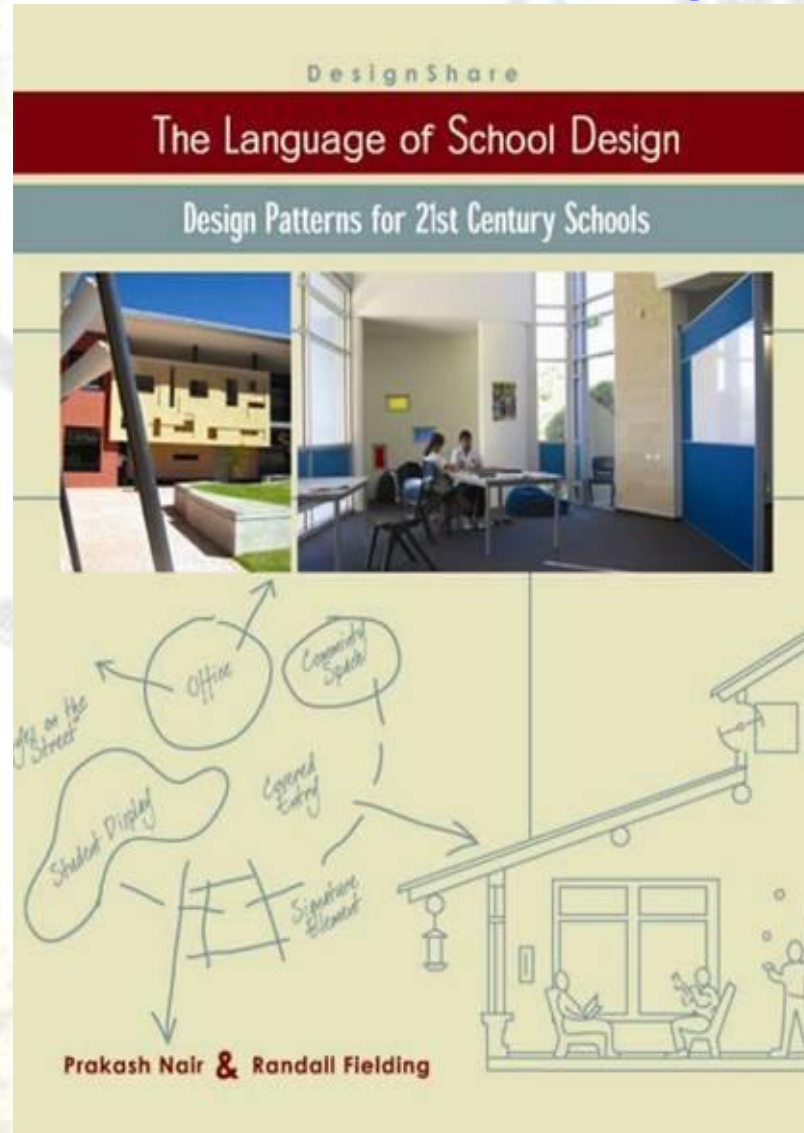


Mission Heights Junior College

Where to find things

- <http://www.minedu.govt.nz/goto/performingclassrooms>
- <http://www.minedu.govt.nz/goto/DesigningLearningSpaces>
- <http://www.minedu.govt.nz/goto/schoolremodels>
- <http://www.minedu.govt.nz/goto/classroomdesignsurvey>
- <http://www.archfoundation.org/aaf/gsbdb/Video.Denver.Intro.htm>

Prakash Nair DesignShare



Click to **LOOK INSIDE!**

Architecture for Achievement:

BUILDING PATTERNS FOR SMALL SCHOOL LEARNING

Architecture of Achievement

Volume Overview

Part 1

Building Patterns

Case Studies

Index

Additional Resources



Designing Quality Learning Spaces: Heating & Insulation

Developed by BRANZ Ltd
for the Ministry of Education

