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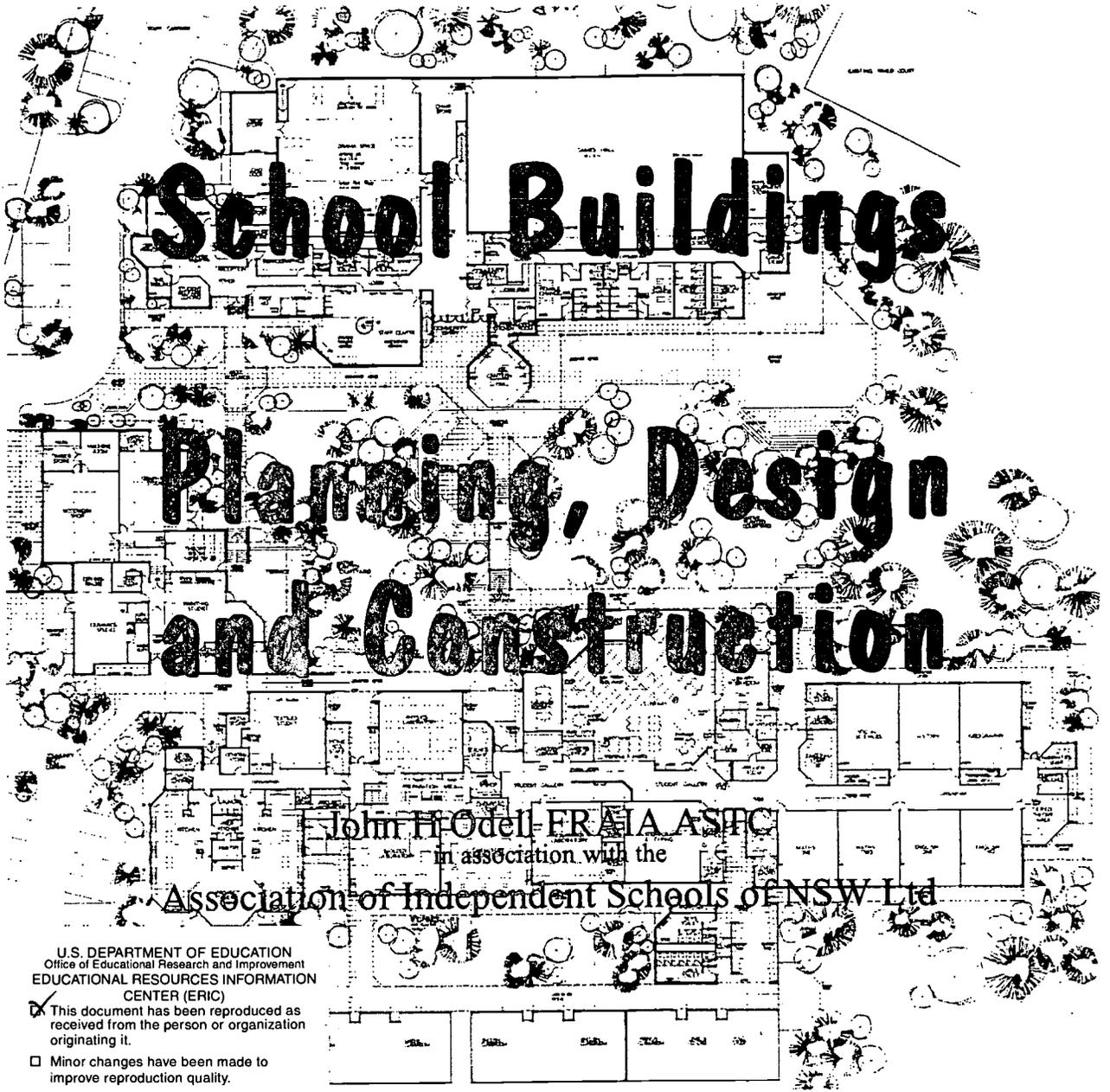
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ABSTRACT

A school construction guide offers key personnel in school development projects information on the complex task of master planning and construction of schools in Australia. This chapter of the guide provides advice on issues involving school space design and the kinds of spaces required in schools, including lecture spaces and seminar rooms, classrooms, special purpose areas where students have significant involvement in practical activities, and student recreational areas. Sample layout drawings are provided for each of the spaces discussed. Additionally examined are staff study and recreational area design; service areas such as canteens, stores, and toilets; general assembly areas; school administration; and access ways and student storage areas. (GR)

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School Buildings

Planning, Design and Construction

John H Odell FRAIA ASFC
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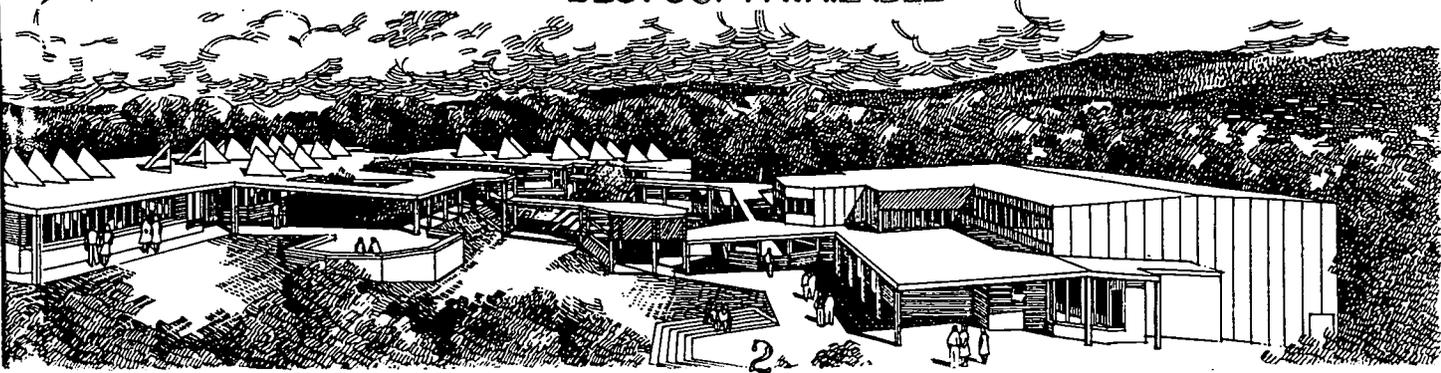
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School Buildings, Planning Design and Construction is presented
in a ring binder with 8 booklets. The document is available only as
a complete set

- 1 Introduction and Chapter 1 – Developing a Master Plan
- 2 Chapter 2 – Making the Most of Your School Site
- 3 Chapter 3 – Principles of Good School Building Design
- 4 Chapter 4 – Purpose Designed Facilities
- 5 Chapter 5 – Construction Methods and Materials
- 6 Chapter 6 – Managing the Construction Process
- 7 Chapters 7 and 8 – Technology and Managing Buildings
- 8 Appendices

ISBN 0 646 23758 6 refers to the complete set of 8 booklets

Author - John H Odell FRAIA ASTC
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School Buildings - Planning, Design and Construction

A Guide Document

for School Councils, Boards and Committees, School Principals and Staff and Construction Professionals

Author - John H Odell FRAIA ASTC

Introduction to School Buildings – Planning, Design and Construction

Good school buildings do not just happen. Thought and consideration must be given to the needs of the users of the building and to the available resources. The persons responsible for building the school should have considerable experience or draw on the advice of those who have.

For a building to be satisfying and successful it must provide shelter, have durable construction and finishes, be aesthetically pleasing and appropriate to its use. A well-planned school will incorporate the following points:

- buildings and grounds will satisfy and support both short and long-term requirements
- curriculum demands including requirements for registration by authorities will be met
- site development will not be haphazard and each project will pave the way for the next
- building design will be flexible to cater for as yet unknown future requirements
- building will be cost effective - and in the long term the school will avoid unnecessary expensive recovery action
- good building design will encourage a high quality educational environment
- pre-planning of maintenance requirements will assist in reducing operating costs

This guide is designed to assist key personnel in school development projects with the complex task of master planning and construction of schools.

Individual chapters in this guide may be distributed to relevant key personnel as appropriate to their specific interest and responsibility.

Each chapter is a separate booklet with chapters 7 and 8 bound together in one booklet and chapter 9 in booklet 8.

The chapters:

- 1 Developing a Master Plan for Your School
- 2 Making the Most of Your School Site
- 3 Principles of Good School Building Design
- 4 Purpose Designed Facilities
- 5 Construction Methods and Materials
- 6 Managing the Construction Process
- 7 Technology and Educational Buildings
- 8 Managing School Buildings
- 9 Appendices

This Guide aims to:

- demonstrate the necessity for school communities to produce comprehensive master plans for the development of their school
- encourage school staff and boards to be involved in the development of school facilities and to draw on the wider experience of the community during that process
- outline planning processes and techniques that will lead to greater creativity in school design with greater efficiencies and productivity in the construction process
- help school staff and board members in their dealings with professionals in the building industry, and vice versa
- encourage excellence in school facilities
- maximise potential of limited resources to achieve desirable outcomes
- provide advice on how to determine whether a particular facility is vital to a school
- provide examples of excellence in school building and planning
- provide a comprehensive list of contacts, resources and references.

Who should read this Guide:

- All school council/board members
- Principals, bursars and other key staff members
- All members of school building and planning committees
- Administrators in control of school building projects
- Construction industry professionals, especially school architects

Contents of Booklet 4

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4

School Buildings Purpose Designed Facilities

4. School Buildings - Purpose Designed Facilities

The kinds of spaces required in schools will be examined in this chapter. When planning schools it is helpful to list the required spaces in a logical format by usage, similar to items 1-13 below. These items will be covered in further detail in this chapter.

- 1 Lecture Spaces/Seminar Room – film/video, TV/radio broadcast (4.1).
- 2 Classrooms sometimes referred to as General Purpose Learning areas (GPLA) – students seated for the whole lesson (4.2).
- 3 Specialist rooms or Special Purpose Learning Areas (SPLA) – teaching with significant involvement of students in practical activities requiring them to move about, work at benches or machines, and use computers (4.3).
- 4 Student activity with significant independent student activity related to private research and study (4.4).

..the requirements of specific school spaces with examples from schools

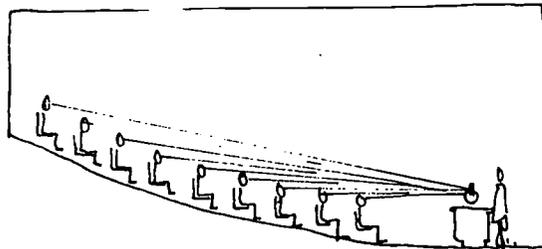
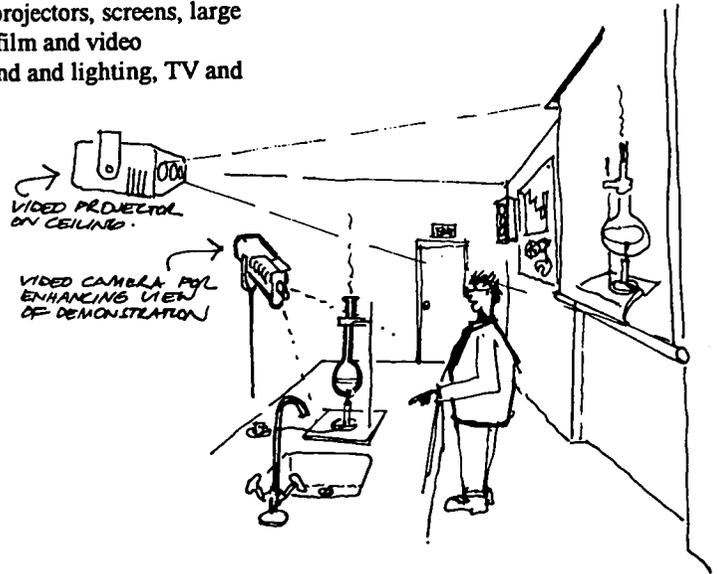
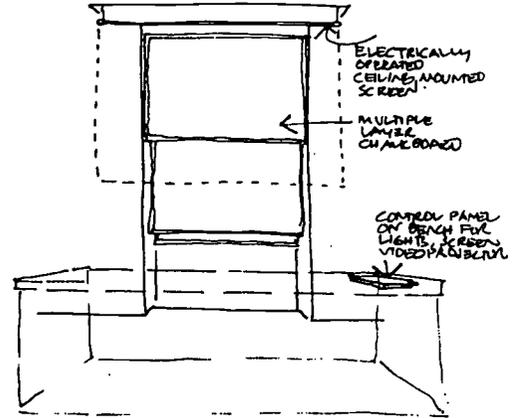
- 5 Special Students Learning Areas (4.5).
- 6 Student recreational activity (4.6).
- 7 Staff studies (4.7).
- 8 Staff recreational - common rooms (4.8).
- 9 Service spaces, toilets, canteens, stores, maintenance (4.9).
- 10 Assembly spaces, both indoor and outdoor (4.10)
- 11 School administration (4.11)
- 12 Access corridors and student storage lockers (4.12)
- 13 Caretaker and staff accommodation (4.13)

4.1. Lecture Spaces / Seminar Rooms

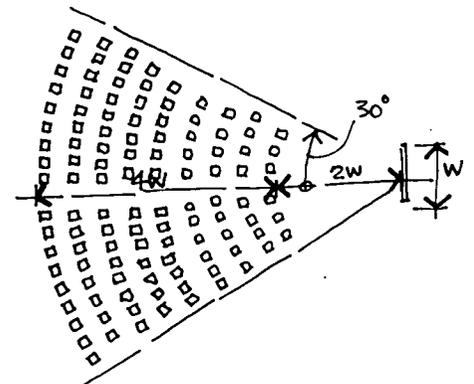
Formal lecture room facilities require an instructor, perhaps assisted by overhead projectors and other visual aids, and may include models or working experiments. This kind of space is most suitable for secondary and especially for senior secondary students where classes may be combined for particular sessions.

The characteristics of these spaces will be:

- Separate room with excellent acoustics, that has low reverberation, good voice projection and good visibility from all parts of the room.
- Seating may be fixed on a stepped or sloping floor, seats equipped with writing tablets. The accommodation will more than likely cater for multiple classes, given the cost of equipping such a space.
- The equipment will include overhead projectors, screens, large (multiple layer) chalk or whiteboards, film and video projection equipment, lectern with sound and lighting, TV and video control built-in.



CAREFULLY EVALUATE SITE LINES WHEN DETERMINING SLOPE OF FLOOR. DISTORTED SCALE FOR PURPOSE OF ILLUSTRATION.



SEATING GUIDELINES

4.2. Classroom spaces

These are often referred to as General Purpose Learning Areas (GPLA). They will be required in schools for all grades.

The kinds of subjects taught in them will include English, Languages, Mathematics, Social Sciences, Sciences (not requiring significant equipment and/or experimentation) and most primary school subjects.

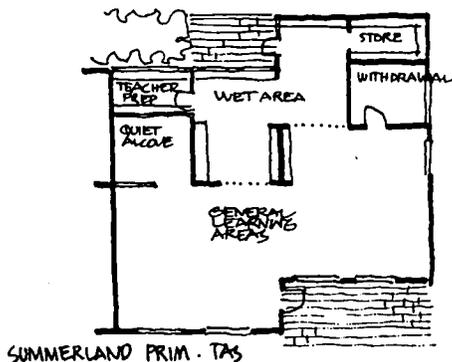
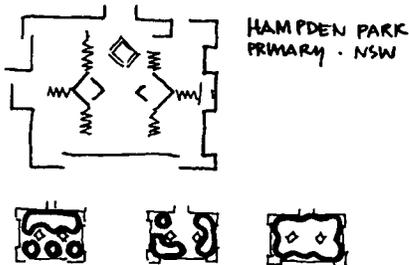
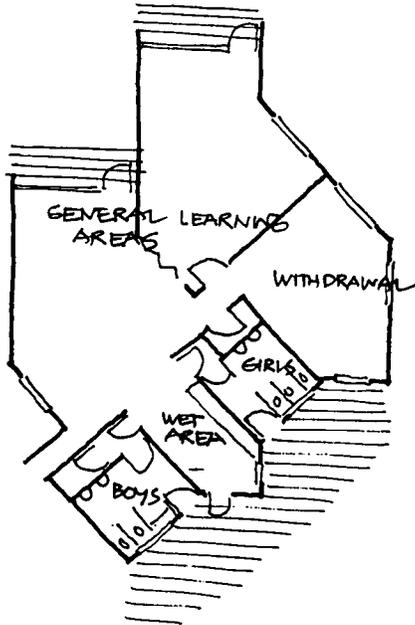
In Secondary Schools the rooms are characterised by:

- learning spaces equipped with desks, usually formally arranged,
- chalkboard/whiteboard
- audio-visual equipment, overhead projector and screen,
- display boards
- teacher's table and/or demonstration bench

Included in this category, though separate to some degree are computer rooms for formal teaching of computing studies. Refer to section 7.1.1 for the characteristics of these spaces.

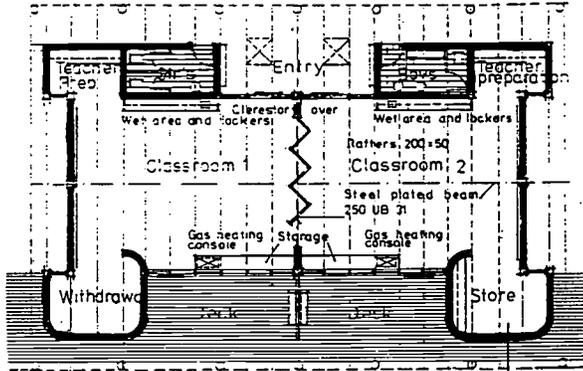
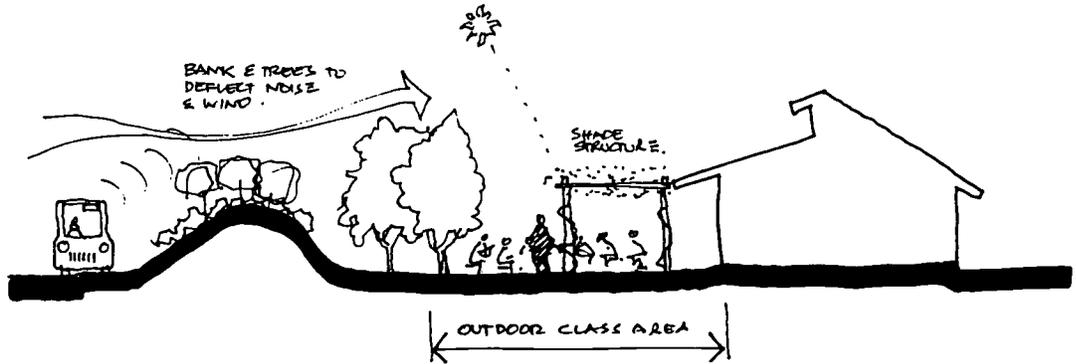
In Primary Schools these rooms are characterised by:

- Areas for desks, often informally arranged,
- informal spaces for reading and creative play (especially in junior classes),
- chalkboard/whiteboard
- large display areas,
- hanging space for art work completed in class
- audio visual equipment (overhead projector and screen, tape player
- in junior classes, a musical instrument, perhaps a piano or electronic keyboard
- shelving and storage (best if possible in dedicated adjacent store room),
- desk and resources storage for the teacher. (can be either in cupboards alongside desk, or better still in a small store room adjacent to the desk area which permits open storage shelves for instant retrieval of materials and resources)

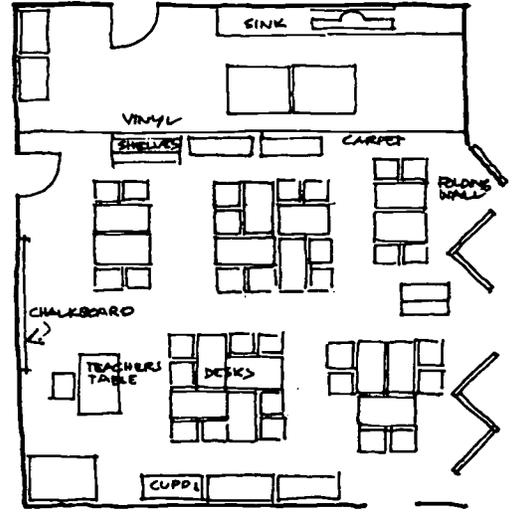


Adjacent and in close proximity will usually be an entry foyer, coat and bag storage, wet areas for practical activities and withdrawal areas.

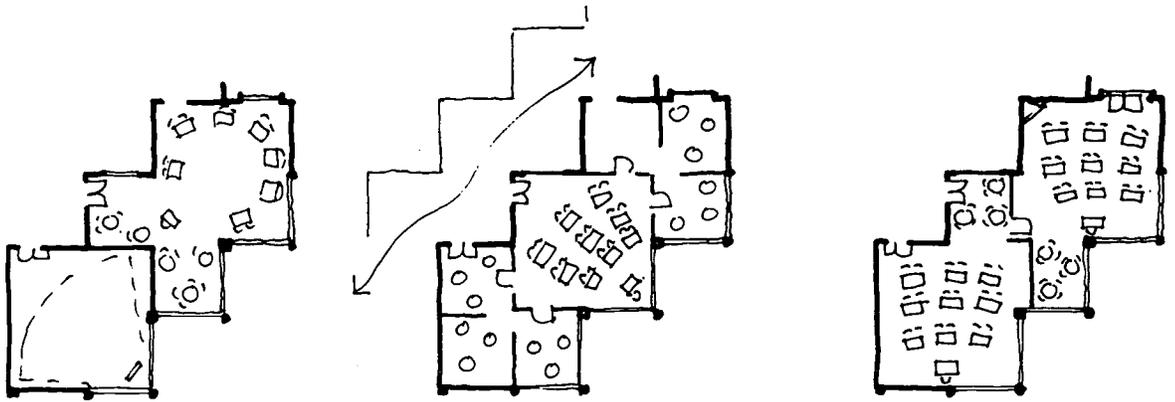
Withdrawal areas can be used for watching TV or video presentations, reading stories or perhaps special children enjoying additional help.



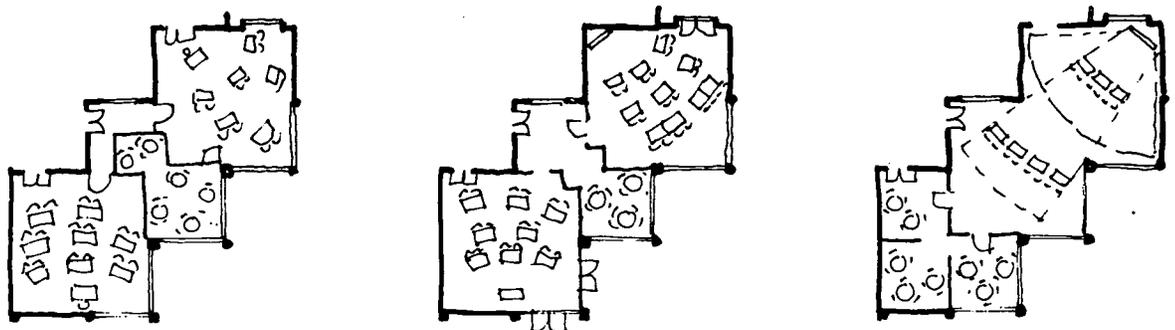
MID-DISTRICT PARENT-CHRISTIAN CONTROLLED SCHOOL VC.



TYPICAL CLASSROOM FROM NSW GOVERNMENT DESIGN STANDARDS.



MODULAR DESIGN PERMITS VARIETY OF ROOM CONFIGURATIONS IF STRUCTURE IS INDEPENDENT OF WALLS. PERMITS ADAPTION TO NEW USES AS NEEDS CHANGE FROM ARCHITECTURE DRAWING 'M1' MARCH 1957.



4.3. Teaching and Practical Activities

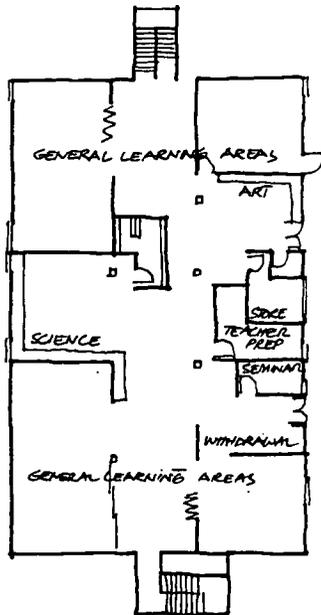
Special Purpose Learning Areas (SPLA) are used for classes in Science (Physics, Chemistry, Biology and Geology), Technology (wood, metal, plastics, textiles, design, food technology, technical drawing) and Art (painting and drawing, sculpture, photography). They predominate in secondary schools but also increasingly in primary schools. They will also be required where a Middle School (transition from Primary to Secondary) is being introduced.

In some schools where drama and/or music are given particular emphasis SPLA's may also be provided for Drama and Music in addition to what may be provided in a multi-purpose hall. Spaces for rehearsal, play readings and music practice are required for use by both individuals and groups of varying sizes. (Refer also 4.10)

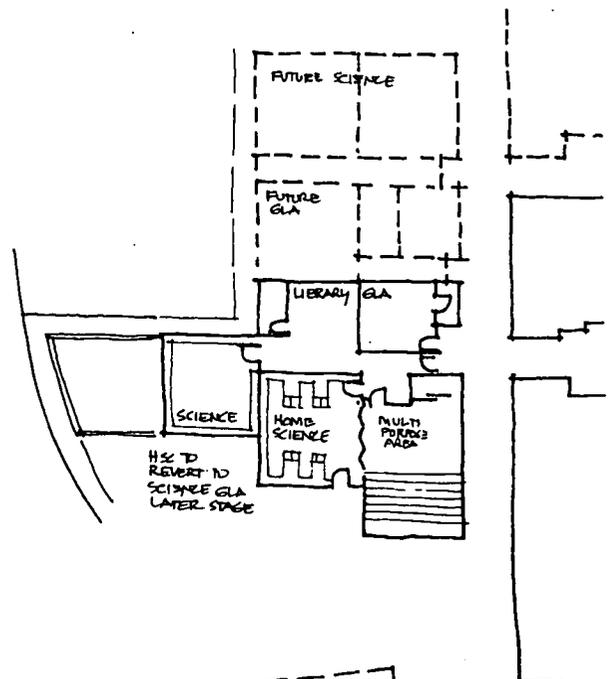
SPLAs are larger than normal classrooms to allow for freedom of movement, safety aspects (need space around special equipment and dangerous processes), special equipment, special finishes, additional services such as ventilation, electrical, water and gas services as well as drainage.

Furniture is generally purpose designed. The major activity is practical, requiring work at benches, machinery or laboratory equipment. Formal teaching, taking notes and holding discussions is a secondary activity and often best done in a more suitable space. Such spaces can be a part of a cluster of SPLA's.

Wall and floor finishes require special attention to withstand the additional wear and tear likely in these spaces.



COMBINED GENERAL LEARNING AREAS & PRACTICAL ACTIVITIES
MORIJAH HIGH SCHOOL . S.A.



TECHNOLOGY FACILITY INCLUDING HOME SCIENCE

PLANNING FOR GROWTH INVOLVES CHANGED USES
CORNWELL COLLEGE MT BARKER SA
BROWN FALCONER ARCHITECTS

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Examples of Special Purpose Learning Areas are:

Computer Rooms

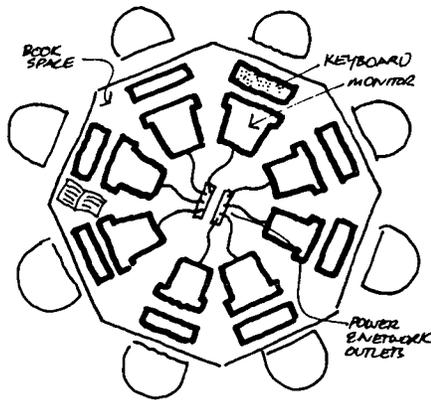
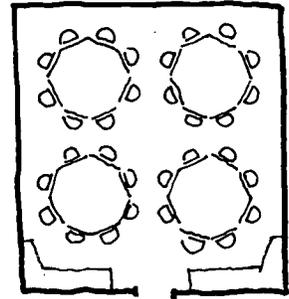
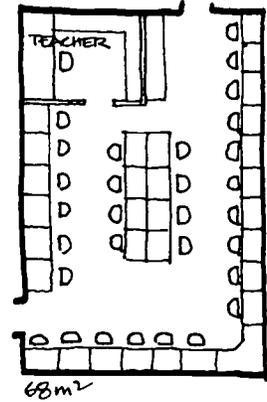
There are a number of ways in which rooms may be set up for computers:

- Computers set at the perimeter of the room
- Computers set on circular benches with the cabling at the centre - based on a design used at Billanook College, Moorabark, Vic
- Computers on benches in a fish-bone pattern. The example below is from Mueller College, Redcliffe Qld adapted by Trevor Ginn from a design by Grace Lutheran College in Qld.

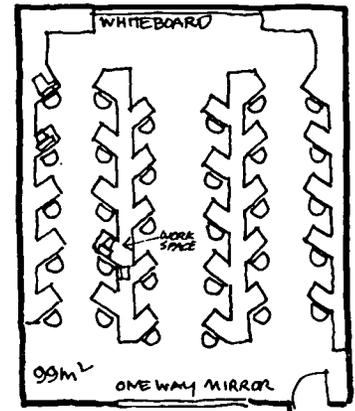
Before selecting the most appropriate design for use in your school consider the following:

- ease of installing and accessing the wiring
- potential for the teacher to oversee the work of majority of students
- efficiency in use of space
- work space immediately adjacent to computer for student materials - essential if students are to learn to relate their computer skills to other disciplines

In an age of burgeoning technology and computers now in a large proportion of Australian homes the requirement for teaching the use of computers and for dedicated computer rooms may soon decline – allow for adaption to new uses of such spaces.



DETAIL PLAN OF TABLE - BILLANOOK COLLEGE



STAFF ROOM

MUELLER COLLEGE

Science

A wide variety of configurations exists for Science facilities in schools, each with advantages and disadvantages to be evaluated within the particular context. The phase of growth of the school, kinds of science program being offered, need for making spaces available for alternative uses, etc. will figure in the evaluation. The various configurations include:

fixed workbenches across the room equipped with gas, water and drainage facilities

Advantage

- all students facing the teacher.

Disadvantages

- limited use for other classes
- expensive fitout and servicing
- awkward to clean
- limited access for staff in emergencies or for providing assistance.

This configuration is not used much today.

fixed benches around the room equipped either with runnels or sinks and writing tables and chairs in centre of room

Advantages

- experimental work is done separately from where books are used
- plumbing and other services are cheaper to install and service.

Disadvantages

- not easy to use for group work (however, not a significant disadvantage).

as preceding configuration but with island benches connected to perimeter benches

Advantage

- the island section is more conducive to group work

Disadvantage

- limited space at centre of room for non-science activity and/or non-experimental science work

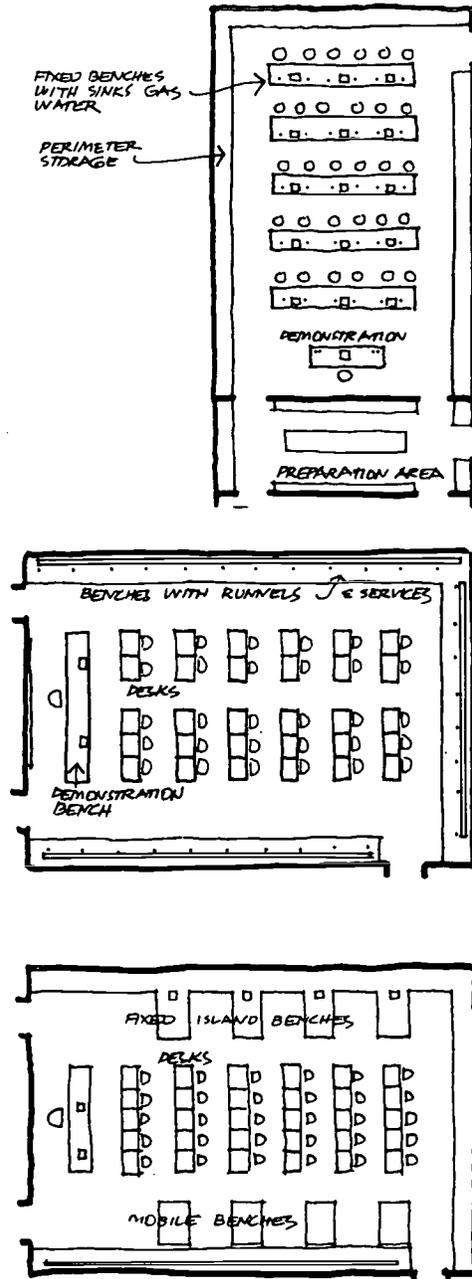
as preceding configuration but with mobile benches at same height as perimeter benches

Advantages

- flexibility of space at centre of room for other activities

Disadvantages (not significant)

- potential damage to benches as they are being moved about
- accidents with volatile fluids if the mobile section is used for experimental work.



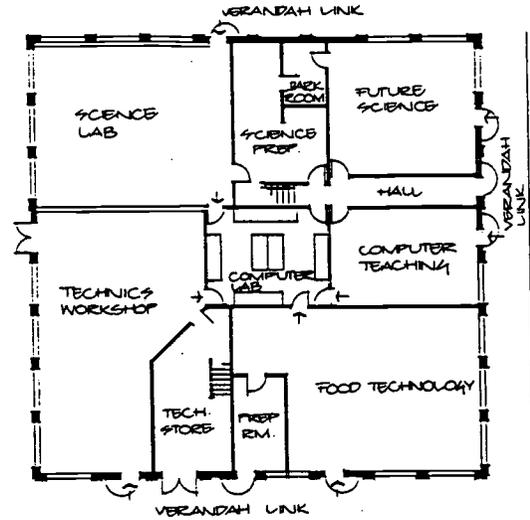
Technology

Heathdale Christian College, Werribee, Vic has a new technology wing comprising Home Economics, Computer facilities and Textiles in the one new block. It is a two-storey facility with GPLAs in the upper storey. The entrance lobby is a two storey structure with stair designed as a display space for student work. The entrance lobby's storefront-type show window also serves as a display space.

Beaconhills Christian College in Pakenham Vic and Immanuel College, Novar Gardens, Adelaide SA both have excellent examples of technology teaching environments. The latter has a primary focus on computers in combination with advanced technology such as pneumatics, electronics and the study of a wide range of "high-tech" materials. The former is a more traditional approach but with an expanding variety of technologies available.

Some of the key requirements are:

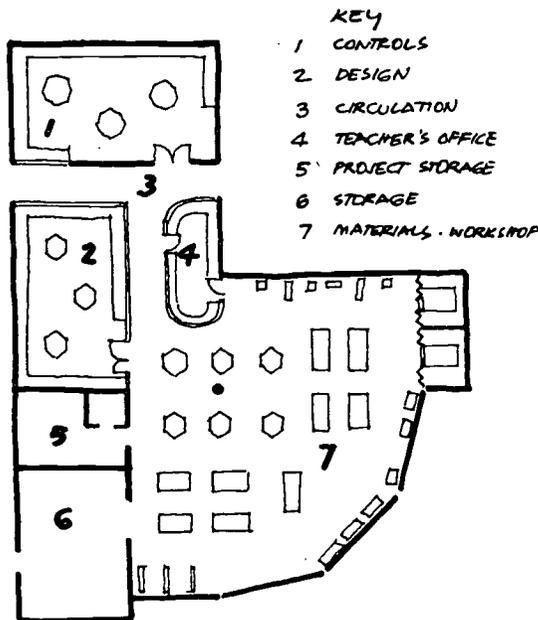
- a workshop environment
- good supervision potential of all spaces
- access by students to the widest possible range of technologies during set class times (in order to explore the vast potential available)
- capacity for integration of design, construction and testing of articles using the computers as part of this process.
- excellent storage
- access for loading and unloading heavy articles such as machinery
- good ventilation and light
- safe, hard-wearing non-slip floor finishes



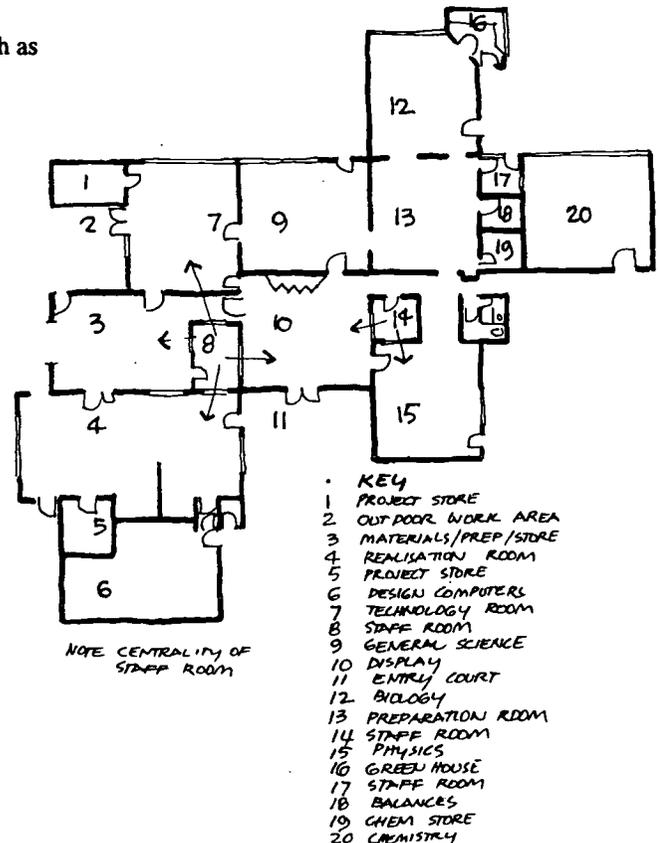
TECHNOLOGY BUILDING
PENRITH CHRISTIAN
COMMUNITY SCHOOL
STATION DESIGN ARCHITECTS

TECHNOLOGY BUILDING

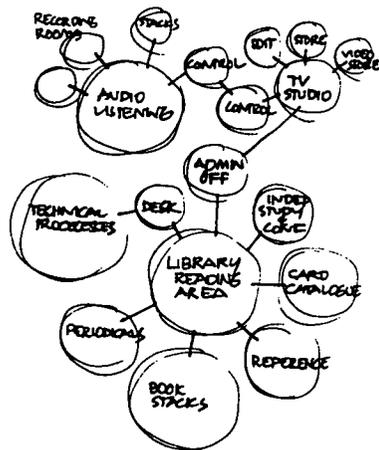
With the greater degree of integration and interaction between specialist subjects and with the increasingly important role that computers play, a building that enables all of these functions to be close together is of value. The computer lab is available as an extension of the specialist room while a computer teaching area is kept as a separate space



IMMANUEL COLLEGE
TECHNOLOGY CENTRE
ADELAIDE, S.A.
GEOFF NARRN, ARCHITECTS.



SCIENCE & TECHNOLOGY CENTRE
BEACONHILLS CHRISTIAN COLLEGE,
PAKENHAM, VIC.
PETER G LYALL & ASSOC. ARCHITECTS.



SPATIAL RELATIONSHIPS
 LEARNING RESOURCES
 COUNCIL OF EDUCATIONAL FACILITY PLANNERS
 OR SPACES FOR LEARNING
 GUIDE FOR EDUCATIONAL PLANNERS.

4.4. Student research and study spaces

Included in this category are libraries, student study spaces and areas for student research. The primary concern is to provide comprehensive resource materials for student reference purposes in a quiet environment that encourages individual study, creative thinking and quiet reflection.

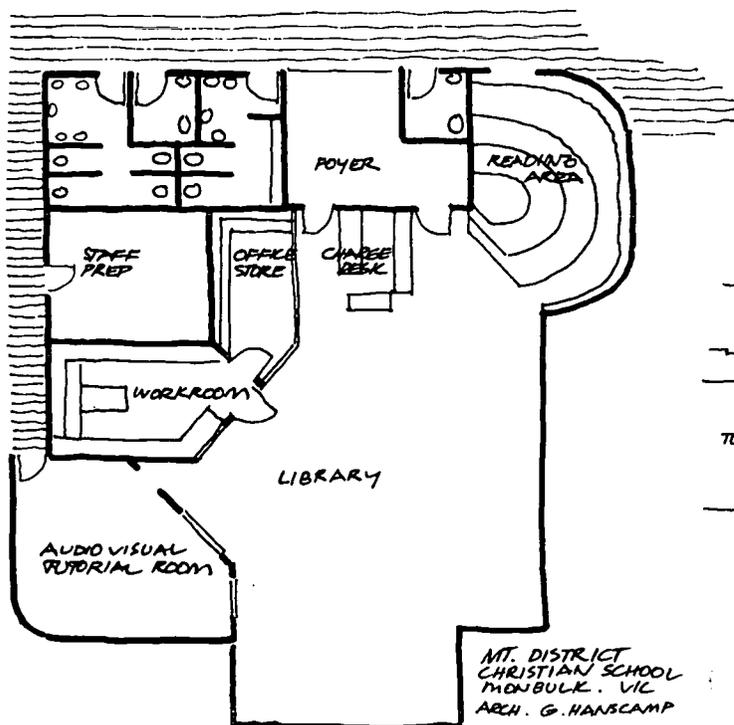
Space is required for reference books, CD-rom and other computer formats, as well as for audio-visual resources.

Ancillary spaces will include audio-visual room(s), a work room for sorting and repairing books, a library staff room and an entry foyer.

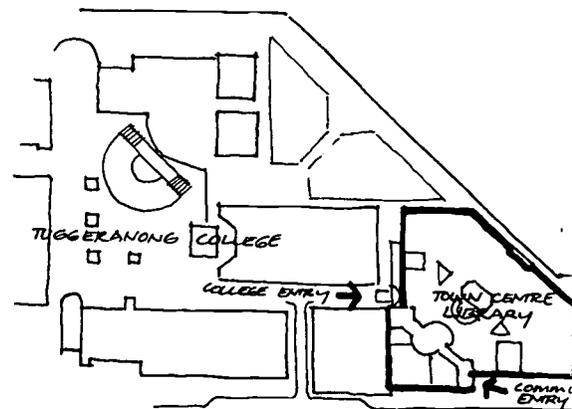
Seating arrangements will allow for individual activity and small group discussion with occasional teacher-led discussions and briefing, though this is sometimes provided for in separate adjacent spaces such as seminar rooms.

These facilities are often referred to Resource Centres as the concept of "Library" is not adequate to describe the wide range of information handling, access and storage now becoming commonplace.

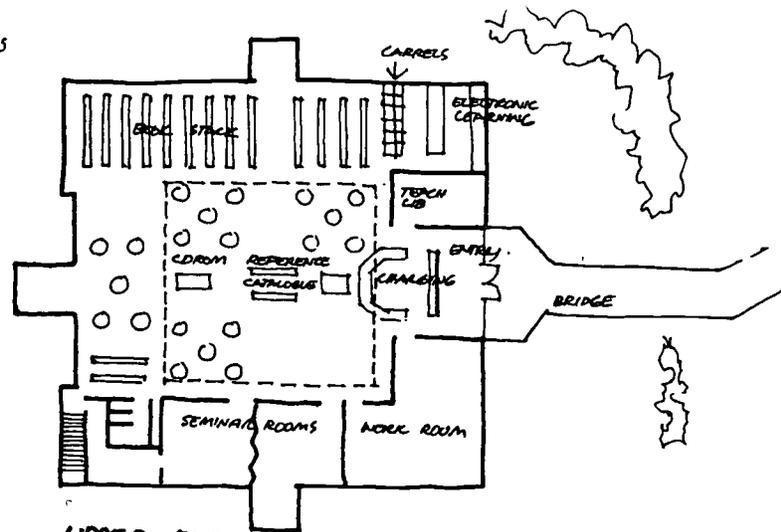
This category of space is one where the community can be advantaged by allowing after hours access to parents, other adults as well as the students of the school. This raises a number of security issues that must be addressed but given the generally isolated nature of the resource these are relatively easily addressed provided staff are available.



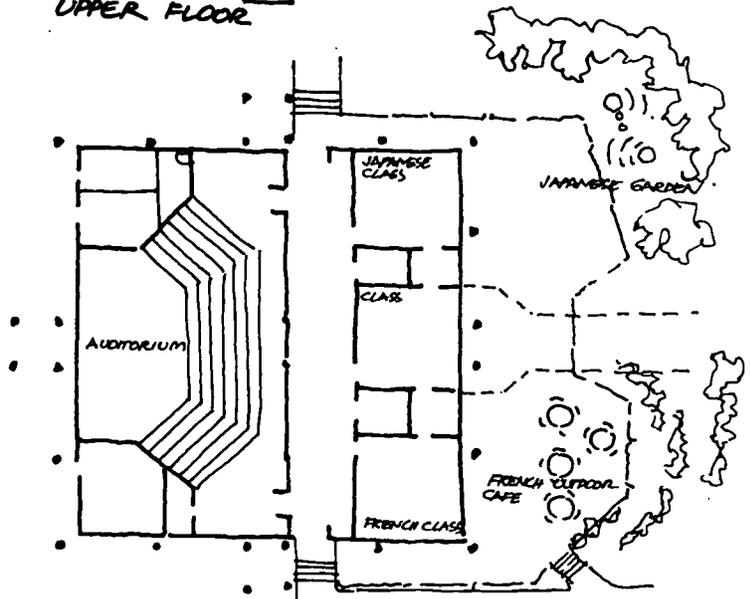
MT. DISTRICT CHRISTIAN SCHOOL
 MORN BULK. VIC
 ARCH. G. HANSCAMP



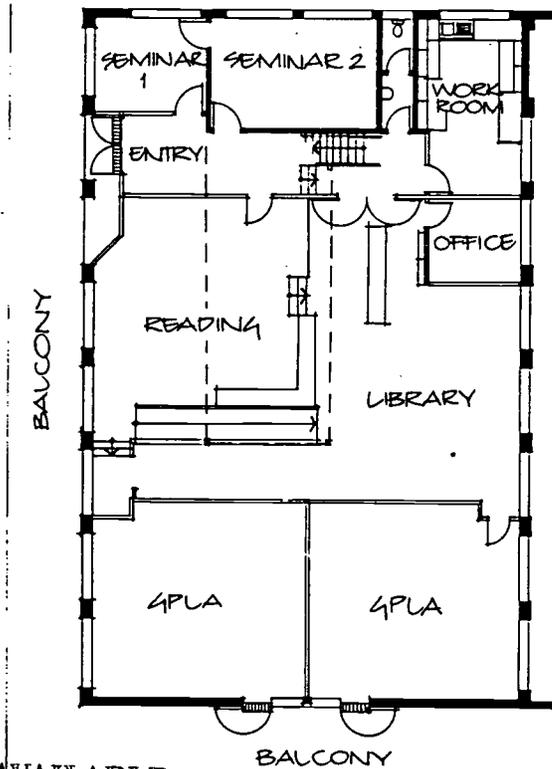
TUGGERANONG COLLEGE & TOWN LIBRARY
 ARCHITECTS
 EDWARDS, MADIGAN, TORZILLO & BRIGGS



UPPER FLOOR



LOWER FLOOR



MORETON BAY COLLEGE
 MANLY - BRISBANE
 DON ROBERICK - ARCHITECT

Library

Library facilities need to be capable of growing in line with the growth of the School itself. Class room spaces can be planned into a library block with this space being capable of absorption into the library in the future.

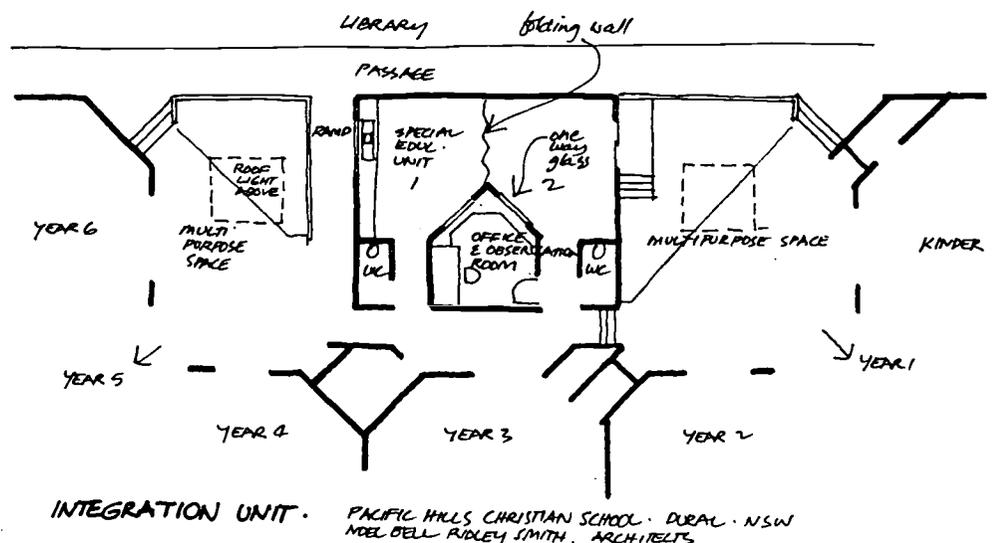
LIBRARY BUILDING
 PENRITH CHRISTIAN
 COMMUNITY SCHOOL
 Stanton Dahl Architects

4.5. Special Students Learning Areas

In designing schools planners need to be aware of the need to provide for a diverse range of learners in today's schools. These include students with learning difficulties, students requiring English as a Second Language (ESL) instruction, students with disabilities and students undertaking subjects requiring small group discussion or a withdrawal situation. The implications for school design include:

- diversity of spaces for smaller group or individual learning
- increased demand for staff facilities where additional specialist staff are employed
- the need to satisfy legal requirements with respect to the provision of at least ground floor wheelchair access and toilet facilities for people with disabilities
- greater capacity for storage of resources, particularly if the range of abilities is great.
- space for manoeuvring wheelchairs, frames, crutches or other such aids
- special furniture to accommodate the increased range of physical abilities, disabilities or limitations
- switches, power outlets, door handles, shelves within reach of disabled students
- spaces for counselling/advising parents – these may in fact be located alongside the class areas with one-way vision panels to permit parents to observe the teaching process.

Door widths of normal size are usually sufficient for wheel chair access, but it may be useful to add a small leaf that can be opened in special circumstances.



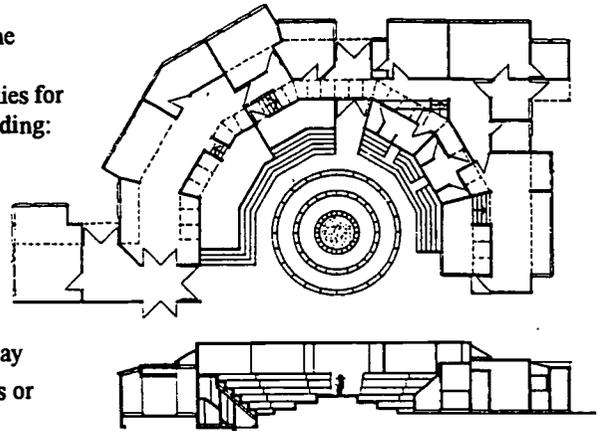
4.6. Students recreational spaces

Recreation areas should be designed to provide contrast to the formal teaching areas and a genuine sense of relief and "re-creation". Recreational spaces comprise fields and facilities for sport and playgrounds, as well as rest and lunch areas, including:

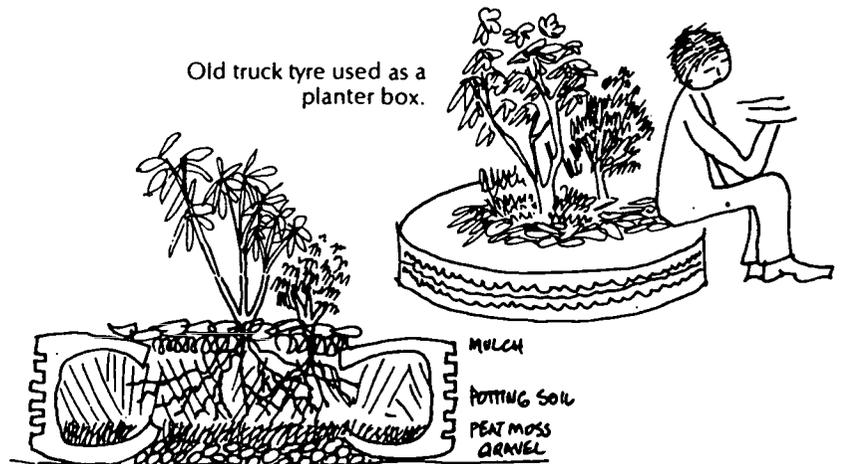
- games courts and fields
- athletics tracks and fields
- indoor courts
- gymnastics equipment
- swimming pools
- areas equipped with climbing equipment for creative play
- informal seating arrangements for meal or snack breaks or discussions away from classrooms
- large open areas some paved, some grassed
- shade areas

Significant variations will exist across the wide spectrum of recreational requirements due to prevailing weather conditions, age of students, land availability and resources available for development of school facilities.

Among the most important characteristics of these spaces is the ease and efficiency of student supervision. Many different areas separated by walls, screens or planting make supervision difficult. Planners should give careful consideration to efficient supervision with the minimum staff time and expense.



KENA KENA PRIMARY SCHOOL N.Z.
PEB EXCHANGE . OBCO . OCT '98 N° 6.



4.7. Staff studies

Schools must devote significant time to carefully planning the staff study areas. These spaces are needed for preparing lessons and for marking homework, examinations and assignments – essential in primary and especially secondary schools. These spaces may also be used at times by groups of teachers working on curriculum development projects, and as such may be required for days at a time.

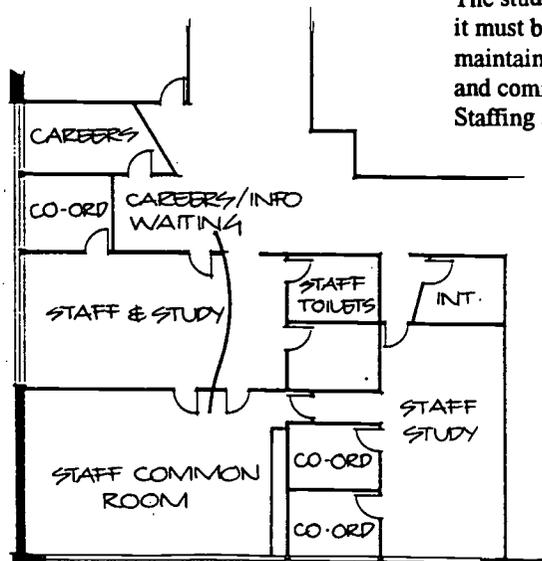
The most important characteristics of these spaces are centrality and accessibility to student areas, privacy, adequate work areas, accessibility to resources as well as to administration areas. Often the staff room is the hub of the school.

The study area should be well-equipped, roomy, comfortable and conducive to preparing lessons. If staff are provided with administrative or secretarial support then proximity to school administration areas is important.

Staff study areas will also require:

- access to photocopiers and computer facilities
- pinboard for staff notices
- pigeon holes (if not in staff common room)
- desks of sufficient size for study materials, computer and books
- quality ergonomically designed chairs
- adequate storage for lesson materials and teaching tools
- power for electronic equipment including computer – note if computers are to be standard equipment at each desk larger spaces will be required
- data outlet for connection to school local area network (LAN) and data-base and printers
- adequate screening and acoustic barriers to sustain a quiet study environment.

The study area may be adjacent to the staff common room however, it must be arranged so that a quiet environment for preparation is maintained. There are a number of ways to arrange staff studies and common rooms. For further information, see section 3.3 Staffing arrangement.



Staff Areas

It is possible to group staff facilities into one area. Staff study areas (with co-ordinator officers) can be grouped around staff common rooms. Interview rooms can also be located in this vicinity to enable staff to have interviews with students or parents.

4.8. Staff recreational area - common rooms

The staff common room is a place of retreat and refreshment as well as the most probable place for staff meetings and for parents activities after school hours.

The space should be open, comfortable, well-lit and ventilated, and, if needed, equipped with air-conditioning to enhance the sense of relief for staff.

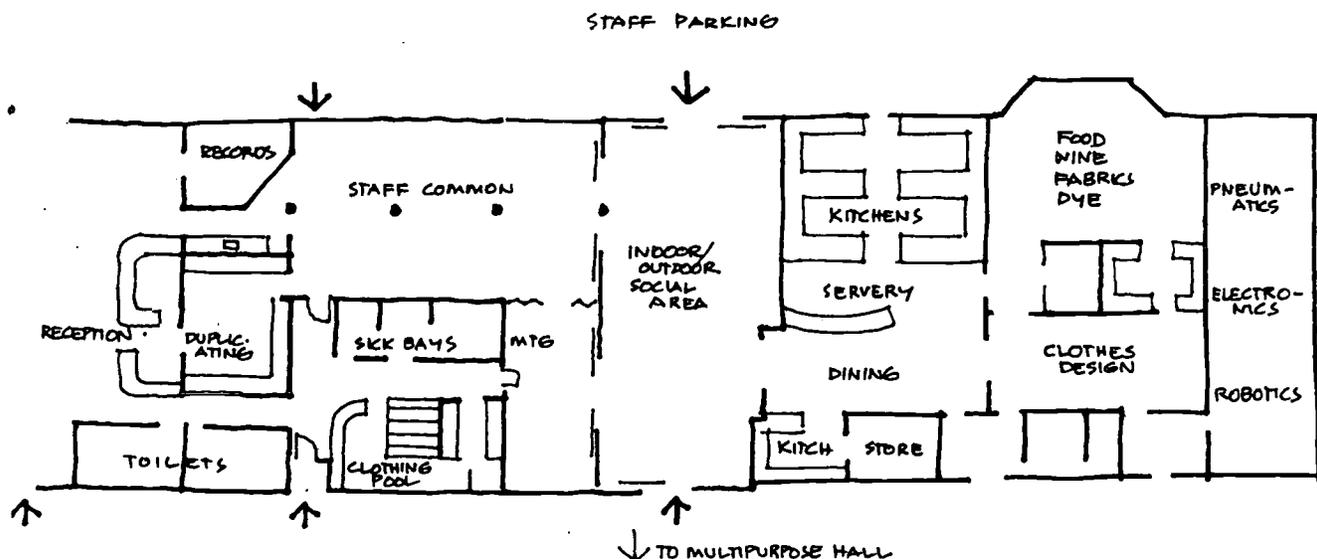
The common room or the staff study should include the staff mail boxes or pigeon holes. For this reason ready access to the school administration area is desirable.

Such spaces can often serve other uses as well. For example:

- staff/parent meetings
- staff training
- celebratory functions - staff farewells
- senior student - staff functions
- community discussions/information gathering and dissemination

These uses suggest the following equipment

- tables and chairs for dining
- easy chairs
- visual aid equipment, overhead projector, video player/projector
- white board
- display boards



STAFF COMMON ROOM - FAITH LUTHERAN SCHOOL - TANUNDA, SA

Note that the staff common room benefits from proximity to admin, food areas, duplicating, meeting room, all of which can be utilised for other out-of-hours functions, for which the school is highly regarded - a centre for learning and offering hospitality.

Architect - Geoff Nairn Architects.

4.9. Service spaces, toilets, canteens, stores, maintenance

A school will comprise significant service areas. Some services spaces are required by law under basic health and safety requirements (toilets and washrooms). Others are required to house power distribution equipment (switch boards and meters) and air-conditioning equipment. Yet others will be determined by teaching strategies - stores for teaching aids and equipment.

The characteristics will very much reflect the utilitarian nature of the spaces and will vary according to need and function. It is particularly important that floor and wall surfaces (especially) in these areas are durable in nature.

Storage requirements

Storage requirements are often underestimated. Clear access and good visibility of all parts of storage areas help to maintain control of stored resources.

Included among the storage requirements and often overlooked in new schools is the need to provide adequately for archiving of important records. Archives will include:

- financial and general administrative records (need to be kept for 7 years minimum, unless signed under seal in which case storage up to 20 years may required).
- student records, which need to be kept for a sustained period - the courts may require records for up to 7 years,
- historical records, memorabilia

Convenient access to washroom facilities

Particularly in infants and primary schools, access to toilets from play and teaching areas allows monitoring of children and minimises risks from harm by strangers.

Space requirements for maintenance services

Buildings that are well maintained generally have adequate space for workshop and storage for maintenance equipment and materials. Adequate space is also required for efficient servicing of equipment. Cramped conditions hamper and discourage proper servicing. Accommodation for staff change areas, showers and toilets as well as lunch rooms is essential. Planners should therefore avoid the temptation to economise on space allocation to service areas.

The location requires direct access to roads for deliveries, playing fields for maintenance equipment and to all other facilities for wheeled access. Some schools use a mini-tractor with trailer to transport tools and materials - design access with this in mind.

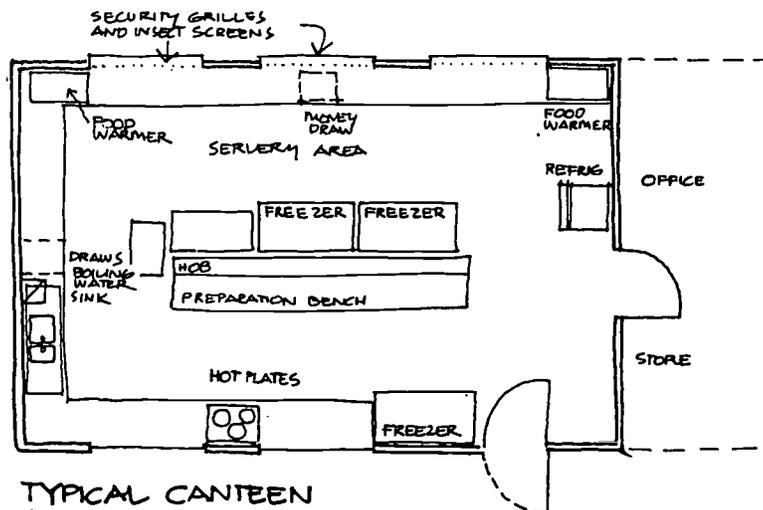
Maintenance facilities should be large enough for storage of tractors, ladders, furniture in for repair, large sheet materials and

may even include a small hoist for lifting materials off trucks. Vehicle access into maintenance areas should be provided.

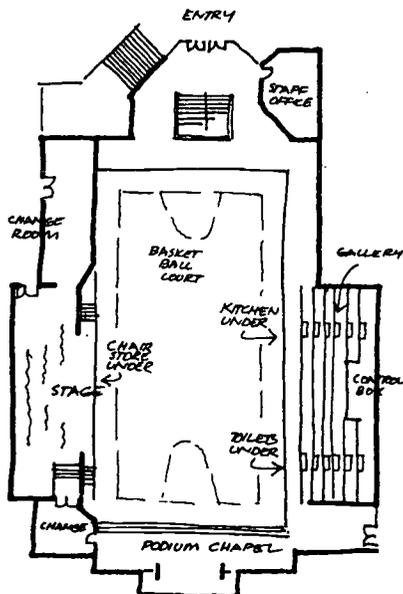
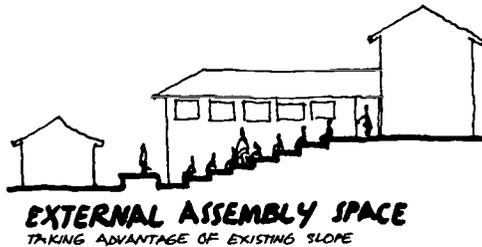
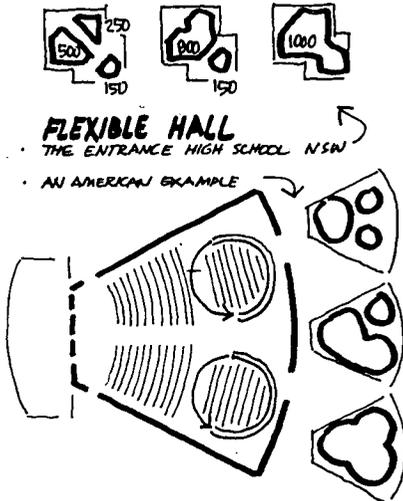
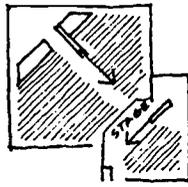
Canteen

Characteristics of canteens will vary but the following will provide at least a basis for discussion. It would be useful to draw on the experience of parents or other people who have had experience in establishing such a facility in other schools. Have a small working party visit other situations. Some important features are:

- direct access to places where students assemble/play
- convenient access to multi-purpose hall if canteen to serve that facility as well (given the cost of establishing, this should be given consideration)
- convenient and safe access to service vehicles for deliveries and removal of refuse
- floors which are easy to clean and are comfortable and safe to walk and stand on for sustained periods
- storage which is either open for easy cleaning and/or capable of being sealed against vermin
- adequate power for all potential equipment
- sinks for washing utensils and food
- separate basin for handwashing
- storage of clothes and personal belongings and change area
- preparation benches
- storage area for goods received and unpacking
- telephone with connection to school network
- security facilities given nature of goods stored
- secure cash handling facility - cash register
- provide for clear view outside before staff have to emerge (if handling large amounts of cash)



TYPICAL CANTEEN
BASED ON NSW GOVERNMENT
SCHOOL DESIGN STANDARD



MULTIPURPOSE HALL CONCEPT
 BASED ON DESIGN FOR
 ROSEVILLE COLLEGE, ROSEVILLE NSW
 JOHN CARR ARCHITECTS, TAMWORTH NSW

4.10. Assembly spaces, both indoor and outdoor

The need for spaces for the whole school community to gather together will depend on the availability of suitable venues in the community.

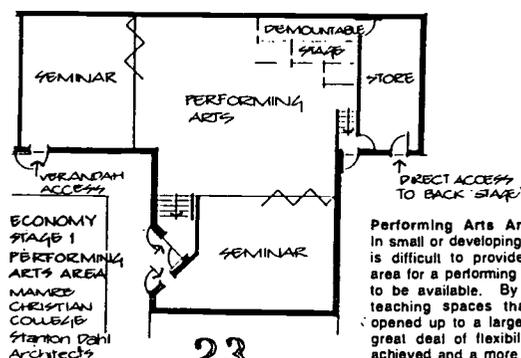
Community halls can provide for school activities involving students and staff as well as parents and friends. The more regular school activities such as school assemblies need a more readily accessible venue. For small schools this can be in the form of adjoining rooms with moveable walls between them or a large outdoor space sufficiently protected from the elements.

The expansion in curriculum offerings, including extra-curricular activities, together with the need for schools to provide meeting places for parents and for community activities, has made the need for multi-purpose halls an essential part of both primary and secondary schooling. They provide venues for:

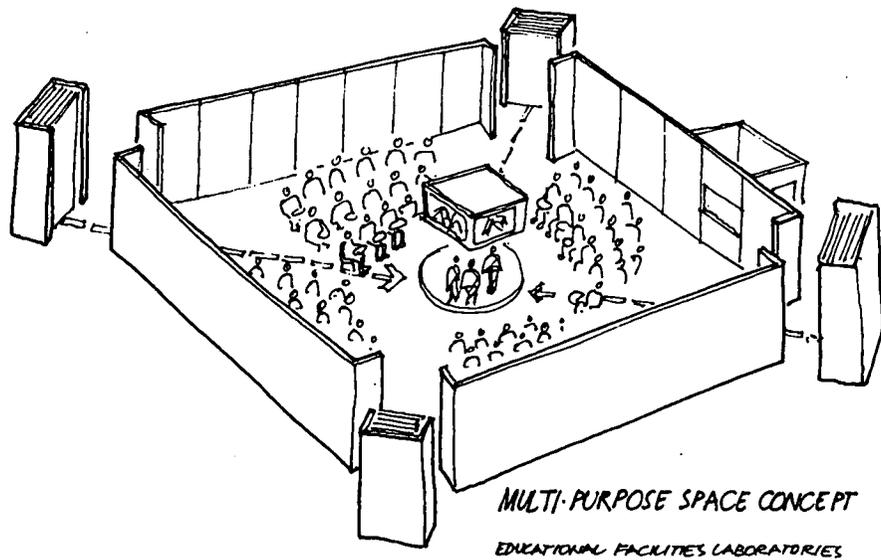
- drama and dance
- gymnastics
- choral and orchestral music
- indoor team sports (basketball)
- community activities
- school presentations and functions

The characteristics of an assembly space to serve these needs are:

- flat floor, preferably sprung to absorb impact
- a multi-purpose stage with proscenium
- walls which resist damage but which also keep reverberation within acceptable limits
- lighting suitable for drama but also protected from ball impact
- substantial storage areas for chairs
- furniture which will not damage floor surface including the markings for games
- adjacent food service area (could be school canteen)
- toilets and showers (could be general school facilities)
- close proximity to road and entries for convenient after-hours access and for delivery of stage props and heavy musical instruments such as pianos
- adjacent, large, covered areas for gathering of crowd before and after presentations

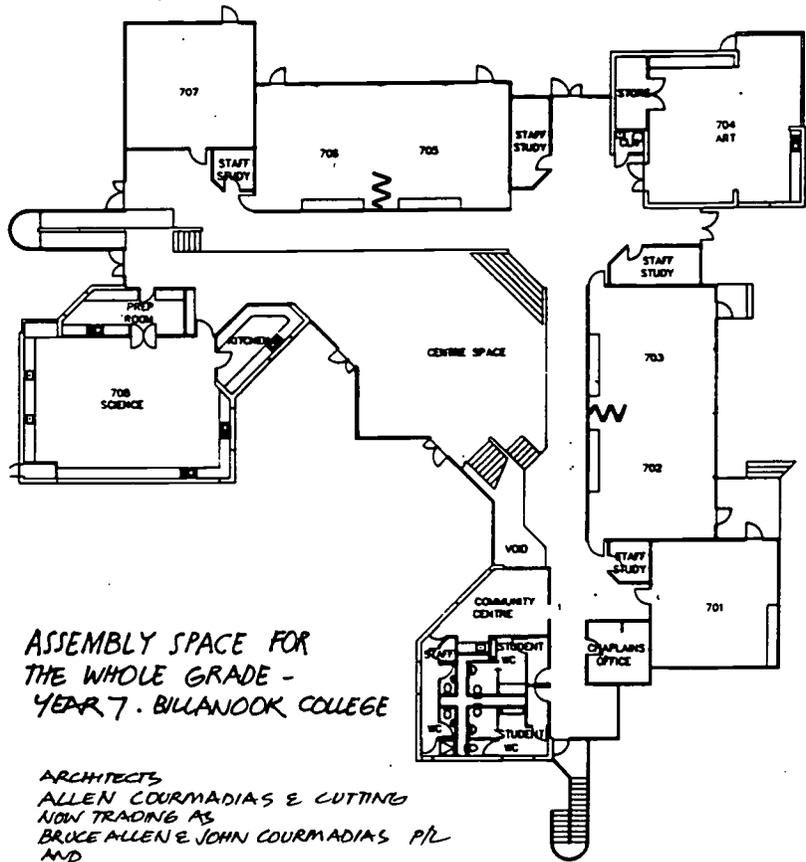


Performing Arts Area
 In small or developing schools, it is difficult to provide sufficient area for a performing arts facility to be available. By combining teaching spaces that can be opened up to a larger space, a great deal of flexibility can be achieved and a more permanent facility can be provided in the long



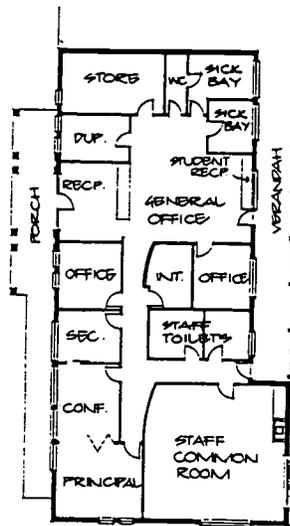
MULTI-PURPOSE SPACE CONCEPT

EDUCATIONAL FACILITIES LABORATORIES



ASSEMBLY SPACE FOR THE WHOLE GRADE - YEAR 7. BILLANOOK COLLEGE

ARCHITECTS
ALLEN COURMADIAS & CUTTING
NOW TRADING AS
BRUCE ALLEN & JOHN COURMADIAS P/L
AND
BUILT IMAGES P/L



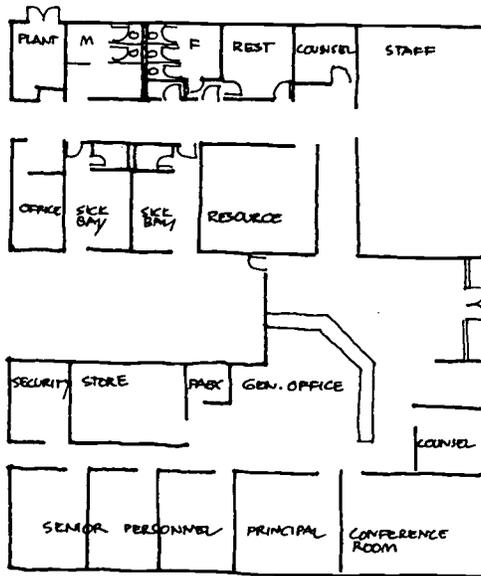
ADMINISTRATION BLOCK
GREEN POINT BAPTIST
CHRISTIAN COMMUNITY
SCHOOL
Stanton Dahl Architects

4.11. School Administration

The school administration areas provide for the Principal and Bursar or Business Manager and their staff. This area is most likely to contain the sick bay(s), secure store for files and records, interview rooms, photocopy areas and school stationery and book stores. Visitors will come to this area first, hence it should be adjacent to the school's main entrance.

The facility will be characterised mostly as office accommodation with visitors' reception and display areas - it will often be the showcase of the school. The visitors' area will contain a lounge for parents and others waiting for interviews - some degree of privacy may be appropriate. Due to the nature of the area, the quality of the finishes and furniture will reflect a softer, more welcoming approach to interior design than those in student areas.

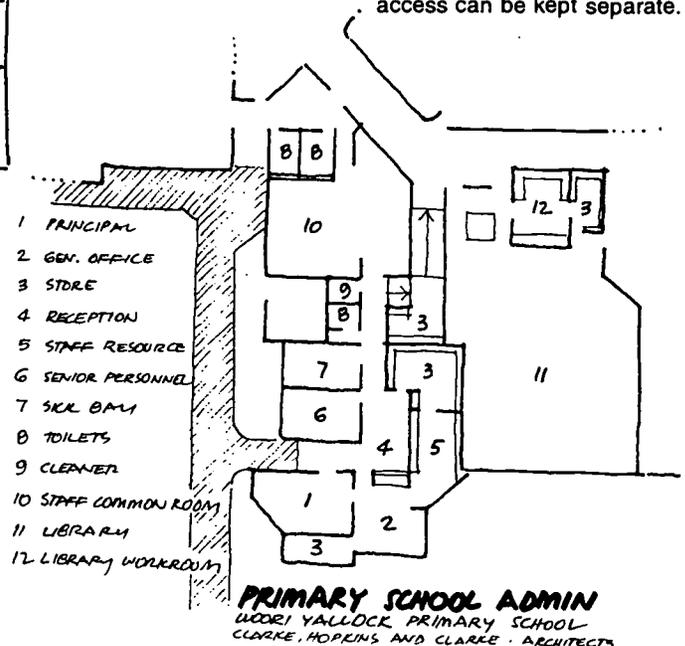
Because it is the one area occupied by staff consistently throughout the day and because of its proximity to entrance and road, it is usually a convenient area for receipt of goods - hence the need for an adjacent, large dock/store for sorting and distribution.



SECONDARY SCHOOL ADMIN
MT ELIZA HIGH SCHOOL - VICTORIA

Admin Building

Admin facilities need to be flexible and cover a range of requirements. Staff common rooms are often located in an admin facility and thus the building becomes the hub of the School both from an administrative and staff perspective. There needs to be appropriate accommodation for staff and student needs, including store rooms, duplicating areas, interview rooms etc. It is desirable that the general office be arranged so that student access and visitor access can be kept separate.



PRIMARY SCHOOL ADMIN
WOODRI YALLOCK PRIMARY SCHOOL
CLARKE, HOPKINS AND CLARKE - ARCHITECTS

4.12. Access ways and student storage (lockers)

Access to school buildings by students is best kept separate from visitor areas and main entrances. Student entrances need to be close to school bus terminals. School policies should state whether students may access buildings prior to class time; this will have an impact on design of entrances.

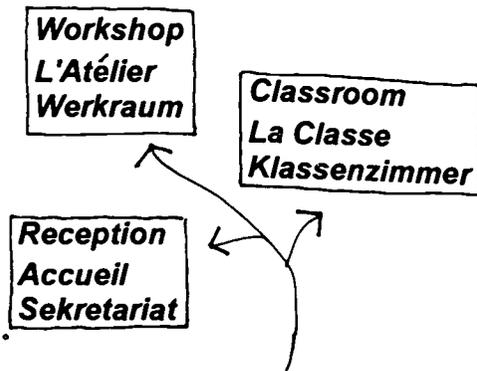
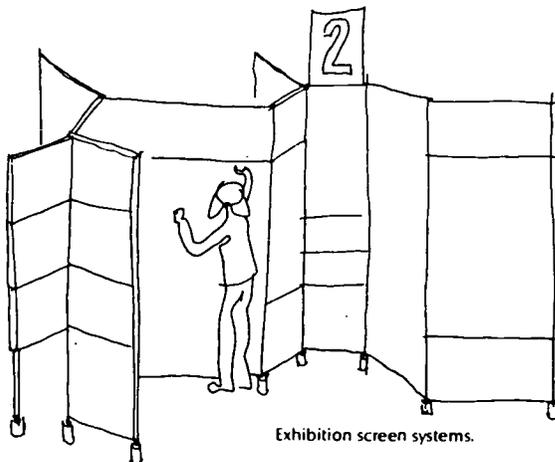
Access ways should lead easily and directly to places where school bags are stored, and then to play areas. The access ways linking the various spaces should include:

- sufficient width to allow whole class groups to pass each other
- wall and floor finish to resist the significant wear and tear of student traffic
- clear signage and safe and direct access to exits in case of emergency
- space for student storage - passageways are a convenient location for lockers since students can access them while moving from one class to another
- adequate lighting and ventilation
- display facilities - corridors provide a good venue to display student work, given adequate protection.

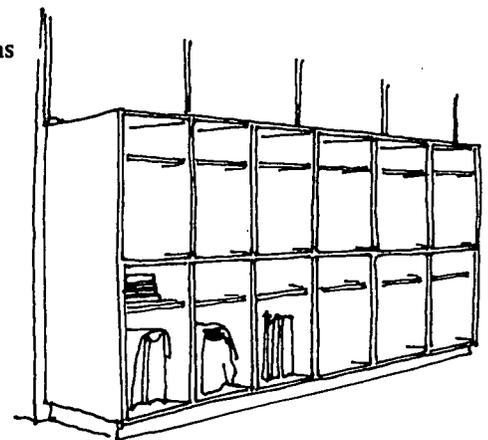
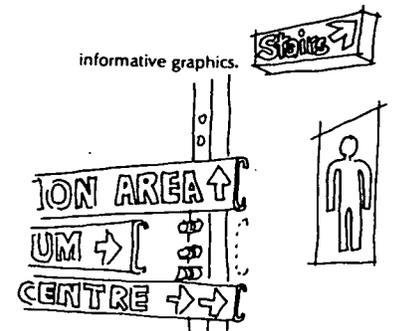
In climates where air-conditioning is required, enclosed corridors, which retain the cooled or heated air, are more energy efficient than open access ways.

Impact of school layout on time between classes

If classrooms are spread around the site, the time increases for students and staff to move from one room to the next. Delays will be exacerbated if books, visual aids and equipment also need to be transported long distances. Supervision of students also becomes more difficult. Planners should therefore consider a school design with efficient access ways and minimal distances between classes. In large schools the problem can be solved by clustering classrooms and staff rooms in coordinated groups. See section 3.3 for the advantages and disadvantages of the various groupings and arrangements.



USE SIGNS TO REINFORCE LANGUAGES BEING TAUGHT IN THE SCHOOL



OPEN LOCKERS

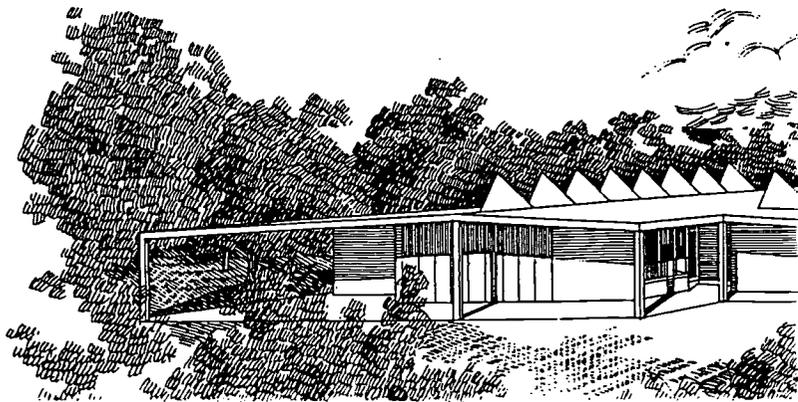
In some secondary school environments open lockers provide adequate storage for students materials.

These provide opportunity for teaching discipline, responsibility and mutual care as well as assisting in monitoring storage habits more easily.

Open lockers are provided at two Lutheran schools in SA, Faith Lutheran at Tanunda and Cornerstone College at Mt Barker.

4.13. Caretaker and Staff Accommodation

On-site accommodation, if required, for caretaker and/or security staff is best located at points where maximum visibility of access points is available. At the same time the need for some privacy should be taken into account.





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