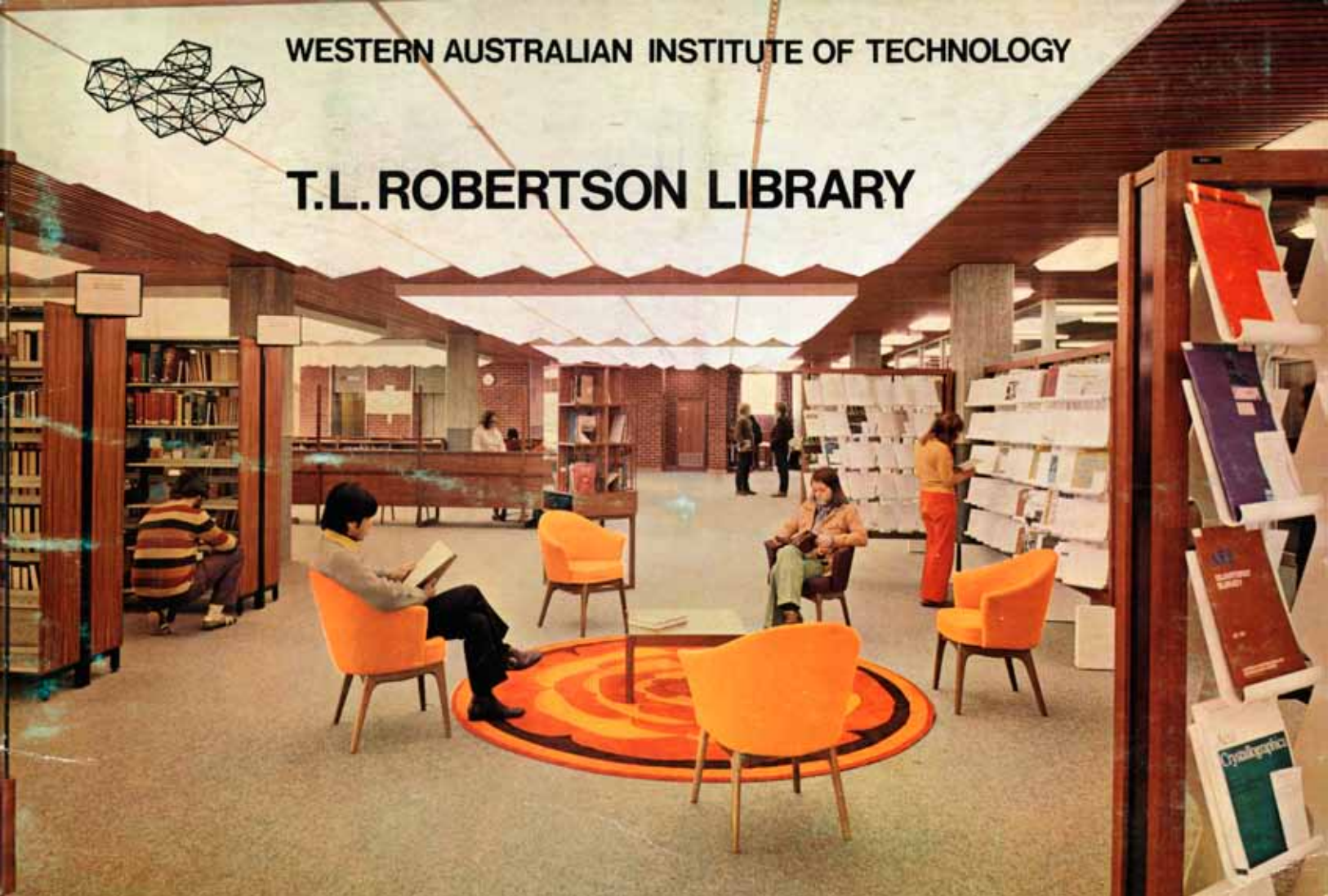
WESTERN AUSTRALIAN INSTITUTE OF TECHNOLOGY

# T.L. ROBERTSON LIBRARY



*The T.L. Robertson Library was officially opened by the Premier of Western Australia, The Honourable J.T. Tonkin M.L.A. on September 15, 1972.*

# THOMAS LOGAN ROBERTSON, CMG MA DipEd HonLLD(W.Aust.) PhD(Lond.) FACE

1901 – 1969

A pivot point educationally within the Institute and the dominant building physically, the Library is named in honour of Dr T.L. Robertson, Chairman of the Interim Council and of the first Council of the Institute. Before assuming chairmanship of the Interim Council, Dr Robertson served as Director-General of Education in Western Australia in which capacity he was intimately involved and gave of his vision and enthusiasm in the planning and early development of the Institute.

Awards and public honours accorded to him as an educator and administrator cannot be summarised merely in the formal letters which follow his name. During a lifetime of devotion to education, Dr Robertson gave outstanding service as Assistant Director of the Commonwealth Office of Education in the post-war years; as a member of the Senate of the University of Western Australia and its Pro-Chancellor; as Chairman of the Australian Council for Educational Research and as a foundation member of the Council of the Australian College of Education. The awards of the C M G, an honorary doctorate of laws from the University of Western Australia, and the Britannica-Australia Award for Education were fitting recognition of his contribution.

As an administrator of rare ability, he held unswervingly to the ideal that "organisations are for people" and not people for organisations. Transcending all high office and official rank, indeed it is for his warm humanity and for his deep personal involvement that Dr Robertson will be remembered.

## CONSTRUCTION

The main constructional materials, red brick and off-form concrete, were chosen to conform to the style already established on the campus. For reasons of economy and easier operations, Oregon form work was used for the exposed concrete areas, resulting in textures of considerable interest. Structural timber throughout the building is Victorian mountain ash, selected to aid light reflection from the walls. The ceilings, except that on level 3, are of pressed and drawn metal suspended sections, and were specially designed for this building.

There are a number of elements of the building that merit some comment. One of the more controversial decisions made was to eliminate windows from most areas. The basic reason for this decision was the need to achieve control over the internal environment, in other words, over ventilation, temperature and lighting levels and contrast. Consequences of the decision were somewhat lower construction costs, lower maintenance (no window cleaning), and more arguably, the removal of external distractions for occupants of the library.

Lighting is one of the major concerns in any library. The system designed for this building is based on a 4ft.6in. square module in which are suspended the ceiling panels and light fittings. The light fittings may be aligned in either direction, allowing complete flexibility and elimination of shadow areas. The ceiling panels conceal air-conditioning registers, while the above ceiling space serves as the return air duct. The special ceiling in the main entry floor (level 3) was designed to highlight the display and circulation areas, over which it is virtually a luminous ceiling. The design level of lighting is 50 lumens at table top.

Another consideration on the entry floor is the provision of multiple entries to the building. There are doors on three sides so that in a functional sense, there is no front or back to the building.

Communications through the building are provided for in a complete system of floor ducts. These can carry power, telephones or audio signals to any part of the building, and will enable the installation where and as required, of equipment for audio-visual instruction and other sophisticated educational methods.

## FUNCTIONS

The building design is basically very simple. Based on a structural module of 22ft.6ins., and with most of the internal subdivision achieved with demountable partitions, it will be possible to change internal layouts with a minimum of effort. Broadly, a library comprises storage and reading areas, staff work rooms and control facilities.

In this library, storage (i.e. bookstacks) and reading areas have been intermingled. There are "reading rooms" on levels 2, 4, 5 and 6, and in all of them the arrangement of bookstacks serves to break up the very large areas into smaller, more intimate areas of various shapes and sizes. A separation is made between periodicals and monographs by arranging them on shelves running in contrary directions.

Broad subject areas have been colour coded and location charts at the entrance to each reading room assist readers to locate the area that is of interest to them.

Special attention has been given to the varying needs and preferences of readers. Apart from breaking up the main reading rooms into various sized smaller areas, individual and three-seat "carrels" are located on the north sides of levels 4, 5, and 6, which may be allocated for a period of time to any student or staff undertaking intensive literature studies. Here also, there are several group rooms which may be used for reading, for discussions or for small tutorial classes. There are larger "seminar" rooms which perform a similar function, but will accommodate 20 or more persons. Finally, the library has several casual lounge areas (as on levels 4 and 6), where talking is more tolerated or students can study "with their feet up."

On level 6 an area has been set aside for the installation of audio-replay equipment, and other "media" developments. The large service area controls two listening areas, the one to be used more for recreational listening, in the lift foyer; and the other for more formal study listening. Associated with the latter is an area for microfilm readers, and similar equipment.

The major part of level 3, the entry floor, is given over to display and reference collections. All new books, periodicals and newspapers are displayed here prior to shelving. This floor also contains the main issue desk through which all loans are controlled. Part of the desk is manned by reference assistants who answer enquiries and give assistance in the use of the catalogues and the reference collection. Entry to and exit from the library proper is controlled by turnstiles. Outside the turnstiles is the "library arcade" from which a "shop window" view of the library is obtained, and off which are the locker areas for students cases, the "Bookmark" coffee shop and the Principal Librarian's office and library administration.

While there are staff offices on all levels, with the object of maximising the services that can be offered to readers, the main staff work area is on level 2. Here are the sections responsible for purchasing and cataloguing, the data processing facilities that provide the link between library and Computing Centre, a xerographic copying service, and the library bindery. There is also a photographic suite and a recording studio, which are operated in conjunction with the media unit of the Educational Development Unit.

## ART ACQUISITIONS

The free-standing wood sculpture located in the "Bookmark" coffee shop, main entry floor (level 3), is the work of sculptor Howard Taylor.

The work was acquired under the Institute standing policy which sets aside one half of one per cent of the capital cost of each new building for the purchase of art works.

## CONCLUSION

The educational objective of the librarians and the architect was to design and build a library which would provide an environment in which readers could study effectively. At the same time, in a situation that was to grow rapidly, it could not be predicted at all certainly what the detailed pattern of needs would finally be. Therefore, the library building had to be flexible in its broad plan.

Considerable importance was attached to the varying preferences of individual readers. To meet these, it was possible to provide rooms of varying sizes in some parts. However, the major variety in the library has been achieved through the schemes of interior decoration and furnishing. Each level or major area has a different basic colour, and the soft furnishings have been selected to blend or contrast with these.

Much of the furniture was specially designed for the library. Common design elements can be detected in the reading tables, desks, display units, etc., and serve to create a unity through the variety of furniture necessary in a library. The basic timber used for the furniture is teak, with a vinyl/timber laminated veneer on working surfaces. But on level 3 the richer textures of Fijian sandalwood have been introduced for contrast, while in the lecture room (level 6) and the seminar room on level 2, Huon pine has been used.

*T. L. Robertson Library — stage 1*

# THE T. L. ROBERTSON MEMORIAL ART COLLECTION

Launched in March, 1970 an appeal for funds to provide works of art to be displayed in the Library has succeeded in raising a sum presently amounting to $3,500 (September 1972). The fund remains open for contributions.

The following works provide the foundation of this collection:

*Old Church Broome — Elizabeth Durack*
*Archaeozic Plateau — Elizabeth Durack*
*Fire and Water — Arthur Boyd*
*Child's Moon — Douglas Chambers*
*Ruins at Cue — Ian Wroth*
*Rockface Balls Head — Lloyd Rees*
*Head from Van Gogh series — Adam Kriegal*
*Window and Factory Smoke No 2 — George Baldessin*

The bust of Dr T.L. Robertson, located at the main entry level of the Library, was commissioned by Council from sculptor Theodore Hannen, a member of the Institute staff (lecturer in sculpture, Department of Art and Design).

# DEPARTMENT OF LIBRARY STUDIES
# STAFF

**HEAD OF DEPARTMENT**

J. E. Dean, MA(Oxon), ALA ALAA

**SENIOR LECTURER IN RETRIEVAL PROCESSES**

J. L. Horner, BA(Tas), FLA ALAA

**LECTURER IN BIBLIOGRAPHICAL RESOURCES**

E. L. Wainwright, MA(Cantab), ALA ALAA AIInfSci

**LECTURER IN MANAGEMENT**

W. P. Chen, PhD MA MSLS(Illinois) ALAA

**LECTURER IN LIBRARY OPERATIONS**

(appointment to be made)

**LECTURER IN SCHOOL AND CHILDREN'S LIBRARIANSHIP**

(appointment to be made)

# DEPARTMENT OF LIBRARY STUDIES

The Department of Library Studies was established in 1970 as part of the Division of Commerce and Social Sciences. It has grown rapidly. By 1973 it is anticipated that the student enrolment in the undergraduate and postgraduate courses will number well over 250 with a departmental staff of seven or eight. Projections suggest that we shall be bringing thirty-five professionally qualified librarians into the market in 1973 and forty to fifty in 1974.

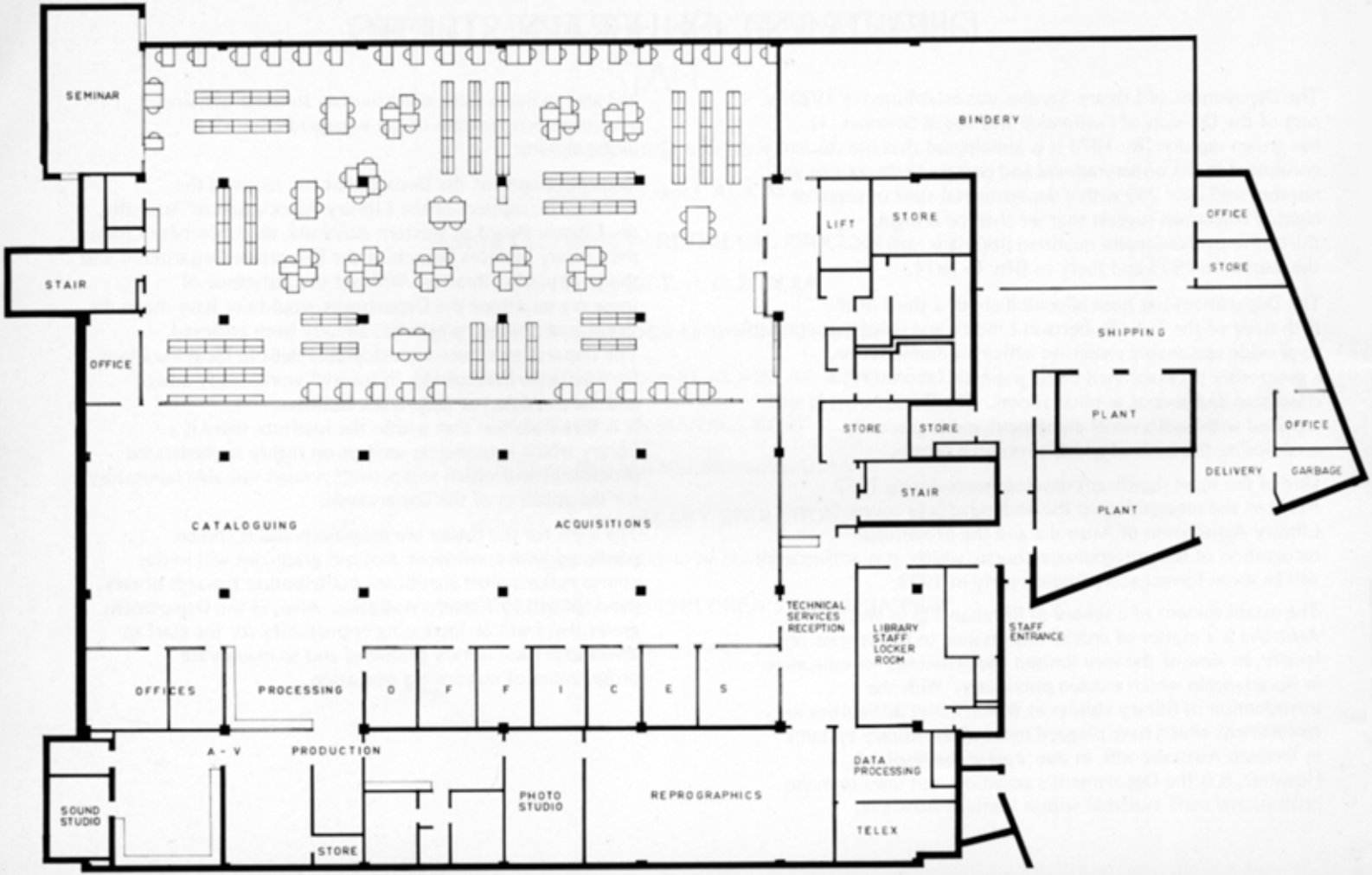
The Department has been allocated about a third of the fifth floor of the T. L. Robertson Library and it has been possible to provide reasonably extensive office accommodation, a generously proportioned bibliographical laboratory, a classroom and several seminar rooms. The Department is well supplied with audio-visual equipment and is gradually establishing the basis of a viable resource centre.

One of the most significant developments during 1972 has been the recognition of the undergraduate course by the Library Association of Australia and the provisional recognition of the postgraduate course, which, it is anticipated, will be given formal accreditation early in 1973.

The establishment of a school of librarianship in Western Australia is a matter of crucial importance to the profession locally, in view of the very limited opportunities for education in librarianship which existed previously. With the introduction of library studies at W.A.I.T. the difficulties in recruitment which have plagued most of the library systems in Western Australia will, in due course, be resolved. However, it is the Department's ambition not only to make professional staff available within Western Australia, but also to make some contribution to the professional education programmes of the emergent countries in the vicinity.

In its development the Department has received the enthusiastic support of the Library Association of Australia, the Library Board of Western Australia, the University Library, the Library Services Branch of the Education Department and the local public libraries. Without the assistance of these organisations the Department would not have made the significant progress which has already been achieved. The Department owes a considerable debt to local librarians for assistance in lecturing, in tutorial work, ready advice and the provision of field work facilities. It is fortunate too that within the Institute there is a library which is basing its services on highly sophisticated procedures and which will provide a most valuable laboratory for the students of the Department.

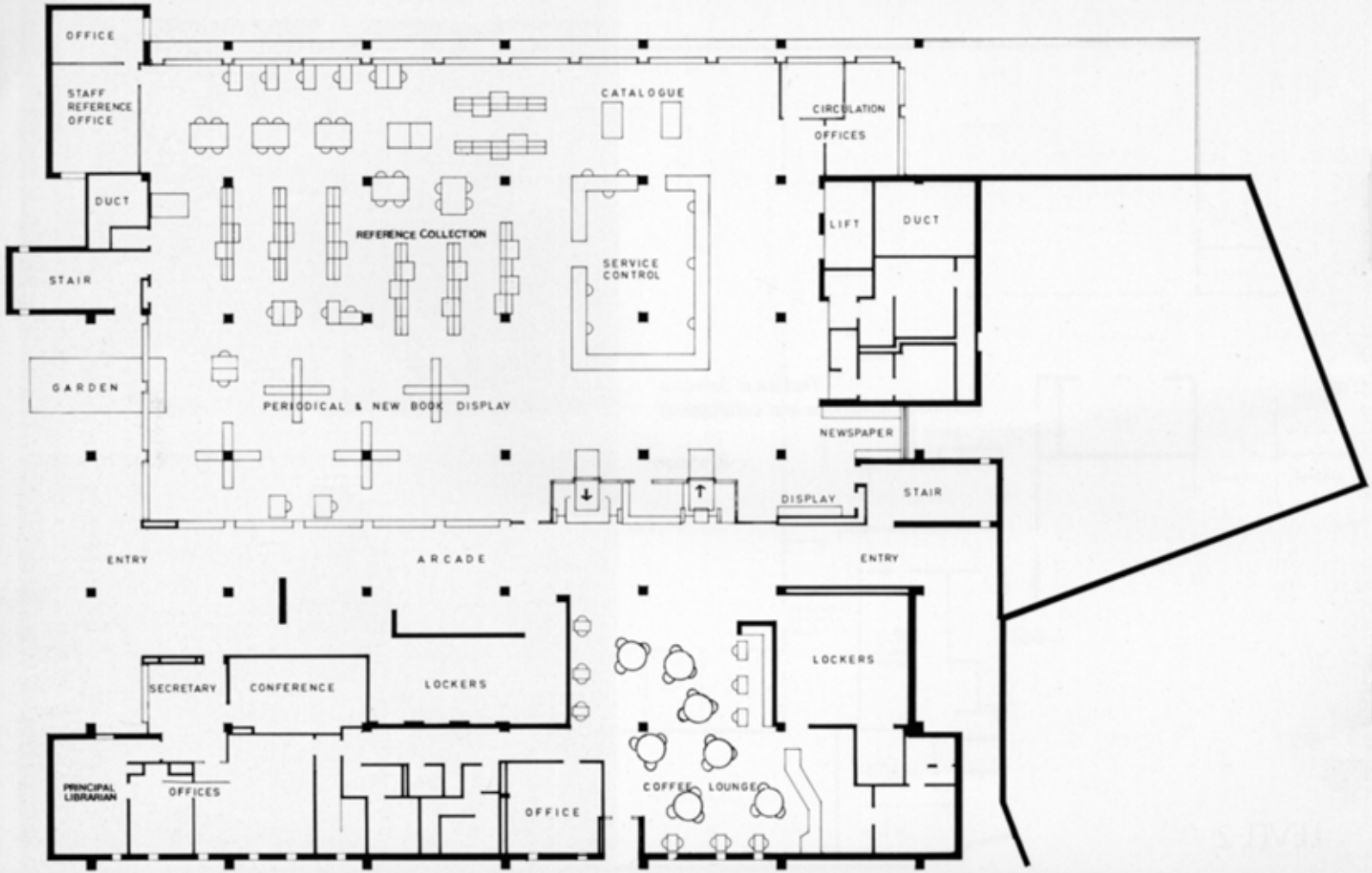
The signs for the future are propitious and it can be predicted with confidence that our graduates will in due course make a most significant contribution towards library development in Western Australia. Also, as the Department grows there will be increasing opportunity for the staff to investigate local library problems and to inaugurate programmes of continuing education.


SEMINAR
STAIR
OFFICE
BINDERY
LIFT
STORE
OFFICE
STORE
SHIPPING
PLANT
STORE
STORE
OFFICE
DELIVERY
GARBAGE
STAIR
PLANT
CATALOGUING
ACQUISITIONS
TECHNICAL SERVICES RECEPTION
LIBRARY STAFF LOCKER ROOM
STAFF ENTRANCE
OFFICES
PROCESSING
O F F I C E S
A - V
PRODUCTION
DATA PROCESSING
SOUND STUDIO
PHOTO STUDIO
REPROGRAPHICS
TELEX
STORE

*Technical Services*
*– acquisitions and cataloguing*

*Bindery*

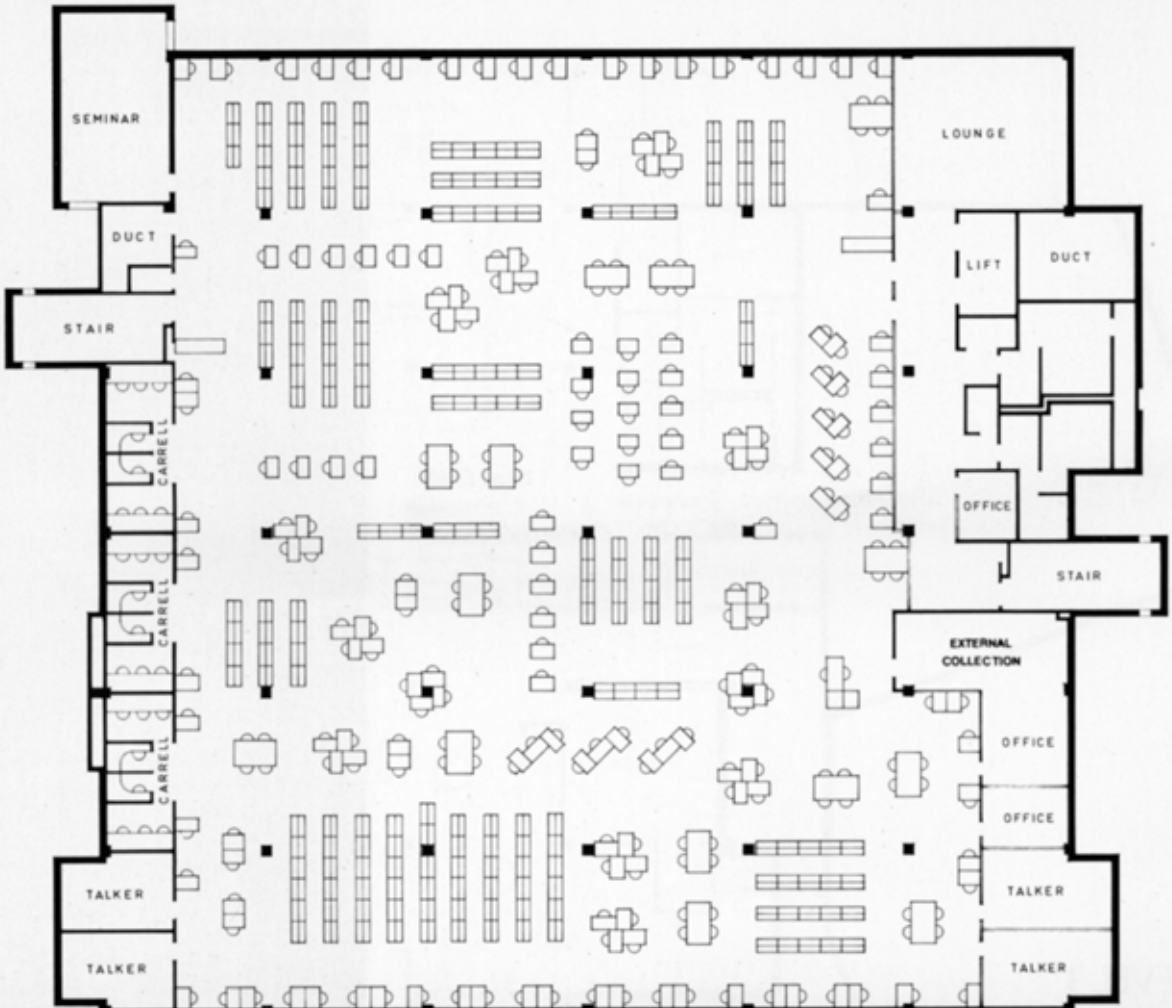
LEVEL 2


OFFICE
STAFF REFERENCE OFFICE
DUCT
STAIR
GARDEN
CATALOGUE
CIRCULATION OFFICES
REFERENCE COLLECTION
SERVICE CONTROL
LIFT
DUCT
PERIODICAL & NEW BOOK DISPLAY
NEWSPAPER
DISPLAY
STAIR
ENTRY
ARCADE
ENTRY
SECRETARY
CONFERENCE
LOCKERS
LOCKERS
PRINCIPAL LIBRARIAN
OFFICES
OFFICE
COFFEE LOUNGE


*Issue Desk*

*Conference Room*

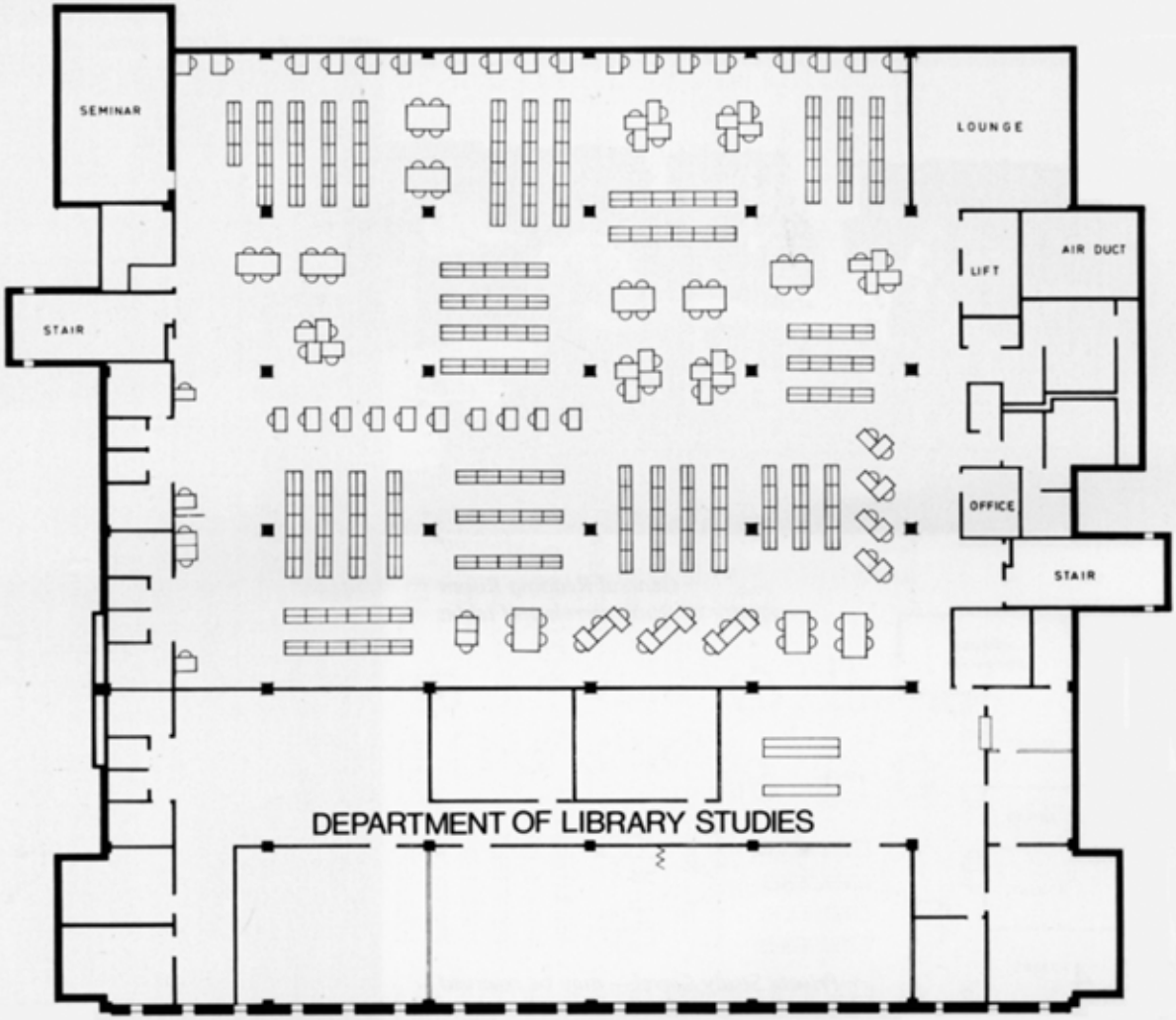
LEVEL 3


SEMINAR
DUCT
STAIR
CARRELL
CARRELL
CARRELL
TALKER
TALKER
LOUNGE
LIFT
DUCT
OFFICE
STAIR
EXTERNAL COLLECTION
OFFICE
OFFICE
TALKER
TALKER

*General Reading Room*
*– variety of study carrels and tables*

LEVEL 4

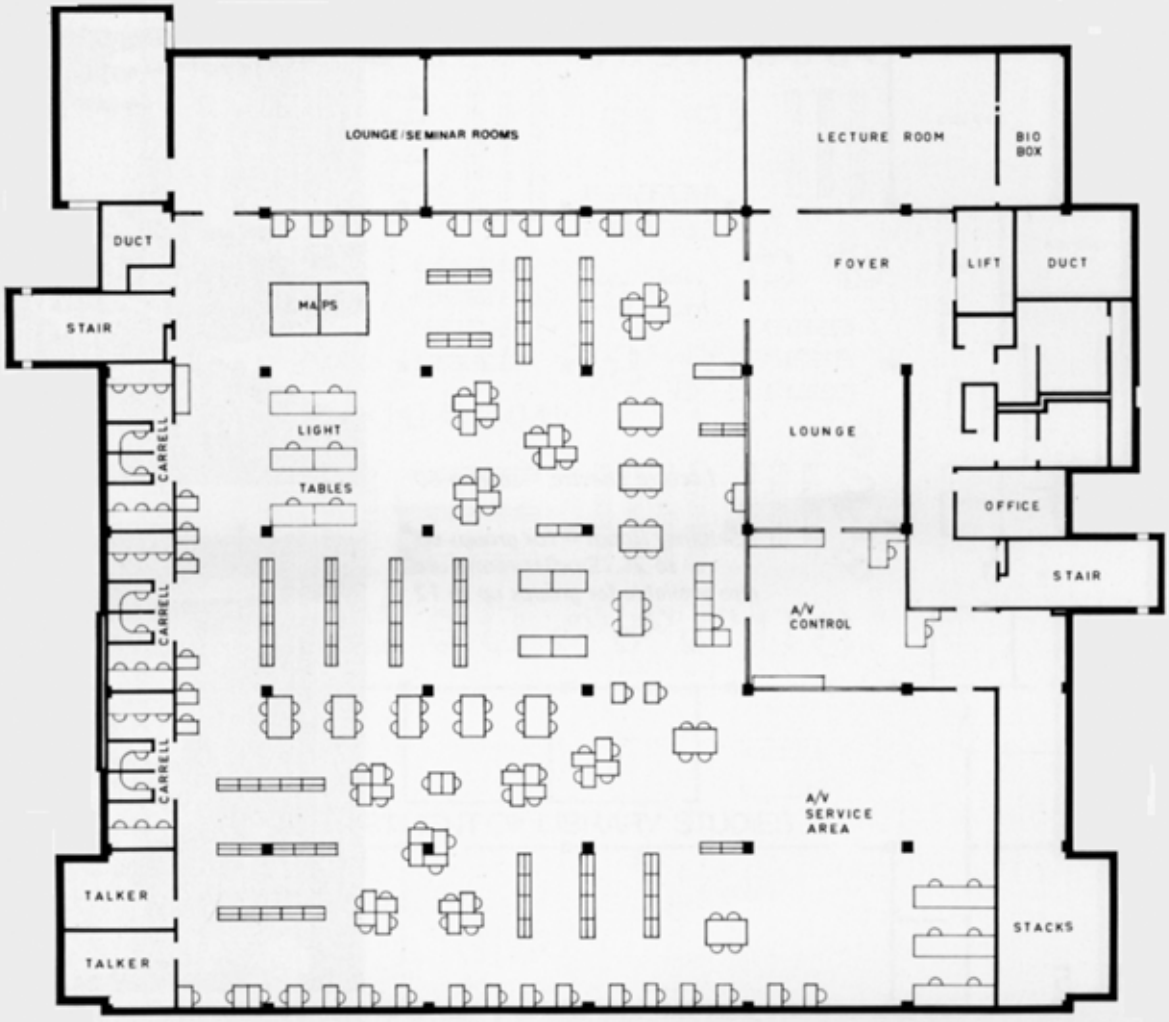
*Private Study Carrel – may be reserved*


SEMINAR
LOUNGE
LIFT
AIR DUCT
STAIR
OFFICE
STAIR
DEPARTMENT OF LIBRARY STUDIES

*Lecture Theatre – seating 60*

*Seminar Room – for groups up to 25. Smaller rooms are also available for groups up to 12*

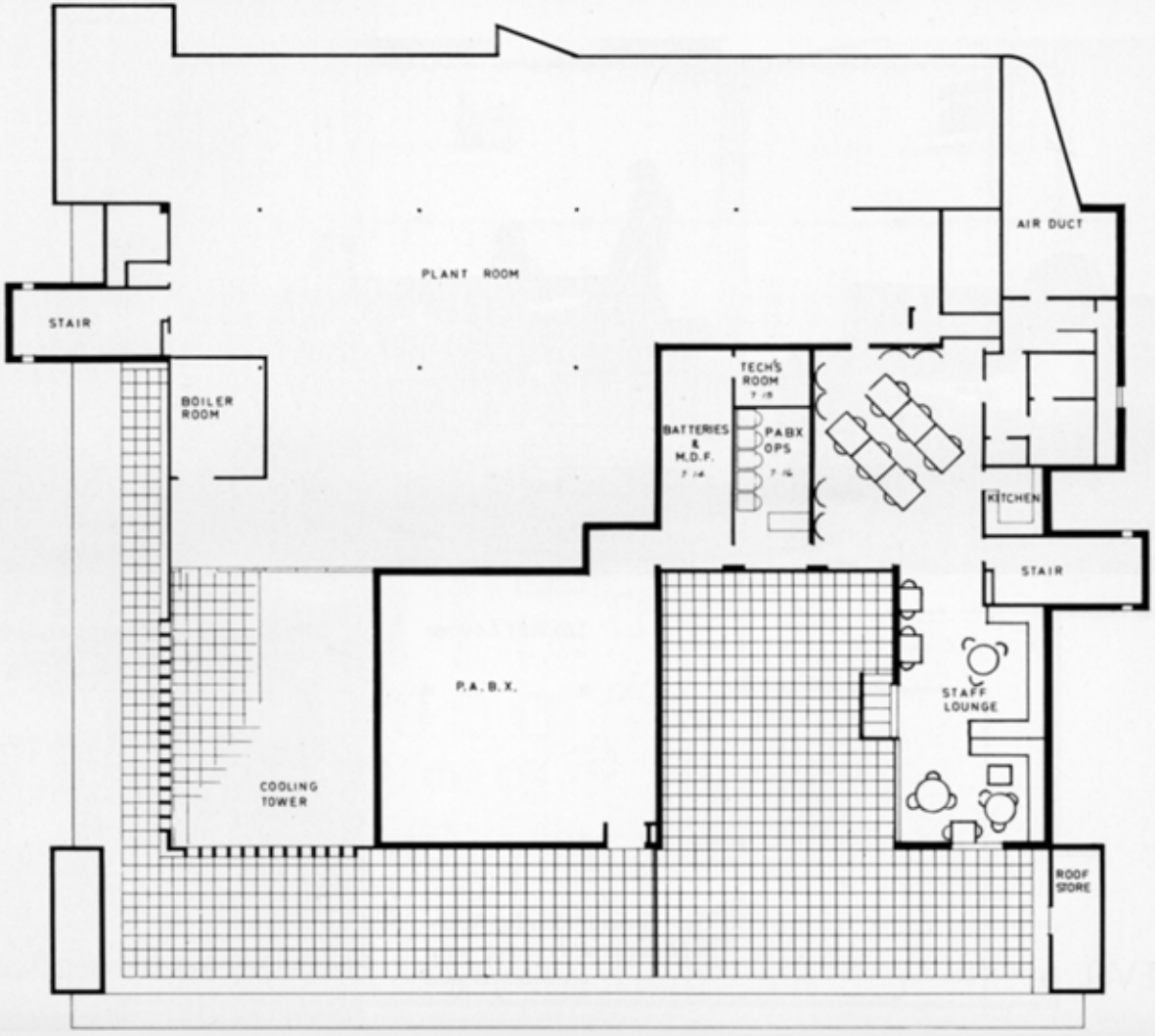
LEVEL 5


LOUNGE/SEMINAR ROOMS
LECTURE ROOM
BIO BOX
DUCT
FOYER
LIFT
DUCT
STAIR
MAPS
LIGHT TABLES
LOUNGE
OFFICE
CARRELL
CARRELL
CARRELL
STAIR
A/V CONTROL
A/V SERVICE AREA
TALKER
TALKER
STACKS

*Student Lounge*

*General Reading Room — bookstacks and reading areas are intermingled*

LEVEL 6


PLANT ROOM
AIR DUCT
STAIR
BOILER ROOM
TECH'S ROOM
BATTERIES & M.D.F.
PABX OPS
KITCHEN
STAIR
P.A.B.X.
STAFF LOUNGE
COOLING TOWER
ROOF STORE

*Library Staff Lounge*

*Chiller Plant – two 150 ton units*

LEVEL 7 (ROOF)

# ELECTRICAL EQUIPMENT AND SERVICES

## LIGHTING

General illumination of reading and bookstack areas – 60 lumens per square foot.

Light fittings (approximately 1,000 in number) are generally 4' x 2' recessed deepdrawn dishpan type arranged in a "chequer board" pattern. The diffusers are 2 mm Superloid (PVC fire-retardant) as they occupy 20% of ceiling area.

Typical values of vertical illumination (e.g. of the spines of books on shelves) range from approximately 5 lumens per square foot on bottom shelves to 20 lumens per square foot on the top shelf. The minimum figure provides a good level of illumination. The chequer board pattern of lighting enables shelving to be located *IN ANY POSITION ON A 4' 6" GRID ALIGNED EITHER NORTH/SOUTH OR EAST/WEST* if the light fittings (which can be turned through 90 degrees) are re-arranged. The provision of this high degree of flexibility was an essential feature of the ceiling design on all general purpose floors.

Fittings were designed with a surface brightness of ½ candela per square inch to avoid direct glare.

Level 3 (main entry floor) has 16 feet square lighting fittings consisting of 2 ft. square pyramid diffusers. Conditioned air is induced through the fittings for even distribution over the floor area and to control the temperature of the light fittings.

Lighting fittings are generally group switched via contactors.

## EMERGENCY LIGHTING AND POWER

In the event of main power failure, emergency lighting is provided on all floors and stairwells and is supplied from a stand-by generator set located on level 2 in the single storey ancillary accommodation.

The stand-by generator is 3 phase 440 volt rated at 20 KVA (with provision for future extension). Emergency supply for limited lighting and power is established within twenty seconds of a main supply failure.

## DUCTING FOR PLANNING FLEXIBILITY

An extensive grid of 3 channel under-floor ducting is provided for both present and future power, telephones, closed circuit television, audio-visual systems, etc. Future access to ducts can be gained anywhere along the ducting runs for maximum planning flexibility.

## CLOCKS AND STREET LIGHTING

Automatic control of all clocks and street lighting for the campus is provided from within the library building (level 2).

## TURNSTILE CONTROL

Turnstiles on level 3 control entry and exit from the library. These are provided with electric counters and are remotely operated. The mechanism can be activated to permit travel in both directions if required for emergency evacuation of the building.

# MECHANICAL SERVICES

## TELEPHONE EXCHANGE

The PABX exchange capable of expansion up to 2000 extensions is located on level 7 (library roof).

## FIRE DETECTION

An effective system is provided by electro-pneumatic fire detectors throughout the building and combustion detectors in the return-air ducting of the air-conditioning equipment. In the event of a fire alarm, the stairwells are automatically pressurised with outside air by a fan at the bottom of each stairwell. Return-air in the air-conditioning system is diverted to full exhaust and the supply-air to full fresh air throughout the building.

## LIFTS

Two passenger lifts, each of 2,500 lbs. capacity with a speed of 300 feet per minute are driven by geared machines with direct-coupled variable voltage motors.

## POWER SUPPLY

The power supply is from an 11 KV ring main system via 11KV/440 volt, 1,000 KVA transformer with provision for a future transformer in the next building stage.

## LIGHTNING PROTECTION

Full lightning protection is incorporated.

The occupied levels of the library are air-conditioned by plant mounted on level 7 of the building.

Cooling water for the air conditioners is provided by two 150-ton water chilling sets with the cooling tower mounted in an enclosure on the roof (level 7).

Heating and domestic hot water is provided by an oil fired hot water boiler.

A single zone air conditioner distributes air through high velocity ductwork to the internal areas of the building via terminal units and low velocity ductwork.

The perimeter areas of each level are served by a dual duct system through air mixing boxes and low velocity ductwork. Generally air is distributed to the rooms by blowing through the ceiling pans which have regular openings. Air distribution on level 3 is through the light fittings. Air is returned to the plant via the ceiling openings and masonry ducts.

There are, additonally, several systems of mechanical ventilation serving the toilets, dark rooms, cafeteria kitchen, etc.

# HOLDINGS & ACQUISITIONS– 1st & 2nd TRIENNIA. PROJECTIONS FOR 3rd TRIENNIUM.

| YEAR | BENTLEY (incl. Dept. of Therapy) | | | | W.A. SCHOOL OF MINES | | | | MURESK AGRICULTURAL COLLEGE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BOOKS | | SUBSCRIPTIONS TO SERIALS | | BOOKS | | SUBSCRIPTIONS TO SERIALS | | BOOKS | | SUBSCRIPTIONS TO SERIALS | |
| | increase for year | cumulative total held | increase for year | cumulative total held | increase for year | cumulative total held | increase for year | cumulative total held | increase for year | cumulative total held | increase for year | cumulative total held |
| 1967 | | 21,000 | | | | | | | | | | |
| 1968 | 4,000 | 25,000 | | 750 | | | | | | | | |
| 1969 | 6,000 | 31,000 | 500 | 1,250 | | | | | | | | |
| 1970 | 5,000 | 36,000 | 200 | 1,450 | | 12,000 | | 150 | | 2,000 | | 87 |
| 1971 | 11,000 | 47,000 | 100 | 1,550 | 900 | 12,900 | 27 | 177 | 100 | 2,100 | 14 | 101 |
| 1972 | 13,000 | 60,000 | 300 | 1,850 | 1,400 | 14,300 | 23 | 200 | 180 | 2,280 | 10 | 111 |
| | PROJECTIONS FOR 3RD TRIENNIUM (excluding unmatched Commonwealth grant) | | | | | | | | | | | |
| 1973 | 18,000 | 78,000 | 300 | 2,150 | 1,800 | 16,100 | 30 | 230 | 200 | 2,480 | 20 | 131 |
| 1974 | 18,000 | 96,000 | 300 | 2,450 | 1,800 | 17,900 | 30 | 260 | 200 | 2,680 | 20 | 151 |
| 1975 | 18,000 | 114,000 | 300 | 2,750 | 1,800 | 19,700 | 30 | 290 | 200 | 2,880 | 20 | 171 |

BUILDINGS AND EQUIPMENT –
INVESTMENTS AS AT JUNE 30, 1972

| | |
|---|---|
| Buildings and other works | $2,043,725 |
| Furniture and equipment | $ 144,955 |
| Total | $2,188,680 |

# ANNUAL BUDGETS FOR ACQUISITION OF LIBRARY MATERIALS

| YEAR | BUDGET $ | SPECIAL COMMONWEALTH GRANT (UNMATCHED) $ |
|---|---|---|
| 1967 | 38,000 | |
| 1968 | 37,000 | 32,000 |
| 1969 | 48,000 | |
| 1970 | 108,000 | |
| 1971 | 136,500 | 45,000 |
| 1972 | 178,500 | |
| | PROJECTIONS FOR 3RD TRIENNIUM | |
| 1973 | 300,000 | |
| 1974 | 330,000 | Information not yet available. |
| 1975 | 360,000 | |

RECURRENT BUDGET 1973
(excluding unmatched Commonwealth grant)

It is anticipated that in 1973 the resource allocation to the Library will approximate $850,000 representing an allocation in excess of 7% of the Institute's total recurrent funds for that year.

| | |
|---|---|
| ARCHITECT: | Public Works Department of W.A. (Architectural Division) |
| QUANTITY SURVEYOR: | Davson and Ward |
| BUILDER: | Sabemo (W.A.) Pty Ltd |
| MECHANICAL ENGINEERING CONSULTANTS: | W.E. Bassett and Partners |
| MECHANICAL ENGINEERING SERVICES: | S.W. Hart & Co Pty Ltd |
| ELECTRICAL AND STRUCTURAL DESIGN: | Public Works Department of W.A. (Architectural Division) |
| ELECTRICAL CONTRACTORS: | A.C. Electrical Pty Ltd |
| CEILING CONSTRUCTION: | Ceilings Design Pty Ltd |
| PRINCIPAL SUPPLIERS OF FURNITURE: | Charles Catt and Son Pty Ltd<br>Donald Cornish Manufacturing Pty Ltd<br>Kingfisher Industries Pty Ltd |

RELEVANT DATES

Building contract let – February 1970
Occupation commenced – October 1971
Official opening – September 1972