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Chapter 9

EDUCATION

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Chapter 9

EDUCATION

In an apparent change from the interest in less formal and more child-centred curricula using open-planned classrooms of the preceding decade, conferences during the late eighties discussed moves towards common curricula in cumulative subjects like mathematics, and a standardised Australian handwriting style.

The Federal Government encouraged this trend and cited the problems experienced by the frequently-transferred families of service personnel and of an increasingly mobile work force.

A parallel and more sensitive concern in all States was how to relocate or re-structure existing schools during a time when overall enrolments have been declining and as changes have occurred in the age profiles of the population in particular tributary areas.

In 1988 the Warrane High School was closed. It had commenced in 1964 as the Flagstaff Gully High School situated near one of Hobart's older Housing Department estates. The proposed change in the use of the site for Technical and Further Education had been locally contested. This will be followed by the closure and consolidation of other State primary and secondary schools in the nineties.

The eighties' government policy of abandoning the previously compulsory zoning of both the State's primary and secondary schools, thereby giving greater freedom of choice to parents, has worked smoothly without causing administrative dislocations through large transfers.

In the tertiary sector student numbers have been increasing; but the amalgamation in 1990 of the three tertiary education institutions, is a



Photo: Tasmap Photographics

further example at a different level, of an attempt to reap benefits from economies of scale in administration while also standardising entry and qualification standards.

In 1869 Tasmania became the first colony in the British Empire to make education compulsory. In 1898 school attendance was made obligatory between the ages of seven and thirteen and in 1912 between six and fourteen years. In 1946 Tasmania became the only Australian State to make attendance compulsory up to the age of sixteen, the starting age remaining at six. Late in 1984 amendments to the

Education Act enabled the Education Department to provide education programs for severely handicapped children up to the age of 18 in places other than recognised schools.

Since 1945 the task of Tasmanian educational authorities, as in other Australian States, has been to provide more schools, more teachers, and better facilities within pressures to restrain expenditure and cater for a wider range of curriculum offerings. The principal factors exerting these pressures were a rapidly growing school population, changed attitudes to education resulting in increased demands for secondary and tertiary education, and general community acceptance of the need for better education.

9.1 EDUCATION TODAY

In recent years the pressures have changed with a growth in the unemployment of school leavers and of the unskilled. In addition, the Federal Government has accepted a greater financial responsibility and provides funds through the Commonwealth Schools Commission and the Tertiary Education Commission.

In 1989 the former Education Department became responsible for Tasmania's library services and similar activities. Its title was changed to the Department of Education and the Arts.

Government institutions provide education in Tasmania at all levels; but non-government bodies, even with government assistance, find secondary schools expensive to commence, and so far have not ventured into any tertiary area apart from a single missionary training college at St Leonards.

In rural areas primary education is generally provided by small government primary schools and district high schools.

In primary schools, classes are usually co-educational and unstreamed with teachers devising programs for children of various ability levels. Pupils progress to the next grade on the basis of their maturity and age rather than on their intellectual attainments.

The primary school curriculum is designed to cater for the mental, physical, social and emotional development of children during their critical formative years. The curriculum emphasises the acquisition of basic language, writing and number skills within the wider context of developing a capacity to communicate, think and value. The school's task is to provide programs that enable each pupil to develop skills appropriate to his or her stage of development and that will foster further learning. These programs also provide for creativity and arousing the imagination as well as giving the opportunity to develop initiative and logical thought processes.



Tasmania prides itself on programs for the arts in primary schools.

On a visit to a wood craftsman's studio, this girl found plenty to capture her attention and interest.

In government schools strict neutrality is observed on religious dogmas and ethics. Legislation gives limited access by outside religious groups to their adherents. Full advantage is seldom taken of this access. On the initiative of the Tasmanian Council of Churches, progress is being made by a committee comprising the main Christian communions, towards a common primary school religious education curriculum.

For 13 years, by invitation of some high schools, a small Christian Option Program, staffed by volunteers has been run by the Scripture Union. The program assumes no background and offers one alternative of many. It has spread to other States. Other groups can similarly be invited to propose alternative lifestyles.

Department of Education and the Arts policy is directed towards integrating children with special needs into normal schools. Special schools provide for children with different forms of handicap and who are unable to benefit from instruction in normal schools. Instruction varies according to the type of handicap. In cases of physical handicap the main need is to maintain normal or near normal individual programs. Schools and classes for intellectually handicapped children follow a program that is tailored to meet individual needs.

Current Department of Education and the Arts policy is directed towards educating children in their local communities. However, parents are free to choose which government school their child attends. There has been positive discrimination towards country children and steps have been taken to make the secondary education available in district high schools comparable with that provided in urban areas. These steps include staffing district high schools more generously than high schools and establishing annexes (selected 11th and 12th grade subject classes) of senior secondary colleges in four country towns. The district high schools with their lower than optimum, and declining numbers, pose a problem to a cost-conscious governcommitted to serving Tasmania's dispersed population. Each type of school draws pupils from outlying localities. Transport is free but the foreshadowed consolidation of high schools in the nineties will involve some longer travelling times for students. In 1989 the responsibility for school buses was passed from the Department of Education and the Arts to Transport Tasmania.

The secondary curriculum provides a general, comprehensive education within a framework of subjects endorsed by the Schools Board of Tasmania. Most Year 7 and 8 pupils follow a common course developed by the school and suited to their needs. In Years 9 and 10 pupils choose a program that satisfies School Certificate requirements as well as allowing them to follow personal interests. Subjects generally are assessed at three levels.

Candidates normally sit for Higher School Certificate subjects at the end of fifth and sixth years of secondary education. The certificate is awarded as a result of assessments completed in November each year which are conducted by the Schools Board of Tasmania. Requirements for matriculation up to the amalgamation of the State's tertiary institutions was determined by the University of Tasmania.

Senior secondary or 'community' colleges were pioneered in Tasmania and now exist in other States. They concentrate on specialist teaching at a few urban centres. The students also benefit from the transitional step between high school and tertiary education.

General admission policy of the colleges is one of 'open door' to most courses. In recent years there has been an increase in the proportion of students passing directly from high and district high schools as well as an increase in mature-age students studying subjects.

Colleges, especially those in the Hobart area, have expanded significantly into the area of late afternoon and evening programming of classes for the large number of mature part-time-students.

Tasmanian Certificate of Education (TCE)

As part of significant changes to the Tasmanian education system, the Higher School Certificate and the School Certificate will be replaced with the Tasmanian Certificate of Education and the method of student assessment will be altered. Controversy involving parents, employer groups and tertiary institutions, accompanies this transition.

The TCE, which will be a certificate covering years nine to 12. It will be trialled on grade nine students in 1990 and will be fully operational by 1992. The new four year certificate will replace the present pass-fail system based on internal percentages and external HSC exam marks. Instead, a system of awards will be introduced which will be marked on the fulfilment of set subject criteria. The awards will be: outstanding achievement (OA), high and satisfactory achievement (HA & SA), and course completed (CC). In addition, teachers will be required to write a comprehensive report on each student's competence in performing the subject criteria.

Students will also be required to keep a record of achievement for each year of their TCE. External exams will still exist in years 11 and 12 under the new certificate, but the award system will be used, not the previous: credit, higher pass, fail ratings. Greater emphasis will also be placed on internal results and on other criteria such as being able to work alone, and using initiative. This will be combined to form a comprehensive portfolio of reports to assist entry into the workforce.

The change in assessment procedures is designed to match and compare students to subject criteria rather than to each other.

A system of determining entry into tertiary institutions has not been finalised.

9.2 PRESCHOOL EDUCATION

Until 1969, government preschools were established on the initiative of groups of parents. The Education Department provided buildings but eventually recovered half its outlay from parents.

From 1969 all new facilities for preschool education were provided in kindergartens attached to primary schools. There are now kindergartens which are part of primary schools and others which are not attached to primary schools. Department of Education and the Arts policy aims to provide kindergartens for children of four years and over on 1 January of any given year.

Most preschools are conducted on a sessional basis (i.e. sessions of two to three hours for two to five days per week). Preschool programs generally favour the free play approach with emphasis on children's social and emotional development through creative activities. Parents often contribute by assisting at some session or by the purchase of play materials and educational resources.

At 1 July 1989 there were 150 government schools with attached kindergartens and 22 separate kindergartens with enrolments of 5798 and 761 respectively. Non-government kindergartens form a minor part of total non-government enrolment. No government assistance is received for students enrolled in them.

9.1 PRIMARY SCHOOLS, TASMANIA

	Go	vernment	Non-go	overnment
Particulars	1984	1989 p	1984	1989 p
Number of schools (a)	168	165	42	38
Number of teachers (b) -				
Males	542	506	84	101
Females	1 848	1 642	359	423
Total	2 390	2 148	443	524
Number of pupils (c) -				
Males	19 825	18 892	4 181	4 964
Females	18 489	17 875	4 432	4 940
Total	38 314	36 767	8 613	9 904

⁽a) Excludes primary schools with secondary classes. (b) Full-time equivalents.

(c) Includes primary grades in combined primary and secondary schools.

9.3 PRIMARY EDUCATION

Age of entry to preparatory classes is five years and for Year 1, five and a half to six years of age.

Government primary education caters for children from preparatory to Year 6. Government primary schools seldom enrol more than 600 pupils.

In 1989 there were 165 government primary schools. The majority (159) commenced with a preparatory grade and went to Year 6. There were a further 26 schools which were combined primary and secondary schools (district and district high schools). Of the 36 767 pupils enrolled in primary grades in these schools, 18 892 were males and 17 875 were females.

Non-government primary schools seldom enrol more than 400 pupils, and usually have six grades and a preparatory class.

In 1989 there were 38 non-government primary schools. Only 76 per cent commenced with a preparatory grade and went to Year 6. There were a further 23 schools which were combined primary and secondary schools. Of the 9904 pupils enrolled in the primary grades in these schools, 4964 were males and 4940 females.

The percentage of all school pupils who are enrolled in primary grades had been decreasing consistently in the 1980's. However, in 1987,

the percentage started to increase. In government schools there had been a fall from 59.9 per cent in 1982 to 55.5 per cent in 1986 while in non-government schools the drop had been from 54.8 per cent to 51.8 per cent. However, the percentages in 1989 for government and non-government schools were 56.6 and 53.8 respectively.

The major cause of the falling proportion of students enrolled in primary grades was the lower birth rates of the 1970s. Higher birth rates in the 1980s will reverse the trend in the next few years.

9.4 SECONDARY EDUCATION

Almost all children attend secondary classes starting at an age from 11 and a half to 13 years. The first four years of secondary education (Years 7 to 10 inclusive) are catered for in high schools or district high schools which are non-selective, comprehensive and provide a broad general education.

All, except two high schools in Hobart, are co-educational. The School Certificate is generally gained at the end of Year 10. The final two years (Years 11 and 12) leading to the Higher School Certificate (which is being phased out), are completed in a secondary college or annexe of a secondary college.

These colleges were pioneered by Tasmania in the early 1960's when the two traditional academic high schools, Hobart and Launceston, phased out their junior classes.

The majority of students studying HSC subjects are in their fifth and sixth year of secondary education. However, an increasing number

are mature-age students; people who have not been enrolled in secondary education for at least 12 months. The increase has coincided with a large increase in parttime enrolment at secondary colleges; in 1984 there were 1824 parttime students while in 1989 there were 2353 part-time students of whom 2056 were mature-age.

In 1989 there were 34 government high schools and 7 secondary colleges in the State. The majority of high schools commenced at Year 7 and went to Year 10. All seven secondary colleges had only Year 11 and 12. In addition, there were the 26 combined primary and sec-

Claremont Education Park

The Claremont Education Park, a new secondary college to serve the northern suburbs of Hobart admitted its first students in 1990. The park combines Year 11 and 12 courses with TAFE technical study centres to be used for the benefit of industry and the wider community.

Enrolment capacity at the park is 650 fulltime students increasing to more than 1000 with part-time students from industry.

The park differs from other secondary colleges as students are catered for by four learning centres rather than traditional subject departments which tends to lead to a narrowing of options when students choose, for example, all math and science subjects.

ondary schools. Of the 27 432 pupils enrolled in secondary grades in these 67 schools 13 975 were males and 13 457 females. There were 2420 teachers in 1989.

In 1989 there were only 5 non-government schools which were wholly secondary. There were a further 23 with combined primary and

9.2 SECONDARY SCHOOLS, TASMANIA

	Gove	ernment	Non-gove	rnment (a)
Particulars	1984	1989 р	1984	1989 p
District and district high schools	26	26		
High schools	33	34	29	28
Secondary colleges	7	7		
Total schools	66	67	29	28
Number of teachers (b) -				
Males	1 407	1 332	209	332
Females	1 013	1 091	258	325
Total	2 420	2 423	467	657
Pupils-				
Year 7-9	19 262	16 036	4 953	4 942
Year 10	5 784	5 549	1 485	1 677
Year 11 and 12	3 590	5 847	1 281	1 784
Total	28 636	27 432	7719	8 403
Males	14 695	13 975	3 650	3 997
Females	13 941	13 457	4 099	4 406

(a) Includes the secondary classes of combined primary and secondary schools. (b) Full-time equivalents.

secondary classes. Of the 18 403 pupils enrolled in secondary grades in these 128 schools, 3997 were males and 4406 females. They were staffed by 657 teachers in 1989.

The trend in secondary grade enrolment is the reverse of primary grade enrolment. As birth rates fell in the 1970s, the proportion of pupils in secondary grades rose. By 1989 the 27 432 secondary grade pupils accounted for 42.2 per cent of total enrolment. The corresponding figure for non-government schools was 45.7 per cent.

Total non-government secondary enrolments have increased 8.9 per cent from 7719 pupils in 1984 to 8403 in 1989. This is at a slower rate than for non-government primary grade enrolments (15 per cent).

9.4.1 Retention Rates in Secondary Schools

Apparent grade retention rates are measures of the tendencies of students to remain in secondary education from Year 7 to Year 10, Year 11 and Year 12. For example, to calculate the apparent retention rate of students in Year 12 in 1989, the number of those students in 1989 is expressed as a percentage of the number of students in Year 7 in 1984 (1984 being the year in which the 1989 Year 12 students would have normally enrolled in Year 7). The retention rate thus derived is called an apparent retention rate because the method and calculation does not explicitly take account of net changes to the

9.3 APPARENT RETENTION RATES SECONDARY SCHOOL STUDENTS, 1989

Years	Male	Female
7-10	95.7	97.3
7-11	50.1	63.4
7-12	36.0	43.6

school population due to migration, nor of those students who spend more than one year in the same grade.

In addition to the above general qualification, some Tasmanian non-government schools have no senior secondary top. Others cannot match the range of subjects offered at the government senior secondary colleges. Transfers from one to the other system at the end of Year 10 are a peculiarly Tasmanian cause of distorting upwards, government school apparent retention rates.

While non-government schools generally have much higher retention rates than government schools, there has been a closing in the gap between government and non-government schools for the Year 7 to 10 retention rate. This was brought about by the difficult job market for early leavers in the 1980s which particularly affected pupils of government schools. From 1 January 1988 unemployment benefits were removed from 16-18 year olds and replaced by a partially means-tested and smaller Job Search

9.4 APPARENT GRADE RETENTION RATES, GOVERNMENT AND NON-GOVERNMENT SECONDARY SCHOOLS, TASMANIA

	Year	7-12	Year	Year 7-11 Year		7-10	
Year	Government	Non- Government	Government	Non- Government	Government	Non- Government	
1979	24.8	29.9	28.9	47.2	85.0	96.6	
1980	25.5	33.6	28.8	46.2	87.7	96.2	
1981	24.3	33.8	30.4	49.4	86.7	95.9	
1982 (a)	18.9	36.7	27.9	51.0	86.8	98.9	
1983	22.3	35.6	33.1	55.7	88.3	97.9	
1984	24.8	40.7	34.6	53.9	89.5	99.5	
1985	25.5	42.0	36.6	58.1	91.2	97.9	
1986	27.1	44.5	38.1	57.2	91.8	98.3	
1987	30.2	44.4	42.3	56.6	93.4	99.1	
1988	36.1	43.2	52.2	56.1	94.4	98.3	
1989	38.1	45.9	55.6	61.1	96.0	98.2	

⁽a) Data used to calculate retention rates to Years 11 and 12 in government schools exclude part-time students. The exclusion of these part-time students causes an apparent decline in retention rates to Years 11 and 12 in government schools between 1981 and 1982.

Allowance. Complementary changes in Supporting Parents Benefits, Supplementary Family Allowances and in the Austudy regulations, reinforced with financial incentives, the earlier inclination of students to stay at school longer.

In government schools the Year 7 to 12 retention rate has increased from 24.8 per cent in 1979 to 38.1 per cent in 1989. The Year 7 to 11 rate has grown from 28.9 per cent in 1979 to 55.6 per cent in 1989. The Year 7 to 10 rate, however reflects the poor employment situation with a rate of 85.0 per cent in 1979 increasing fairly steadily to 96.0 per cent in 1989.

In non-government schools the Year 7 to 12 rate has increased from 29.9 per cent in 1979 to 45.9 per cent in 1989. The Year 7 to 11 rate has grown from 47.2 per cent in 1979 to 61.1 per cent in 1989. The Year 7 to 10 rate, while showing fluctuations over the period, has moved from 96.6 per cent in 1979 to 98.2 per cent in 1989.

9.5 NON-GOVERNMENT OR INDEPENDENT SCHOOLS

Since World War 2, and particularly after the introduction of government assistance to independent schools, changes occurred in the composition of the non-government sector.

The older schools which reflected the pre-World War 2 denominational break-up of the population have continued, with some growth and co-ordination occurring in the Catholic system.

Starting in the 1960's innovative new secular schools grew out of alternative educational philosophies. The programed learning systems favoured by some Gospel Chapels and religious



Calvin Christian School Primary Campus

movements like the charismatic renewal and Ananda Marga, were catalysts for the start of other small primary schools. European migration brought in ideas. Asian migration, to a lesser extent than in other States, introduced new religions.

Parent Controlled Schools

Some new schools have not lasted long; but one Australian success story can be traced from the initiative of 50 Protestant migrants, who in 1954, before the days of State-aid, met at the Youth Hall, Kingston, South of Hobart, and resolved to establish the 'Christian Parent-Controlled School Association'.

In their historian's own words, 'Calvin Christian School was first an idea in the minds of a group of Dutch immigrants who wanted their children to attend a school that gave them a God-centred, Christian education in preference to the man-centred, humanistic education they were receiving in government schools. They brought this idea with them from the The Netherlands where Christian schools were numerous and an accepted part of that country's (tax-financed) education system.'

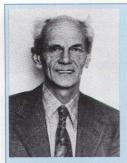
In the beginning the migrants had hoped to get support from the resident local Protestants; but they at that time had traditional loyalties to the free State school system.

Land in Kingston was purchased in 1958. The new school opened in 1962 with 77 students. In 1976 the primary school developed a junior secondary school.

In 1979 a daughter school 'Emmanuel' was successfully 'planted' at Rokeby on the other side of the river Derwent, where the ethnic origins of the parents do not reflect the 'chain migration' which characterised the suburb around the first school. In 1988 'Emmanuel' commenced secondary classes. In 1989 'Channel Christian School' started at Margate.

In 1990 senior secondary classes commenced at the original site in Kingston.

While this growth was occurring in the South, in Launceston, Ulverstone ('Leighland'), and at Smithton ('Circular Head'), similar schools were established. Around Australia over 50 such Parent-Controlled schools, formed subsequent to the Kingston initiative, comprise a loose federation whose supporters share a similar philoso-



A recent Tasmanian Educational Pioneer. Oepke Jelte Hofman was born in Indonesia. He lived in Holland from 1919 to 1938 and then returned to Indonesia to teach in mission and other Christian schools in Java and Sumatra until 1942.

The Japanese invasion resulted in his imprisonment at various camps in Thailand.

In 1946 he was married in Holland, but returned to Indonesia as a headmaster where he served from 1947 to 1952. After migrating to Tasmania, for ten years he worked in Education Department primary schools in various parts of the island. Then he was appointed principal of the Calvin School, Kingston, where he nurtured its growth for the critical first 18 years. Finally he spent a year in Geelong, Victoria, helping to establish a similar school there. He enjoys a well-earned retirement at Margate.

9.6 TERTIARY EDUCATION

From 1974 to 1986 tertiary education was free for award courses in universities, colleges of advanced education and technical and further education institutions (excluding adult education). During 1988 a \$250 a year fee applied to all enrolments. After wide student protests the Federal Government announced in 1989 that this measure would be replaced by an income tax surcharge on qualified students.

Until 1990 the three higher education institutions and other technical and further education (TAFE) all developed independently. In response to Federal Government funding incentives and penalties, which favour large administrative units, Hobart's University of Tasmania (4650 equivalent full-time students), Launceston's Tasmanian State Institute of Technology (TSIT) with 2600 and the Australian Maritime College (700) in September 1989 formally commenced amalgamating. They set up a joint committee which later announced the new title, the Tasmanian State University for the enlarged university with a northern and a southern campus, and appointed a Vice Chancellor.

At the same time an Education Tasmania consortium was set up to market overseas all Tasmanian senior secondary and tertiary courses for full fee-paying students, public and private. South East Asia was the first area targeted.

Northern Campus-1. Known until 1991 as the Tasmanian State Institute of Technology (TSIT)

This campus is a multi-disciplinary higher education college centred in the Launceston suburb of Newnham. It includes two national 'Key Centres'. The first classes for studying aquaculture, the farming of fish, oysters, prawns and other fresh-water and marine organisms, started in 1983 and Aquaculture was designated by the Federal Government a Key Centre in 1988. It was complemented in 1989 with the first intakes to the second, the Air Traffic Service Centre, set up to train Australia's air traffic controllers and flight service officers.

In 1981 the Tasmanian College of Advanced Education transferred its base from Mt Nelson in Hobart to the then Newnham campus of the Launceston Teachers College. All Tasmania's specialist teacher training (Physical Education;

9.5 TASMANIAN STATE INSTITUTE OF TECHNOLOGY ENROLMENTS, 1988

Faculty	Internal full-time	Part-time	Total
Applied and Health Sciences	500	251	751
Business and Computing	234	513	747
Design	309	38	347
Education and Humanities	753	460	1 213
Miscellaneous	2	43	45
Total	1 798	1 305	3 103

Art; Design & Technology; Home Economics; English, Speech & Drama) is still conducted at the Northern Campus.

In 1985 the College was redesignated the TSIT to reflect its emphasis on the disciplines of Applied Science, Business and Information Sciences.

The growth of the Institute since 1981 has been rapid. In 1981 student enrolments were 1519 equivalent full-time students; by 1989 they had increased to 2121, an increase of about 40 per cent. The number of academic staff also increased from 140 to 177 in that period, while the number of general staff increased from 104 to 126.

Perhaps the most significant change has been the phasing out of 16 courses and the introduction of 11 new ones since 1981. Examples of the on-going process of program change during this period involved the establishment of a new School of Nursing, a new School of Applied Computing, and a new Continuing Education Unit.

The School of Nursing was formed in 1981. A pre-registration course, the Diploma of Health Sciences in Nursing, and a post-registration course, the Bachelor of Applied Science in Nursing, were introduced. From 1988 there were no further intakes of student nurses to northern teaching hospitals and the TSIT assumed responsibility for all pre-registration nurse education in the north of the State. By 1990 all registered nurse education in Tasmania will occur at the Institute. In 1988 the School of Applied Computing proposes to offer a new Graduate Diploma in Applied Computing (in addition to the existing Associate Diploma). while a Degree level course will be introduced in 1989.

In 1987 the Legal Practice Course, was completely rewritten and in 1988 the Tasmanian Board of Legal Education was invited to reassess it. It supported the changes and agreed to accredit the Legal Practice Course professionally.

In response to the demand for short courses and seminars, the Institute established the Continuing Education Unit in 1987. Through the External Studies Unit and the Study Centres in Burnie, Devonport and Hobart, Tasmanians in all parts of the State are able to pursue a higher education whilst studying at home, with the

back-up of regional study centres which provide tutorial assistance and a range of study facilities.

The Institute offers a range of applied research and consultancy services to the Tasmanian community. There are significant ongoing research programs in the areas of Applied Science, Architecture, Business Studies, Education and Nursing. In the field of Aquacultural research a project is presently underway, in close association with the Inland Fisheries Commission, to examine the commercial production of all-female Rainbow Trout. These fish will also be triploid and therefore sterile. Early maturation of trout can greatly enhance the fish farmer's potential production. If trials are successful, the production of sea-grown Rainbow Trout in Tasmanian waters will double. The first group of all-female triploid trout was put in the sea in 1988. Aquaculture scientists at the TSIT are also carrying out biological investigations on a new type of sea-farm cage. It is hoped that fish in this cage will grow faster than those in conventional cages.

Northern Campus-2. Known until 1991 as the The Australian Maritime College

The Australian Maritime College comprises a third national 'Key Centre' in Launceston's suburb of Newnham with its School of Fisheries and training vessels at Beauty Point 32 km to the north-west.

The College fisheries courses include the Certificate of Technology in Fisheries Operations, which is designed to cover the knowledge requirements for the master of a large fishing vessel. The fisheries degree course teaches the importance of conservation and management of fisheries resources and also covers the market-

9.6 AUSTRALIAN MARITIME COLLEGE ACADEMIC STAFF AND STUDENTS

	1985	1989
Academic staff-		
Full-time	47	58
Students-		
Full-time	667	988
Short-courses	591	1 500

ing side of the industry. Aspects such as fisheries biology, fish chemistry, seafood handling, processing and marketing and fisheries management are covered.

The Bachelor of Engineering (Maritime) is the only full-length engineering degree offered in the north of the State. It gives specialist training, fitting graduates for careers in ports, harbours and off-shore.

The College also offers courses leading to careers in the merchant navy as an Integrated Rating, or a navigating or engineering officer. Students on these courses are selected by the maritime industry through cadetships.

The Bachelor of Applied Science (Nautical Studies) offers options in ship science, hydrography, navigation and environmental science, and in sea transport and maritime business.

Between 1978 and the end of 1984 the Australian Government invested some \$30 million in developing the College's two locations and installing specialised training facilities. The AMC now has the finest collection of specialist resources for maritime training in the Southern Hemisphere. Facilities include: ship handling, radar and diesel engine simulators; a towing tank and flume tank; a sea transport centre with microcomputing facilities; engineering and electronics workshops; fish biology laboratories and training vessels.

The College's consultancy company, AMC Search Ltd, also makes use of these facilities to provide a wide variety of advisory research and design services to the maritime and fishing industries. Work already undertaken by the company has included port modelling, testing of underwater objects and the design and conduct of special courses to suit clients' needs.

The company has won contracts with the Royal Australian Navy and with a number of Australian Port Authorities. 1n 1989 it succeeded in gaining its first major overseas contract, with PETRONAS, the Malaysian national oil corporation.

Southern Campus. Known until 1991 as the University of Tasmania.

The University of Tasmania was founded in 1890 and was the fourth university to be established in Australia. Teaching began in 1893 with three lecturers and six students, in Domain House, Hobart.

The site at Sandy Bay was chosen in 1944. Temporary huts were used until 1957 and by 1973 all departments of the then eight faculties were housed in permanent buildings.

By 1988 the university had 10 faculties: Agricultural Science, Arts, Economics and Commerce, Engineering and Surveying, Law, Medicine, Science, the Tasmanian School of Art, the Tasmanian Conservatorium of Music, and the Centre for Education.

Students will normally have completed a full secondary education. There are quotas on new enrolments in some professional courses such as medicine and pharmacy. Although there are provisions for mature-age entry, the majority of students enrol straight from school.

The campus offers full-time and part-time courses as well as external study. In 1989, 71 per cent of students were enrolled in full-time study. Bachelor degree courses comprised 82 per cent of total enrolments.

9.7 UNIVERSITY OF TASMANIA STUDENTS ,1989

Full-time	3 992
Part-time -	1.500
Internal	1 593
External	33
Total	5 618
Males	2 861
Females	2 757
Bachelor degree courses - (a)	
Agricultural Science	62
Fine Art	326
Arts	1 271
Economics	187
Commerce	444
Education	373
Engineering	309
Surveying	40
Law	465
Music	75
Medicine	290
Pharmacy	75
Science	712
	4.620
Total	4 629

(a) Includes Honours & Postgraduate Bachelor.

Developments

During 1988 and 1989 several facilities were completed, continued or started. In 1988 the university was successful in achieving 'Key Centre' funding for the Institute of Antarctic

and Southern Ocean Studies. Work commenced on a building to jointly house that centre and computer science facilities and a joint science library. In particular this should remove a previous restriction on the growing number of students studying computer science. The Menzies Centre for Population Health Research within the Faculty of Medicine has now been researching for two years in the areas of, sudden infant death syndrome, cardiovascular disease and cancer.

9.8 UNIVERSITY OF TASMANIA, DEGREES CONFERRED, 1989 (a)

Higher Degree	es
Award gained	No.
Higher Doctor	2
Doctor of Philosophy	31
Master	76
Total	109

Bache	lor Degrees	
Course	Honours	Pass
Agricultural Science		5
Arts	32	148
Commerce		59
Economics	7	31
Engineering	16	27
Surveying	1	7
Education	4	99
Special Education		E 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Law	6	43
Medical Science	2	54
Medicine/Surgery	2 3 3	45
Pharmacy	3	17
Science	37	111
Science/Engineering		Particular 1
Arts/Law	1	11
Commerce/Law		2
Economics/Law	5	
Science/Law		
Fine Art		55
Music	3	14
Total	115	733

As the buildings on the campus begin to age, focus has broadened from the construction of new buildings to the re-furbishing of older ones. Chemistry, the oldest building has been upgraded. The Law School building was extended. A re-modelling of the University Union building was officially opened in 1988. A new

(a) Completed 1988.

storey was built on top of the Geography/Geology building. Car parking and student accommodation are both regularly expanded.

Research

Like other universities, the Tasmanian State University has a dual purpose, teaching and research. Research funds are received from the Federal Government as recommended by the Department of Employment, Education and Training, from other public bodies and from the private sector. In 1988 expenditure on research was more than \$6 million.

9.9 UNIVERSITY OF TASMANIA, TEACHING AND RESEARCH STAFF (a), 1989

Teaching - Full-time - Professors 31 Readers 40 Senior lecturers & lecturers Demonstrators, tutors, teaching fellows 51 Total 379
Professors 31 Readers 40 Senior lecturers & lecturers 257 Demonstrators, tutors, teaching fellows 51 Total 379
Readers 40 Senior lecturers & lecturers 257 Demonstrators, tutors, teaching fellows 51 Total 379
Senior lecturers & lecturers Demonstrators, tutors, teaching fellows 51 Total 379
Demonstrators, tutors, teaching fellows 51 Total 379
teaching fellows 51 Total 379
Total 379
Paris de la companya del companya de la companya de la companya del companya de la companya de l
Part-time -
Senior lecturers & lecturers 0.81
Demonstrators, tutors,
teaching fellows 0.95
Total 1.76
Research -
Full-time 75
Part-time 18.6
Other staff-
Full-time 55.9
Part-time 48.1

(a) Full-time equivalent units.

During 1988 the university's research company was refinanced and reformed as a company limited by guarantee which now operates under the trading name 'Tasuni Research'. Its object is to commercialise research on the campus with emphasis at first upon 'the delivery of particular testing and technology transfer services'. Current links with industry include work on essential oils in the Agricultural Science faculty, a study of the chemistry of pulp production and paper making in conjunction with Australian Newsprint Mills Pty Ltd, and a program in ore deposit and ore genesis with funding from a number of mining companies.

9.7 TECHNICAL AND FURTHER EDUCATION

Technical and further education, which includes adult education, is provided at colleges at Hobart, Launceston, Devonport, Burnie and Queenstown and a number of separately provided but administratively linked adult education centres run by the Division of Technical and Further Education of the Department of Education and the Arts. Centres in Smithton, Scottsdale, Campbell Town, Oatlands and Huonville provide a limited range of courses.

9.7.1 Technical Education

Technical courses are designed in consultation with industry and on successful completion, a student is awarded a certificate. A number of these courses have been nationally registered by the Australian Council of Tertiary Awards. In 1987 a new State TAFE accreditation system was introduced.

Associate diploma courses meet the increasing needs of para-professional personnel in areas such as engineering, accounting, computing, child care and social welfare.

Trade courses combine theoretical and practical aspects of the trade and are complementary to employer training given to apprentices. 'Block-release' of apprentices for periods of two to three weeks at a time in a technical college has replaced day release and correspondence courses for some trades. Post-trade courses are available to extend the skills and knowledge of trades people.

Vocational courses provide for non-apprentice training and include fashion, clothing manufacture, supervision, commercial and secretarial studies.

Correspondence courses for isolated students and others who are unable to attend regular classes are administered through the Hobart Technical College. In 1990 a new accommodation block for 90 students will be completed for the Hobart Technical College on the Eastern Shore of the Derwent at the old Warrane High School site.

In 1987 total enrolments were 18 956 in technical courses.

9.7.2 Adult Education

Adult Education operates throughout Tasmania as part of the Department of Education and the Arts with major centres in Hobart, Launceston, Devonport, Burnie, Queenstown and Campbell Town. The Southern centres at South Hobart, Eastern Shore/Rosny/Rokeby, Glenorchy, Kingston and the Huon now operate under the Domain House College of Adult Education with enrolments, administration and enquiries centralised at Domain House. Small centres operate at Oatlands and Wynyard.

A wide range of activities from whole term courses to full weekend, single day or shorter workshops is offered. The Grange Residential College at Campbell Town features live-in activities in the form of weekend workshops, and longer summer school activities. Five subject areas include creative and performing arts, home skills, work and business skills, languages, personal well-being, owner building, Aboriginal education, migrant education, basic education, literacy, etc. The characteristic of its work is to start innovative programs and respond to community needs.

In 1988 Adult Education activities attracted 21 982 students to its programs around Tasmania, reflecting rapid growth since the late 1970s

9.8 LIBRARIES

Tasmania is served by a network of different types of libraries, almost all of which have some computerised information and cataloguing services.

9.8.1 The State Library

Public library services throughout Tasmania are provided and managed by the Department of Education and the Arts through the Division of Regional Library Services. This is a statewide organisation of seven Regional library systems comprising regional and branch libraries, bookmobiles and depot libraries. Approximately 4.4 million items were borrowed in 1988-89 from regional library systems and 57 000 reference inquiries serviced. Three new library buildings were opened in 1988-99, a regional headquarters at Rosny Park, and new branches at Sorell and Zeehan.

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Other collections and services provided by the department include: the Archives Office of Tasmania which is responsible for the custody, preservation and use of the States archives: the Tasmanian library which collects all material published in Tasmania, all items about Tasmania and Tasmanians, wherever published, and all material written by Tasmanians or long term residents: a Bindery: a Recorded book service: a Housebound service which has patrons in Hobart alone.



Hellyer Regional Library.

Developments within the department in the last two years include, the publishing of a printed directory of the Tasmanian Index of Community Organisations (2139 organisations in 1989) database, and the publishing of a major bibliographic work 'Original Style', listing books and other sources of information about old house restoration.

In March 1989 the State Reference Library staged a display of the Irish Transportation Records, which are microfilmed records of convicts transported from Ireland to Australia between 1788 and 1869 and include a computerised index.

From early 1990 an anonymously donated Kurzweil Personal Reader has enabled the sight-impaired to access printed materials by converting the print into synthetic speech.

9.8.2 Special Libraries

There are approximately 68 special libraries within the State serving State and Commonwealth government departments and private industry. Approximately 55 of these are under some sort of professional control by a librarian.

The Government Library and Information Service (GLIS) manages library and information services to the State government sector through agreements between the State Librarian and Heads of Agencies. The librarian of each agency reports to the senior librarian of GLIS.

There were 17 special libraries within the GLIS system serving 26 State government departments. With the 1989 reduction in the number of departments, their libraries in due course will be consequentially restructured.

These special libraries include those for 'The State Offices' library, The Hydro Electric Commission, Forestry, the Mines Department, Transport Tasmania and Health Services.

The Parliamentary library is not part of the GLIS system however the State Librarian has the power to make arrangements with the Parliamentary library committee for the provision of services for the members and officers of Parliament.

There are a few special libraries serving Commonwealth government departments. These include The Commonwealth Scientific and Industrial Research Organization, The Attorney General's and The Australian Bureau of Statistics.

Other special libraries include those that service private industry within the State such as Australian Newsprint Mills and The Electrolytic Zinc Company.

9.8.3 Academic Libraries

The University's Southern Campus maintains one of the largest libraries in the State. The central and branch university libraries together hold over 700 000 library materials.

The new Multi-purpose building houses a new Engineering/Physical sciences library. This centralises several small Departmental libraries. As well as this new library there is a Life sciences library, a Law library, a Clinical library, a Fine Arts library and a Music library.

The Northern Campus (former TSIT) library holds over 175 000 library materials.

9.8.4 Education Libraries

The Department of Education and the Arts has libraries under professional control in 130 of its colleges and schools. In addition to this there

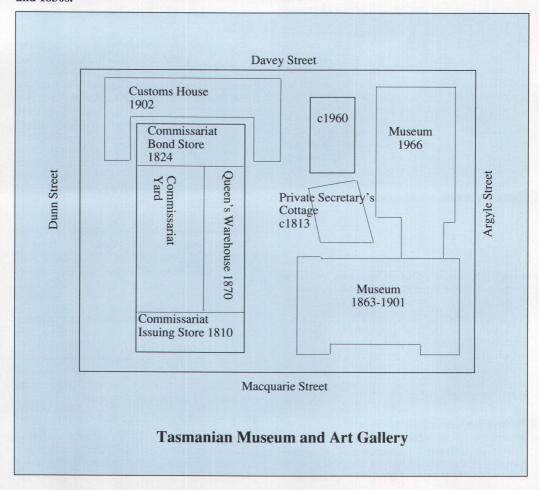
is an Education Department library and a Media library. The former is a special library with strong book and journal collections in all major fields of education; the latter is a very active lender of video tapes, kits and films to all schools and colleges throughout the State.

There are also Curriculum Resource Centres in Hobart, Launceston and Burnie. Other educational libraries include those within Technical and Further Education and the libraries of nongovernment schools.

9.9 MUSEUMS

The Tasmanian Museum and Art Gallery has its origins in early scientific groups formed in Hobart Town in the 1820s and 1830s.

In 1852 the Royal Society of Tasmania established a museum which was later vested in a Government Board of Trustees in 1885. The first building on the present site, on the corner of Argyle and Macquarie Streets, was designed by the city's best-known colonial architect, Henry Hunter (1832-1892), and completed in 1863. Later additions were made in 1889, 1901, 1966 and 1979. In 1987 work resumed on the restoration of the Private Secretary's Cottage, located within the city block partially occupied by the museums buildings and dating back to at least 1815, with the assistance of a grant from the National Trust Preservation Fund (Hobart). In 1988, the Commissariat Bond Store, built in 1824 and facing the Campbell St frontage of the same block, was partially restored. It will be used to house exhibitions following the broad theme of human involvement in Tasmania.



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In July 1988 after years of public discussion in the media, the remaining collection of Tasmanian Aboriginal bones held under the *Museums (Aboriginal Remains) Act* of 1984, were handed over to the Aboriginal Trustees appointed under the Act.

The income of the Museum is provided mainly by an annual grant from the State Government supplemented by a contribution from the Hobart City Council. Over 120 000 people visit the Museum and Art Gallery each year.

The Tasmanian Museum and Art Gallery houses collections in the fields of fine and applied art, zoology, geology, botany, history, anthropology and applied science. It is an integrated institution concerned with the whole range of natural and human heritage with particular emphasis on Tasmanian exhibits.

The Museum's traditional function, and still the major part of its operation today, is to collect, conserve, study and display items of cultural or scientific value to the community. It now performs a wide variety of additional roles, which include a continuing program of travelling exhibitions and a school education service which utilised the *Musbus*, a van specially equipped for transporting museum displays.

The Tasmanian Herbarium, housed in a new building completed in 1987 at the southern campus of the State University, is part of the Museum. It includes specimens collected early in Tasmania's history by R.C.Gunn, many of which are type specimens. Other early collectors represented include Archer, Meredith, Milligan, Stuart and Spicer. The Herbarium's current holdings number about 120 000 specimens of Tasmanian plants.

The West Coast Pioneers' Memorial Museum at Zeehan has operated as a branch of the Tasmanian Museum since 1965. It deals with the history of the West Coast of Tasmania, with an emphasis on mining, and is visited by about 100 000 people each year.

The Local Advisory Committee, with the support of the Trustees, has put great enthusiasm and skill into a development proposal which includes the establishment of an underground mine with displays, together with a working electric railway and aerial ropeway. The Mt Farrell mine head-frame was removed from Tullah and re-erected at the site of the proposed mine shaft with Army, Hydro-electric Commis-

sion and Electrolytic Zinc Co. assistance. The Army also recovered a stamp battery from the Kelvin Mine, a blast furnace from the Coleback Mine and draw-lift beam-pump components from the Sterling Mine. Navy personnel recovered two steam engines and a boiler from derelict vessels at West Strahan.

Parallelling a growth in tourism, small collections on public view have developed throughout the island. The following received advice in 1988 and 1989 from staff at the Hobart museum: Van Diemen's Land Memorial Folk Museum, Battery Point; Huon Valley Apple Industry and Heritage Museum, Grove; Channel Historical and Folk Museum, Snug; Rosny Pioneer Village project; Callington Mill, Oatlands; Maritime Museum, Battery Point; Military Museum, Anglesea Barracks; The Shot Tower, Taroona; Swansea Bark Mill and East Coast Museum; St Helens History Room; The Pioneer Village Museum, Burnie.

9.9.1 Special Exhibitions

Within the limited resources of the Tasmanian Museum and Art Gallery, standing displays are regularly changed and visiting exhibitions are mounted. A special effort additional to the usual program of temporary exhibitions, was made to celebrate the Bicentennial Year with four major exhibitions for which small entrance charges were made:

- 'Irish Gold and Silver' was organised by the National Museum of Ireland and the National Gallery of Victoria.
- 'Shipwreck!' Discoveries from our earliest shipwrecks, 1622-1797 was organised by the Museum of Victoria in association with Western Australian Museum and the Queensland Museum and was opened in the presence of the Queen and Crown Prince of the Netherlands.
- 'The Great Australian Art Exhibition 1788-1988'. An overview of highlights of Australian art over the period, examples selected by the Director and Curator of the Art Gallery of South Australia.
- 'First Impressions' The British discovery of Australia organised by the British Museum (Natural History) London in association with the Museum of Victoria.

9.9.2 Queen Victoria Museum and Art Gallery

The Queen Victoria Museum and Art Gallery was established by the Tasmanian Government in 1891. Since 1895 its management has been vested in the Launceston Corporation with financial support from an annual State Government grant.

In 1989 the museum employed 35 full-time staff. It serves primarily the northern half of Tasmania, its public galleries contain collections and exhibits of special relevance to the natural and cultural environment of Tasmania. Education, research and information services are provided.

The Museum operated the only Planetarium in Tasmania. Regular sessions are conducted for both the general public and for school groups. The Museum also has its own air-conditioned theatrette seating 166 people and a reference library of scientific and historical books and journals. The colonial painting collection is one of the finest in Australia and there are also extensive collections of Tasmanian animals, plants, artifacts, geological specimens, historical material, craft, decorative art and fine art.

The education office of the Queen Victoria Museum and Art Gallery provides a service to schools throughout northern Tasmania, lending a wide range of items for teaching aids and assisting with teaching programs in the public galleries. It also operates a small travelling bus which visits schools in the north and north-east of the State.

The Museum's main annexe is Macquarie House in Launceston's Civic Square. The displays within Macquarie House centre on Launceston's history, through the theme of its architecture. As well, the two smaller annexes at Launceston's Cataract Gorge, the Band Rotunda and the Gorge Interpretation Centre, have displays emphasising the historic, recreation and cultural importance of the Gorge to the Launceston community.

The Museum has three temporary exhibition galleries which have a constantly changing display program. In 1989 there were 28 temporary exhibitions, 18 of which were produced within the Museum. Major touring exhibitions which require strict atmospheric control can now be accommodated on account of the 1989 installation of air conditioning in the Southern Gallery

and the art store. The first of these exhibitions was 'Angry Penguins and Realist Painting in Melbourne in the 1940's'. The Museum instigates its own touring exhibitions. 'Bones and Bunyips' travelled to the USA in 1989. Research included the l6th year of forest ecology study at Maggs Mountain, evolution in tiger snake populations in the Furneaux group of islands and a botanical survey of the mountain Ben Lomond.

The Maritime Museum is in the architecturally unique Johnstone and Wilmot building built in 1842. This Museum features displays on Launceston's maritime heritage, illustrated with numerous photos, paintings and shipping relics including scrimshaw and models.

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