

THE B.I.A.E. AS AN AFFILIATED MEMBER OF THE VICTORIA INSTITUTE OF COLLEGES HAS RECENTLY PREPARED AND PRESENTED COMPREHENSIVE SUBMISSIONS FOR DEGREE COURSES IN EACH OF CHEMISTRY, PHYSICS, AND ENGINEERING.

The possibility of others is being examined. The above submissions have to be considered in turn by the respective Course Development Committees and School's Boards, and the Board of Studies, before being passed to the Council of V.I.C. for final approval.

In designing the proposed Degree courses, the need to maintain the present Diploma courses in the same disciplines has been quite properly and deliberately respected; indeed the conservation of all existing Diplomas is affirmed in the current B.I.A.E. policy.

If the submissions are successful, it is expected that enrolments for Degree courses could be accepted in 1971 for Chemistry, and in 1972 for Physics, and Engineering.

A Post-Graduate course in Maiting and Brewing has been approved, and publicity is circulating to attract interested students to begin in 1971.

A Diploma course in General Studies is due to be submitted to the V.I.C. for approval, and it is hoped that the course would be offering in 1972. So it is apparent that at the beginning of its second century, the School of Mines is poised to make another great leap forward.

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#### B.I.A.E. COMPUTER CENTRE.

This was the first Department to occupy the new Mt. Helen Building on 5th August, 1969.

The Equipment installed consists of:-

A Central Processing Unit with 16,384 words of Immediate Access Storage,

A card Reader which processes 80 column cards at 300 per minute.

A Line Printer which produces reports at 300 lines per minute,

A Twin Exchangeable Disc Store which holds 1,600,000 characters of information available at any one time and from which information is transferred to the Central Processing Unit at the rate of 208,000 characters per second;

and Four Printing Key-punch units.

#### EX-STUDENT INTEREST

Evidence of the interest of ex-students of the School of Mines is evident from the registration of about 400 guests for tonight's centenary dinner.

Speakers at the opening ceremony referred to the presence of so many ex-students, and of the important part which this body has to play in the life of the school.

#### MEDALLION FOR MINISTER

A specially gold-plated Centenary medallion was presented to the Minister, at the conclusion of the opening ceremony, by the president of the Student Representative Council, Mr. R. Parfenovics.

In making the presentation Mr. P. arfenovics thanked Mr. Bowen for the support being given by the Commonwealth Government to tertiary education, and in particular to colleges of advanced education such as the School of Mines.

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#### LETTERS from the CORRESPONDENCE REGISTER.

The Academic Duties of the First Resident Master,

11th May, 1871.

To-Joseph Phillips Esq.  
Secretary Sandhurst Mechanics Institute.

Sir,

By request of the Vice-President I do myself the honor to apprise you of what I teach in the School of Mines, namely The Practical Mathematics as applied to Mechanics, Engineering Dynamics Hydrostatics, Surveying, Levelling and

Hydrostatics, Surveying, Levelling and Architecture Arithmetic, Practical Geometry Mensuration, Algebra to cubic equations and binomial theorem. The six books of E. perspective drawing, isometric-perspective drawing plotting projection, plans, elevations, sections, shadowing and line French reading where required. The rudiments of Chemistry so far as to carry out the professors' instructions and programme for assaying and knowledge of minerals, Geology as applied to mining, Mine Engineering, Mechanics and Surveying are especially taught.

I have the honor to be

Sir

your very obedient servant  
John Phillips  
Master of the School of Mines  
Ballarat.

Memorandum sent to all members of the Staff with the exception of the Registrar

April 8th, 1895

Sir, I have the honor to inform you that it was decided at a meeting held on Friday the 5th inst. to offer you re-engagement as ..... per annum.

In making this offer the Council wish it to be distinctly understood that they in no wise guarantee the due payments of this salary. In the event of the School funds not being sufficient at any time to provide for the payments of the salaries due, it is proposed that the funds then available be divided pro rata on the basis of salary between the officers of the School.

(sgd.) Andrew Anderson,  
President.

1st May, 1874.

Sir,

By direction I have the honor to enquire why you were neither in attendance on your Class last Evening nor advised me of the probability of your not being able to attend. With the exception of David Lessells all the Students were present and it was a matter of extreme mortification to the Members of the Council then sitting to be made aware of the fact of the Students being left to their own resources.

I have the honor to be

Sir

Your most obedient Servant

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#### PLAQUE UNVEILING.

Unveiling of a plaque by the Commonwealth Minister of Education and Science, Mr. Nigel Bowen, was an important part of today's opening ceremony.

The text on the plaque is as follows:-

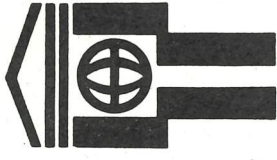
This Building and the Campus of the Ballarat Institute of Advanced Education were officially opened by the Hon. Nigel Bowen, O.C., M.P. Commonwealth Minister for Education and Science, during the Centenary year of the School of Mines and Industries, Ballarat, and of Technical Education in Australia.

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# The Green Hill Prospect

Reporting the Official Opening Ceremony,  
Ballarat Institute of Advanced Education,  
In Centenary Year of The School of Mines Ballarat.



Souvenir Edition

Saturday, October 31, 1970.

Printed on Campus



The Commonwealth Minister for Education and Science, Mr. Nigel Bowen, unveils a commemorative plaque after officially opening the campus and buildings of the Ballarat Institute of Advanced Education.

## \$100,000 GOVERNMENT GIFTS ANNOUNCED AT CAMPUS OPENING

The Ballarat School of Mines and Industries today officially begins its second century, with promises of special Government grants amounting to \$100,000.

The promises of Centenary appeal contributions from both Commonwealth and State were received during the official ceremony which marked the opening of the Mt. Helen campus and buildings.

The Commonwealth Minister for Education and Science, Mr. Nigel Bowen, told the large attendance that the Commonwealth's \$50,000 gift was in recognition of the special significance of this centenary, as being also the centenary of technical education in Australia.

The School of Mines could claim considerable pride in being a pioneer in this field, and in having contributed to technical education for half Australia's 200 years of history.

The Minister's announcement of the grant, to be made in addition to its normal contributions for the current triennium, was followed immediately by a similar announcement by Mr. W. F. Stephen, MLA, on behalf of the Premier, Sir Henry Bolte.

Speaking of the growth of colleges of advanced education, since the first Commonwealth grants for this purpose were made in 1965, Mr. Bowen said that by the end of 1972, there would be 45 such colleges in Australia, with contributions from all Government courses, amounting to \$253 million.

Many of these colleges, he said, would be outside the capital cities, giving first class tertiary education on a regional basis.

Endeavours will be made to provide tertiary education in regional centres to a much greater degree than in the past.

It is obvious that the populations to be served will be much smaller than in obvious catchment areas like Melbourne, but I do not believe that the colleges will be struggling," he added.

It was obvious that many students would have to live away from home, and for this reason it was good to know that the master plan for Mt. Helen campus provided for halls of residence.

Experience had shown that universities outside the capital cities had large proportions of resident students, and the same must be expected of the regional colleges.

This would mean considerable capital expenditure but would also have advantages in helping to create co-operation and understanding between students and staff, and a spirit of unity in the college.

The object of the college courses, said the Minister, would be to train and qualify people for their future careers, providing in a period of about four years for the application of knowledge in the next 40 years or so.

Welcoming the Minister, and many official guests, the chairman of the School of Mines Council, Mr. M. B. John, said today's ceremony was the second most important in the history of the school, the first having been the inauguration of the School of Mines, 100 years and five days ago.

Conditions today were vastly different, and the school began a new historical period at a time rich in ability and human resources.

Plans for the future development of the 240 acre site were outlined by the Principal, Mr. E. J. Barker.

Within the next two years, he said, it was proposed to add another teaching building, a library building and a union building, and the first stage of the hall of residence. Further developments would follow in the next triennium.

## THE EARLY HISTORY OF B.I.A.E. CAMPUS

Since its selection in 1966, common usage has attached the name 'Mt. Helen' to the site of the Campus, but from the time when first settled, the area would have been known as Green Hill.

The cleared grassed prominence which rises to an elevation of 2100 Ft. and overlooks the B.I.A.E. developing on its lower slopes is shown on early maps as 'Green Hill'.

'Mt. Helen' does not appear specifically named; it has only been extended in recent years to the housing development established along Geelong Road between Mt. Clear and Buninyong.

'Mt. Helen' seems to have been first applied to the steep rise up which the early track to Ballarat passed, beyond the settlement of Buninyong.

When the railway line was functioning, a small 'Mt. Helen' siding was provided to serve a small and scattered collection of patrons on the high ground out of Buninyong. This siding was located on the next lane along from Gear Avenue, i.e. *Fisken Road*, and would have been in the area now enclosed as a tennis court.

Green Hill is a Scoria dome and though dominated by Mount Buninyong (Elvn. 2442 Ft.) about two miles away, is yet thought to have been formed earlier — geologically. The volcanic material peters out just across the road, within the eastern boundary of B.I.A.E. campus.

The remaining area is comprised of slates and sandstones thought to be of Ordovician period.

Mr. G. Dean and family arrived from England in the 1850's and settled on the northern ledge down from the crown of Green Hill. The spot had its advantages — fairly level, if exposed ground for their first simple shelter, and a small rock lined hole as an effective water storage. Dean established an orchard and market garden on the small block running up to the top, encouraged by the swelling populations of Buninyong and Ballarat. A short length of dry stone wall, and hawthorn hedge still remain on the east and north boundaries of his plot. Particularly fine cabbages and cauliflowerers are reputed to have come from the garden; and good crops of potatoes and maize are remembered on the lower western slopes.

The whole wider district was noted for its market gardens, and it was a common sight to see the produce being carried by horse-drawn wagons to the market of one 'Braddy' in Main Road, Ballarat.

A school has been present at Green Hill from the time of early settlement. Along the Government Road in the corner close upon the present borth boundary, a red brick, single room Wesleyan Church had been built in 1871. With a dwindling congregation, it came to be used as a Primary School until when enrolment demanded, a more comfortable school was built in Green Hill Road a few hundred yards from the first site. The grant for the church block was revoked in 1941.

Reference to a Title Plan compiled from original records in 1932 shows that the first grant of Crown Land was made in 1871 in favour of G. Dean — 21 acres, and then in 1886-39 acres for himself and his son F.W. Dean.

Others taking up blocks were:

R. Wynne 1873 5 acres, 1877 39 acres

J. Davis 1877 40 acres

E. Latta 1885 20 acres.

In time Miss Dean married a 'Latta' and was later remarried to Downing. So the first substantial house was built on the campus area, being placed in the somewhat sheltered depression down from the Engineering wing, and in the lee of the ridge running down from Geol. - Met. wing.

No trace of the house remains, but the near filled in, brick lined tank or well which was close to the back door can still be seen. An extensive orchard surrounded the house, and the dam from which it was watered is still present. All this was near the great Tasmanian Blue Gum which now dominates the scene and which has aroused interest, being obviously alien to the local species. It was Mrs. Downing who planted the tree as a tender seedling on an Arbor Day in 1896.

Mr. Jim Downing who was born on the block in 1891, and is now the lone survivor of those who then lived there, remembers when he was about five, that he was asked to water it when his mother had set it up firmly.

The Downings farmed the block, hand milking 20 cows, which required the boys to rise at 3 a.m. so that with milking finished they could be early on their way by horse and wagon to do their deliveries to Ballarat customers.

*These were times for early rising for all.*

In the summer of 1900 a bush fire, started by a train at Canadian, burned through the timber, and swept across the slopes of Green Hill, on past Mount Buninyong; and was only checked when close to Geelong.

When the fire was first noticed, young Jim Downing was released from school at Mt. Clear. He sped home ahead of the fire — to find his mother alone; the men folk had gone Meredith way to bag 'Cocky chair' from threshing machines to store as winter stock feed. The fire providentially passed the Downing's property without damage, but two cottages of near neighbours on the campus block were burnt down.

Sometime before World War 1, Mr. Bob Thornton acquired the property from the Downings and it then became home for a family of ten children. Mrs. Downing's tree was now advancing to mature height; and where electrification and domestic refrigeration were commodities not yet arrived on the rural scene, the Thomtons used the tree as a convenient meat hanger. After a killing, the carcass was hoisted high into the shade and shelter of the tree until it was right for quartering into joints.

In contrast the volcanic fertility of Green Hill, much of the ground of the Campus had a rather thin cover of soil and was left closely timbered in the unproductive spots. The lower 'flats' i.e. *the south-west corner along Gear Avenue were put to crop and surprisingly good yields obtained.*

In 1926 Mr. J. Hatley bought the property and he sold to Mr. Stapleton, the last private owner, with whom the School of Mines Council negotiated its purchase in November 1966.

### LOCATION

The way to the campus along Main Road follows the primitive track through the earliest settled part of Ballarat, past the fabulously rich gold diggings.

Rising up through Canadian, the present bitumen conceals the old plank road beneath, which gave secure passage to horse and vehicle travelling across the boggy, disturbed area.

The waters from the catchment on both sides of Gear Avenue gather at the entrance to a big brick lined culvert under the old railway line, and then flow quietly in the shallow valley back towards Ballarat, roughly keeping station with Geelong Road. Joining Canadian Creek, the water runs in a channel past Golden Point and finally merges with the Yarrawee at the confluence which is in line, east from the centre of the old School of Mines site.

So a tenuous connection between the two campuses is pleasantly, perhaps encouragingly revealed.

With its higher elevation, the Mt. Helen area has a rainfall some inches above that for Ballarat. During winter, mist and low cloud frequently obscure the top of Green Hill, and the force of strong winds is keenly felt.

The late leaver from the Campus can often witness spectacular sunsets. The several peaks and ranges to the west — Mt. Emu, Mt. Langi Ghiran, Mt. Cole and occasionally the Grampians are thrown up in sharp profile; an arresting sight.

No evidence of aboriginal presence has been exposed, and apparently the Campus area did not compel the attention of the gold seekers.

*This is the story of the recent past affecting the B.I.A.E.*

*On this October day in 1970, who will be bold enough to predict and describe the outcome of the Green Hill prospect which will have materialised to confront those, who — if life persists — may perhaps assemble with some strange commemorative ceremony in the Year 2070??*

## THE SELECTION OF THE MT. HELEN SITE AND HOW IT CAME ABOUT

The Ballarat Gaol was built in a strategic position on a bluff of land protruding beyond the end of Lydiard Street South, with steep falls to the south and east. This location gave a degree of security like that of an ancient castle perched on a crag.

When the School Council leased the old Circuit Court House and its land in 1870, it was confronted with a steep hill at its back doorstep. The School's link with the hillside was consolidated after the granting of the site by the Crown in 1880, and after the purchase of the Wesley property in 1883. From that point on, the School grew around and over the hillside whose inaccessibility had attracted the Gaol's planners.

Periodically, the Council obtaining a spacious site elsewhere, but each time was forced, through lack of money, to put the thought aside. Immediate needs of expansion were met more cheaply by the acquisition of small areas of adjacent property. Gradually the Gaol Reserve was nibbled away and absorbed, until by 1965 the School's acreage had grown to 8½.

With the announcement in 1965 of an interim government grant of \$700,000, the Council's hopes for a new site were renewed. Some years previously Mr. A.H. Reid of Ballarat had offered his property of about 150 acres at Mt. Clear for a University College, but due partly to the discouraging comments of the Ramsey Report in respect of such an institution in Ballarat, it had never been taken up.

Hoping that the offer might be renewed for the tertiary division of the School of Mines, the Council sought approval to spend its grant at a new site. Unfortunately, the Commonwealth's Martin Committee had specified that the interim grant was to be used at Lydiard Street — presumably to ensure that it was not diverted to start up a rival tertiary establishment.

In February, 1966, the Interim Council of the new Victoria Institute of Colleges rejected the request for approval to move. The School Council then reluctantly set about trying to plan a modern tertiary institution on the existing, steep 8½ acres. Architects were engaged to prepare a master plan, and to design the first block of buildings — on the former M.B. John factory site adjacent to the brewery. By August, the building plans were almost complete.

On August 12th, 1966, the turning point came when Dr. P.G. Law, newly elected Vice President of the V.I.C., made his first visit. Without hesitation he applied his weight to obtain a better site. When official approval for a new site was given in October, School Council representatives immediately approached Mr. Reid. But time had already run out on his original offer, and he had sold the property. Lengthy negotiations with the new owners proved fruitless, and, by the end of November, other possible sites were being hurriedly assessed.

Altogether ten possible sites all over Ballarat were studied. Almost unanimously the Mt. Helen site — originally 310 acres — was chosen, and options were taken out for thirty days.

Negotiations swung back to Melbourne to secure agreement to this move. On December 21st the site was inspected by representatives of the Commonwealth, the V.I.C., and the Education Department, but no decision was immediately forthcoming. A second set of options was negotiated to extend the holding period to January 28th, 1967.

After many urgent calls back and forth, approval to purchase 241 acres was given and the deal was settled a few days before the option expired.

The School Council had at last achieved its long cherished ambition. It was the proud possessor of a spacious, elevated, undulating tract of lightly timbered grass-land on which to bring to reality its dream of a first-class modern tertiary campus.

## CENTENARY MEDALLION

A handsome, silver plated medallion has been struck to celebrate the enduring presence of the school through 100 years of momentous change.



## THE SCHOOL MOTTO

### 'INGENIO EFFODERE OPES'

Copies of outward correspondence from the School survive, by which it is established that in 1872, Sir Redmond Barry — the first President of Council volunteered to arrange the preparation of a Seal.

A design incorporating the motto was submitted to Council for approval on Nov. 15, 1872, and it was confirmed in all particulars, except a correction to the spelling of Ballarat to agree with the Statutes then prevailing.

The intended meaning of the motto seems to have been readily appreciated, as no recorded discussion was entered.

The finished Seal was laid on the table at the Council meeting of Nov. 26, 1872.

So the earliest document where the motto appears in print is the Annual Report of the School — published in February, 1873. Professor Clark of Melbourne University when asked about the motto (*June, 1970*) offered with ready assurance:—

*By talent, (native ability), Effodere Opes to dig out wealth (intrinsic value).*

## COMMEMORATIVE PLAQUE at LYDIARD ST. STH.

A bronze plaque has been mounted on the wall of the Art School. It has a small relief of the renovated building in which the School of Mines was first launched, and bears the following inscription —

### THIS PLAQUE

marks the site of the foundation of Technical Education in Australia on 26th October, 1870.

The School of Mines, Ballarat, held its first classes here in the former Ballarat Circuit Court Building which was subsequently demolished in 1912

Plaque affixed in Centenary Year 1970.

The Mayor — Cr. K.C. Webb did the unveiling on Thursday October 8th, in the presence of — members of the Victorian Advisory Council on Technical Education, Councillors of the School of Mines, and principals and staff of local technical schools.

The design for the obverse face was produced by Vic Greenhalgh — an early student of the present Art School, who has since been notable for his sculpture commissions.

The theme is conspicuously relevant now, when the tertiary section of the School is being launched into its second epoch, and the traditions established in the Mining era are being handed on to those presently studying under the impact of the Space Age.

Medallions were presented to Sir Douglas Menzies, P.C., K.B.E., LL.M. — speaker at the Centenary "Host Dinner" of August 8th., to the speakers — Mr. Bernard Hames, Miss Betty Archdale, and Dr. J.H.W. Birrell who participated in the Centenary Lectures and to Dr. Peter N. Richards A.S.M.B., B.Met.E., M.E., D.As.Sc., F.C.M. — speaker at the 1970 Diploma Confering.