History of the Department of Physics at UWA

Issue No. 3: "Opening the Original Physics and Chemistry Building at Crawley"

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Introduction.

The original Physics and Chemistry Building, opened in 1935, is now occupied by the Departments of Geology and Geography, respectively. It is a beautiful structure built in the same style as Winthrop Hall and the other original buildings at the north end of the campus. The design of the building and its fittings had been carried out by Professor Ross and, relative to the other buildings, it was very expensive, reflecting the special needs involved in teaching and research within the sciences of Physics and Chemistry.

On the day of its opening, Friday 31 October 1935, a number of speeches and interviews were made and these were reported, together with many pictures, in the "Western Mail" on the following Thursday. Three of these, involving the State Premier's representative, the Chancellor and Professor Ross, are reproduced below. It is interesting to read them and to revisit the visions of the government, the University and the public at that time and note their attitudes to the concept of having available a university within this state; especially a free (non-fee) university. We also see the rationale of the university being named The University of Western Australia rather than The University of Perth (cf. the Universities of Sydney, Melbourne, Adelaide, etc.). Please read on.

Sources.

The three articles were published in the "The Western Mail", Vol. 50, No. 2,593, on October 31, 1935 on the occasion of the opening of a new Physics and Chemistry Building at Crawley. The photos are taken from the same source. Two of the photos have irregular outlines as they originally formed part of a montage.

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A Western Mail article, including a speech by the State Premier's representative:

NEW SCIENCE BUILDING

Opening by Chief Secretary

In the presence of a distinguished gathering, the new science building of the University of Western Australia was opened on Friday afternoon [25 October 1935] by the Chief Secretary (Mr. J. M. Drew), in the absence of the Premier (Mr. Collier).

Erected under the University Building Act at a total cost of £60,000, the building represents an important extension of a university organism in this State. Consisting of laboratories, lecture rooms, and other special accommodation for teaching staff and students, the building is designed with a view at a later date to extension westwards [this was done] and by the

addition of another floor [never added]. It will house the Chemistry and Physics Departments, increasing the range of teaching in these branches of science.

During the opening ceremony. The Chancellor (Sir Walter James) is speaking.

Friday's ceremony was welcomed by the Chancellor as bringing to an unregretted end the "galvanised iron age" and inaugurating a new era. Architecturally harmonising with the main university block, to which it forms an important addition, the science building is intended as part of a still larger scheme designed ultimately to bring the University into line with older Universities and to meet the needs of future generations.

A large crowd, representative of the faculties, the student body, and the administrative staff of the University, of the government, and of the professional and commercial community attended the function, which was held in front of the new structure; the Chief Secretary, who is a member of the University Senate, speaking from a small wooden platform near the cloister which runs along the facade of the building. The academic dress of students and the robes of members of the teaching staff gave colour to the assemblage, which at the conclusion of the function moved about over the lawns and along the paths which connect the main block of buildings with the areas of trees and shrubs nearby. On arrival at the University, the Chief Secretary was received by the Chancellor (Sir Walter James), and on the platform there were, in addition to Mr. Drew and Sir Walter James, the Pro-Chancellor (Dr. J. S. Battye), the Vice-Chancellor (Professor H. E. Whitfeld), the Warden of Convocation (Dr. H. L. Fowler), Professor A. D. Ross, Professor of Physics at the University, and a member of the University Senate, Professor E. de C. Clarke, chairman of the Professorial Board and Professor of Biology [should be Geology] at the University, and Mr. M. Summerhayes, one of the architects for the building. Before asking Mr. Drew to perform the opening ceremony, Sir Walter James read messages of greeting and congratulation from Dr. Fleming, of the Carnegie Institution of Washington, Sir David Rivett, chief executive officer of the

Commonwealth Council for Scientific and Industrial Research, and Dr. F. A. Vening Meinesz, the noted Dutch scientist, who recently visited this State in the submarine K18. "It was very good of them to think of us." he remarked.

The Government's Aid.

"Every member of the Government is in full sympathy with the University and its objects," said Mr. Drew, "and Cabinet has manifested that sympathy whenever the occasion arose." (Applause.) Proceeding, he said that the natural science buildings were erected at a cost of about £17,000, while the engineering building cost £8,000. To these might be added the cost of the new science building, which was £60,000. "There is one aspect associated with our University that I often take the opportunity of stressing," Mr. Drew said. "In South Australia there is the Adelaide University, in Victoria it is called the Melbourne University, and in New South Wales the title is the Sydney University. But here we call the University the University of Western Australia, because it is a free university. The upkeep is the responsibility of the taxpayers of the State. With scholarships and exhibitions, and with the aid of generous bequests, it is possible for the humblest talented child in the country eventually to reach the University.

"The University is doing valuable work for the country, work which will be reflected in the higher intellectual standard of our citizens of the future, and in the more scientific building up of the superstructure of the State. This is a democratic country and it will remain so as long as the Commonwealth Constitution survives. If it does remain so, it is of the first importance that it should be an educated democracy, capable of intelligent thinking and endowed with a superior judgment so that the people may be able to guide the State and Commonwealth along a bright and prosperous path.

An Educated Democracy.

"I have said that we require an educated democracy. The soundness of the assertion should need no elaboration. An ignorant democracy, armed with the franchise, the most powerful weapon a man or woman can wield, is certainly a menace to orderly government.

"If we wish to prevent anarchy, if we wish to preserve freedom and justice, we must train the intellects of those who in the years to come will be entrusted with the liberties and destinies of our people. In our University the best brains from the different schools in the State are being successfully trained. The result is that many who could never have hoped to rise in life have become members of various professions and are a credit to the institution responsible for their elevation. The student goes from the University to disseminate the knowledge he has gained for the benefit of the State, and for the stimulation of its progress and the prosperity of its people."

The interior of the building was afterwards inspected, and later the visitors took tea on the lawns.

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Another Western Mail article, including a speech by the Chancellor

ANOTHER MILESTONE

A Warning Against Complacency

"I am naturally gratified that another milestone in the development of our University has been passed," said the Chancellor (Sir Walter James) in a statement made on Thursday [25 October 1935]. "The new science buildings carry a stage further the splendid plan outlined for us by Mr. Rodney Alsop, and I believe that they maintain the fine spirit of that design and that future generations will be grateful to the men of today who have had the vision to begin putting it into shape. I am glad that students of science, who are sometimes accused of being indifferent to these things, should work in surroundings that are beautiful and that help to remind them of the dignity of the search for truth. These new buildings do not completely separate us from the 'galvanised iron and weatherboard' era because those old buildings are still used. But we get more and much needed breathing space."

An aerial view, showing the Guild Quarters, Winthrop Hall, and Administrative Offices in the foreground, with the new Physics and Chemistry Science Building (on the right). Beyond these are the playing fields with the Engineering School in the distance. Photo taken in 1935.

Speaking with emphasis. Sir Walter James added: "I do not think that what has been done entitles the Government or the community to feel complacent or to consider that their duty to the University has been done for the present. The public should realise more than it does how much the University is at present depending on its private benefactions for some of its ordinary bread-and-butter requirements. Such necessities as the upkeep of the grounds, the salary of the vice-chancellor, and the whole system of students' scholarships and bursaries are provided for out of the Hackett bequest. Only the bare salaries of the staff are supplied by

the Government and even in that matter I do not think our growing needs are sufficiently understood.

"A modern university, even a comparatively small one, must cover a lot of ground if it is to do the work that it ought for the community and if it is to maintain its standing by keeping pace with the growth of knowledge and the improvement in teaching methods. There can be no such phrase as 'that is good enough' applied to university teaching. It must be tested by exacting standards. We have been exceptionally fortunate in our teaching staff. Our professors have Australian reputations. To maintain that standard it is imperative that our teachers be equipped with up-to-date apparatus and, teachers and student alike, have within reach modern text books."

Urgent Requirements.

"There are still urgent building requirements that must be met if the University is to do its duty by its present members and render those services to the community that should be expected of it," the Chancellor continued. "Library accommodation has become quite inadequate. Room cannot be found for work satisfactorily. Nor have we the books that we should have. We must press forward and provide adequate accommodation; sufficient both for the needs of students, elementary and advanced, who must use it for studying and have no other place in which they can, and for teachers, who must keep their work up to the minute. Furthermore, at present the University cannot provide proper accommodation and equipment for its work in agriculture, a vital matter for the future of this State. There should be a building in which work can be done in co-operation with the State Department.

"I hold the very definite view that we do not spend enough money on education in Western Australia," Sir Walter James said. "From the primary schools to the University, education as a whole is starved. It is said that education often spoils a young man or young woman; they shirk the work that is needed to be done and look for 'cuff and collar' jobs. That is just snobbishness arising from the fact that too few are educated and so regard themselves as above the ruck. The answer is to make education more general and so drown these 'superior ones' in an all round rise. Make the exception the rule. I see no reason why a man who earns his living chopping wood should not be well informed and well read nor why he should not have a chance to become as well able to discuss philosophy as a bishop or a judge. The State cannot do all this in a few years. All I ask is that we shall aim at and steadily move towards such an ideal.

"We are most grateful to Parliament for its help, and if like Oliver Twist we ask for more, we hope members will not regard us as lacking in appreciation.

"After all we are but servants in the cause of youth with whom the future rests."

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Yet another Western Mail Article, including an interview with Professor Ross:

A DREAM COME TRUE

Professor Ross's Satisfaction

In the course of an interview on Monday Professor Ross expressed himself as delighted with the new department of Physics. There had been, he said, close co-operation between the architects, the contractors and himself, and all had worked together to make the building as efficient for its purpose as was humanly possible. Conditions for teaching science and conducting scientific research were liable to change, and the building had been designed so that any internal rearrangement which might become advisable at a future date could be carried out easily and at low cost. During the 20 years and more that he had been at the University, he had, at the request of the Senate, drawn out plans for a Physics building on some five separate occasions, but unforeseen developments had resulted in each scheme being laid aside, until the final scheme, taken up in 1933, was now carried to fruition.

The new Physics and Chemistry Science Building seen from the tower of Winthrop Hall.
Photo taken in 1935.

These successive plans had all helped materially towards the final design. In them he had had the benefit of the advice of Mr. H. Beasley and Mr. H. B. Hardwick (late Government Architects), Professor Wilkinson of the chair of architecture at Sydney University, and the late Mr. Rodney Alsop, of Melbourne. He was indebted to these gentlemen for much valuable advice. Thus, when the present building scheme was undertaken, it was possible to proceed rapidly with the layout, the architects, Messrs. Baxter Cox and R. Summerhayes, were able to prepare plans incorporating all the desired features, and the building had been erected at a low cost for its size. The Senate and its building committee had allowed him a free hand in planning its several features, and the chairman of the finance committee (Sir John Northmore) and the Vice-Chancellor (Professor Whitfeld) had been most sympathetic in forwarding his views.

Avenues of Work.

Asked regarding the special lines of work for which provision had to be made, Professor Ross explained that physics entered largely into preparation for varied fields of activity. While many students took the subject at the University as a training for teaching physical science and for work as pure physicists, a continued study of the subject was essential for all those who specialised as chemists or engineers, and some training in it was also necessary for agriculturalists, biologists and doctors. Graduates who had specialised in physics at the University had gained important and responsible positions in astronomical and other observatories, in scientific instrument works, in the electrical branches of the postal service, in patent offices and in radio work. Of the number who had taken up teaching work a considerable percentage had gained positions on university staffs, showing that the graduates in physics of this University were in no way inferior in ability, initiative and resource to those of older Universities.

Apparatus and Donations.

In reply to an inquiry as to the apparatus available for teaching and research in the new building. Professor Ross said that there was urgent need of additions both for the systematic laboratory courses and for research. In 1913 and 1914 the Senate had allocated considerable sums for initial equipment from a reserve fund obtained from the University's grant for 1912. Recent important developments in atomic physics, in spectroscopy, in alternating current electricity and in radio demanded the provision of much additional apparatus if the work was to keep abreast of the times. Unfortunately the Great War and the subsequent depression had made finance difficult for the Government and for the University Senate. He felt sure, however, that the position was fully realised, and that as funds became available the needed assistance would be forthcoming. Some years ago the Government had given a special grant of £1,000 for the purchase of much needed standard electrical instruments. The expenditure of like sums on the other branches of physics he had mentioned would enable the department to do work therein which would be of material benefit to the State. Donations to the physics equipment which had been made by Lord Rutherford, the late Dr. W. J. Hancock, Mr. A. Knapp, Messrs. E. and F. A. Moss, and the W.A. Optical Association, had been valuable and much appreciated, and he hoped that other citizens who were able to assist in this way would do so.

Professor Ross mentioned that during the 23 sessions the University had now been in existence he had had lecturer assistants drawn from the Universities of Cambridge, Glasgow, Manchester, Adelaide, Melbourne, and the Wellington and Dunedin Colleges of the University of New Zealand, in addition to some of his own former students. The variety of viewpoint thus brought to the work of the department had been stimulating.

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