

SABBATICAL LEAVE REPORT

1965-1966

AUSTRALIA-NEW ZEALAND

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This is a report of my sabbatical leave in Australia and New Zealand where I traveled and visited the schools.

While enroute to Australia, I stopped for several days in American Samoa where I observed teacher training classes. School Math Study Group materials were being presented to the native teachers so that they could incorporate some of the new modern mathematics materials into their local classes.

Most of the native teachers have less than 12 years of schooling to prepare them for their jobs. I saw how closed circuit television was used, in Samoan class rooms, to strengthen the program presented in each, by the poorly trained teachers. Experts could lecture over T. V. with the native teachers carrying on discussions after each program.

From September through November, 1965, I lived in a community near Sydney, Australia, and visited elementary schools, high schools, universities, and a technical college.

During this time, my wife, our three daughters, and I lived in a little cottage at North Avalon, approximately 22 miles North of Sydney. Avalon is located on a long peninsula of land which extends to a point overlooking Broken Bay, which is dominated by "Old Barrenjoey", a lighthouse. Our cottage overlooked the Pacific Ocean to the East and a body of water, called Pittwater, on the West.

Two of our daughters attended Avalon Elementary School and our older daughter took a bus, each day, to Mona Vale, where she attended a co-ed school, called Pittwater High School.

We had some very interesting experiences with the people of this community and the personnel of these schools.

I was impressed by the fact that Avalon Elementary's school lunch program was carried on entirely by volunteer help of mothers working without pay to make and distribute cold lunches. Parents also helped in the library and raised funds for school projects to a much larger extent than is customary in California's elementary schools.

During my visits to Pittwater High School and Narabeen Boys' High School, I was impressed with the fine discipline in each classroom and by the eager manner in which students pursued their education. This, and the fact that many of the slow students are encouraged to leave school at age 15, makes it possible for the schools of New South Wales to have an excellent program in honors Mathematics. I obtained several copies of the leaving examination in Mathematics and found them to cover material of a high level of difficulty on up into the Calculus.

At the University of Sydney a tutorial program is used to parallel the lecture classes. In a tutorial, students are taught by assistants who carry on problem solving sessions. This program certainly must increase a pupils chance of success in the study of Mathematics.

All of the Biology I classes at the University of Sydney are taught by closed circuit television lectures. The program is very expensive but apparently is successful. Australia has no color television, as yet, and Mr. Millet, who is in charge of T. V. Instruction at the University of Sydney is very anxious to use color T. V. in the Biology lectures. It is hard to conceive of the number of man-hours of work which go into the preparation of a one hour taped T. V. lecture.

I spent one day at Bankstown Technical College where the assistant headmaster gave me a conducted tour of the entire facility where I met many of the teachers and became acquainted with their classroom instruction and how it ties in with the apprenticeship program. I was shocked by the very low pay scale of apprentices both in Australia and New Zealand. I finished my visit to Bankstown Technical College by sitting in on a meeting of the department heads. The close contacts I had with these people gave me a fine insight into the educational procedures in a technical college and how they are related to the school system of New South Wales.

I made a visit to the University of New South Wales but unfortunately

schedules <sup>only</sup> didn't allow ~~for~~ but one interview. I was particularly impressed with the way both the University of Sydney and the University of New South Wales are expanding to meet the tremendous growth that is taking place in New South Wales.

Besides visiting the schools around Sydney, I made many visits to places of interest in the vicinity such as, Kronella, La Perouse, Taronga Park Zoo, Bobbin Head (Koala Sanctuary), Port Hacking, The Blue Mountains, and The Jenolin Caves. Trips across the "Coathanger" (Harbor Bridge), with the magnificent view of Port Jackson and the Opera House became very frequent but always were enjoyable. However, I can't say the same for the narrow crowded streets and sidewalks of Sydney.

The Pageant of Asia, which was a spectacular program produced at the Sydney Show Grounds, gave us an insight into the major Polynesian Cultures, particularly their dancing and singing.

The Sydney Trade Fair showed displays of manufacturing from all over the world, in fact, a large color-printing press and a huge weaving machine from East Berlin were in operation. We were surprised to see displays from Communist Countries.

In the vicinity of Botany Bay there are many wool scouring plants and Tanneries. We spent half a day going through the very smelly tannery of Dale and Sons and witnessed all of the operations starting with the soaking pits and on through the splitting and glazing. One employee, the glazer, had worked for Dale and Sons for 48 years.

Sydney Technical College has a museum which contains models of many types of manufacturing processes and the items produced. Of particular interest, in a type of hobby display, was a copy of the famous Strasbourg Clock, which was in operation, showing the Procession of the Apostles.

I found time to give a short talk to the Pittwater Rotary Club about Education in California. I emphasized the contrast between our Partial-local control of education and the statewide control and uniformity of education in New South Wales. They presented me with a set of embossed glasses and an emblem.

When the school term was over in late November, we moved out of the cottage at Avalon and became nomads. During this travel portion of the Sabbatical we stayed in motor camps, pitching a tent each night. This proved to be somewhat of a hardship as we had many rainy and windy nights. We drove North from Sydney into Queensland, through Brisbane and on up to Cairns. I was very impressed by the Great Barrier Reef and the tropical nature of the Queensland area. It was a pleasure to see again, the beautiful flowering trees and shrubs, that we had been familiar with in Hawaii. This was a contrast to the miles and miles of Eucalyptus trees which we had passed.

After the Queensland trip, we traveled to the Southwestern part of New South Wales, where we visited a 1000 acre sheep farm and then went on down the Murray River to see the fruit and citrus areas around Mildura and Renmark. These are areas developed by the Chaffey Brothers, the same men that had done such an important promotion in the Ontario and Upland area of California.

Near Adelaide, we visited one of the six barrages which have been built at the mouth of the Murray River. These barrages are for the purpose of keeping the saltwater from intruding up the Murray River for many miles, as it once did. The barrages have removable sections to accomodate flood stages of the river.

I visited Melbourne and was quite impressed by its modern appearance in contrast to Sydney. It was much more modern with wide streets and modern appearing structures.

The snow~~y~~ scheme was quite spectacular. It took a complete days travel to make it around Lake Eucumbene. This included a visit to an underground power house and several project information centers.

Canberra was very impressive, but shows the appearance of a very young capital as there is a great deal of open space that will some day be occupied by massive government structures. We were fortunate to have a personal tour of Parliament Building and the prime minister's rooms and cabinet chamber.

Our total mileage logged in Australia was 9,000 miles.

In January, 1966, we sailed out of Port Jackson on the Oronsay and enjoyed the short voyage to Auckland, New Zealand.

There we experienced the first of the many incidents of true hospitality displayed to us by the New Zealand people. A family that we had never met before, took us from the boat to their home and put us up for five days. They helped us to arrange our banking and the purchase of a Dormobile Volkswagon and seemed hurt when we insisted that we must leave and head South to Christchurch. Later we spent 10 more days with these wonderful people just before leaving for the United States.

Our trip South gave us an opportunity to see the lush green country with areas of native bush, highlighted by the beautiful tree fern.

We found that North and South Island are really isolated from each other because one must reserve Passage on the ferry, months in advance, or you just can't get across Cook Strait. However we did manage to get passage by waiting in line for a chance to replace a "no-show". We tried one afternoon and failed, but succeeded that night. While we were in line we met Mrs. Gladys Goodall. She is a noted photographer of New Zealand's beauty spots and her work is for sale in all the tourist shops. She gave us a great deal of advice on what to see and do in New Zealand. According to her advice, we toured the Nelson area, traveled the Upper Buller Gorge, through the Lewis Pass, rimmed with snow capped peaks, out onto the Canterbury plain to Christchurch.

After living in motor camps for several weeks we were mighty happy to settle down in a nice home in the suburb of Christchurch, called Shirley. Paula enrolled in Banks Avenue Elementary School and Melanie and Carole were advanced one year when they enrolled in Avonside Girls High School.

The friendship extended to us by our neighbors in Shirley was so warm and genuine that it is a truth, to note, that we had never experienced such a wonderful thing before. We became an integral part of life in Christchurch and as a result became thoroughly acquainted with a way of life which differed in many

ways to the way of life "back home"; but there were many similarities too. The main contrast seemed to be the leisurely pace that people followed and the lack of competition. This extended into the schools where competition for grades wasn't very prevalent in some of the schools.

Two of the high schools, Shirley Boys' High and Christs College, had a very high level of academic achievement. It is interesting to note that high schools in Christchurch were not limited to a particular geographic area from which to draw students. For example, boys from many areas of Christchurch travelled across town to attend Shirley Boys' High because it had a very high reputation for scholarship. The headmaster had a masters degree in Mathematics and 15 of the 32 members of his staff had either M.A. or M. Sc. degrees. The headmaster found time to teach Dynamics to his 6th form students.

Many of the high schools in New Zealand have gymnasiums and swimming pools (Kiwis call them baths) which have been financed through parent club activities, 50% and government funds 50%.

A New Zealand high school student generally starts his school day at a short assembly where he stands at attention as the faculty files in, wearing academic robes. Many teachers wear these robes throughout the day. The assembly consists of a hymn, scripture, prayer, and a talk by a 6th former and a talk by the headmaster. I was asked to address the assembly at Mairehau and Shirley High Schools, and caused some interest by contrasting education in California to education in New Zealand.

During the school term I visited a co-ed High School, and all girls High School, an all boys High School, and a church affiliated college (really a high school). At this latter school, Christs College, I was introduced to classes in Transformation Geometry, a completely modern approach, using texts being developed in England.

Many of the schools are starting pilot programs in Modern Mathematics and using U.S. materials particularly, Dolciani's Algebra.

I visited the University of Canterbury and Christchurch Teachers College. The University was experiencing terrible growing pains as they were moving from the old campus with its beautiful Gothic Architecture to the new campus with its modern architecture which many of the professors disliked. Some students were commuting across town to both campuses because contractors were late in finishing facilities at Ilam, the new campus.

I attended meetings of the local Mathematical Association and also had the privilege of visiting the District School at Oxford, with members of the Canterbury Teachers Association.

After the school term was over, I toured the West Coast of South Island, the Southern Lakes Region, Stewart Island, Dunedin and then back North to Auckland. My family and I were greatly impressed with the marvelous beauty of these regions. We had a little excitement too, for a large piece of Fox Glacier broke off as we were standing nearby. The large blocks of ice went cascading around the canyon and then started floating down the river, creating a loud, rumbling and grinding.

I also had the experience of driving the narrow winding road to Skipper's, a rugged mining area near the Shotover River. A sign is posted on that road which states, "Not for Nervous Drivers".

After driving about 8,000 miles in New Zealand, we flew back from Auckland to the United States, about June 17, 1966. It was getting cold enough so that we were especially glad to get back to a warm sunny climate.

The following activities have given me insights into how I can improve my teaching at Mount San Antonio College: visiting classes in Mathematics to observe teaching techniques, attending Mathematics Association meeting, going on field trips with officers of education associations, attending curriculum planning meetings, discussing problems of teaching with many teachers, observing school plant facilities and teaching aids, comparing curriculums, especially in the light of the amount of modern mathematics being taught and as to sequence of



material presented. In this respect, I found that a very integrated curriculum of mathematics is used in Australia and New Zealand in contrast to our more compartmentalized approach in the United States.

I certainly wish to thank the Board, the Administration, and the Sabbatical Leave Committee for making it possible for me to take this Sabbatical Leave with my family.

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