## Singapore and Me



Prof Andrew Wee, Dean, Faculty of Science, with Prof Peter Lancaster.

In 2005, I was delighted and honoured to win an NUS "Outstanding Science Alumnus Award". It awoke many memories and reminded me of how much I owe to NUS from the critical period of my career when I worked on my Ph.D. My arrival in the academic community in 1957 was a little unorthodox and, for better or for worse, would be unlikely now. The whole world was still recovering from the second world war (1939-1945) and, since I was born in 1929 in the north of England, I was a product of this era although I was too young to be involved in wartime services.

I spent the years 1948-1952 at the university of Liverpool ending with an honours mathematics degree. Subsequently, as national conscription ("the draft") persisted in the UK, I chose to do my national service by spending five years in the aircraft industry (1952-1957). This was an exciting occupation where I learned a lot about mechanics and aerodynamics, and found just how essential my mathematics training was in this enterprise. Industrial aircraft production in the transonic and supersonic regimes were in their infancy, as well as the beginnings of high-speed digital and analogue computing. In this period I completed a master's degree at

the University of Liverpool under the supervision of Louis Rosenhead, FRS.

In 1957 my wife, Edna, and I were ready to venture into the academic profession. Using the services of the "Association of Commonwealth Universities", and on the basis of the experience outlined above, I was offered a position as Assistant Lecturer in the Department of Mathematics of the University of Malaya - which was located in Singapore. And so we arrived in Singapore in September of 1957 - with a six-week old daughter.

Then the memories come "thick and fast" - my first lecture (to 150 engineering

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said Prof Peter Lancaster, winner of the Outstanding Science Alumnus Award.

students), setting-up house in an apartment in McAllister Road, the math department building at the Bukit Timah campus, playing basket-ball with the students, snorkelling off the coral reefs, moving to a house in Eng Neo Avenue, complete with orchids and bananas in the garden. But, psychologically, we were delighted to find that we could relax in, and appreciate, a multi-racial community - quite different from English suburban communities of that time.

Academically, I had brought interesting research projects with me from the aircraft industry. Now I had the time and the motivation to examine in detail procedures that, necessarily, we had used in an "ad hoc" way. The result was several journal publications giving mathematical analysis of the methods and techniques used in industry. I should also say that I was strongly supported at this time by the university's library collection, and by correspondence with some eminent scholars - mathematicians with an interest in applications (including A. M. Ostrowski, J. L. Synge, and G. Temple). We also enjoyed relaxed weekly seminars in the math department. Thus, professionally, I was able to conduct research and begin my teaching career during this period.

In 1961 (by which time I was a Senior Lecturer), it seemed that I had completed research that might justify a doctoral degree. So I consulted with my Department Head (Richard Guy) and the Vice-Chancellor (Alexander Oppenheim, "Op") who was also a first-class mathematician. And that is how I came to submit my PhD thesis to the University of Singapore. All the formalities were complete in 1962 (the year that I left Singapore for Canada), but there were unexplained delays in awarding the degree - until 1964. The examiners for my thesis were Leslie Fox of Oxford and Ian Sneddon of Glasgow. In fact, Sneddon recommended that I should develop the thesis for publication. It appeared as a research monograph with Pergamon Press in 1966, and there was a second Dover edition in 2002.

This was a time of political change, of course. In 1957 we came to a British colony and soon after, in 1959, came Merdeka Day and political independence. At this time Lee Kuan Yew came to power as the leader of the People's Action Party (PAP) - with a landslide electoral victory. The perception of some of us was that the PAP policies were further left than those of the Labour Party, but not so extreme as the Communists (there was still a state of emergency in Malaya). However, the many subsequent years in power gave different impressions. Under Lee Kuan Yew's leadership Singapore has prospered beyond belief. This included joining with Malaysia in 1963 followed by separation to complete independence in 1965. I will not attempt to go into detail, but it was clear that Lee Kuan Yew took great interest in the university and several of the prominent scholars and administrators (although I believe that mathematicians were not among them). The title of "The University of Singapore" was adopted on January 1st, 1962. (Here,

I found Wikipedia useful, and was delighted to find a relevant book by a former colleague on my departure from the airport in 2011: K.G.Tregonning, "Merdeka and Much More", NUS Press, 2010).

Since 1962, I have been fortunate to make some brief visits to Singapore and observe its extraordinary growth and prosperity. I served as an External Examiner for the Science University of Malaysia from 1975 to 1981 and took the opportunity to make brief visits to Singapore in 1978 and 1981, shortly after the merger with Nanyang University. This gave me some sense of the evolution of the National University of Singapore. (I believe it was in 1981 that I first saw the Kent Ridge campus.) These short visits indicate that a broad-based sophisticated educational system has evolved. Of course, the extraordinary architectural styles take one's breath away although Raffles Square, which was once the heart of the city, is now swallowed up amongst the huge office towers. I am glad to see that, amongst all the new developments, the botanic gardens, Bukit Timah campus, and the Singapore river/padang/city hall area remain intact.

To close, let me add that I am proud of my affiliations with the National University of Singapore and of the international stature that the university has achieved.

By Prof Peter Lancaster