NZGC
CASSETTE
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	Abstract – Barry John Davidson Engineering Library University of Auckland Oral History Archive **Recorded: 11** January 2008 **Interviewer:** Patsy Hulse **Abstracter:** Susan Brookes UoA means University of Auckland SoE means School of Engineering (?) means the spelling may be wrong. (brief cv) means brief details of the subject's academic &/or corporate career are given.
	Tape 1 of 2
	Side 1 of 4
19	Name, born 14 February 1949
25	Chose engineering because maths was more interesting than physics, good teacher, **'Taffy' Evans**, 70% of his **Hamilton Boys High** class went on to engineering. His father sold polyfloor and worked with architects and engineers and encouraged him into it.
57	Chose Auckland rather than Canterbury because it was closer
83	Didn't go straight to SoE, last year at school mixed up, after discussion he seldom attended classes and studied at home for everything except maths. The headmaster was liberal to allow this. Also travelled around with his father on selling trips. Got a scholarship essentially on his own study.
122	Came to Auckland and got into (2nd pro?), which was prestigious. Could have gone to univ straight from the 6th form at 16, but was advised not to.
145	Stayed at O'Rourke Hall, went to a few lectures, was reminded of school, and left. Did maths by correspondence through Massey (1967), and working for **Crothalls Gardening** (?) with big workmen, then went to Mt Maunganui and worked on wharves there. 10 hour working days, with study afterwards. Many of his friends had gone to univ, studied for the intermediate, but not all passed. He got an A+ for his maths, had saved money (enough for a Triumph Herald)
190	1968, started univ again, doing 4 papers for his intermediate. Was determined to do well. After working he thought the easy life was to get a degree. He got straight As.
215	SoE had moved to Symonds St, the new building was still being finished in 1969. Quite different to how it is today, only one female student, **Judy Fish**. You could stay at univ as long as you could pay the fees, so some people were there because they liked the life. Behaviour was often bad; naughty rather than bad. E.g. flour bombs on lecturers. Smoking was allowed in the buildings, but not the lecture theatres.
258	Chose Engineering Science, could have done a BSc in chemistry, but wanted to do engineering. Enrolled initially in Mechanical, but changed during the year to Eng Sci because it was all about computers. SoE didn't really have even calculators, let alone computers.

292	Tried to explain it to his father, who thought it a little strange. Eng Sci suited him, maths, theoretical, 4 good lecturers (**Segedin, Rosser, O'Sullivan, Medlin** (?), small classes (12 students), open door policy. All mates together, very relaxed. Had a marvelous education
320	Eng Sci students did lectures in other depts and faculties, egs given. Almost everyone in Eng Sci got honours, and most went on to masters
348	Marking was changing from all on a final exam to continuous assessment . Except engineering which already had about 30% on an exam at the end of the first term. Assignments etc didn't count towards your final mark.
365	Has the pass rate changed? Thinks so, but no figures on it. Fail rates when he started teaching were 20-30%, thinks this has declined.
380	SoE while he was a student: the Dean's position was cycled through HoDs then, meant admin was more collaborative – security systems are much stronger now, there were drawing rooms/offices open 24/7 and never locked and there were no problems – it was fun – used to know 'everyone' – there was more cross-dept teaching
427	In his time 1st year papers included maths & materials ones, and these haven't changed a lot. The electrical guys changed the balance as their students weren't getting enough maths. Others have changed over the years too. Year 1 is still done in common, but that may change
440	**Haka party:** another era – part of the annual Capping Parade in May. SoE had the haka party, anyone could join, they dressed up in grass skirts, painted on tattooes, & spent time learning a haka. Got up early in the morning, went to get prepared in the old architecture school sheds, drank beer, went out to the old DB brewery, did some hakas, had beer for morning tea, did another haka, went through Otahuhu streets to police station, ran through the station, banged on the cells' doors, back on bus to the SoE, more beer & hakas, then out to the univ. Went through lecture theatres creating havoc. Ended up in pub at Fort St, more beer, then into intersection and would lie down to stop the cars. By then it had got to midday and they led the parade, with a haka at each intersection.
	End of side 1
	Tape 1of 2 **Side 2 of 4**
35	**Haka party & Capping Parade** – led parade up Queen St and along Karangahape Rd. Tired and home to bed by 3pm. Next year he didn't join, as it seemed a bit childish, but fun. A few years afterwards, it was considered racist, and it stopped. No intention to shock or offend anyone, probably naïve rather than racist. It was the way things were done at the time
80	Change to Civil Eng: didn't change as a student. The structure papers he did, and his summer/work experience jobs led to civil. Worked for a Dutch structural engineer, who was amazing, very interested in using computers, for matrix methods.
110	Designed roof trusses for **Te Kuiti hospital** as a student
120	Did structural course with **Ian Medlin** (?) in Eng Sci, then 2 courses with **Ian Duffell** (?) in 1971, more than he could have done as a civil student. Became very interested in structural mechanics.
140	PhD studies began with **Ian Medlin**(?) (brief cv)

158	Decided to stay at univ, had been very motivated and got straight As, got 1st class honours, was a bit arrogant at the time. Had agreed with friends to go overseas after graduation. Culture in Eng Sci to continue on at univ after graduation. Applied for a scholarship to study for a PhD, got one, so stayed here.
200	Was keen on structures, **Medlin** was interested in the structure of the body. He could have followed that route.
221	Doing the PhD was mostly fun. Shared an office with **Andrew Goff** (?), then **Gib Bogle** (brief cv). Gib was a left wing hippy, BD was uptight, but they became good friends and still are.
265	One influential thing – when he wrote thesis, in his 3rd year **Medlin** went on sabbatical, very close group in Eng Sci, ran together at lunch time. One was **Glen Sinclair** (brief cv) who offered to help him write the thesis. Wrote the first chapter (by hand in those days), gave it to Glen, Working through it took ages, perhaps a combination of his lack of writing skills and Glen's perfectionism. Second version fared no better; still on page 1. Didn't use Glen's help anymore, sent the rest back and forth to Medlin by post. Finally done, took about 14 months. Submitted it, **Segedin** called him in and said there was an issue as some of the work was Sinclair's; not true. Had a good relationship with Segedin, as did Sinclair. Wrote to Segedin setting out his case, and why Sinclair should not be one of his oral examiners. With Medlin's help it was resolved. The process was very stressful.
400	There were 6 months before the oral exam for admin reasons, gave him time to re-read and re-examine it as an examiner would. Wrote out every question he thought could be asked, and then researched and wrote out the answers. The oral was a breeze. Needed to make no changes to his thesis.
432	Blames this for the slowness of his authorship in his early academic years. A lot of his research has never been written up.
444	Left univ. He never intended to be an academic, always wanted to be an engineer; did the PhD to differentiate himself from the other 1st class honours people. Never regretted his PhD, it opened doors in the USA. **Robin Shepherd** taught earthquake eng, BD had done consulting work with him as a PhD student. BD had 1st bit of free dimensional structural software in NZ. **Kingston Reynolds Thom & Allardyce** were designing extensions to the **Air NZ** hangers for 747s, and had to work out the trusses, he did the work with **David Hopkins** (brief cv). Trusses were built in Whangarei, he & **Robin Shepherd**, **Mike Jones** went up and physically tested it. That was fun. The truss is still there 40 years later. It was his 1st consulting job.
487	Wanted to do more structural work, was interested in earthquakes, decided to go to California. **Robin Shepherd** helped, and he had 2 job offers in LA and **San Francisco**. His wife thought the smog in LA was bad, so they went to SF.
	End of side 2

	Tape 2 of 2 **e 3 of 4**
10	**San Francisco**: got job with **Russell McGeorge (?)**, ex-Shepherd student, in company **EDS Nuclear** which worked in the numerical analysis of structures because of his work with stability. They were designing a floating nuclear power station off the coast of **New Jersey**, to be built on shore on 2 barges, and floated out to a horse-shoe breakwater. The station would be anchored to the breakwater with 2 telescopic arms. Stability was important, to withstand wave and wind resistance and impacts from planes or boats.
100	Became involved with research & development of software for finite element techniques. Worked with **Ed Wilson** from Berkeley (Description of his work) & **Graham Powell** (?) (who worked in non linear analysis) on the software needed. Still Cold War, so safety and defensiveness crucial. Still good friends with them both. Exciting work. Worked 60-70 hours a week.
177	**Civil Eng Dept** asked if he was interested in a job here. Wife wanted to come home after 3 years. Enjoyed **San Fran**. Was very well paid there. Hadn't thought of an academic career. Wrote to consultants in NZ and asked about possible jobs. Got 3-4 offers, all offering about the same wage (approx $12-13,000.00). Took the SoE offer for the freedom of work offered, started there 1979. Got job with **Murray North** in interim between arriving home and univ, working on their new computer a **PDP8**. He was used to a CDC computer in the US, which was much bigger. Needed to re-write Etabs (?) software to run on the smaller computer.
258	Started at univ in 1979 with Civil. He had to teach subjects he had never been taught himself, e.g. Structures 1 & Design 1. **Richard Fenwick** shared his notes to get him started. No teaching training was offered. He had been shy of public speaking before then. Anecdote on the course evaluation at the end.
316	Subsequently won teaching awards, even topped SoE teachers in the 1990s. Got a call from **Texas** offering a job, he was 40, decided to go on a year without pay.
350	**Texas**: made a manager, realized how poorly the univ manages its staff. Never felt valued at UoA although he enjoyed his time there. Felt important and useful in Texas, wrote papers there, came back totally refreshed. Got teaching awards on his return. Became aware his job was really important.
380	**Civil** was strong in his undergraduate years, about half of the whole SoE, & dominated the resources too. By early 1980s civil was fighting to keep resources, as students were down to about 60, and Mech and ECE were growing. Slightly depressed dept as a result. Trying to 'make do' all the time, couldn't afford new equipment. When he was an undergrad most civil students were really structural engineers.
420	**Civil** added environmental, resource, traffic, management eng. Also absorbed mining from **Otago**. Structural section was contracting. Taught mostly with **John Butterworth**, marvelous academic & person. BD researched mostly with **Richard Fenwick**, different characters and research styles, complemented each other. Published about 80% of his papers with Richard.

456	**Students** today v students then: Students marvelous now, his lot were naughty. Because assessment was on the final exam, you could muck about and swot at the end to get through. Continuous assessment has changed this. Proportion of **female students** (possibly 30%) has also changed the SoE culture. Boys together concentrate on having fun. Girls no longer have to be tough to be in SoE. E.g. place of drinking parties has changed.
	End of side 3
	Tape 2 of 2 **Side 4 of 4**
10	SoE personalities: **Gary Underhill**, lecturer in Mech, had a very loud voice, in 1st lecture asked all students to say whether they were A, or B, or C grade students, there were 3 exams each time, one each for a,b,c. If you chose a, you sat a and if you passed got an a, etc. A new and different way of approaching teaching. Some students didn't like the system and threatened violence.
79	**Cecil Segedin** taught almost every student for about 40 years, a great personality, had been a chain smoker at Ardmore, didn't smoke in city and seemed jittery while he taught (withdrawal?) A very good teacher. Lovely person, always kept an open door, would chat about life as well as maths. He always had piles of good paper, and many sharpened pencils, and would solve the student's maths problems very quickly
138	Prof **Mowbray** taught structures in his final year, was supposed to hate Eng Sci, would talk to BD because BD had done structures course with him. Used the interrupt button on the lift to stop Eng Sci people entering it from level 8.
165	Smoking was prevalent in the SoE in early days, BD suggested banning it in the lifts and was laughed out of the faculty meeting. Now it is banned everywhere
180	About 2000 there was a debate whether **Civil** should be a small and specialized dept, or a large general one. He supported small and elite, now thinks he was wrong. An ex-student became head of the advisory board, worked with **Bruce Melville** to put objectives etc in place. Sad that all students do year 1 and then it becomes a competition between depts. for numbers in year 2.
214	Changes in the economy effects **Civil's** growth – more building, more infrastructure, etc. means more jobs. Now 180 students, grownx3 over 5 or 6 years; but staff numbers didn't go up except in the last year. Poorly managed at the higher levels.
236	He retired mainly because he was unhappy, not distressed. Asked to teach more students, over less hours, less contact hours, and still get better results – it is hypocritical.
258	**Research** climate is good now, univ has done that well, better financed, encouraged to apply for grants etc. In his early days **Civil** had a lot of research money, but that wasn't true when he was teaching. It stopped students coming back for postgrad studies. Good that that has changed.

285	12th **World Conference for Earthquake Engineering** 2000: as NZ is world class in structural earthquake engineering, he promoted this being held in NZ, and organized it with **Richard Buchanan** of **Convention Management**. 2400 attended. Ended up having to do the introductory speech himself at less than 12 hours notice. Took almost 4 years to organize
375	Did a lot of consulting over the years, including damping designs for **Sky Tower** with **Mat Irwin** (?), seismic isolation (1st in NZ designed by **Les Megget** (?)) with **Stuart George** (?) for **Princes Wharf**
422	President of the **NZ Structural Engineering Society:** was volunteered into this. **John Scarrie** (?) complained to IPENZ about the quality of NZ structural design. Has chased up poor quality design, and tried to improve things in the last 5 years..
	End of side 4