

EMERITUS PROFESSOR JOHN BENNETT INTERVIEWED BY RICHARD RAXWORTHY
12.6.1995.

SIDE ONE TAPE ONE - STARTS 0012.

014 - John Makepeace Bennett, born 31st July, 1921, in Warwick, Queensland.

017 - Grew up in Warwick and at 12 went to the Southport School until 16. Then to Sydney University and graduated at 20 in 1941. Degree awarded 1942 in Civil Engineering. First class honours.

022 - Came back after the war as he had been under 21 on graduation.

023 - Spent the war in radar and then airfield construction then back to Queensland to complete degree in Mechanical and Electrical engineering (1946)

027 - The war - radar. Did a course under Professor Bailey. Second of five courses at the Sydney Uni. School of Physics.

031 - Spot exam - a few passed - sent to Richmond to dig ditches for 6 weeks - then asked to set up three mobile radar units - talks about this and where they were set up.

042 - Back to Darwin in charge of a ground control interception unit - G.C.I. at Mackie's Lagoon. Describes lagoon.

046 - Then to Melbourne. Attached to RAAF Headquarters to write a book - detailing every component and piece of radar equipment.

051 - Then to airfield construction corps at the end of the war and discharged from there.

052 - Queensland University and then work with electricity supply authority, City Electric Light. (now South East Queensland Electricity Authority).

056 - Job to predict the amount of copper required between point A and point B on the Brisbane River Valley ten years ahead. Used a desk computer.

059 - Heard a talk about a computer being planned at the National Physical Laboratory in England - and applied to Imperial College to do a Phd. Granted a rehabilitation scholarship. Application was handed on to Douglas Hartrey head of Mathematics Laboratory at Cambridge who invited him to Cambridge to help build EDSAC (Electronic Delay Storage Automatic Computer) at Cambridge.

PROFESSOR BAILEY, DOUGLAS HARTREY|PF1.

071 - Spent one year building it and two years at Cambridge finding out how to use it - doing calculations - oriented towards engineering use.

074 - First research student of Morris Wilkes generally regarded as the pioneer of computing in England. Held to be responsible for building up the first working unit.

078 - Machine at Manchester an experimental prototype.

081 - Explanation of his earlier desk computer - really a mechanical calculator (maybe a Marchant). Talks about it.

086 - Principle of Cambridge computer discussed and also initial storage facility in early computers.

093 - Three units used in radar were also used in the initial storage in computers

Mercury lay lines.

Cathode ray tube storage.

Ultrasonic delay in solid wires.

Bennett involved with all three.

098 - Computing industry took off from these three.

102 - Computing now combining with radar to make a contribution in the reverse direction. Without radar computing would not have got going for a long time.

105 - Americans developing cathode ray tube storage and mercury lay lines. Talks about their approach to development versus Wilkes.

115 - First cathode ray tube store unit which was used took the form of Wirlwind but was not operating until early in the fifties. Wirlwind at M.I.T.

118 - Financed by the Defense people - talks about this and what it was used for.

128 - Early influences - brother a Rhodes scholar - at Oxford for three years, also his mother.

136 - Cambridge again. Repeats how he came to be in the field he was.

141 - Interested in stress analysis. Probably did the world's first Stress Analysis Program and one of the first Load Flow calculations. Load Flow done on a bigger machine at Manchester.

147 - Reasons for going to Manchester and why he left Cambridge.

153 - Ferranti group offered him a job in Manchester to set up a programming group at Mostyn

MORRIS WILKES, FERRANTI GROUP|PF1.

159 - 40 year after get together about a year ago. Talks about the people and the machines which were built, and the government contract.

169 - Times of access to the machine - never knew when.

174 - Got all sorts of jobs for the machine, government and private. No knowledge of computers in England at that time. Learnt much about British business through this.

185 - Head of Engineering Group - Brian Pollard

Instrument Department Manager - Carter. Responsible to Grundy who was Head of the whole factory at Mostyn and who had recruited Bennett

In Bennett's group - these to be mentioned in an article in the Annals of the History of Computing.

197 - Recollections from those days.

224 - Description of the computer used then and its system, also its faults.

241 - Computer language used then. Describes.

248 - Talks about a famous name associated with computers then on the staff and who went to Bletchley Park as a code breaker.

260 - New machine - Manchester Mark 1 Star - sold very well. Still using Cathode Ray Tube storage. More reliable than first machine.

267 - Basic problem in radar - to find out if an object had moved. Talks about this and the methods used - technical.

283 - Describes divisions in Ferrantis and the various programs used in parts of the country.

293 - Description of radar and the TSR2 plane - contract cancelled and Britain lost lead in fighter aircraft.

308 - Current move towards Unmanned Aerial Vehicles. Talks about this.

332 - Stayed at Ferrantis for three years when the place changed. Talks about changes mentioning Grundy, Pollard and Elliot Bros. also Bill Elliot (not related to the company)

341 - Bill Elliot and the group he set up in London.

346 - Basic technical idea of the group - describes.

364 - Their ideas appealed to Bennett so he joined that group.

366 - Main responsibility to design machines which would form part of a tender describes three of the machines.

BRIAN POLLARD, FERRANTIS, GRUNDY, ELLIOTT BROS. BILL ELLIOTT
END TAPE ONE SIDE ONE. |PF1.

TAPE ONE SIDE TWO

022 - Continues to describe the three machines and their uses.

041 - One machine went to South Africa to South African Mutual an insurance company. Talks about the reasons for them wanting one in a country of cheap labour and the influence of Aparthied laws.

054 - Technical discussion on the storage unit used.

062 - Gordon Skarritt developed a tortional delay line store. He gave a talk in March this year to the British Computer Society history section. Published in Journal "Computer Reserections".

071 - Major advances from the time of leaving Cambridge and Ferrantis.

073 - Left Ferrantis in 1956

074 - 1959 Transistors introduced.

075 - Main advances were in programming and producing a basic set of units which could be put together.

080 - Magnetic tape discussion and Italian involvement with computers mentioning Professor Piccone in Rome, Bernard Swan who was Sales Manager, and Vivian Bowden.

098 - With the Italian order for a computer Ferrantis went ahead and developed a good set of tape units.

100 - Continues to talk about funding of the computer - tied up with Marshall Plan money and the ramifications of this.

024 - 1951 Festival of Britain - Ferrantis had said they would display a computer. This was impossible so Bennett suggested they display the game of Nim. Talks about this and how it was done for the Festival.

151 - Bennett kept in touch with Bill Elliott. Talks about his work progress and how he left Ferrantis for IBM with his team.

159 - Charles Owen responsible for the design of the individual units and in Bill Elliotts team he went on to design the 360-30 using the plug in technique.

164 - Gordon Skarritt stayed on with Ferrantis - had ideas ahead of his time - not taken up commercially so he retired.

173 - Combining of computer companies due to bureocratic insistance. Talks about this. This led to their takeover by the Japanese Fujitsu Group.

192 - Talks about his main competitors and their alliance with the government.

GORDON SKARRITT, FERRANTIS, PROFESSOR PICCONE, BERNARD SWAN, VIVIAN BOWDEN, BILL ELLIOTT, CHARLES OWEN|PF1.

205 - Bennett met the Ferranti family and talks about the second generation including the one in Sydney, Bariziani Ferranti who made a major contribution to Australian computing.

225 - Offered jobs in the USA by IBM and Chesapeake and Ohio Railroad Company.

239 - Saw advertisement placed by Harry Messel. Talks about development of computers in Australia mentioning, John Blatt, Trevor Piercy, Brian Swire, STC.

264 - Messel wanted him to build up the programming group and it was a chance to come back to Australia which they did at the beginning of 1956. Brian Swire looked after the hardware.

287 - Bennett and T.G. Rune introduced first a post graduate diploma and then describes how he managed to introduce a computing course from first year.

318 - Introduces an Honours course.

324 - Story about the halving of the computing course by the then Chancellor and the quality of the students.

364 - Stayed at Sydney University. Until 1979 part of Harry Messel's department. Messel is now at Bond University as Executive Chancellor. The Department of Computer Technology there headed by Peter Poole.

FERRANTI FAMILY, BARIZIANI FERRANTI, JOHN BLATT, TREVOR PIERCY, BRIAN SWIRE, HARRY MESSEL, T.G. RUNE, PETER POOLE.

END TAPE ONE SIDE TWO.

TAPE TWO SIDE ONE

EMERITUS PROFESSOR JOHN BENNETT - INTERVIEWED BY RICHARD RAXWORTHY
12-6-994

012 - Talking about work done at Sydney University and his interests - (manipulation of large quantities of data in a scientific context) also the collaboration between the scientists in joint projects.

022 - 1961 onwards the interface role - reduced - combined projects happened less and less.
Department produced five or six hundred reports on various technical research operations since that time. Became more and more concentrated on the mechanics of doing things with a computer, rather than how to solve other people's technical problems.

031 - During that time people had been trained in the use of computers who had gone on to do PhDs in other areas, e.g. history, chemistry using computers.

037 - Computer language and its uses - now dominated by the cost of programming. | PF1.

