

**NSW PUBLIC WORKS - ORAL HISTORY PROGRAM
INTERVIEW
VERBATIM TRANSCRIPT**

INTERVIEW

TAPE NO.	27, SIDES A and B
INTERVIEWEE	Mr Miles Frederick Colvin (Miles)
INTERVIEWER	Mr Michael Newman Clarke (Mike)
TIME/DAY/DATE	Sunday, 21 June 1992
PLACE	27 Lake View Drive THORNLANDS QLD 4164
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ORIGINAL TRANSCRIPTION

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ORIGINAL EDITOR Michael Kateifides

EDITOR'S NOTE:

Square brackets [] indicate the editor's explanation of abbreviations and other words jargon) commonly used in the interviewee's field of activities, that may not have enjoyed general public usage then, and/or today.

FINAL EDIT AND TRANSCRIPTION

Michael Clarke on 23-26 March 2004, from the original transcript (with some corrections by Miles Colvin) and from the tape.

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NOTE

Text in curved brackets () are either explanatory comments inserted by Miles or Mike, or corrections by Mike of known errors in the actual interview.

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- VERBATIM TRANSCRIPT -

Tape 27, Side A; Miles Colvin/Mike Clarke

(min:sec)

00:00 **Mike:**

Miles worked for the Department from some time in the 1950's to the mid 1960's. Miles, tell us a little bit about your family, perhaps where you were born, your parents and a little bit about your early life.

Miles:

I was born in 1932 in a little hospital in Darlinghurst and my mother came from Melbourne, she was a Melbournian and the daughter of the leading flautist of the Melbourne Symphony Orchestra. My father was a sailor, a master mariner, who eventually lost his life in the Second World War in 1944 with a Japanese Submarine in the Indian Ocean. I lived with my mother at Mosman for most of my life and there attended a local school, the North Sydney Boys (C of E) Grammar School for boys, Mosman Preparatory, Mosman Primary and Naremburn High School, after my father was killed.

My mother became seriously ill and I had to leave home to live with an uncle in 1948 and I took up first employment as a Junior Clerk at the Valuer-General's Department in Phillip Street and attended the external studies evening school at the Sydney Technical College. I remained there for two years, 1948 and 1949, and then attempting a repeat year for the leaving certificate due to a coal strike in 1949 where there were no lights in Sydney, in fact the whole eastern states had no lights for some ten months but I repeated the leaving certificate at evening and by private study, leaving the Department of

02:28 Valuer- General's a to take up employment as a survey chainman with a firm of consulting Engineers, Gutteridge, Haskins and Davey who then had offices on the corner of Bligh Street and Hunter Street. I was with them until December 1954, when I changed my employment to the Department of Public Works in the Drawing Office in Phillip Street in, what was then known as the little old tin shed.

The then Principal Designing Engineer, Mr Angelo Lewis, a gentleman of the old school and of very gentle disposition, had been for some time beseeching me to take up employment with the Department and so I finally approached him. He then said that was excellent, but he would need to check my draughtsmanship and could I ring him an example of a plan that I may have drawn. So I hurried off and scuttled back to the consultant's office and came back with a plan. He took one look and said, "Vertical printing in the title block and centre lines on the drawing, you pass the test!", and that was all I needed to complete a job interview, which I thought was an interesting way of

03:57 assessing a potential employee's capabilities. I took up employment the next Monday morning and sat at the end of a long bench, while others around me sat in similar forms in benches and rows for two hours before I even realised what the title of the position was let alone the salary, or what I was paid, so at eleven o'clock in the morning I went back to Mr Angelo Lewis, thanked him for the position and the job, said that I was very comfortable and very pleased and delighted, but what was the salary.

He then apologised most profusely that the Department couldn't pay enough. He understood that all Engineers were lowly paid particularly those of the Department, so after some persuasion I managed to get him to tell me

04:49 that the annual salary was £830 per year. I nearly fell over because Gutteridge, Haskins and Davey the consulting engineers paid me £510, and I was subsequently to learn that for the rest of my life the consulting engineers are notorious under payers and robbed their staff. I was delighted and I went back to sit next to the man I was having great difficulty communicating with. He was a Bulgarian of ferocious appearance, a red face, jet black hair, the blackest eyes I've ever seen in my life and a grim expression; I had run into Marin Nikoloff.

But after a couple of days he softened a bit and proceeded to talk to me and I found out what was the matter. He thought I was a Jew (he disliked Jews as a lot of Europeans do), because I spoke German with a Jewish accent. I had, you see, in the consulting engineers worked for four years under the Chief Draughtsman an Austrian Jew who could hardly speak English.

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(min:sec)

05:44 When we got over that everything settled down fine. We were in the Water Supply Design Section, the head of that section was a fellow called R.V. Bate, Reginald Vincent Bate. He was a very obnoxious sort of a fellow, very rude, very abrupt and non-communicative, and disliked entirely by the staff of the Water Supply Section. He had an excellent gentleman as a 2IC, who was very communicative, very helpful and loved by all the staff – Alf Bramley. So the younger members of us, including ex World War II people from Airforce and Army who were on the staff and recently qualified or were attempting to qualify in Engineering, all got together and that it was time that Mr Bate, who was 66, should retire and give Alf Bramley a go.

So we started a subtle campaign that ensured his early retirement would not deprive the man of any financial loss and put him into a well earned rest. So we cut half an inch off one leg of his table. That made it rock for two days and annoyed him extremely. When he fixed that up, we cut half an inch off one leg of his chair.

07:05 That also proceeded to annoy him. The final coup-de-grace was delivered by Neil Fox. Neil Fox was ex Air Force, and he was faster and quicker than the rest of us with his brain and his nimble attitudes. Neil Fox decided that the best way was a mental one. Old Bate used to walk down the stairs, across the road, into the stone building, up into the lift which was pulled by a man hanging onto a rope, to the Plan Room. He would get out the linens for the new job, he would then go down the lift, across the road and up the stairs. The effort of doing this, the fellow had low blood pressure would send him to sleep.

Fox then picked up the plans and he would go down the stairs, across the road and up the lift, put them back in the plan room and say to the attendant Paddy, "he never got them" and he'd say, "Right, rip out the receipt from the book". Bate would wake up and say, "Where's those plans". Fox would look him straight in the face and say, "What plans, Mr Bate, there were never any plans here". Three weeks later Mr Bate retired on the 28th June. We all remember that date, Peter Nelson, myself and others with some emotion. Well, that's how Alf Bramley got promoted and ?? became 2IC; and we all had a fun time.

08:22 **Mike:**

I presume that during this time you were studying and going to tech.

Miles:

That was the expression used "going to tech" because in those days, 1954/55 around that time, there were really only two established institutions of learning for the professions, that was The University, Sydney, and that was the title used on its letterhead, it was never University of Sydney, and the Sydney Technical College. The University of Technology had begun and we evening students were taken under its wing to swell its student numbers, but there were essentially two institutions only, so the top 10% went either by cadetship or by private funding to full time University and 80% of the practising engineers were evening students or evening graduates of the Sydney Technical College.

In the Works Department when I joined there was Bill Skinner, Ray Cooper (who couldn't pass second year after

09:34 nine years of attempting), Neil Fox, myself and of course, a younger group of middle European refugees like Vic Taylor, whose actual name was Shevchenko, Nikita Schkapsky and other people who formed the student group of the evening students who were attending three nights a week and one afternoon at Ultimo. I would have joined at the end of my 4th year and my and we all went six years, the

10:05 minimum course time was five, we all took the course plus one because it was rather arduous and demanding at night and then we had to fit in practical exercises and things at weekends. I don't think I can tell you much more about

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(min:sec)

those days unless we went into a long time of the interesting transition from Ultimo to the new campus and the change in name which was to become the University of NSW. In my final year we all did go to Kensington for lectures in town planning (*within the Faculty of Architecture*).

10:42 **Mike:**

Back to the Design Branch, the old tin shed, I understand it was reputed to be the haven of characters, eccentrics and perhaps some misfits in the Department. Do you have any stories to tell?

Miles:

The stories of the "tin shed", as it was called are many and enormous and some have grown into legends. Yes, there were characters, there were eccentrics, there might even have been misfits, but it was a very interesting collection of multinational and multicultural people. It was an experience, it was education itself to work in that building.

The ground floor was peopled by sundry old builders like carpenters, electricians and other sort of people and was called the BC&M Maintenance Depot - it had industrial officers and all sorts - a typing bureau run by the greatest dragon the typing service has ever seen in many, many generations and the girls lived in fear of her, and so did we. We trod very warily on the ground floor and rarely went into it.

We, being engineers of the Design Branch, lived on the top floor. That top floor had a hallway down the middle, which divided the Special Investigations Branch and they were the boffins, the real brains, and I think there was one locally born Australian in there, the rest

12:20 were all middle Europeans of some form - Russians, Poles, Austrians, Lithuanians, Latvians and Bulgarians, which made up quite a mixture of these with a variety of names and characters and the only Australian being Dryden, the Assistant Principal Design Engineer who looked after special projects. On the other side of the hallway we had Water Supply, the Harbour Structures, the Sewerage Branch and the Mechanical Branch forming the main design units. It was nothing to come in there in the morning and say good morning in two or three different languages, there was "Guten Morgen", "Guten Tag", "Shin Doprav", "don-brah-yeh", was spoken quite frequently and it was the first connection we younger ones were getting with overseas customs, overseas

13:60 languages and constantly through the day there was conversation as the European educated and based engineers were translating from their metric systems to our Imperial which we worked on there, so words became familiar to us we had never heard of before - Stahl und Eisen and ??? and other matters relating to steel, the strength of steel and the strength of concrete, which in itself was an education.

We equally had five women tracers two of whom were from overseas, Melitska Vejinska and Melitska Sokolnikov and there was quite a lot of interplay among those nationals. The Poles disliked and mistrusted the Russians and the Russians mistrusted and disliked the Bulgarians and so you had from time to time quite a lot of international rivalry with people saying things like "Psh-air-pun" which was rude to the Polish and the Polish then getting very excited with the Russians.

14:24 So it was quite often we were calming people down from time to time. But yes, there were the characters. Dudley Renard, Big Bill Cameron, who we later found out had an enormous growth in his brain, which is why he kept doing his designs to seven decimal figures, although told that carpenters couldn't build formwork to seven decimal figures but that didn't seem to worry him. He had a little fellow, a little Scotsman him he was very friendly with called Allsop and Allsop was a draughtsman, in the same Harbour Section, it was very much like a Laurel and Hardy comedy team. They kept us amused quite often with their interchanges and their loud voices interspersed with Dudley Renard down the back lane throwing stones at the building because something had happened within the Branch that he didn't particularly like. So he used to go

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down the pub, have a couple and throw stones at the building. Poor old Mr Lewis was quite deaf and couldn't hear it.

I will indulge in this story that was a classic of its time, regarding the assimilation of these migrants. We had, in the Design Branch, two fellows with a very similar surname. One was Franz Brodovski. He was a little Russian who was a tank commander at the Battle of Stalingrad, the other was a tall, elegant, aristocratic Pole and in the true arrogant manner of an aristocratic Pole, Eugene Bobrowski wore his coat with its velvet lapels on his shoulders only, he never put his arms in the sleeves. He always stood side on in the manner of an actor and had a cigarette in a long cigarette holder and looked down his nose at everyone and never spoke a word. His work was meticulous and his draughtsmanship was beautiful. That's all you could say, it was artistic and beautiful. His habit was, during the lunch hour, to walk to the ground floor, across BC&M and out the back door. He would pause and look at the lunch time chess club. Colin Long was the Chief Industrial Officer and he was head of the PWD Chess Club. The Chess Club was taken very seriously by

- 16:54 the members and entered in the City of Sydney Competition and were so well versed in the art of chess that it managed to get to the finals. However, the chap that was to play Dr Steiner, who was representing some other club at the City of Sydney (remember that Dr Steiner was world class, he himself had played in World finals with Koshnitski and others of similar chess fame), our contestant had fallen ill and couldn't attend and the club and the committee asked Eugene would he represent them, since he seemed to be very interested in chess, could he play. He nodded acquiescence and rarely said anything. Colin Long couldn't stand this arrogant fellow who would say nothing and wouldn't participate in lunch time games and he went along with it, to see that Eugene was going to get thoroughly done and disgraced by this world class player, Dr Steiner. Neil Fox said to me, "Come along, old Longy doesn't know Eugene's background. He is five times Russian champion and twice world champion".

Foxy was given to telling a lot of stories and you didn't necessarily believe ever him first up. However, on the night we went up to Rowe Street to the Blue Tea Rooms, which are now gone, just behind the Hotel Australia which is also now gone,

- 18:21 and we sat their waiting while this Eugene and other people came in and then arrived a short stout fat little man with a black homburg hat and a big coat. He came in, hung his hat up, turned around and said, "Alright, where is the game, where do I play?" and then sights Eugene and says, "My old friend, Eugene", and with a warm continental greeting the pair of them kissed each others cheeks, slapped each other on the back and the chairman for the evening said, "Come on Gentlemen, the game...". "Game!" said Dr Steiner, "You want me to play this man, five times Russian Champion, twice World Champion. Don't be stupid. Come Eugene, we drink brandy", and that was the end of the contest, the game was conceded. Mr Long took three weeks sick leave and bought two pounds worth of Lottery tickets to try to cheer himself up. The Chess Club was never the same.

It sounded as if there was a lot of fun and no work, which isn't so. In those days the engineers didn't have computers they had slide rules, but they did their own calculations, but more importantly, they did their own drawing and we always considered it very

- 19:33 important that we drafted our own designs, because we put the thing together in our head and we did our self check. These days with the more modern technology of computers there is not the same ability to be able to check your work as well as ensure that things fit together and can actually be built.

We had an enlightened Departmental management particularly in form of the then Director, old Jim (Jack) Main. Old Jim Main was as deaf as a post, but he had his heart in the right place and he was very concerned with staff morale and keeping the staff together as a team with a high departmental esprit de corp. To this end he set aside the basement of the tin shed and turned it into a theatrette and encouraged all forms and a variety of amateur entertainment ~~such as amateur dramatics (revues, concerts, choirs etc).~~

20:30 We had a very good dramatic society to which he employed a fellow (Probert Lewis), ~~as a clerk~~ as a clerk allegedly as a clerk but really to be the producer and director of the little theatre group. He also had an ancient Englishman from the BC&M Depot run a musical choir and tried

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to run community singing.

Some lunch-time concerts enlisted the aid of performers from the Conservatorium of Music, which was not very far away over in the Domain. String quartets and other performers of this nature would come over and quite happily give recitals for their own practice and education. On one particular occasion old Sid, the Englishman, announced that the guest singer that was coming over from the Conservatorium had laryngitis and couldn't perform, however a junior clerk from the Records Section of Italian extraction, Mr Ben Vergarda (*Vergona?*) would sing that day.

We were sitting there eating our lunch and saying well that's very fine for someone to volunteer in this fashion. We weren't prepared for what came next. Out to the centre of the stage where, unfortunately, there was a pipe support for the building dividing the stage, sauntered this unkempt looking young man with more than a five o'clock shadow who leaned nonchalantly against this pole and broke into the opening bars of Nesso Dorma, which to this day I have never heard sung so well except by Pavarotti. The windows rattled, the people sat back in their seats at the most extraordinary and brilliant performance we had ever heard, or been able to witness from this nonchalant young fellow, who received a standing ovation.

22:29 He said he couldn't stand singing and walked out. He didn't last with the Department long and we often wondered what happened to him. With such potential, this was yet another example of the mixed nature of the cross-section of the whole Department really, and exemplified the type of people that were now coming in and changing from the old pre World War II days.

My fondest memory of course relates to the dramatic society, where with Michael, I shared a quite an introduction to the art of the theatre. The theatre group really divided itself into two forms. One act plays were better for the lunch time performances and there were three act plays for evening performances, which took a lot more rehearsal. But then again, they divided themselves into ones where we learnt the part, did the full props, the whole bit and the other ones where we innovated the play reading. Robert Levis was a very good producer in that, and was very clever at teaching amateurs like us stage craft, delivery, awareness and from just reading the script. It assisted me and I'm sure some of the other young people in being a lot more articulate than we would otherwise have been and a lot more knowledgeable of the playwrights. That was where I first heard of ??? and some of the contemporary French playwrights of that time who were performed, and some of the American ones of which we hadn't the acquaintance of, not being regular theatre goers. But the education I received out of that I have never forgotten and I'm sure it did me in good stead. So that was sort of an indirect education and a need that the Department

24:32 fulfilled as well as your work role. So it was in point of fact quite fun to go to work at Public Works in those days.

24:45 **Mike:**

As I recall, some of those plays we entered in the Sydney Drama Festival were plays like Everyman and so on. Were you in any of those?

Miles:

Yea, I was in Everyman. We even did public performances at the Independent Theatre at North Sydney. Bob Levis was friendly with the woman who ran that theatre. Yes, Everyman was one of them and The Holly and the Ivy, if I recall, was another one that was popular with the Sydney Festivals.

25:21 **Mike:**

And I think then you moved out of the Design Branch, was this after you graduated?

Miles:

Yes, an extraordinary thing happened to me there, I wanted to try another career and I got leave without pay to attend the University of Sydney's Medical School and I was able to employ myself during term back in the Design Branch as a design engineer, however I parted company with the Faculty of Medicine and was moved from the Design Branch to the Metropolitan District Office to get some field experience. While sitting down there after having swept out and cleaned up a few school play yards around the place, I was discovered by

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Tom Mackintosh who happened to be in need of a young engineer to go out and live in the Bush, while he sent the older engineer off to build yet another dam and water supply up on the north coast.

26:24 So, away I went down there attached to major constructions to Moss Vale where I became Resident Engineer and I'd recently married and took my brand new wife down there where my first son was born. I spent two and a half years on the Moss Vale and District Water Supply I did arch dams to supply five towns and the reservoirs and the necessary works to be constructed. That launched me then into major construction work in water supply and sewerage with Crookwell Sewerage - I took one of my gangers down there to start that, and I had a relationship with Port Kembla District Office as they used me as their representative to talk to Local Authorities rather than drive up the hill. It was a very full day and a very full life and I gained very valuable experience in management and industrial relations, financial management, in men management, and machines and materials, and I don't think I could have had a better early training as an engineer than that particular job at Moss Vale.

27:37 After Moss Vale finished there was one of those periods that became a hiatus and not knowing quite what to do with me, I was moved to investigations work in Harbours Rivers and there again was a very, very small little office, but that was itself an interesting little world and here things were starting to move again after the six year lay off of the Second World War, and we were getting into the floods in the Hunter as the main concern, and the build up of the Port of Newcastle - Throsby Basin and rock removal and a new wharf and the opening up of the farmlands and the coming of power stations, and I think, Michael, you were there in construction work at Maitland when Rein Nittim and I - Rein was of Estonian extraction - and in that little investigation section where Rein and I used to go out and measure flood levels and try and calculate rain falls and other engineering matters, we had a very nice little intellectual group and I'd say that was the most intellectual part of my life and training that I've ever had because in there was one of the really eccentric characters that the Department had, a fellow called Harry Albert Theodore Scholer. He was an absolutely brilliant applied mathematician, but a straight eccentric who lived at Kings Cross - the whole bit - and Harry would have a huge enormous teapot of stone cold tea with milk in it, which held drink in copious quantities all day much to the annoyance of the woman clerk who was always trying to make hot tea and Harry would have none of it. And Harry would insult the Principal Engineer, the Assistant Principal Engineer and anyone else who came within sight as being first class dunderheads. But he had a brilliant command of the English language, he was of German extraction, but he kept talking into telephones and complaining and trying to get flood level information from "cretinous constables of our constabulary" and he effected this is much to the amusement of Bill Hulcome who was the officer there to whom I was responsible.

29:58 But in that little section was "Kasimiercheck" the Polish technical aid in the field, a splendid little gentleman from the old school, Ross Lunin himself a mathematician of some note. But he was a classical scholar as well. Ross Lunin had been "professor of Torpedo Design" he kept telling us in the Nazi Government during the war. He was really a Lithuanian, but he was a classical scholar who read widely of religious novels, would bring things in like a 'Canticum for Liebowitz', he would insist on giving us readings at morning tea, or discussing the work of to us hitherto unknown and extremely remote religious authors. We heard from him first of all of "The Denials of the 700" and of the work of Kyrilus and Methodius who went among the Slavs and taught them to read and write, he taught us of the Dnieper (2) and of their kingdoms, and we learnt a lot of Scandinavia, and that was where I first learnt that the 'Yug' or Yugoslavia was a Russian word for south. We had a relation of an Anglican Bishop; we had Bill from Western Australia which made us feel at least we were all Australians - Bill Hulcome - Rein Nittim from Estonia, myself, and we had an engineer who had been in the Sixth Division in the Second World War, the name just now escapes me, but he had many a tale to tell and was a very interesting

31:39 narrator, so you could imagine our lunch time discussions and tea breaks ranged over many and varied subjects (*I think his name was Robinson*)

31:44 from many lands and many aspects and we had also with us the Senior Engineer who himself was a noted geologist. He would have been better as a bloody geologist and a scientist than an

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engineer - Cyril Floyd. Cyril Floyd was certainly a man we all listened to when he spoke. Quietly spoken, a father of umpteen million kids and he read very, very widely in geology and the natural sciences, so we had a very cosmopolitan little group there and I was sorry to leave it, but eventually owing to the sickness of my wife and that, I had to find warmer climates and was on the short list for a job at Western Australia or Queensland.

32:31 When Queensland notified me that I'd been appointed I came up here. When I got there I carried a letter that said you were appointed to the Queensland service three weeks ago, why didn't you turn up for work? Well I found out years later in Queensland that that was their usual style. They never really did know what they were doing, they still don't to this day.

32:51 **Mike:**

While you were in Harbours and Rivers I was at Morpeth in those times, we had a flood, I think it was 1964, which caused the collapse of the river bank at Maitland and if I recall you were involved in the design of that repair work.

Miles:

Yes, that's true, that's true, very much so. Yes, that was quite a display. On the right bank, looking downstream from the Belmore Bridge, there were certainly a lot of worried shop owners at the top of this thing, and to me a very high, extreme bank. But, yes, we carried out our investigations into the geology and the soils and determined that what we had to do, because it was really the outside of a bend, was weight the toe, so of course we called in trucks full of rock and proceeded to tip enormous amounts of rock, but we managed to tip over more trucks than we did tip rock down the bank, because Brambles lost two of them and we a lot of drama trying to get them out again as I recall.

That, yes - at that time we were finalising a report on the Louth Park drainage because we'd had work up at the ??? (*Hydro Lab in*) the Peter Nichol Russell School at Sydney University where we built a series of boxes, pipes, tubes, valves and other Heath Robinson business because

34:17 the first electronic computer at Sydney University, called Siliac couldn't handle the mathematics that we required to solve (*121partial differential equations*) so we built our own analogue computer, which was the forerunner of the analogue computers which were to come, and I might add that in those days that Harry Scholer had built his own electric analogue computer on his desk out of school-boy protractors, batteries and strange variable rheostats and dials, which cause the then Principal Engineer Mr Dance to comment upon Harry and his toys, which would send Harry into a frenzy and he of

34:54 course became rude and insulting, which used to send Mr Dance scuffling off to the privacy of his office. And Cyril Floyd would come out and say that the Principal Engineer wished would Mr Scholer restrain himself - to the amusement of all staff.

35:16 **Mike:**

If we could return, for a moment, to that bank repair job at Maitland, I understand that, because of the urgency of it, you produced the design in the Branch because really we couldn't wait for the Design Branch to make up its mind as to what to do in those times.

Miles:

Oh, that's true and now that you bring that up, yes that did cause quite a commotion and a lot of heart burn between the people in the tin shed and us in the stone building for having usurped their design powers. Yes, we actually designed it and what insulted them more, we drew it up ourselves - we even did our own drafting, and liaised with the heavy construction section across the hall to have the works carried out without the knowledge of the Design Branch. Yes, it upset them.

36:07 **Mike:**

Yes, I recall being on site. I had instructions to backfill this stone, or rock toe-wall with, what was described as a non-cohesive free draining material that could be compacted. Well, nobody could really tell me what this was. On the other side of the river at Bolwarra was a deposit of sand and fine gravel that had been left there after the levees burst in the 1955 flood and I took a sample of this and sent it to Sydney and they had it sieved and analysed and I kept on

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enquiring what, the answer was because I was anxious to get on with the job and finally I got a response that one of the designers wanted to see more cohesive material and the other one wanted to see less, so I decided we must be about right and we just put it in and I don't think we've ever really got an answer yet as to whether it was appropriate material or not.

Miles, you got on to coming up here to Queensland a moment ago and when you did come to Queensland, where did you work then?

37:00 **Miles:**

In Queensland I joined the Department of Harbours and Marine because I so enjoyed my experiences with the Public Works Department in Port Kembla, Newcastle and in the Harbours and Rivers Branch and being the son of an old sailor, I decided that what I really wanted to do was work in the coastal aspects of civil engineering and in those days coastal engineering as we know it now, hadn't even raised its head or been born.

There were early signs in Harbours and Rivers Branch of looking for some American experiences, such as coastal, what we call technical report No. 4 Shore Protection and Planning Manual. There was very little else available in the (*technical*)

38:12 literature. There was only perhaps one text book, perhaps two, a little bit of English stuff – sheet piling, cofferdams and caissons ??? (*Wind, Waves & Maritime Structures*), and *Ports and Harbours* and very little else, so when I joined the Harbours and Rivers Branch (*of Harbours & Marine*) there was one engineer in charge of design, one brand new graduate and me, constituted the entire engineering staff for the coast of Queensland, which is a rather large coast. So I came bearing magical new tools from the great mecca (?) of the south like tech report no. 4, Alonzo F. De Quinn's *Ports and Harbours*, which caused some eyebrows to be raised and some people to run in circles, when I produced manuals but, nevertheless I was listened to because I had the book of Magic, Tech. Report No. 4!

I was given the job to (design for Gladstone), and I carried with me a picture drawn by Kasapcevs of the Design Branch, a Lithuanian, of the Port Kembla coal loader and they were just trying to do an Alumina loader at Gladstone, when I had this wonderful picture I put on the wall behind me in Brisbane, which people would come and stare at and their jaw drop, so I was then held as the fellow who should obviously be involved in some sort of Alumina wharf design because I had this fabulous picture from Public Works Department.

39:48 **Mike:**

Where did your career or how did it flow from there?

Miles:

Well, in three basic areas because I ran into, I would say some sort of inbuilt prejudice of the local Queenslanders against the southern states. I lasted with the Design Branch for about 15 months and towards the end of it was liaising with Michael Gourlay who had one time worked for the Department of Public Works at the Manly Vale Lab and was now a senior lecturer at Queensland University School of Civil, and I worked with him on developing some physical models of the mouth of the Mooloolah River where the Queenslanders were going to move their floating pilot station from Morton Bay to a land based pilot station at the mouth of the river. This project was to turn out to be in point of fact, a development of a port in a minor or miniature manner. It had all the elements that I'd seen in the larger ports in NSW and had learnt by experience from

40:57 the Public Works Department how to put these elements together. Now, there was the breakwaters, the quarrying, the breakwater training (*walls*), the mooring basins, the pilot jetty for the pilot launches, the public jetty for the fish board, a motel residence for the pilots, cottages for the crews, mooring piles and navigation aids and reclamation, and blasting of the rock mouth.

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Tape 27, Side A; Miles Colvin/Mike Clarke

(min:sec)

That was interesting that I found in Queensland there was no equivalent in this state to, what NSW had of a Shotfirer's Ticket and the shotfirers and powder monkeys were in point of fact were not trained formally or were unlicensed and they would look in amazement at the shotfirers ticket I'd been able to gain with the help of the Department of Public Works NSW, from the Railways Department, which was almost compulsory for any construction engineer in the Works Department to attend

42:03 the Railways (*course*) and get his Shotfirers Ticket. They were quite amazed that we knew anything down south about how to quarry, and that proved to be a very interesting exercise (*in communication*).

We weren't to know that while we were doing all this investigation into building a small port, another half of the Department were secretly and quietly, with the Lands Department, planning on turning the upstream six square miles into a massive canal estate, which was to completely and utterly negate and ruin senior lecturer Goulay's calculations of the exhaust velocity on the Per Bruun Principle through the breakwaters, and we ended up with a downstream according to the Per Bruun theory and the upstream according to the (*exponential theory, an application*) of the so called "Trumpet" function in river training, and neither of those worked successfully of course, because one negated the other. To this day there are navigation hazards and problems getting in and out of the Mooloolo River.

43:02 At the same time the Harbours and Marine people in Queensland decided there wasn't enough work for everyone there, so I'd better take a day labour team up to the Lindeman Island and build them a jetty because the tourist, trade was starting to increase and it was quite easy to go from one to the other. Well, Lindeman Island is off Mackay. Mackay is twice the flying distance from Brisbane to Sydney and so it was quite interesting to have a part-time port (*going*) at the Mooloolo River with one inspector, and a day labour gang in Lindeman so many miles away, two and a half to three hours flying time away, sixty miles off the Queensland coast.

But this was to prove quite educational as I'd walked around the countryside of NSW with water supplies and small efforts such as Girilambone, Nevertire, Trangie, and Tibooburra, now I was to find even more remote places like Kurumba in the Gulf, Normanton on the Norman River, the mighty Weipa, Thursday Island and the Days of the Week Islands (except Monday), Hook, Horn, (*Bamage, Red Island Point*) and Princess Charlotte Bay and untouched areas of it such as the Annie River, the Kennedy, on inspections of foreshores, where cattle might be brought ashore or where timber might be able to come in and out, and of course Cairns, Cooktown and the tourist islands of (*Whitsunday*). I was later to build a jetty with Council labour in the Hinchinbrook at Cardwell. All this

44:51 construction period came to an end after about six years, when I was transferred then into a more administrative area in what they call Statutory Approvals, where I was occupied with applications made for approvals to dredge, build wharves, private jetties or to develop the inevitable canal estates, and there I was to spend the rest of my time until I retired as Executive Engineer in charge of reclamation, dredgings, approvals, development works of this nature and the canals.

The canals were unique in Queensland because they had a special Act of Parliament relating to canal estate development as quite separate to their Harbours Acts, Local Government Acts and other forms of construction (*approvals*).

45:39 **Mike**

What are some of the particular problems that you encountered or were rampant I guess, in the construction of canals by developers?

Miles:

The most important difficulty in the construction of canals were the soil types. When the canals first started in both the north and south coast and Brisbane they were in sand. As long you were in clean sand in protected waters you didn't have any engineering problems that you couldn't surmount. It was only a matter of geometry of layout, shape size, but once they started to move away from these into clays, into other materials, river muds, thixotropic oozes and in materials so fine it would pass the 200 sieve, then stability problems became apparent. Sediment transport, bed movements, suspended movement, became very real live matters

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Tape 27, Side A; Miles Colvin/Mike Clarke

min:sec)

and some canal estates will never ever be cured of those, it's a constant problem that the residents have to live with, there's (*slip-circle*) failure, movement of their buildings, movement of their dwellings and breaking of services.

47:11 It is very, very difficult to maintain graded sewers which run on gravitation and keep the uniform slope that is necessary for them to function.

47:36 **End of Tape 27 Side A.**

Tape 27, Start Side B; Miles Colvin/Mike Clarke

(min:sec)

00:00 **Miles:**

The tropical weather patterns of the Queensland coast are markedly different to the weather that is experienced in Sydney and south of Sydney in that you have quite marked periods of drying out, long droughts interspersed with periods of sharp heavy rainfall and very acute precipitations, high winds and stormy conditions, which means that in your clay areas you get extensive drying out and extensive swelling and you get movement, appreciable movement, large ranges of it and it is very difficult to obtain stability in non-sandy soils.

Coupled with this heavy weather activity is of course a lot of long shore transport, a lot of sediment movement, the estuaries are larger and bigger defined, therefore it is very difficult to get access to navigable waters that would be stable and doesn't require constant maintenance, constant dredging and the susceptibility by the elements is here today gone tomorrow, changed over night. So with your canal waterways nothing is sure. I have seen the canal waterway on the north of the Hawkesbury River, the tide range is small compared to us, we have tides up to 6 and 7 metres. Now, one metre tide in a quiet backwater gives very pleasant canal living, but is very difficult to achieve in the tropical waters and the tropical weather conditions of North Queensland. This is

02:08 why it has always been to me interesting that the regime theory, which grew out of the work of British engineers in India and the weather patterns, river floodplains and the mouths of the Hooghly (*Indus & Ganges*) and other such rivers in India are very, very close to the ones in Queensland and I noticed that the rivers in Queensland are narrow in width, can be short in length compared to the NSW ones and are very volatile in their movement and their meander patterns. Their banks should never be built right down, because they will change season to season and within seasons by a matter of quite some considerable metres and meander patterns here are a very real changing phenomenon.

02:53 **Mike:**

I understand that other problems occurred with canals system, I guess especially on the Gold Coast, where canal systems were added on to others and this changed of course the design parameters and the form of waterway openings and so on. Have you any comments about that, Miles?

Miles:

Yes, yes we did, you do find this, that not enough attention was paid to engineering aspects of canal estates in regard to the waterway widths and cross sectional areas. The tidal compartment is very, very important if it is to be controlled rigidly by bridge cross sections, narrowness of openings or other matters.

A lot of engineers trying once again to be cheap with their engineering and not, their expertise have said to

03:58 the developers - look, we'll make this bridge cheaper for you by taking a span out. It'll be cheaper to put in a bit more reclamation (*should be 'revetment'*) in the abutments. I was to find out what they should have known in their text books as students, that if you narrow the width of the stream the stream will readjust itself under its natural equilibrium and regime and dig the bed out. Now, this is what they found, that they narrowed down the bridge from the width of the canal and the canal just dug it deeper and so all the bridge piles hung up in the air and it's been a very difficult thing that hasn't completely disappeared yet to insist that all bridges be the

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(min:sec)

full width of the canal.

It's no good trying to rock them or do anything else, you only cut the cross section of the waterway down, so the tidal compartment, the water behind it and the control has now become of concern to the authorities and the attempt was made in the Canals Regulations to say that any developer must place with his application full details of all the land he intended to make the canal estate with so a defined boundary can be put up so that you aren't being additive to all the time because the accumulative (*effects*) mean disaster, but the first little one down stream is usually quite alright, but there has to be some acknowledgement in the future that you cannot keep a score (*increasing the tidal compartments*) of canals going through one constrictive opening.

05:39 **Mike:**

Thanks for that, Miles. Just before we finish I was wandering if we could perhaps return to your time in NSW and perhaps talk about a couple of things, for instance the Moss Vale dam, was that constructed by day labour or by contract?

Miles:

This dam, I'd say, was constructed when the Department was still active in its day labour role. It was built certainly by day labour, the dam itself. The dam was one of the first of the two dimensional thin arch dams with an overtopping spillway using the topping spillway as an inertial (*homogeneous*) mass for stability. Jack Rigby was the Resident Engineer who started it and he came from Adaminaby

06:37 with the Tom Mackintosh crew, and brought his foreman and his two key gangers from the Adaminaby day labour camp, and he had a young engineer assisting him who left soon after I came down, because another one (*under construction*), I was left on my own for the two years.

06:59 **Mike:**

Was that engineer Ron Eagle?

Miles:

No, Ron Eagle came down to Moss Vale with me for two weeks, while he packed up some stores that were going to be needed at Jack Rigby's next dam at Coonabarabran and Ron went to join Jack at Coonabarabran and I stayed there to finish off. The dam wall was receiving its last pour of the spillway when I got there. The dam was essentially and the stilling basin downstream complete when I arrived and Jack went on to start the

07:08 next one. But none of the pipework or the pumps or the reticulation had actually started so it was my job to hook up to the pipes, build the pump stations and get all the reservoirs going. Now, the reservoirs of which the main one was a large five-million gallon steel on a hill at Exeter, (*four in number*) were all contact built.

The other distribution reservoirs at Bundanoon, Moss Vale high level and Berrima because it went to New Berrima (*and the cement works*), were concrete, and which I noticed from a recent visit are still there and seem to be in excellent condition, although they now decide to put a roof on them and stop the wild life getting into it. It was quite a large distribution with a very heavy rising main, we went quite a long way; we had to have a booster in the middle of it and a repeat pumping station before we got all the gravitational ??? so it was two and a half years work just trying to get the pipes and the pump stations into action. So we had a mixture of both and it was still

08:37 day labour when I was there with which I was able to finish off the chlorination sheds and the water treatment, that was still there when I came.

08:54 **Mike:**

I think when we spoke some time back we were discussing the attitudes to various trivial items in the Department, the safe custody of things like pencils and ball point pens and how they made them go further. I think you had a bit of a story about how they looked after or didn't look after diamond drilling bits down at Moss Vale.

Miles:

Oh, yes, well, for the people who were around at that time would appreciate the tremendous

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(min:sec)

power of the character of Tom Mackintosh who was head of major construction at the time. Tom was a very stout man with a loud voice and a ferocious bloody appearance to any young, callow recently graduated engineer. I can recall sitting in the cottage at Moss Vale one evening and picking up the phone and you had to turn a handle and ring a bell to get it and a stentorian bellow coming down the phone saying, "Mackintosh here, I'll be down on the train in the morning, meet me", and hung up. That of course produced the desired fearsome effect in me and I was quaking all night and I didn't get much sleep. Have you noticed that the senior engineers travelled by train, even in the 60's cars were not freely available, even for Inspecting Engineers.

Mr Mackintosh came down, I picked him up, he was grim, we said nothing, he came down to the igloo (*construction*) office and I offered him of course a cup of tea and that sort of thing, and the first thing he did from the pot belly stove was look up and there was this great hole in the ceiling. He said, "There's a hole in the ceiling - access to the store". "Yes, Mr Macintosh". "Why is it there?" "A clerk fell through the roof, sir". "??? A clerk fell through the roof?". "Yes". "What was the clerk doing up in the roof?", and it was an interrogation until he found out. Having satisfied himself as to why the clerk was stupid enough to get up there and fall through this Caneite roof, he then spotted the diamond drills. "Your drills are exposed; you know how much they are?". "Yes, they're worth \$1200.00 (£1200?) each. "Well, what are they doing lying around?" I said, the clerk won't let them in the safe. "What's he put in the safe?" "The pencils". "The pencils! What sort of a bloody office is being run here?" It was quite an arduous morning. Well the clerk was brought by to open the safe, and sure enough there were the pencils. He said they were my instructions from Head Office and the District Office, all pencils must be locked away, they're too easily stolen. Mackintosh was speechless.

We then went down to the chlorination shed, and he said "Now I've got a bone to pick with you, Colvin". Yes sir" He said, "I believe you told Mr Alan Cameron my offside up there, that he could do something improper with the pieces of requisition you recommended he tear up". I said, "That's true", I said "Mr Cameron has always been a very difficult one to get supplies and requisitions through. Every time I ask for something on it he cuts it in half". He said, "Why didn't you double it?". I said, "I did, I kept thinking held do it, but this one he cancelled altogether. I said, here we have a chlorination shed that's to fenced from the public to be safe. "Quite right".

He said, "What are you gonna do about it?" I said, do about what? He said, "This fence and this gate". I said, that one standing over there. "Smart bastard, aren't you, how did that get there". I learnt a lot from this work, the district office system, the

12:18 Leichhardt depot and use my powers as a Resident Engineer without going through Head Office. I think it upset the Head Office people though I got the job done.

12:33 **Mike:**

The other thing that I was going to ask you was, again going back to Harbours and Rivers days, two people who were fairly prominent in the Harbours and Rivers Branch at that time were Athol Ford, who was the Principal Engineer and Alf Dance, who was his Deputy, and who later succeeded Athol as Principal Engineer, Harbours and Rivers. Do you have any recollections of these two men?

13:02 **Miles:**

Very much so. Athol Ford will live long in my memory as one of the most gracious and gentlemanly and scholarly engineers I had ever met. I think he was after his time; he would have done better in the earlier days when times were quieter and engineering was more of a science and an art than what it is today. Athol Ford used to call his engineers together every Friday morning and insist upon having a technical discussion and someone giving a small monograph or paper or a discourse on a particular topic related to the work of that section, for example we spent quite some time analysing the relative merits of the Engineering News Record method of establishing pile driving and pile driving load capacity, as against the Hiley formula.

He would give us talks on astronomy and make us participate and contribute to works of the tides, the astronomical aspects of planets, how it affected the water flows, the climate and all other aspects of real Harbours and Rivers engineering, and he made them into many seminars

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(min:sec)

14:10 and got discussion going among this group and with both the pure mathematician in Ross Lunin and the applied(?) mathematician in Scholer we were able to gain a bit of understanding of what it was we were supposed to be doing and what we were actually doing, and it was Athol and he with Floyd of course, made a very good leadership duo of engineers. And I was always impressed at that time that files or correspondence letters from ministers and other sort of administrative paraphernalia of the public service, never hit the desk of the engineers of that Branch. They had solely relied on the Administrative Engineer who sat in the corner, a relative of the Anglican Bishop and a couple of Clerks.

15:00 **Mike:**
That was John Kerle

Miles:
That was John Kerle, Bishop Kerle's brother, yes. When I came to Queensland I found it was the reverse and the engineers were required to answer all the ministerial correspondence and the Clerks did all the engineering. Quite amazing!

But Alfie Dance was, I think, the first of the new modern administrators. He had the greatest respect of the Public Service Board. He had dealt wholly and solely in papers, letters, ministerial correspondence and correspondence with local authorities. He loved setting up committees, he loved Committees of Inquiry and he detested anything to do with science and mathematics. The contrast of personalities of these two men, one approachable, likable and almost paternal, the other one cold, impersonal and never laughed, which of course was why he became the butt of Harry Scholer's jokes and his ire.

16:08 **Mike:**
Well thanks Miles. I think that's been a very interesting dissertation. Is there anything else, perhaps you feel that you'd like to put down as part of the record of your retirement to the Department?

16:26 **Miles:**
I could probably sit here for some hours and days recalling some of the highlights, but I think I can summarise and say that the experiences I've gained in the ten years I worked with the Department of Public Works and to some extent the two years with the Valuer General's as a very junior clerk, really gave me a splendid foundation and something I always was able to fall back on in my own mind, when I went farther afield. And it was the comradeship and the spirit that I was able to participate in. I still see to this day among the Public Works Department employees.

On a recent visit I was still able to feel, hear and see a loyalty to the Department among the staff and even ex-ones I've met at various conferences. The cry of, "Oh, you were Public Works were you", with, "Oh, that's good, oh here's another chap with Works Department". They were all very proud of being part of the Public Works Department team at some stage or another and most of them still are. It came in so many little ways the last thing I can recall

17:43 and the last thing I'll say is on the retirement of Angelo Lewis when he retired as Principal Design Engineer, we all gathered in the familiar form of speeches and the inevitable present, but Angelo Lewis's retirement was the one that beat all public service retirements. We gathered in the office with the then Minister for Works, and Jack Main was there with his white hair and his deaf aid in each ear and so was the Minister (he was deaf too), but we all gathered around at ten to five and they all said a few nice words about Mr Lewis and what a great chap he'd been, and how he used to get a room at the Metropole rather than go home because the work of the Department was most important and all we can do is to sleep in a hotel on the corner and come to work the next morning, because the poor fellow, he had no family and that was what he used to do.

Well he started at ten past five with "Mr. Minister, Mr. Director", and he named everybody, "I want to thank my parents", and he proceeded to give us the story of his life from the earliest moment he could recall and he would thank them once again, but he never finished the sentence. He would say things, and there Mr. Minister, it was nineteen hundred and four, the dam at Junee and the men were all drunk on whisky, it was ten shillings a bottle and there it

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(min:sec)

was Mr Minister, and there it was". Well as the time went on they all turned their aids off and they all went to sleep. We finally finished at twenty five past eight, I managed to get the twenty five to nine train home with a late dinner. It's the greatest farewell speech I've ever witnessed!

20:00 End of Tape 27, Side B