

**RALPH CAMPBELL SMITH
1912-1993**

PRECIS

It was my privilege to interview Ralph Campbell Smith on behalf of the Institution of Surveyors in November 1992.

Ralph was very much respected by all in the surveying profession. I remember often seeing him working outdoors with his time worn gear well into his 70's. It is certain he loved his work and found it hard to retire.

Ralph's interest in surveying was no doubt inherited from his father and grandfather, both of whom were surveyors. This interest was demonstrated to me when, during our interviews, he handed me his own written stories of some earlier surveyors, namely Joseph Wilks, C.S. Wilson, G.T. Eddie, G.W. Evans and J.H. Wedge. These comprise a priceless record which he entrusted me with for passing on to the Institution.

By nature Ralph was shy and extremely modest so I found it a little challenging to extract all that I wished to know.

The following record of our interview is in two parts. Part 1 is a compilation of Ralph's answers to my questions covering general matters. Part 2 is a record of our conversation on subjects more closely related to survey practice as recalled by Ralph. This part concludes with comments from Ted Pedley and Ralph's wife Mollie.

**Peter Anderson
June 2011**

PART 1

Campbell Smiths have been surveying since about 1860.

My grandfather, George Campbell Smith, was born in 1835. When he was 16 or 17 he went back to Scotland. He returned in 1860 and went to the Derwent Valley where he worked for the Department. He was later appointed district surveyor for Fingal. He died in 1892.

My father, George, was born in Fingal in 1874. He became articled to my grandfather. Dad was just 18 when his father died so he became articled to Tom Clarke, a local surveyor.

My father married in 1910 and built a house at St Helens on 10 acres he called "Wybalenna". I had four sisters, no brothers. School was two miles away. We had no car but instead a horse.

My sisters and I grew up in St Helens but in 1926 the family moved to Launceston for us children 'to be educated'. I went to Launceston Church Grammar School and my sisters to Methodist Ladies College.

My father virtually had his own practice doing government work. He mostly worked on the East Coast, Bicheno etc. After we moved to Launceston he continued to work on the East Coast though he was based in Launceston where he also worked occasionally.

He enjoyed his work. He would be away two or three weeks at a time and then came back to do a couple of weeks work in the office. He didn't draw his own plans, he had a contract draftsman. He did all his own field work.

I helped him on occasions as a boy. I used to go out with him on some school holidays. When I helped I used to carry things and work ahead with the chainman. I learnt a lot of axe and slash hook skills clearing lines and I cast stones around corner marks. We used to cut our pegs from the bush. We always tried to use Musk or Sassafras trees, they last 40 or 50 years.

Dad did not employ other surveyors. He usually had two field assistants. One chainman stayed with him all his life. He was excellent. The other was a very good axeman. In those days you would go away for a month and when you came back you would pay them off. They didn't seem to object. You couldn't afford to keep them on. Mr Wilks, another surveyor at that time, used to guarantee so much work a year for his employees.

They used to set up camp and leave it for a month or so. Sometimes they would carry the gear in with horses. My father rode a motorbike. He bought it from John King of Kings Cycles of the Kingsway in 1901. Dad was the first one Mr King ever sold a bike to for use on the job rather than for recreation. Later he got a Red Indian, about the size of a Harley Davidson.

He would decide where a camp should go then they would ride ahead (cycles) and set up. They would have two tents facing one another with a fire between. He usually set up in an area where he had a lot of work to do. He often had 20 or 30 instructions. If he had another job say 10 miles away they would use the same camp and ride back and forth. In the mining districts they would sometimes use the miners' or sawmillers huts. They would be vacant and the miners didn't mind. They all had timber chimneys in those days. I don't know how they survived. My father never stayed in hotels.

I think about 90% of his work came through the Government although there were other clients, especially in mining. J.C. McMichael was a promoter of mining ventures. He did hundreds of surveys for A.C. Loring through the Department. After World War 1 there were a fair number of Soldier Settlement surveys but mainly he did mining leases.

I remember the first job I went on after I left school was for an alluvial tin mining company. They wanted to bring the water from the Georges River at Pyengana to St Helens which was 25 miles. My father graded it through, then he did the survey of the leasehold and we had to survey

the position of the channel. He did a plane grade to make sure he would get there. It had to go through certain saddles. There had to be cuts of 10 ft to 20 ft.

There would be places where you would come to a gully where it didn't pay to head it out so to cross they used pipes and syphons or inverted syphons. That was quite a big job because the channel had to take 100 sluice heads. It was 5ft on the top, 3ft on the bottom and 3ft deep. In level country that is not so bad but where you get a fairly steep siding it would go 'up to the ceiling'.

There was a lot of tin bearing country North West of St Helens. I didn't think it ever paid that much but still that was their worry.

I regarded my father as a very careful and thorough surveyor. He didn't muck about. He was a very practical man. He did a lot of water schemes. He also did contour surveys and designs of dams.

He had to be very careful working for miners as it was easy to get into a dispute if more than one wanted the same land. He was also very careful never to have any interest in mining himself.

Dad was a family man. He was a keen reader of the London Observer and the Times. He had a shotgun. He used to shoot rabbits. He was a fairly good shot. He belonged to a rifle club in Fingal. He would only shoot to eat. He did a bit of fishing, spearing mostly. He wasn't a fly fisherman.

Dad was once bitten by a snake. I can just remember him tying a rope around his leg. I was at St Helens. He came back and told my mother not to worry; he had 'only been bitten by a snake'. It wasn't a big snake and it didn't seem to worry him that much.

I decided to become a surveyor because it was just the family way of life. I did not seriously consider any other career other than surveying.

I left school at 18 in the Depression years, 1930-31. Our family never had much money to spare. I had four sisters at college. I don't think they could afford to spend very much on my education so I was pleased to be able to help out a bit. I was quite happy to become a surveyor although I would have liked to have done a university course. Actually when I was about 22 I considered doing medicine. My mother was a doctor's daughter and she would have liked that. Otherwise I didn't really consider any other career.

I was articled to my father in 1931. Articles were supposed to take about four years in those times. I took five. You worked four or five years and then did exams and that was it. I found study very hard when I was working in the field and I would come back to the tent at night with only a pressure light or candle. I had I suppose 20 or 30 years of exam papers to work through. Astronomy was hard on my own but I did a bit of practical work. I rather wished I could have attended RMIT. I did a short course with a private person in Melbourne, a Mr Stephenson.

I went through all the steps of an articulated surveyor. I was chainman first, an axeman, I cleared lines and marked trees etc. I didn't do my assistant work for a couple of years. In the end I got fairly good. I used to go away on my own with the chainman and do the mining leases for the Lands Department. Once you knew a district it wasn't too bad.

This was a good proposition for the Lands Department because they had no overheads. They collected the fees from the clients. The surveyors supplied the chainman, all the equipment, and they would do the plan.

After qualifying in 1936 I worked with my father for awhile then with Jo Wilks for about 12 months. I then went to New South Wales for 12 months until the war broke out.

I had five years in the AIF. I served in the Middle East (Syria, Iran and Iraq) and then Papua New Guinea until just before the war finished. I came home in 1945. My father was still assistant District Surveyor with the government in the North East country areas.

Mr Wilks, who I had worked for previously, died in 1944 and I virtually took over his practice after the war. From then I more or less worked on my own. There was John Cohen who did the bulk of the work around Launceston and also Alf Brewer. In Launceston there wasn't anyone else. I did all the Housing Department work.

While my father was alive we worked fairly closely, although not in the same business. I could refer any problems I had to my father who was always willing to help. I generally left it to him 'over there' until he died, then I took over.

In 1958 I decided to form a partnership with Ted Pedley and in 1972 we joined with Paul Phelps who had a private practice of his own.

I retired in 1990, a couple of years ago, though I am still consulting.

PART 2

You used a 4½" 30 second or a 5" 20 second theodolite. Had you any reason for using one or the other? I suppose if it was pretty rough I would take the small one because it was lighter to carry. I used the bigger one when I was working on the Newstead/Elphin Estate. It got knocked over by a pig once on the Sandhill. **What were some of the problems with using these older instruments?** The verniers would wear on the edges a bit so you were not quite sure if you were matching them up properly. They were heavy too. They didn't have optical plumbing of course (which was a great thing) so they could be difficult in windy weather. The older ones did get a bit wobbly on the foot screws too. **What kind of adjustments and repairs would you make to your instruments in those days?** I was with Mr. Wilks (he had the Sheffield District) I went and stayed away for a week or so. When I first looked through the instrument it didn't have any cross hairs. I don't think it occurred to me to return home. I found a spider with a fine web and we replaced it. In those days you had to carry a mending set for your hairs with a solution. I stuck them on with a bit of the solution and adjusted it. We used to

have to keep them in collimation when we were following a line. It was annoying if it didn't turn over properly so we would do the routine adjustment for that. **How temperamental were the old theodolites in wet weather?** They would fog up a bit so you had to take out the eye piece which was separate and clear the fog off. There wasn't much else to go wrong. **In 1948 you purchased a "new" 3 screw 5" C.T. & S. vernier theodolite with a fixed length telescope, which you used until 1962. In what way was this instrument better than the earlier models you had used?** I suppose the fact that it was new. The graduations were better. I forget whether it had optical plumbing. It had 3 screws as opposed to 4. It had an internal focusing mechanism rather than a varied length telescope. **Would you ever take sun shots for orientation?** I practiced quite a lot in the back yard. I don't think I ever used this skill except when I had to do a larger rural survey up in the north east. I had to do all the right things in the right places. When I was in New Guinea I used to take a sun shot every day. New Guinea was an ideal place. Its Latitude is 8 and the sun sinks more or less vertically. The Army had very good pro forma things. You did a group of three per sheet and it would all come within 20 seconds. Frank Miles was very good. He did daylight observations to stars – he knew where they were. It was a kind of a hobby of his. He came up from Hobart one day to do a survey at Oatlands or somewhere near there. He came on into Longford because he had a suspicion that G. H. D. or Scott and Furphy or someone who did a detail survey there had done something wrong. He took a daylight observation and found they had taken magnetic correction the wrong way. They were 20° out or something. He was a very meticulous surveyor. I think they worked within the regulations which is what they had to do.

Ralph I guess you used a split bubble level from your earliest surveying days? Yes. The accuracy of the level depended on the bubble really. That was the only way you could level it. **Did you adjust the hairs and carry out your own maintenance?** When I used it myself you would lose your cross hairs sometimes, you'd have to catch a spider.

What about calculators. What sort of calculator did you use pre war? I used a Brunsviga. You turned the handle and it had a shifting carriage. I used it up till the time we got a Facit. **Did you use any sort of portable calculator in the field that you could carry around in your field bag?** No, not that I could carry in a field bag. In the car I used to take my Facit. I used a slide rule for slope reductions. **With this calculator you used standard trig function tables. Did you ever work in logs or traverse tables?** I used traverse tables a bit. I didn't use logs except in the army.

Until 1946 rural survey accuracy was only 1 in 600. Was that limit ever a problem? No, I don't think so. We always made the surveys well within the limits. **Until 1946 town survey accuracy was 1 in 1000 and thereafter (until the present time) 1 in 8000, which is quite a dramatic change. Did this change affect your methods at that time?** I don't think so. We probably had to be a bit more careful. We didn't really have much trouble.

Who were the oldest surveyors you can remember (apart from your father)? Joseph Wilks: He was a very good surveyor and also a qualified engineer, a graduate of Melbourne University. There was more future in surveying than engineering which I think may still be so. It's not easy for an engineer to crack in unless he joins a big firm. He would have reveled in the newer technology of today. He was very tidy and methodical. He might have made a better architect.

He was very artistic and did a bit of painting. Then there was Selby Wilson. He was a Hobart surveyor and he worked mainly on the West Coast. He was a Regional Surveyor and that would have been his district. He supervised my exam. He did comps as a hobby. He had 9 surveyors working for him on the West Coast at one stage. He lived in Davey Street, Hobart in a fairly substantial house. I think his son may have been a surveyor. Selby was a very forceful chap, a big raw boned fellow. He would have been horrified to see girls in survey offices. Donald Fraser: He had the north east up Derby way. He was a very clever chap but not a very good surveyor. He was too temperamental. If things went wrong he would probably walk off the job. His chainmen never liked him, they walked off the job too, probably before him! He did comps with Selby Wilson. His son was a parliamentarian – Jim Fraser in the Whitlam era. He had a fairly high position. Mr. Blackwood: He became a Surveyor General. He was a very clever chap in many ways. During the war he was involved in the mapping of Tasmania. He was quite an authority on mapping. Mr. Harrison: I have met him. He was a surveyor on the North West coast. He was a very good surveyor. He had a good name. He surveyed in the Smithton and King Island areas I think. He used to sink bottles as permanent marks. They didn't rot. Montgomery: I didn't know him. He did exams the same year as my father I think. I've got a certificate with his name on it but I never met him. I did a bit of a paper on early surveyors, one being John Helder Wedge. Wedge did amazing things. He may not have been that accurate but I don't think that mattered that much. People knew what they were getting. They'd say in a morning he would do like 2,000 acres, and in the afternoon another 600 or something. In a week he'd do more than we'd do in 6 weeks with our new equipment. Wedge came here in 1825. **Of the surveyors before you, who do you regard as some of the best?** Mr. Wilks, Mr. Eddie, you can really only tell by their work. Just before Mr. Eddie got going they had more meticulous rules and Eddie applied them I suppose.

Who were your better or more valued clients? The Housing Department would have been the largest. I did something like 2000 lots for the Housing Department. For the Lands Department I did seaside places like Bridport, Weymouth, Bellingham, and St. Helens. Ritchie Parker Alfred Green & Co. was another good client. I used to do most of their work. I remember Mr. Parker. I went to school with Jack Green. They have always been good to me and so have Shields Heritage Stackhouse & Martin. **In the period after the war what type of work did you find most satisfying?** Doing Housing Department work was satisfying as you saw almost immediate results. The streets were all constructed within 6 months probably whereas up on Boiton Hill where I started a job for Alf Wilks in 1956 it's only half finished now. He only does about 20 or 30 lots at a time. He is a good client but on the other hand you don't get the satisfaction of seeing the finished result. **Did you have time for holidays or recreation?** Well we always kept our place at St. Helens and I used to save the work in that area for school holiday time. I used to knock off before Christmas until the middle of January. We gave the men their holidays then. We always had school holidays away. When the kids grew up or got married we had three overseas trips. We had a trip to New Zealand and we were over there two years running. In 1976 we traveled around the world. In 1981 throughout Europe and the British Isles. In 1989 we went to Spain, Portugal, Morocco, Norway, Sweden and Finland.

What would have been some of the larger urban surveys you have done? There were 220 lots in the Elphin Estate and they were done all at once. Then I did the Punchbowl and Golf Links Estate. I think there were about 170 lots there in one go. I did quite a few at George Town

but they were a bit smaller, about 60 lots. I also did all the Mayfield Estate. I think there were about 500 lots for the Housing Department there. Mayfield was done in about 3 sections. Up to 200 at a time. Of the private ones 'Boiton Hill' has been quite good. I think I had up to about 220 lots there but that had gone on for 30 years. **Was there much difficulty getting approval from Councils for surveys of that size?** It wasn't our worry, the Department got that first. **Did you ever feel much sense of competition? There was John Cohen in town here, probably no one else at that time.** John Cohen would have been my main opposition. He didn't really worry me that much. I have a lot of respect for John. There was enough work around for both of us. John was quite professional. He was a very good surveyor. He did a lot more work than I did. He wouldn't have had the bigger subdivisions. He did employ a lot of surveyors which might have worked against him in the end.

One of your jobs before the war was to survey some of the boundaries of the Cradle Mountain Lake St. Clair Scenic Reserve. It was in about 1938/39 when I worked for Mr. Wilks. He had marked the eastern boundary and then he got the job to do the western boundary after he had decided to go to England to see his daughter, so he handed the job onto me. They were having trouble with trappers trapping on the Reserve and they couldn't say where the Reserve was so we had to define the boundaries. Basil Lee from Mole Creek was a trapper in the area. He was a good bushman who knew his way around. I had him and Mr. Wilks' chainman and another young lad who was a good bushman. It wasn't easy to do. It was a compass and chain survey. It wouldn't have been very accurate. We started at Lake St. Clair. They took us up the lake in a boat. Then we got onto Mt. Rufus. It has two peaks, 3 chains across between them. We had to mark going down the hill and ring all the trees. So we went down, up to another peak then down to the river (I think it was the Franklin actually) then up the other side of the ridge. **What mountain ridge would this be?** It was Mt. Rufus nearest the lake. I don't know if this was a mountain as well or a range. We put in stakes on the legs of our traverse and started them off. They weren't very good stakes because there was some stunted gums there. Keeping ourselves supplied was a bit tricky. We followed the ridge out to the Eildon Range. **Is that where it ended, at the Eildon Range?** I think it might have ended at a river there. If you could use a river it makes a better boundary. Then we came up to Cradle. Mr. Wilks had tied into Cradle. We went from Cradle to Barn Bluff then from Barn Bluff down to the river again. **What length of boundary of the park would you have surveyed, just roughly?** Ohh... 20 or 30 miles I suppose. I did a report and there was a map. **What records so far as you are aware are kept of that survey?** Govt. archives? Copy of report? I don't remember much about doing the map. In that period they gave me a lot of jobs because I was the youngest. I did a 20 acre survey on the Jane River while working with Mr. Wilks on my own account. To get to the Jane River you have to walk down past Frenchman's Cap. I went out to Adamsfield to do a survey. I had to walk a fair bit. Cox's Bight. **What would have been the purpose of a survey at Cox's Bight?** I'm not sure now. It was through the Lands Department. **Just going back to the Cradle Mountain survey. Is it correct that between yourself and Mr. Wilks you would have surrounded the whole reserve, is that right?** Yes. **So between you, you would have marked out the boundaries of Cradle Mountain Lake St. Clair Scenic Reserve?** He did this some years before I think. The idea mainly was to be able to say that you were on the reserve or you were not on it. It was a bit hard to say you were encroaching when no one knew where it was.

Can you tell us a little about other work you did with Mr Wilks. I did, for Mr. Wilks, a detail survey of Launceston of the flatter area. He persuaded the Council to put in permanent marks at Invermay on all the corners. I did all of those. **Was that just in Invermay or throughout the city of Launceston?** I think it came into the lower part of William Street. It was mainly the areas that got flooded. We put these permanent marks down and leveled them and radiated all the corners. **Apart from the Invermay surveys does anything else stand out?** I did Lilydale Grove and Newstead House. I learnt a lot about subdivision work.

The period you spent in NSW in 1937/38. What sort of work did you do there and why did you go to NSW? I thought I would like to have a bit of a change and a look around. I worked up at Orange as a surveyor there. That was pretty rough. I also worked in Lismore. I didn't learn much over there. War broke out while I was there so I came home.

Please tell me about your war service. Did it involve using your surveying skills? 1940-'45 I was in the AIF. I joined the Artillery Survey Unit. Artillery involved a lot of surveying. They had a surveyor on their staff usually. They co-ordinate the guns and the targets, and worked out the range. It was not altogether a waste of time for me. As a survey unit we could employ ourselves fairly well in the dull periods because we did quite a bit of mapping. **Did you use aerial photography?** No, they didn't have that then. **Did you get into action?** We were always anxious to get into action. As a grandparent now you would hope to get out before they start fighting, but then we would have been terribly disappointed if we had been pulled out. We went into Iraq, Iran, Syria and Jordan. They picked two surveyors. I was lucky to be one of them. We had to map 16,000 square miles in 6 weeks west of Syria - part of Syria, Iraq, Jordan and Iran. Desert country really. They thought Germany or Russia, I forget now, might break through to the Suez Canal, but that they might bypass Syria. They wanted what was called a 'going map' that showed obstacles like lava belts, rocky outcrops, gullies and water holes. We used to have a staff car. There was a captain and a driver, an Arab, and a Bedouin interpreter. I was in the back. In that area you could drive anywhere in any direction until you met an obstacle. There were two big pipelines coming from Baghdad, one to Tripoli they called the "T" line and the other the "H" line to Hypha. The pipes were about 3 feet and not underground and you could only cross them in special places. **Were you working for a British Company?** Yes, the Staffordshire Yeomanry, a horse cavalry unit. They were very blue blooded. The one I was with was Lord Lewisham. They didn't only like surveys. Fortunately they realized this and would ask what do you want to do today, and we would tell them. We had to get over the ground fairly quickly. We would set a course, the other party went up ahead and we would arrange to meet at night. We only missed each other once so that wasn't too bad. They had 'sun toppers' to go on the bonnet of the car. You could work out direction by your shadow on the hour. That kept you on a straight course. There was nothing else to guide you. **What was wrong with using a compass?** Being in the car was a problem. These gentlemen were more interested in hunting. They had rifles or shotguns and would chase gazelle. **Did you have any maps to work with?** We had some maps but they weren't terribly accurate. Anyway, if we put on the main features they seemed to be satisfied.

After going to the Middle East, what did you do in New Guinea? In New Guinea we were tying up gun positions. We always had to survey the co-ordinates of artillery guns and give them the co-ordinates of targets. New Guinea was all jungle, you couldn't see. The artillery had

trouble because they like to have a clear pit where they can observe easily. We traversed tracks where we could get along. You couldn't clear it all. This was on the East Coast. We flew over some areas the easy way. We flew from Moresby. When the artillery were pulling out they looked ghastly. They had lost a lot of men. **What division or battalion were you in New Guinea?** 7th Division. We were a troop attached to a Division. **How did you determine the position of a target? Did you run a short base line and intersect bearings and do a quick calculation, or did you use instruments that would do that?** We fixed on positions mainly. It was hard to get targets. We worked ahead of the artillery and behind the infantry. The infantry always took the brunt of the troubles. We got used to shells going overhead. In New Guinea we used to take sun observations every day. We were traversing unclosed traverses so we used to check our bearings. We had fairly good instruments. I had a Clavestock. It was a CTS No. 1 direct to the second. It wasn't very heavy. When the unit was first formed in 1940 they bought up all the old instruments about the place. We ended up by having fairly good instruments. The regiment was in three sections. Our's was the survey.

What do you think of modern day surveyors with their 4 wheel drives, total stations, GPS and computer systems? Such a dramatic change to what you were used to. I think it is probably much more efficient.

Around 1960 a fair percentage of your work was Government work through the Lands Department or Housing Department? Yes, I did all the Housing Department work until Charles Beckitt came up. I did well over 2000 lots for the Housing Department. Did you do that exclusively or did John Cohen do some? No, I think Mr. Pitt gave me all the housing work. We had part-time secretaries, or our wives would do the correspondence. Did you find that you needed to spend much time in the office? Not a lot, I suppose. We didn't have any particular day in the office, mostly wet days. We used to employ a part-time draftsman. When you had plenty of work it was unproductive to do your own drafting. We mainly drew our own proposals. At that stage we had hand held calculators. During that period instructions didn't vary much. We had some fairly large jobs. Eric Richards, up till 1960 anyway, was very involved with subdivisions and he kept us busy at Riverside, Queechy and Ravenswood in particular. In 1958, when I joined Ted Pedley in partnership, he bought this property and we had to draw up an engineering plan only as far as earthworks, kerb and guttering. There was no sewerage, no stormwater drainage, no water supply and the streets on the top side of Ravenswood Road were put in with gully pits not connected to any drainage which the Council had to take over eventually. When the septic tanks hepatitis scare came about the beginning of the sixties Council inherited this problem. Geoff Davidson and Alf Brewer were very involved then.

In about 1960 you did a big job for Temco at Bell Bay. Temco was an offshoot of BHP. They acquired part of the Aluminum Commissions land, about 280 acres. We did a title survey of that then we did a grid over it all – a 300 point grid over the whole area and a 100 point grid over the site where the plant was going. Later we did a lot of work on their heaps. They had 10 or so different heaps of manganese from Groote Island, coke from Newcastle and silicon from over the river. We used to do quantity surveys. It took longer to do the office work than the field work. At the Temco site nearby there is very thick native bush. Was it like that then and did you have to hack your way through? Yes. That was all bushland.

Some of your earlier jobs that may be of interest, for example subdividing Weymouth. When was that started? In the early 50's I think. That was one of the Crown Land subdivisions. First I did about 100 lots at Bridport, and then I did them at Weymouth and Pipers River. **With developments like that, going back immediately post war, could you actually subdivide coastal land such as existed at Bridport and Weymouth without approval in those days?** You didn't have to have Council approval, not if it was for the Government. They were a law unto themselves I suppose. **If it were private land was it necessary to get Council approval?** Yes I think so. The Local Government Act came in 1962 and from then all private subdivisions had to have approval and comply with the Act. The final plans were always returned by the Council to the surveyor for handing on to the solicitor. **I imagine there was a time when it wasn't necessary for any approval to be obtained. Do you remember that?** Yes. **When was that?** That was pre-war, pre 1944. **So for a lot of your working life, particularly when with your father and Jo Wilkes, those subdivisions would have virtually been carried out without any sort of approval?** Yes. In the city they might have been. I wouldn't be sure of that. Mainly it was between the owner and yourself.

You did a lot of work for Northern Woodchips in the late 60's. What kind of work was that? Well we surveyed the site, I forget how many acres they had now, I did a grid over it all and then I set out the plant works some of which was below the level of the ground. The road in and setting out the plant was a bit troublesome but I must say that the chap in charge wasn't much trouble. The trouble was it was winter and the mud would pull your gumboots off as you stepped down the road. It came out alright in the end. That took a bit of time.

What was the work you did for the Savage River mine project? That was a hydrographic survey at Port Latta for a South African company. **Did it involve taking a grid of soundings offshore for the proposed plant?** They thought they could get enough depth. They had to go out a couple of miles I think before they got 40 feet. **How did you run that survey? Did you control it from the shore and line a boat up on each grid line?** Yes, we lined a boat up and talked it in on a two-way radio. We had a good captain who kept a pretty straight line. I laid a traverse on the beach and worked from there. We kept the lines parallel and 100 feet apart. The boat came in on each line with its echo sounder to measure the depth. **How far out?** It was nearly 16,000 feet, that's about 3 miles. **How did you measure the distance out?** We had a second theodolite and a time co-coordinator. I was keeping the boat on line and Neville Lester was taking a reading to intersect where the boat was on the line at the time soundings were taken. Anyway they seemed to get what they wanted. **You did similar surveys elsewhere too?** I fixed control points on Flinders Island so the boats could position themselves from shore beacons. This would be about 1965-'66. We fixed points at Coles Bay too. **Why Coles Bay?** I don't know, they must have had a suspicion that's where phosphorous was. **Was that right in the bay?** We did it in the bay. Also some on the North East Coast near Waterhouse. I mainly fixed shore points so the boats could easily position themselves. The company was really part of De Vires Diamond (South African). I think they were spending money hoping to find something which I suppose was a gamble. Expense didn't matter that much. They hired a fishing boat from St. Helens and did a bit of drilling off the boat at certain points. I think they would have taken samples and soundings. I wasn't connected with that much.

Big jobs seem to stand out in your memory don't they? Yes, they were the main jobs. There was Temco, then we had Savage River and then Ocean Mining and Northern Woodchips, they were the biggest jobs I suppose. **Are there others you would like to talk about?** No I don't think so. In between of course I was doing ordinary surveys.

How were you involved on the Bell Bay railway survey in about 1971? Well the initial traverse was done by a firm of private surveyors from W.A. From that our firm laid out the actual construction centerline. We got called back to do lots of bits and pieces as well. We did further detail where there were bridges constructed over roads. When it came to doing the actual title work, which was probably about 1973/74 after the line was built, that was controlled by the Department. They called all the surveyors to Hobart to discuss getting the work done. We were given the choice of which areas we would like to do. I think we did the Northern end, John Cohen did the middle and then there was Garry Fisher who did some this end. **All scale of fees?** I think so, yes. **No questions asked?** No. **No tendering?** No tendering, no. **And how long did the acquisition survey take?** I suppose realistically about 12 months. **It was all managed by Charles Beckitt wasn't it?** Yes, I think he might have had some involvement.

Following 1972 when you formed the partnership with Paul what kind of work did you do then? I think I kept on much the same. I had enough to do. I didn't run out of work. That's the advantage of a partnership, as you would probably know. I elected to take some overseas trips. Even though away for a couple of months you knew that your work was being attended to. You didn't have to come back and pick up all the threads.

What did you think of the Local Government Act when it came in 1962. I remember that time was not long after I started work. It forced some of the older surveyors to bring forward their retirement as I recall. In Hobart they basically threw up there hands and said 'look this is just too much'. You of course had to live with it. What was your feeling with all this increased control over subdivisions? I don't suppose it troubled me that much. Solicitors very often asked us to interpret it. It seems to be getting worse now doesn't it? No, I don't remember being terribly upset by it then.

There weren't the planning difficulties then with rural surveys compared to urban surveys. Did you do any large rural surveys? I've done a couple of 4,000 acre blocks but I haven't done any bigger than that. They were around the Midlands - at Ross and out of Campbelltown. **I'm interested in the way you would have gone about doing a survey of 4,000 acres.** John Helder Wedge would have done it in a day if you read his diary. I would have done mine in the early 1950's, the other about the mid 70's. **And you had a survey party of yourself plus who?** Mainly myself and the chainman. **That's the chap you mentioned was with you for 30 years?** Yes Harry Lovell. **How did you work with him? Was he always out in front and you just sighted to him, or did you criss cross?** You drive around open country. **Would Harry peg ahead and you sight to him. He would have to come back to you to measure of course?** Yes. It would be easier now. **For measuring you would use a steel chain. How fussy were you on rural jobs? Did you just lay the chain along the ground and measure a parallel slope or did you hang the tape in catenary?** I think it depended on conditions. You had to sometimes keep it low.

This interview concluded on the 21st November 1992. Sadly Ralph died not long after in the following year. Thus three generations of surveyors ended. It may help to understand a little more about Ralph and his family by quoting Ted Pedley who attended my last interview and some comments from Ralph's wife Mollie.

I would just like to say that during the time that Ralph and I were in partnership I can't say that I ever saw Ralph upset, at least not visibly upset. I have only seen Ralph really upset once. Ralph may recall dealing with a fellow at Comalco. He was made to jump on everyone, jump on the contractors, jump on anyone that was working. He rang Ralph on a Saturday morning and you and Ralph were absolutely fuming and you really told him off. He was completely unreasonable. He was expecting Ralph to go down there on Saturday morning to check something out that he thought was wrong, but Ralph was quite sure it wasn't. Ralph just told him to jump in the lake, he wasn't going. And that's the only time I can remember Ralph really spitting the dummy.

And I'd like to comment on the team of Ralph and Harry. Harry started with Ralph after the war and it was his first job, he was 14. He and Ralph worked together consistently up until the late 70's. I have been out with Ralph on occasions and I know that they would travel from here to say Scottsdale and they would never mention one word between them. Ralph would drive and Harry would just sit there. They had an amazing relationship. In the field they seemed to know what the other was going to do without telling. Harry just knew what to do. One of his annoying little habits as far as I was concerned was when Ralph was away occasionally and he would work with me. He was very susceptible to temperature change. He would come to work in the morning when it was cold with three or four layers of clothes on and an overcoat. As the day grew he'd peel off his clothes. He'd have very little left on by midday and then, towards the end, he would start putting everything back on again.

Ted Pedley
Nov. 1992

In September 1939 when war was declared Ralph joined the Army and we became engaged. We were married in St John's Church, Launceston, in 1942 when Ralph returned from the Middle East on 7 days leave. Ralph was then sent to New Guinea and worked on the Buna Sanananda Trail, just after Kokoda. We rented a house in Bifrons Court for a year then moved to Ralph's family home in Elphin Road after his parents moved back to St. Helens. And so we continued the Campbell-Smith family tradition.

One of Ralph's sisters was a close friend of mine so I often stayed with the family at St Helens and learnt a little about surveying. One thing I remember was Ralph saying he would not earn more than £500 in a year which seemed a princely sum to me. We were both positive about our future and felt we would manage.

Ralph always wanted a big family so it was great to have three boys and two girls. Ralph was a great family man. He would read to the little ones when he came home from work and encouraged them to help him in the garden which he loved. He laid out new paths (the children helped with the concreting) designed raised beds, had a brick fence built, graded the steps, grew vegetables and fruit etc. He could easily have been a landscape gardener as could surveyor Mr. Wilks, his close friend.

Ralph also loved working with wood. In latter years after building a workshop he encouraged not only his children but also his grand children to work with him and acquire skills which they still possess. Ralph collected woods such as cedar, Huon pine and blackheart sassafras to make many pieces of furniture.

Ralph loved cars. Pre war he had a Hupmobile but changed to a small Austin which was much easier on petrol. As the family and work grew so did the car! He became a 'Holden man,' then Chev's and a Pontiac followed with a trailer attached. He finished back with a Holden.

In the early days Ralph would be away for several weeks at a time especially with some of the more difficult and rough jobs. Somehow the family adjusted to this and always celebrated his return.

Ralph balanced work with family. He saved work at St Helens to be done over Christmas term holidays so we could all be together for fun times there. He loved, with all of us, our boat, fishing, flounder spearing, cray fishing, surfing and so on. All the children helped him in the field at different times chaining, clearing undergrowth to get a line, painting pegs etc. The two older boys would often come up from Hobart during university breaks to help, especially for the De Vires Diamond work on the East Coast. Son John drove a truck for Ralph at Port Latta while Bill

ran a boat, the 'Yellow Tail', for off shore survey work looking for alluvial tin. I was never involved in fieldwork but did type letters. We purchased an electric typewriter which, as a self taught typist, was great as I was also helping him collate a war time diary.

Post war surveying was not easy. Equipment was often heavy and cumbersome in contrast to today. If the theodolite needed a repair it had to go to Melbourne by boat which held up work.

Ralph did not encourage the children to take up surveying even knowing this could break the Campbell-Smith tradition. He allowed all five to choose whatever career they wished. His maxim was for them to have the best education possible. This he felt was their main inheritance.

Ralph was a wonderful father and husband for our 51 years of marriage. It is such a pity he did not live long enough to enjoy his grandchildren and great grandchildren. I know the reputation he has left however is one of high regard, and a role model for others to follow.

Mollie Campbell Smith
June 2011