

PARTS THAT MAY BE OF INTEREST TO OTHER SURVEYORS

by Tony Peacock

My Background

In order to get some perspective, I believe it would be helpful to give you some background on my life.

I was born on 25th October 1928 in Sandy Bay, Hobart. My home was at 7 Beach Road which still exists but presently houses the Bayside Medical Centre.

My father, Frederick Hood Peacock, was born at Franklin in Tasmania in 1886. He died in 1969. At the time of my birth he was a director of H Jones & Co Pty Ltd and for the major part of my life was managing director.

H Jones & Co Pty Ltd was a very large business, prominent in Australia and was involved in shipping, farming, insurance, hop growing, orchards and other products but was mainly a canning and food processing business in most states and overseas including Africa, New Zealand and the USA.

My mother, Lydia Cripps, was born in Hobart in 1892. She died in 1980. She was a daughter of William Cripps, a founder of a large firm of bakers who are still operating in Hobart. I believe my mother was one of ten children.

I had three older brothers and one younger sister, all of whom were educated at Friends School, as was my mother, my children and some of my grandchildren.

My father was a scholarship pupil at Hutchins as his parents, who were teachers, died when he was young.

I left Friends after passing my leaving exams at 18 years of age with no idea what type of career to attempt to find. As I had three older brothers who worked in the business associated with my father, and being of an independent frame of mind, I wanted a career not associated with H Jones & Co. Pty Ltd.

I grew up during World War 11 and was involved in outdoor activities such as farming, hunting, camping, bushwalking, sailing etc. Because of these activities somebody suggested that surveying might be of interest to me.

In order to make a final decision on surveying I managed to obtain a position with Mr R A Terry, a surveyor in Hobart, as a chainman for twelve months. During this time I found I would have to become an apprentice for four years and pass a series of both written and practical exams. The exams were carried

out every six months and were set by a different Australian state each time. Some could only be sat for after some years' experience in certain subjects. There were few text books to help and no study courses in Tasmania but a correspondence course run by Melbourne Tech College was excellent.

During the year working as a chainman I learnt enough to get a rough idea of what surveyors did and so in November, 1947, Mr Terry took me on as an apprentice surveyor. I commenced on a weekly wage of one pound ten shillings (\$3.00) and after four years ended up on 10 pounds per week..

If I had not been living at home during those four years there was no way I could have survived which of course was a great incentive to become qualified as soon as possible.

At the end of my apprenticeship in November, 1951, I decided that if I was going to pass all my final exams and become a registered surveyor I had to make drastic changes to my life. I had too many drinking friends, too many parties, and too many other distractions at that time. Also firstly it would be difficult for me to pass final exams in astronomy, calculus and geodesy with the Melbourne Tech. correspondence course as my only help. Secondly I needed more surveying experience. I was not going to get that working with Mr Terry. Finally I needed better pay to survive independently so I moved to Melbourne in January 1952 and obtained a job as a survey assistant with the large survey firm of Garlick and Stewart on a wage of 30 pounds (\$60.00) per week. This allowed me to rent a one bedroom, self-contained unit as well as working full time and to attend Melbourne Tech. night school for some additional coaching by Arnold Wilson who was a surveyor's board examiner and teacher in my troublesome subjects.

By the end of 1952 I was in poor physical shape through over work and not taking care of myself so I returned to Hobart and obtained a job working as a casual, again with Mr Terry. I passed all my final exams to become a registered surveyor in December, 1953.

As far as my four year apprenticeship was concerned, I was taught very little by Mr Terry and rather was used virtually as a cheap chainman/labourer with lots of hard physical work, clearing bush lines and making bush pegs and dumpies and camping on the jobs etc. Mr Terry employed only me and never had other staff. His office was a space rented from a firm of solicitors, Clerk Walker and Stopps, in Collins Street. In the same building was a secretarial typing school run by a lady, Gladys Mitchell. For Mr Terry's reception, telephone services

and typing he used her pupils. Although Gladys was very strict with the trainees she took me under her wing which was very kind of her.

Although Mr Terry never talked to me much about his previous experience, I believe that for many years he worked in Malaysia as a surveyor, probably for the public service and in the tin mining industry. This was during the Great Depression in the 1930s. When World War 11 commenced he returned to his home state of Tasmania.

Equipment

As to the surveying equipment and methods used during the period from 1947. It was the start of a slow but accelerating transition from the gear that had been in use for many years to much more modern instruments.

The Gunter chain had only just been replaced by invar steel measuring bands. Difficult to use four screw theodolites and dumpy levels were being replaced by three screw instruments. When I joined Garlick and Stewart in Melbourne in 1952 it was the first time I encountered three screw theodolites. I had to be shown how to use them which was rather an embarrassment. Of course the new instruments were much easier to use and smaller and lighter. Not only that but angles read by a vernier scale had become microptic. Those were mainly in Wild instruments. They were much lighter, more accurate, better optically and less fragile. Instead of being centred by the use of plumb bobs, they used optical plumbing.

Soon after I returned to Hobart and started my own business I purchased from Switzerland a Kern DKM1 theodolite which had centering by way of a telescopic vertical rod with a circular bubble. It was less than half the size and weight of any previous theodolite and was a revolutionary design. Terrific for carrying on bush jobs. I still have this instrument.

For calculations, which were mainly done in the office, we first used logarithms, traverse tables, latitude departures, longitude departures, slide rules etc. By the mid to late 1950s mechanical calculators came into use. In the office these calculators were mainly driven by manual action. Some portable hand calculators such as the Facit were also in use. Smaller and more portable pocket calculators such as the Curta arrived. These made field calculations much easier. Mechanical calculators were soon replaced by electric driven ones. I purchased when in London a pocket electronic calculator made by Sinclair and

created a sensation in Istanbul in 1972 when I produced this at a bazaar to check the calculations of the money exchanger who was using an abacus.

During the latter part of World War 11 South Africans invented and produced a device which could measure distances between points by using radio waves. The device called a tellurometer was good for measuring long distances between trigonometric stations etc. but was not easy to use, it was very large and heavy, it needed to be carried in a backpack, and it was expensive. They were used also by the armed forces throughout the world but soon became outdated. I purchased, I think it was in the 1970s, some of these tellurometers at an army disposal auction out of curiosity and gave a couple of them to the University of Tasmania museum. I don't know where they are now.

A far as computers were concerned, the early ones I recall were by Hewlett Packard and of course they had to be programmed by surveyors to meet their own particular needs. Programmes were recorded on magnetic strips which were fed into the computer for a particular type of computation. To get all the programmes we required we enlisted the survey department of the University of Tasmania and later some of the graduates and/or students to produce these magnetic strip programmes.

Soon Hewlett Packard produced pocket computers such as the HP 45 which also had to be programmed. This made calculations in the field quick and easy.

Most surveyors of my era struggled with this use of computers. I for one still have an aversity to them in everyday life.

With the advent of the pocket computer and the modern electronic distance measuring instruments the 'surveyor's life' has been revolutionised.

Travelling, and Jobs with Mr. Terry

In the 1950s the highways and byways of Tasmania were by today's standards very poor and motor cars were prone to mechanical problems. When I commenced with Mr Terry he had an old Dodge pre war vintage car. He made it his rule that if a job was over 20 miles away it meant an overnight stay.

As surveyors were in very short supply and there was a pent up supply of work due to this and the war period, Mr Terry could pick and choose his jobs. This meant he would not usually undertake a single job in a rural area and would only go to say Huonville or Lewisham or Kempton if the client provided accommodation, and on some jobs, labour as well. He also preferred to include

some shooting and fishing if possible. This meant I was frequently away from home, making study difficult. I was often relegated to shearer's quarters and left to clear bush lines while he went for a few hours fishing or shooting. I did not learn much about surveying but became a handy axeman and good at cleaning fish and game.

Also in those early days, 4wd vehicles were not common so there was much bush walking carrying all our gear including axes, brush hooks etc. We did not work set hours in the field so some of the days were very long.

Near the end of my apprenticeship Mr Terry went off to New Zealand on a fishing and shooting trip and left me with a pile of survey work, all in the Geeveston area. He had by this time got rid of the old Dodge car and purchased a brand new Hudson, a very large white American vehicle. As it was white, it became known as Moby Dick.

I was given the keys to this vehicle and a permanent booking at the Kermandie Hotel. In some ways this was great being a young unattached fellow with a flash car and a large number of very eager clients, some of whom had been waiting for years for a surveyor, many of whom had daughters of my age who were good cooks! The main problem was I had not been taught much about surveying and I was not allowed to employ a chainman so the client had to be my assistant. Thus the work was very stressful, difficult, and slow with new untrained assistants on every job. From memory this lasted about six weeks and when the boss returned he seemed perfectly happy with what I had done.

In other times I often travelled by motorbike but of course this was no good for transporting equipment..

Mr Terry's background was working and surveying in Malaysia. He never talked of his training or what his previous work was. I suppose our relationship was rather strange in as much as I was a young inexperienced articled pupil and he was very much the boss. I was the only apprentice surveyor Mr.Terry ever had.

To give some examples of our relationship, I remember going with Mr Terry to do a job at Grass Tree Hill on the Eastern Shore. When we got to what we thought was the property there was a gate off Grass Tree Hill Road for a driveway leading up to a house some hundred meters away. I was instructed to go up to the house and find out if we were at the right place. Well I did that and upon knocking on the front door a large dog came tearing around from the back of the house. It was literally foaming at the mouth and ready to attack. I grabbed

a lump of wood to fend off the dog as I walked backwards all the way down to the gate while the boss sat in the car laughing. I was very shaken but he thought it was a great joke. It was the wrong property what's more.

Sometime later we were doing a boundary check to attempt to settle an argument between neighbours at a property in Waverley Street, Bellerive. We saw our client then had to advise the other owner we required access to his property. I was a bit more wary by now so I refused to go on the adjoining property, so the boss had to attend to that himself. He tried knocking on the front door but got no response so he went around to the back door. A few minutes later the boss appeared at full speed followed by a man close behind with a large knife. Down the side drive, then down Waverley Street they went. It was my turn to laugh. Later when the boss reappeared he was very angry with me for not protecting him. I was accused of dereliction of duty. As an apprentice he said my articles stated I was to at all times protect his interests. My answer was that he was easily outrunning the other chap and I was protecting the theodolite.

I recall a big Soldier Settlement survey we did in winter on a property called Tor Hill near Ouse. This job did not involve much line clearing as it was mainly open grazing land but it was completely over run with rabbits. In those years before Myxomatosis this was normal and as well rabbit skins were bringing good prices. The story was that the two brothers who owned the property paid for it by trapping rabbits and selling the skins. They had a pack of about thirty hunting dogs each. Well we worked for about six days straight then Mr Terry declared Sunday as a day off to go shooting rabbits. This was ok by the owners so off we went with a large pack of dogs and a packhorse. Mr Terry and the owner took their double barrel shot guns and I took my BSA bolt action single shot .22 rifle. There was discussion as to which of us four would get the most rabbits. Well I had done a lot of rifle shooting on our farm and had done some shooting with Mr Terry before so Mr Terry had some idea of my rifle shooting ability. Anyway I got the highest tally and the owners were happy because of the reduction in rabbits, the skins to sell and the carcasses for dog food. The owners were experts at skinning rabbits (able to do more than a rabbit a minute) and the pack horse carried the lot. Some months later Mr Terry presented me with a beautiful new .22 BRNO repeater rifle with a telescopic sight. I was informed it had been purchased with the money he had won on the bet he made with the two owners of that property, that I would get the most rabbits. I still have that rifle.

Another example of our relationship gives an indication, I suppose, of how being just a two man party can develop some friction. There was such an instance on a large bush survey way out the back of Bothwell. Mr Terry for once employed a local bushman to help with the clearing of lines and carrying of equipment. At the end of one day we ended up a long way from our parked vehicle and decided to leave all our gear where we knocked off to start the next day and walk back to the car. The discussion started as to which direction the car was and the quickest route to get there. It was probably about ten kms. Well the boss and I disagreed. The chainman decided he would go with me which did not please the boss, thus we set off in our different directions. Over an hour later as it was getting dark the chainman and I got to the car. After waiting for half an hour the boss had still not turned up so we drove down the road for a couple of miles and found him trudging along in the wrong direction. Nobody likes to be wrong especially in front of an apprentice and a chainman, and with Mr Terry being used to the bush. There was a very icy silence for the rest of that day and most of the next.

On the whole though we got along well enough together even if I did not learn much about surveying. It certainly did toughen me up. Unfortunately Mr R A Terry never knew that his grandson Craig commenced work with PDA in 1985, was registered in 1986, and became a partner in 1988. Mr Terry senior would have been very proud of this. I can assure all that Craig has been and is a great asset to the firm.

A Short History of PDA

During the whole of my apprenticeship I cannot recall any survey work that was not either city, urban or rural cadastral. Possibly the nearest I got to engineering surveying was taking levels of subdivision lot corners for the purpose of designing services. Sometimes for the War Service Homes urban subdivisions we were required to take grid levels for house design purposes. I can remember only one engineering survey of any extent. That was for the Commonwealth Carbide Works extension of a railway line at Lune River from the original terminal at the Lune River down to what they called 'the deep hole'. I do not remember much about the survey except the area was flat, scrubby and infested with tiger snakes.

As previously mentioned I moved to Melbourne in January, 1952. Most of my work there was urban cadastral and the survey procedures there were different to those in Tasmania. Victorian cadastral surveying did not involve traverse

lines but more simply using lines parallel to the road kerbs and/or at right angles to them with sight lines into the property with everything being offset to those lines. This was because of the very high density suburbs such as Carlton and the inner city where each lot was heavily built over and access extremely difficult. I certainly saw plenty of slum areas that made me realise how lucky we were in Hobart and Tasmania in general.

One of the partners of Garlick and Stewart was Ray Steele. He took me under his wing. Ray was a colourful character and I look back on him with some fondness. He did not often go into the field but on the few occasions he did he took me as his instrument man. Most of the jobs were in the outlying rural towns which I found more to my liking. I kept contact with Ray at future survey congresses. Once when a congress was in Hobart we entertained him well but by then I was qualified, married, and had my own business.

My year in Melbourne in 1952 was very valuable to me. In retrospect this was because, rather than from a technical view, for the first time I realised that surveying could be conducted as a large professional business, not just as a one man backyard show, and with some standing in the community attached to it. Of course solicitors, architects, engineers etc. had been doing this for a long while as had a few of the mainland survey practices. The advantages were obvious in having a professional business. These included a wider range of skills being employed, training of surveyors and passing on of skills to future generations, backups so proper leave could be taken for holidays, back up for health reasons too, long service leave, better client servicing with back up staff, bringing surveying up to the same professional level as engineers, architects etc., learning business skills, ongoing professional status, and a wide range of surveying skills for specialisation.

So when back in Hobart and fully qualified that was my long term objective.

I passed all my final survey exams and became registered in December, 1953. I then entered into a limited partnership with Mr Terry. The agreement was that Mr. Terry would do all the work west of the Derwent and I would do all the work to the east. We shared an office and shared rent expenses etc. In retrospect this was doomed to fail as (a) Mr Terry did not want to modernise equipment but I did and at my own expense - once I got the equipment he wanted to use it but not pay for it, (b) there was not a lot of work on the east side of the Derwent at that stage but I had many contacts, both family and friends, wanting me to do jobs on the west side of the Derwent however I had to give these to Mr Terry, and (c) Mr Terry kept using the staff I put on but did not share their wages etc.

I married on 23rd October, 1954. Max Darcey entered articles with me three months later.

In August 1957 I entered into a formal business partnership with my wife Anne. By this time it was quite apparent that the arrangement with Mr Terry was no longer workable so the partnership with him was dissolved in March, 1958.

My business soon started to really build up but the strain was starting to tell and I became ill through overwork. On top of business, getting married, building a home in Rosny including doing much of the finishing off myself, and starting a family all contributed.

That illness was one of the reasons the business partnership was entered into with Anne so she could sign and act for me legally when my health deteriorated. I became bedbound for some time. After 1958 my health started to improve but I again took on more than I could easily manage.

In January 1960 Peter Anderson started as my second articulated student. Work then was rather intermittent so as well as surveying we took on many strange jobs, mostly done by our permanent and part time chainman, Gerald Spaulding. For example I bought an old clapped out unregistered Land Rover which we stripped down to the bare chassis and then completely rebuilt as the original was much damaged. We threw away what was left of the original canvas canopy and built what I believe was the first marine ply and fibre glass cabin. This vehicle was then used on survey jobs and also on various 'strange' jobs such as tree pulling in redundant orchards, even ploughing, planting, and transporting potatoes on the family farm. We also did some house painting and restoration work.

Max Darcey was registered in 1964 and then became a partner. Peter Anderson was registered in 1965 but left the firm to gain more experience on the mainland. He returned to us in 1969 and became a partner soon after. Thus the business went from 'A.C. Peacock & Partner' to 'Peacock and Darcey' and finally to 'Peacock, Darcey and Anderson' (PDA). We had already started an office in Burnie in 1968 so Peter Anderson went there to run that. The firm grew considerably. In 'early times' we had offices in Hobart, Burnie and Ulverstone, and later also in Launceston, Kingston, Queenstown, Huonville and Deloraine.

The business eventually had nine partners and many employees. One of the partners is an engineer.

I retired at age 65 in 1993. Since then Max Darcey and later Peter Anderson also retired when aged 65. Their places have now been taken by others and more people still.

The present managing director of PDA is my son Mark. When Mark left Friends School he decided to be a surveyor. I was very surprised as up to that stage he had shown no inclination towards surveying at all.

From the very early stage of the firm Max Darcey was always a loyal and energetic supporter. His premature death in 2011 was a great loss to the Hobart community. He retired as a partner in 2001 but continued to 2006 as a consultant. One of the terms of our partnership agreement was that when one retired as a partner at age 65 he should if possible continue on as a consultant for another five years.

As mentioned earlier, in the beginning work was mainly urban, city and rural cadastral jobs. As PDA increased in staff numbers, partners and offices throughout Tasmania, so did the variety of surveys. Some of the work carried out in the past, much of which is now routine, included marine surveys (both surface and underwater), stock pile surveys for mines, chip mills and royalties etc., traffic accident scenes for court work, subsidence and verticality checks and monitoring of buildings, design and set out of roads and subdivision services, letting of subdivision construction contracts and supervision of same, hydrographic surveys for many different purposes, setting out of marine leases for all types of fish farming, location of moorings for lease purposes, set out of railways, roads, bridges, mines (both underground and surface), checking of distances for all types of sporting events including swimming, rowing, horse racing, greyhound racing etc., alignment of machinery to high precision for newsprint mills and other factories, accurate location of many marine navigation marks around Tasmania for the Port Authority and for proposed wharfs, alignment of radio and optical telescopes for deep space exploration, location of points for aerial photography control, mapping throughout Tasmania and the Bass Strait islands, marking out large scale grids for mining exploration sites throughout the state, locating points from aerial photographs, marking out for the construction of highways (including the 50 km. of road from the Murchison Highway to Wyena Dam), setting out and checking construction of the Bowen Bridge, setting out footings for all types of towers and piles, stratum subdivisions for residential and commercial buildings, continuous measurement of shopping centres for the purposes of calculating net lettable areas for contract purposes, plus many others I have overlooked no doubt. I personally took on

some very difficult jobs, mostly in the early stages of my career, in order to establish for myself a secure practice.

In the very early history of Australia surveyors were highly regarded. This came about because the Surveyor General in each state was only one 'level' below that of the Governor and was responsible for the administration of all land grants as well as most exploration. As Australia became more and more settled the power of Surveyor Generals slowly diminished as exploration reached its final stages and also as the granting of crown lands in the states reduced.

By the time my generation came on the scene the status of the surveying profession was in my opinion at a fairly low ebb and consequently so was its self esteem. I could not see that there was very much future in surveying unless one could become much more professional, at least on the same 'level' as engineers, architects, lawyers etc. All surveyors in Tasmania back in the 1940s and early 1950s were 'one man bands', mainly working with a very small staff either from their home or shared office space. At the same time most other professions operated in partnerships and were located in proper offices, as they had been for generations.

From the time I became a registered surveyor I realised there was little prospect of making a go of it without setting up a proper professional office that could remain in existence for long after I retired. The benefit of getting a 'level playing field' with the other professions was obvious. Some of these benefits include continuity of work, paid leave, back up in case of sickness and ill health, full clerical business and drafting services etc., study leave to get 'ahead of the game', training more fully professional surveyors so they could continue the established practise for the client's benefit without having to 'reinvent the wheel' so to speak, creating a business that could cover many fields by having partners specialising in a variety of work, and to broaden the fee base so sudden slumps in business in one field need not wipe out the business. All these benefits are of course now common practice, not only in surveying but in most other professions such as medicine, engineering, law, architects etc.

So in PDA we took on from the start just about anything that came along. Even if we knew little about the job we soon learnt and aimed to give good reliable service.

With this philosophy we got into a few difficulties, however in all the years of my active survey work I can only recall one job that defeated me. That was a job for BHP. The instruction was to mark out a 100 ft. grid over the top of Mount Jukes on the West Coast in mid winter. I did not wish to tie up my very

small staff for too long so I hired a caravan and went to the job with one experienced apprentice only. Mount Jukes is a long way from any other habitation and in those days the Lyell Highway was poor. At the best of times the West Coast is a high rainfall area and when we got to the foot of the mountain it was snowing. Apart from marking out a grid we were to locate all the old mine adits and then their termination underground. In places the mountain comprised very broken ground so we soon struck problems in trying to fix marker stakes in the ground. On steep rocks this was nearly impossible. The snow in places covered the openings to some of the adits and made the work very dangerous. There was only a steep walking track from the caravan at the base to the top of the mountain. This made carrying stakes and other equipment very difficult. Some of the adits were full of water, many to waist depth. The rain and snow did not let up. In the caravan at the end of each day there was no way to keep warm or even dry out our gear. After several days we gave up and I rang BHP and told them the job was impossible and to get another surveyor. I had no response so I wrote the job off. That was the only one we never finished.

An example of another unusual job was the marking out of four adjoining mining leases in northeast Tasmania. Unusual as these were the first uranium leases in Australia back in about 1957. This was in a fairly remote area as far as access was concerned. There was only a rough 4wd track from the main road in to the job. It was about five km. long and took much of our work day walking in and out. As we did not have a 4wd we decided to drive there each day in my only vehicle which was a little Austin A40. By the end of the job I had lost both front and rear bumpers and had other sundry damage but we got the job done.

One concern at the time was few people knew much about uranium. Also there were rumours about radiation affecting people. Notwithstanding it did not appear to affect us and we came to no harm.

My son Mark before he became a registered surveyor, helped me undertake a photo control survey on Flinders and Cape Barren Islands for the National Survey Office. The Flinders Island part went ok. We chartered a fisherman to take us to Cape Barren Island. We had been told by our client that the community would provide us with a house, provisions, and transport. Well the house was ok and they had some provisions for us but the transport was a clapped out old Land Rover which broke down on the first day. The client then provided us with an old ex-army 4wd/5 ton truck. We were told that the foot brake did not work so we just had to keep changing gear. The last photo point to measure was on a high very steep hill. Going up was ok in the old truck but we

found the only solution to going down when we finished was to cut down a large tree and tow this behind as an anchor which worked well.

Next day we ran short of food and so did the shop so I rang the small airline that ran the regular flight to Flinders Island to see if it could help. The answer was 'yes' but they were not allowed to land on the airstrip at Lady Barron but if we were at the strip at a certain time they would buzz us and throw the provisions out the window. That worked well so we got some meat, bread and vegetables etc. to see us out for the next few days. That was a quite different experience.

Some 'Odd' Jobs

Going back to my apprentice days there were a few unusual experiences.

In one I had some rural work to do for Mr Terry near Ouse. I did the usual marking of trees with regulation triangles on the boundary lines etc. but we did not quite complete the job by week's end. When we came back on the following Monday we found to our surprise that lines had been cleared and marked all over the place and a couple of rough tripods had been made with beer bottles lashed on in an imitation of our theodolite. While doing the first part of the survey we both had an uneasy feeling we were being watched. It became obvious that children had done this as some sort of game. I often wondered what a puzzle it may have left for some future surveyor with all those trees incorrectly marked.

Many years later we were again working out of Ouse. While staying at the Ouse Hotel I was warned that it was not unusual on some nights for a few locals to come to the pub looking for trouble and if that happened when I was there to make myself scarce. Well they did come and I obeyed instructions. I was reminded of this many years later by a prominent member of Parliament. He said to me 'the last time I saw you Tony you were sitting up on a roof rafter above the bar when that fight broke out in the Ouse pub. I thought you were very quick to get up there'. My answer was 'Harry you were equally quick to jump over the bar counter and hide under it'. The people responsible for the brawl were known far and wide so I will not name them.

When I was an apprentice Mr. Terry received instructions to carry out a large Soldier Settlement rural subdivision near Epping in the Central Midlands. Mr Terry decided I should do it on my own. For accommodation he arranged board for me at Cleveland in an old stone building run as accommodation by two ladies. For labour Mr Terry said go to the nearest pub, being in Campbell Town,

and ask the barman who is available. The barman pointed out two chaps who he claimed were good bushmen so I took them both on. One who was named Pat was a first class bushman but needed to be kept clear of alcohol, the other named Billy had a reputation as a local sheep rustler. Both turned out to be good company and excellent workers. The area to be surveyed was some thousands of acres. I adopted the usual practice of sending one chap ahead to drive in a dumpy and plumb a stake over it while I observed to the back stake then to the forward stake, plumbed our stake, then measured to the forward dumpy. All dumpies and stakes were made as we went along. I had to borrow my mother's car to get to the job for several weeks. Mr Terry would not pay for this which I thought was rather poor. When we came to the final closing station I discovered a misclose of some 10 minutes of angle so I rang Mr Terry for advice and help. His answer was the mistake was mine so I had to terminate my two chainmen and find the error myself in my own time, not in his. What I then did was spend a day and a half or more setting up at each dumpy after plumbing up the stake behind me and the one in front then observing the angle again. In the end I found the error. This was harsh treatment by Mr Terry. I have never I believe had another misclose.

A very interesting and challenging job I had much later in my career involved the construction of the first large TV tower on Mt Wellington for the ABC. The contractor used his own men to set out and control the placing of four large sunken concrete blocks and the placement in each block of large steel bolts. He had started to manufacture off site the steel work for the first lower section of the tower when he discovered the concrete blocks and bolts were not placed accurately. His answer to this was to then fabricate the first section again so that the steel work would fit the bolts providing he knew exactly where the bolts were. He instructed me to prepare a precise plan to accomplish this. Sounds easy but it was mid winter, there was ice and snow and most of the time it was blowing hard on a very exposed site. It turned out to be a very difficult job because none of the concrete blocks were level with one another, and the bolts had been protected by wrapping them in hessian tied up with twine so all had become sheathed in a considerable thickness of ice. This called for a sledge hammer and chisel to expose the bolts and then by theodolite recording the position of each of the sixteen bolts, both horizontally and vertically, with reference to each other. We had to tie the theodolite down with straps and heavy weights and also erect a robust wind shelter to stop the instrument from vibrating. We also had to allow for temperature tape corrections as well as levelling the bolts. All this was in zero temperature. It was so damn cold. After the contractor had manufactured the first section of the tower from our

information he took it prefabricated from the city to the summit. I was gratified when it all fitted perfectly. There were no problems at all.

The tower served its purpose well for many years. The sequel was when eventually it was decided to replace it with an even bigger tower involving more modern technology PDA got the job for setting this out and monitoring the whole process. This time my son Mark was in charge. I was then retired.

Now when I look at Mt Wellington, which is frequently because it is so prominent, I am very pleased with the father and son efforts with the new tower being fully visible and the old one just a memory.

After the disastrous 1967 fires in Southern Tasmania many buildings and infrastructures were destroyed. I decided we owed it to the community to help in any way possible so for some months, particularly in the Kingborough Municipality, we undertook many free surveys to help people relocate their boundaries. This was done through the Kingborough Council for who we did much work over many years.

Cascade Brewery, a client of ours, also had some damage. The manager called to say their large barrel store building had been destroyed so could I design and set out a new building urgently so they could resume production. The building had to be designed to accommodate full handling by forklift trucks. I explained that we knew nothing about storage or forklift trucks. His answer was that he had been advised 'we could handle anything' and he had full confidence in us. A steep learning curve followed and we got the job done without any complaints.

We undertook many dangerous jobs, particularly in the days when unions were not very active and made no attempt to enforce safety regulations. Any high structural work I usually did myself as none of my staff were prepared to attempt it. I was not keen on heights but managed.

Non surveying work I took on included checking houses for structural faults for a bank for loan application purposes. The bank was well aware of my lack of qualifications for the job but was happy to hire me. Also I did some valuation reports on yachts for estate settlements which the various parties involved appeared to be happy with.

In 1963 I started another business, Tasmanian Drillers. This came about for several reasons. Our family farm on the East Coast was in the grip of a drought and my father decided the answer was to look for some underground water. The only organisation in Tasmania capable of sinking bores was at that time the

Mines Department. They had a very long waiting list. My only permanent chainman, Gerald Spaulding, was becoming restless. He was quite a good mechanic and 'a jack of all trades' so I thought he could run a water drilling business and that might also bring in some extra survey work. I knew very little about sinking bores so I paid Gerald's wages while he worked as a water driller's offsider on the mainland for about nine months. I then ordered a drilling rig from the USA. When it arrived it was found to not be powerful enough so we ordered another much bigger machine from Western Australia. I then built a large workshop in North Hobart to accommodate all our necessary gear including vehicles, forges, lathes, welding equipment, and a couple of ex-army 4wd blitz buggies which I purchased at a clearing sale on the North West Coast. We got plenty of work throughout the state but as the operation expanded I found the running of two separate businesses, surveying and drilling, was too much for me. As the drilling business was the most worry and the least profitable it had to go so Tasmanian Drillers Pty Ltd was sold in 1970 to Mono Pumps. We had installed many of their pumps so it was a good 'add on' business for them.

Other businesses apart from surveying and drilling I was involved with from time to time included quite a few subdivision developments, entirely separate to PDA, and I personally purchased and sold a number of rental properties.

Other Surveyors and Activities

At the start of my surveying career in 1946 there were of course a number of previous generation surveyors still active. One I never met was District Surveyor R. B. Montgomery. I came across many of his surveys particularly on the East Coast. Before my surveying career he carried out surveys on a block of land for my father on the East Coast. I understand he was well known and used a motorbike and side car to travel to jobs. He usually had an Alsatian dog with him in the side car.

Ted Lilley practised in Hobart during my early years. He always worked from his home. He was a Rhodes Scholar and brilliant mathematician. I always had the impression surveying was not his favourite activity.

Another surveyor I met a few times was Major Payne who lived in an old stone house in Byron Street, Sandy Bay, where he worked from.

Unfortunately by the time I was registered and in private practice one of the main oppositions in Hobart were surveyors employed by government authorities

and the Hobart City Council. These 'weekend surveyors' used all their employer's survey equipment, office facilities, and in some cases vehicles, to carry out private survey work in direct competition to those of us who were fully self employed. This was most unfair as they could undercut our fees through having almost zero overheads, no professional insurance, and they could 'cherry pick' the best jobs. I had a constant struggle to attempt to stop this practise by approaching heads of departments, councillors, members of Parliament etc. Apart from the obvious unfair competition this gave surveyors in general a poor reputation. Tax payers and municipal rate payers were subsidising this practise. Fortunately this seems to have died down now although I am not entirely sure.

I played a very active role in the profession serving on many committees. At various times I was president of the Institution of Surveyors Tasmania, chairman of the Private Practice Panel, chairman of the Association of Consulting Surveyors, and chairman of the Fees Committee. I also served on the Surveyors Board of Tasmania from 1971 to 1985. This meant setting and marking exams as well as regulating the profession and conducting practical examinations. When the Surveyors Board passed the study, setting and marking of exams to the Tasmanian University I served for a period on the University Board of Studies.

I was elected a 'Fellow' of the Institution of Surveyors sometime in the 1970s.

Stratum titles came in to existence in Tasmania in 1985. I was much involved in drafting early legislation for this. The requirement for legislation came about mainly because the Retirement Benefits Fund of Tasmania was planning to build a retirement village complex at Claremont and wished to do this in stages and to sell each unit as it became available. At that time in Tasmania there was no provision under the Real Property Act to allow the Recorder of Titles to issue titles for flats or units whilst some other states did have the necessary legislation. I was appointed to a committee comprised of representatives of the Law Society, the Recorder of Titles, and parliamentary draftsmen etc. to draft a stratum title act. It was considered very important that the surveying profession had a large input into this, as they were going to carry out the actual survey work. So that was my unpaid job for a while to help draw up workable legislation.

After the legislation became law I had requests from The Real Estate Institute and legal firms to give lectures throughout the State to explain how the new legislation was to work. It was at this stage I set up Stratum Title Management

Tasmania as a separate subsidiary to PDA. Stratum Title Management now manages several hundred body corporate properties throughout Tasmania. This is run and managed from PDA offices.

Serviced Offices Secretariat Pty. Ltd. was another business I set up through PDA.

Until the mid 1980's PDA had mainly operated from rented premises which was not an entirely satisfactory situation. At that time I purchased premises at 127 Bathurst Street known as Eltham House which had been a boarding house. It became the headquarters for PDA.

In the late 1980s we decided to demolish much of the original building and replace it with a purpose built office with additional rooms to let. Following on from that, Serviced Offices Secretariat Pty. Ltd. was formed, being jointly owned by most of the partners of PDA. This led to similar set ups in our Kingston and Burnie offices.

I have now been retired from PDA for nearly 20 years and have not entirely kept abreast of its activities. This was deliberate on my part when my son Mark became managing director as I did not wish to embarrass him by 'hovering in the background, looking over his shoulder' so to speak. Also for this reason I am not up to date with the profession as a whole.

Upon Retirement

At the time I retired the Association of Consulting Surveyors was becoming involved in setting up a better and cheaper method of obtaining coverage for professional indemnity insurance so it set up its own brokerage firm. To enable claims to be handled in the most efficient way it was decided to have a claims manager in each state chosen from the surveying profession itself. I was asked to be the Tasmanian manager so I filled that position for some years and found it very interesting. To properly settle claims I required full access to the offices and files of the surveyor subject to the claim and was gratified to find in every case this was readily agreed to in spite of the fact that all had been competitors of mine and that I still had some ties with PDA. I was paid an hourly rate for all claims investigations. In all cases I found mutually compatible solutions. In the end for a number of reasons I resigned. I do not know the situation now except I understand PDA no longer uses this service as it has found a cheaper and/or more effective cover.

Retirement has allowed me to be involved in other activities. For example, the Rotary Club organisation set up an operation to provide business mentoring for free by volunteers to assist potential new businesses and to help and advise existing ones. I was asked to be one of these mentors and for some years found great satisfaction in helping those in need of this service. The clients varied from 'dreamers and the impractical' to others who would succeed if helped. It was very interesting but in the end I believe the structure ran out of steam through lack of funds for the management position.

Another charity that I assisted was Meals on Wheels. My wife Anne had been involved for many years. When she stopped I became a volunteer for about ten years. It is a very worthwhile cause.

Congress Paper

I only ever presented one paper at a Survey Congress. That was in 1979. It happened to be the only non-technical paper up until that time. This came about because another surveyor, Chris Butler, and I had been planning a seven week trip through much of the remote outback. We intended to use as a departure point and time the 1978 Adelaide Congress. At that congress word got around about this so I was approached to prepare a paper to present at the next congress in Sydney. This was particularly of interest to surveyors because we proposed to follow some remote tracks made by a well known surveyor, Len Beadell. I found the presentation of my non technical paper very daunting, particularly in front of a very large audience of surveyors and eminent people. The paper was called 'Twenty Seven Degrees of Latitude'.

Sport, Yachting etc.

In my childhood and teens I played all the normal school sports. I was in the first eighteen Australian Rules football team, the first eleven cricket team, and I was the school champion at tennis for about three years. Tennis became my main sport. I was Southern Tasmanian junior singles and doubles champion in I think 1945. I was then selected together with a player from the North West to represent Tasmania in the Linton Cup at White City in Sydney. This was at that time a big adventure by boat and train. We did not do well mainly I believe

because neither of us had any coaching or training while some of the larger states had proper coaching schools. On top of that we played on grass which neither of us had any experience with. It was a shock when the next year we were told we had to play in the Australian Open hard court doubles championship. In the first round we played Adrian Quist and Bill Sidwell who were Australian Davis Cup players so you can imagine the thrashing we got. After that event I confined myself to social tennis.

After leaving school yachting took up a large part of my leisure time. I had always messed about in canoes, dinghies, a bit of fishing, sailing, and swimming. In about 1948 or 1949 I purchased a one design class yacht called Imp in which I did much coastal cruising and racing with some success. At one stage I was chosen to sail in a Tasmania helmsman championship and ended up second. After about five years I sold Imp, married and built a house so did not go back to sailing for about ten years. I then purchased Ariel which was a family yacht on which we cruised extensively. In 1990 I sold Ariel and purchased a motor cruiser, Erin Lass, which I enjoyed until selling in 2004. Now finally I am 'shore bound'. In Erin Lass with crew I did much coastal cruising including crossing Bass Strait and a circumnavigation of Tasmania. After Erin Lass I took up bush walking and golf and continued playing social tennis. All of this I have now retired from.

From about the age of ten I also spent much time on the family farm on the East Coast both working and for leisure. I still spend time there as do all my family.

Because of my experience in sailing I have also served time on the committees of the Sandy Bay Sailing Club and the Royal Yacht Club of Tasmania where I still regularly socialise and am a life member. For the last seven or eight years I have been an active member and regular bowler of the Royal Hobart Bowls Club. I have also done time on the club's committee.

When the replica of Lady Nelson was constructed by Ray Kemp in the mid 1980's the group behind the project ran out of funds so some of us 'put hands in our pockets' to help with extra finance. Later in Lady Nelson's life the Tasmanian Sail Training Association got into serious financial trouble so the vessel was impounded in Western Port, Victoria. I along with others were again approached to see if we could help. A group of twelve of us formed to undertake a rescue and went to Western Port, paid off the Lady Nelson debt, and after considerable work to make her seaworthy sailed her back to Hobart under experienced skipper, Bern Cutherbertson. I then helped for a year or so making the neglected vessel 'ship shape' again. As a result I am a life member

of the Tasmania Sailing Training Association but have not played an active part for some time now.

Upon retirement I took up golf as mentioned earlier. A group of eight of us played every Wednesday at different clubs and in competitions around southern Tas. Taking this up at 64 was a challenge but I enjoyed it and got by. That group 'disintegrated' when some passed away and others gave up for health reasons so for me lawn bowls replaced it.

In my late 70's I went sky diving, mainly in Queensland. The last sky dive I did was for my 80th birthday when one of my grandsons jumped with me. My family was not in favour of me continuing this. Mark has since jumped with his daughter near Hobart.

During my life I have been fortunate to enjoy many travel adventures both in and outside Australia. Now age precludes such, also my family think I should behave more responsibly. None of this would have been possible without the support of my wife Anne, my children and grandchildren. Anne in particular has had much to put up with due to me being away often on survey work, particularly in the early days, and sharing most of my more recent adventures. Also Anne has been my business partner in PDA and other ventures since the mid 1950s. She had a load to carry in the early stages having to also cope with three children under five years, a shortage of cash at that time, plus my serious illness early on.

It is very pleasing that my only son Mark now manages PDA and is a director of our family farm. My two daughters, Lynne and Helen, have also been very supportive.

As well as the adventure detailed in my congress paper, Anne and I have had many other adventures including a drive from Hobart to Cooktown and back in 1960 with our three children, and later again similar trips. That 1960 trip was a real adventure for all.

Finally 'Lyndhurst'

One aspect of cadastral surveying I have been reminded of by a newspaper article in The Mercury recently, relates to the sale of a property in North Hobart called 'Lyndhurst'. This article reminded me that 'Lyndhurst', when I first started as an apprentice surveyor, was the Land Titles Office.

Before a surveyor can commence a survey to either redefine an existing title boundary on the ground or subdivide a parcel of land they have to search all previous surveys near the land they are interested in. They also have to obtain a copy of the title or deed to the land.

Without going into too much detail, the only places to find these records were at the Land Titles Office for Real Property Act surveys, the Lands and Surveys Office for Crown Land surveys, the Deeds Office for any general law surveys, and finally sometimes relevant solicitors offices.

Before Mr. Terry undertook a cadastral survey he would give me either a Certificate of Title or Conveyance reference number and instructed me to make a search at all the above places for all such relevant survey information. At that time there was no way to copy plans etc. so the task then became firstly to search each source for possible information at the Land Titles Office at 'Lyndhurst' in North Hobart, the Lands and Surveys Office in Davey Street, the Deeds Office which backed on to Franklin Square, or possibly some solicitor's office. Secondly, once all the relevant survey information had been located, to then trace all of this on to tracing paper, making sure all was accurate and properly referenced. This required pencils, rulers, rolls of tracing paper etc. and a keen sense of 'detective work' and considerable judgement as to what was relevant and what was not. As can be imagined it was a problem if any error of judgement or mistake was made as this was usually only discovered when the surveyor was in the field and far from the office. There was nothing worse than driving many kms to a job to find survey pegs and/or marks on which the surveyor had no information at all.

Nowadays of course this aspect of surveying has been radically improved because, firstly, the Deeds Office is no longer involved as nearly all old general law and has been converted to Real Property Act because new laws have made this compulsory, secondly, all records have now been microfilmed or electronically scanned, and thirdly, all the information is now available via the internet so a surveyor does not need to leave their office to obtain this. Thus copying machines and computer print outs have dispensed with tracing paper and pencil. All this has made a vast change to a surveyor's life, all for the better.

And that's about it.

Tony's story as above was the result of a request by The Institution of Surveyors, Tasmania, back in 2014. Tony

obliged by recording on tape various thoughts and memories of his surveying career and some of his many other interests and activities. Very kindly Launceston solicitor Jacinta French, a sister-in-law of Craig Terry, transcribed Tony's record onto paper. This was subsequently edited at different times by both Tony and I to end up a fascinating record of a truly commendable life in so many different ways.

I, along with others who knew Tony, will be forever grateful for his help and support over many years.

Tony died in February, 2019, not long after his 90th birthday, following two painful years suffering from dementia. At that time PDA Surveyors comprised eight directors and approximately 60 staff operating from six offices across the state, thanks largely to Tony's foresight.

Peter Anderson. April, 2019.