

Date: 10, October, 1984

Gerson Park, Broxburn.

GR (b. 1889)

MR (b. 1899)

SL Their son-in-law (b. about 1920)

SR Sara Randall

SR So you're not from this area?

GR No.

SR When did you come here?

GR Nineteen-eight.

SR Excuse my asking; how old are you?

GR Fifteen!

SR Ninety five?

MR And I'm eighty five. Well, nine years and five months between us.

SR So even though you came here in 1908, you've effectively been here for....

MR Since forty three.

SR Why did you come here from Aberdeen?

GR On the fifth of January nineteen eight.

SR But why?

GR Well, the quarries then were being run down, same as the oil works here. They had ... the Government had

(showing photographs)

SR Are these the oil works here?

GR Yes. These are all the . . . That was up at Roman Camps - way up on the hill, you know, between here and Pumpherstun.

SR Yes.

GR That was the bringing down of the chimney.

SR And this is from the oil works?

GR Well, this is the Roman Camps works. I was in charge there.

SR When was that?

GR That was in nineteeneighty no, nineteen fifty something.

SL 1956

GR 1956. That's when they shut down, 1956.

SR And did they shut down as a result

SL Because the Government withdrew the subsidy on the shale. That was ...

SR And what happened to all the workers who worked there? Were they just made redundant?

GR You weren't even made redundant in these days.

SR Just told to go?

GR Aye. Finished. That's when the chimney's gone. That's it all lying here.

SR And are those houses still here?

SL Yes. They're all privately owned now. They've gone and done them up. I don't know If coming over you saw some places on your left hand side?

SR Yes, I did.

SL They've put in attics. And if you look up there, these are the company's houses as well. See these two up there? And then on the left-hand side, going down, these are some of the foremen's houses, these are for the middle management and for the farm staff. for the pit ponies.

SR Were there pit ponies until quite recently?

SL No, I think White Quarries were the last.

- GR That's a bench of retorts. That was over here, just round the corner a wee bit, between here and Winchburgh.
- SR At the Niddry Castle Works?
- GR No, that was Hopetoun Works. At Niddry. That's in Niddry. Niddry Castle, It's Winchburgh area, you see, further on.
- SL That was Young's ... at Winchburgh. Niddry Castle was Oakbank, same as Oakbank Oil Works.
- SR Yes, I've read it all, but it's difficult to remember which is which. unless you've actually experienced it.
- GR Now that's a bench of retorts, you see, and to bring them down we had to blast them from the bottom.
- SR This was again when the Industry closed?
- GR Yes. That was in 47, 47 or 48, that.
- SR Did you take the photos yourself?
- GR No, it was the news boys. That's the last, at the end it had come down. And that was all just, all ignited by a man in each one.
- SR And that was it, and then the men just went and found work elsewhere?

GR That's it all down.

SR And these were the people who'd worked on the oil works?

GR That was , yes, that was the squad I had there at the time.

SR When you came here in 1908, where were you working?

GR Oakbank. I started at Oakbank. I had an uncle there, and he came up for his holidays to my mother's. So the works were being closed down, the quarries were being closed down in Aberdeenshire at the time, and I came back down with him and was started at Oakbank.

SR Doing what?

GR Started firing the stills, the distilling stills, for refining the oil.

SR Was that a job, sort of at the bottom of the hierarchy?

SL Yes.

GR The stills were built in a row right along, and you had the tar pipes coming down, and the tar you took out of the refining of the oil, you got tar out of it and you used that for heating the stills. The still was just the same as distilling whisky and whatnot.

SR And how long did you do that for?

GR Well, I did that for about two or three years, and then I changed

over to the retorts, to the retorting, and that was taking the oil out of the raw shale.

SR Was that a better job?

GR Well, I'll no say it was better, but it wasna so you hadna so much gases there, at the retorts. At the stills you had a lot o' heavy gases and that coming off.

SR Did you have any protective clothing, or?

SL Not in these days!

GR No protective clothing, no. You felt the effects of the gases.

SL When they retorted the shale, there were a gas came off ...

SR And that just went into the atmosphere?

SL Well they fed it back into the retorts and it was combusted in there as they cooked the shale

SR But the gases that affected you, those were gases that were just floating around? So the whole atmosphere would have been full of them, but most concentrated where you worked?

SL When they opened the retort, there were gases came out then, you see, and then they closed it again when they put the shale in.

SR So you preferred working in the retorts?

GR Yes, well, it was working in the stills that was a twelve hour job.

SR A twelve hour shift?

GR Aye. Twelve hours. In fact It was a fourteen hour shift, on the night shift. It was fourteen hours, you went down at four o'clock in the afternoon and you was on until six o'clock the next morning. Well, when I went over to the retorts, I was on to an eight hour shift. There was three shifts, you had day shift, afternoon shift, and then night shift; three of eight hours. So that made a difference.

SR So when you were on the stills, how many days a week did you work?

GR Seven days a week. Seven days a week.

SR Did you get any holiday?

GR Oh, yes. If you took them! You didn't get them.

SR But there was no paid holiday. No days off?

GR No, no paid holidays in these days. On the Saturday, your day shift, you went out on the Saturday morning at six o'clock, and you was there until Sunday morning at six o'clock.

SR Every week?

GR No, every second week.

SR Changing your shift.

SR And then you started off doing your night shift instead of the day shift?

GR That's right.

SR So you literally worked all day every day, all year?

GR All year, aye.

SL Except New Years Day.

SR New Year's Day off?

GR Unless you took a day off, or a holiday. Of course I had a holiday every year, every summer, for going up home.

SR But when you were on the retorts it was still seven days a week?

GR Yes, still seven days a week. Now, on your night shift you came off on the Saturday morning, you came off at six o'clock, and you were off till Sunday morning at six o'clock. You were on to day shift then. And then two weeks after that, you had your double shift on the Saturday, and we were on till six o'clock on a Sunday morning. And that allowed a man on day shift to get away, to get to a football match.

SR So you got a half a day off every three weeks?

GR Yes.

SR When did they start bringing in a six day week?

GR Oh, they never....

SR Everybody always worked a seven day week?

GR Yes. Well, no the tradesmen, no the engineers and that. Unless with extra work for them, if they did, like. But the plant men, those on the plant, the boiler fire-men, the power station men, they were all seven day a week.

SR Was it the same in the mines? The miners?

GR No, no, the mines were different. They had either day shift or night shift, generally.

SR But they still worked seven days a week?

GR No, they just worked six days , the mines.

SR So was it slightly better working in the mines than the retorts?

GR Yes, aye.

SR How long did you work on the retorts, about?

GR Well, I worked on the retorts till, er, forty three. Until forty three, when I was made manager. I was made manager over this wee works over here, that one where they, that I showed you the retorts, a full bench of retorts.

SR What was that one called?

GR Hopetoun. Of course people have called it, there was a wee village over there, Niddry. Niddry village. And there's a castle there just between that and Winchburgh, Niddry Castle.

SR Yes, I've seen it.

GR That's where Winchburgh Works took the name from, Niddry Castle Works. And this one over here was Hopetoun Works, because It's in the Hopetoun Estate.

SR I see, yes.

GR There's some trees over there, just half way across here, and that's the boundary between the Hopetoun Estate and the Broxburn Estate.

SR And that was owned by the Earl of Hopetoun?

GR Yes, aye.

SL And they had the royalties off the shale.

SR They must have made quite a nice comfortable income.

SL I think It was about ninepence in the old money.

SR Ninepence a ton, or?

SL A ton, yes.

SL In fact there was one mine, white Quarries, they wouldn't let them put up buildings as such. The winding-engine house and all the workshops had to be made to look like cottages. And at Bo'ness, the Newton at Bo'ness, you can still see them yet; there's a woodyard there, they made pallets and that and that took the shale out o' one mine and put it down another, and closed it up again.

SR They didn't do that around here, though!

SL Oh, no!

SR So when you were working on the retorts, you were at Oakbank all the way through?

GR No. Oakbank shut down in 1930, and I was transferred over here to this Hopetoun Works then.

SR I see.

GR That was from Oakbank Company to Young's Company. Young's was the original, you know, of the shale industry. And they had different openings in different places. But at first they was hunting for the shale. At first it was cannel coal that they got the oil out of, you know. But there wasn't a big supply of it, and when it ran out they were searching for something else to take its place, and they discovered the shale then. Young discovered it on the side of the burns, you know, where it was outcropping there. That's how he came to get the shale. And of course in some parts it's better than others.

It originates from swamps, you see, where there were swamps and the vegetation getting all damped down. But there's plenty of shale round the district here, but it's inferior. It's no

SR It's not like this?

GT No, it's no' like that. That was the best. They used to cut it up and make rings for their fingers.

SR Really?

GR Aye.

SL You could cut it with a penknife. Polish it up and it'd look real nice.

GR And like in the pits and that, where the engine men were, where they'd a lot o' time to themselves, they used to make , some o'them made wee Bibles for themselves, out of the shale.

SR You mean covers for the Bibles?

GR No, a wee box, you know, with letters and everything. Holy Bible.

SR But did you have time when you were working in the retorts, did you have plenty of time for doing things like that? Or were you working all the time?

GR Oh, more or less all the time.

SR Where did you live?

GR Well, we lived in Oakbank first.

SR In one of those cottages?

GR Aye, well that's the ones away up the top, but there was, each side of the road coming up to there was houses. But then we went over to Winchburgh from Oakbank when I was transferred over here. We got a house in Winchburgh.

SR A Scottish Oils house?

GR No, it wasn't a Scottish Oils house. It was a private house. They had plenty houses in Winchburgh, you know, but they were all occupied, you see.

SR And then, when you were made manager, you came here?

GR Yes. That's right. We came in here in 1943, and we've been here since.

SR It looks a lot nicer than some of those little tiny rows.

MR Oh yes!

SL But some of them, you know, they were like palaces inside. And others, you couldn't see the top of the table for crusts and things like that.

GR All they houses as you come up the road there, they're all work houses. They all belong to the Company.

SR When you lived in Oakbank, did the houses have water and toilets inside, or...?

GR Not at first. Not when I was there first. They had dry closets out in a block by itself. You had to go outside to the lavatories. but in nineteen - just before the First World War, they started putting in water closets then. That was 1914.

SR And they put them inside the house?

GR Yes. They built sculleries jutting out, just similar to this one here. And the toilets and that were there. And there was a wash boiler in the comer; it wasn't a tub, it wasn't a right wash-tub, it was more just a sink, you know,

SR So you had to do the washing in this?

GR Aye. It was quite a good boiler for boiling the clothes.

MR You know, we were married sixty years ago. And our first house was in Oakbank.

SR So you didn't come together from Aberdeen?

MR Oh no, no, no.

SR Are you from round here?

MR I really was born on Edinburgh.

SR So you got married in 1923?

MR Yes.

SR And you came here from Edinburgh then?

SL Were you not staying in Oakbank when you got married, Mrs. R?

MR Oh, I was staying in Oakbank when I got married.

SR Oh, you were there before you got married?

MR Yes.

SR What were you doing there? Were you working?

MR Well, the works I didn't do anything, I was just in the house with my mother. And then I got a job up at the works.

SR Did you?

MR In the sulphate house.

SR Doing what?

MR Sewing up the bags. Two hundredweight bags.

SR Did you have a machine, or you sewed them by hand?

MR No, I sewed them by hand. Oh aye, it was quite good, and I was a dab hand at it!

DR Were there many women working?

MR No, I was the only one in the sulphate house.

SR Just the only woman or the only person working there?

MR The only woman.

SR So there were men as well?

SL Did you not have a young boy with you?

MR Oh, yes, I had a boy under me.

SL It were one big huge shed, and the sulphate of ammonia was a by-product. And they dried it and then put it into bags.

MR So that's the only job I ever had.

GR In the retorting of the shale, you were blowing steam into the bottom to dampen it down And with that the steam went up through the retorts, and there was ammonia in the shale, and it got carried away in the steam, you see. And then it got condensed, and you got the water and you distilled that water and got the ammonia out of it. And you made the sulphate of ammonia. That was sulphuric acid saturated with ammonia. And at one time that was just, you know, in a vessel of its own. But I started up an evaporating plant - that would be in nineteenten nineteen eleven, I think it was - the same way sugar is made in a sugar

refinery. And it was fine and rough, same as the sugar, you know. What was made in the pot still, it was fine, soft, you know, and always stuck together; but with the evaporating plant it was fine and rough, and just the same as sugar, and you could handle it the same.

SR But was it bad stuff to work with?

GR It was nice and white.

SR But did it not give off fumes and hurt your skin?

GR No, no.

MR No.

SR And how long did you do that job for?

MR Oh, I was there for a long time.

GR You weren't there that long.

MR Oh, well, I mean, I wasny years. But I was there quite a while.

SR Did you stop when you got Married?

MR Oh, yes, oh aye, I stopped when I got married.

*

*

*

SL Each works had its own bowling green and tennis courts, and an Institute, you know? So each village had their own, sort of, entertainment.

SR So there was a real community in each area?

SL Oh, yes, yes. Each village had there was great rivalry on the bowling green!

SR So was it difficult when you moved from Oakbank up to here?

MR Oh, no!

SR Was it difficult because you had to get to know a whole new community?

MR Oh, no. I must say, we always had nice neighbours. Well, here it's the mine manager and his wife. I think we've had – there's one out In South Africa, that's where they went to. And I still hear from them.

GR (more photographs)

The hutches with the shale were drawn up a scaffolding outside here, and that's the hoppers on the top, you see. You emptied it into that and there was extractors on the bottom, and they were kept moving, constant, and they went down about six inches every hour. That was the rate of the extraction, about six inches every hour.

SR And then from the bottom the hot shale went up onto the bings?

GR Well, there was men drawing the hot shale off, you see, and....

SR It didn't come off automatically?

GR Oh, no. There was men did that, drew the shale out, and sent it up.

There was men up on the top of the bings there, emptying it. Even in the time of the Clydebank raid, we were working, and the bombers were passing overhead! But everything went all right.

SR Did you ever go and work up on the top of the bings?

GR Yes. I had a go at everything. That was a retort, that. The Oakbank was a round retort.

SR Was this one more modern?

GR Well, the idea of that was, it wasn't so far for the heat to penetrate in to the centre of it, you see, as the round one. We had eight retorts there, where at Oakbank we had only four. And they thought it was much easier burned; in fact it's not burned, it's stewed. It's stewed, really. The shale was in a brick retort, and the heat was on the outside of the brick, so the shale was really stewed. And there's a vacuum, you see, with a draught from fans, and there was a vacuum on each retort, about a quarter of an inch, or more not too much, because that was dangerous if you had too much, you could cause explosions, and up at the top, under the hopper there, that was a metal part, down to there. And that's where the oil was extracted, out of the shale, in that part, and then further down you extracted the ammonia. A higher heat to get the ammonia out. And up in the metal part your heat was 1100, or very little more; because if you went much more you made much more of the oil into tar.

SR Oh, I see, which was useless?

GR Aye. It got tarry if it was too hot a temperature. It was 1100 up there, and the next section was at 1300, 1300 or 1400 , and then as you went down, 15 or 16 . And then down the bottom 18 to 20.

SR And then it just came straight out, white-hot?

GR Yes. Well ,the steam was blowing in, you see, and that cooled it down, when it was being extracted.

SR But it was still quite hot?

GR Aye. Oh, yes, it was still quite hot.

SL You'd see it glowing, actually, when there was a wind, up the top. When they started off first, there were lots of people came across from Ireland, Actually there was a big population of Irish people living round about here, in fact Winchburgh's got a lot. And, you were talking about protective clothing, there wereny anything like that in these days. And in the paraffin sheds and that, in the joints and on the hands, they got something, it were paraffin cancer. It was a local doctor, in fact his father-in-law was a Bryson , and Bryson was one of the ...

SR Oh, he invented one of the retorts, didn't he?

SL That's right. His grandson died just recently. And I used to show slides, and it was people that had paraffin cancer, you know, it showed the growths and that. That was Dr. Scott. I don't know if these slides are ...

SR I've read the article by Dr. Scott, in 1922, where he was talking about it. Which was the worst job that you did? The most unpleasant?

GR The gas producers, producing gas. That was coal gas producers. That was for heating up the retorts. Where you hadn't enough permanent gas, you could put on coal gas producers. And that was a a rather gassy job, too! The mains was right along there, and each retort was connected into that main. And then, further along, we had a house with extractor fans, and that put a vacuum on these mains. And there was atmospheric condensers, you know, towering up, and the gases were drawn out through these atmospheric condensers, and any gas that passed that again, we had to scrub it. We had scrubbers, towers, big towers, and they were all built up with wood, you know, criss-crossed with that, and you were pumping gas oil through that, and gases was coming off. And you were recovering a lot of light gases, and that's where we got the spirit from. And that was distilled, of course, and purified. And in purifying the oil, we used sulphuric acid, washed the oil with the sulphuric acid, to catch the tar, to take the tar out of it. And then it was washed after that with caustic soda, to kill the acid. So as to make it neutral.

SR What happened to the tar after it had been taken out? Was it just thrown away?

GR No. It was used for heating, for heating the stills, the tar. And then of course we generated our own power, our own electricity. That's the power station there.

SR And you generated it with coal?

GR Aye, well, and the exhaust steam from the power engines, that went into the bottom of the retorts; it wasn't lost, it was exhausted into

the bottom of the retorts. And that carried off the ammonia.

SR So nothing was wasted?

GR Nothing was wasted.

SR Apart from the spent shale.

SL But then they started making bricks.

SR When did they start making bricks from the shale?

GR They're still making them!

SL Aye, but when they started making them, it would be about, what?
In the late thirties?

GR Aye.

SL And then after the war they started making detergents

GR Aye, that's up at Pumpherston.

SL And Young's name's perpetuated up there, because I think he had so
many patents and things that hadn't run out

GR And, what I was going to talk to you about was the paraffin shed, you
know. We had a freezer engine for freezing the oil. There was a
lot o' wax in the oil, and to get that wax we had a freezer engine.
And that was ammonia, worked through ammonia. The oil was pumped

through filter plates, filter plates with serrated surface, and there was a sheet in between , and the green oil was pumped out through that. And the freezer was cooling it down .and that allowed you to get the paraffin wax out of the oil. And that was recovered that wax, and it was all built up again in a and put under compressors, and squeezed out - all the oil was squeezed out of the wax. And that's where the men had trouble with paraffin cancer.

SR Did you know people who got paraffin cancer?

GR Well, I didn't, but they're gone. They weren't many. But, there was a doctor down here, Doctor

SL Scott.

GR Dr. Scott, down here in Broxburn, and he was appointed, and he went round all the different works , watching the men. Inspecting them every now and then. And if any were seen with paraffin plukes and that on their arms - because they always worked with their sleeves rolled right up, you see, and their bare arms - they were sent out, they weren't allowed to keep working there, they were put outside, to work outside away from the paraffin. But they used to get paraffin plukes, you know, all over their hands and arms.

SR Did you ever work with the paraffin?

GR No, I never worked in that part. But there were filter presses, up on the top, and that's where they got the wax hardened up. And they were opened up and the wax was brought down, down below. And they had a wooden frame, about two or three inches deep, and the filter

sheet was put over that, and that was held up with the wax. And then there was sweating houses and all, and the wax was put into trays in the sweating houses, and then it was steamed, to purify it. And in fact Oakbank used to make quite nice purified wax; Bryant and May had it for their matches, and some of the confectionery people had it too. For making jujubes and that.

SR Really? I didn't think people ate paraffin wax! It makes you think twice, doesn't it? Did you see any of this when you were doing your ammonia work? Or were you just stuck in your shed, sewing up all the time?

MR Aye, well, I just did my so long and home!

SR Did you have to work a seven day week as well?

MR I canny mind, how long did I do?

GR No, you were just on day shift.

MR Aye, but how many hours did I do? It's that long ago!

SR It doesn't matter, it's just that I've been told that very few women worked in the industry at all. And so it's interesting to hear that you worked there.

SL They worked in the candle house as well. They made candles down here for Price, and there were a lot of women packaging the candles and that. In fact until recently in Pumpherston, in the wax plant there were women.

GR There were quite a big candle house down here in Broxburn, just down here over the fields. Addiewell of course was the main candle-making place. They had some quite good artists on the candles, they used to paint them, you know? And some of them were broken down, they would work for a week or two, and then they were away boozing for a week or two!

SL But they made some lovely candles.

SB Yes, I've heard they sent them to the Vatican.

GR Well, the ones that have been looking into the shale industry, they've been working on the shale, they haven't been on the refinery at all. Well, there was never any trouble with the shale miners, there was no..... it's forced up into the shale field by the coal, because the shale lies in a solid lump, it doesn't break through. And it's all at one level, it's all worked down level, it doesn't break away the same as the coal does. So there were never any trouble with the miners.

SL And they were higher working levels as well, weren't they?

GR Aye.

SR Did you ever go down the mines?

GR Yes, I've been down, but no' working, no.

SR Was it because you preferred working in the oil works, because it was a pleasanter job, or?

GR Ah, well, I didn't fancy down below. No.

SR Why not?

GR I was down Polkemmet once.

SR The coal mine?

GR Yes. A few years ago. But I wouldn't fancy working there!

SR And none of your sons went to work in the industry?

GR No.

SL Alex served his time! As an engineer.

GR Aye, as an engineer.

MR He's the one that's out in New Zealand now.

GR And our other son, he served his time as a joiner. You had all that, you see, we'd a lot of engineers and joiners and electricians. Tom was an electrician.

SR With the oil companies?

GR Aye.

SR You worked underground? As a miner, or as an electrician?

SL No, as an electrician.

SR And were the conditions bad?

SL No. We were only in for the day, we came up again at night. In fact there was only one mine was really bad, a lot o' water came in. That was at Roman Camp. And a German firm, they bored holes and they put cement in under pressure.

SR And did the working conditions change a lot? Were they much better towards the end of the industry, in the 1940's and the 1950's than earlier on?

SL They got better, yes.

SR More protective clothing, and more safety?

SL There was that, and then the wages came up a bit.

GR There was a pit in West Calder, there was an explosion in that and it went on fire. Burngrange, in West Calder.

SL I was for there, only I was too young to sign the books, and I got called up in the air-force,

SR I expect you were quite grateful.

GR That Dr. Scott, he was down here in Broxburn, he had a lot of slides

of the cancer, of the men with the cancer and that. But he's dead long ago, and his son, he was down here too, but he went up to Mid-Calder, a couple of years ago, and he died there last year. So I don't know where the slides are now.

SR So this is paraffin wax?

SL Yes. And they could make it in all different hardnesses.

GR They used to chew it, like chewing gum.

SL In fact it's a thing that they used to put on the top of jams and that. That's one of the bricks. But the trouble with these was you could put a brick in a pail of water, and come back the next morning and the brick would be all gone away.

SR So they weren't much good for building houses?

SL They were, actually, in foundations, funnily enough. But they were a difficult brick to harl, you know, to put the harling on, because to create a suction you had to play a hose on them for about twenty-four hours, to create a suction so they would hold.

SR And what's this?

SL That's the residue from the stills, you know when Mr. R was talking about the stills?

GR When you'd got all the oil off, that's what was left in the bottom of the still. And men had to go in with big cleavers to cut that up

and clean it out. Each still was fed for about eight hours, and then the oil was shut off, you'd evaporate the whole lot out of it, and that's what was left. And that's grand heating stuff.

SL I'll tell you , it burned the bottom of the grate!

GR The crude calk, there was a contract at Oakbank with Austria, for the glass-making places. Oakbank had a constant order for that. It has a very high heating. That's not the paraffin calk, which is not so hot. But it's quite good, it's much hotter than coal.

SR Did you never think of leaving the industry and going back to Aberdeen?

GR No. When I came there first, the first day I ever had a look round the works, it was wet. A dirty day. The oil works was not very nice on a wet and dirty day, you know, everything was that wet and clammy. I says to myself 'I doot I'll no' be long here.'" However, I did fifty-one years!

SR So when did you go to live in Oakbank? When did you leave Edinburgh to go to Oakbank? When you were a child?

MR Oh, yes, I was quite young, it must have been before the first World War. Because I had a brother, a handsome big lad he was in his kilt, and he got killed.

SR In the war?

MR Ahah. And I had just got a lovely royal blue costume, and I had to have it dyed black.

SR But why did your parents move out here? So that they could get work?

MR Well, my oldest brother, he got a job out there, Andrew. It was really him that took us out to Oakbank.

* * *

SR Can you tell me a bit more about when you were going to Balerno every day to school? When did you leave school? When you were fourteen?

MR Yes.

SR And you went to work straight away, sewing up.....?

MR Oh, no, I was in the house a long time before I went to the works.

SR In the house doing what?

MR Just nothing, just with my mum. Because there was nothing for you to do there, it was so quiet, you know.....

GR You were in the munitions in the First World War.

MR That John Mackay, his father was a plumber, and he got Miss Annie Johnstone and I a job on the munitions. And I was only three weeks there - Annie was awfully slow - but I was only three weeks there when I was made a charge-hand.

GR 1915, weren't it, or 14?

MR Aye, it was away

SL . . . , wasn't it, or..... Where were you?

MR No! At first it was, where was it we were? Stevenson. And then ... he got us our digs and everything. I can always mind, it was a Mrs. White that he got us digs with. And I had taken an awful heavy cold, and I can always mind of her giving me a gruel with whisky in it. But oh, I got on fine, I even had I got friendly with a girl that worked in the lab, and she stayed in Salcoats, and she even got us a room in Salcoats. And I must have come out of a different house to what she did, and my ways were all different.

GR Her mother were a Shetlander, and the father was from Skye. So she was between a Skye terrier and a Shetland collie.

SR And did they speak Gaelic?

MR No.

SR And why did they come to Edinburgh? For work?

MR Aye.... But Tom Mackay, he was really good, getting us this at the munitions. It was a grand experience.

SR Did you do that all through the war? All four years?

MR Oh, no, it was just for so long, I canny mind.....

SR Did you get paid well?

MR It was good wages, yes.

GR Then after the war you were Where, mind? You went up the coast, didn't you? To Ardrisaig?

MR Oh yes, I canny mind who it was got us that job.

SR This was another job?

GR Aye, in private service.

MR Aye, just into private service.

SR Where was that?

MB Ardrisaig, away up in Argyll.

SR How long did you do that for? A long time?

MR Quite a while.

GR You were a couple o'year. were you no'?

MR I'm sure I was.

SR And then you came back to...?

GR To Oakbank.

SR To get married?

MR Oh, I had I was a while after that before I got married.

SR And you stopped working as soon as you got married?

MR Never went back to work, no.

SR Was that because women didn't work?

MR Aye, they didn't usually do that.

SL They had so much to do, they didn't have the aids they have now. There's a story they tell about this old lady, she stayed in, you know, where the houses are all on one row? And the local doctor had been at the young ones that were coming in, with their vacuum cleaners and their washing machines, and they were getting a lot of nervous trouble and nervous breakdowns so he said to this woman, he says 'how is it you haven't had a drink, then?' and she says 'I haven't time to take a drink'

SR Yes, I can imagine. Did you have your children as soon as you got married?

GR Alec was born the next year.

SR When your children were born, were they born at home, or did you go to a hospital?

MR Angus, he was in the Elsie Inglis. I went in and stayed with a friend at mine, her and I were great chums. And her husband lay at night for three weeks before the baby came, with his trousers on,

in case he had to run!

SR Was that because you were worried about the birth, or ...?

MR No, we were just waiting on it.

GR It was him that was worried!

SR But did most people have their babies at home, in this area, or in the hospital?

GB Generally at home.

* * *

SR When you were bringing up your children, did you have to do everything yourself, all the washing was hand-washed, there was no laundry to send it to?

MR No, I did my own washing.

SR And did your mother and your brothers still live nearby?

MR Oh, up to a time, until my mother died.

GR After Oakbank she went back into Edinburgh. She was staying in Bath Road. Leith.

MB Oh, yes.

SL You were talking about the washing there. Everything was boiled. As you went into the house, in the corner there was a huge cast-iron

boiler, and a small fire, and you kindled the fire, and you boiled everything like that.

SR Somebody was telling me that the pollution from the oil works was very bad, and when you hung up your washing it used to get dirty from the

SL Oh, from the bings if there was a high wind. You got the dust.

SR Were there any times when you had to do it all over again because it got so bad?

GR Aye, the shale blowing about.

SR Was that all the time, or just

SL No, just if there was a high wind. And then, if the shale would take a slide, because they kept pushing it out gradually, and when that happened, it would depend which way the wind was blowing, it floated all over.

GR Well, in Oakbank the bing was up here, and the houses were built down here, you see. And it was a wind off the West, it came sweeping down the side of the bing, and that gathered up spent shale, and blew it into the houses and that.

SR So you must have had a lot of dust and?

MR Oh, yes.

SR Did that mean that you had more work cleaning , and....?

MR A lot, yes.

SR Was it better when you moved up to Winchburgh? Or was it the same there?

MR Oh, it was better there.

SR And did you feel that when you breathed, your lungs got full of it, and it made you cough?

MR No! No, it wasn't just so bad as that. We stayed in Oakbank, and he went back and forward with a motor-bike. He had a motor-bike with a side-car, and I used to go on the back, and could he go! And if there was a rabbit or something on the side of the road, he used to run up, and you could have heard me screaming!

* * *

SR What were they quarrying in Aberdeen?

GR Granite quarries. Red granite.

SR And you were working actually in the quarries?

GR I was cutting up the pieces of granite. Until I was eighteen, I was eighteen when I went down here.

SR And you left school at what age?

GR Fourteen. I was first in our family had to stay to fourteen. My brother, he left at twelve, and my sister. I'd a sister and a brother older than me. And they were out of school at twelve year old. My brother started in the saw-mills.

SR And you left school at fourteen as well?

MR Ahah.

SR Did many people stay on at school, or did everybody leave?

MR No, that was just usually they usually left at fourteen.

* * *

GR You see, there's like a scrubbing tower, you're pumping oil into it, and it's coming down like a shower, and you're pumping the gases up. And when it comes out at different places you get different gravities of the gases then.

SR Did you actually follow courses at the works to learn about how the whole system worked? Or did you just learn it by working there for fifty years?

GR Yes, just that.

* * *

SR Tell me, do you remember the strike in 1926? Did that affect you? Didn't some of the oil works close down?

SL The one in Broxburn never opened after that.

SR Do you remember that? The General Strike in 1926?

GR Aye. '25, really. That was mines again, that was miners again, you see.

SR And did the oil works where you were working, did that close?

GR No. No, they did close, but the night we were finishing up, it was cancelled. We really was finished, but then we'd to set it away again. But that takes weeks, to get it away again, because you've all your retorts to heat up, and gradually work them up again, you see, till you get them under power.

SR So you never actually stopped working, you personally?

GR No.

SL No, he was working, but Broxburn, you see It's like the steel works now, you know how they're saying if they don't get coal the steel plant will cool down? Well, these retorts, they've got big iron tubes in them, and if they heat them up too quick they'll crack. Well, Broxburn was like that, that was the union again, you see, they told them they were solid. So, as I say, they had soup kitchens here and at Pumpherston, I can remember soup kitchens down

SR Was your father working in the mines? Was he a miner?

SL No he was an electrician, but he worked in the mine as well.

SR So he had to stop work as well?

SL Actually he was transferred across here to Winchburgh.

SR So Winchburgh didn't stop?

SL Winchburgh didn't stop. Broxburn was the that was a huge place. They started at twenty past six in the morning, and then they had half an hour for their breakfast, at half past twelve, and then they finished at five. On a Saturday they finished at twelve. But the place was black with people, because they had the refinery and the candle house on the West side And the whole place was criss-crossed with railway lines. Just up there, there was a railway line that came from Hopetoun, and that went as far as - you know the one up the road, at Three mile town, well there was a pit there, and you could come from there into Broxburn, and from Broxburn you could go to Roman Camp, and from Roman Camp you could go to.

SR Were these passenger railways, or were these for the shale?

SL No, these were just engines that they had to take the shale, the wagons of shale.

SR And the wagons of shale were just in open trucks?

SL Ahah, just like coal wagons, you know? And the shale would be in big huge pieces. And they had these big rollers, and they'd be about three inch diameter, and they were sharpened up. And they broke up the shale.

SR And there were men supervising that?

SL There were men working on that, yes.

SR Presumably that was a rather dusty job?

SL That was rather dusty, because they tipped the wagons up And from there it went up to the retorts, you see. And, how long did it

take for the shale to get from the top of the retorts to the bottom,
Mr. R? Was it 48 hours?

GR No, it was more than that, Tom. It took about, close on three days.

SL But they brought shale from as far as Threemiletown, and then Niddy Castle You know where the Newton is? As you go out of Queensferry on the Bo'ness road, you go through this little village that's the Newton. Well, Duddingston, actually. They brought the shale up from there, from White Quarries, on like small tram-cars they had, they were on an overhead line, and the electric locos they had, they used to pull it, the hutches with the shale.

SR So there was shale moving around the country all the time?

SL This area, yes. And then there was West Calder, they took their shale into Addiewell. And then they started Westwood Works, just before the war started they built Westwood Works, and instead of having the big crushers they used to break it down and, you know the briquettes that the coal comes in? They used to make what were called egg briquettes, they were just about that size, they started making those but they didn't have a great success. So that was Westwood Works. And there was mines all over. You had one coal mine as well, the Baads coal mine(they used to say the miners took the lumps home in their piece-boxes. You had to get coal to keep it going! When you got it into the power stations and you had no steam pressure, you could always tell you were on Addiewell coal!

*

*

*

SR In the shale industry were the unions very strong?

GR Oh yes, there was a union of oil workers and a miners' union.

SR Did they strike? Apart from in 1926?

GR No.

SR And when the industry was closing down, when it was in the same situation as the coal Industry now.....

SL Nothing was said.

* * *

GR After the war they put a tax on the home-produced oil, but It was half the tax on the incoming oil. That was fifteen pence, and ours was eightpence, and the Government couldn't see they'd forgo that eightpence to let the works continue. That's the way it finished up. And at that time Oakbank was getting its shale from Westwood, at the bottom of West Calder, and there's two engines sent out from Edinburgh to bring that shale to Oakbank every day. And that was eightpence a ton were paid at that time for it. And when they heard it was going to shut down, the railway company offered to do it for fourpence. And they were too late.

SL The shale mines were under the Forth, you know?

SR Yes, at Abercorn and those places?

SL Duddingston, yes. And at Totle Wells they tried to retort the shale in situ. They drove a line down, and then a line down that side,

and tried to ignite it.

SR Did it work?

SL Yes. And then there was an open-cast mine across there. Mr. R had an open-cast mine across there. That was one of them that was only worked on the surface.

GR Just at the back of our house there.

SR When was that?

GR That was

SL That was in the fifties, Mr R.

GR That would be in the late forties, Tom . Hopetoun shut down in 46, and the open-cast started then. It was going for about two years before we shut down Hopetoun's. The open-cast started about 44 or 45, just after the war.

SR What was it called?

SL Hays Craigs.

SR So that' s where Hays Craigs was. Because there used to be shale mines at Hays Craigs.

GR That's right.

SL They had the bings there go on fire, the bings were on fire up at Hays Craigs, that burned for ages.

SR Did many men work at the open-cast mine? Was it big?

GR Oh, no a great many. There was generally three lorries running, with the drivers, there was the digger, that was four, the shot-flrer, that was five, and two at the wagons

SL There would be about twelve altogether.

GR There were twelve altogether, that was all.

SL It's all filled in now. After they'd finished with it, the Council put all the refuse in it, and then they put topsoil on it And then they had another one up at Seafield, and they diverted the Almond, the river Almond, they altered the course of the river.

*

*

*

SL Each village had its gala day, you know, once a year.

SR Was that a holiday?

SL Well, not really.

SR So the people who were working for seven days a week, they didn't get a holiday?

SL You didn't usually, but sometimes you got double time for that. But when I started my apprenticeship, if you worked in the mines, you didn't get a holiday, but if you were in the works you got one Saturday morning off, unpaid.

SR So you worked six days a week?

SL Six days a week, then they brought it down to five.

GR In the quarries, you had a ten hour there too. At course. In the granite quarries. You had twelve hours working there, two of six to six. In the summer time. In the winter time, it depended on the light, you were curtailed then. But they were a happy-go-lucky crowd. The foreman would maybe go away out to the office, and somebody'd shout - maybe the Games was on - somebody'd shout 'Hands up for the Games' maybe about half'd put their hands up and away they went. So the foreman would come back in and there'd be only half a squad.

SR Did that sort of thing happen here as well?

GR Oh, no, no.

SR Sounds like this place was really a bit grim?

SL It wasn't really but you had to make your own entertainment. As I say, the elderly people they had the bowling green, they had the golf course, they had the Institute, and things like that. But the kids - I mean they were all happy, and at hay-time, well at hay-time we all used to go to the farms and that. And in these days they hadn't the same sort of mechanical aids there, you could go and get a job with the farmer,

and at harvest time we used to go and gather potatoes, and you got a holiday from the school. You got a week's holiday.

SR And you got paid?

SL Oh, the farmer paid you.

SR And did you keep that yourself? Or did you have to give it to your parents?

SL It depended on your parents. In my case it was handed over..... my dad died when I was thirteen, and so it was needed.

SR Did kids ever get part-time jobs in the shale mines, working with their fathers?

SL Oh, no.

SR That was just for adults?

SL The kids started when they left school. They'd maybe get a job on the surface at the mines, you see where they brought the hutches out of the mine and that, they had to be taken off of the towrope

GR There were pit-ponies in the mines, too.

SL And then as I say they'd mebbe get on, if they were wee they'd mebbe get taken on as a pony-driver. But any kids that got on, they'd mebbe be greasing the wheels of the hutches, or coupling them on. There were a chain, with a hook on it, and then you put that over and that was on the tow-rope, you see?

SR And kids might do that as a part-time job?

SL Not as a part-time job, no.

SR Once they'd left school?

SL Yes. They'd maybe get a job with some baker, you know, delivering things, or delivering milk. Milk in these days wasn't in bottles, it was just in cans.

SR Did kids ever play on the bings?

SL Oh, the bings! They used to get a piece of corrugated iron, and they used to come flying down the bing on that.. And then they used to have sports there, and they'd have the greasy pole, and there were another one, they used to grease a small pig, and chase the pig up the tip. Up the bing, and whoever got the pig

SR This was on working bings that were still hot at the top?

SL Aye.

* * *

GRengineer, he used to do the repairing and that. And he died with paraffin cancer. He was continually he was soaking often with paraffin, and wi' working on that so much he had trouble with the cancer. And there was another man, he was on the emptying of the crude oil tanks, and he had trouble too, I heard. So that was two that I knew of that had trouble with the paraffin cancer. And then there was different ones there too, they had trouble with their hands, not

keeping them clean.

SR But people didn't get bronchitis from the dust?

GR No. No, you see, the dust in the shale is more an oily sort of dust, and it didn't float about.

SR And the gases that you were talking about, they didn't make you ill?

GR No. Well, I'm troubled quite a lot with an over-acid stomach, and I put that down to the gases. Because on the retorts the gases would pass, they were scrubbing towers, we used that for heating the retorts, and you had to keep the pipes and that clean. And I've seen me give my lot, and then I'm leaned over the handrail and the water running out of my mouth.

*

*

*

Transcript

GR

Industrial
Information

I am not from this area, but I came here in 1908. I was in charge in Roman Camps Mine.

Pit Ponies

There were pit ponies in the pits until recently, in fact I think Whitequarries was the last pit to do away with the

ponies. As kids when we left school, we maybe got a job on the surface at the mines, where they brought the hutches out of the mine with a towrope.

As you got on you were maybe taken on as a pony driver, but any kids that got on they would maybe be greasing the wheels of hutches or coupling them on.

Oil Works

I then got a job in the Oil Works at Oakbank, where I started firing the stills and dismantling the stills for refining the oil.

The stills were built in a row right along and you had tar pipes coming down and the tar you took out for the refining of the oil. The tar that was taken out was used for heating the stills.

Retorts

I did that for about two or three years then changed over to the retorts. That was

taking the oil out of raw shale.

When they retorted the shale there was gases came off which was fed back into the retorts, and it was combusted in there as they cooked the shale.

I was at Oakbank until it shut down in 1930.

Youngs' Company

I then I went to Young's Company which was the original in the shale industry.

At first they were hunting for shale, because it was cannel coal that they got the oil out of first, and there wasn't a big supply of it and they were searching elsewhere for something to take its place.

It was then that Young discovered shale on the side of the burns where it was outcropping. That's how 'Paraffin' Young came to discover shale. It originates from the swamps, because this was where the vegetation was all damped down. There was

plenty of shale around this district and it was superior shale. The hutches with the shale were drawn up scaffolding outside here. This was then into the hoppers on top. You emptied it into that and there was an extractor on the bottom and they were kept moving constant and it went down about six inches every hour. That was the rate of extraction on the bottom and they were kept moving constant. There was men that drew the shale out and sent it up to the top of the bings.

Oakbank Retorts

The Oakbank retorts were round the idea of that was that it wasn't so far for the heat to penetrate in the centre of it, infact it was not burnt it was stewed. The shale was in a brick retort and the heat was on the outside of the brick so the shale was really

stewed.

There was a vacuum with a draught from the fans, and the vacuum was about a quarter of an inch or more.

It was dangerous if you had too much of a vacuum because it could cause an explosion.

Up at the top under the hopper that was where the oil was extracted from the shale.

Temperatures

Up in the metal part the heat was 1100, or a little more, because if your temperature went too high too much of the oil went to tar.

It was 1100 degrees up there, and in the next section it was 1300 to 1400 degrees and as you went down it was fifteen or sixteen and then down the bottom eighteen to twenty.

The steam was blowing in and that cooled it down as it was being extracted.

You could actually see it glowing when there was a wind up at the top.

Gas

The most unpleasant job was at the gas producers job. That was the gas used for heating up the retorts. Where you hadn't enough permanent gas, you could put on coal gas producers, which was a rather gassy job. The mains ran right along and each retort was connected into that main.

Further along there was a house with extractor fans, and that a vacuum on these mains.

Further along there was atmospheric condensers, towering up, and the gases were drawn through these atmospheric condensers and any gas that passed that again had to be scrubbed.

Scrubbers

There was scrubber towers, that were built up with wood which

was criss-crossed and you were pumping gas oil through that and the gases came off. A lot of light gases were recovered during this process. In the purifying of the oil we used sulphuric acid to wash the oil so that the tar was collected. It was then washed with caustic soda to kill the acid by making it neutral.

Tar

The tar that was collected was used for heating the stills.

Exhaust Steam

The exhaust steam from the power engines went to the bottom of the retorts and it wasn't lost where it carried off the ammonia.

Spent Shale

Nothing was wasted, apart from the spent shale and even that was used to make bricks.

Detergents

Dr. 'Paraffin' Young's name perpetuated up there, because I think he had so many patents

that hadn't run out.

Paraffin

At the paraffin shed there was a freezer engine for freezing the oil and to get that wax we had to use a freezer engine. The oil was pumped through filter plates with serrated surfaces, and there was a sheet in between through which the green oil was pumped through. The freezer was cooling it down which then allowed you to get the paraffin wax out of the oil. It was then put under compressors to squeeze all the oil out the wax.

Wax

I never worked in that part, but there were filter presses on the top and that is where they got the wax hardened up. They had a wooden frame, about two or three inches deep, and a filter sheet was put over that and that held up with the wax.

Sweating Houses

The wax was put into the sweating houses and it was steamed

out, to purify it. In fact
Oakbank used to make quite
nice purified wax. Bryant and
May had it for their matches
and some of the confectionery
people used it to make jujubes.

Candle House

A few women worked in the candle
house. They made candles for
a firm called Price and the
women used to pack the candles.

Broxburn & Addiewell

There was quite a big candle
house down here in Broxburn.
Addiewell was of course the
main candle making place.
They had some quite good
artists to paint the candles.
They could make the wax in
different hardness's. In
fact its a thing that they
used to put on the top of jams.

Residue in Stills

The men had to go with big
cleavers to cut that up and
clean it out. Each still was
fed for about eight hours,
and then the oil was shut off,

you would then evaporate the whole lot out of it, and what was left was the residue which grand heating stuff.

Crude Chalk

Oakbank had a contract with Austria for glass making. It had a very high heating temperature.

Mines

I never worked down the mines, because I preferred working in the oil works as it was a better job. When I came to the oil works first, I said to myself I won't belong here, because the oil works were not very nice on a wet and dirty day, because everything was wet and clammy. However I did fifty one years.

Shifts

I was working a fourteen hour shift. I went out at four o'clock in the afternoon and I was on until six o'clock the next morning. On nightshift I went out to work at four o'clock in the after-

noon until six o'clock the
next morning.

When I went to the retorts I
was on an eight hour shift.
I had to work three different
shifts, dayshift, afternoon
shift, and nightshift.

Holidays

There were no paid holiday in
these days. Unless you took
a day off. I had a holiday every
summer and I went home. I took
a half day off every three weeks.

Protective Clothing

There was no protective clothing
in those days, and you
felt the effects of the gases
which just seemed to float around.

Strikes

I remember the general strike
in 1926, which again was caused
by the miners. The oilworks
were going to close down, but
the night we were finishing
up it was cancelled. If the
retorts had closed down it
would have taken weeks to get
them going again.

Domestic Life – Marriage I got married to my wife in Oakbank and after that she never went back to work again.

Children We had our first child a year after we were married. I went and stayed with a friend when I was waiting for him to be born. Her husband lay at night with his trousers ready in case he had to run.

Washing I had to do all my washing for my children and ourselves. Everything was boiled in a huge cast iron boiler with a small fire that was kindled underneath.

Housing I lived in Oakbank when I was a child. The houses were bricks that were made in the shale industry. If you put one of these bricks in a pail of water: and you came back the next day the brick would have disappeared. They were mostly used for the foundations, but if they were used for the walls that made

it difficult to harl.

Dry Closets

When I was transferred to Winchburgh I had to get a house here. It was a private house. We had dry closets in a block by themselves. You had to go outside to the lavatory just before the first World War. They started putting in water closets in 1914.

Sculleries

They built on sculleries to the houses at a later date, which used to just out similar to this one here.

Illnesses

I was quite troubled with an over acid stomach which I put down to the gases from the retorts.

Paraffin Cancer

There was an engineer who was often soaking with paraffin who died with paraffin cancer.

Paraffin Cancer

There was another man who was on the emptying of the crude oil tanks who had paraffin cancer as well.

Doctor

Dr. Scott was appointed as the

doctor in Broxburn and he went around all the different works inspecting men for paraffin cancer and if they had any paraffin plukes and that on their arms it could be attended to.

Leisure Life
Entertainment

You really had to make your own entertainment in those days.

Bowling Green &
Golf Course

The elderly people had the bowling green and a golf course for their entertainment.

Institute Hall

There was the Institute Hall which had the usual sports facilities.

Carvings From Shale

The engine men who had a lot of time on their hands used to carve Bibles and other things out of shale. The Bibles had the lettering and everything just like a real Bible. They also used to cut rings out of Shale for their fingers.

Closure of The
Shale Mines

After the war they put tax on home produced oil, but it was half the tax on the incoming

oil. The government couldn't
fore go that eight pence to
let the works continue.
That's the way the shale industry
finished up.

Index

bings 10,19,26
bricks 12,16
calk 16
candles 13,14
childbirth 18,19
coal mines 14,23
detergent 12
dust 27
electricity 12
entertainment 9,25
gala day 25
gas 11,27
holiday 4,25
housing 2
hutches 10
Illness 27
Irish 11
jobs - non shale 20,21,25
marriage 9,18
migration 1,8,15,17,20
munitions factory 17
Oakbank Oil Company 1,6
oil works 1,21
opencast mining 24

paraffin 12
- cancer 11,13,26
- wax 12,13,15
pollution 3.1-9-20
ponies 2,26
retorts 2,3,5.10,22
retorting technology 10-12
sanitation 7
school leaving 20
service 18
shifts 3-5
soup kitchens 21
stillman 3
stills 3,16
strike 21
sulphate of ammonia
trains - shale 22
War first 16
women's work 8,17,18
working conditions 3-5, 15

Places

Aberdeen 1,16
Addiewell 14,22
Ardrisaig 18
Austria 16
Balerno 17
Bo'ness 6
Broxburn 14,22
Edinburgh 8,19
Ireland 11
Newton 6
Niddry Castle 2,5,22
Oakbank 7,8,9,13,16,17,20,23

Polkemmet 14
Pumpherston 1,12
Roman Camp 1,22
Seafield 24
Threemiletown 22
West Calder 15,22
West wood 23
Winchburgh 2,7,20,22

Oil Works

Hopetoun 5,6,24
Oakbank 3,6
Winchburgh 5

Mines

Burngrange 15
Duddingston 22,23
Hayscraigs 24
Roman Camp 15
Totley Wells 23-24
Whitequarries 2,6

People

John Mackay 17
Dr. Scott 11,13,15
Young 6