

John Barett Access Summary

00:00:00 Introduction

John Barrett grew up in Bathgate which is midway between Edinburgh and Glasgow.

00:00:30 Electronics apprenticeship

Went to school in Bathgate and got an apprenticeship with a local electronics company at 16 years old. The apprentice scheme was new, and John was the first person to be chosen on the scheme. Over the next five years, he studied one day a week at Coatbridge Technical College and the rest of the week he received practical experience with electronics. At the end of this period, he had a Higher National Certificate in electronics engineering as well as having a good background in practical electronics.

00:01:32 Secondary school education

Went to a secondary school in Bathgate. He was in a top group that was called the classics course. They were taught English, maths, history, geography, as well as Latin and French. He did not enjoy languages and preferred the maths and physics side of education. By the time he was 16, he was not enjoying school, so the apprenticeship really appealed to him.

00:02:36 Parents' background

His father was a driver for various companies in the area. During World War Two he was an ambulance driver. In the 1950s and 1960s, there were very few people with driving licences, so he had lots of jobs. His mother's family owned a pub in the town which was busy and made his family well known in Bathgate.

00:03:07 Living in Bathgate

Describes Bathgate as a fun town to live in. It was in a good position between Glasgow and Edinburgh. Robert Bruce's daughter had a castle there in the 14th century so was a historical town. More recently, it has been noted for its golfing achievements as the only club in the world to produce two Rider Cup captains, Eric Brown and Bernard Gallagher. Another player, Stephen Gallagher was recently recognised in the king's awards. Like a lot of places in central Scotland, in the early 20th century, Bathgate was a mining town. John notes that education was important for those who wanted to get out of the mining industry and find other jobs.

00:05:15 Apprenticeship

Had a family friend who was the headmaster of the night school. He heard of the apprenticeship from another lecturer who had a senior position in the electronics factory who needed a student apprentice. The apprenticeship consisted of electrical engineering, electronics, physics, transistor theory, among other things.

00:06:42 Introduction of transistors

Transistors were just being introduced at this point as when he went to college, only valves were used. A valve was a glass device used to transmit electrical signals. All electrical equipment during World War Two had valves. Transistors were introduced while John was at college meaning things could get miniaturised a lot quicker. Transistors taking over from valves was a major thing in the 1960s.

00:07:56 Working after the apprenticeship

He continued to work at the electronics company that he did his apprenticeship with. It was a role in tantalum manufacturing in a leadership position. John describes it as a complex operation. He stayed until around 1965.

00:08:48 Emergence of digital computing

At work, there was a lot of discussions around computing and how it would change people's lives. At this time there was already analog computing, but digital computing was emerging. John decided this was the direction he wanted to take his career.

00:09:19 Applying to work at Honeywell

Honeywell computers were a large manufacturer of mainframe computers had a factory in Scotland around 20 miles from where John lived. They shipped across Europe and their main competitor was IBM. Honeywell was advertising for young people with electrical degrees or an equivalent to train as a computer engineer. He was accepted and joined in 1965. They were taking on people from universities all over the United Kingdom, so it was competitive.

00:10:40 Building mainframes

For the first three months, it was just theory, and no one worked with a computer. It took about three weeks to build a mainframe from scratch, there was a big order book so there was a three-shift system (morning, afternoon, night). When this was complete, two people would go with the system and install it for the customer. Most of the travel was to Southern Germany and they had five days to install it. John recalls this as being an eye-opening experience as it took him from just building computers in a factory setting to seeing how they were being used. Everyone in the town would know the computer was coming and people were amazed when the computer was installed. This experience made him think more about being on the customer side rather than the production side.

00:13:15 Applying to work for DEC

He worked at Honeywell for 18 months until he saw an advertisement in the newspaper from an American company called Digital Equipment Corporation (DEC). John had never heard of DEC; the advertisement was looking for a hardware computer engineer to be their representative in Scotland. He found out they worked on scientific computers which appealed to him as it gave him the opportunity to be closer to the customer, but the main appeal was three months training in the United States. He applied and received a telegram inviting him for an interview at Paddington Station.

00:15:07 Meeting Ken Senior

Ken had worked at Honeywell, so they had that in common. He painted a picture of a small company with big plans which appealed to John. He spent a few hours with Ken who explained the job and although it was based in Scotland, he asked if John would be willing to move to the United States after a few years as John was still single. He received a job offer and joined DEC in August 1966.

00:16:00 Visiting the office in Reading

John said goodbye to everyone and went to Reading station to stay overnight in Reading before going to the United States for three months. The taxi driver had never heard of the company and when he arrived at the address, it was a small furniture store, and DEC was located upstairs. Nobody was there when he went upstairs but eventually a part time secretary arrived. He stayed for two weeks. The office was very basic. There were DEC modules everywhere, with desks and a few typewriters.

00:17:41 Ken Senior's job

Ken was a working engineer at the time as the European customer service manager. His job was to keep the installed systems running and to hire new people. When John arrived, Ken was in Germany installing a system.

00:18:33 Experience in Reading

Apart from visiting Germany, this was the first time John had been out of Scotland. He describes the beer as being different. He soon met Ken Parker who was hired at the same time, he had been hired from IBM as a large system computer engineer. He stayed in Pangbourne and got a bus to central Reading to work. He notes how not much has changed in Reading, he remembers there being a lot of pubs, and Copper Inn just being refurbished. He stayed in Pangbourne most of the time and went to the local pub each evening. Not much happened in the office, he never met a salesman as everyone was out. The airline strike meant they stayed for two weeks not doing much.

00:20:57 Arriving in the United States

John had relatives in the United States and Canada, so he heard about life there a lot. It was a much better off lifestyle with more cars and more things being easily available. People went out for breakfast which was unusual in Scotland. There was overwhelming sense of friendliness in DEC. the people on the course were all from the United States, nobody else was from Europe as they were just starting out in Europe. They were all around the same age and many men had come from the air force or navy as they had some of the best electronics training. He recalls how friendly the environment was, everyone was on first name terms and willing to help.

00:23:14 Experience in Boston

Very thorough training, the instructors came from the forces, so it was disciplined. The work included tests and feedback. They stayed in a motel and got an allowance every Thursday evening. The company paid for food and the motel. Ken Parker and David Lawrence were there. They became very close as they were all from the United Kingdom, they shared a car

and at the weekends they would go and visit parts of Boston. John would visit relatives in New York as a man on the course came from New Jersey and would drive between there and Boston each week so John rode with him there. He also visited Washington for a weekend, John F. Kennedy had only been shot three years before so there was a still a strange atmosphere around.

00:25:48 DEC helicopters

No helicopters at this time, they came about in the 1970s. when John came back for meetings as a manager, he rode in them. There was a service around the plants in Massachusetts as at one point, DEC was the biggest employer, so they had to be able to get around efficiently. A lot of them were ex-air force pilots, a few had served in Vietnam. John describes it as a very fun way to get from the airport to the plants and customers coming from the United Kingdom would comment on how they loved the experience as it very unique.

00:27:32 Starting work

He arrived back on a Friday and had messages about there being systems at Edinburgh and Glasgow Universities, so the job was very full on straight away and he had to work all weekend. The system was a PDP-7 with graphics. As the computers were for scientific use, a lot of the customers were people who knew about the inner workings of the computer and knew the same amount of theory as John. This created pressure for John who had just finished his training course and was very different from the customer base at Honeywell who were very hands off.

00:29:28 Fixing hardware problems

Hardware issues were the most common problem at the time. To fix this, it had to be traced to a component level. They would use fault finding techniques on an oscilloscope to look at signals. There were no spare boards, they had spare components which could be changed. If it was a transistor, he had to find the transistor within the machine, take it out and solder it. The service kit included a soldering iron and components. As boards became more complex with integrated circuits, problems could be traced to the board level, and they would have a spare board to replace it.

00:30:49 Contacting customers

First employee in Scotland and responsible for installations and keeping the systems running. He worked from Carlisle and Newcastle to Dounreay and got given a shilling a mile. When he first started, customers would contact him on his home phone number. He still lived with his parents at this point and would often answer the phone whilst John was out at work, and she got to know the customers as well. Eventually, DEC used a service company in Glasgow who would take the calls and pass them onto the employees. They had to call every morning to find out what the jobs were for the day. People were more willing to wait as if they logged an issue on a Monday afternoon, John would become aware of it the next morning when he called the service company. Newspapers were different as they had to go out on time. John was on a seven-day 24-hour contract, so he often had calls in the middle of the night, mostly

with newspapers who had deadlines. He recalls how the typesetters were resistant to the introduction of computers in their work.

00:32:47 Working with Peter McFarlane

John supported Peter at Glasgow Royal Infirmary. He won a grant for a PDP-8 system which had analogue to digital conversion capabilities. His plan was to measure electronically things that had been done by hand such as diagnosing wavelength. John worked with him on this. Other equipment used were mostly DEC products. The program meant that the computer could analyse the waveforms and saved time rather than it having to be done by an actual person. Peter's boss was unsure of the idea at first and noted how expensive it was. Peter eventually won him over.

00:37:18 Development of DEC in Scotland

Started hiring other engineers. There was a growth of products being introduced like the PDP-11 and the 16-bit. New products became attractive to people which brought a lot of smaller software companies in. The companies would often buy the DEC hardware and operating systems and then develop their own software to suit their needs. This is when DEC became more commercialised.

00:38:54 First office in Scotland in Livingston

It was decided that an office was needed to support customers. There was a discussion of whether it should be in Glasgow or Edinburgh, but the decision was made that it would be in the best place for transport as the employees would not spend a lot of time in the actual office as they would be visiting customers. Livingston was located between Edinburgh and Glasgow and easy to get up to Dundee and Aberdeen. It was a small town with one American owned steel factory processing plant. They took 1500 square feet of an office block. David Lawrence put John in charge of making a proposal for the office and send a copy to Reading and Geneva which he had to do by hand.

00:41:22 North United Kingdom District

This included all of north England, Scotland, and Northern Ireland. Dave Granger was the manager and was in Manchester. John was the Scottish branch manager for customer services and reported to Dave. Dave moved to Reading when the company grew, to manage the whole of the United Kingdom.

00:42:06 Becoming North United Kingdom District manager

John was invited to take over from Dave when he moved to Reading which meant he had to leave Scotland. He moved to Manchester in the mid-1970s and stayed in this role for around four years.

0042:32 Managing Northern Europe

Dave moved back to the United States and John was promoted to manage Northern Europe. This included all the United Kingdom, Ireland, and the Nordic countries. This was around 1977.

00:43:00 DEC by 1977

By the time the company had grown considerably, with offices being opened in several areas like Belfast, Leeds, Livingston, and Aberdeen. This was one of the key points of growth. And as John was in a leadership position, a key responsibility was to hire good employees. They grew about 30% five years in a row. Head count was growing around 15-20% a year, depending on the area. Most of the time as managers was spent hiring good people.

00:44:12 Hiring criteria

Technical skills were required, but attitude was also important, as well as good customer service skills. They had to be able see issues from customers viewpoint. At a certain point, they just looked for technical skills, but they moved on from this and looked for other areas. John notes how one of the smartest things they did in the customer service sector was look for leadership skills early on. Around 90% of employees were on the technical side, whilst the rest were part of administration.

00:46:12 Phase one management training course

They set criteria to identify management potential, there was a one-week course in Swindon. This introduced leadership skills, and managing people. It started on a Sunday afternoon to show they were serious about it. John recalls how a manager believed no one would come and train on a Saturday afternoon to train but John rebutted that they could be replaced with someone who would turn up. On the Thursday afternoon, they were set a task related to a real-life situation and would feedback on Friday morning.

00:48:07 Results of the course

The course produced excellent leaders in management and was the foundation for a very successful customer service organisation. It involved the existing management team which showed the commitment that DEC had to training. It was mostly successful, although not everyone passed. Sometimes managers put forward people who weren't ready and the course was very tough for them, those who made it were sometimes bitter.

00:51:13 Comparison to other technology companies

DEC were unique in the period as most companies did not implement these types of courses. John kept in touch with the Hewlett Packard customer service director and the people at ICL who did not do anything similar. However, many companies were still growing and needed time to develop. DEC sent employees on courses to other companies, at the very senior level they were sent to Harvard, as well as universities in France.

00:52:50 Coming up with the idea for Phase one: part one

It was European initiative, the five areas in Europe would meet monthly and these meetings triggered the idea. Pierre Carlo Falotti was the leader and had the most impact. He was the person who appointed someone to run it, but the actual training was done individually in each country.

00:54:00 Initiative to attract women to Phase one

Around 90% of the people on the course were men but women did come through the course and were very success. They had the first female managers within the service organisation which was unheard of.

00:55:18 Coming up with the idea for Phase one: part two

Jack Shields was part of coming up with the concept on a corporate level as he was a strong believer in the course. This belief filtered down the company and became a part of the culture.

00:56:25 Customer support centre

The company was growing, demands increased, and systems became more complex. Customers wanted downtime to be minimised and issues with the systems became more complicated to fix as they often involved a combination of hardware and software issues. In the beginning, when people had a problem, they would immediately send an engineer without asking what the issue was which was expensive. When someone had a problem, they put more intelligence on the front end which had a range of well experienced technical people.

00:58:40 Remote diagnostics centre

Getting an engineer to visit was expensive, as was a telephone call, so from an internal productivity perspective, fixing the issue through remote diagnostics was the best solution. It involved dialling up the computer and could diagnose without human involvement which was groundbreaking.

00:59:46 Central office in Basingstoke

The network had become very complicated with people scattered everywhere, so the specialists were put in the Basingstoke office as a central point for people to call and contact. The phone was not allowed to ring more than three times. John had to make a presentation to get the funding for it. There was already a centre in Valbonne, France, but 40% of the European market was English speaking so John argued that the United Kingdom needed its own centre.

01:02:40 The presentation to build the Basingstoke office

John and Pierre Carlo had to give the presentation in the corporate meeting that was held annually which was chaired by Jack Shields. Around 30 people were there. They questioned if they should invest corporate money in a country with the worst record for implementing corporate programs. They managed to persuade them by showing the effort that they had put into customer service and the success that had come from it. They used the feedback from annual customer service surveys to support their argument. Jack was eventually supportive and did the official opening.

01:05:56 Being unable to open the centre in Reading

Originally, they tried to open the centre in Reading, but this was not possible as they had already taken every building that was available. The technical support team were in an old

brewery building that flooded every time it rained, so new facilities were needed. There was already a sales site in Basingstoke, so this was partly the reason they chose it instead. There was talk about having a dual carriageway between Reading and Basingstoke. Ken Olson also did not want a community to be so reliant on DEC that if something were to happen it would have a negative effect on the community, so this was another reason not to build the centre in Reading.

01:08:19 DEC Park

It had a positive impact as people would come together. It was a modern building with an open plan upstairs and a street outside. On the street, it had repair facilities, a bank, and a shop. It created an atmosphere that supported teamwork.

01:09:38 Comparing DEC Park to other employers

In the company he worked for during his apprenticeship, there was a hierarchy where people would get better treatment depending on their position but with DEC it was more equal. Everyone was on first name basis, which was a very American style that the United Kingdom branch had adopted from DEC in the United States.

01:11:39 Darl Barbee (?)

He was the managing director for the United Kingdom. He was from California and was good at sales. John describes him as an excellent person to work with and good person to run DEC. He left DEC and set up Sun Microsystems in Europe. He had a big impact on the leadership of DEC, along with Geoff.

01:14:42 Leaving DEC and its decline

John left in 1994 as he took redundancy. The new management from IBM had changed things. There was major investment into manufacturing their own integrated circuits, so they were putting billions into this whilst also trying to compete with big companies which was too much for them. Other companies like Sun Microsystems benefitted from DEC struggling. Part of DEC's success was from its partners who would use the hardware to write their own software, this fell apart.

01:16:31 New management

The IBM management changed everything as they were more interested in themselves. John remembers how one of the new managers who became the worldwide sales manager arrived in London and the first thing he did was book three suites in a hotel on Park Lane and book a limousine. By this time, people started to leave like John and Geoff Shingles. John left before it was taken over by Hewlett Packard and before any change took place.

01:18:52 Layoffs

A big part of management had been reducing the headcount which was a big change for the management in DEC. They tried to do the right thing but every quarter they had to lay more people which drained John. He describes it as being a very different place and like a different company.

01:19:52 Installing a PDP-8 on the QE2 at the Dry Dock in Greenock

He met a man from the United States who had developed hardware to go with the PDP-8. Cunard wanted his help to use this to reduce fuel prices as they went across the Atlantic. This was around 1968, and four United States naval satellites had been launched and every six hours when the satellites came round, the PDP-8 could get a signal. It would calculate the longitude and latitude of where the ship was.

01:23:20 Oil companies

DEC was contacted by American oil companies who wanted to use their systems to extract oil under the North Sea. John went on a ship in Inverness with a PDP-8 system on it which they used to plot the North Sea and find where the oil reserves were. The whole situation was very secretive as they wanted to be the first to find it. At the time John did not realise how significant the technology was going to be.

01:25:11 DEC's legacy

There's a lot of technology today that DEC was involved in and took early steps and other companies have taken this and developed it. More importantly, ex-employees still speak very fondly about DEC. In the United Kingdom, there is an ex-DEC community with over 1200 people and the membership is still growing, as well as there being many other sites and communities. John credits the environment that was created for nurturing the fondness that people had and still have towards the company. Ken Olson established this concept, but it was taken and grown by the managers.

01:28:01 DEC's legacy in Reading

At the time, it had a big impact in Reading but now there is likely not a lot of people who know DEC was one of the first IT companies to base themselves in Reading. It played an important role in the community.

01:29:12 Personal legacy

Believes it made him a well-rounded leader. The style of leadership was to support people and give them skills to do the job and this environment suited John. He learnt a lot from mentors and this knowledge stayed with him and he was able to use it in other places.