

Is Recording Engineering?
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Interview Transcription

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JW: So would you be able to spend a couple of minutes explaining what you do and where you work?

NH: Yes, and I'll work backwards if you like from the present day to how I got to there. I am a dubbing mixer and work in a post-production facility called The Audio Suite. We have three studios and we primarily service broadcast television, although we do do feature films, usually below one million pounds, usually going straight to DVD, and I've been managing director and a dubbing mixer at that facility for the last ten years. So, ten years owning the facility (The Audio Suite): there's a total of four engineers there and one facility manager. The ten years before that I was freelance as a location sound recordist and dubbing mixer and a studio sound supervisor and the ten years before that, my first ten years in the industry, I worked for Central Independent Television, which is really where I gained my skills in broadcasting and I was very lucky at that time: it was a unique moment to be in broadcasting because we had a large film department, because video cameras were still not sufficiently portable (quite soon after I joined we had small video cameras), but it gave me the opportunity to become very familiar with working on film as well as studio as well as news recording. So, all aspects, I was lucky enough to be able to cover all aspects of broadcast audio. So that would be: news, outside broadcasts, post-production, film post-production and studio productions as well. I joined the industry pretty much straight from University. I actually did an apprenticeship with a mechanical, doing mechanical and electrical engineering, for an American company called Cincinnati Milacron and they produced computer-numerical controlled machine tools, and so I did a dual discipline of mechanical and electrical engineering there. I attended, on block release, Aston University and did industrial electronics and instrumentation.

And it was University Radio that really got me interested in moving from pure electronics into broadcasting. I was fascinated by presenting programs and the audio elements of it. As a child, I've always been interested, I was passionate about music, both as a guitar player, a self-taught guitar player, and also listening to music: I was always fascinated by the production of popular music. And I was interested in taking radios apart and fixing radios that had gone wrong and things like that so I did that from an early age.

JJW: That all seems to quite logically move from that listening and that musical experience all the way through to where you ended up. So, you referred to yourself as a dubbing mixer, what does a dubbing mixer do? What are the bread and butter, the common tasks that you're doing.

NH: Dubbing mixer is sort of a catch-all term that refers to a general post production audio mixer. So, typical duties are when a program has been picture-edited obviously the soundtrack has been chopped into a hundred different parts, commentary needs to be added, music needs to be mixed in. So it's the mixing process of broadcast television programs. It can also include standalone voice recordings for commentaries or for commercials, we mix a lot of commercials

for cinema as well as for television. [It can also be] to support drama projects: that can involve recording what's called ADR (automatic dialogue replacement – it's an old traditional title), but actually that's about recording actor's lines when they're not considered good enough in the original recording: maybe there's an aeroplane going overhead or there's a door banging whilst a line is being given so you replace the dialogue there.

JJW: The term 'engineer' hasn't cropped up yet [in relation to work in this industry], it's a difficult thing because you already know what this particular project is about and it's the same with the focus groups [that are planned as part of this project]: people are arriving to come to an event called 'Is Recording Engineering?'. If we look at a CD or an LP cover there is a tradition of referring to the person who has been the sound recordist, to refer to them as the 'recording engineer'.

NH: Yes.

JJW: Is that a tradition, does the word engineering crop up in, say for example, television or film titles relating to sound or is that only in music studios?

NH: Yeah, it's interesting I think that it probably is only in music studios and I think it seems to be something related to the transmission of music, because if you think about radio studios they refer to the 'radio engineers'. In a television studio you tend not to be regarded as the 'sound engineers' you're called the 'sound department' so in film and television sound there isn't an emphasis so much on the engineering aspects of it and interestingly I spent some formative years as unpaid helper to a friend of mine at BBC Radio who's a presenter and the majority of engineering staff were classically trained as engineers. The colleagues that I worked with in television it was much more diverse; they were a range of people from geographers to map makers, someone came from the carpet industry. It was a much more eclectic bunch that came to television and I think that sort of defines what television was when I joined, it was that you were taken in because you had an interest and a passion, not necessarily an engineering background; and in some instances that could be considered a little bit of a disadvantage somehow, that people would think that you were far too clever for your own good kind of thing. But, I think it's no coincidence that the best engineers, I'm using the term engineers [laughs], the best people that I worked with in television sound were people who had an engineering background I think it gave them a depth that enabled them to carry out their tasks and gave a better platform for them to be creative with. I don't see why an engineering background would make you creative but I just felt that the talented people I worked happened to come from an engineering background.

JJW: Does that mean that they could adapt better to more challenging situations? Was it the case that those people who didn't come from an engineering background but had been trained to perform a particular task during a broadcast or during some kind of post production operation were able to do it if the parameters didn't change too much, but if there was a new challenge, a different kind of scenario [such as] suddenly things moved from inside to outside or vice-versa. Was it the case that the engineers were better able to....

NH: I think that summarises it really very well. I think there's something about the discipline of training as an engineer, that sort of empirical processing that goes on that either you have a

predisposition to it or it's encouraged and developed which means that you have a very good skill set to attack problems and challenges that are presented to you. So yes I think that's a very good appraisal.

JJW: You talk about a disadvantage in terms of perception that people, I guess that those from an engineering background might be too clever or perhaps closed to different ways of doing things. Did you ever see that? Do you ever see someone constrained by the fact that they were from an engineering background.

NH: No, I would say that the converse. But there is a sort of stereotype that declares you as an 'anorak' or "ah, he's an engineer, he wears open-toed sandals with socks"...[laughs]

JJW: Yes [laughs]

NH: ...that's the epitome of a BBC engineer. No, the people that I met were a completely, you know, gregarious bunch, some were insular, some were extrovert. You know, a regular mix of people.

JJW: So there was nothing that marked them out as engineers apart from the way that they worked? You mentioned the stereotype but there was nothing in the engineers that you met or worked with that reflected that. You didn't sort of walk into a sound department and say "oh, those guys are the engineers, those are the people who have come from this other eclectic mix".

NH: No, no. It was just that in their methods, in their reasoning and their rationale.

JJW: That's interesting, so it was the way they worked and their methods...

NH: I think their approach, yes, their methods.

JW: ...rather than conforming to a particular type of person. So that leads on quite nicely to identity. Where would you position yourself in terms of, well you can come up with disciplines to add to this list, but, for example, engineering is often talked about as being the third discipline between science and art? When you're at work what are you doing? Are you engineering something or are you creating something? Do you consider yourself to be someone, an artisan in film and television who is doing the job because you understand what's needed from an artistic point of view? Or [do] you feel that you're more there because you're doing it because you have this skill-set and this reasoning ability, which allows you to get the results but it's more focussed on the fact that it allows you to negotiate the technical difficulties which are present in the studio?

NH: I think that it falls in-between two camps and this is what I find very fascinating about the work that I do. It's that on the one hand I can be a sonic artist, to use a term, a sound designer if you will, and then the delivery of my artistry however must conform to strict guidelines because of the way that it is distributed and transmitted has to fulfil certain criteria. You know, there are conditions of quality which are both subjective and objective. So, levels must be adhered to, the way in which the material is presented to the broadcaster has to conform to quite strict criteria.

So, on the one hand there is the freedom to express your creativity with what you're doing with the sound. However, you have to be able to constrain it within the guidelines and a good example of that would be, it's less so today, but, for instance, a recording engineer in, let's say, the 1960s in a recording studio, if the producer had asked for a particular heavy bass [sound] the engineer might, even instinctively, or explain, that "well we can't have it quite that much because the stylus will literally jump out of the groove". So there there's an electro-mechanical consideration as well as an artistic consideration as well and it's the balancing of those two things that, in my particular field, I think you don't particularly get with, for instance, picture editing. There isn't quite that same thing, I would say that there's more of an emphasis on 'artistic' on picture editing. It's less of an even spread I would say that there is with sound, sound engineering, sound mixing.

JJW: That's a really interesting analogy because one of the people that's posted on the blog that I have to do with the project, when I asked the original question [Is Recording Engineering?] said "well, I suppose I would ask the question 'Is Photography Engineering?'" and it's a useful analogy. And it's interesting that you feel that there are these variable mixes between I guess what we'll call 'technical ability' and 'design prowess'. So visual editing is less constrained, picture editing is less constrained, than audio editing because, you talk about the electro-mechanical limitations of vinyl as a medium, and now because you're having to meet these criteria for broadcast...

NH: Yes, a lot of which are traditional. For example "don't go above PPM 6" was all about the volume units that were presented towards the transmitter. You know, if you give a signal that is too hot you'll take the transmitter off the air. So, traditionally, that's why we had metering. It wasn't particularly there to aid the quality of the balance. It was actually to make sure that you weren't running too hot, or to provide the limits. That's less so now because there are automated ways in which software can make sure that that doesn't happen. However, if you rely on software limiting or compression the results are not very pleasing to the ear.

JJW: So it does require you to intervene as a human being to ensure that constraints are met whilst preserving the sonic art and the sound design that you're talking about. I know very little about this but it's a word I used to hear bandied about when I was talking to Fairlight [a manufacturer of audio equipment for audio post production] clients, and that is, particularly with reference to the BBC, "technical review". I would hear people say "[I] can't have that. If it does that it will fail..."

NH: ...a tech review" It's still the case today. Every broadcast program must go through a process called a technical review and all issues are looked at there. So, from a picture point of view it's the saturation of the pictures, the brightness, the contrast, are there any flashing images in there?, aspect ratio. The equivalent is done for sound: does it peak higher than one particular point? Is it overly compressed? What's interesting is, almost inevitably, those quality control processes are carried out by predominantly picture, or video, engineers. So, picture editors who've become video engineers. The term is a 'video engineer'. They are almost never undertaken by a sound engineer. It's kind of interesting that the sort of technical requirements that sometimes you get sent to you by a broadcaster and "hmmm, I'm not really sure that there's any basis for that, can we just talk about that?"

JJW: And then, presumably, if you want to have that discussion you need to have some kind of theoretical basis on which to have that discussion.

NH: Yeah, I think it gives you the ability to look at the wider picture, or to look at the wider picture, or to put in context, what the issue is where, if you were purely performing the function of “lifting this fader up to this point and making sure it doesn’t [go further]”

JJW: OK, you’re able to perform that limited set of tasks in a limited situation but you’re not able to operate beyond those requirements.

NH: Yes, and I think it’s the difference between an engineer and an operator. A good engineer should be able to operate any particular piece of audio equipment with minimal ‘familiarity time’. An operator will only be familiar when set parameters are met. If you take that person outside of those then they’re challenged because they haven’t got a broad enough skill base to draw on.

JJW: So moving on then from identity in terms of community that you belong to and how you arrived at where you got to, knowledge and competence: you talked about being able to join Central Television at a very good time when it sounds like lots of time and effort was invested in training you. Was that the main source of the skills that you bring to what you do now at [The Audio Suite]?

NH: Yes, yes, I would say that it is. Because, of course, the theory that I learned at University with doing electronics, actually are only a background to the fact that it is a craft skill that I practice. So, it’s an interesting coming together of craft skills as well as pure engineering knowledge. But the two don’t exist in a vacuum so, as you’re doing something, one of the more senior engineers will explain to you why it’s important that we do it in this way. And, if it’s an engineer - and this is a good example - if it’s an engineer he will tell you why you do it in that particular way. If you’re working with an operator he can’t tell you that, he’ll just tell you “because we always do it this way”.

JJW: An engineer can tell you why and an operator can tell you how, but not why.

NH: Yes. So using that analogy then, an operator can show you how to do it but he can’t tell you why to do it that way.

JJW: So, if you were going to take someone on at The Audio Suite, or you are in a position to take someone on and you were looking at someone at a junior level, what would be your ideal CV to arrive in your in-tray that said to you “right, on paper, before I meet this person, they look like they could be just right”.

NH: Well, I’ve taken two engineers on who are new to the industry. The first one that I took on had a formal electrical qualification, the same qualification as me in actual fact, but that was a coincidence, I wasn’t initially looking for that, but when I saw that on the CV I thought “that would be very useful because I can talk in a similar language”. And that turned out to be the

case, and that person is still with us, he's been with us for seven years now, and was very quickly up-to-speed on understanding the equipment. It was all new to him but he had the capability to do that. The next engineer that we took on came straight out of university, he'd had a little bit of experience but it wasn't in engineering, it was in television production but I thought "well, it's broadly the same, [he] should be alright with that". Now, this may just be him as an individual, he still works for us and we have a function for him but he is not by any stretch of imagination one of our engineering staff. So, he can operate and, within his limited range of tasks, he operates very well but actually he isn't what I would describe as a 'key engineer'; He's not a valuable resource in that sense, he can only be used in a limited capacity. We've just taken on another intern who is in his final year at university, even though he wasn't doing engineering we spent time giving him some essential engineering education which we built up over the last year. And that has gone back to it being, very quickly, he is very useful to us and very flexible.

JJW: And where did that third person come from?

NH: The third person came from Bournemouth, straight from uni.

JJW: And that was where presumably where they had done a course in film studies, or more closely, in film production?

NH: Yes

JJW: So the first person had an engineering background...

NH: Yes

JJW: ...the second person came from a TV production course, and the third person...

NH:.. Film and Television Studies I think it was.

JJW: So, for example, taking the person from Bournemouth who has studied film and television: are they more able to understand the content of what they are doing? Are they better placed to read film, to read television, to understand what's required? Or, is that something which any sensitive individual can do. So, the first person we talked about, the engineer, they've fitted in very well and it sounds like they've become a key member of the team...

NH: Yes

JJW:...are they able to match, for example the Bournemouth person, in terms of their knowledge and understanding of the programs that they're working on, if that makes sense?

NH: It does make sense and it's difficult because we're a tiny company, we're only four engineers in total, really there's not enough evidence, there's not a big enough sample for me to generalise. But it just happens that, the guy who was an engineer is very engineer-focussed, he's less creative than the lad who came from Bournemouth who has done film studies and is very concerned with the aesthetic part of things. That just happens, I don't know if I can generalise

from that, but that is true in the case of our part of things. And the lad in the middle, he's not particularly strong in one or the other but he's very willing, he's a great member of the team, he's very supportive, otherwise he wouldn't be with us because we're so tiny we couldn't...

JJW: You can't support people who aren't making a contribution.

HH: Yes, so he does contribute so he is constrained compared to the other two.

JJW: So if you could design a university course which came up with the perfect students – you read the CV, and you read the modules they study and say “yes, great”. What kind of course would it be? Do you think it would be an engineering degree or do you think it would be a BA or BSc? What would it contain, what sort of things would it cover, not an entire list of modules but what would be the key areas that you'd want to see?

NH: I think there's some basic engineering that I think is very useful, and now I'm just referring to audio engineering, I think there are some very basic things of engineering that just stand you in good stead – that they're worth having. And then I think it would be very interesting to have a sort of a hybrid between the BA and the BSc sort of approaches past that first year. I don't think it needs to be a particularly high level of engineering, I think it needs to be a sensitivity towards it, an awareness of the equipment that you're working on, but not to the extent that you would mend it if you needed to or delve into it and put a scope probe on it and have a look at the waveform (I do because I'm interested in what's going on [laughs]). I think the first year with a grounding of some engineering and how that applies to that industry. So, in the old days where it was more electro-mechanical it would be useful to learn about flux density and would be interesting to learn about recording heads, how it works and how tapes are saturated, how you line-up a machine, why you line-up a machine in that way. Whatever that modern digital equivalent is, of that I think would be very useful. And, presumably it would be a three year course, the next couple of years I think are about actually applying that knowledge to craft skills, so it's the marriage of the two things for an audio engineer really.

JJW: OK, so a grounding in basic engineering, nothing which becomes too advanced or esoteric but how stuff works.

NH: Yes.

JJW: A solid grounding in ‘how stuff works’ and ‘why stuff needs to be done’.

NH: Yeah, it's probably not even A-level physics but a little bit of mechanical engineering, a little bit of electrical engineering, a little bit of physics in there, a little bit of chemistry, around why transistors work in the way that they do. Just that introductory stuff that won't have been done at an A-level stage to any extent. I think that would be a good basis on which to provide some craft skills, to apply some craft skills.

JJW: Just as an aside, I did careers liaison for [my] department last year and I've had lots of students coming to see me saying “right, I want to go and do an industrial placement in a recording studio” and most people are pretty savvy these days, they understand that a degree on

its own is not going to allow them to walk into a recording studio and sit down at the console and start running sessions, it just doesn't work that way and I think there's lots of reasons for that: partly a slight old-fashionedness in the industry but also I think the fact that a degree certificate is not a sufficient guarantee that you can actually run a recording session. Even though you might have a degree in sound recording, the academic endeavour of studying sound recording and then going and doing it in practice are not quite the same too things. It's not like if you go to the Royal Academy of Music, for example, and you study the piano and you come out the Royal Academy with a diploma in piano performance you can start saying to people "right, I'll do a recital for you" and they say "great, we'll book you" because you have been observed constantly doing that final thing that you are going to be doing. Whereas if you are studying sound recording and music technology you are studying it, you're not always doing it in the situations in which you will eventually find yourself.

NH: Well, the job itself is not just about the capability to press the right buttons at the right time. It's about a whole range of other things. I mean, the example you give about running a session, is about the sensibilities of the people that you're working with, about managing expectations, managing disappointments, managing time scales, time pressures, finding ways round when a producer wants a particular sound but you haven't got a particular plug-in or equalisation, that's when some engineering background is very good to draw on because it gives you little bit of a sort of a toolkit to dip back into. So, in my particular case, as a dubbing mixer it absolutely isn't about "is that signal as clean as it could possibly?", "Are you pressing play and record together at the right time?". It's about "is the actor comfortable?", "Is the producer happy?". If you're doing a commercial and you've got a whole bunch of people from the agency behind you do you know when to say something? Do you know when not to? There's a load of, in a sense, emotional intelligence which needs to go around.

JJW: Keeping things running, both, presumably, from a technical point of view and from a social point of view.

NH: Yes, absolutely and keeping things running smoothly. So it's sort of multi-faceted what your role is in that sort of position, because you're at the centre of it but equally you need to be able to disappear into the background so you're invisible to the process, so you're not in the way of the creative process, it's not about your ego getting in the way, and then there are times when you need to contribute, have something to say, "you know guys this isn't working" and what have you. So, it's knowing when to contribute and when not to. That has nothing to do with the age or experience of someone, to say that they can't do it but, if they haven't done it, and you have to introduce that slowly, to start them with someone "well this guy's a really nice guy, he's not going to go bonkers if something goes wrong" and build up their confidence.

JJW: And that's of course the kind of thing that a degree certificate is going to find it hard to measure, are those attributes in someone.

NH: Yeah, absolutely, that's very difficult to do.

JJW: And one of things that I've suggested to students could be an extra string to their bow is that, for our students coming from engineering background where they are at the level of being

able to take things apart, plug oscilloscopes in, as you like to do as well, is there, when you take someone on as the MD of a relatively small post production [set-up] and you simply can't carry people because each individual person forms too much of a proportion of the business, are you interested in additional skills outside of the ability to do their core job? So, I use the example, and it may be that I'm not using this example appropriately, if someone is employing someone to be a recording engineer in a studio and for one day a week the studio just isn't booked, then unless that person is able to bring some other skill or talent to the job they are, essentially, going to be paid for doing nothing on the day on which the studio isn't booked. So, are you interested in other skills that these people could have that they can then deploy when you're quiet, or when you're focussing on something else.

NH: Yeah, absolutely because you're looking for well-rounded characters and by definition that would mean they have some other skills. And interestingly, that middle person that I described, who isn't any great shakes as an engineer and isn't any great shakes artistically etc. he has great strengths in a commerce sense, so he actually acts as our part-time account manager so he's very good, his people skills are just superb, so he will network on our behalf, he will meet and greet people, he's very well rounded which the other two are less so. So it's about getting a balanced scorecard really in the team that we've got which is why I was at great pains to explain that actually, even though this guy is no great shakes as an engineer, he's a very valuable member of the team and he contributes fully in his way and all of them, working together knit together very well.

JW: OK, that's covered everything on knowledge and competence so finally: nature of employment. So this is about "what are the career prospects for someone?". Well, you've had a thirty year career already. Has that ever felt precarious or has that always felt like something which is, well...

NH: Because of the nature of the business that I'm in it's always precarious, it absolutely is. I spent ten years on staff, I spent ten years freelance which, I had a great time, I enjoyed it very much, I worked with a great bunch of people, I did some really interesting things, went to some very interesting places. Then I started my own company, a 'proper' company, i.e. there are people around me and there are facilities and premises and what have you. That feels precarious, because before I was worried whether people would employ me as an engineer or a recordist. Now I'm concerned about if people will come to our studio and so we can pay the rent etc. So, it is precarious, but, I don't know whether this is just some sort of social conditioning really that I come from a generation where my father, was an engineer as well he was aerospace, he spent all his life with the RAF and in civilian aerospace, and it was always said in those circles that if you have a trade you've always got something to fall back on. You know it's a very nineteen forties, fifties, sixties kind of thing to say. But, I have to say, that it has given me a confidence to say "if it's broadly mechanical, or if it's broadly electrical I can probably apply my mind to it" and it's given me a confidence that I don't think I would have had if I'd not had that sort of grounding. Now, that could be a function of me being conditioned, that my dad was an engineer and he always did alright, but I think aside from that it has stood me in very, very good stead. I left school at sixteen to do an apprenticeship at Cincinnati Milacron which then took me through, if you will, the A-level stage and the university stage by going there. So it was in total five years that I spent from sixteen to twenty-one in a mechanical engineering environment although I was

learning electrical engineering. When you say “well that’s not really a route though to broadcasting as a dubbing mixer” but actually every step has made logical sense because one has been the building block for the next and wherever I’m going next, and I’m not quite sure where that will be, it has just made sense that it’s always relied on this engineering background that I’ve had. It’s always been my safety net, that “I have the ability”, “well I can do that job because I understand broadly what that’s about”.

JJW: You’ve got this set of transferable skills...

NH: That’s what it is! Transferable skills. That’s’ it.

JJW: ...that’s the buzzword that everybody likes! So, you are currently applying your transferable skills, along with your experience of thirty years and your detailed understanding of the requirements of the audio post production industry but because of your transferable skills, if that were all to ‘go down the swanee’ tomorrow you feel your training gives you confidence that you could turn your hand to something else.

NH: Yes, yes. And that has been my comfort. I’m not great at managing the insecurity of it all, it does bother me, it always has done, some days are better than others. But I’m kind of “you know, I’ve done thirty years and done oaky, so the chances are that I’ll be OK”. But that has always been my safety net.