A little more in fact. I would have been about thirteen when my younger brother – a performer who later became a gifted musician – persuaded me to attend a meeting of the school dramatics society to discuss the next production. This was "A Night of Plays"; three one act plays to be presented at the local Parish Hall. I was too late (fortunately) to be cast for anything and so found myself responsible for scenery, lighting and stage management. Unlike other schools' dramatic productions the only staff involvement was a form of benign oversight so we had to do it all ourselves.

I was soon hooked. I borrowed the only book about stage lighting in the public library – Bentham's Stage Lighting – and read it from cover to cover. I sought assistance from students in the local university and from the visual aids department of the LEA. I found out about scenery from the local painter and decorator who had been a scene painter at the Lyric, Hammersmith and somehow produced a standing box set using the school's much repainted stock of flats and some sort of lighting using the kit belonging to the LEA. I vividly remember the control which was a locally made version of what I later knew as a Strand Electric Teak board; a wooden flight case containing slider dimmers (two 2Kw and three 1Kw) and switches and sockets. Power input was via a 13amp plug painted red. Once, this came out on a rehearsal, the lights all went out and fumbling in the tripe on the floor to find it I realised why power on a male connector isn't a good idea.

I discovered the Strand Electric and Engineering Company, their catalogues, their advice booklets and in particular Tabs. Tabs was the most brilliant theatre lighting magazine ever. Of course it was a soft sell for Strand but it was never only about lighting or Strand. It reviewed theatres; it reviewed concepts of lighting and stretched the horizons of a teenager. Now we have magazines largely devoted to the industry and its sales success with little acknowledgement of the production process.

I helped at the Little Theatre, the local weekly rep; more box sets from stock flats. "Please don't slam the door, the panel above it is made of brown paper". Battens and floats, a couple of aged focus lanterns and more slider dimmers. Yet this company played to good houses every week. Granted television didn't reach us until rather late which probably helped.

Then the local multi purpose hall; everything from opera to all in wrestling via drama, school eisteddfodau, the remembrance service, Sunday concerts and summer shows. It may not have been either high tech or sophisticated but it didn't half teach me about getting shows on. Memories from there. Going to a Sunday concert with my parents and brother. Chris talking to the stage manager in the foyer as we went in, tabs open and reveal him seated at the grand piano to accompany the evening's guest star; David Hughes at the time a celebrated pop singer become opera singer. Getting in flattage through the front of house doors because we couldn't open the upstage slot leading to the street (and fifteen feet above it), not easy in a gale. The poppy drop for the remembrance concert. Stage manager on an extending ladder resting on the back tab track with a bucket of paper poppy petals.

There was the NUS Drama Festival when I went in one morning to meet the stage manager carrying a fire extinguisher "Hello Gareth, are we going to have a fire?" "Go and look at the bloody tabs". I did, the house tabs opened side ways and had been opened and wrapped round a temporarily rigged perch boom. A 23N had been faded up and the inevitable happened. Half the house tabs destroyed, several floor planks burnt. We still opened at 7.30 with temporary grey house tabs and a rebuilt floor.

Moving the tallescope hazardous? We focussed the number one bar - a mixture of Pattern 60Ms and 23s - by standing backwards on an extending ladder leaning on the bottom of the roller iron. Upstage stuff which needed focussing most of it didn't) was focussed either by leaning a ladder on the bar and allowing for its swing or by the smallest member of staff climbing a ladder held vertical by the rest of the crew. No, we never had an accident.

In 1962 I moved to London to go to college and discovered a wider world both student amateur and professional. Imperial College might be one of the leading science and engineering colleges in the world but its Dramsoc seems to have put a disproportionate number of lighting people into the theatre and its supply industry.

Does anybody else remember the lectures at Strand's 29 King Street headquarters. A marvellous way to learn about their equipment and lighting. In fairness to Strand the people involved seemed to be as interested in lighting as in selling their equipment. We must remember that at that time Strand was effectively the only manufacturer. It's interesting to see the way in which ETC, the biggest lighting manufacturer have, to some extent, taken over the education torch from Strand.

After college, BBC TV. I had expected to finish up on a transmitter somewhere but the BBC decided that, with my interest in lighting, studio technical operations was a better idea. Seven years in London studios with free lance theatre work on the side. Mixed memories of venues from my college and BBC periods, Fulham Town Hall with two enormous glazed paintings at the back of the hall. Why did the stage always look better reflected than it did direct? The West End, the Jeanetta Cochrane Theatre, Acton Town Hall, City Temple Hall, Toynbee Theatre, the annual pantomime at Ealing Town Hall and walking home after the get out with my tool case. To my surprise I convinced the policeman that I really was going home after work in spite of the crowbar in my case. You don't meet policemen walking round at 1am any more.

The interest of going into colour in television. The work that was put in to "convert" staff from monochrome to colour, not just in their technical knowledge but in their aesthetic appreciation as well, the wry amusement as television discovered the things about colour that theatre had forgotten like three colour mixing on a cyc.

The first Thorn Q File. Brilliant step forward but for television not for theatre. The theatre version appeared a little later demoed at Her Majesties (I think). Got into trouble for querying the need to do "fifty cues in thirty seconds"

Basilica Opera tours. In those days touring opera was effectively Sadlers Wells and the D'Oyle Carte and they only went to big places. Basilica went to all sorts of places using pro principals, staff and orchestra and the cream of the local amateurs as chorus – and damn good shows they were. We played Bradford, Torquay, Sunderland, Worthing, Stoke on Trent – weekly in that order with two shows in rep. Lighting using the house rig with minimal augmentation. Every kind of lighting control, 120 way CD at Sunderland, PR at Torquay, SP in Stoke and grand master at Bradford.

Memories of those controls that nobody remembers - although if they did they might have a better idea of why we're where we are now. Working the SP at the Queen's Hall in Burslem, Stoke on Trent with a newly imported replacement soprano who didn't know the moves and using the heavily frosted Sunspot alongside the board to try and keep her at least in some light. Standing on the grand master at Bradford with Fred Wade the resident chief and character. Tabs out and he locks on handles, for cue one about ten minutes in, face appears at the top of the ladder "There's a problem at La Ronde" (the night clubby place over the road), Fred points to the grand master wheel says "it turns that way, drop off ten and eighteen at three quarters if I'm not back" Fortunately he was. Another Bradford memory was Fred's supposed liking for number 13 Magenta; "you should use it in every show, it's the best colour there is" Dress rehearsal for Carmen and the tabs go up on the square outside the cigarette factory and the entire scene is bathed in pink. Every FOH lantern was coloured in 13. After a couple of seconds the crew, strategically placed, leaned over and pulled the colours to leave those I'd originally chosen.

Worthing was interesting, a bracket handle board on the perch with a twelve way interlock temp in the prompt corner. The house board was cued by rapping under the perch floor with a broom handle. One knock for standby, two for go. Another Worthing memory is the overnight changeover when the wardrobe supervisor entertained us with several hours of boogie and rag time piano.

In 1973 I moved to the Royal Northern College of Music in Manchester. Television had become more of a factory, I wanted to get into full time theatre – preferably opera; Christine and I were engaged and wanted to get out of London.

The next thirty seven years passed very quickly. The College believed that the most important aspect of music was performance and the facilities represented the idea that students should take part in professionally staged and staffed operas and concerts. The Opera Theatre was pretty well state of the art – 120 way Lightset three preset board, good stock of lanterns plenty of space (pros too wide and main stage too shallow but otherwise OK). The Concert Hall was pretty good although woefully underlit. Platform lighting consisting of ceiling mounted track too high to reach from any available access equipment and a row of Pattern 249 TV softlights ceiling mounted in front of the organ.

My first challenge was to improve the Concert Hall lighting at minimal expense – someone had noticed that the softlights as well as lighting the players' music also shone into the eyes of the audience, when I pointed out also that they were specifically designed to pass heat out through the back (onto the organ pipes) funds were found and two hand winch mounted spot bars were installed with Pattern 223s (later converted to 743s) from the Opera Theatre and a Mini-2 control in a cupboard in the artiste's entrance to the platform.

We later found some money to put a third spotbar over the platform. Still on a hand winch.

Some years later the BBC started shooting the Young Musician of the Year final in the Concert Hall using the house installation as a basis for their TV needs. At some point the lighting supervisor and I discussed the spot bar on the rear wall of the auditorium. "It's too low for us and it's difficult to do a temporary bar higher up". So, at no greater expense, for one event, the BBC installed a permanent bar higher up the wall and supplied us with a long enough extending ladder to reach it.

Over the years we added to the installation piecemeal as funds were found so that now there is an installation adequate for most events with a 300 series control. The two original winch sets were condemned on safety grounds because the maintenance department didn't understand that when you wound them out you needed to ensure that the wires wound evenly otherwise they tended to come in a bit sharpish when the wires went slack. We put motor winches in. Unfortunately I couldn't get anybody to condemn the newest winch. The hall is due for full refurbishment in a few years time. It will be interesting to see what happens.

When the building opened a "Beanstalk" had been provided for focussing etc access to high level equipment. This was a fearsome device, electrically raised and lowered (but too heavy for one person to move round) with a cruciform footprint with arms 15' overall. Not very convenient especially if you were on your own as I frequently was. I persuaded the admin to buy a Tallescope and to sell off the Beanstalk. I'm not sure who bought it or why but it disappeared and we carried on with the 'scope, a much better idea. Given the heated discussions that have taken place over Tallescopes recently I'm pleased to say that in all the time I was there we only had two 'scope accidents; neither of them resulted in anything other than a need to sit down for a bit. With hind sight both were preventable and had we known better how to handle the beast both would have been avoided.

When the RNCM Opera Theatre opened in 1973 state of the art control was a Lightset. 120 channels on three presets with clever faders with microswitches Which allowed grouping to red, white or both groups in a preset and also, the good bit; transfer a channel from the white to the red group. It's probably difficult for today's technicians to understand the significance of these remarks but manual preset board operation needed totally different skills to running a show on a memory board. Although we didn't know it we programmed, not by

letting the board memorise what was needed but by working out how we could do what the designer wanted using all sorts of methods. Preset changes for major cues, a couple of faders moved by hand for small ones or a group added or subtracted with or without compensating hand moves of a few channels.

Plotting wasn't a question of choosing a number and pressing a button but of writing it all down together with times, which faders and what to do after the cue.

The College decided to show a season of opera films. This was achieved using a 16mm portable Bell and Howell projector with a long play device so all the reels of the film had to be spliced onto one enormous spool. This did mean that a lower degree of concentration was required than the conventional two projector and change over technique. The rehearsal for the first film was fine, the sound worked, the splices held and the combination of lighting board operation for tab warmers and houselights with the projector couldn't have been better.

The opening night was a different story. A couple of minute in, half watching Don Giovanni and listening to the tick of the projector I woke up when the steady note changed, the take up spool suddenly doubled its speed and feet of film spewed over the floor. From the audience point of view it was fine, no disruption. Nip out of the control room to call the manager from the foyer, he appeared with a catering department grundy bin (clean) into which he fed the film emanating from the gate while I, having kept the film end, fed it onto the take up spool. After half an hour we caught up; by some miracle there were no twists in it, and I put the control room kettle on.

We had one complaint: an audience member was disturbed by the bubbling of the kettle as it came to the boil!

For completeness I must record that the film break was just that. Not one of my splices.

Has the art of film and for that matter tape splicing disappeared except for archives?

We had an American dance company in once. Very contemporary and very demanding. They insisted that we should have two board operators because the first piece was (imagine accent) "Really fast and you'll never reset in time." So the ASM was drafted in to help. Plotting seemed OK, cue 1 "houselights out", cue 2 "tab dressing out", cue 3 "FOH up" and so on up to cue 30 or so "house lights up". It didn't seem too bad but I thought "perhaps it only lasts ten minutes or something". The dress rehearsal of the half hour piece went well and I operated on my own while Alan stood by to dash in if it got hairy. At the end the voice on the intercom said "You see it's pretty complicated isn't it? How long do you need to set up the next piece?" The only honest answer was that I had already done so.

Alan had the most restful week of his life being employed only in bringing us the occasional cup of tea. The down side was that is he made the tea himself and it was undrinkable as he liked his tea weak – with the tea bag briefly dipped into the cup and removed.

Over the years we upgraded the equipment as and when we could screw some money out of the College. They quite reasonably believed that a "new" theatre shouldn't need upgrading which was probably reasonable at the beginning but looked rather silly after a few years.

FOH went from 264s to 764s to T84s and eventually Cantatas: 223s were upgraded to 743s and forty Pattern 60s for cyc floods became a dozen Iris 1s.

The FOH replacement with Cantatas was an interesting finance deal. The then College Secretary – admin boss – asked me if I needed any new equipment in the Opera Theatre so I worked out and costed a scheme to replace fifty FOH lanterns with Cantatas, passed it on and forgot about it. A few weeks later the Secretary 'phoned. "You know those new lights we discussed, go ahead and buy them!" He'd had lunch with somebody who wanted to give the College some help.

We were just before lighting a new opera so in a hired van I headed for Kirkcaldy (the Strand factory) to pick up the new lanterns stopping at Northern Light in Edinburgh to pick up some hired gear. I can't remember what, probably Pattern 752 projectors. The van the hire company had supplied was a little smaller than I had wanted so we had an interesting time at Northern Light taking most of the Cantatas out of their boxes so that we could get the hired stuff in.

Younger readers not familiar with the numbers and names I mention may find it interesting to look them up and see how things (in most cases) have progressed.

In 1984, eleven years after the College opened, I persuaded them to find the money to replace the lighting control in the Opera Theatre. I reviewed what was available at the time and settled on a Strand Galaxy as most suitable for our needs. The Galaxy had the advantage that the desk layout could be configured to suit the control room and the operator's preferences. I sketched what I thought would be a suitable layout and then went to Brentford – Strand's London headquarters to see a desk mocked up as I wanted. The training session consisted of "this is a plan of the demonstration theatre rig and the desk manual's there ring 52 on that 'phone if you need any help or when you've finished." I played for a couple of hours and sold myself the desk.

Board operation was transformed. No longer did I need to set up presets half an hour before the show. No need to go through the plot to find the first level for every channel on all three presets and set it to save a millisecond on each reset. Walk in, sit down, select a number and go. Not quite as simple as that but not far off. I found for opera that I still preferred (and still do) manual

operation of my own cues; opera timing goes with music not with seconds and in any case if you're operating manually it doesn't matter if you press the go button on the standby!

"Don't you miss the satisfaction of operating a difficult show on a manual board?" This was a fairly frequent question and the answer was simply "No, I know how to do it, I've done if for years, the memory resets more accurately than me and I can concentrate entirely on timing".

The playback encoder wheels took a bit of getting used to but not too much. Now when I'm operating a desk with faders for playback I realise how clever the wheels were, if you want to alter the speed of a running cue you just tweak the wheel up or down, you don't press a button several times to get at the up fade and then wheel it back or forward. Why do modern desks have so many controls which change their function depending on whether the operator takes sugar?

When the Galaxy went in we increased the number of dimmers by fifty percent to 180 which meant we could take out a lot of changeover switches and separate a lot of paired outlets.

Eight years after the Galaxy went in we replaced it with a second hand Galaxy Nova. Operationally much the same but operating on DMX rather than analogue which meant we could use DMX equipment although the dimmers remained analogue. Oddly enough I had operated the new desk in its first home at the Edinburgh Festival Theatre some years earlier.

The new desk had much the same facilities as the old although one of the playbacks was more sophisticated.

The old Galaxy desk went to the Harlequin Theatre in Northwich and as far as I know is still there.

Nothing much changed for another fourteen years or so. The Studio Theatre opened with a 300 series desk and sixty four dimmers and in it we did some of the most interesting shows the College had done. Opera doesn't have to be mega big with huge sets, a small scale production can be a pretty stunning experience and some of them were.

The Concert Hall grew more dimmers and another 300 series desk. Way over the top for most of the concerts but sub masters meant that non lighting experienced platform managers could simply push up the fader marked "preset" and then "small ensemble", "large ensemble" or whatever.

About five years ago we upgraded the Opera Theatre with a 530i desk and increased the dimmer count to 300 with 28 non dims and yet more non dims for working lights, the whole lot being networked. Note, state of the art in 1973 was 120 channels, in 1984 it was 180, in 2006 it was about 400 with another 400 attribute channels and we upgraded the desk three years later. Has

lighting got too complex? Are we too concerned with spectacle and too little with content or does it simply make life easier?

In retrospect I should have specified more non dims. Moving lights and other gadgets have become more common, even in the last five years. I believe my successor at the College has obtained more non dim modules to allow circuits to be configured as non dim when required.

The Galaxy Nova went to the Clonter Opera Theatre in Cheshire. This is an interesting theatre on a farm. The farmer is an opera enthusiast and over the years developed what was originally a barn with the audience sitting on hay bales into quite a nice little theatre seating four hundred or so on steeply raked seating.

Moving lights came into the standard rigs in both the Opera Theatre and the Concert Hall. At first Source 4 Revolutions in both and then ADB Warps as well in the Opera Theatre. Note that these are both remote control profile spots with little concession to effects. Everyday running of the venues made the ability to remote focus of considerably greater use than the ability to do prism effects or such like. Both types of lantern relied on a scroller rather than "infinitely" variable colour change systems. We didn't find this a great disadvantage for most of our stuff although I suspect that my assistant would have liked a greater choice of colours for some of the jazz concerts.

That was the last significant change in my time at the RNCM. It's interesting to note that the first job for which I was paid was a board operator on a bracket handle board with six extra slider dimmers for the local dance school in Aberystwyth's gala evening. My last job as a resident technician was board operator at the RNCM for a local dance school! I was paid 7/6d for the first one, rather more for the last.

Since leaving the College I've kept my hand in at Clonter Opera and various other venues (including the RNCM). The hire and sales business gets rather more time than it used to. It's an odd experience going to trade shows with nowhere specific to consider when looking at gear although I still look – you never know when you might need something. I have to say though that I am less and less interested in equipment. What matters is the picture the audience sees to help the performer. What you use to get there is secondary.

Philip L. Edwards

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