

BILLY WILLIAMS

SIDE 3, TAPE 2

Al: You were saying about John and Benny coming and helping out

Billy Williams: Yes, it was one of their first feature films in 1966 and of course they went on to become the biggest lighting rental company in Europe. And of course at the same time, Samuelsons were growing in the camera rental side. And during the late 60s and early 70s, British film production largely through American investment was flourishing. And Samuelsons grew and got the Panavision franchise and started to supply cameras for most of the major films. And Lees soon got the majority of electrical work outside of major film studios. It continued that way for some time, until Samuelsons decided there was a good profit to be made out of renting lights and they decided to buy some lamps and set up an electrical department. I can't remember the precise date of this but it was a very important period in the equipment side of our industry. It was a turning point that Samuelsons decided to go into lights, instead of being solely renting cameras. And I think it was probably in the early 70s

John Taylor: Why was it a turning point

Billy Williams: Lees responded by going into cameras and they took Joe Duntan, or offered Jo Duntan a job, Jo Duncan worked for Samuelsons, a very good, very clever camera engineer and a very nice man. They offered him a job to join Lees and build up a camera rental department with Lees. So within a short space of time you had Lees who were mainly in lights but with cameras, Samuelsons who were mainly cameras but with lights. Well they soon became highly competitive to provide the whole package for a film. Now this was alright up to a point, and then the producers realised they were on to a very good thing here and they could play off one against the other to get the best deal. And because both these companies were so much bigger than anybody else in the field, there were smaller companies renting lights and renting cameras, but not to handle the major films. Samuelsons had got the Panavision franchise which was the most popular camera for filming features especially when it went from the PVSR to the Panaflex which was the first small camera with a mirrored shutter,

lightweight camera which soundproofed. So they had had the best equipment coming from America and they had the franchise for Britain and the whole of Europe. So they were on to a very good thing there. But of course they had to pay the royalty to Panavision for the rental of the Panavision equipment. So out of the lighting they were probably making a much bigger profit than out of the cameras. When Lees brought over Jo Duntan Arriflex then brought out a blimped camera in the form of the Arri BL3, which was the first, or the new generation of sound cameras from Arriflex which would accept most makes of lens with the BNCR mount. And that was another turning point as far as the cameraman was concerned. Because instead of using Panavision solely with Panavision lenses, if you had a Panaflex you had to have Panavision lenses. Well not all of us liked that, because the Panavision lenses were in fact a big of a hotch potch. Some of them were good and some of them were really awful. And you had to go through this very lengthy process of going along to Samuelsons in Cricklewood and testing the lenses for quality, particularly the anamorphic lenses. And if you were looking at a 50 anamorphic you might test 6 before you found a good one. So you put the other ones back on the shelf. The next cameraman that came in would test the same lenses you've just rejected, do the whole procedure, throw out the ones he didn't like, so days were spent testing lenses, because the quality was not very consistent

John Taylor: On an optical bench

Billy Williams: No, photographically. Very great difficulty to get into the optical bench to see, so you had to shoot a photographic test. It was all very costly and time consuming, in order to put together a set of lenses that the cameraman was satisfied with. When Arriflex came along and developed the BL3 it would take Cooks, Zeiss, Nikon, Canon, a big selection and the lenses were better. There was also at that time Todd A0. But I never worked with Todd so I can't give you an opinion on that, but I believe that the lenses on Todd were very good. So now Panavision had some competition from Todd, but particularly from Arriflex. And with Jo Duntan at Lees, the camera department there soon started to grow to the point where it was a very real threat to Samuelsons monopoly of the camera side. And the competition grew for the major films to the point where the price cutting became cut-throat. And sometimes Lees and sometimes Samuelsons would win a major film but would be

doing it for so little there would be very little profit in it.

Well this position, although it wasn't a good healthy situation, survived whilst there were a lot of films to be made in the 70s early 80s. But then a few years ago it came to a point business started to decline a little bit and by this time the family feud between the Samuelsons and Lees had become quite serious. It wasn't just a business feud, it was a personal feud. And the highlight, and I think it was the beginning of the end for both companies, was when Lees went to America and bought Panavision. They bought out Panavision for a very inflated price. But by buying out Panavision they deprived Samuelsons eventually of the franchise. But they paid such a lot of money for it. And shortly after that there was a writers strike which meant there was no production in the States for some months and Lees had just bought Panavision and all the cameras were on the shelf. And that was the financial decline of Lees because they'd overspent. The follow up as far as Samuelsons was concerned, was they'd lost the Panavision franchise, so they were back to using Arriflex and Moviecam. And by that time production had declined and in the end, and of course this is the case today, Lees belong to the bank and Samuelsons belong to a conglomerate called Eagle Star of which Samuelsons Films is an offshoot. Of course Michael Samuelson a couple of years ago bought back the lighting side from Eagle Star and still runs the lighting as an independent, as Michael Samuelson Lighting. Sydney is a figurehead, an adviser, consultant, at Samuelson Film Service which still has the cameras.

Al: A sad story.

Billy Williams: It's sad story. And it goes back to this price cutting.

Al: There was also another thing. There was some bribery business knocking around, and some people at the BBC

Billy Williams: That was in the early days, right at the beginning, but then when they went public, Lees went public, this was brought up in the press wasn't it and that was all part of the Lee-Samuelson feud, all that bad publicity. So it is really sad, what we have now, we have the two major rental companies are no longer run by the

original people who created the companies, the film people. They are not run by the film people any more.

John Taylor: How much say did you have as cameraman as to what equipment you used. Did you have complete say.

Billy Williams: Quite a big say now, and for some years I had a big say. But you see, when I started to get onto major films, I have to go back a bit now. Perhaps I should go back now to my first major break in features which was a film called *Billion Dollar Brain* and that was in 1967 directed by Ken Russell. And Ken had just made his first feature film having been at the BBC for some years, it was called *French Dressing* I think. But this *Billion Dollar Brain* was his first film for Harry Saltzman and United Artists, and it was going to be a 3 picture deal. It was a very big budget, it starred Michael Caine, Karl Malden, Ed Begley and Francoise Dorleac.

And I came onto it not as the first choice by any means. Otto Heller was the first choice and he'd gone out to Finland to look at the locations with Ken and with Saltzman and said what he wanted. And came back and the lady production manager called Eva Monley said I think that Otto because he is quite elderly ought to have a medical before we go and shoot in this cold climate. And Otto didn't want to have the medical. And so in the end he decided not to do the film. And then Bob Krasker's name came up but Ken wasn't too happy about that. And he put my name forward to Harry Saltzman. Well I hadn't done a major picture, I'd done 3 or 4 minor pictures. And in fact I showed part of *Red And Blue* the Tony Richardson film, I showed that to Ken and Harry Saltzman and they both liked it and Harry said well, I think we should give the kid a break. And I was 37 years old. So I got my first big break and went out to Finland in fact with the equipment list that Otto Heller had drawn up which was brutes and 10 ks and 5 ks and 2 ks and puts and that sort of thing, but brutes were the main source of light. And we were shooting in daylight, the blue light balance. And at that time I was one of the first cameramen to start using diffused light, even if we were using direct light, I would shine it through tracing paper or reflect it. And I know that Max Greene and Gilbert Taylor had been using this technique in the studio and putting ceilings on sets, but the majority of cameramen at that time were still using direct lighting for most things.

It was the beginning of a period where softer light was becoming more acceptable.

Al: What year was that

Billy Williams: That was 1967. And the camera we had, we had a BNC Mitchell with Cook lenses with this zoom lens, Ingenor zoom and Arriflexes. It wasn't Panavision though, it was before Panavision gained a foothold. I beg your pardon, it was Panavision but it was Panavision lenses on a Mitchell and a Panavision lens on the Arriflex. Because I remember Ken was one of the first directors to actually go hand held with an anamorphic lens on. Because people said you've got this big wide screen, you don't need to get in close so much. And of course the lenses were jolly heavy, enormously heavy.

And it was at that time I became associated with a wonderful camera operator called David Harcourt who you may remember Alan. I must tell you a story about David because he was a well established operator who had worked with Geoff Unsworth and Desmond Dickinson and Jack Hildyard and was one of the leading studio camera operators. And I became very dependant on David who taught me a great deal about the floor procedure and blocking and lenses and so on. And he was also a great diplomat, he was also a linkman, a good bridge between myself and the director if there was a bit of friction over how we should do something or where we should go. David would calm the waters. David in fact was my camera operator for about 15 years. We did many pictures together all over the world. A little while after we first met we were talking about our various backgrounds and I told him I came out of documentary and how I'd been trying for so long to get into features. I said did you know there was a committee at that time under the auspices of the ACTT that had a record of all the feature technicians, which was a good thing in a way, you had to write down all that you'd done and the job that you'd held. I said this committee was alright up to a point but they prevented people like myself getting a break into features, because having been in documentaries I couldn't get a break because I had no experience. And he said funny you should say that, I was chairman of that committee.

John Taylor: The operator was a very important person.

Billy Williams: Yes, well operating, especially the rack over Mitchell was much more difficult than it is today in that one still had to do the awkward shots but you had this problem with the parallax. And you were very dependant on the focus puller actually getting it right, because if the focus puller got it wrong, the chances are that your parallax would be a little bit off, your composition would be off in terms of left and right, because the viewfinder was on the left hand side of the camera and it was moving as the focus changed.

Al: The thing I'd like to ask you now, having talked about Dave, there are some cameramen who like to operate themselves. Would you subscribe to that

Billy Williams: It's a tough question. I certainly would not have wanted to operate myself in those days with that equipment. With the experience I had, because although I had a good feel for composition and knew my lenses, I didn't have much experience of working with major artists on a studio set. And there is a procedure and a way of doing things, and it is very much a team effort, in that I believe today, the way I work today, is that I look to work very closely with the director to create the visual style, and decide on the style in terms of lenses and angles and set up and composition and lighting. And I liked with the director select the set up and then at the same time having the operator there as a third person who is listening and making his contribution but not having the final say about the set up. There are some directors of photography who are only concerned with the lighting and will go away and just light the set and let the operator work with the director on the composition. I can't work that way because I think that the composition is an integral part of the visual process, in that the composition and the lighting go together and that if you're going to create something satisfactory and fully creative then you've got to have the composition and the lighting linked. It's got to come through the same person. So that I like to have an operator who will follow everything that I'm discussing with the director and interpret and make his contribution and lay the track and work out the dolly moves and take care a lot of the details, so that I haven't got the full responsibility of operating the camera.

Operating is a very physically demanding role when you're climbing around the dolly and going from low positions to

high positions it's physically very tiring. And if you're lighting a big set it's physically very tiring because you've got to walk the set. If you're doing a night exterior and you've got 2 or 3 streets, blocks to light, you can only do it by walking with your gaffer. I can never light just by being by the camera, I've actually got to go and make sure that everything is doing what I want it to do. So that means you've got to leave the camera, so during that time when I'm not with the camera the operator is doing his job of putting things together with the grip and so on and making all the adjustments to the composition and props sorted out. And then I'll come back to the camera and see how he's got on. We work together as a team, but I think to do the whole thing on your own, I think it's possible on smaller films with small budgets without huge sets to light, and perhaps without major stars that require a lot of attention. Because I think when you work on big budget films where you have got international actors and actresses which have to be looked after psychologically as well as photographically, then the cameraman has to spend time doing that and make sure they're happy and looking the way they want to look. You get involved in art direction and colours and wardrobe and you can't attend to all these things while you're looking through the camera. So I think on the major films that it is wasteful to try and do both, because you slow down and I don't think you can do both jobs as well as two people can do it. But there is quite a movement these days to engage a cameraman who will operate because the producer likes to save somebody's salary. And what has happened in recent years is that the operator is being excluded more and the actors are being paid even more astronomical sums and there are more and more producers, co producers, executive producers, line producers, associate producers, more accountants. There are more people above the line, and the budgets above the line and less being spent below the line, on most occasions, not always.

Al: On lighting, what is your position about meters. What kind of meters do you favour

Billy Williams: I use a Spectre incident light meter which I've used for many years, and I'm very happy with that. A lot of people are using the Minolta now as an incident light meter. But I've stuck with the Spectre and I'm very happy. I use that most of the time. If I want a reflected light reading, then I use an old Western master 2 that belonged to my father which is about 50 years old and is

the Rolls Royce of reflected light meters. It's a wonderful tool. There are people who use spot meters these days and I'm afraid I don't get on well with them, I find they give me too many different answers, too much to work with. I'd rather just take a reading of a particular area and then decide whether I want that to be correctly exposed or under or over exposed. So I really work with the Spectre, occasionally with the Western, especially if I'm working on exteriors with a lot of trees. I think you can easily underexpose forest woodland scenes if you just rely on an incident light. I also use a Minolta colour meter to check colour temperature.

So going back to *Billion Dollar Brain*, at that time I was still working without an agent, and I was doing pretty well by then, I was getting, I got £300 a week, for a 5 day week in 1967 which was quite good for a young cameraman. And there was an agent called Denis Selinger who was Michael Caine's and Peter Seller's agent, and a whole lot of other big name actors. And a few years earlier I'd been along to Dennis Selinger and showed him my commercial show reel and he looked at it and he didn't get me a job. Well whilst we were shooting *Billion Dollar Brain* he came out to Finland to see Michael. And he said how would you like me to represent you now. So I thought about it, I thought I'll give it a whirl. And the next picture that I got was called *The Magus* which was also starring Michael Caine, and Dennis Selinger did the negotiating for me. And he got me £300 a week for a 6 day week. I had just come from getting £300 a week for a 5 day week, and then I had to give him 10%. So I was in fact worse off, one picture further along the line I was worse off. But anyway I stayed with him for a little while but not very long because I thought this is not very good business.

But of course the director of *The Magus* was Guy Green who was a lovely, lovely person to work with. And it was a fascinating subject, a novel of John Fowles. I don't think we got the film quite right but it was a great experience working in Majorca which doubled for Greece. And working again in anamorphic and it was about that time that I decided to sell all my camera equipment which was a mistake really because of the Cook lenses, I had a wonderful set of Cook lenses. And at that time, because we had the anamorphic, the Panavision mount, you couldn't use something which wasn't Panavision. So I decided to sell all of my equipment and concentrate on photographing and it

wasn't until a few years later when Arriflex brought out the BL3 that you could in fact take those old Cook lenses and remount them with a BNCR mount and put them on the BL. And in fact from about 1984 until the present day I have been using Cook lenses, those old Cook lenses which are some of them 25 years old, Cooks B panchros, I've been using them on the Arri BL 4 as it now is. And I think they're just wonderful, wonderful lenses. They're T2-3 so they're not as fast as Zeiss but I just love the quality. And of course the tragedy is they're not making them any more because some years ago, I'm not sure exactly which year it was, but it was about the time that Cook brought out the 5-1 Varitol that somebody at Leicester decided there wasn't going to be a future for prime lenses and that movies in the future would all be made with zoom lenses. So they brought out this lovely 20 to 100 and the 25 to 250 zoom lenses and they stopped manufacturing the Cooks B panchros prime lenses. Well not only did they stop manufacturing them, they destroyed the moulds. And I think everyone to this day regrets it because there are many cameramen around the world, myself included, who still feel that they're the best lenses. And you can't get any more. They made an awful lot and there are various people including some people called Van Damen Optics who are still buying up the old ones and having them repolished and recoated and remounted and fitted to the Arriflex and the Moviemac, and they're lovely lenses, lovely quality. You've used them, I'm sure, haven't you

Al: Oh yes, I think right the way through my career it's been Cook lenses, apart from we did have a Mitchell that had, I forget the name, they were German, it will come back

Billy Williams: Zeiss, Schneider, Mullensack

Al: No, it will come back.

Billy Williams: Astro

Al: That's it. But they weren't sharp.

Billy Williams: Astros weren't sharp.

John Taylor: All you Rolls Royce people, what about Ross lenses. All the Newmans were fitted with Ross

Billy Williams: Yes, that's right. My father had Ross lenses. But then they didn't develop, they didn't seem to go any further in the movie field.

Al: 4-5

Billy Williams: Yes, they were slow weren't they.

John Taylor: But some of the quality of those early films shot on Ross lenses is very nice. They had a kind of diffused, they weren't sharp like Cook

Billy Williams: You should talk to David Watkin about the Ross lenses because when David did *Charge Of The Light Brigade*, he and Tony Richardson decided they didn't want the picture to look too sharp and modern so David took the Panavision cameras and put Ross lenses on them, to get that very soft quality. And it was a very bold step at the time. Everybody thought he was crazy, but it did create a very different look. Mind you the long shots never looked very sharp but the close ups were nice.

Al: What is your general opinion about the use of the zoom.

Billy Williams: Well I think the Cook 20 to 100, the vari panchro which is now available in the 18 to 100 form, varitol, sorry it's the Cook varitol. And there is a 20 to 60, 3 to 1, Varo panchro which Cook made for a few years and they developed it to try and have a hand-held zoom. It's only about half the size of the 5 to 1, 20 to 60, 3-1. I bought one because I thought it such a lovely little lens. It is slightly superior optically to the 5 to 1. It is also a little superior mechanically. But it didn't catch on because it stopped at 60mm. But nowadays people who use the Steadicam like to have one because you've got Steadicam with a zoom that's not too heavy. My feeling about them is that for an awful lot of shooting they're very good. I think the prime lenses still have a slight edge optically. The prime lenses of course, focus much closer than the zoom, although the Cook panchro does focus down to 2.3 I think. But then if you want to go close than 2.3, you've got to put a diopter on. Whereas the Cook primes which have been remounted by people like Jo Dantan and Van Dammen, they'll go down to 6", 9". You can in fact start a shot on say a 32, at 9 inches if you want to on a detail of something and come back to infinity. And that is really nice to be able to do that. So that's something you can do

with primes. Also if you're in a very tight confined space then you're better off with primes, because the zooms sticks out such a long way, especially if you're using the Arriflex with the magazine on the back. The distance from the back of the magazine to the front of the lens is about 3 ft. So that the prime lenses are still very much in demand. And there was a period when zooms first became popular, and I'm thinking of some of the films that I did in the late 60s, early 70s when one used to use the zoom as a zoom quite a lot and it was fashionable both in features and in commercials. And then it had its day and people said I don't want to keep zooming, let's go back to tracking and if we want a zoom, we'll track and zoom and combine the 2 so that you don't notice the zoom. So that today very often people put the zoom on and use it as a vari focal, to save changing the lens all the time, thinking save a little bit of time. Of course it is not quite as fast as a prime, 3.1 or around that aperture. Although Panavision have brought out a very nice little Primas where the zoom is 2.3 which is very fast for a zoom. The other thing about the zoom is that because it has so much more glass you're inclined to get a little bit more reflection, especially if you're working against a very bright sky, that you can get flares more with a zoom than with a prime.

Al: It is also very difficult for sun boxes

Billy Williams: Flagging, keeping flares out. But for speed and versatility, particularly if you want to pick up some action scenes, and the operator wants to have control, he can do the zooming and operating himself. So I think they're certainly here to stay. But I think many of us regret the fact that Cook don't make primes any more and that if you want primes you've got to use Zeiss, which some people find a bit too hard, a bit too contrasty, or Canons, or Nikon which is a fairly hard lens. But the lenses which are becoming very popular now are the new Primas which were made I think by Leitz in Canada. And they fit on the Panaflex, and they are beautiful lenses, 1.9 prime lenses, and they're lovely quality.

Al: Can we go back and talk about working with directors

John Taylor: Let's go back to *The Billion Dollar Brain* for a while. We kind of went off that. Any more to say. Caine must be a nice man to work with.

Billy Williams: He's lovely, he's lovely, wonderful sense of humour, he's always Michael Caine, off and on the set, a great raconteur, and he has become an international star now. But in those days he was a British actor. And he is just lovely and easy to work with. He's not very athletic. He doesn't drive and he doesn't do stunts. But Ken who was pretty crazy in those days and had come from the documentary field where everything had to be for real, didn't want to use any doubles. So in Finland we had scenes to do in the deep snow and on the ice flows and he insisted on Michael Caine doing all the stunts even in extreme longshots. And there is a shot in that film which is on the frozen Baltic. And what happens is in the winter the sea freezes and the ice breaker has to come through daily to break up the ice to let the shipping to come into Helsinki. So what you have is a channel of water and then iceflows either side before you get onto the frozen sea that hasn't been broken up. Well you can walk around on these ice flows but they move. And there is a shot in *Billion Dollar Brain* of Michael jumping from one iceflow to another, one slip and that's it. I don't think he's ever done anything like that since. But Ken insisted that Michael did it. Very dangerous.

John Taylor: Especially with the lead in a film.

Billy Williams: And another scene we had on that, of course it's January, we're there January and February which is the coldest time of the year. And it was extremely cold for most of the time, and then for the first time in 200 years at the beginning of February, the first time in 200 years it thawed. And all the snow started melting so they had to send lorries out into the countryside to bring in snow and we still had one important scene to do on the frozen Baltic, where a helicopter lands and the Russian agent played by Oscar Homolka, steps out of the helicopter and has a dialogue scene with Michael Caine on the frozen sea. Well the temperature was above freezing and I remember driving, driving in a vehicle and leaving the land and driving onto the frozen sea and going across a crack about a foot wide which led all the way out all the way from the land out to the sea. And somebody put some planks over this crack and we drove over this plank and went about a quarter of a mile out to film. And they said it's alright, don't worry, the ice has been tested. I said what do you mean, it has been tested by the ice doctor. And what they do in places like that is that they have a guy who has got a

giant corkscrew. And he drills it into the ice and he comes up with a long piece of ice which was about 2 to 3 ft long, just like a great cork, about 6 inches in diameter, this long piece of ice and he studies the quality of the ice and tells you if it's safe. And there we were a full crew, a generator, a helicopter and all the actors out on the ice with it thawing, with water slapping around everywhere. That was a bit unnerving but we didn't have any mishaps. But then having shot amidst this wonderful scenery in the snow, we then had to come back to Pinewood and match the snow scenes. Because there are a lot of scenes intercutting the location work with exteriors on the lot at Pinewood with false snow and then the climax of the film is that these oil tankers, these vehicles which are supposed to be oil tankers but in fact contain troops are going to invade Russia across the frozen Baltic. And they all contain rockets and electronic equipment and led by this lunatic oil millionaire played by Ed Begley. And in fact what happens is that on their way across the ice it all breaks up and some say it is a copy of Alexander Nevsky where all the horses go into the ice and are drowned, that the ice breaks up and these tankers fall into the ice and the men try and get out and get drowned. Well some of that was done in Finland on location and some of it was done at Duxford with 200 tons of snow on the runway and some of it was done in the tank at Pinewood with polystyrene blocks. But it all came together quite well.

John Taylor: Ken Russell sounds quite a character.

Billy Williams: Ken is a tremendous character, great visual director, wonderful ideas. And not long after, after *Billion Dollar Brain*, I did *The Magus*, and then a film called *The Mind Of Mr Soames* with Alan Cook, who was a television director, Terence Stamp playing the lead and we did that at Shepperton. But then my next major picture was *Women in Love* with Ken directing a DH Lawrence novel. And that was in 1968, 1969. And that was really the best visual script I was ever presented with.

John Taylor: Who wrote the script

Billy Williams: The script was written by Larry Kramer, adapted from the Lawrence novel, with Ken making some alterations. United Artists backed the film and it was a huge critical success and quite a good commercial success.

John Taylor: On that would you have chosen your own crew

Billy Williams: Yes, well I had David Harcourt, who'd done *The Magus* with me and *Billion Dollar Brain*. Steve Claydon was the focus and Danny Filmadine was the loader. And George Cole was my gaffer, electrical gaffer, who was at that time was with Mole Richardson and George Cole is still working with me. So it's a few years on and I've managed to keep the same gaffer for a long period of time.

John Taylor: Tell me about the relationship between the lighting cameraman and the gaffer

Billy Williams: I rely on George very much. I'll tell him what I think I need. We go round the locations, the sets and we'll assess what we think we need and what the generator, if we've got one generator, what the generator will carry. How much lighting we need for daylight shooting which in those days of course was brutes but one doesn't use brutes very much now, one uses HMI lighting to balance the daylight and for interiors of course we still use normal tungsten. So he'll put together a package which a generator will handle and we think will be enough to cover every eventuality. And sometimes if one has got a big night shoot, then you'll bring in another generator and some more big lamps and some more men. But most films are crewed on the basis of say 1000 amp genny, half a dozen electricians.

John Taylor: When does the gaffer come on, does he come on pre production

Billy Williams: He usually comes on a week or two beforehand. In America, and I've done a lot of pictures in the States, they always give you more preproduction time than in England, in England it's one or two weeks. In America it's usually four for myself because they attach much more value to preproduction, planning, being ready, testing, testing artists, make up, hair, wardrobe.

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Billy Williams: George has taken care of the electrical side and I suppose over the years you develop an understanding of one another's needs and he gets used to my style of lighting and is able to anticipate the equipment that I'll need and is able to rough in the lighting for me on a set and certainly has been a great asset. When I first started working in the United States I wasn't able to take him with me, so I had to start all over again with an American gaffer. And of course in America they work a very different system in that the grips do all the flagging and the setting of reflections and the setting of diffusion and shading is all done by the grips. Whereas in this country, the electricians set all the lamps and they set all the shading, so that it is a different method. So one kind of has to get used to one is dealing with more people in fact than in America to do the same job. But these days it's very difficult to keep a crew together, particularly a camera crew, because so few films are being made. But at least with commercials I've been able to keep George with me and I've been very thankful for that.

I'd like to go back to the first time that George worked with me which was *Women In Love*, my second film with Ken Russell. And it was the best script in visual terms that I ever read, that I was ever asked to photograph because it had just about every situation you could wish for photographically but without any special effects or process work. There were no effects of that kind. But I mean it had day interiors, day exteriors, night interiors, night exteriors, dusk, magic hour, candle light, fire light, snow scenes in Switzerland, English countryside, day for night photography. So there was just about everything there one could wish to achieve in one subject. And I was very fortunate in that I was nominated for the Oscar for that, for best Cinematography and also nominated for the Best Cinematography for the BAFTA award. Unfortunately I didn't win either. Freddie won the Oscar for *Ryan's Daughter* and Jerry Turpin won for *Oh What A Lovely War*. But I think it is probably the best work that I've done in it's time, I think the film I'm most pleased with, not that one is ever totally satisfied. But it is one I can still look back on and feel well it holds up well as a film and it still looks OK. Although I did show a 16mm print to some students in America recently and the colours had all faded dreadfully.

John Taylor: In 16mm

Billy Williams: In 16mm it was all red and I was so disappointed because here I'd been talking about the photographing of this film and said we're going to look at it and talk about how the effects were achieved and all the colour had gone. The most famous scene was the wrestling, Oliver Reed and Alan Bates wrestling in the nude in front of a great log fire which was filmed on location in an old country house in Derbyshire with huge logs burning which gave quite good exposure. But of course one had to supplement that with lighting and I remember that I had 5 ks on each side of the fireplace to try and create the source of the light. And we had orange filters on the lamps to warm the light. And George and a couple of other electricians standing there shaking branches of leaves as unsteadily as possible. It's much better if you've got an electrician whose had a bit of a night out before so he's nice and unsteady so you get this trembling effect which produces a very good likeness to firelight. For the actors it was a very difficult scene to do. Alan was wonderful. They had both trained for this. Oliver is a very strong guy. But Alan had trained and got himself into shape and was taking it very much more seriously. Whereas Olly had insisted on having half a bottle of vodka and was very embarrassed that his donger wasn't quite as big as Alan's. There was much jest about this. And they would only do the full nude scene one day with two hand held cameras. And we just got some supply of the new fast film which was I think was 5-2 or 5-4, anyway it was the first of 100 ASA film, whereas prior to that the colour, Eastmancolor was 50. So we'd gained a whole stop and we were getting 10,000 ft at a time of this new fast stock. So I kept it all for the low light scenes like the candle light or the firelight scenes, and we shot it with two handheld cameras. And then next day they needed some more coverage but they would only do shots from the waist up, they wouldn't ever again do the whole day nude. And then weeks afterwards when Ken had edited the film he wanted to build the sequence up even more and shoot some slow motion. So we went into Merton Park Studios and recreated the same atmosphere in slow motion. And of course it is one of the most famous scenes in cinema I suppose. Anybody whose ever seen it, doesn't forget it.

It was wonderfully exciting working with Ken. And just after that he was going to do a story called *Nijinsky* for Harry Saltzman for United Artists. And United Artists

wanted Nureyev to play the lead. And Ken wanted Christopher Gable who had been the lead dancer with English Ballet or Royal Ballet and had just become an actor. Ken wanted to use Christopher and United Artists said no we have got to have Nureyev. So Ken met Nureyev and they didn't get on at all. I remember Ken coming back and saying I can't possibly work with him. So we shot tests with Christopher Gable but we didn't make the film. Although years later Ken was to go on and film Valentino with Nureyev which was a disaster.

So we didn't make the film and about a year after that Ken got a script called *The Devils* which he asked me to do. And when I read it I really didn't think I wanted to shoot it because it was going to be sexually I think very indulgent and very specific and it just didn't appeal to me. So after a lot of heart searching I turned it down. He then offered it to Dougie Slocombe who also turned it down for similar reasons. And finally it went to David Watkin who photographed it.

And Ken Russell didn't ask me to work for him again for 18 years. And 18 years later he filmed *The Rainbow* which is the DH Lawrence before *Women In Love* about the same family, but 20 or 30 years earlier. And he asked me to photograph that one with the same production designer which I was very happy to do and enjoyed doing very much. And there is a scene right at the beginning of *The Rainbow* where Glenda Jackson where in *Women In Love* played Gudrun, Glenda Jackson is playing the mother of Gudrun in *The Rainbow* and she is bathing the little Gudrun on a bowl on the kitchen table. And they wanted a baby of a few months old. And so my first granddaughter was the right age, so my daughter Clare brought Amy in to be in the bath and play the scene, which is a lot of coincidence, because as I said before Clare is the 3rd generation behind the camera, and Clare's husband Matthew he's a third generation actor so here was Amy in front of the camera 4th generation actor. Who knows what she is going to do but she just loves being filmed. And one of the things that Ken Russell has taken to doing now is operate the camera which doesn't always work out to the advantage of the film, because although he composes the set up beautifully, knows what he wants, when it comes to actually operating the camera, he doesn't always get it right. And he's got an absolute phobia about headroom and if he's just a couple of mm out on the headroom, he'll do the take again, regardless of the performance. Well Amy got into the bath and loved the water you see, and was as good

as gold, chuntering away for several takes, but during the course of the scene she is supposed to cry. And it was 18 takes before Ken actually got the performance right and the operating right, by which time Amy was absolutely purple with rage. She'd been crying so much.

And this worked alright for the scene, but when I came to grade it, you start on a shot of Amy in the bath yelling her head off purple, and pan up to a shot of Glenda Jackson, the first close up of Glenda in the film, of course when it came to grading, there wasn't any way that I could get Amy looking anything other than purple because I had to get the right colour on Glenda. So we have a purple baby in the bath. But *Women In Love* is a film that I've shown many times to students. In the last 10 years I've been doing film lighting and cinematography workshops for students at the National Film and Television School, Beaconsfield, and also at the International Film Workshops, Rockport, Maine where they sometimes have classes as many as 40. And I did a workshop in Munich this year and next week I'm going to do my first one for advertising creative people, art directors and so on and young directors.

Al: Where is that on

Billy Williams: We're going to a hotel in the Cotswolds, Ligger Arms in Broadway where there are some lovely settings. And we're going to do some experiments with lighting and composition

John Taylor: Using which film

Billy Williams: 16mm film, we've got Kodak and Agfa and Fuji to compare. And these tests I find very inspiring and a lot of fun and an opportunity to test things out and to have questions asked about how you approach a subject, how you light a set, what's your relationship with a director. Questions that don't get asked on the set because everybody has their job to do and their isn't time to go into all those things.

John Taylor: It helps to clear your mind I should imagine.

Billy Williams: Yes, yes it does. It's very beneficial, and I find I'm doing it increasingly and it's good fun.

John Taylor: Tell us more about the National Film School, your work there.

Billy Williams: I went there, the first time was about 10 or 12 years ago. And of course the intake there was about 25 a year, 25% have to come from abroad. So of that of those 25 there may only be 4 or 5 who are concentrating on camera and those are the students who would work with me, would be in my workshop. Sometimes a director will come along, but what usually happens is that I'll have about 8 or 10 people from perhaps 2 or 3 different intakes, because they only take in once a year. And we'll go out on location in a house or an old building or something and just film various exercises of lighting or tracking, composition.

John Taylor: How long does the workshop last

Billy Williams: Sometimes a week, usually a week. But when they're had enough money, we've done it for two weeks. But it's fairly expensive and I haven't done one for two years. But there was a time when Ossie would do one each year in the studio, Ossie Morris, and I would do one on location, so the students got a different approach, a different point of view, different techniques, different requirements from working in the studio to working on location. And I think they were very useful.

John Taylor: And then you see the rushes and analyse them.

Billy Williams: Yes, we'll see the rushes in the theatre and analyse them, everybody would have a turn at lighting or operating. I would help them through the difficult patches. But it was very much an experimental and learning how to use light, learning how to make decisions because that's so much what a cameraman's job is about, actually making a decision to put a light there to do a certain job, to go for a certain style or a certain look, and having decided how you want a particular scene or a movie to look, to be able to stick with it and maintain a consistency of photographic style for the scene. Sometimes when you're up against adverse weather conditions that can be very trying and needs a lot of patience, and needs the support of the director too. If you have the support of the director I think who can understand if you're up against the problem of matching, and it's important for the scene that the lighting should match, because if you get violent changes of light, changes of weather in the middle of a scene on

location, which is supposed to be a scene in strict continuity, it can be very distracting and harmful to the scene. So that one does need the cooperation of the director and the producer too if you've got problems with weather. But very often of course there isn't the time of the money to be able to get perfect matching, that's where one needs a lot of skill and invention and lights on location to help you when the weather changes adversely.

Al: Do you get much help out of the lab in situations like that.

Billy Williams: There is only a certain amount the lab can do with colour film. With black and white, of course, you could affect the contrast by changing the development but with colour stock unless you want to force the development to try and increase the speed which isn't a very satisfactory method.

Al: Have you used the mercury method to increase the speed at all

Billy Williams: No I haven't. Of course quite a lot can be done with colour timing to help things to match. But if you have a big change in contrast like going from strong sunlight to overcast then you have got a problem trying to match. And one just has to use all your ingenuity and whatever resources you've got to try and make it match.

John Taylor: When you get a script how much preparation work do you do on it before you start shooting.

Billy Williams: When I first get a script, I'm building pictures in my mind of what it might look like and then when I meet with the director and the producer and we talk about it, offer me the job say, then the first thing I like to do is see the locations, if it's a location film, and a lot of my films have been location, both exterior and interior. In fact more of my films have been location than studio. I prefer working on location, I prefer the excitement and the stimulation and the changing environment. I love going to countries where I haven't been before and trying to capture the feeling of that place. So the location reccie is terribly important to get a feel of how you want the film to look, how the film should look, what is the essential quality about this particular place,

what is the light like, how much has it changed during the day, how much can you depend on it.

When we shot *On Golden Pond* which is an area of lakes and mountains in New Hampshire, they say if you don't like the weather wait 5 minutes, it's as simple as that. It's changing the whole time. Well you need a director on your side who's prepared to wait those 5 minutes. Because if you go somewhere like Mexico where I've done two movies, you can be pretty sure it's going to be sunny most of the day, strong sun, and at night, evening, magic hour, you're going to get wonderfully dramatic clouds building up. You can predict the pattern, the clouds start building up in the late afternoon. So you can plan your day knowing how the weather is going to be. But of course in so many places that's not possible. So that I think part of the job of being a cinematographer is being a prophet as to what the weather is going to do, how best to use it to your advantage and plan the schedule accordingly.

John Taylor: How closely do you work with the art director

Billy Williams: I like to work very closely with the art director. Because he's going to be in there at an earlier stage preparing his drawings and working on sets that might be required on the location. I like it best when I'm engaged at the same time as the art director, even if it's only for a week or so, to go round with the director and the art director and pin point certain things and make decisions about what's good, what should be used and what needs building. So that one has a chance at an early stage to share one's views with the director and the art director and sometimes costume comes in but not usually to a later stage. But very often what happens is, partly for reasons, economic reasons, but mainly through lack of decision, is the cinematographer is not taken on until terribly late in the day.

The last film I did which was called *Shadow Of The Wolf*, is the story of the Inuit people and it's supposed to be set in the Arctic. And in fact 3 weeks of the shooting were done in the arctic in March. But the majority of the film is shot in a huge quarry just outside Montreal where it had been decided to build an Arctic village, igloos and so on in a quarry 100 ft deep. And also another area in the quarry where they created a whale hunt with a mechanical whale and icebergs about 60 ft high, where our hero Agaguk

has to hunt and kill the whale with a harpoon. Also throughout the film he has to kill the white wolf in combat at night. And he also had to kill a polar bear with a knife. And all of these 3 action scenes were extremely difficult to shoot, particularly because we undertook not to harm any animals, although we did have to use a polar bear and a wolf, we never used a whale, it was all a mechanical whale. So it was difficult to get rid of all this realistic and believable and planning was terribly important. Well the film should have been shot they year before when they engaged the art director, so that when I came to the project he had been on it a year off and on, preparing and making decisions to do things in a certain way such as shooting in a big whole in the ground. When I came on 3 weeks beforehand I had no chance to voice an opinion about how we should do it. And in fact the hole in the ground turned out to be an absolute disaster, because although he'd planned things as well as he could and the Canadian winter in Montreal is particularly severe, there are times when it thaws and what he'd done is he'd built this village in a big hole and created walls of ice all the way round by running water at night until it froze. So we had these great cascades of ice which looked wonderful. And we started shooting and it was fine. And then it thawed and the ice all disappeared and we were left facing black, by which time we'd run out of weather cover

John Taylor: What's weather cover

Billy Williams: Weather cover is things you can do when the weather is bad and you try to schedule a film so if you've got a lot of exteriors to do and you require a certain type of weather and the weather turns bad, like it thaws, then you go into the studio and shoot scenes which are called weather cover which allow you to keep working even when conditions are unfavourable outside. So you use the weather cover and when conditions outside improve you go back to the location. Well all we could do was shoot a few close ups and wait for it to get cold again so they could remake everything. Well hat happened 3 times. And I was particularly frustrated, because not only was there that problem, there was also the problem of the sun, because there was always a shadow over part of the village and it was changing throughout the course of every day, if it was sunny. So I had an additional matching problem with this giant shadow. Also, I had no true infinity, I could never see the horizon. So it was I think just a big mistake.

John Taylor: Had the designer done any other films.

Billy Williams: It was a well known art director. I think he had been persuaded to do it this way by the producer who wasn't prepared to pay a bit more for travelling time to shoot it somewhere where there was a horizon. It would have meant travelling a bit further to build it somewhere where it was reasonably flat and without buildings or trees. It is supposed to be above the tree line, the real location. So we were always struggling to get the best out of this location. And it wasn't until we went to the Arctic in March, that we saw what it really should be like. We got some wonderful material there which had to be integrated with the scenes in the quarry.

John Taylor: It sounds even more difficult to do it that way around than to do it the other way around.

Billy Williams: Yes, and the bear fight was a particularly difficult scene, which caused us endless heartaches, because at the beginning of the film our hero comes back on a sledge with this bear that he's killed in combat, and he feeds the people who are very hungry. And the bearskin his father gives to the white man whose trading liquor with them, he gives him the bearskin to pay off his debts. The son who killed the bear gets into an argument with the white man and kills him in a fight and has to flee and leave the village, and the father puts the curse of the white wolf on him. And the white wolf haunts him throughout the film to the point where he has to fight the white wolf in order to prove his manhood and get rid of this curse.

But the bear fight was something which had not been properly addressed because there are no tame polar bears in Montreal where you could rely on the bear doing a specific action. There were some bears in South America and the producer did a deal with the trainer and paid him a large sum of money and was going to bring the bears up to the location in Montreal and we'd find a way of shooting you see. Well this negotiation went on for some time, the chap got his money and then he started laying down all the conditions about to how it had to be done, in that there had to be a 12 ft wire fence all the way around. Since this was supposed to be in the Arctic and we were going to go to a location where it was flat, you could hardly do a scene with a fence around.

So carried on shooting and we got to the point where it was time to go to the Arctic for the last 3 weeks of shooting and we still hadn't actually done the bear fight because nobody had worked out how to do it. When we got to the Arctic, the producer said I'm going to send you a giant and a polar bear skin and you can put the giant inside the polar bear skin and you can fake it all on the location with these wonderful vistas and build an igloo. And what happens is that our hero, Agaguk, is supposed to be asleep in the igloo in daylight and the bear attacks the igloo and there's a shot cut of the bear's paw coming through the igloo and then the head of the bear appearing in the hole. And Agaguk wakes up, jumps, tries to get his rifle, the bear comes in, breaks on the igloo, treads on the rifle. Agaguk gets out and then draws his knife, attacks the bear and kills it. But there is a lot of cuts required there. Well they sent this guy, he was an American wrestler and he came up to the Arctic and I've never seen anything like it, he was 7 ft 6 tall, was beautifully built and he weighed 29 stone. And he was a lovely genial intelligent guy, but he was enormous.

Well first days shooting with him, we went out on location and they had to sew him up inside this polar skin but without the head and lay him out on a big sledge and tow him to the location which was half an hour away and we were out on the frozen sea. So I remember going to work and going past this sledge with this polar bear lying there on it's back, being towed along. When we got to the location, the guy had to walk from the spot where he got off the sledge to the set you see, and this polar bear skin weighed 200 lbs. So that by the time he got to the set, he was absolutely bathed in perspiration although it was cold but with this great rug on he was boiling. And they got a huge packing case for him to sit on, whereas a normal person would sit on a box he was sitting on a packing case. And he said, I've got to have a cigarette and somebody lit up a cigarette for him, and I've got this still picture of this huge man smoking a cigarette, without the head, just a polar bear smoking a cigarette. And then when they put the head on of course he was another foot taller. And we got away with certain shots which are in the film, but the rest of the scene they had to find a real polar bear and it finished up with the second unit going to Moscow, getting a bear from the circus, who had never been out of captivity, taking it to Siberia, and filming it. Well they got the

material but it was agony. When the bear got there, it was so disorientated, it hit the trainer and broke his nose. And the bear looks a bit yellow because their fur changes colour, but the scene works, rather surprisingly it works and it's in the film.

John Taylor: Going on with cameramen's relations to the rest of the people, what about your relationship with actors and actresses, especially the leads, how closely do you work with them. Do you consult with them.

Billy Williams: Well one consults with them and does photographic tests about how they're going to look. The cinematographer doesn't get involved in performance, the interpretation of the dialogue. But you have a big responsibility for how they're going to look and if you're working with shall we say big name, particularly ladies, who might be in their early 40s and still want to look 29, then they are relying on the cinematographer to do the job, together with the make up and hair to an extent, but it is good make up and the right photography.

I've worked with several leading ladies at a time when they were well past their best as regards looks, I mean Elizabeth Taylor, Faye Dunaway, Cher, Bette Midler, not that she was ever a great beauty in that sense but a very difficult face to photograph well, so you do have quite a responsibility to portray them, usually looking much younger than they actually are, but also in character. And sometimes it does affect the photographic style, because to photograph ladies of that age and try and make them look their best you do have to employ rather flat lighting, and if you're making a thriller for instance, the film I did with Cher was called *Suspect* which was a thriller, then it's, you have to somehow find a way of integrating the flat lighting style for the leading lady with a more dramatic lighting style that the film requires, so it is something of a compromise.

John Taylor: Do they come and see the tests at all, would you show them the bests

Billy Williams: They'll usually come and see the tests, but most of them after they've seen the tests don't come any more. They might send their personal assistant or the make up man will come, but of course the producer will come and the director. I mean Katharine Hepburn, she just came the

first day to see the tests and didn't come again. I think probably the most difficult one in recent years has been Faye Dunaway, I've done a couple of films with her. On the first film which was *Voyage Of The Damned* it wasn't too difficult, but a few years later I did another film called *Ordeal By Innocence*, and she was several years older, and she goes round with a mirror and looks at herself in every position on the set. And all the cross light has to be kept off her face so she is only hit by front light.

John Taylor: She knows enough

Billy Williams: She knows enough to go round and see if, even if it's just a little bit of stray light coming and catching a light on her nose or across her cheek which might show up a blemish or something or other, and everything has to be flagged which is pretty time consuming. But they become paranoid about their looks. On the other hand you get somebody like Glenda, Glenda Jackson and she's lovely, she doesn't mind at all. You do your job, she never worries about whether she's going to look glamorous or older or younger or whatever. She plays the part according to what is required and let's everybody get on with their job.

Al: Isn't that the difference between an actress and a film star

Billy Williams: Probably

Al: Have you ever had the occasion when you're working with a new star, the first time who will say to you I always have the light there.

Billy Williams: Faye Dunaway knew where the light had to be, yes.

Al: Did she say it.

Billy Williams: Yes, she said it, but then I knew anyway. But it wasn't, the difficult thing with Faye was even if she was moving round the set, every position, the light had to be in just in exactly the right place, that means a big compromise on the rest of the photography. Of course, if you're working with younger leading ladies in their 20s or 30s you haven't got the same problems because the eyes and so on haven't started to show the age. So it is much easier

with younger women. With men I haven't had so much of a problem, with a few exceptions I suppose there isn't quite the same

Al: We don't have the matinee idols now do we

Billy Williams: No.

Al: Who always have to show the right profile.

Billy Williams: When I did *Gandhi*, it was a different thing in that Ben Kingsley who was 36 when we shot the film and he has to play an age range from 27 to 76 or something when he was assassinated. This was done mainly with acting and wonderful make up by Tom Smith, a certain amount with lighting but I don't consider that mine was the contribution that made him look the old man, he did it. And there were several occasions on the set when he was the old man when we'd rehearse the scene and he would be there very bowed, looking frayed and tired and everything, and I'd say look Ben, we're going to be 20 minutes or half an hour, would you like to sit down. I was convinced I was with a very old man, and he would just shake his head and smile, because he was a few years younger than I, he was 15 years younger than I was. But he was the character the whole time, when he was the old man he was the old man off and on the set, he didn't let it go.

Al: Let's talk about your Hollywood experience.

Billy Williams: It's actually not really a Hollywood experience. I've never actually shot a movie in Hollywood because of the union. You see in America there are 3 branches of IATSE which govern the camera. The main one is 659 on the West Coast Hollywood. There is one in the middle called I think 633 which is based in Chicago. And the second most important is 644 in New York, which covers all of the East Coast. Well I belong to 644 and have been since the 1981, so I can work anywhere on the East Coast or in the middle but I can't work in Hollywood because they've refused to accept me as a member of the union. There are very few Europeans who are a member of the West Coast union because they wanted to keep us away. I think it is possibly going to get a bit easier now because the power of the unions is breaking down. And also there is a talk of a merger between the West and the East coast unions which would allow us to work in each other's territory so to

speaking. But I first worked, perhaps I should be a little bit more chronological about the films. We're got up to *Women In Love*.

John Taylor: Is there anything more about the making of *Women In Love*. Any stories like jumping from ice flows or polar bear skins, or anything like that with Russell.

Billy Williams: Ken would always want absolutely everything from the artist and the crew regardless of the danger. And you frequently do get involved in scenes which can be potentially dangerous. And there was one such scene which didn't finish up in the movie I'm afraid. But it concerned Oliver Reed riding a motor cycle with a side car. And Oliver Reed is driving and Alan Bates is on the pillion and Glenda Jackson is in the side car. And in order to do this scene we had to put the whole contraption on a low loader with the Mitchell camera, the BNC and the crew. So we had a lot of weight. So we filmed this scene of them supposedly travelling through the countryside in Derbyshire. And it was very hilly up and down. And we got this very low loader being towed by a Landrover.

And Ken kept wanted to go faster. We'd done several takes and he wanted to go faster all the time. And so finally we did another take going faster. And we're bowling along and it's beginning to feel a bit unsafe. And I looked forward and see the front wheels of the Landrover were actually off the ground because there was so much weight at the back, and we were going so fast that it had tipped the Landrover and the front wheels were off the ground and he couldn't steer any more. Within a split second we were in the ditch, the whole thing crashed into the ditch and just missed the stone wall. Everything was thrown apart. Nobody was seriously hurt, somebody damaged their wrist but nobody was seriously hurt. But it was a very close shave, we were lucky that we ran into some soft ground. And we all picked ourselves up and Ken said right, come on, let's do another one

John Taylor: What did you say.

Billy Williams: I don't think we did another one. Because in fact we'd done all we could and this was just gilding the lily, the icing on the cake.