The Newsletter of the Association of Motion Picture Sound

AMPS

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100 YEARS OF CINEMA 1886-1996

Merry Christmas

To All AMPS Members ... and Friends

This Newsletter is edited by Bob Allen and Keith Spencer-Allen and is published by the Association of Motion Picture Sound for distribution to all members. AMPS can be contacted through Brian Hickin, The Admin Secretary, 28 Knox Street, London W1H 1FS. Membership enquiries to Robin O'Donoghue, AMPS Membership Secretary, Twickenham Film Studios, St Margarets, Twickenham, Middx TW1 2AW. Any communications with the AMPS Newsletter should be addressed to The Editor, AMPS Newsletter, Old Post Office Cottage, Old Post Office Road, Chevington, Suffolk IP29 5RD.

Dear Sir

Congratulations on discovering and reproducing the long lost wood cut of Win Ryder filling in his dubbing charts. I presume you found in the Dead Letter Box of the *Old* Post Office.

Is that Bill or Ben he's wearing on his head?

Keep up the good work. Remember nostalgia is not just a thing of the past!

Yours

Alfie Cox

How quick of you to recognise Win Ryder at work Alfie. We felt it only fair to print a similar picture of you at work on charts. Thank you for your letter. We wish more people would write to us. Ed

OLD COLLEAGUES

Dear Sir

I would like to hear from anyone who knows the whereabouts of the following sound technicians - Les Hammond, Claud Hitchcock, Dennis Whitlock, Dave Hill and Frank Minton. If any past colleagues would like to say hello give me a call on 01582 767348 or Email 100754.3564@compuserve

David Wynne Jones

The Mysteries Of Mistletoe

One romantic source for the kissing ritual associated with Mistletoe at Christmas is a myth in Greek literature that explains why the berries always occur in pairs.

When the Greek Sky God, Uranus, was castrated with a flint sickle by his son Cronus, Father of Zeus, the 'berries' plunged into the sea and gave birth to Aphrodite, the Goddess of Love.

More than 2000 years ago the Druids of the Celtic people that colonised north east Europe believed that Mistletoe had magical powers. On the rare occasions when Mistletoe grew on an oak tree they would cut it with a golden sickle and catch it in a white robe to prevent the magical powers draining away through contact with the earth. The Mistletoe would be used in sacred rites intended to make barren women fertile. They also believed Mistletoe would frighten away evil spirits and so hung sprigs of it in their houses.

Such pagan rites and rituals were eventually Christianised. There was a belief that the cross on which Christ was crucified had been made of Mistletoe wood. As a result of the disgrace of being used for such a purpose, the Mistletoe 'tree' from then on grew only as the semi-parasitic plant we know today.

You may be surprised to know that the word Mistletoe is derived from the German 'Mist' meaning manure; the plant was once known as the 'dung twig'. It is also highly poisonous as John Gerard the 16th Century herbalist wrote in his famous 'Herbal' *'Mistletoe inwardly taken is mortall and bringeth most grevous accidents, the toong is inflamed and swolne, the mind distraughted, the strength of hart and wits faile'.*

Poisonous though it is, Mistletoe has long been used in homeopathy and to-day research is going on endeavouring to understand the nature of the plant's poisons, especially the protein Lectin. There are hopes that the powerful natural toxins will prove helpful in the fights against cancer and AIDS.

THE QUOTE QUOTA

" If I knew I was going to live this long I'd have taken better care of myself"

- Adolph Zukor, pioneer film producer, on the occasion of his 100th birthday. Shortly before his death at the age of 102, he was asked the reason for his longevity. "I gave up smoking two years ago" he replied.

Thanks to Sandy MacRae's hard work.....

AMPS Goes On The Net!

AMPS now has a presence on the Internet, or more precisely, the World Wide Web. The new Information Provider, MediaNet Online Ltd has agreed to give AMPS several pages without a fee for a trial period. MediaNet Online are setting themselves up to be a major UK source for Film and Television professionals on the Net. Though the site is still being built, AMPS pages already display information about what AMPS is and does. The Membership Directory is now on line and it is possible to attach your CV to your Directory Entry for an annual fee of around £25, if it is provided in electronic form. Further information is available from MediaNet Online on 0171 435 4618. Some extracts from past Newsletters are now on line and we hope that the Track Terminology Report will be on line soon. MediaNet have a conference/forum area and AMPS has presence here and we are already getting (sensible!) responses from round the world. It would be useful if all members with access to the WWW would log on, join in the discussions and help answer some of the queries that are arriving. This could be a rewarding experience.

The Internet is a very large interconnected group of computers round the world acting as a vast information exchange. Most of this information can be accessed with normal 'terminal' software. The World Wide Web is part of the Internet and uses a special computer language to provide attractive and colourful graphic pages with 'hypertext' links to other pages. This requires software like *Netscape* to display the pages and use these links. A 'Home Page' is an address on the Web that can be directly accessed and this, in turn, provides links into the Information Providers storage space. AMPS does not as yet have a 'Home Page' and can only be accessed by logging on to: http://www.medianet.co.uk

Those of you unfamiliar with Internet and WWW addresses should note that all are case sensitive and should be entered as shown. Also note that MediaNet Online service is configured for the graphical WWW and requires Web Browser software to use it. When connected, MediaNet will ask you to log in with your name and address and choose an ID and a password. There is no charge for this, other than your phone call. After the first access, you can set a 'Bookmark' in your Web Browser software to simplify this log-on routine to a single click! Once you are on to MediaNet, they will offer you an index to their wares. At present, AMPS pages can be accessed by selecting **UK Directories** then **Organisations**. We are also present in the **Conferences** and you should look in on these.

Guide To Internet/Web Access

What you need

1 A reasonably fast Personal Computer (IBM compatible or Mac) with plenty of memory and storage space.

2 A Modem (Modulator Demodulator) to connect your PC to the telephone line and Service Provider. Choose your modem with care and go for the fastest one you can afford. 14,400 BPS is considered a minimum standard and 28,800 BPS is preferable. The extra speed can cut your phone bills and provides faster updates while on line. Shop around for bargains but expect to pay from £100 to about £150.

3 A subscription to a Service Provider. They provide your link to the Internet and WWW and also Email services which soon will become a must! There are many Service Providers available throughout the UK and you should ensure that when you sign up, you have a Local Call Rate connection. Service charges vary but most are on a monthly basis (not year long contracts!) and cost between £10 and £15 per month. Some charge a connection fee, usually about one month's cost. There are some 'try before you buy' schemes available where you can have a month's free trial before signing up. It appears that the cheaper ones are very popular and this has the effect of slowing down access times since more people are sharing the resources, so cheapest is not always best!

4 Some suitable software to make the connection and provide automatic dialling to access via your Service Provider. This is normally supplied free or for a small additional fee and it will have to be configured with your Account Number, password and information about your Computer and Modem. You will also need a 'Web Browser' to allow you to search and display the graphical information of the WWW. Reputedly the best, and certainly the most popular, is Netscape and is usually available either from your Service Provider or it can be downloaded directly when you make your first connection. At the moment, this software is free of charge in the UK but soon this will change. On an IBM PC, all these programs run under "Windows" so you will need to have this installed first. Mac versions of the software directly interface with the Desktop. When you sign up with a Service Provider, they will give you your own Email Address and storage space on their computer for this mail. You will be able to retrieve it whenever you log on and you can send Email to anyone, anywhere in the world as long as you have the address. You will need to install some Mail Reader software to access this facility and this should also be provided free when you sign up. Setting it all up can be tricky but it is worth persevering.

Newsagents are full of magazines which discuss, advertise equipment and give lists of Service Providers. These will also give you guides to the 'jargon' used and demystify the system. The Internet and WWW can be all things to all men! The press have focused on the 'porn' aspects and although they exist, this is not the main activity. There is a fair amount of garbage on the system but it is really all about information exchange. Using the 'Search Engines' provided, you will be able to enter keywords for any subject in which you are interested. You will need to acquire some skills at this to narrow down the searching as there are many thousands of Information Providers throughout the world. 'Professional Film Sound' will offer several hundred references to plough through but after a little time, you will be able to narrow it down to the specific area you really want. Many of the major equipment manufacturers are on line with product details and question and answer forums; try Dolby for example. Our American cousins, the CAS, are about to go on line with a Home Page. BSKTS is on line now as is the IBS. SMPTE have a Home Page and provide technical details and specifications. There are film databases, fully cross-referenced and you may even find your own name from a screen credit! Serious discussion groups abound on the Net and can be read easily. It is advisable to get the feel for these before you join in. 'Newbies' are treated with some contempt when they ask the obvious! The list of information providers seems endless and there is certainly something for everybody, even ordering your wine and groceries!

If you have a Cable TV connection, you should make enquiries about their telephone services. Most offer free weekend and off-peak local calls and this will drastically reduce your Internet costs. It is very easy to tie up your line for an hour or more, once you get into an interesting area.

SANDY MACRAE

Keith Spencer-Allen looks at...

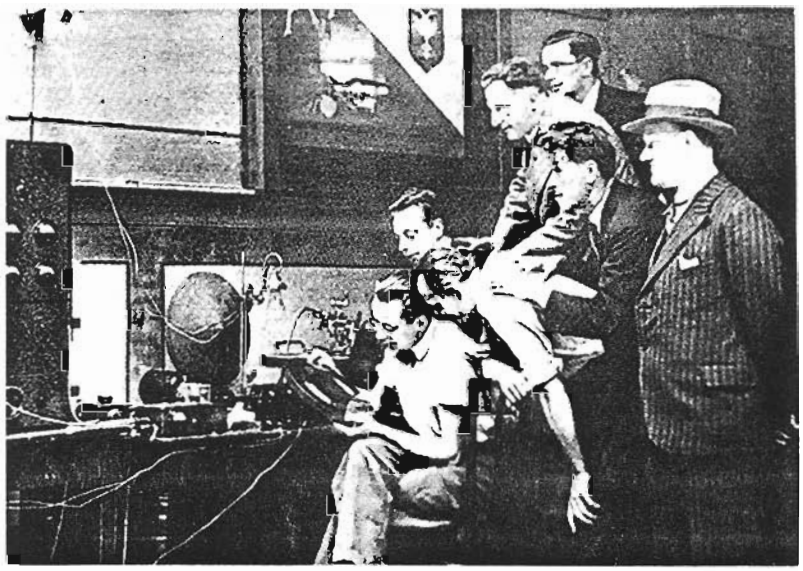
The Names Behind European Microphones

Most of the current European microphone manufacturers carry a name that belonged to the driving force behind launching the company. Even the one that doesn't conform to this, shares the other common traits - they were all engineers, inventors and either German or with very close German connections. There are several reasons why this should be but the stories are all individual. We start with the 'Daddy' of them all.

Georg Neumann: had worked for Eugen Reisz, designing a 'high quality' carbon microphone commonly known as the 'Reisz Mic'. It had the appearance of a hollowed flat marble rectangle and was frequently seen in German broadcasting through the 1920s. Neumann set up his own company in Berlin in 1928 with the intention of mass producing condenser microphones which at that time had only ever been made in a laboratory. His first manufactured mic was the CMV3 nicknamed the 'Neumann Bottle' (a body about the size of a Thermos flask with the capsule in a separate case sitting on top) that remained virtually unchanged till after World War II and the arrival of the U47. Careful scrutiny of archive footage of the 1936 Berlin Olympics reveals the widespread use of 'bottles' as commentators mics (the event was an early TV broadcast). Less well known is the fact that Neumann held patents for the invention of the NiCad battery. From microphones the company diversified into disc cutting and from there into mixing consoles. When Georg Neumann died in the early 80's, unfortunately there was no interest amongst the Neumann family in continued involvement in the company.

Georg Neumann

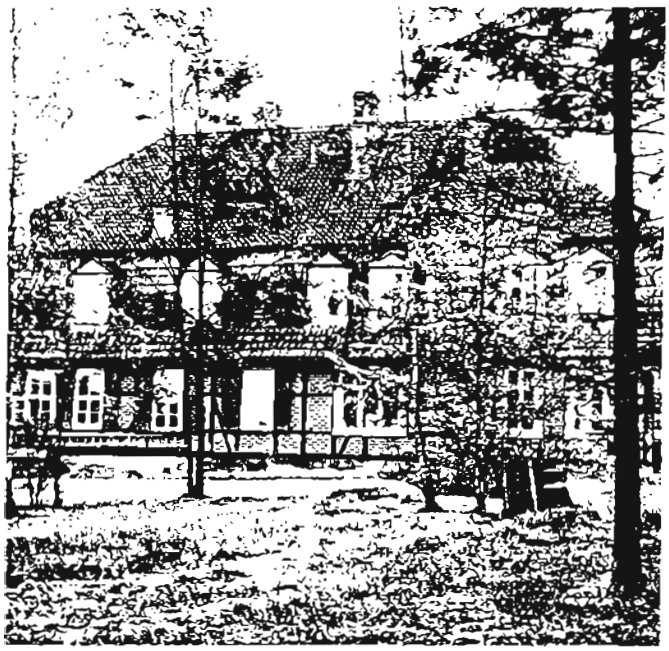
Eugen Beyer: farsightedly founded the company in 1924 in Berlin to build speakers for cinemas. In 1937 he produced the DT48, the world's first moving coil headphones still in use today. In 1939 the M19 dynamic microphone became the standard mic in the 'Reichsrundfunkgesellschaft' (German radio) for outdoor applications. The Beyer factory was completely destroyed during the battle for Berlin in final days of the war. It was rebuilt and is still highly productive. The company was rebuilt in Heilbronn and in 1948 proceeded with development of horn loudspeakers and ribbon microphones. When Eugen Beyer unexpectedly died in 1959 management of the company passed to his son, Fred Beyer.



Eugen Beyer demonstrates in his laboratory

Dr Schoeps: brought out his first microphone in 1948 working out of a couple of rooms in a private house in Karlsruhe, Germany. His microphones have been developed and refined over the years and today many consider Schoeps mics a benchmark. The company is still quite small employing only about 40 people. Schoeps have always been a secretive company and reluctant to talk about their origins. The rumours that Dr Schoeps was a violin playing rocket scientist may not be true but maybe one day they will feel able to talk more openly.

Fritz Sennheiser: Professor Sennheiser worked at the University of Hanover on research in the area of vocoding and scrambling. Following bomb damage in 1943 his department was moved to an old farmhouse twelve miles north. As the Allies passed through Germany towards the end of the war a complete ban was placed on any activity that could be considered 'war work' and Sennheiser's activities fell within that area. The farmhouse was sealed with signs stating that anyone who crossed the threshold would be shot.



The original Sennheiser farmhouse (renovated)

Desperate to find a way to make a living, he crept back into the building some months later and started to assemble voltmeters out of the parts in the lab. The occupation forces took no action. Soon the local Siemens company approached him to see if he could copy a dictation machine microphone that they could no longer source from Austria. Sennheiser copied and improved on it and started manufacturing microphones. As an aside, unlike many of his contemporaries, Sennheiser did not wish to call the company after himself and until 1954 it was known as Laboratorium Wennebostel or more briefly on the mics as Labor W. A rather public incident where supposedly the then Australian Prime Minister on a state visit to Germany at the height of the Cold War seeing the *Labor* W microphone refused to talking into 'a damn commie microphone'! The brand name Sennheiser followed. The company is now run by Professor Jorg Sennheiser, Fritz's son although he still takes a very keen interest in the business.

Dr Rudolf Görike & Ernst Pless: Görike undertook wartime acoustics research for the German army in World War II where he had contact with Georg Neumann and Fritz Sennheiser. In 1947 Göricke and Pless formed AKG (Akustische u Kino-Gerate GmbH) in Vienna where they tackled the noise problems of film projection systems and in particular the difficulty of adding commentary to film due to unwanted projector noise pick-up. Research led to patents for the first single element cardioid design and the arrival of the D12 microphone. Until 1965 film products featured heavily in AKGs range including optical soundtrack pickups and an underwater loudspeaker systems for scaring sharks away during underwater filming - developed with a Dr Hass (of Hans and Lotti fame). Until the mid 80s, Rudolf Görike was still a major shareholder in AKG although the Pless family sold out to the banks at an earlier date. AKG is now part of the Harman Group.

Things Have Changed

The Hollywood production code of the 1940s insisted that the sanctity of marriage and the home be upheld. Impure love must not be represented as attractive and beautiful. Adultery must be punished. Sexual perversions, white slavery and lustful kissing must not be shown and there must be no nudity, obscenity or profanity. Words such as nuts, nerts, fanny, gawd, cripes, hell, and hold your hat were not to be used.

One wonders how on earth great movies like Ford's My Darling Clementine or She Wore A Yellow Ribbon and so many of the Hollywood war movies managed to convey the tough sweaty characters who helped win the West and World War II.

It's a pity today's movie makers seem to think it only takes four letter words to create the impression that a man or woman is smart and tough.

How much foul language do you use or hear in everyday real life? The excessive use of four letter words is usual by the less fortunately educated who know no other way of expressing themselves adequately.

John Aldred continues the story of...

FANTASTIC FANTASIA

In the previous Newsletter I described the production of Fantasia from a sound man's point of view, and the time fast approaching for the world premiere. Now read on -

Disney had always planned to release fantasia as a road show at increased prices, since the amount of sound equipment required for Fantasound was beyond the budget of most cinemas. So a Mark IX system was developed and eight sets of equipment were used in the many road shows. This system included the two sets of auditorium loudspeakers but these had to switched in and out manually. The Mark X system which followed was identical to the Mark IX except that switching of the auditorium loudspeakers was carried out automatically. Disney's engineers had by this time devised a mechanical replay system activated by notches cut into the edge of the sound print film. This was the system installed in the Carthay Circle Theater for the Los Angeles premiere. where the film ran for 45 weeks.

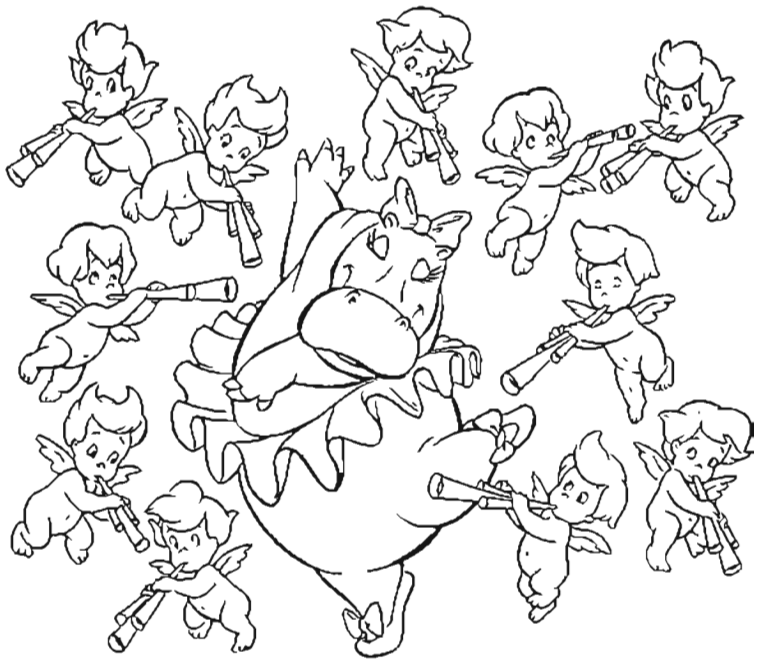
There were several reasons why Fantasound did not survive a limited number of runs as a road show. First and foremost was the huge amount of equipment required and the necessary time to make the installation which usually meant closing the theatre for several days. Each road show unit consisted of eleven amplifier racks and associated power supplies, two sound film phonographs modified to four track, and two complete selsyn distributor units. All this was packed into 45 cases and weighed almost 15,000 lbs. The lack of space in many projection rooms was a contributing factor, and at the same time the coming of wartime conditions prohibited the manufacture of any further Fantasound equipment. To compound the issue, after the completion of the Fantasia road show programme the Fantasound equipment was dismantled and contributed to the war effort. Credit must be given to the whole Fantasound team who had worked hard for several years to make the system a success. It was William Garity who bore the brunt of designing, installing and maintaining all the rerecording equipment, as well as overseeing the road show installations. J.N.A. Hawkins was the chief music and rerecording mixer, assisted (at what must have been a very long console) by Messrs Slyfield, Blinn, Steck, Marr, Perry, Moss and Hisserich.

FANTASIA IS RELEASED

Fantasia was the longest and the most expensive cartoon ever made sand drawn entirely by hand. It was Disney's showcase film for the talented staff on his company's payroll, and cost well over $2,000,000. Initially the film did not win critical appraise or audience approval and people stayed away because they thought that any movie connected with classical music would be too highbrow. It was not until April 1942 that RKO agreed to release Fantasia with a standard sound track, providing that the film was cut from two hours to 82 minutes so that it could form part of a double feature programme. Disney was furious, and would have nothing to do with any editing. This was the version first shown in the UK and was a box office disaster, mainly because English audiences at that time preferred action and spy movies with patriotic themes. Reissues in 1944, 1946 and 1953 met with similar results, and the studio was suffering financially because the war had cut off the European market and virtually half the studio income had disappeared.

By this time the original nitrate sound negatives had deteriorated and were unusable but a Fantasound quad print had been preserved and was in fairly good condition. Disney had also kept back one Fantasound reproducer complete with preamplifiers which had escaped destruction. By 1955 RCA were manufacturing magnetic recording equipment for film and although Disney did not have any he thought it would be a good idea to have a magnetic copy of the quad print. So a three track transfer was made from the Disney studio down telephone lines to the RCA building and that became the new magnetic sound master. This was first used for a new release in 1956 in Superscope with Stereophonic magnetic sound and was the first version of Fantasound heard in British Cinemas. But the anamorphic picture did not suit some section of the film which were given different amounts of 'squeeze', resulting in stretched out screen images with very plump Sugar Plum Fairies! There were two further releases in 1963 and 1969 and the film finally went into profit shortly after Disney's death in 1966.

Yet another version was released in 1977 with rechanneled sound but because of the age of the original sound and the dubious quality of the magnetic transfer, a decision was taken in 1984 to record a brand new track taking advantage of modern recording techniques. Irwin Kostal was chosen to arrange and conduct the new performances with session musicians, and the picture carried a dedication to Stokowski. But it was just not the same film anymore, and the Disney fans demanded the original score.



RESTORATION

In 1980 a particularly tough section of 'The Nutcracker Suite' was sent to various studios for a 'clean-up', and all advised that the original sound could not be brought up to theatre quality. It remained for Disney's own mixer Terry Porter to prove them wrong. Using Terry's expertise, Vice Chairman Roy Disney (Walt's nephew) decided to restore the original sound using the 1955 magnetic master, and at the same time clean up the picture printing elements which were in a perilous state after being used for so many copies.

In order to generate a new Fantasound master as near as possible to the ideas of Garity and Hawkins, Terry started by trying to find out how Fantasound actually worked. He commenced by visiting the Carthay Circle Theater where Fantasia was originally shown, to study the original loudspeaker placement. At first he was at a loss to determine when and how the auditorium loudspeakers were used, until he happened to come across Stokowski's original score in the music department with his written notes in the margin saying what should come from where. Armed with this information Terry assembled his gear as if he was doing a regular clean upon a production soundtrack. His tools included the familiar Dolby *Cat 43*, a de-popper, notch filters and parametric equalisers. Since today's theatres are 'dead' in comparison with theatres of 1940, he used a Lexicon reverb unit to liven up the track. The magnetic master contained a very high hiss level which had to be dealt with; also various hums in multiples of 60 Hz which Terry thought could have been introduced by the telephone lines. Terry used a 70mm six track recorder for screen left, centre and right, and auditorium left, centre and right. The result can be heard in the latest release of Fantasia in Dolby SR.D and SVA stereo optical, complete with all the original surround information even on the home video cassettes.

It is interesting to recall the restoration work being done on the picture by Peter Comandini, owner of YCM Laboratories. There were many different elements to examine, some original negatives which had been laying in the vaults forgotten since 1941, some well worn duplicate negatives, some three strip negatives from the live scenes with Stokowski, and some single strip negatives with successive exposures. The animation cameras were single strip with each frame being photographed three times through yellow, cyan and magenta colour filters on to a black and white negative. These were later used to produce the three Technicolor matrices for printing. Having selected the best material available for each sequence, which took three months, the negatives were examined for defects before being machine cleaned and a new master made on a wet gate printer. A colour interneg was then made for final printing. To ensure the film's original 1:1.33 format was retained, this ratio image was positioned in the centre of a 1:1.85 print. Fantasia does not lend itself to cropping as evident in the 1956 Superscope version.

Altogether Fantasia used eleven directors, sixty animators, twenty background artists, and a small army of writers, designers, ink and pen personnel, special effects, sculptors and modellers - almost a thousand people in all. More than one million separate drawings were made (by hand) and turned into cels for the multiplane animation. Many of these technicians received screen credits, the main exception being the cameraman who carried out all the live photography with Stokowski, the renowned cinematographer James Wong Howe.

Just two years later in 1992, a similar clean up operation was carried out on *Snow White* also by YCM Laboratories. But by that time the new Kodak Cineon system had been installed, which transferred the 56 year old picture negative to computer readable binary information. Numerous workstations were able to paint out scratches, detect and remove dust and dirt and fill in any empty spaces with visual information 'borrowed' from any adjacent frame. But that's another story!

Peter Musgrave is.....

IMPRESSED AT BRADFORD

The Association's visit to Bradford on the weekend of 7-8 October was much enjoyed by the 20 Members, wives andcolleagues who attended. In our case it was a straightforward drive of nearly 200 miles (3 hours) each way, only the hotel's desire to avoid displaying its name causing lost time.

An easy stroll to the The National Museum of Photography, Film & Television found us in a six level modern building in a prime central position, but our first show was next door at the Pictureville Cinema. Originally The Library Theatre but converted for films in 1992, it seats 306. It normally shows new and old features, and cult movies but on the first Saturday of every month it screens *This Is Cinerama*, the very first presentation in this 3-strip system dating from 1952.

CINERAMA

The show starts with the usual smaller screen, black & white stilted introduction, giving due credit to inventor Fred Waller. Then the full, deeply curved 146 degree screen opens up. Made of vertical strips of perforated material to reduce cross reflections from either side, the strips are slightly visible in bright scenes. Because the three films have a six perforation pulldown at 26 fps, each of the one hour 'acts' involves 7,000 feet of 35mm per projector, so hefty handling equipment is needed. Indeed, as the left and right machines are in separate tiny booths, a special rotating tower behind them changes the first act to the second; focus and racking are by remote control to unify alignment of horizons etc to the centre projector in the main box.

The show itself is often really creaky with the cameras locked off for items such as agonisingly slow songs by the Mormon Choir, or one by the Vienna Boys in a park which had an unseen piano apparently emanating from a flowerbed off right. Things got much better when we travelled in a speedboat, or in an aircraft over Death Valley, or into a fascinating copper mine in Utah which had 160 miles of circular railways (Has no screenwriter seen this?).

The separate 35mm 7-track magnetic sound band was allocated L, LC,C,RC,R, plus two more which could be patched either to LS and RS, or R+L Surround and Rear. Though Pictureville is equipped with subwoofers for Dolby presentation, they were not, of course, utilised for this prodiuction, 'Format 40' being selected on the CP200. The commentator claimed a frequency range of 30-15,000Hz but we certainly weren't hearing that much. However, one of the most stirring sections was real location sound of massed pipes and drums at the Edinburgh Tattoo.

After the show, lowering of the normal screen with its own set of five speakers was delayed so that we could be given a tour of the equipment by the very knowledgeable projectionists Duncan McGregor and Tony Cutts. Amongst the unique things we saw were the 'Jigolos', sawtooth edge-masks in the projector gates which vibrate vertically to blur the edges where the left and right images blend with the centre one. Sadly, the colour of the print was often very variable, more than could be blamed on their coming from sometimes shrunk, scratched or faded original camera negatives due to the disappearance of the original Technicolor imbibition facilities. Nevertheless, steadiness was excellent and the equipment looked in fine condition despite having been rescued from different locations to where it had been tracked down.

The Museum is now the only public Cinerama facility in the world and desperately wants to show another programme. We understand that although one of Ted Turner's US companies has a copy of *How The West Was Won* they will not supply it without a high fee which the Museum cannot afford. What else can they do with it?

That evening, some of the group saw *At The Max*, a record of a Rolling Stones concert at Wembley Stadium for which 80 miles of film were edited to 89 minutes; our members Sandy MacRae, Tim Blackham and Patrick Heigham declared it excellent. Tim reckoned it should have been compulsory viewing for all but we preferred to wait

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IMAX®

until Sunday for a gentler choice of Imax programmes. After a group chat over coffee at the hotel, we crossed to the Museum and entered the 340-seat, steeply raked, shallow auditorium, dominated by its screen measuring 63' 8" wide by 52' 4" high. (Other installations include Poitiers which also has an Omnimax; Vancouver, 494 seats; Stockholm 291 seats; with the biggest screen in Jakarta: 96' by 70'!) Here, we could only see the projection room through a window but there was also a video tape explaining the development of the unique 'rolling loop' intermittent system, necessary because to accelerate the huge lateral 70mm, 15 perforation frame (69.6 x 48.51mm) in the normal manner would rip it to pieces.

Imax also has a separate 35mm magnetic roll but this time it feeds L, C, R, upper Centre, LS, RS. Imax shows don't use Dolby encoding, nor a dedicated bass track but do have two subwoofers driven by their own amplifiers. Illumination comes form a 4kW Xenon lamp via a very wide angle 53.8mm F2.4 lens, and steadiness is assured by register pins in the movement.

We saw two half hour documentaries. *Destiny In Space* conjectured about colonisation of other planets, sometimes using computer simulation and had a lengthy sequence of the NASA astronauts repairing the faultily designed Hubble telescope. The shrewd choice of commentator was Leonard Nimoy, who adopted a slow, restrained style cleverly complemented by the use of radio communications between Houston and the crew bouncing from L to R across the auditorium. Then came *Yellowstone*, which had a long recreated sequence of the early explorers, followed by modern research into 300 natural geysers.

In almost all the cases the definition was magnificent with everything from the remotest stars to grizzly bear mouths being detailed enough to reach out and grab. An American sound editor, Randy Thom, did a good job providing naturalistic effects for *Yellowstone* though I sometimes thought both movies could have been played a point louder.

In the Museum itself (free!) the six exhibition floors include the Kodak Collection originally housed at their Harrow factory, a large section on the history of television, and a cafeteria with a fine view of the town centre. This last persuaded me to spend a couple of hours following the town guide's Heritage Trail which showed me many splendid frontages built of local stone, but most were spoiled by tasteless latter-day shop fronts or clutter, or neglect.

It all made a thoroughly enjoyable mini-expedition, well organised by our indefatigable Chairman. Thank you Bob. Next Year Jakarta?

PETER MUSGRAVE

FOOTNOTES: To prebook tickets ring the box office on 01274 727488. The Museum is normally shut on Mondays unless it falls within school holidays or on a bank holiday. Further details about Cinerama were contained in Bob Allen's article in Newsletter 11 dated September 1994, and more about IMAX in John Aldred's article in Newsletter 14 dated July 1995.

NATIONAL MUSEUM
PHOTOGRAPHY · FILM · TELEVISION
PICTUREVILLE · BRADFORD
Part of the National Museum of Science & Industry

Not Dead Yet?

Members may be interested to know that an Australian producer using the Kinopanorama camera, built in 1956 by the Russians for their version of Cinerama, has been shooting a tourist publicity movie in and around Sydney for presentation on the giant Triptych curved screen with audio from a sync'ed ADAT. For further details see John Gainborough's article in the Jan 1995 issue of the BKSTS *Cinema Technology* magazine.

A Word Of Special Thanks To Harry Fairbairn.

Thanks Harry for getting together a list of good Bradford restaurants, a map of the city and a booklet of tourist attractions in the area, sent to all of those attending. Especially appreciated was your letter of welcome to the North.

AMPS MEMBERSHIP DIRECTORY

: DOES YOUR ENTRY NEED UPDATING ?

We will shortly be publishing a page of updates to the first Directory of AMPS Members published last January. Following our announcement of the update in the last Newsletter, this will the last opportunity to amend your entry for phone, fax or address changes or any inaccuracies in the first edition. Please inform Peter Musgrave in writing by sending changes to 25 Bury Street, Ruislip, Middlesex HA4 7FX, as soon as possible. Sorry but this applies *even* if you have already informed the Admin Secretary of such changes.

Keith Spencer-Allen reports on an AMPS evening meeting at ....

GOLDCREST
post production
facilities

As I rounded the end of Brewer Street in the south area of Soho, I began to regret not having taken another look at the A-Z before leaving for the meeting. Goldcrest is one of those locations where the postal address and main entrance differ for historical reasons. Worry was unjustified as a glance above street level reveals the wall mounted Goldcrest 'bird' guiding visitors from both directions, at least to the right block.

Eighteen AMPS members accepted Goldcrest Post Production Facilities invitation to visit the newly rebuilt studios; indeed so newly finished that the builders departure could be measured in hours although a visitor would not have guessed.

Following drinks and a welcome, we were divided into small groups each with a Goldcrest guide for the tour. All the facility staff were on hand, each in their specialist area, briefed and well prepared for those difficult questions that, certainly with our group, were answered candidly.

Off the basement reception area, the dubbing theatre is dominated by an SSL5000 with Ultimation moving fader automation. After dubbing mixer Paul Carr revealed the Foley pits and ADR facilities, an interesting discussion took off on the relative merits of the console, the value of ADR-to-video, and the choice between particle or evaporated tape for the Tascam DA88. Leaving via the projection room with its lines of MagnaTech and Sondor dubbers, Paul commented that he didn't expect to see a single one left in five years time.

Crossing the corridor to Studio 2 or as it is commonly called, the Synclavier Room, Mike Smith gave a swift demo of SFX spotting and editing using the Synclavier with PostPro software and pulling up dog barks from the on line sound effects library. Tie lines link all the facility and the benefits of the Synclavier are available remotely when needed. The mixing console is a large Trident Vector and the room comes with two video projection systems - in front of the console and in the newly added separate studio area.

On the same floor we then passed through the new Telecine room (discussions on timecode); the Transfer Bay and the central Machine Room (find the format they haven't got) and then to the upper floors. Goldcrest have over 40 cutting rooms split between two floors in this building and another Soho premises. The top floor contains flats for clients to stay while working.

Acknowledging a demand for disk based editing systems, two edit rooms have been redesigned and refitted. One contains an AMS AudioFile Spectra intended to be used for track laying but was so new that it hadn't completed a session. Next door, a spacious Avid suite was running and we were treated to a swift demonstration of the virtues of Avid digital video editing.

The evening culminated in a buffet back in reception where were able to follow up specific topics with the Goldcrest staff.

The evening provided a chance to take an indepth look at a facility that few members seemed to know a great deal about before the visit. Goldcrest had planned the visit carefully and I think we all left knowing far more about them, and dare I say, quite impressed?

TAPE MAKERS - MAJOR CHANGES

On the 14 November, that bit of Ampex that makes the tape, became a standalone Corporation with a new name. Following all of the changes that have taken place at the Ampex Corporation over the last decade or so, it was little surprise that the tape making division was formed into the Ampex Media Corporation a year or so ago. In the UK they were moved into new offices in preparation for a complete severance from the Ampex parent company. The delay since then has been the name for the new company and this has now been announced as Quantegy Inc. Now 100% owned by a new group of shareholders including the Equitable Life Assurance Society of the US, the company will handle all the audio and video tape products originally Ampex. It will also own the tape Ampex plants and they still have the rights to use the name Ampex on the products. It may seem that little is changing for the user, but with the new owners comes a lot of investment, something that has been lacking for some time. Ampex already has the number one market share in professional audio tape and ironically as the announcement was made on the same day that 3M began leaking the fact that they were about to pull out of tape media, it is difficult to see exactly what all this new investment is going to achieve - it would appear to be all theirs by default.

When the official statement from 3M arrived it confirmed the rumours. 3M will be withdrawing from 'future participation in audio and video tape manufacturing ....withdrawing from the market over the next 12 months'. They have stated that their prime consideration from 1996 is to maintain quality and supplies of tape products across as full a range of formats as possible. Reasons for the decision focus on intense price competition preventing the business from making a satisfactory return on investment.

If 3M does totally disappear as a manufacturing name it will end a connection of almost 50 years with professional audio, as one of the early pioneers of tape, the move into tape recorders and the first commercially available digital recorders. Personally, I'll remember the hilarity we used to find in those technical bulletins 3M would issue to support the longevity of their products and in particular the notion presented in all seriousness that, even after a nuclear war sufficient to annihilate the human race several times over, 3M would guarantee less than a 1dB degradation in the noise performance of recordings which had been made on their tape; something they'll now never have to back-up!

KSA

????AMPS TECHNO XMAS QUIZ????

Score 1 for correct (a) answers and 2 for correct (b) answers.
Solutions on page 12, but no prizes! It's just for fun.

1/ (a) The lowest note on a standard grand piano is an A. What is its fundamental frequency?
(b) And what is its wavelength?

2/ (a) What company made the original 'Ball & Biscuit' microphone (later copied by STC)?
(b) What was its model number?

3/ (a) Which British feature producer had tobacco connections?
(b) And what was his producer son's name?

4/ (a) What is the sampling rate of an audio CD?
(b) Its rotation rate varies to give a constant track velocity of what?

5/ (a) How many bits in a byte?
(b) How many bytes in a terabyte?

6/ What is the velocity of sound in feet per second:
(a) In dry air at 16 degrees Centigrade?
(b) In water?

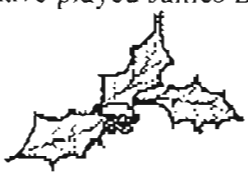
7/ (a) What were the forenames of the Warner Brothers?
(b) Write them in order of birth

8/ (a) How long is the full term of a UK patent?
(b) And of a UK trade mark registration?

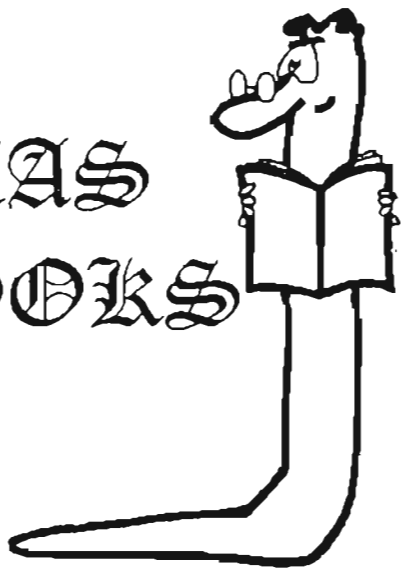
9/ (a) Name the actors, in chronological order of first appearance, who have played James Bond.
(b) And how many films each?

10/ (a) When did Concorde make its first commercial flight?
(b) What do you get if you cross a centipede with a parrot?

Originated by Peter Musgrave



XMAS BOOKS



AUDIO POST PRODUCTION IN VIDEO & FILM
Tim Amys (Focal Press £14.95)
This book covers all aspects of recording from photographic sound on film through to digital disks and many varieties of programme material from cinema feature films to musical programmes and documentaries. Tim Amys is a sound supervisor at Scottish Television.

SOUND RECORDING PRACTICE (Fourth Edition)
Edited by John Borwick (Oxford University Press & APRS £50.00)
The three previous editions have each been hailed as the ultimate reference book for everyone in sound recording. All the contents have been comprehensively updated. Each of the contributing authors is a 'hands-on' expert in their field including two AMPS members.

DIGITAL AUDIO
John Watkinson (Focal Press £19.95)
This introductory text is for newcomers to digital audio. Clear concise and easy to follow describing the principles of digital audio in an easy to read format with many explanatory line drawings. John Watkinson is an independent consultant in digital audio, video and data technology.

THE INCREDIBLY STRANGE FILM BOOK
Jonathan Ross (Simon & Schuster £14.99)
Jonathan Ross explores his beloved world of obscure movies.

FLICKERS - AN ILLUSTRATED CELEBRATION OF 100 YEARS OF CINEMA
Gilbert Adair (Faber & Faber £14.99)
Gilbert Adair has chosen a film and single still from each of the cinema's 100 years. Not a definitive selection but a personal view of images that have impressed him.

1995 BKSTS ANNUAL AWARDS

John Gozzard of Rycote has won the BKSTS President's Award for 1995. It is not before time that some special recognition was given to John who for the past 25 years has been designing and producing extremely efficient wind gags and microphone shock mounts. Rycote wind gags can be found in use in all parts of the world, in all climes, in all kinds of weather. It's quite impossible to assess the amount of recorded sound that would have been ruined were it not for Rycote windshields. All production mixers will surely join in congratulating John. Producers should also join in congratulations in recognition of the amount of costly ADR Rycote gags must have saved.

Some of the other recipients of BKSTS Awards were:
To **Dr Ray Dolby**, The Outstanding Technical & Scientific Award; to **John Gainborough**, an Honorary Membership for his many years as editor of the BKSTS Journal; an Honorary Membership to **Suzie Brewer** for administrative services to the Society. BKSTS President, **Ian MacKay** MA, FCA was made a Fellow. For his work organising a system of Film Commissions, for his enthusiasm for the British Film Industry and encouragement of young and new members of the industry **Sir Sydney Samuelson** CBE who was elected an Honorary Fellow of the Society in 1970, was awarded an Honorary Life Fellowship.

Congratulations to all BKSTS 1995 Award winners and especially to those mentioned.

??AMPS TECHNO XMAS QUIZ ??

ANSWERS

1 (a) 27.5Hz, (b) 40ft. **2** (a) Western Electric. (b) 630. **3** (a) James Garners. (b) Nicholas. **4** (a) 44.1kHz. (b) 2m per second. **5** (a) &. (b) 1,099,511,627,776 (1 trillion with do): **6** (a) Approx 1120 ft per sec. (it rises by 2 ft per degree. century-ade increase). (b) 4,728 feet per second. **7** (a)&(b) Harry, Albert, Sam, Jack. **8** (a) 20 years. (b) Indefinitely. **9** (a)&(b) **Sean Connery** (7: *Dr No, From Russia With Love, Goldfinger, Thunderball, You Only Live Twice, Diamonds Are Forever, Never Say Never*); **David Niven** (1 *Casino Royale*). **George Lazenby** (1 *On Her Majesty's Secret Service*). **Roger Moore** (7: *Live & Let Die, Man With The Golden Gun, The Spy Who Loved Me, Moonraker, For Your Eyes Only, Octopussy, A View To A Kill*); **Timothy Dalton** (2: *Living Daylights, Licence To Kill*); **Pierce Brosnan** (1: *Goldeneye*). Excludes Harry Nelson who appeared in an American TV version of *Casino Royale*. **10** (a) 1976 (London to Paris). (b) A Walkie-Talkie. (Serves you right for reading this far. Happy Christmas anyway!)

FOR SALE

❐ **Nagra 4 S** timecode with Aaton interface, rarely used and good as new. To include fitted alloy case and more - £7500; Sennheiser mic kit complete P70 shotgun - £1250; Sennheiser MK1/2 personal mics (unused) with Lemos with power supply - £225, without £150. Sennheiser M/S kit complete with P60/30 Rycote gag, list over £2500, price £1900. Audio Engineering quad diversity, four legal channels. CNS Microns kit. Ni-Cad powered, many extras. The complete kit for the features mixer - only £5950. Alloy cases.boom poles / portable PA / DMS speaker / AKG CK3 kit / Beyer DT48 cans / Trams / 1/4" Zonal 675 5" mag tape, boxed new, 250 rolls. Call on 01582 767348 or Email 100754.3564@compuserve.com

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