



Prize Production

Featuring a diverse array of performers, the recent Nobel Prize Concert had to strike the perfect balance between live concert and international TV event . . .

words & pictures by Steve Moles

As 6000-seat venues go, the setting of the Oslo Spectrum is ideal. Once used for ice hockey, this is far from your conventional arena. Seated on only three sides, the tier angle is the steepest you're ever likely to encounter, no doubt forced upon the venue by its location, confined as it is adjacent Oslo's central shopping mall.

The reason it's so good for this show is its width; were hockey still played here then fans would be sat down one long side and the two ends. This is a presentation on three stages - circular stages in fact; set designer Peter Bingemann has placed the Norwegian Radio Orchestra sunken into the centre position, the flanking stages flip-flop the various international artists who all make cameo, three- or four-song appearances.

The concert is a way of endorsing the Nobel Peace Prize, and a vehicle to bring the Prize and the achievement of its winner to the attention of the wider world. As such, it has 'international' stamped all over it. Hence the performers are diverse, and while not all the names might be known to you, each warrants the term 'international' in their own right. The names are listed at the end, I would urge any fan of music to investigate them all (Seun Kuti was my favourite, a man I'd never heard of who is easily deserving of wider recognition); they all have much to offer.

As an international event it has to balance the requirements of being a live concert show to an esteemed audience (the Norwegian Royal Family was in attendance) with the demands of TV, the show being broadcast right across Europe and edited to many other nations. There are people present in Production who do this sort of thing all the time, hence Peter Bingemann on set design, and Al Gurdon for lighting design. (Gurdon himself has brought along Richard Gorrod, one of the UK's most able lighting gaffers.) But the UK list ends there, for Norway is possessed of plenty of skilled operators who can easily manage this scale of presentation and the inherent pressures therein.





Left: Presenters Scarlett Johansson and Sir Michael Caine with diva Diana Ross.

very quickly. The response to the desk has been amazing. I think it will become a big-time touring console - such a neat package, yet you get pretty much what you get in an XL8."

There's a Norwegian saying (according to the tourist literature in my hotel) that says, "What the heart is full of, the mouth bubbles over with." Persson gives the sales pitch as is only right and proper for a man in his position, but he's not operating this show, merely keeping an experienced eye on things, so we switch our attention to the crew.

As Persson indicated, this is a Midas digital showcase and they were supporting the venture heavily, not least with the presence of Richard Ferriday, brand manager for Midas. He provides an authoritative snapshot of what's actually been attempted here. "There are four DL431 mic splitters here in the rack control area to stage left, total 192 channels doing a two-way digital split between monitors and FOH. These are a stand-alone item, but fully integrated to the Midas network system, the digital output is AES50. There are a lot of Ethernet-based audio transport systems, but ours is based

Let me say right off, the Spectrum is, for its size, a very dry room acoustically - think 6000-seat library. So the hurried set changes that took place every 15 minutes or so had to be conducted extremely quietly, and in the half-light at that, while another performer plays their chops on the stage opposite. Even during the fills to camera by the show's hosts, conducted with aplomb by Scarlett Johansson and Sir Michael Caine from the centre of centre stage, barely a sound was heard. Throughout the entire performance just one thunk emerged, possibly a guitar stand hitting a riser; so well done Norse stage crew.

Of course, these rapid change-overs present their own special dilemmas to the audio department, and here once again Norway was not found wanting, AVAB-CAC provided all personnel and equipment, and they created strong, simple solutions to the mixed demands of live show and broadcast, and embraced some barely-out-the-box technology to build it upon.

House Sound

Sven Persson from sound and lighting supplier AVAB-CAC walked me into the venue. "It's always a struggle to get a 72-piece orchestra with a band. But here it is amazing; everybody is talking about it." "Everybody" being a broad sample of musicians who took the time to go out front during rehearsals to watch and hear their fellows perform, and the assembled masses of sound people who accompanied them. (At night's end

I heard a representative from Norse Radio positively drool over the AVAB audio kit, "we are stuck with [another brand of desk] as standard" he said. "Many of the radio team here today would give their right hands for this system - me too.") Readers should also note Persson is house sound engineer for A-Ha and has bags of international experience.

Persson continued: "The thing is, we've been servicing this show for many years now, yet everything is the same, same mics, same stages in terms of position, same building, same speakers, everything the same except for the consoles."

We'll have to let 'same speakers' pass - some weren't created when Avab first undertook this contract, but we get his drift. The consoles are certainly different: a pair of Midas XL8s out front, and a Midas Pro 6 for each of the three stages' monitor mixes - 'different' in every sense.

"Before, there was always some compromise, yes switching to digital control was the best solution to such a show and we've done it for several years, but the thing is to get the frequency balance, and that's hard. Why is this better? It's about frequency, headroom, and just the way the console works. I've been doing this for 17 years and this is the best." Had he used XL8 before? "I first used the XL8 for an A-Ha gig at the Albert Hall. We are also a dealer for Midas, and already I'm quite sure we will sell 10-12 Pro 6 consoles

on TDM, Time Division Multiplex; that means it's synchronous, transmission is not done in packets; so the mixers and routers know where all the samples of audio are at any given time. So when you run it, it's all phase-coherent. It's a unique feature in terms of addressing the issue of latency. So you could route an input to a group; POP group; master; matrix, and still run that same input direct to the matrix out on the side and sum them perfectly at that point. There are other features - you can make an XL8 sound like an XL4 if that's what you want, or more than an XL4." (The legacy analogue issue, despite its undoubted benefits, still haunts Midas, in that there's an industry perception, admittedly starting to fade now, that Midas analogue consoles are sacrosanct and the Holy Grail of mixing.)

"A third split runs to the Broadcast truck, and in fact the total orchestra sends are returned and fed out to the house console." (The centre stage Pro 6 takes a select number of orchestra feeds, rather than all of them, to allow space in the 80 active mix channels for the sub-mixed band sends it receives from the other two stages. Hence Broadcast and FOH are the only areas where all the orchestra feeds are used).

"So the orchestra, and band feeds from both stages go to the mic splits. Putting all

this hardware in one location makes management easier, and a lot less cable is needed." (Though it does mean long mic runs from the stage to the right.)

"The mixing process is hard-wired to the control surface, the engine [DL371] resides with the splitters, one specific to each desk. We can only run 100m on Cat 5 so the link to the desks out front is via Fibre, the connection between mix engine and desk runs Hypermac, that's 192 channels bi-directional. On the monitor side, the centre Pro 6 feeds a mixed down orchestra to the two side desks, and indeed, takes some of the band inputs from either side stage to feed to the orchestra. The Pro 6 routing and patching is all automated, scene to scene." As you can imagine there's a good deal of re-patch/re-routing between acts. "The Pro 6 also has AES50 inputs, which means you can plug in direct, useful if, say, for example you wanted to route a crossover from FOH to the stage." So the network is independent of the mix process? "Yes. The Pro 6 takes 264 ins and outs of any type, but scene by scene you can mix access 80 at any time; any AES50 connection is 24 by 24 channels, and there are four ports on the Pro6 surface."

Øystein Karlsen is AVAB-CAC's main man front-of-house. "This is my second year at

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FOH for this show," he says, despite which it was Karlsen who designed the control system set-up so amply described by Ferriday. His partner at FOH, Geir Østensjø, does the band mixes. "The number two XL8 I run takes the band sends," he said. "I mix them down and send to Øystein who adds in the Orchestra for the final mix; so my desk is networked to the two Pro6s stage left and right."

But what of the control set-up? Karlsen explained: "We needed a solution where one stage can be mixed with another. For example, for the finale act Diana Ross sings with the orchestra. Her band is on the left stage, and there's a young male choir on the right stage - all those elements need to be mixed together, but it's the only time all night that we take feeds from all three stages. The network as Richard has described it to you is simple, everything linked by a few Cat 5 cables and fibre to front-of-house. Last year I brought in a single XL8 FOH for the first time, with other digital desks elsewhere, and to achieve what we've achieved here this time (which of course we had to, as exactly the same demands existed), required running lots of analogue and digital snakes, sometimes double to one area. Put it this way: last year it took 5 or 6 hours to set up control, this year it was 30 minutes. With all the routing snapshot-based, it's simple, but you get great flexibility over a complex input field. It's ease of access, but critically, without compromise - that's the advantage of the TDM method."

Geir Østensjø is also the PA system designer for the room. Despite his youthful looks, he's an old hand at AVAB and ribs Karlsen: "He's just 26, joined the company six years ago, came in dragged us old guys into the digital world, and f**ked us all up." It was said with kindness: Østensjø is having the time of his life, but his point is well made, Karlsen is a digital whizz, as Ferriday concurred.

"The PA is all Meyer. The main system left and right of centre stage is Milo, with M3D Subs flown beside it." Østensjø uses a spacer at the bottom of his main rig, these hangs are flown very high to clear the camera shots, beneath the spacer he has a 120" Milo for a down-fill onto the front stalls area. "The side systems are Mica, and I'm using M'elodie for front-fills." most of which are tucked neatly below the stage front cloth, but a couple on top at the extremes of L&R where the stalls seating is slightly raked and the Melodies needed to be that little bit higher."

"It's all controlled through Galileo. The room is easy, for a big arena style venue there's none of that normal low frequency boom. Flying the subs makes that even better." Østensjø even made some subtle adjustments immediately before performance, "I keep a humidity meter out front. At this time of year the cold outside, and the heat indoors makes for a very dry atmosphere, Galileo has specific adjustments for this factor."

It was just 20% humidity inside, dry enough that after a few hours in the building I began to feel it on my lips; not a great aid to sound transmission through air. Whether that 11th hour Galileo adjustment made any discernible difference I can't say, but we have to imagine it did: humidity and transmission effect is empirical physics.

Karlsen continued his role: "I take all the final inputs - band mixes from Geir, orchestra returns from the broadcast truck, MC, Hosts, VB. My focus is in keeping the show consistent, there are many different musical styles here, a broad dynamic range, so you have to hear everything and not push anything at the expense of some other part."

Indeed the orchestra, much as Persson indicated at the beginning, never lost touch with the variety of bands performing. Levels stayed consistently around 98dBA slow, except for the odd occasion when the tuba player and the bass trombone got carried away and gave the FOH position a real blast - goodness knows what it was like for the musicians sat immediately in front of them.

"I used the XL8 for the first time last year. I like it because the possibilities are tremendous. With the EQ and filtering what you want to happen happens, simple as that. I can add or reduce things and it acts correctly. Because it's TV we do make some compromises, but we have quality sound out there." The compromises he refers to are to do with level: he shouldn't have worried - and the quality was excellent.

Monitors (left stage)

AVAB-CAC's Per Ola Holden is responsible for the left stage, this sees him mixing the bands on that stage, blended with orchestra, and sending his generic band mix to the centre monitor desk, there to be blended where needed into the orchestra's monitors mix.

"This is my first show with the Pro 6 and no, I've never used an XL8 either, so this is a brand new way of operating. I'm probably most familiar with the DiGiCo D5 and D1, and all the good analogue consoles... My first impression is 'fantastic', and I've had lots of comments from the bands during rehearsals. Most comment on how natural the orchestra sounds, or how good their voice or instrument sounds."

There did seem to be this underlying endorsement from musicians: whether they were listening to the house or the monitors, the positive observations were many.

"The in-ear system is all Sennheiser ew300 (G2 300 series), but pretty much every band has wedges as well. We supply Turbo' TFM420, with some of the bigger TFM450s for the drum monitors. Julieta Venegas [a Mexican star] is a typical example; five wedges

plus four stereo in-ear feeds, multiple mixes - no two destinations get the same mix. That said it's been dead easy so far." This droll remark was made one hour before show time, so I didn't anticipate Holden having any problems. But note that 'so far' - the ever equivocal monitor man.

"In terms of features and operation, Pro6 does everything I want, I've got 20 wedge programs available as basic templates, then I pick one to suit each performer - too easy. Diana Ross is a slight exception, she has 12 wedges spread right across this stage and centre stage, to cover her movements. Including the band there are 20 discrete mixes to hers and the band's wedges, plus six stereo in-ears, so a total of 32, which for this desk is the maximum. Technically, digital desks, and the systems we impose on this show, are getting better and better."

"Midas always sounded good, this desk is no exception; I think the way they have addressed the latency issue is a lot to do with that; I can't see another reason. When I do a full mix I sit back and listen and it just sounds really good, definitely way above all the other digital desks. A case in point - I'm applying much less EQ than I otherwise would."

Stage right is merely a reflection of Holden's work, centre stage monitors is Stein Andre Hovden, mixing orchestra. He had something extra to add: "Show Editor is my favourite feature. Say I want to apply a change to one element of an eight-channel mix out. The Editor makes it really easy and fast to apply that change to any other, all or individually, of the other snapshots I have."

He was also keen on the display: "The user interface in general is really good, for a monitor man it's good that you get a lot of information at a glance."

Lighting & Set

Richard Gorrod, being an old mate, quickly ran me through the basic lighting inventory. "There are 100 MAC 2000 washes, 70 2k Profiles. The see-through LED screen behind the stage left tubes is Martin Professional's LC video panel, and is part of Peter Bingemann's design. The letters NOBEL are his too - they have the relatively new Schnick Schnack LED modules in them, 250mm long. They are positioned just 150mm from the Perspex fronts of the letters but they work great." A nice little RGB unit, and apparently very affordable. "The GrandMA is programmed and run by Alex Cunningham," Gorrod continues. "He runs the GrandMA media server as well."

Is Gorrod enjoying gaffing a Norwegian crew? "AVAB are an excellent company, just the right size for this sort of work. It's well within their capability, and it's on a scale that means it's their major focus when it's on."

Al Gurdon, who I managed to speak to a few days after the event, has been lighting designer in residence to Nobel for five years. You might assume with that many years service a formulaic approach may have evolved, but far from it. "I first saw a presentation of Peter's set design around mid-September," says Gurdon. "The producer and director from national broadcasters NRK are there at Peter's office and we discuss the potential. It was at this point, for example, that I suggested putting the VersaTubes [from Element Labs] on the stage left stage set, parallel to Peter's vertical aluminium tubes. Those are the sort of things that evolve from these discussions. There was some discussion prior to the meeting, so I did have some idea of what to expect."

So in that respect you don't arrive armed with a lighting concept *per se*, a sort of generic tool kit? "Well, it's different from say, a show for Robbie Williams, because at that stage I'm not lighting for a specific artist, but as the artists confirm, needs evolve. Having Il Divo perform on the downstage edge of the centre stage was new, in that

Nobel thoughts . . .

Richard Ferriday on XL8 development: "When we started the XL8 we wanted a Network system, not just a mixer, but back then HyperMac and SuperMac weren't available. Now history has given Midas the Sony-developed transport system, but we didn't want a proprietary network, so it's open to anyone."

POP groups explained: "POP groups enables any channel to any output fader bank," says Ferriday. "On Pro 6, for example, the right-hand 4-channel fader bank can be designated area B, say, for all your principal vocal input, and so for a show like Nobel, a simple division of labour, mix-wise, is kept on the surface. POP groups for Band & Orchestra can all be brought to action [working] position on the left fader bank as demanded."

There's an underlying aim to this development that Ferriday hints at here. Truth is, if you watch operators on any given show, their focus is almost always exclusively focussed on one small area of the desk; monitor men too get most of what they do well set during sound-check and before show time. Attention to detail falls into one main area - the money, as the Yanks would have it - usually just three or four critical channels; everything else is routing effects, the odd guest artist, and the solos. So in fact, with a well-organised channel marshalling system like POP groups, there's a good argument that says you could take a 120-input show and run it off a desk with say just a dozen faders. Scary, yes, but think it through.

FOH engineer Geir Østensjø: Curiously, Il Divo sing very close-mic like rock stars, using Shure Beta 58. This reveals a certain harshness in one of their voices at the higher range. "At least with Il Divo, yes you get that compression effect from holding the mic close, but it means I can get more from the orchestra without bleed into their mics," says Østensjø.

"What do I like most about the desk? Generally, the EQ, it's so good, the dynamics and compressors all bring warmth to the sound; and I like the ability to change compressor types." Østensjø also wants the Hi Pass filter raised to 500Hz; the long-term Midas standard is 400Hz. Ferriday indicated that Geir is not alone and that this may be coming.

Audio comment: The opening of the show was a good example of just what was possible from these desks, and the system to reproduce it - can't have one without the other. The beginning was a digital church organ, big sound, two manuals plus foot pedals in action, and then as the piece reached its crescendo there came a big string augmentation from the orchestra which, under normal circumstances, would have been totally submerged by the power and sheer range of high output frequencies coming from the organ, but the orchestra wasn't; and the brass in high vibrato that finished it off was just exultant. It sent a shiver down my spine and set the tone for the evening. This was no ordinary music show.

Conclusion: For me, it wasn't Diana Ross that provided the highlight of the evening, but Seun Kuti from Nigeria; three percussion, four brass, guitar, bass, drum, keys, two BVs and Kuti himself doubling on vox and saxophone made for a big, vibrant sound that had everyone standing and dancing. Kuti was charismatic and great fun to watch and without naming Robert Mugabe, he made an impassioned plea for the people of Africa to work towards eliminating corrupt dictators.



Left, from top: The event included performances from Diana Ross, Il Divo, Robyn, The Script and Dierks Bentley.



this year I had four people there, where previously I might have had just soloists singing to accompaniment from elsewhere; suddenly I've got four people in a row."

With the dual imperative of lighting artist for camera, and the set as context, how do you accommodate the needs of the live audience as well? "I don't approach it that way, I don't see those as different demands. What is often created live doesn't have the pre-requisites of something to be televised, but I think it's perfectly possible to produce a show with all the dynamic of Live without compromise to the TV experience. Both environments still need the moods, the highs and lows."

So how do you respond to those demands? "From a lighting design point of view I'm responding to the needs of the set, and building a portfolio of dynamic looks; that gives flexibility. I would have liked to use projection, there are lots of available surfaces on the set; that's maybe something for next year. I was especially pleased with the VersaTubes and the way they worked within the set. Because the tubes themselves have a reflective surface you get more for your money in the way they catch light."



There was a rap-break by The Script when they sang *We Cry*: Gurdon flickered blood reds up and down the VersaTubes nestling in between the vertical aluminium tubes, matching the staccato delivery, then capped it off with a flourish from the back floor lights [P36 two cell] just on the point of a snare drum rim shot. Good operation by Alex Cunningham, good visual insight by Gurdon, the whole effect smartly complemented the music as visual punctuation without overwhelming.

You bordered the downstage edge of all three stages with Birdies [MR16s]: is that just for up-light to remove shadow around the face? "I don't always know where they're going to be useful; Diana Ross, for example, didn't want them, but I think a lot of artists find them reassuring. Consider this - you've got maybe 30 songs in total, most of which you've not heard before rehearsals, and unknown numbers of people on stage. Seun Kuti for example had a big band, 14 of them pretty much all moving around; the Birdies are useful there to augment whatever lights you've got coming from elsewhere, and the lights themselves don't interfere with the main lighting." Lifting the performer without spoiling the lighting look? "Exactly. They are also useful for camera reverses, defining the boundary of the stage."



Bingemann provided the Martin LC screens in his design, but it falls to you to use them. "Everything came off the GrandMA server; I would have liked some budget for content, but that's a broader argument about attitude to screens in general. The stock images off the server were fine, but you can always use more. For the VersaTubes set as they were, this was all low-resolution, so I didn't need a huge stock of images for them, but I could have done with more variety for the LC."

Set

This is Peter Bingemann's eighth year on the show. He tells me: "The design used to be changed every second year, now it's stretching a bit to three. It's always been in this three-stage format, except that in my first year the orchestra was at the end, but that never really made sense. Budget-wise it's about defining the show. This is not an awards show in the sense of the BAFTAs, but it's not a typical concert either." Couldn't it be done with a revolve and a side stage for all the host-to-camera stuff? "Personally, I don't like revolves, you immediately lose depth."



"The set is built by NRK, the national broadcaster, by their set shop. Much of their work is done in wood and they're very good. It does seem to be more expensive here, but that's more a reflection of the relative wealth of the country. The ring above the orchestra is wood, for example." This object, maybe 10-12m in diameter and 2m high, worked really well, the two similar sized rings above the side stages were stretched gauze on hoop frames; as such Gurdon was able to light inside and outside of the centre ring in two contrasting colours to great effect.

"What I've done this year is re-dress the stage. Balancing between the major clients is a big consideration; there's the Nobel Committee, and then there's the production company Dinamo, and the Broadcaster. It's not that there's a tension between them, not in the sense of conflict, but they do have conflicting needs in practical and artistic terms, so you do have to understand where they all come from. This is the Nobel Peace Prize - that's a serious subject and it's important, a celebration of something significant on a world scale, but it's not showbiz. So my aim is for stylistic balance, something subtle but strong. I'm quite conscious of having to make all parties happy."

"The [semi-transparent LED] screens are from me; on more or less every show I do I tend to spec' all the screens, but I'm using them less and less. I think there's a danger screens can make a designer become lazy. It's all very well putting them there, but then you've got to put something on them."

Bingemann, like so many I've interviewed on this subject before and indeed Gurdon here, echoes the complaint that producers, especially on the budget side, fail to understand the need and cost of providing video content: "They still see them as some sort of sophisticated light - oh, just throw something up on them. So I'm trying to avoid screens." Anything you're especially pleased with? "The Schnick Schnacks are wonderful, no heat, tiny, cheap." Obviously a set designer's delight - even the Gaffer endorsed them.

So what are the imperatives of your design? Where does functionality and art collide? "At a practical level, you've got to have two good-size stages; year to year you never know who's going to be on, and you have to make allowances for the change-over."

Bingemann's delightful vertical tubes rise in sections, portcullis-like, to provide equipment change egress. "The tubes make a good visual tool, in the room and on the telly. They make a fairly colossal statement," visually they extend way up into the rigging. "They're strong and bold, without being fussy or busy; that's my sense of how Nobel has to be. I did present three different designs this year, but all resolved around that need to be strong and dynamic; those are probably the two best adjectives for Nobel."

And that's probably the place to leave it, strong and dynamic. I heard winner Martti Ahtisaari speak this night, and in this all too brief passage he managed to embody both those adjectives. If you think peace negotiations are all the soft soap flannel personified by Tony Blair, think again. Ahtisaari was very plain-speaking, and self-evidently determined: no wonder the Nobel awarding body chose him. You can listen to an interview with Ahtisaari here:

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