



Mark Trompeteler looks at 'live cinema' by comparing a stage performance at London's National Theatre and its live screening at his local VUE

*National Theatre photographs showing the Phèdre experience. L-R: Helen Mirren as Phèdre, Dominic Cooper & Stanley Townsend, Dominic Cooper & Helen Mirren*



# Theatre

## coming soon to a cinema near you

The programming and screening of alternative content in cinemas has taken another potentially significant step in 2009. Following the now established practice of screening live and recorded opera and ballet from such prestigious venues as The Metropolitan Opera, New York, and The Royal Opera House, London, The National Theatre in London is broadcasting live a trial season of four plays to cinemas worldwide, in an initiative branded NT Live.

**T**he pilot season launched on 25th June with the satellite transmission of Nicholas Hytner's production of "Phèdre" to cinemas around the world, at 7pm UK time, from the stage of the Lyttelton auditorium on London's South Bank. The play stars Helen Mirren, Dominic Cooper and Margaret Tyzack.

This 25<sup>th</sup> June transmission, to me, seemed almost like an iconic moment in the history of entertainment, as the event, in two hours, seemed to encapsulate its long history. The play's run includes two performances performed in Epidauras in Greece, the venue of one of the ancient world's most famous and impressive open air Greek theatres. The author of this tale of sexual transgression in the ancient world, Jean Racine, wrote it in the genre of Greek tragedy, in the late seventeenth century.

That night's transmission also bought to fruition concepts of pay per view TV and cinema, and "Theatrofilm" and "Electronovision", that were pioneered in the 1960s. Helen Mirren was fol-

lowing other famous Phèdres on the stage – such as Diana Rigg & Glenda Jackson, and the whole event was being brought together by the latest digital electronics of satellite transmission, digital projectors and high definition imagery.

### The Director's Voice

"The NT Live events are designed to bring what we do on the stages of the National to a far greater number of people than we would ever be able to reach otherwise," says Nicholas Hytner, Director of the National Theatre. "We've been thrilled by the response of cinemas around the world to this new experiment. It means we can reach tens of thousands of people in addition to our work in London and on tour."

"We are not", continues Nicholas Hytner, "trying to make a movie. What we are trying to do is use the skills of a multi-video camera team to broadcast as vividly as possible the experience you might get if you were sitting in the theatre." He adds, "There are going to be some big advantages. We are going to be able to take

you in close. There will be the opportunity to see the intensity of emotion in the face of Helen Mirren's "Phèdre" in a way that would not be possible from a theatre seat."

### Preparations on the South Bank

On the evening of the broadcast, tickets cost £10 in the NT's Lyttelton theatre, the same price as those in the cinemas. Theatregoers were warned that cameras may occasionally be intrusive: for "Phèdre", five cameras were needed to cover the action on the stage, with a track at the front of the auditorium and a small crane. A sixth camera was used on one of the outside terraces for presentation to camera.

Although it is in the nature of the experiment that there was no editing, nothing was left to chance. The video director, Robin Lough, attended "Phèdre" rehearsals and a first camera script was planned by him. After a first camera rehearsal which was recorded, Nick and Robin made notes, and the camera script was adjusted. There was a second camera rehearsal

on the day of the broadcast before going live.

Preparing a play for the National which will also be part of NT Live has no bearing on the way it is directed. Hytner says, "I will be encouraging all the actors, writers and directors who take part in NT Live not to think about the broadcast." The productions will remain pieces of theatre but observed in a new way and by new audiences world-wide. Nothing replaces the experience of attending theatre in person – the National also has an extensive touring programme – but NT Live is a way, as David Sabel, NT Live's producer, puts it, of "opening the walls of the theatre for one night".

### Meeting the Producer

It is almost a year since the producer of NT Live, David Sabel, began work on the project. Meeting Nicholas Hytner while researching his dissertation for a Cambridge MBA, he found that his subject 'digital opportunities in theatre' resonated with the artistic director's own interest in presenting theatre on cinema screens. Hytner had observed the New York Metropolitan Opera's success in relaying productions by satellite into other venues and had some experience of this kind of enterprise himself: his production of "Don Carlos" for the Royal Opera House was screened in Trafalgar Square last year. So a pilot project began to take shape. First Sabel went to cinema chains and independents equipped with the necessary digital projector and received an enthusiastic response to the idea. Seed funding was provided by The Arts Council and NESTA (National Endowment for Science, Technology and the Arts, a unique and independent body with a mission to make the UK more innovative). They were later joined by Travelex's sponsorship of the international dimension.

I met up with David Sabel, at the offices of the National Theatre and we chatted about various aspects of NT Live. He told me about his original training and experience as an actor and director and how he had wanted to move over to the production side. When we chatted he expanded about the whole purpose and background to NT Live:

"We tour our productions extensively, over 26 weeks of the year. We know that you can never replace the live experience and NT Live will always remain a complementary programme to our touring; however, NT Live offers the opportunity to reach thousands more people in one evening and to show our work in remote areas without theatres, where we would not be able to tour."

"We chose to launch with *Phèdre* knowing there was a great opportunity with a company of such high profiles, particularly Helen Mirren who is also a major cinema star. One of the things that has encouraged me is that we are a week away from the transmission and we have



David Sabel, NT Live's producer

sold out in twenty three cinemas in the UK and for people who have booked to see a 17th Century French tragedy in a cinema is something - we find this quite remarkable and are really enthused about it".

### The Finances

I asked him about the project's finances and he gave me a good general idea of the approach.

"Where the operas are charging 25 pounds per ticket, we are only charging ten pounds per ticket, that is because the normal price opera tickets are so much higher than ours are. Our ticket prices are subsidised and we have the Travelex £10 season, where tickets are available for £10. So we felt very strongly that we could not charge more for seats in a cinema than people are paying for their seats in the theatre in London. By the time you take out everything for the cinema, the VAT, etc. you are making a very small amount per person. Now the great thing about alternative content is that once you are up on the satellite you can go either to ten cinemas or a hundred cinemas and there is not a huge added cost so if we can continue to scale up the distribution, and that can be done relatively quickly then there is an opportunity for us to make it sustainable. We knew from the beginning that initially it would be loss making – which it is – because the set up is very expensive and because we are not set up like the opera house with its media suite. We knew from the beginning that it would be financially challenging, I should say. Thus we have got start up funding from the Arts Council and NESTA, who are doing a great bit of research around it, as well looking at audiences, at cinemas, at demographics and who is going to these events, and looking at alternative models of distribution of alternative content. So we got some start up funding and now we have sponsorship from Travelex for the international broadcasts, so what that does is allow us to try this stuff in the pilot season and to try and build a template in going forward but also use that time to try to scale up the distribution so we can get to the stage that it can at least wash its face and break even on its own. We are

treating it as a kind of business venture where you have start up funding in year one, and you hope to break even in year two. I think we can – we are much closer - I think the financial picture is far better than I thought it would be – because the uptake has been very positive – and we are now on 270 cinemas worldwide ( July 2009 ) – which is more than we originally anticipated – we thought initially we would be on one hundred or a hundred and fifty. I think you can also judge its success on whether or not people are enjoying it and going. There is a question of attendance but there is also a question of whether or not people are engaging with it and are happy. I want to sell out cinemas and we have sold out many, but even if ten people in a tiny cinema – we are doing a screening in Guernsey which is brilliant because they would otherwise never get the National Theatre and they happen to be doing very well in their ticket sales – but if only 15 people attended in Guernsey and had a fantastic experience then isn't that what the National Theatre should be doing? If that happens then I think that's fine and that is good. "

### On Marketing

I asked David about the all important area of Marketing and he outlined their strategy.

"When you have one night in 270 different places – its very difficult – how do you market it? So I think the key is working very closely with the exhibitors. I have got such close relationships with the exhibitors. In the UK we have decided not to work with distributors and we have gone direct to the exhibitors which I think has been a really good decision because it puts us in a place much closer with the people who will be working with the product. We have been working with Picturehouse and Cineworld and Vue and Odeon and we have made great partnerships there and it becomes very much a joint effort. Outside the UK we are working with BY Experience which is the company that distributes the Met's broadcasts and they have very close relationships with the exhibitors. I never feel very far away from the product which I think is a good thing. I wouldn't presume to know how best to market to the audience in Galashiels, and the cinemas in Galashiels certainly know better than I do. So what we do is produce all the assets and the design and so we control the branding because we want the work to go out looking like National Theatre work, but we let the cinemas adapt that to their needs and personalize it with their branding. We also produce a trailer, which we have found to be our most effective marketing tool in reaching cinema audiences."

### The Long Tail

We touched upon the issue of possible DVD sales and possible future TV broadcasts. "We have only negotiated the rights for live broadcasts because we felt strongly that it is an

experiment that we wanted to try. What we are passionate about is the live cinema experience and if we get to the end of it and we look at it and say that artistically that is a fantastic recording, and even if it is no longer live, but there is a real appetite for it and we think we might want to make it available, and then we would have to look at it – look at it in conjunction with the artists, and look at payments and the possible demands and of course rights, and all those issues. I think that as it stands now our mission is to focus on it as live event and work towards the success of that and look to see to where we might get in the future. There are certainly no plans to look at DVD or TV – there is certainly lots of interest and lots of people ask, eventually I imagine if it is successful, that inevitably would become a question. “

### Subtitling, and the DSN

David told me that subtitling is far more difficult with live theatre than it is with opera where there is a libretto and the lines are held for far longer. At this initial stage it would add considerable cost but does limit some countries in taking the broadcasts at the moment. David concluded in saying how important the UK Film Council funded digital screen network is to the growth and development of alternative content in the UK. This network, he thinks, is proving to be a real success in the growth of alternative content in cinemas, particularly in more independent “arthouse” cinemas and smaller chains where he believes such content is flourishing.

### Early Days - ‘Electronovision’

In the early nineteen sixties, the concept of paying for an individual screened event in the United States began with the Home Entertainment Company’s closed-circuit screening in cinemas of a boxing match between Cassius Clay (Muhammad Ali) and George Logan. William Sargent was the business and technical brain behind the idea. In 1964 he invented “Electronovision”, a basic process to transfer videotape recordings to film. The first major outing for cinemas screening a theatrical production shortly after it had been performed on a theatre stage happened on the 23<sup>rd</sup> and 24<sup>th</sup> February 1964 when up to 1000 cinemas across America screened a “Theatrofilm” of John Gielgud’s Broadway modern dress production of “Hamlet”. It starred Richard Burton, and had been recorded using a large number of television cameras on the stage of the La Fontaine theatre a day or two previously. The cinema screenings were reportedly a great success and took a reported three million dollars at the box office. There has been a DVD available from specialist outlets of this historic recording for a number of years. In the same year, Sargent went on to pioneer the filming of rock concerts with “The T.A.M.I. Show”, a documentary for the cinema featuring acts such as James Brown, the Rolling Stones, Chuck Berry,

## Phèdre - broadcast facts and statistics

**On 25 June 2009, and throughout the month of July, Phèdre was broadcast live to approximately 280 venues around the world.**

- **Phèdre played to 73 screens throughout the UK on Thursday 25 June 2009.**
- **Phèdre also played to 18 countries throughout the rest of the world and 210 sites.**
- **14,000 people saw it across the UK.**
- **88% overall capacity in the UK, with over half the cinemas sold out.**
- **To date, an additional 35,000 have attended throughout the rest of the world.**
- **In the UK, Phèdre visited: 11 venues in the Southeast; 6 in the East; 9 in the Southwest; 3 in the East Midlands; 3 in the West Midlands; 3 in Yorkshire; 2 in Cumbria; 1 in the Northeast; 5 in the Northwest; 6 in Scotland; 6 in Wales; 2 in the Channel Islands; 12 in London.**
- **Internationally, Phèdre visited: Australia; New Zealand; South Africa; US; Canada; Mexico; Belgium; Czech Republic; Denmark; Estonia; Finland; Iceland; Ireland; Luxembourg; Malta; Netherlands; Norway; Sweden.**

the Supremes and the Beach Boys. Again, the videotape was transferred to film. His Electronovision company went on to make two biographical productions on Hollywood legend Jean Harlow, and then later returned to filming plays performed on theatre stages. He then developed an improved video to film transfer system which he called “Theatrovision”. A very interesting glimpse of the excitement or “hype” surrounding the 1964 screening of “Hamlet” in American cinemas can be sensed by watching a television interview of the time with Richard Burton which is available on YouTube.

### Getting the stage to the screen

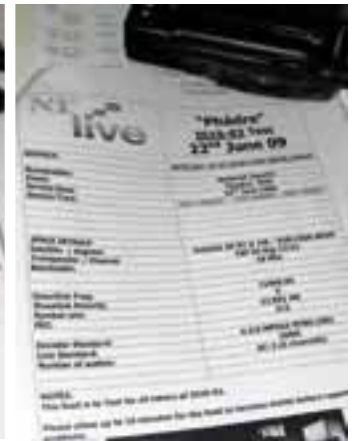
The trial season of NT Live can now benefit from all the advances of technology that have taken place since “Electronovision”. A high definition outside broadcast vehicle and multi camera production kit is being supplied by Bow Tie Television. The NT and Nicholas Hytner are bringing in freelance video director Robin

Lough, with whom Hytner has worked before, and all the creative craft team on camera and vision mixing, for example, are being brought in by Hytner and Lough – with the engineering side of things, e.g. vision engineering being staffed by the Bow Tie crew. Links Broadcast are facilitating the UK satellite uplink with Arqiva facilitating the transatlantic link. In New York, the company BY Experience, who have now regularly facilitated the worldwide transmission of the Metropolitan Opera House’s operas for several years, is facilitating the worldwide distribution of NT Live via satellite to the cinemas. In the UK The National Theatre is working with the Picturehouse, Odeon and Cineworld and Vue chains and a range of independent cinemas and arts centres, totalling over 50 cinemas in the UK, all receiving the plays live. In approximately an additional 50 venues in Europe from Ireland to Scandinavia, Iceland to Estonia, theatregoers shared the agonies of Racine’s driven characters at precisely the same moment – live. Then a short time later, taking time zones and satellite orbits into account, those audiences were joined by others in approximately 170 further venues in the United States and Canada, Australia, New Zealand and South Africa.

Robert Borchard-Young of BY Experience, via the wonders of transatlantic email, told me a little about the technology of how the American side of things and world wide transmission takes place: The broadcast feed is delivered on two separate paths to the U.S. and Canada. The first path will be on the satellite IS3R and the back-up path will be by fibre to All Mobile Video teleport in New Jersey. Once the signal arrives in the U.S., it is converted to 29.97 frame rate, and recorded onto an EVS. Later the same evening it is re-broadcast from the EVS onto the satellite AMC5. Each exhibiting location is equipped with satellite dishes, satellite receivers and HD projectors. The show is broadcast in HD 1080i and Dolby AC3 surround sound. Locations in the U.S. that are not showing the broadcast the same night will receive the content on hard drives for exhibition within 30 days of June 25th.

### At the theatre

My wife and I attended the National Theatre with some friends to see “Phèdre” on the stage, for the Saturday afternoon matinee, prior to the NT Live transmission the following Thursday. We sat in seats costing twenty three pounds each, towards the rear of the circle. Despite the fact that we were significantly towards the rear of the auditorium, the sight line and view were excellent. The two main auditoria at the National have been brilliantly designed to ensure very good views of the stage from almost every seat. Our experience was of a classic theatrical type. Although some distance away, the set design and the excellence of this cast brought the



power of the script and the emotional themes right up to us in our seats. It was a powerful performance and stage experience even from where we were sitting. The theatre audience was also totally quiet, and nobody ate or drank during the play.

#### At the cinema

We then attended the screening of “Phèdre” at the 251 seater Screen 1 at the Vue Cinema in Purley Way, Croydon. Screen 1 here is the only digital screen, and it is equipped with a 2K Christie. We paid ten pounds each for our seats. John Howard, the cinema’s manager, told me that it obviously has to be the screen where they programme special events and live transmissions. He told me that audiences for this type of special alternative programming event vary considerably, with obviously opera and ballet being the major such programming to date. John told me they recently had an audience of over 100 for “The Nutcracker”, which pleased him, given it was a commercial multiplex in the very diverse socio-economic mix of Croydon. For “Phèdre” there was an audience of 87. I knew from my meeting with David Sabel that many art house, small chain and Picturehouse cinemas in the UK were completely sold out weeks before the transmission.

#### Watching from afar

The transmission opened with very effective surround sound of the audience in the Lyttelton taking their seats and chatting prior to the performance. There then followed shots of the audience in the auditorium which very effectively created a link between our own cinema audience, the theatre audience and possibly the greater worldwide audience too. At 6.50pm an informally dressed Jeremy Irons appeared on the screen from one of the terraces of the National Theatre, with the beautiful London skyline and the dome of St. Paul’s vividly captured in the evening sunlight as the background. He gave an introduction to the play and briefly interviewed Nicholas Hytner about NT Live and the play. At 7pm we were shown the auditorium and “curtain up”.

The quality of the high definition pictures was excellent and the surround sound good. What we experienced was an excellent cinematic experience where the close up, medium and long shot views of the actors performing the play created a perfect blend of cinema and theatre. The performances were excellently judged creating the live power and excitement of theatre, and presumably projecting satisfactorily to the theatre audience, but not appearing in the least excessive for the big close ups and cinematic scrutiny of the big cinema audience, with their big screen view of the play, ( given it was Greek tragedy). It worked brilliantly as theatre cinema. The power of the performances, to me, came over with an extra degree of intensity that a very close view of the actors gave - that our rear circle seat view in the theatre couldn’t quite give. Interestingly my wife preferred the theatre experience which she felt gave a pure unmediated power within the context of an extremely quiet transfixed audience. At the Vue cinema, for a multiplex audience, I thought the audience was almost as transfixed, but my wife was particularly irritated by some quiet background noise of the dreaded cola being drunk, a mobile phone ringing and other audience rustling.

Both the cinema broadcast direction of Robin Lough and the overall production of the transmission by David Sabel deserve sincere congratulation. The stage performances and direction were superb and the subject of much review elsewhere. From our multiplex cinema seats, it was a very impressive success in combining live theatre with cinema.

#### Yet more views

At The Tyneside Cinema in Newcastle my brother-in-law and sister-in-law saw “Phèdre” in the new auditorium there. They reported a full house and an equally transfixed audience who appeared to enjoy the experience and not create a sound. In Newcastle the cinema audience applauded the cast on the South Bank as they took their bows. In Croydon the applause was more muted, perhaps some other members of the audience might have been a little

curious and confused like the elderly lady who sat next to me. She informed me that she had always loved going to the theatre in London’s West End but found it more difficult as she had got older. She confessed to me that she wasn’t exactly sure about all the technicalities of what was going on – whether she was watching a giant television “Play For Today” or a cinema screening or whether it was live or a recording – but the main thing she told me was that she thoroughly enjoyed the play and wanted to come again, even if she wasn’t sure to applaud or not as the actors took their bows.

#### The Projectionist’s view

John Zold, the projection manager at the Vue, Purley Way, Croydon, very kindly spared me some time to talk to me about how he and his team had been introduced to their additional role in dealing with the satellite transmission of alternative content or “Live Cinema.”

He told me that the first encounter that all Vue projection managers had with “Live Cinema” was for the preparation of Vue’s first UK live satellite event under the branding of ‘Vue Music’ for the ‘Genesis Larger Than Live’ concert from Germany in HD and Dolby Digital 5.1 audio. Vue sent all their UK projection managers on a training course at Dolby for the newly installed Dolby DMA8 plus unit along with on site training from the installers of the satellite equipment. Various aspects were covered at Dolby, including adjusting the global delay to correct any sound synching issues. Croydon’s digital projector was put in as part of the national strategy of installation to encourage the screening of a greater variety of material and alternative content. This had been previously fitted and full training given by Arts Alliance at its premises. Support is provided by Arts Alliance and Vue’s own projection engineers. John was extremely positive about the approach that Vue takes towards the training of its projection teams in new developments.

Taking “Phèdre” as a typical example, projection managers first receive advance notification of the satellite event via an internal Vue weekly corporate magazine / newsletter sent to all Vue



cinema managers called “The Big Picture”. Projection managers are then either updated via ‘The Big Picture’ and / or emailed technical aspects of the satellite event. – informing them of the tuning frequency, details of times and dates of advance test transmissions when the team are able to rehearse and test during a fixed test transmission time. During this test transmission time “window” any possible problems can be recognised, diagnosed and resolved. They are given a name and telephone number to contact or give feedback to should any problems be encountered during the test & broadcast transmission period.

At Screen 1 at Croydon, the signal comes into an HD satellite decoder from the dish on the cinema roof. The sound is first channelled through the Dolby DMA8 plus (digital media adaptor), which is networked with a computer dedicated to the projection team. On the computer is specialist Dolby software allowing the team to deal with and correct any synching problems should they occur. John said it is not unusual for a satellite transmission to commence with a clapper board or similar synching device in order that projection teams can check picture and sound synch in advance. He also said that at Croydon they had only ever encountered synch problems once in the early days of them screening these live events. They were able to correct the fault quickly. After passing through the DMA8plus the sound is fed into a standard Dolby CP650 processor.

On the picture side of things, using HDMI cables, the picture comes out of the back of the satellite box into a Christie Cine-IPM-2K digital cinema image processing module, prior to going into the Christie 2000 digital projector. He reported to me that the satellite signal can sometimes be encrypted or unencrypted.

#### Cinema & film versus live cinema

In many ways his projection team treats a satellite special event in the same way as they do projecting a feature film – similar stages are gone through. Firstly making up the programme (confirming the transmission schedule and tim-

ings), secondly technical rehearsal / screening and note taking (test transmission, “tweaking” and note taking) and lastly the screening with attendance in the box to monitor quality on screen and in the sound (transmission on the day with attendance in the box and checking on the show during its transmission). I asked him about the main differences though and he outlined these as being:

- that the technical team now had to be familiar with dealing with the routing of a digital signal through an equipment chain as opposed to film being threaded through a projector,
- with handling film in the projection box the team have total control of start, end and presentation but with live cinema the start and end times of the event are being controlled by people who are remote from the cinema.
- some quality and technical issues can be introduced from factors outside of the cinema e.g. synching between sound and picture and picture interference due to adverse weather conditions. At Croydon they have been lucky in that they had never had any loss of picture quality due to atmospheric conditions.

John told me “we have to closely monitor the live satellite feed for the actual start on our projection LCD monitors, so we can control the auditorium lighting, sound levels, digital projector etc, while the customers are shown a Vue digital ‘holding slide’ or pre-show presentation. Also for any problems during the show and again at the end of the show for lighting, sound & digital projector control.”

There are also some events which can be a mixture between satellite live transmission and playing back through the projector from the server’s hard drives. Typically this might be a simultaneous multi-venue film premiere where live coverage of celebrity arrival, red carpet shots and interviews, then a live on stage introduction are all then followed by the screening of the feature film which had been loaded onto the cinema’s digital projectors server.

#### Projectionist to technician?

John started his career in projection in the days of carbon arcs and manual reel changes. He takes the view that many projectionists have a love of cinema technology and film exhibition and that this technology has evolved over a number of decades - he for one has a love of that technology and its evolving and says he has not found it difficult to evolve with it. He sees this all as a moving forward of the technology and sees 3D as the current and next part of the technology. Having felt that the quality achieved with modern satellite transmission is a huge development on the kind of quality that was transmitted in the days of those early boxing match screenings, he is obviously an enthusiast of the astonishing quality that can be achieved through live cinema satellite transmission today.

#### NT on tour!

Phèdre was followed on 1 October by Shakespeare’s ALL’S WELL THAT ENDS WELL with Clare Higgins, and readers of this issue of Cinema Technology will still have time to book for NATION, based on a novel by Terry Pratchett, adapted by Mark Ravenhill, on 30 January 2010 (a Saturday matinee), and, on 22 April, 2010, Alan Bennett’s new play THE HABIT OF ART with Michael Gambon, Alex Jennings and Frances de la Tour.

Each individual cinema’s approach and commitment to marketing and advance publicity for these screenings in this initial trial season could be a key to either its success or failure. If “Phèdre” is anything to go by – then the National Theatre deserves every success in this initiative. Following on from opera and ballet – for an initial trial season at least, world class theatre is coming soon to a cinema near you.

Mark Trompeteler  
mtromp@blueyonder.co.uk

On stage photographs of “Phèdre” by Catherine Ashmore, courtesy of National Theatre, other offstage photographs by the author.

[www.nationaltheatre.org.uk/ntlive](http://www.nationaltheatre.org.uk/ntlive)

Copyright of Cinema Technology is the property of British Kinematograph, Sound & Television Society and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.