The News Bulletin of the Weather, Arts and Music Special Interest Group

Darwin & Fitzroy - The week in overview
by Pierrette Thomet  p. 2

Two Lives on the Ocean Wave
Malcolm Walker, Chair of the History Group, reflects on his experience of the play  p. 3 and 4

The WAM Art Feature -
Chair of Progress Theatre and 'Darwin and Fitzroy' producer Steph Weller on staging the play  p 5

Boffin corner
Peter Stott on meeting 'Darwin and Fitzroy' playwright Juliet Aykroyd  p. 6

Writer Peter Moore
on his evening at the theatre  p. 7

Photo gallery  p. 8

A Grand Night Out
by Prof John Thornes  p. 9

In The WAM Pipeline
Plus  p. 10

Newsletter contributions invited
Our WAM newsletter is not just about all things WAM and for Special Interest Group Members. We would love to be able to have contributions from all our readers, so if you've been to a fascinating exhibition that made you think differently about science or art, or heard an interesting talk about science/art collaborations, or went to an inspiring concert - or if you know of an event yet to happen and want others to know about it, please submit your contributions to WAM SIG chair Pierrette Thomet at pierrette.thomet@googlemail.com.
We look forward to having lots of exciting things to report!
This year saw WAM explore a new kind of event: a play framed by a series of short pre-play events directly related and/or inspired by the themes and the subject of the play. As far as we could tell this was something that had not been tried before and posed a whole host of interesting questions, not least of which who might be prepared to take the gamble with us and try this new event model out. Progress Theatre Reading proved to be the ideal partner - a bunch of extraordinarily committed and passionate people who live and breathe the theatre, and bring to it also an open-mindedness that allowed that gamble to take place - with resounding success! As Director of WAM I cannot thank Stephanie Weller, Christopher Hoult, Kate Shaw and the crew at Progress Theatre enough for their collaborative support, theatrical flair and sheer coolness in the face of the inevitable gremlins that beset even the very best showbiz event - such as this one! It was a great pleasure to work with them. Let’s raise a glass of grog to our next co-production!

The week’s programme featured a variety of pre-play events: On Monday Gordon Tripp introduced us to FitzRoy; Gordon’s thoughtful and sympathetic portrayal of FitzRoy’s later life and career as Meteorological Statist to the Board of Trade gave a real insight into both the man and the difficulties he faced. Tuesday saw Prof Tony Rice undertake an entertaining and incredibly rich exploration of life under sail in the 19th century. He allowed us to gain a better understanding of the hardships FitzRoy, Darwin and the Beagle crew had to endure, as well as highlighting FitzRoy’s extraordinary seamanship and leadership qualities that kept an unusually high proportion of the ship’s crew alive and healthy through 5 gruelling years at sea. Wednesday’s performance of the play was preceeded by ‘Sea Fever’, a recital of songs about the sea and inspired by it, performed by yours truly and Dr Briony Cox -Williams on keyboard, who heroically replaced indisposed guitarist Gerard Cousins at the shortest of notice. The programme included some proper sea shanties, which roused the audience to join in the chorus! Thursday was the turn of Dr Philip Brohan of the Met Office, who introduced us to the extraordinary way data from old ships’ logs (including the Beagle’s) is now being used in cutting-edge climate science, and Friday brought our audience face to face with the question of faith versus science - a question FitzRoy was sadly never able to resolve in his own mind, with such tragic consequences. Prof Brian Golding gave us a thought-provoking and nuanced presentation on the subject, followed by a fascinating and very positive audience-led discussion session which would have gone on for a long time had it not been time to set up the stage for the play. And finally, on Saturday we were privileged to be able to welcome the playwright herself, Juliet Aykroyd, for a wonderful question and answer session chaired by Dr Peter Stott. Juliet spoke very movingly of how much she had come to admire and appreciate FitzRoy in the process of writing the play. The evening continued with another rendition of ‘Sea Fever’ (this time with guitarist Gerard Cousins back on form and accompanying) before the last and excellent performance of ‘Darwin and Fitzroy’. And throughout the week, we were able to admire beautiful photographs by Roxana Tohaneanu-Shields and the weather chart-inspired paintings by Julia Rogers, both eminent Reading-based artists, who were exhibiting their work in the foyer of the Progress Theatre. A rich week full of thought-provoking things to explore and new knowledge to absorb, but also shot through with humour, beauty, sadness and surprises - what more could anyone want!
For a week in September 2014, the high seas came to Reading in the form of Juliet Aykroyd’s play about relations between the pioneer meteorologist who gave us the term ‘weather forecast’ and a naturalist and geologist who achieved fame for his theory of evolution. The meteorologist was Robert FitzRoy, who was Meteorological Statist to the Board of Trade from 1854 to 1865 (and would now be called Chief Executive of the Met Office). The naturalist and geologist was Charles Darwin, who from 1831 to 1836 sailed around the world aboard HMS Beagle with FitzRoy in command and in 1859 published his seminal work ‘On the origin of species’.

The play focuses on the sometimes stormy interactions between the two men during the voyage and on the final years of FitzRoy’s life as he struggled with depression and subsequently committed suicide (on 30 April 1865). In particular, it brings out the torment suffered by FitzRoy when his originally friendly but often authoritarian relationship with Darwin turned sour, a consequence of the latter’s ideas on evolution challenging his own fundamental beliefs about the literal truth of the story of creation as told in the Biblical book of Genesis. We may smile now at FitzRoy’s belief that there were no dinosaurs aboard Noah’s Ark because the doors were not wide enough, but to him this was an obvious explanation, and anything to the contrary was heretical and deeply offensive. Each evening before the play was performed, there was a scene-setting talk or recital, arranged by the ‘Weather, Arts and Music’ Special Interest Group of the Royal Meteorological Society. On the Wednesday evening, 10 September, the ninety of us who filled the auditorium of the Progress Theatre were treated to an excellent and most enjoyable recital of nautical songs. This did not include the rolling foam bass aria from Haydn’s Creation which would have been appropriate, given the anguish FitzRoy harboured from the day in 1829 on a previous Beagle voyage when he lost two men overboard in a storm off Uruguay and evermore thereafter blamed himself for taking insufficient heed of a rapid fall in barometric pressure.
But the aria’s omission was entirely understandable, for the singer was a mezzo-soprano, Pierrette Thomet, who steered a middle course between the deep Cs and the high Cs!

For most of her recital, Pierrette was accompanied sympathetically and expertly by Briony Cox-Williams on a keyboard. The programme ranged over a variety of musical styles, beginning with Franz Schubert’s An die Musik and ending with Gershwin’s Lorelei. In between, the audience were treated to Sea Fever and The Bells of San Marie by John Ireland, L’invitation au voyage by Henri Duparc, O Walé, Walé by Benjamin Britten, Meeres Stille and Schäfers Klaglied by Schubert, the Welsh traditional song Ar lan y môr, and the sea shanty Lowlands Away. Two other items featured Briony on instruments other than keyboard, these being a tambourine in the French traditional Quand la Boîteuse va-t-au marché and an Irish bodhran drum in the German traditional jub-hei-di, jub-hei-da! The songs in Welsh and other languages showed Pierrette’s considerable linguistic talent.

The play was superbly performed (and a great credit to the director, Kate Shaw), with powerful performances from Christopher Hoult, Michael Beakhouse, Steve Havercan and Jim McClure as, respectively, young FitzRoy, young Darwin, old FitzRoy and old Darwin. The play was commissioned by Lord (Julian) Hunt of Chesterton in the 1990s and has since been updated, now including, for example, a reference to the Shipping Forecast Area called FitzRoy (introduced in 2002). The only significant historical fact that has been omitted is that FitzRoy married again after his first wife died. They had a daughter, Laura, who was seven when her father died. It is said that she discovered him after he cut his throat.

If you have never seen this play, do take the next opportunity that comes your way. It tells very vividly a story that ought to be much better known, and, in so doing, dispels the popular notion that the voyage of the Beagle was Darwin’s. It was not. It was FitzRoy’s. It was a voyage whose primary purpose was hydrographic surveying, and FitzRoy was in charge. Darwin was a supernumerary, and not even first choice in that rôle. Moreover, he was lucky to survive the voyage. Without FitzRoy’s consummate skill as a mariner and meteorologist, the ship might have been lost in one of the tempests encountered. There could so easily have been no theory of evolution (at least not the one formulated by Darwin).

The devout FitzRoy was buried in unconsecrated ground, as was then customary for those who had committed suicide. He lies near his local Anglican church at Upper Norwood, South London. In contrast, the man who was destined to become a clergyman when the Beagle voyage began but increasingly questioned conventional religious beliefs and died an agnostic lies in the hallowed ground of Westminster Abbey. What irony!
When Pierrette approached me to discuss Progress Theatre mounting a production of Juliet Aykroyd's *Darwin & FitzRoy*, in collaboration with WAM, I confess to being ignorant of the role of Captain Robert FitzRoy and his contribution to both the development of Darwin's famous theories, and to our understanding of meteorology and weather forecasting. I'm pleased to say that one of the many benefits of this collaboration is learning a little more about such an important figure!

As a charity, the chance to do a play rights-free, is always a tempting offer – but of course, there’s no point in saving money if the play itself is not up to snuff. Fortunately, Juliet Aykroyd's script is both dramatic and entertaining. She has a difficult task as a writer – to do justice to the historical and scientific accuracies, whilst creating well-rounded characters and presenting it all in an entertaining way which keeps the audience engaged as well as informed. Her script successfully balances all these elements, being informative without lecturing, with moments of intense drama and much more humour than I'd anticipated, considering the subject matter. As an uninformed observer, I found it accessible – which bode well for our collaboration with WAM, as Pierrette and I hoped to devise a programme which would appeal to a wider audience than would be first assumed.

As such, I was particularly pleased to hear such positive comments from our own membership and 'regulars' – whilst we expected the show to play well to our target audience of scientists, meteorologists and historians, it was gratifying to have our members come up and say how much they enjoyed it, and how interesting they found it; they were genuinely surprised – admittedly, that says more about the assumptions of our membership perhaps than the play!

Our production formed the centrepiece of the week-long festival produced in collaboration with WAM. Each night we had a pre-show event related to the themes of the play. These proved an excellent way of setting the scene for the play, and provided extra value for the audience. However, these aren't necessary for an understanding of the play or themes within it; the full-length play stands alone as a piece of theatre. But I know that many audience members very much enjoyed the opportunity to learn something different, to hear about something they wouldn't normally be exposed to – the digitising of ships' logs, for example, is not a subject matter many of our audience would seek out!

30 April 2015 will mark 150 years since Robert FitzRoy tragically took his own life, so 2015 would be a fitting year for *Darwin & FitzRoy* to continue playing to audiences across the country. There is talk of touring the play, and I hope very much that Progress Theatre will be able to play a role not only in ongoing productions of *Darwin & FitzRoy*, but also in future WAM collaborations.
It seemed an apt analogy that Robert FitzRoy should be guiding Juliet Aykroyd to meet us, a group of interested enthusiasts waiting expectantly for her to arrive at the theatre. We had signed up for a very exclusive question and answer session with Juliet Aykroyd, the author of Darwin and FitzRoy, a fascinating play about the relationship between the captain of the Beagle and his gentleman companion on their famous voyage around the world. But Juliet was late, lost in traffic in an unfamiliar town. When we took the call from a despondent playwright, it was FitzRoy who stepped forward. How could it be anybody else? After all this was the man who had been so impressed by the tragedy of the sinking of the Royal Charter off the coast of Anglesey with the loss of more than four hundred souls, that in later life he devoted himself to the new science of weather forecasting and posted storm warning cones at ports to avert such tragedies in future.

Our young FitzRoy with the mobile phone was actor Christopher Hoult on the last night of the play’s run and two of the other actors joined us for a fascinating pre-show insight into how Juliet came to write the play, what interested her in the two characters and why she came to structure the play as she did. I was chairing the discussion and although I had felt really nervous about taking on this bit part I needn’t have worried. Juliet was thoroughly engaging and the audience came up with excellent questions.

The play was commissioned by Julian Hunt, one time successor to FitzRoy as Director General of the Meteorological Office, and Juliet was clearly fascinated by her two very different characters, both in their younger and older selves. “My job is to write a character for an actor to act” was how she put it, and you sensed that through their writings – it wasn’t just Darwin who wrote about the voyage of the Beagle - she had found plenty of material to base a drama around. I was interested in the structure of the play and she evoked something I had heard earlier this year in a question and answer session with playwright Richard Bean. The second act was there to explore deeper, go further with an audience than might be possible before the interval. In the meeting of the older men and in FitzRoy’s suicide she had some meaty stuff to deal with.

Later, Juliet joined the Saturday night audience in the main auditorium for songs of the sea from Pierrette Thomet and Gerard Cousins and then we had the play’s final performance of the run. A cast, who I had first seen at a slightly nervy press night ten days earlier, had superbly settled into their respective roles. The dulcet tones of the shipping forecast closed the show. Finally we waved Juliet off into the night. This time she knew her way and her destination home was well charted. The weather forecast was benign. FitzRoy’s storm cones could be hoisted another night.
The second voyage of HMS *Beagle*, made between 1831-36, is famous for the formative effect it had on a young Charles Darwin. It was then – among the varied wildlife and botany of Patagonia and the Galapagos Islands – that Darwin began an intellectual journey that ended quarter of a century later with the publication of *On the Origin of Species*, one of the most influential books of the century.

The Darwin story is remembered but another aspect of the *Beagle’s* voyage is often overlooked. This second story is of the friendship Darwin developed with the *Beagle’s* captain, Robert FitzRoy. The friendship between the two was intense: sometimes jovial but often fractious. Darwin hunted for plants, bones and wildlife. FitzRoy watched the skies. Each were nurturing their own theories about life, religion, science. They shared their ideas in the privacy of the captain’s cabin. FitzRoy talking of rain, wind and weather. Darwin about the development and transmutation of species. Under each conversation, just subsurface, lay the question: was there a God? It was a question that bound the friends together and later split them apart.

The *FitzRoy and Darwin* production at Reading’s Progress Theatre took the audience back to this friendship. The little playhouse was transformed into the *Beagle*, replete with captain’s quarters and jutting prow. The effect was powerful and immersive. To keep focus on the vital friendship just four actors comprised the cast. Two played the younger wide-eyed FitzRoy and Darwin, while two more portrayed the duo as older, reflective men.

The contrast between the timelines were expertly done. Throughout the audience was left with a sense of the characters learning, eavesdropping on conversations that would challenge the way Victorians would think about life. There was not only the shift in time but also the shift in mood. The young FitzRoy, probably cursed with a bipolar condition, often exploding at Darwin’s outrageous theories.

The play had a powerful intellectual allure. The acting was persuasive throughout and the costumes (and added facial hair) more than enough to transport the audience back to those decisive moments on the seven seas in the 1830s. After the *Beagle’s* voyage ended the play reminded us that it was not just Darwin who went on to shock the public with his science, but FitzRoy also. The play comes to an end in the 1860s with FitzRoy’s controversial attempts to predict coming weather – the beginnings of the weather forecast that we know today.

This whole story was put into superb context before the performance by Gordon Tripp in his lecture *Admiral FitzRoy, Founder of the Met Office*. A half-hour talk before the play began, Tripp explained the value of the *Beagle* voyage to FitzRoy intellectual development and explained how he came to establish so much of government sponsored meteorological science in the 1850s, from wind charts to storm warnings.

Pulled together – the lecture and the play – the result was a wonderful blend of drama, science and history. Like others who went along I would have loved to have seen some of the other supporting performances and lectures from other nights, and to the director, cast and organising committee I’d like to encourage them to continue with similar events in the future.
Young FitzRoy (Christopher Hoult) on the bridge of the Beagle

Old friends and adversaries

Missionary benefits of the potato explained

Playwright Juliet Aykroyd with (from left) Michael Beakhouse, Christopher Hoult, Steve Havercan, Jim McClure

Steve Havercan as Old FitzRoy

Jim McClure as Old Darwin

Young FitzRoy (Christopher Hoult) on the bridge of the Beagle

Old friends and adversaries
What an enjoyable evening we had at the Progress Theatre in Reading for the first night performance of Darwin and Fitzroy despite being stopped for speeding on the way home to Worcestershire! The theatre is a cozy, homely and friendly gem - it was almost as if the play was taking place in your own front room. We were whisked away to South America and back - we all felt the stormy seas, the black dogs and the vivid raging arguments as we were educated in the inter-twinnings and differences between the lives of the two great heroes - both in their youth and in retrospect. The acting was superb and totally convincing and the stage set was perfect.

Congratulations to the cast and behind the scenes team. One of the innovations of the production was to have a lecture before the play - spelling out some of the background factual information regarding the lives of Darwin and Fitzroy. This worked extremely well and I only wished I could have gone to all the lectures and performances of the week! I am looking forward to future WAM offerings!
The WAM Pipeline
Events being developed

WAMBite Exeter University
Currently in the pipeline is an ambitious two-part plan developed by WAM SIG member Dr Ewan Woodley of the Geography Department, focussing on extreme weather - of which Devon of course experienced plenty during winter 2013/14. The first event slated for April 2015 will offer the Devon public a chance to hear about the science of extreme weather through a series of talks. The second part slated for a year later, will develop a range of artistic responses to local experiences of extreme weather as well as offer our audience a chance to add their voices to the mix. Literally - through our choral workshops!

WAMFest -
We need your opinion
We need you to tell us what you think of our plans for the next major WAMFest. On the SIG page is a link to both the programme outline and a survey - doesn't take long to do, and will allow us to hone our ideas so that we can provide you with an event you will not be able to resist coming to. Thank you in advance!

WAMBite@ MetOffice September 2015
The project is centred on holding a WAMBite on Open Day in September 2015 to allow the public to visit freely. The planned event includes an art exhibition in the Met Office Street and a performance of 'Seascape', the innovative sea-inspired science/music recital developed and performed by WAM SIG Chair Pierrette Thomet and ex- RMetS Chief Exec (now IoP Chief Exec) Prof Paul Hardaker.

Interested in contributing to any of the planned events?...

....then we would very much like to hear from you!

What we liked

Face2Face with Climate Change
The Forum, Exeter University Main Campus,
Then touring to Falmouth (January, 2015), Met Office, and Sidmouth Climate Week, 2-8 March, 2015

If you live in the in the South West of England or visiting the area over the next few months, look out for an extraordinary exhibition of photographs by David Mansell-Moullin. After its first outing at the Forum on Exeter University Main Campus, the exhibition will be touring various venues (see above). Conceived as a way of celebrating the large community of climate scientists active in Exeter (both at the University and the Met Office), it focuses on 12 scientists working in Exeter who have been major contributors to the latest IPCC report.

Each black and white photographic portrait has the text of the relevant chapter faintly superimposed on the face of its author, creating a sense of depth that matches the expressive power of the photographs. The portraits are close-ups, bringing the viewer into an unmediated contact with a group of people who normally would tend to prefer letting their work speak and take centre stage rather than themselves. Putting faces to climate science in this way is also a moving way to remind us that behind the scientific texts produced and fought over in the political arena and the media are people of flesh and blood whose dignity and integrity is all too often spuriously put into question. Together these 12 portraits make a beautiful tribute to an extraordinary bunch of people.

The only criticism I have is that there are only 12 of them - and that only 2 are portraits of women. It’s not possible to know how many scientists were asked to sit and how many declined, so perhaps the small number simply reflects the number of those who agreed to do what is after all a rather unusual activity for working scientists. But it would have been nice to have a slightly larger representative sample including in gender terms. At this point I must announce something of a vested interest in lauding this exhibition since my other half is one of its subjects, but I dare to flatter myself to be able to keep some subjectivity in the matter - and I thoroughly recommend taking the time to visit it.