

FOGHORN REQUIEM



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Foghorn Requiem is a performance, marking the disappearance of the sound of the foghorn from the UK's coastal landscape. Seventy-five brass players and more than fifty vessels will gather at Souter lighthouse to perform together with the lighthouse foghorn itself.

The sound of a distant foghorn has always connected the land and the sea; a melancholy, friendly call that we remember from childhood - a sound that has always felt like a memory. The sound of the foghorn is uniquely shaped by the landscape through which it travels. Very few sounds are so loud, and heard at such great distances. As a result the actual sound of the horn is almost always heard softened, smeared out and thickened by the innumerable echoes and reverberations of the landscape in which it exists. The characteristically haunting tone of a distant foghorn is the imprint of the land encoded into the sound itself, an embodiment of the landscape and history of a place.

We have tried to create an event that incorporates this sense of the landscape and history into a musical performance. New technology will allow ships horns several miles off shore to play together with musicians on shore, a gathering of three of the finest historical brass bands of the North East. In the performance sounds will be affected by distance, weather, and landscape, and so we have avoided using any kind of amplification. There will be extraordinarily loud moments, but there will also be very quiet periods. The performance of Foghorn Requiem is therefore a delicate sound experience that will depend on the silence and quality of attention of the audience.



TECHNOLOGY

For Foghorn Requiem we wanted to create a piece of music that incorporated a whole landscape, but the unpredictable delays caused by the distances between the ships and the musicians would normally make playing music in time impossible. Sound only travels at about 300 metres per second, which means that the sound of a ship horn blown a kilometre out at sea takes more than a second to travel to a listener on the shore. To compensate for this we've built small custom designed computers and software to control the horns - each computer must calculate exactly how far in advance it needs to play a note so that it will be heard in time with the band.

Kockum Sonics have provided us with access to their full range of ships horns, but ships horns aren't designed to be used as musical instruments. To allow them to play conventional musical scales we've designed special tuning devices which modify the horns' natural resonance and allow us to change their pitch. But ship horns also take some time to get going — they don't make a noise the instant they are played. So as well as compensating for the distance to the listener, the control computers must also measure

and compensate for the start-up delay on each horn. Software development has been aided by Delta Acoustics and the Cultural, Communication & Computing Research Institute (C3RI) at Sheffield Hallam University.

As the ships gather for the performance, the control computers on board form a network – passing messages from ship to ship. As each ship joins the network it will communicate with the other ships around it and they will start to perform tests to calculate time delays and wind speeds. The ships will play test patterns of notes on their horns, then listen to the results with built-in microphones. In this way they learn to understand the response of the horn they are controlling and build up a map of the wind speeds around the ships. The process may sound a little similar to an orchestra tuning up.

Each control computer has a Global Positioning Satellite module which it uses to both track its position and as an extraordinarily accurate time signal. The time reference provided by the GPS allows the controllers to remain synchronised with each other



to an accuracy of a millionth of a second. Band Conductor Stephen Malcolm on shore will also be carrying a modified version of one of the control modules. This will track his position and broadcast it to the network of control computers. When the performance starts each controller continuously monitors its location relative to the conductor, and uses the information it has gathered to calculate exactly how far in advance it must play a note so that it can be heard in time with the band.

As a musician on shore plays a note on her trumpet, the sound from the ship horn – played several seconds before by a computer a couple of kilometres away – will sweep in from across the sea to meet her note at precisely the same moment. The two sounds then travel on together so that the audience perceives them as if they were played at the same time.

LISE AUTOGENA AND JOSHUA PORTWAY

Artists Lise Autogena (Denmark) and Joshua Portway (UK) have worked together since 1991. Their projects have been exhibited worldwide, and usually involve ambitious technological installations and large-scale collaborations with a diverse range of partners. Recent projects include Black Shoals, a planetarium which runs on a live feed from the world's stock markets; and Most Blue Skies, that uses live atmospheric data to continuously calculate and visualise the place on earth that has 'the bluest sky'. Lise Autogena is a Reader in Fine Art at Sheffield Hallam University.

www.autogena.org





ORLANDO GOUGH AND THE FOGHORN REQUIEM BAND ENSEMBLE

Orlando Gough is the composer of *Foghorn Requiem*, and is an associate artist of the Royal Opera House. He writes music for theatre, operas, plays, dance pieces and music-theatre, and also creates large-scale projects for very unique sites. Previous works including *The Singing River* written for performance by 12 choirs, 18 boats, two cranes and a locomotive in Stuttgart; *Open Port*, the closing event of Stavanger 2008 European Capital of Culture, written for 750 singers, brass band and wooden trumpets; the site responsive dance piece *The Tree of Light*, choreographed by Charlie Morrissey for the Cultural Olympiad; and the site specific choral piece *XX Scharnhorst* for HMS Belfast, as part of the Thames Festival.

Conducted by Stephen Malcolm, the on-shore elements of *Foghorn Requiem* are performed by three Championship-level bands from the North East – Felling Band, NASUWT Riverside Band and the local Westoe Band. The ships' horns are tuned so that the brass bands and the ships' horns can speak in the same language - a conversation between land and sea. Like the sea itself, this music is sometimes queasy and disorientating, sometimes melancholic, sometimes warm and sentimental, and sometimes fierce, almost out of control, Gale Force 9 music.

On 22 June the cliff tops at Souter are witness to an extraordinary performance. *Foghorn Requiem* celebrates the passing of the foghorn from the British coastal landscape and into maritime heritage, and is an ambitious and unique musical performance featuring an armada of vessels positioned offshore, the Souter Lighthouse Foghorn and on-shore musicians.

THE MUSIC

What is Foghorn Requiem about? Here are some notes on the composition by Orlando Gough: The ships assemble, sounding their horns in a pattern that builds up as they get closer to each other, then each section of the piece is subtitled with a series of regions from the shipping forecast:

1 Procession: Humber, Thames, Dover

The bands appear from far away, processing towards Souter. The music is solemn and euphonious, and introduces a version of the sea shanty *Go Down You Blood Red Roses*.

2 Soundings: Wight, Portland, Plymouth

The beginnings of the land-sea conversation. A call from the lighthouse on soprano cornet. The ships reply to the cornet call, and the band and the ships exchange rich chords.

3 Warnings: Biscay, Trafalgar, Finisterre, Sole

Queasiness, unease. The ships' horns, like a distant foghorn, give a gentle warning. The bands gradually react. Then on alert. Increasing tension. Foul weather.

4 Cyclone : Lundy, Fastnet, Irish Sea, Shannon

Fierce and unrelenting, in a cyclic pattern. The fury of the sky and the sea.

5 Ma Nighean Donn As Bòidche: Rockall, Malin, Hebrides, Bailey

Calm after the storm. The ships' horns introduce the melody of the Gaelic song *Ma Nighean Donn As Bòidche*. In the original song the singer tells of his hardships at sea; by the time he returns home, the love of his love has gone off with another man.

6 Saltwater Lament: Fair Isle, Faroes, South Iceland

An epic, exhilarating, choppy, difficult voyage. The music is based on two Estonian seafaring folk songs which contemplate the likelihood of disaster.

7 Aftermath: Viking, North Utsire, South Utsire

A simple setting for ship's horns and flugelhorn of the German folksong *Aus Einem Seemannsgrab Da Bluhlen Keine Rosen*.

8 Wake: Forties, Cromarty, Forth, Tyne

A raucous, kick-out-the-jams celebratory romp. The sounds of a shipyard.

9 Soundings: Dogger, Fisher, German Bight

The cornets all play the call, independently, creating a melancholy miasma of sound. An exchange of chords, then the foghorn has the last word.



SOUTER LIGHTHOUSE – THE INSPIRATION FOR FOGHORN REQUIEM

Opened in 1871 as a way to combat the hazardous coastline, Souter Lighthouse was at the forefront of technology, and the first lighthouse in the world designed and built to be powered by electricity.

At the centre of Souter is the Engine Room, a reliable and instant source of power which powered the site until 1952 when the National Grid began providing electricity. Souter Lighthouse was originally powered by Professor Holmes' state-of-the-art alternating current magneto-electric generator which produced light by passing electric current between two 'pencils' of carbon to create a spark. This method was so effective and reliable that in the first eight years of use the emergency oil lamp was only used twice.

Working alongside the lighthouse, the Souter foghorn also played an essential role in shipping safety along the coast between the Tyne and the Wear. When visibility fell below two miles in the daytime or the lights from the Tyne and Wear piers couldn't be made out at night the foghorn let out a four second blast of sound every 45 seconds to alert nearby ships. The original single horn was pipe-shaped and angled to project sound straight out to sea, but this design was replaced by the twin-horns that can be seen at Souter today, in which the horns are angled to project the sound up and down the coast.

The National Trust acquired Souter Lighthouse when it was decommissioned in 1988, and opened it to the public in 1990.

In an era when foghorns are being decommissioned around Britain's coasts due to satellite global positioning systems, the foghorn at Souter is lovingly maintained by a team of National Trust volunteers and is preserved to allow future generations to experience a vital piece of maritime heritage. It was the artists' first site visit and meeting with these volunteers that inspired Foghorn Requiem.



THE SPIRIT OF SOUTER

Foghorn Requiem is a considerable undertaking, achieved through the generous support and enthusiasm of the region's maritime community. But Foghorn Requiem's tribute to the role that Souter has played in the region has also inspired the wider community. Over the past few months artists, musicians and filmmakers led by The Customs House with Co Musica have been working with local schools and community groups in South Shields and Sunderland to explore some of the themes within Foghorn Requiem – capturing memories of Souter and its foghorn, celebrating the landscape, flora and fauna of The Leas area around the lighthouse, and investigating why particular places hold such power in our imagination. These projects are being developed into an on-line legacy and education resource for use by schools and community groups.



An exhibition of artworks created by young people and community groups is currently on display at The Customs House until the 30th June.

The gallery is open
10am - 8pm Mon to Sat
11am - 8pm on Sun

www.customshouse.co.uk



FOGHORN REQUIEM

Foghorn Requiem was devised by artists Lise Autogena and Joshua Portway with composer Orlando Gough, and produced by Grit & Pearl. This ambitious project was commissioned by the National Trust, South Tyneside Council and Festival of the North East with funding support from Arts Council England, Danish Arts Council, Sheffield Hallam University and The Customs House. The artists, producer and commissioners are also grateful to a wide range of technology and maritime partners for their support, without which the project could not have been delivered.

www.forghornrequiem.org

Foghorn Requiem is produced by Grit & Pearl and is funded by the project partners:



National Trust



Foghorn Requiem has been made possible thanks to the support of:

