Zig-zag Dazzle Ships

Ben Whittaker



The Mersey ferry 'Rose' on the Mersey c.1923. From the McRoberts Collection, Maritime Archives, National Museums Liverpool, MCR/90/232

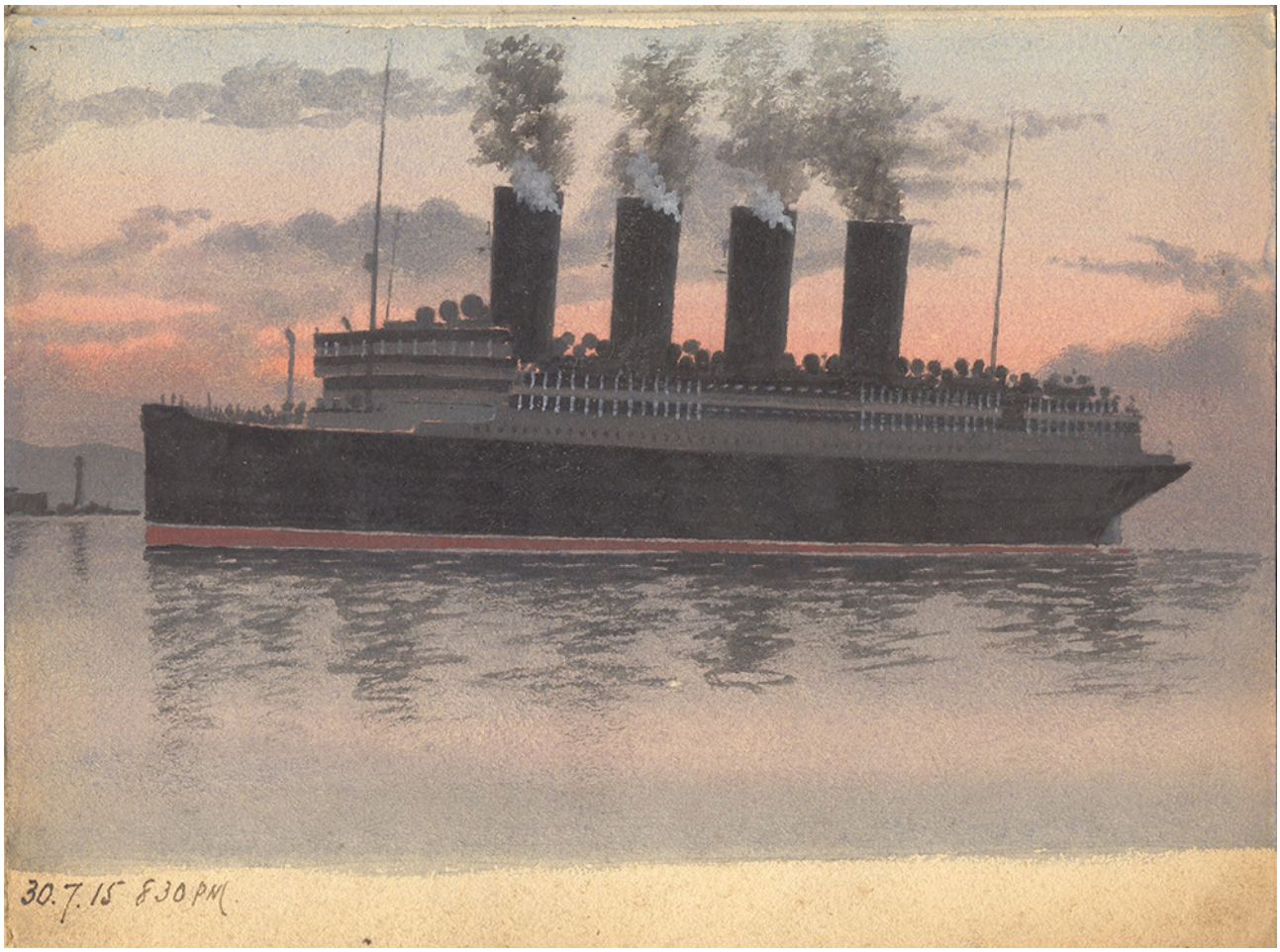
The marine artist Norman Wilkinson is generally credited with the invention of dazzle painting, but after the First World War had ended, several competing claims (including from Wilkinson himself) were submitted to the Royal Commission for Awards to Inventors, seeking recognition for the ideas and concepts behind the dazzle programme. One of the claimants was a Liverpool man called Archibald Phillips. This article puts Phillips under the spotlight, examining his claim and attempting to place him correctly within the story of dazzle painting.

A Liverpool Man

Archibald E. Phillips was born in 1878. In the 1911 census his address was 28 Earlston Road at Liscard, Birkenhead, near Wallasey Central Library. He was married, and his occupation listed as 'fine art dealer'. Phillips was in business with another dealer named Raynor MacConnal and part owner since 1893 of a chain of antique shops known as 'Phillips & MacConnal'. The head office was in the Burlington Arcade, London, with branches in Bournemouth, the Gleneagles Hotel in Perthshire and Castle Street, Liverpool.[1] Phillips, then, was not doing too badly at all – well enough to employ at least one live-in servant at his Liscard residence. By the outbreak of the First World War, he was thirty-seven years old.

Liverpool was a key strategic port during the war. Hundreds of convoys sailed to and from the city with food and munitions essential for the war effort. The port also acted as a main hub for the movement of thousands of troops to battlefronts across the world. At Cammell Laird, Royal Navy ships were built and repaired. Many Liverpool ships were requisitioned by the Admiralty for the war effort as hospital ships and troopships. Some were converted to armed merchant cruisers. The 10th Cruiser Squadron was predominantly made up of converted liners and based in Liverpool. Against this backdrop, Phillips submitted his first proposal for ship camouflage on 9 May 1915. After the war, he stated that it was while crossing the Mersey and watching the ships passing down the river that the idea of dazzle painting came to him.[2] He crossed the river twice a day to and from work, and so would have had ample opportunity to see and study many Royal Navy ships and converted passenger liners, some newly painted grey or black. We can only speculate about any further personal motivations, but being a Liverpool man, and living where he did so close to the river, it is likely that he knew men who had joined either the Royal or Merchant Navy, and who were risking their lives at sea against the U-Boat threat. Many Liverpool ships were lost in the war,

including *Lusitania*, which was torpedoed and sunk two days before Phillips first wrote to the Admiralty. He would have been aware of the risks faced by Liverpool ships and men, and perhaps a desire to help them in some way was in his mind on those daily trips across the river.[3]



RMS Mauretania on the Mersey in July 1915, sketched by Ernest W. Barrett. From collections of National Museums Liverpool, MMM.1987.118.2.15

Phillips' proposals

Phillips' first proposal on 9 May 1915 was sent to Lord Derby at the War Office. It included an explanation of how he thought colours could be used in the disguising of vessels. A number of designs were included, some described as having a 'dazzle effect'. One design used a mosaic pattern system to produce a three-dimensional stepped effect.[4] Phillips also spoke in the proposal of 'dazzling the eyes of the gunners of enemy submarines'.[5] He offered his services personally in supervising the disguising of a vessel at Birkenhead docks. However, he received a reply stating that his scheme would be 'worthless to Merchant vessels'.[6]

Undaunted, he wrote again on 28 May, outlining his ideas to the Earl of Balfour, First Lord of the Admiralty. A sketch illustrating one of his proposed designs was sent separately on account of its size.[7] He received a formal thank you for the letter but nothing more.



Mauretania (I) in dazzle paint as a troopship during WW1 by Burnell Poole, oil on canvas, 1919. From collection of National Museums Liverpool, MMM.1968.184.6

Phillips did not contact anyone in authority again about his ideas until November 1917. The catalyst for this was seeing *RMS Mauretania* dazzle-painted as a troop ship, presumably on the River Mersey.[8] By this time, Norman Wilkinson's dazzle proposal (submitted in early 1917) had been taken up, and Wilkinson had been placed in charge of a naval camouflage unit at the Royal Academy of Arts in London. Approved dazzle designs were transferred to scale plans and passed on to teams based at a number of ports around the country for application to ships. One of these teams was based in Liverpool. What a surprise for Phillips it must have been on one of his twice-daily trips on the river, to see *Mauretania* and other vessels dazzle-painted on the water. It appears to have given him an additional idea for ship camouflage, for he wrote to the Secretary of the Board of Invention and Research at the Admiralty:

I believe that something further can be done to disguise the actual size of a ship by painting the latter part of a merchantman [a ship built for commercial use but requisitioned by the Navy for war use] in the form of a much smaller ship (in dark solid colours). By this treatment the imaginary small ship, which is painted on the side of a large merchantman, will, to the onlooker, be visible from a distance and the other part be practically invisible. The intention behind this scheme is that a submarine, being already warned of the approach of a large merchantman, and lying in wait for her prey, sees what she thinks only a small prey on the horizon, and either takes the disguised ship for a smaller craft, or that his bespoke merchantman must be many miles further away then she really is, and, in this case, the submarine will not have the correct range should she open fire.[9]

The Commission

With the end of the war came a relaxation on censorship, which allowed Wilkinson to embark on something of a publicity blitz to advertise himself as the sole inventor of the dazzle concept.[10] He argued

that his scheme was unique in its aim to confuse rather than to conceal, and that 'all the previous attempts which have been made to utilize paints as a defensive measure when dealing with ships were made with a view to rendering them invisible'.[11] This was disputed by numerous people, including Phillips, who submitted rival claims to the Royal Commission for Awards to Inventors. A special Committee of Enquiry was set up to hear and assess the rival claims under Admiral Farquhar of the Royal Navy. The enquiry took place in London during October 1922. Phillips was there in person, and his claim was heard on the same day as Wilkinson's and that of another claimant, Professor John Graham Kerr of Glasgow University. The enquiry seems to have captured the imagination of the media, since it was reported widely in national and local newspapers on 16 and 17 October 1922, including (unsurprisingly given a local man's involvement) in Liverpool. *The Liverpool Daily Post and Mercury* reported it at length, in an article headed 'ZIG-ZAG DAZZLE SHIPS. A LIVERPOOL MAN'S CLAIM'.

ZIG-ZAG DAZZLE SHIPS.

A LIVERPOOL MAN'S CLAIM.

THREE CASES HEARD BY THE INVENTIONS COMMISSION.

From Our Own Correspondent.

LONDON, Monday.

The claim of Mr. Archibald Phillips, of the firm of Phillips and Macconnal, of Liverpool, in reference to the painting of ships during the war, was heard, with two others, by the Royal Commission on Awards to Inventors here to-day. The two other claimants were Professor Graham Kerr, Regius Professor of Zoology at Glasgow University, and Mr. Norman Wilkinson, the well-known marine painter.

Professor Kerr's case was heard first. Mr. Hunter Gray, K.C., on his behalf, explained that he submitted to the Admiralty, early in the war, a scheme in which he drew attention to the protective colouration of wild animals which rendered them inconspicuous in their natural surroundings, and suggested the colouring of ships, by strongly contrasting patches, as a means of protection from the enemy's fire. The suggestion was communicated to the Fleet confidentially in a General Order. The professor afterwards offered his services to the Admiralty, and wrote that the various trials had been made on the lines suggested.

The scheme then in use, said Mr. Hunter

CORRESPON

WHAT IS WRONG WI

Sir,—In the course of an above heading in your issu special correspondent says eight months of this year cloth were only 1,600,964 Y showing no improvement o at this rate our exports fo out to be only a little more 1913, when they amounted lineal yards (equal to ab square yards.

The figures for this year lished by the Board of Trad viz.,

	1921
January	249,360,400
February	244,725,500
March	231,931,800
April	186,760,700
May	147,603,800
June	142,630,500
July	177,530,400
August	212,402,800
Totals	1,580,964,900

From the above it will the first eight months of t showed an increase of 98 yards (say, 63 per cent indicates a total for the tw ing December 31st 1922 of 3, or 59 per cent of 1913.—Yo

5, Rumford-place Liverpo

THE COUNTRY AND GEORGE

Sir,—It is a canon of good life that one should never

Each man was represented by legal counsel – a Mr Trevor Watson appeared for Phillips, who was cross-examined. Phillips outlined the timescale of his applications (as we have seen – two in May 1915, another in November 1917) and the story of his inspiration from taking the ferry to work every day. He claimed that the dazzle design he had seen on *Mauretania* in 1917 was very similar to the design on the sketch he had sent with his second proposal on 28 May. The Admiralty claimed not to have received this design.[12]

The Committee found in favour of Wilkinson, who was awarded a single payment of £2,000. They appear to have been rather dismissive of Phillips' claim, and the Chairman Admiral Farquhar stated that 'it is quite obvious that this suggestion had no value at all'.[13] Phillips was determined to press his claim regardless, and published his ideas in a booklet entitled 'Suggestions for the Camouflage or dazzle of British Merchant Ships in the Great War'.[14]

A Place in History?

How, then, to assess Phillips' claim? His additional 1917 proposal, submitted in response to seeing a dazzled ship, is deeply flawed. The idea that a smaller ship painted on a ship's hull would be visible and the rest of the ship practically invisible is simply not feasible, and flies in the face of the accepted principle that it is impossible to render a ship invisible at sea.[15] It does perhaps show that whilst Phillips had a creative mind, he lacked the relevant scientific or artistic knowledge to translate an idea into a workable proposal.

I would view his 1915 proposals slightly differently. These pre-dated Wilkinson's but were after Kerr's (who wrote to the Admiralty in 1914). They show that (like others such as Kerr), Phillips had the idea that the painting of a ship's hull with strong contrasts of colour and shape could distort the appearance in such a way as to confuse the enemy, not to render a ship concealed or invisible (as Wilkinson claimed all other previous proposals did). His first proposal in May 1915 specifically refers to an intended dazzle effect. In this respect, his ideas were valid and pre-dated those of Wilkinson.

What can also be said, however, is that his designs were not well received or considered to be workable. Phillips does not seem to have had any scientific or military background. He had the idea – and that cannot be taken away from him – but not the ability or knowledge in the appropriate areas to translate that idea into a feasible scheme that was based on valid theory and principles. Also, it could be said that he lacked the contacts and connections to push his ideas through. Kerr had the gravitas of a major university behind him to bolster his position and make his a voice worth listening to. Wilkinson was an 'inside-man', known to the Admiralty through his service in the Naval Reserve. Both men were better positioned and also had superior skill and knowledge to translate the same basic ideas into a workable scheme. The real showdown was between Wilkinson and Kerr. Kerr's proposal for 'parti-colouring' was trialled by the Admiralty but without success. He, however, argued that his scheme was practically identical to that of Wilkinson, but was misunderstood and executed badly. He asserted that whilst Wilkinson could be credited with the efficient application and utilisation of the theory, he could not lay sole claim to the discovery and awareness of the principle.[16]

In their letters of rejection to claimants such as Phillips, the Committee of Enquiry made it clear that they recognised and respected their efforts, which had been 'governed by a patriotic motive and spirit'.[17] In the end, that is how Phillips should be remembered – as a man who wanted to help his country – and his city.

[1] From correspondence with David Mason, Chairman of MacConnal –Mason Gallery (formerly Phillips & MacConnal).

[2] Liverpool Daily Post and Mercury (hereafter LDPM), October 17th 1922, p10.

[3] As examples, Liverpool's Cunard Line lost thirteen of its twenty six ships during the war, The Harrison Line lost twenty seven ships. Twelve thousand Liverpool men joined the Royal Navy during the war, and over eight thousand joined the Merchant Navy (not including those already at sea before 1914).

[4] David Williams, "Liners in Battledress" (Conway Maritime press London, 1989), p80

[5] Western Morning News and Mercury, 17th October 1922

[6] LDPM, October 17th, 1922, p10

[7] Ibid p10

[8] Ibid p10

[9] Ibid p10.

[10] See Hugh Murphy and Martin Bellamy, "The Dazzling Zoologist, John Graham Kerr and the Early Development of Ship Camouflage", The Northern Mariner/le marin du nord, XIX No 2, (April 2009), p183

[11] Norman Wilkinson, "The Dazzle Painting of Ships", read before the North-East Coast Institution of Engineers and Shipbuilders, 10th July, 1919, reprinted by order of the council, p4, Maritime Archives, Merseyside Maritime Museum, 910.WIL/R

[12] LDPM, October 17th 1922, p10.

[13] See Hugh Murphy and Martin Bellamy, "The Dazzling Zoologist, John Graham Kerr and the Early Development of Ship Camouflage", The Northern Mariner/le marin du nord, XIX No 2, (April 2009), p191

[14] David Williams, "Liners in Battledress" (Conway Maritime press London, 1989), p80

[15] Admiralty Memorandum for the War Cabinet, "Dazzle Scheme of Painted Ships", 9th October 1917, The National Archives CAB/24/28

[16] The case in favour of Kerr is argued most persuasively in the excellent article by Hugh Murphy and Martin Bellamy, "The Dazzling Zoologist, John Graham Kerr and the Early Development of Ship Camouflage", The Northern Mariner/le marin du nord, XIX No 2, (April 2009).

[17] David Williams, "Liners in Battledress" (Conway Maritime press London, 1989), p81

Ben Whittaker

Ben Whittaker is Curator of Maritime History & Technology at Merseyside Maritime Museum. In 2015 he co-curated the dazzle exhibition on board the dazzled Mersey Ferry Snowdrop. He studied Ancient History and Archaeology at Manchester University before graduating from the Masters in Art Gallery & Museums Studies at the same institution. He has also worked at Peoples History Museum, Bolton Museum and Salford Museum.