

Institution: The Glasgow School of Art		
Unit of Assessment: 32 Art and Design: History, Practice and Theory		
Title of case study: Transforming the Commercial Marketing, Sales and Cultural Understanding of the Modern Shipping Industry through Design History		
Period when the underpinning research was undertaken: 2002 to 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Bruce Peter	Professor of Design History	2002-present
Period when the claimed impact occurred: 2013-2020		
Is this case study continued from a case study submitted in 2014? No		
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Peter's maritime design history research has underpinned commercial, economic and cultural impacts in countries around the world. It has transformed marketing and sales processes for 4 global shipping companies, enhancing customer confidence and increasing sales. It has also enabled a new approach to stock acquisition for the world's largest ferry operator, enabling very considerable savings (estimated at over USD80,000,000) and encouraging innovation. These benefits have been realised in Denmark, Sweden, China and Japan. In North America and the UK, Peter's research has stimulated cultural tourism through contributions to major new exhibitions, attracting large audiences, new funding and new revenue through book sales. Finally, Peter's research has reached global audiences, with 26,000 copies of Peter's books sold since 2013, generating over GBP1,001,000, and through TV programmes broadcast internationally, attracting audiences of 2,000,000+.</p>		
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>Academic research on maritime history has traditionally focused on technical design, largely exploring military history, not merchant shipping. Research by GSA's Professor Bruce Peter has transformed the field by building a new body of work that combines the history of technology with design and business history and cultural studies methods. His approach has created fresh insights into the architectural and technical design, consumer culture and operational contexts of twentieth century passenger ships in British, Danish and international contexts. Through interviews (with naval architects, interior designers and shipping company managers) and extensive archival research, the body of work ascertains relationships between the technology, engineering and economy of modern ships and their aestheticisation for public consumption. Peter's approach is innovative in its application of these methods to analyse the subject equally in terms of the 'production' of ships, the 'consumption' of their interiors and onboard facilities by users, and their cultural and design contexts in terms of architecture, fashion and other related areas. Comprising mainly monographs, Peter's research falls into two broad areas: applying his innovative approach to examine particular ships, companies and types of passenger vessel; and investigating the history of ship design through the different lenses.</p> <p>The first of these areas can be illustrated by three key examples. In 2007, Peter explored 70 years of the history and context of the passenger ship design work of Knud E. Hansen (KEH), a naval architecture consultancy based in Denmark with clients around the world. Peter's research develops a new understanding of how a small specialist firm, innovating primarily in ferry and cruise ship design, developed operationally efficient vessels with unprecedented ranges of facilities to attract wider demographics of travellers and generate increased onboard revenue. The research introduces insights into the thoughts of the company's famous ship engineers, including Knud E. Hansen, Tage Wandborg, Dag Rogne and Holger Terpet. [R1] Following this research, and working with Canadian maritime historian Philip Dawson, Peter</p>		

co-authored *Queen Elizabeth 2: Britain's Greatest Liner* in 2008, exploring the social and cultural contexts from which the liner emerged and providing an in-depth view of the design process, from earliest proposals to detailed designs of different iterations of the vessel. Peter looks in detail at how – and why – the world's most famous ocean liner has been transformed from a futuristic Modernist icon into a 'retro' ship, based upon nostalgia for a lost 'golden age' of inter-war liner travel. [R2] A third example includes Peter's 2010 design history of the roll-on, roll-off (ro-ro) ferry from the mid-nineteenth century until the present day. *The Ferry: A Drive-Through History* comprehensively documented for the first time the design origins of the modern ro-ro and the various international strands of ferry design development, filling a significant gap in the historical record of modern merchant shipping. The work revealed the challenges relating to the compromises between commercial requirements for fast throughput and safety concerns arising from open and undivided vehicle decks. [R3]

Examples of Peter's investigation of ship design more broadly include the co-authored 2006 *Cruise: Identity, Design and Culture*, exploring the design and culture of cruise ships from the interwar period to the present day. Using a cultural studies perspective, Peter's work examines both interior and exterior design, as well as onboard entertainment and the dining experience. [R4] This was followed in 2010 with *Ship Style: Modernism and Modernity at Sea in the 20th Century*, which focused on modern passenger ship design since the 1880s and contained original scholarship on the manifestation of modernism in ships and their interiors, as well as the influence of modern ships on architecture, design and spatial planning ashore. Comparing and contrasting the ways that modernism was interpreted in ship design in various European countries, the USA, Israel and elsewhere was a further innovation. [R5]

A significant sole-authored work (published in English and Danish) was *Dansk Linjefart*, the first published account of how Denmark became the leading nation in international liner shipping and how Danish liner operators applied innovative technologies, including propulsion and cargo handling efficiency, to gain increased advantage in what is a highly competitive market. The research focused on the technical innovations, business histories and operational contexts of the major shipping lines – DFDS, EAC and Maersk – and involved interviews with leading Danish naval architects, engineers and technical staff who had been involved in the development of Danish owned and built cargo liners and container ships from the 1950s onwards. For this project, A.P. Møller-Maersk enabled Peter to interview their current senior technical and design staff, which generated unique material, unavailable elsewhere, on the development of the company's newest container ships. [R6]

3. References to the research (indicative maximum of six references)

- R1. Bruce Peter, 2007, [Knud E. Hansen A/S: Ship Design Through Seven Decades](#), Frederiksværk: Nautilus Forlag. [Authored book]
- R2. Bruce Peter, Philip Dawson and Ian Johnston, 2008, [QE2: Britain's Greatest Liner](#), Ramsey: Ferry Publications. [Authored book]
- R3. Bruce Peter and Philip Dawson, 2010, [The Ferry: A Drive-Through History](#), Ramsey: Ferry Publications. [Authored book]
- R4. Peter Quartermaine and Bruce Peter, 2006, [Cruise: Identity, Design and Culture](#), London: Laurence King. [Authored book]
- R5. Philip Dawson and Bruce Peter, 2010, [Ship Style: Modernism and Modernity at Sea in the 20th Century](#), London: Conway. [Authored book]
- R6. Bruce Peter, 2011, *Dansk Linjefart*, Frederiksværk: Nautilus Forlag. Forlaget Nautilus (English translation: Bruce Peter, 2014, [Danish Liners: Around the World](#), Lyngby: Forlaget Nautilus.) [Authored book]

4. Details of the impact (indicative maximum 750 words)

Taken together, the research constitutes an authoritative and original body of knowledge documenting and contextualising the development of design of modern merchant ships. This body of knowledge has transformed marketing and sales processes for global shipping companies, enabled a new approach to stock acquisition for the world's largest ferry operator,

stimulated cultural tourism through contributions to major new exhibitions and enhanced public interest and understanding in maritime design. Impact has been global, spanning the UK, North America, Scandinavia, China and Japan.

Transforming marketing and sales processes for global shipping companies

Ship design and construction is a costly and competitive activity, representing a considerable financial risk (USD2,000,000+) for clients and investors. Conventional marketing strategies were insufficiently refined in the specificity of technical and contextual information and something else was needed to help companies mitigate the risks. As a result of his research, Peter has been invited by 4 major Danish shipping companies to produce accessible literature to promote technological innovations, products and services to – and build and strengthen relationships with – clientele in international markets. These authoritative works of maritime history scholarship have been able to convey comprehensive knowledge to convince clients who themselves are technical and business experts. Specific examples include:

- **Knud E.Hansen** has worked with Peter for over a decade, using his publications as corporate gifts and marketing tools. Since August 2013, KEH has gifted approximately 850 of Peter's books as part of an enhanced sales process, gaining 28 major commissions for complete designs plus over 900 other commissions from leading European shipowners and major Chinese shipyards, including Jinling Shipyard in Nanjing, for which the company designed ultra-large ro-ro ferries for DFDS, Grimaldi Lines and Finnlines. The tendering process included the client providing a score for professional reputation which the books effectively demonstrated. In 2016 the company commissioned a third book, *Ship Design Through Eight Decades*, to celebrate their 80th anniversary and to present as an exclusive corporate gift. As KEH's Managing Director has noted, Peter's work has helped to 'strengthen the image of our company and encourage new clients better to understand our background, expertise and key skills'. [S1]
- **MAN Diesel & Turbo**, since renamed MAN Energy Solutions, a marine engineering firm and propeller licensee, bought 300 copies of Peter's 2015 book, *The Story of the Kappel Propeller*, which itself was commissioned by the Technical University of Denmark and provides a comprehensive understanding of what led to the development of this innovative propeller type. Senior Manager Jens Ring Nielsen has said that MAN includes the book as part of their general promotion of the product, as it 'accurately informs ... potential customers about the lengthy, complex and precise research processes through which the Kappel propeller was developed' and 'allows clients to feel knowledgeable about the propeller's background and thereby makes them feel more confident about its effectiveness'. Prior to using the book as a sales tool, the company sold 50 propellers in 13 years (2003-2017). Since including the book in its sales strategy, sales have increased exponentially, with 70 propellers selling in a 3-year period (2017-2019) [S2]
- In late 2013, **A.P. Møller-Maersk**, one of the largest shipping companies in the world, commissioned an expanded English-language version of Peter's book *Dansk Linjefart*, which featured Maersk ships, translated as *Danish Liners Around the World* (2014) and used by Maersk as corporate gifts. Henning Morgen, Maersk Group Historian, describes the value of Peter's research as 'useable and credible in the production of postings on social media, reaching a global audience that includes... employees, clients and other stakeholders', helping 'in particular... to foster better customer relations' and enabling 'large numbers of people to develop knowledge about our background and values'. Maersk social media reaches the company's 80,000 employees in 130 countries and 3,075,000+ customers, stakeholders and followers. [S3]
- Another major Danish shipping company, **DFDS**, commissioned a substantial book, *DFDS 150* (Lyngby: Polyteknisk Forlag, 2016) for their 150th anniversary, and bought large numbers of copies to use as corporate gifts. [S4] According to Gert Jakobsen, Vice President Communications at DFDS, the book is 'the DFDS Group's point of reference as regards the company's history and is widely used in all 21 countries in which DFDS is represented, from Norway to Turkey, from Ireland and the UK to the Baltic countries ... It forms the basis from which daily answers to questions and requests from the public,

individuals, media, learning institutes or politics are answered' and 'has supplied and continues to supply historical information used in our communications via social media' which reaches over 18,000 people.'

Enabling a new approach to stock acquisition for Stena Ro-Ro

Peter's co-written book with Japanese maritime historian Tsuyoshi Ishiyama, *Japanese Ferries*, formed the basis for a presentation on Japanese ferries, their design, and the Japanese domestic ferry market at the 2013 ShipPax Ferry Shipping Conference, attended by shipping professionals from around the world. A presentation led to an invitation by the world's largest ferry owner (by gross tonnage and freight capacity) **Stena Ro-Ro**, to present to its senior managers, commercial and technical staff at its headquarters in Gothenburg in December 2013. The Sales & Purchase Manager at Stena Ro-Ro has described this presentation as 'opening the door to something which has given us new experience and new challenges', resulting in the decision to purchase a second hand ferry from Japan. Peter's research was the catalyst for this new approach to stock acquisition, enabling both the acquisition of this ship for Stena RoRo and the ship sale for its Japanese owner in 2019. Shipbrokers specialising in ferry sale and purchase estimate the ferry's value at approximately USD12,000,000. An equivalent ferry, bought new, would cost over USD100,000,000, thereby saving Stena RoRo over USD80,000,000, relative to building equivalent new tonnage. [S5]

Stimulating cultural tourism and enhancing major new exhibitions

Peter was commissioned by the new **Danish national maritime museum, Museet for Søfart** to write the official book about its site and context, the design of the new building (by the leading Danish architect Bjarke Ingels, costing DKK330,000,000), and its permanent displays. Publication of the book coincided with the opening of the new museum in October 2013. 5,000 copies of the book were produced by the leading Swedish architectural publisher Arvinius+ Orfeus in Danish and English editions entitled respectively *Museet i Dokken* and *The Museum in the Dock*, for sale to museum visitors and as a corporate gifts. The museum's architects also purchased 200 copies of the book which they use as part of their marketing strategy for the international showcasing of their practice and, as Bjarke Ingels' architect David Zahle states, 'to gain fresh commissions.' As the Chairman and CEO of 'Maritim Museums Byg Aps', a body established for fundraising and managing the construction of the new museum, has said, 'the publication of the book has greatly helped to put the project on the world map.' [S6]

In 2017 Peter was invited by **Victoria & Albert Museum** senior curator, Ghislaine Wood (now Acting Director, Sainsbury Centre), and her American colleague Daniel Finamore (Peabody Essex Museum, Salem, MA) to act as expert consultant on a major international touring exhibition, *Ocean Liners: Speed and Style*. For Wood, Peter's books on ocean liners, *Ship Style* and *Cruise: Identity, Design and Culture*, 'were an important source of inspiration and knowledge' which led to the invitation to participate. The exhibition used themes and case-studies derived from Peter's books and he contributed two chapters to the exhibition catalogue. 16,500 copies of the catalogue were produced and the exhibition was seen by over 500,000 visitors in Salem, London and Dundee, generating substantial revenues for the 3 venues. For the V&A, this is a significant outcome when compared against their benchmark of success (the 'David Bowie Is,' exhibition (2013-18), shown at eleven venues and attracting 2,000,000 visitors). As the exhibition's curator notes, 'As the inaugural show of V&A Dundee, it was at the centre of the £80million regeneration programme ... Visitor feedback confirmed that the exhibition was successful in enhancing their understanding of the design and cultural impact of the ocean liner (97%) and how it had inspired artists, designers and filmmakers (96.6%), as well as capturing a sense of life on board an ocean liner (95%).' For 67% of visitors, it was their sole or main reason for visiting Dundee. [S7]

The exhibition has also led to 'significant tangible benefits' for the **Peabody Essex Museum** (PEM), its initial host. Finamore, the museum's Associate Director, has identified Peter's contribution to enhancing public awareness of the subject, reaching larger audiences, preserving maritime art and artefacts, and improving the museum's professional profile amongst leaders in the field, including maritime scholars and collectors. Since the *Ocean*

Liners exhibition, the Peabody has received 7 offers of significant collections, 2 of which they have accepted, and attracted the involvement of prominent American collectors and their families. *Ocean Liners* also enabled the museum to establish a new relationship with a major regional bank, who became a USD100,000+ sponsor of the exhibition and are now poised to sponsor a second show scheduled for 2021. Finally, the exhibition has significantly increased outreach, including 140 placements in print media, yielding circulation of 7,650,356; mention in 40 known blogs; and 591 mentions in social media with a potential reach of 6,200,000 views. As Finamore has stated, ‘the impact of our exhibition and book project on PEM was among the most effective we have undertaken, and our consultations with Bruce Peter helped assure the impact and overall success of this project.’ [S8]

Following his contribution to *Ocean Liners*, Peter was commissioned by Wood to write two chapters for the monograph accompanying her next major exhibition *Art Deco by the Sea*, inaugurated at the **Sainsbury Centre for the Arts in Norwich** in 2020 and, like *Ocean Liners*, intended to generate knowledge and to achieve economic impact. Covid-19 has prevented these objectives from being realised as anticipated; however, the exhibition had attracted 15,000 visitors by late-November 2020 and expanded its national and international reach through its selection for the BBC’s *Culture in Quarantine* series. Wood describes this as ‘the most significant showing of Art Deco in Britain since the Thirties exhibition at the Hayward in 1976’ and states that Peter’s ‘great empirical knowledge of architectural history and the histories of transport were a vital part of the project.’ [S7]

Enhancing public interest and understanding in maritime design

Peter has enabled the expansion of public knowledge of maritime design history, reaching large popular audiences through his role as expert contributor to TV programmes for major UK broadcasters: *Queen Mary: Greatest Ocean Liner* (Scottish Television for BBC 2, 2016); *Great British Royal Ships: Her Majesty’s Yacht Britannia* (Channel 5, 2017, 1,000,000+ viewers); and *QE2: The World’s Greatest Cruise Ship* (Channel 5, 2018, 1,000,000+ viewers). The programmes were subsequently re-sold internationally by Channel 5’s parent company, Viacom, and have been viewed in much of Europe and the USA (via PBS). Programmes made in recent years add to a suite of earlier shows that continue to be broadcast, generating economic activity through programme-making and sales and through accompanying commercial advertising slots. Approximately 25,000 copies of Peter’s books published since 2013 have been sold around the world, generating over GBP1,001,000. [S9] As well as public programmes, Peter was also invited by the Dorchester Hotel Group – operating nine luxury hotels in the UK, Italy, France and the USA – to record one of eight interviews with the art collector and curator Cathy Wills, based on his contributions to the *Ocean Liners* and *Art Deco by the Sea* exhibitions. The interviews were sent to 17,000 global clients of the Dorchester group to raise brand awareness, and made available on the Dorchester’s website. [S10]

5. Sources to corroborate the impact (indicative maximum of 10 references)

- S1. Evidence of sales figures and how Peter’s work has been used: Knud E. Hansen
- S2. Testimonies for MAN Energy Solutions
- S3. Testimony Henning Morgen and audience figures: Maersk
- S4. Evidence of how Peter’s work has been used: DFDS
- S5. Evidence of influence on Stena Ro-Ro acquisition
- S6. Testimonies for Danish Maritime Museum
- S7. Testimony and audience analysis: *Ocean Liners* at the Victoria & Albert Museum
- S8. Testimony from Associate Director of Exhibitions, Peabody Essex Museum
- S9. TV viewing and book sales figures
- S10. Testimony from Art Historian & Curator, Dorchester Collection