

From Interior to Brand: The British
Overseas Airways Corporation, 1939–
1974. A Case Study of Post-Second
World War British Commercial Design

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PhD Thesis

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Abstract

The central aim of this PhD thesis, *From Interior to Brand: The British Overseas Airways Corporation, 1939–1974. A Case Study of Post-Second World War British Commercial Design*, is to investigate the evolution of branding and identity in the context of British commercial design in the post-Second World War period. However, rather than document the various changes and moments in this history of design in a general overview, as existing texts have already successfully managed, the study uses the aircraft interior of the former national airline of Britain, the British Overseas Airways Corporation's (BOAC), as a focused lens through which to analyse this period's unique form of design in more depth.

Two key interconnected questions shape this investigation: how can the evolution of BOAC's interiors be used to understand design's role in building a British brand in post-war Britain? And can this evolution shed light on the influence of America on British design during this period? These themes act as continual threads throughout the thesis's 10 chapters and helped to shape a new narrative within the history of British commercial design.

While the BOAC aircraft interior is an important starting point, this research viewed it in the broader context of the design strategy of the Corporation. As this thesis will demonstrate, the interior played a central role in the expression of the airline, and in turn British identity, the focus being on how the design physically represented the brand and identity of BOAC. However, as the research moves through the airline's 35-year history, the interior plays a more strategic role in the company's brand image development, becoming an integral part of a unified brand strategy. In understanding the interior within this new narrative, it is the intention of this thesis to present a better

understanding of commercial design in Britain after the end of the Second World War.

It is the proposal of this thesis that, while several major themes have been covered in British design history, the theme of commercial design appears to have been overlooked, and it certainly seems undervalued in design history. But it isn't just the final outputs of BOAC's design history that allow this analysis. Rather, it is the processes and influences behind the designs that allow for a true understanding of commercial design and, therefore, a unique and original contribution to knowledge.

Acknowledgements

I would like to thank all of those who have supported me through the process of researching and writing my doctoral thesis. Firstly, Kingston University who funded this project and have given me the opportunity to continue my research in design history.

The process of research and writing would have been impossible without the invaluable help, knowledge and direction (and patience) from my supervisors Professor Penny Sparke and Professor Anne Massy.

Thanks to all of my fellow PhD researchers at Kingston, including Ben Angwin; Kevin Dowd and Dr. Jane Wildgoose. Thanks also go to my colleagues in the department of Art & Design History at Kingston: Alice Beard, Chris Horrocks, David Lawrence, Sorcha O'Brien, Cat Rossi, Portia Ungley and Helen Wickstead.

I would also like to acknowledge the support and advice from Jane Nobbs and Emerald Day in the post-graduate research office.

This project would have been impossible without access to archive material and knowledge of archivists, in particular Jim Davies and Paul Jarvis at the British Airways Speedbird Centre; Lesely Whitworth at the University of Brighton Design Archives; and Robert Price, who sadly passed away in 2014, and to his family for their on going support of my research and use of Robert's own archive material.

Finally, and most importantly, special thanks go to my family: My wife Lilli, whose unfaltering support, editing and constant belief has kept me going; My mother Sally and my late father, John O'Shea.

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Introduction

**From Interior to Brand: The British Overseas Airways Corporation, 1939–1974.
A Case Study of Post-Second World War British Commercial Design**

The central aim of this thesis is to investigate the evolution of branding and identity in the context of British commercial design in the post-Second World War period. However, rather than document the various changes and moments in this history of design in a general overview, as existing texts have already successfully managed (as will be described in the literature review), this study uses the aircraft interior of the former national airline of Britain, the British Overseas Airways Corporation's (BOAC), as a focused lens through which to analyse this period's unique form of design in more depth. Two key interconnected questions shape this investigation: how can the evolution of BOAC's interiors be used to understand design's role in building a British brand in post-war Britain? And can this evolution shed light on the influence of America on British design during this period? These themes will act as continual threads throughout the thesis's 10 chapters and will help to shape a new narrative within the history of British commercial design.

So, why BOAC? Why analyse this particular company and period? Why not another British brand or company? BOAC provides a unique case study because its 35-year history, from 1939–1974, covers this key post-war period of the British history of design and, therefore, the development of a modern British commercial design process. As a new company starting in the midst of war, and as the national airline of Britain, BOAC was essentially selling a British identity. This was commercial design in the truest sense, and is therefore a significant case study for British design. Specifically, its aircraft interiors provides a very focused and tangible way of understanding the shifting approaches to branding, design and identity in Britain during this period.

While the BOAC aircraft interior is an important starting point, this research views it in the broader context of the design strategy of the Corporation. As this thesis will demonstrate, the interior played a central role in the expression of the airline, and in turn British identity, the focus being on how the design physically represented the brand and identity of BOAC. However, as the research moves through the airline's 35-year history, the interior plays a more strategic role in the company's brand image development, becoming an integral part of a unified brand strategy. In understanding the interior within this new narrative, it is the intention of this thesis to present a better understanding of commercial design in Britain after the end of the Second World War.

It is the proposal of this thesis that, while several major themes have been covered in the canon of British design history, the theme of commercial design appears to have been overlooked, and it certainly seems undervalued in design history. But it isn't just the final outputs of BOAC's design history that allow this analysis. Rather, it is the processes and influences behind the designs that allow for a true understanding of commercial design and, therefore, a unique and original contribution to knowledge.

This thesis is structured in 10 chapters. The starting point and first chapter of this thesis is a full literature review that outlines the existing work in the canon and, therefore, where this research fits as a new contribution to knowledge. The subsequent chapters then present the research carried out, starting with '1939–1945: The Development of a British Brand During Wartime'. The chapter asks: how did the airline come into being? How did a British company define and identify itself during a global conflict? And how did it prepare itself for a radically altered, post-war world? Who and what were the key proponents of branding an airline for operation immediately after the end of the war?

Chapter Three, 1945–1950: The BOAC Interior, 'The Show Window of British Culture', challenges the preconceived ideas of air travel typically documented in design histories.¹ It also recognises the economic power of the BOAC aircraft interior for a British state attempting to increase revenue via exports of British products. The fourth and fifth chapters act as case studies on the influence of America. Chapter Four, Modes of American Consumption in Britain, looks at the wider impact of America and the term 'Americanisation' in the context of the British creative industry. The fifth chapter, 'Introduction of American Aircraft into BOAC Service', presents material that contextualises the direct influence of American designers and manufacturers on the Corporation. Chapter Six, '1950–1954, BOAC's Jet Age: British Hope Reborn', looks at the opposing narratives of modernity and tradition. Seen in relation to the famed de Havilland Comet, the aircraft interior becomes the site of a complex trade-off between passenger focus and pure technological development. The seventh chapter of this thesis, '1954 – 1960: The Modern BOAC Jet Aircraft and The Importance of The Consumer Experience' introduces a major influence on the Corporation, the American industrial designer Walter Dorwin Teague. Through his eponymous design agency and his work with American aircraft manufacturer Boeing, Teague would outline a series of ideas that would revolutionise how the aircraft interior and flight itself were perceived and experienced. It is in this chapter that these ideas are analysed and their impact on BOAC determined.

Chapter Eight, '1960–1967: 'British Designers Left Out in the Cold' charts the period when well-established foreign, mainly European and American, designers were enlisted by the Corporation, which was eager to employ their skills to benefit their aircraft interiors and improve standards in the face of American competition. Chapter Nine, 'Defining the New Global Marketplace for Flight: Designing for Supersonic or

¹Anon, 'Fashions from Britain' in *Wings over the World*, May 1946

Mass Transportation', explores the time when the most noticeable changes within the aircraft industry occurred, as flights become economically viable for large sections of society. This meant that the nature of the interiors changed, from elite, luxurious spaces, to mass-transport, public interiors.

Finally, Chapter Ten, '1967–1974, Becoming British Airways', documents the seismic shifts of the 1960s, which led to the final chapter of BOAC's history, spanning from 1967 to 1974. Documenting the merging of the Corporation with its sister airline, British European Airways (BEA), the chapter investigates the final shifts of the interior as it became part of an overarching brand strategy that reflected not only the shifts in British design culture from industrial to post-industrial design, but also the shift of air travel from the preserve of the elite to a mass-transport solution.

The Content and Scope of This Study

So far, this introduction has explained what the parameters of this thesis include, but it is equally useful to clarify what it doesn't cover. It is important to recognise that the thesis is a specific, focused study as the title suggests—by concentrating on BOAC and its aircraft interiors, the thesis is intended to keep this focus. This study is not a style compendium of BOAC's aircraft and interiors. Over the 35-year history of the airline, it is unavoidable to reflect on changing attitudes to stylistic fashions within design; however, this research does not set out to act as a guide to the core styles of each decade of BOAC's existence. Rather, where the interior is presented, it is to analyse the way in which BOAC's identity is represented in the interior, in order to then unpack the shifts and influences at work in British commercial design.

In order to define what this research adds to design history, it is important to first understand the terms in the title of this thesis, *From Interior to Brand: The British Overseas Airways Corporation, 1939–1974. A Case Study of Post-Second World*

War British Commercial Design. The years following the cessation of the Second World War are some of the richest in Britain's design history. Typically, these years have been defined within the literature of design history by key moments such as *Britain Can Make It* (1946), the *Festival of Britain* (1951) and the Coronation of Queen Elizabeth II (1953), as discussed in the V&A's exhibition *British Design from 1948: Innovation in the Modern Age* (2012). Other texts focus on state agencies, such as the Council of Industrial Design (CoID), or individual designers and their body of work.² While these publications provide important insights into specific moments in Britain's design history, many ignore that these elements work in context with one another. In fact, it is these elements—the individual moments, people, equipment and wider socio-political and economic themes—that this thesis recognises as the interconnected systems of design production and consumption. In fact, it is viewing these themes together that allows for an understanding of business and corporate design—a major part of British design history that has been overlooked, and yet is one of the greatest examples of post-war British design. Viewing British design history in this way enables a deeper and more tangible understanding of the oft-hidden design systems at play, as opposed to charting the surface manifestations of design—most design history on this period has focused on publically evolved design and style.

As the literature review will demonstrate, several publications exist (see Lovegrove, 2000; Fitton-Hauss, 2004; and *Airline Design*, 2002) and continue to be published on the 'style' of airlines (Jarvis, 2015). Included in this well-documented theme are the uniforms of airlines' air stewards (not just BOAC's). While a key part of the experience of flight, the theme has already been explored by other authors and falls outside the remit of this study, which takes graphic and industrial design practices as

² Further detail of these exhibitions, publications and themes will be given in the literature review.

its key examples. In addition to these caveats, and perhaps most importantly considering the nature of the research, this study does not document every one of BOAC's individual aircraft designs. Where the design of the aircraft is discussed, it is in the context of the wider picture of British design rather than the technical modes of the aircraft design process.³

³The aircraft used are types that provided detailed case studies in relation to the research question.

Chapter One

Chapter One: Literature Review

Many texts document the post-war development of British design, the importance of which will be analysed in this study. However, where this research differs from existing work is in the use of a British company and brand, situated in the global marketplace, that had a direct link to many of the issues mentioned and outlined above. The following core themes will be used to cover the central texts: those that deal directly with BOAC, aircraft and design history, transport design history, British design history, the CoID, national identity, the influence of American designers and agencies, branding and globalisation, BOAC designers, and the interior.

This research has developed in relation to a wide range of texts. Due to the nature of the study, many of these publications are well known and considered 'established' thinking in the field of British design history. However, there are, in addition, lesser-known publications that have also helped to set out the parameters of the study. Indeed, as many of the publications deal with overarching themes related to the research, the archival work has also proven important to support this study.

The British Overseas Airways Corporation

The literature on the design of the BOAC aircraft interior is a small, almost non-existent field of academic research. Only one source deals directly with the Corporation and aspects of its design history: Frank Jackson's 1991 essay in the *Journal of Design History*, 'The New Air Age: BOAC and Design Policy 1945–60'.⁴

The title of the essay suggests that it focuses purely on the Corporation's design process over a 15-year period; however, Jackson's piece also covers the wider

⁴N.B. I researched BOAC for my MA dissertation, *National Identity in the Jet Aircraft Interior: 1952 – 1960*. Some of the reading is shared, but my work was a broad overview of the Corporation's design policy in relation to themes of national identity. I also presented some of my conclusions, defining BOAC as an early brand of Britain in a paper, 'The British Overseas Airways Corporation: Designing a British brand' given at the University of East Anglia as part of *British Art as International Art*, 20th – 21st April 2012, on which some of this document is based.

economic and political context of BOAC in the period, and investigates how the airline attempted to define its place in an increasingly competitive market in the aftermath of the Second World War. It is an essential piece that has not only formed a cornerstone of my own research, but has also led me to challenge and expand upon some of Jackson's conclusions. Firstly, was 'the policy throughout [BOAC's history] ... to commission British Manufacturers, and artists and designers' actually true?⁵ Was the Corporation really 'firmly entrenched in the principles of the Council of Industrial Design'?⁶ What was the nature of its relationship with the Council? And how did BOAC come to have a relationship with these designers? Finally, Jackson also notes that the Corporation was responsible for the 'promotion of all things British' because it 'was crucial to British export drives'.⁷ But how did it actually go about doing this—how was design harnessed to achieve this goal?

A number of texts exist that document the story of BOAC as a business, an example being former BOAC Planning Director Winston Bray's revealing 1971 document *The History of BOAC*.⁸ Bray's text was never released publically as the Corporation felt it presented the business in a bad light. A copy is held by the British Airways archive and has been particularly informative about the very early history of BOAC, specifically the details of the 1939 BOAC Act of Parliament, which specified the equipment that could be used by the Corporation and, most importantly, where it should come from.⁹ In addition, more recent texts, such as Robert Higham's 2013 publication *Speedbird: The Complete History of BOAC*, give a detailed insight into

⁵ Frank Jackson, 'The New Air Age: BOAC and Design Policy 1945-60', *Journal of Design History*, Vol. 4 No.3 (1991), pp.167-185

⁶ *Ibid*, p.170

⁷ *Ibid*, p.170

⁸ Winston Bray, *The History of BOAC*, (London: Wessex Press, c.1971)

⁹ The book was so revealing that it was suppressed by the Corporation and as such only a handful of copies still exist, one of which is held at the British Airways Heritage Centre.

the airline's business operations during its existence.¹⁰ In addition to these corporate-focused texts, Scott Anthony and Oliver Green's 2012 text, *British Aviation Posters: Art, Design and Flight* provides a useful overview of the Corporation's key advertising messages, alongside my own archival research.¹¹

Aircraft and Design History

Within wider studies of the visual and material culture of airlines and aircraft, such as Keith Lovegrove's *Airline: Identity, Design and Culture* (2000) and the teNeues-published *Airline Design* (2004), the preferred approach is to group several different airlines together within a common narrative of glamour, as is evident in this description of a 1950s Pan American Boeing Stratocruiser:¹²

The interior was fitted out like the Waldorf [hotel]. The Boeing 314 was equipped with sleeping berths for 40 and separate dressing rooms for men and women. There was also a bar next to the galley that serviced the dining room and a private de-luxe cabin in the tail section that doubled as a honeymoon suite.¹³

Another example of this broad-brush approach comes from a collection of essays on the subject of air travel that accompanied the 2004 *Airworld: Design and Architecture for Air Travel* exhibition at the Vitra Design Museum, Switzerland.¹⁴ In her chapter, 'A Trip Through Time in the Aircraft Cabin', Barbara Fitton-Hauß provides an historical overview of the development of the aircraft interior, from the first passenger flights through to modern day aircraft cabins, and considers their potential future evolution. Like other authors in the field, Fitton-Hauß uses several different airlines to

¹⁰ Robin Higham, *Speedbird: The Complete History of BOAC*, (London: I.B.Tauris, 2013)

¹¹ Scott Anthony, & Oliver Green, *British Aviation Posters: Art, Design and Flight* (London: Lund Humpheries, 2012)

¹² Peter Delius & Jacek Slaski, eds., *Airline Design*, (Düsseldorf: teNeues, 2005)

¹³ Keith Lovegrove, *Airline: Identity, Design and Culture* (London: Laurence King, 2000), p. 86

¹⁴ Fitton Hauß, Barbara. 'A trip through time in the aircraft cabin' in *Airworld: Design and Architecture for Air travel* (Weil am Rhein: Vitra, 2004)

investigate her theme, building a general picture of interior development but ignoring the national specificity of each airline and therefore the specific types of design employed in each of those interiors. Only a passing reference to BOAC is made and there is no mention at all of British designers.¹⁵ The text's recurring theme is the impact of American designers, with only a nod to BOAC for its technical achievement in having the first jet airliner in service, the de Havilland Comet, which will be discussed later in this thesis.¹⁶

Of course, the '50s and '60s did see extremely high standards of travel, which in turn created an 'air' of glamour, but this was directly linked to the price paid for flying. Capacity on many aircraft didn't exceed 50 passengers, so it was common for flights to be entirely first class. As Kenneth Hudson highlights in his highly informative *Diamonds in the Sky: A Social History of Air Travel*, this became a problem in that it limited the number of passengers who could travel, despite there being an emerging market of passengers wanting to fly:

[The] airlines were geared only to providing first-class travel, on the basis of which their business had been built up in the 1920s and 1930s, and had never come to grips with the problems of giving ordinary people in aeroplanes what ordinary people had always had in trains and boats, second- and third-class travel.¹⁷

This representation of the aircraft interior as 'all glamour' is one this study intends to challenge. No published material makes reference to the reality of flight in the immediate post-war period when BOAC was operating as a civilian passenger

¹⁵ Mention is made of Charles Butler Associates and his work for Vickers, but not later work for the VC-10 or his interior designs for Concorde.

¹⁶ Fitton-Hauß does note some of BOAC's dealings with Boeing: the aircraft manufacturer asked for responses to its 707 interior mock-up, the Corporation is noted as responding that 'colours & patterns do not reflect quality & good taste according to British' - Fitton Hauß, Barbara, 'A trip through time in the aircraft cabin' in *Airworld: Design and Architecture for Air travel* (Weil am Rhein: Vitra, 2004), p.109

¹⁷ Kenneth Hudson and Julian Pettifer, 'Low Fares or Luxury' in *Diamonds in the Sky: A Social History of Air travel* (London; Sydney; Toronto: The Bodley Head, 1977), p.130

service. However, archive material held at the British Airways Speedbird Centre sheds some light on the experience of the immediate post-war BOAC interior.

Transport Design History

Beyond BOAC, or airline-specific, texts, defining the area of transport design histories is potentially a never-ending task. The texts selected here deal with the overarching histories of modes of transport, a specific mode of transport, or a particular brand. Useful in understanding some of the theoretical concepts that can be related to the modernity of travel is Wolfgang Schivelbusch's publication, *The Railway Journey: The Industrialisation of Time and Space in the 19th Century* (1977). Clearly not linked to air travel, it does highlight, however, the cultural and social reach that a mode of transport can have, in particular considering the impact the modernity of that mode of travel had on the public or consumer consciousness: 'It was, in other words, that machine ensemble that interjected itself between the traveller and the landscape. The traveller perceived the landscape as it was filtered through the machine ensemble.'¹⁸

Other studies of the subject, such as Greg Votolato's *Transport Design: A Travel History* and Corin Stanton-Hughes' *Transport Design*, are explicit in their documentation of the way design has been implemented in various transport formats, including ships, aircraft and motor vehicles.^{19 20} While neither focus specifically on BOAC, indeed the focus is on global approaches to aircraft design, both raise interesting questions that have informed this research. Perhaps the most useful text on a mode of transport, for this study, is Anne Wealleans' (née Massey) *Designing*

¹⁸ Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century* (Oakland, California: University of California Press, 2014), p.24

¹⁹ Gregory Votolato, *Transport Design: A Travel History* (London: Reaktion, 2007)

²⁰ Corin Hughes-Stanton, *Transport Design*, (Reinhold : Studio Vista, 1967)

Liners: A History of Interior Design Afloat (2006), which also challenges the assumptions of luxury related to a particular mode of transport. The text raises several interesting narratives, including the concept of heterotopias—something that, while in a much shorter temporal space, the aircraft shares with ships—and the use of historical reference to ease the experience of a new form of transport. Wealleans notes that the:

[S]hip interior offered a clear-cut representation of social distinctions and national identities... the vagaries of etiquette and the threat of the 'other' were safely contained on board the ocean-going liner.²¹

The other area that this thesis will cover is the transport brand. Again, this is a subject that has been dealt with separately to the interior space. However, definitive accounts exist documenting the importance of design in communicating a brand, specifically that of Transport for London and the development of the Underground brand. Adrian Forty deals briefly with the subject as a case study in his seminal *Objects of Desire* (1986), while David Lawrence's *A Logo for London* (2013) provides a rich archival review of the subject.^{22 23}

British Design History

The theme of British design in Britain's industrialised/mechanised society is one that brings together several areas and disciplines of research. While this thesis focuses on those that situate British design in the early- to mid-20th century, the parameters of the study are fluid and constantly shifting. Essays such as Neil McKendrick's 'Josiah Wedgwood and Factory Discipline' (1961) pinpoint the very early mechanisation of

²¹ Anne Wealleans, *Designing Liners: A History of Interior Design Afloat* (London: Routledge, 2006), p.1

²² Adrian Forty, *Objects of Desire: Design and Society Since 1750* (London & New York, NY.: Thames & Hudson, 1986)

²³ David Lawrence, *A Logo for London* (London: Laurence King Publishing, 2013)

production, notably around the Staffordshire Potteries.²⁴ A more common theme is to chart the progression of international (with a western focus) design history through a set timeline, with authors pinpointing key moments in Britain's design history. A key example of this form of publication is Adrian Forty's *Objects of Desire: Design and Society Since 1750*, which examines the profession of design over a 250-year period, incorporating useful company histories of AEG and Transport for London. Adding more focus on the subject is Jonathan Woodham, a key scholar in the area of design history. His book, *Twentieth-Century Design*, concentrates on the progression of design through the 1900s and touches on several areas key to this study, particularly post-war reconstruction in countries affected by the war.²⁵ However, these are mostly analysed in isolation and little attempt is made to consider how they were related to one another. Cheryl Buckley's *Designing Modern Britain* has been the most specific text on the subject, defining the development of modern British design between the late-Victorian period and the 1980s. Buckley's text challenges several preconceived ideas about the adoption of modernism in British design, noting:

A similar line was taken in the catalogue that accompanied the exhibition *Modern Britain, 1929–1939*, held at the Design Museum in 1999; in this, the architect Norman Foster, after attributing almost all crucial modernist buildings of the 1930s to émigré architects (ex-Bauhaus staff Walter Gropius, Marcel Breuer and Laslo Moholy-Nagy arrived in Britain in the mid-1930s), went so far as to argue that modernism 'only arrived in Britain with these émigrés'.²⁶

This is an essential point and shows that there are many assumptions that have been made within the field. However, there is still much more to be added here.

²⁴ Neil McKendrick, John Brewer, J.H. Plumb, 'Josiah Wedgwood and the Commercialization of the Potteries' in *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England* (London: Hutchinson, 1983 [1982]), pp.100 - 145

²⁵ Jonathan M. Woodham, *Twentieth-Century Design* (Oxford: Oxford University Press, 1997)

²⁶ Cheryl Buckley, *Designing Modern Britain* (London: Reaktion Books, 2007), pp.83-84

While all of these authors have made essential contributions, it is the unique contribution of this research that uses BOAC to understand the development of these issues in a British company over a prolonged period of time.

British design history has also focused on official government exhibitions. Several of these, in the form of international exhibitions such as 1951's Festival Britain and the 1967 Montreal Expo, took place between 1939 and 1974 and are presented in turn in this study. Unsurprisingly, the Festival of Britain has inspired a large number of studies, including Becky E. Conekin's *The Autobiography of a Nation: The 1951 Festival of Britain*, Mary Banham and Belvis Hillier's (as editors) *A Tonic to the Nation: The Festival of Britain 1951* and, most recently, Harriet Atkinson's *The Festival of Britain: A Land and its People*.²⁷ Later exhibitions, such as the Brussels Expo 1958 and Montreal 1967, have less specific publications dedicated to them. However, Paul Greenhalgh's *Fair World: A History of the World's Fairs and Expositions from London to Shanghai, 1851–2010* (2011) gives a good overview of some of their features, while the most reliable insights come from the *Design* magazine special editions dedicated to the events.²⁸

Notable institutions have also looked at the concept through design and have also produced accompanying texts to allow for further analysis. A key example is Frederique Huygen's 1989, *British Design: Image & Identity*, a thorough critique of British identity, which acts as an interesting case study as Huygen is Dutch and the exhibition took place at the Museum Boijmans Van Benningen, Rotterdam. However, as some of the considerations of Huygen's exhibition can be seen as dated, the

²⁷ Becky Conekin, Frank Mort & Chris Waters, *Moments of Modernity: Reconstructing Britain, 1945 – 1964* (London: Rivers Oram, 1999); Conekin, Becky, E., *The Autobiography of a Nation: The 1951 Festival of Britain* (Manchester University Press: Manchester, 2003); Harriet Atkinson, *The Festival of Britain: A Land and its People* (I.B.Tauris & Co Ltd: London, 2012)

²⁸ Paul Greenhalgh, *Fair World: A History of World's Fairs and Expositions, From London to Shaghai 1951 – 2010* (London: Papadakis Publisher, 2011)

Victoria & Albert Museum's 2012 exhibition, *British Design from 1948: Innovation in the Modern Age* allows for a more contemporary reading of the subject.²⁹ The show provided an extensive overview of the development of British design set against the themes of modernity and tradition.³⁰

The scale of the show was impressive, both in its attempt to classify British design over a 64-year period and in assembling over 300 objects to represent the various periods and movements of design. However, it trod some of the familiar paths already established in British design history, acknowledging the CoID but not going into any detail of their actual workings and influence, instead focusing on iconic designs such as the Jaguar E-Type and Concorde.³¹ However, the accompanying book to the exhibition, edited by the show's curators, does provide a range of interesting contexts to the period, noting the utopian ideals of British design following the Festival of Britain (1951). This text is used to demonstrate the traditional narrative that this thesis seeks to challenge; using a corporation such as BOAC allows for a focus on the impact of British commercial design.

In the wider context of writers dealing with design history as a subject, Kjetil Fallan's 2010 book, *Design History: Understanding Theory and Method*, has been useful in understanding the importance of design history in recognising the role of design and the designer in the cycle of consumption and in turn western culture.³² While Fallan's text hasn't been directly

²⁹ Frederique Huygen, *British Design: Image & Identity* (London: Thames & Hudson, 1989); Christopher Breward & Ghislaine Wood, eds., *British Design from 1948: Innovation in the Modern Age* (London: V&A Publishing, 2012)

³⁰ The Exhibition was a timely review as it coincided with Queen Elizabeth's Golden Jubilee and London hosting the 2012 Olympic games.

³¹ Reviews of the exhibition were quick to critique, *The Guardian's* Rowan Moore commenting that: 'In truth, an exhibition like this can't really make any point in particular. It performs the invaluable task of presenting a good sample of artefacts of the past 60 years'. Rowan Moore 'British Design 1948 – 2012' in *The Guardian* (Sunday 1 April 2012), accessed 11th August 2013.

³² Kjetil Fallan, *Design History: Understanding Theory and Method* (London: Bloomsbury, 2010)

used in the core writing of this thesis, the concept that design can 'constitute a rich and fertile ground for cultural history' is a shared aim.³³

The Council of Industrial Design

The Council is a core subject in many post-war British design histories. Indeed, the emphasis of British design history is often on the official 'good design' promoted by the Council rather than the commercially driven design that was core to BOAC. Much like BOAC, it was conceived in the midst of the war and follows a similar narrative of a developing modern Britain. However, the way in which the Council undertook to promote British design is contentious, and texts dealing with it, such as Patrick J. Maguire's essay, 'Class, Culture and Conflict: Defining the 'British' in British Design in Post War Britain', highlight this critique of the Council's role in the development and influence of the British design industry. Maguire notes:

In some ways the aspirations, however couched, were a species of intellectual nationalism – this was an attempt to redefine British design as more than modern (however much manufacturers insisted on traditional designs for commercial reasons) and positively, if loosely, modernist.³⁴

However, it is one of the central themes of this thesis that the CoID has only really been analysed in theoretical terms, not through a company that they had a working relationship with. By using a British company to analyse the role of the Council, a different narrative can be established that explains the real role it played in working with British companies and the promotion of British design. Texts that have given solid detail on the core aims of the Council have included James Holland's essay, 'The State as Design Client or What Did You Do in the Great War Daddy?' in *From*

³³ Fallan, 2010, p.viii

³⁴ Patrick J. Maguire, 'Class, Culture and Conflict: Defining the 'British' in British Design in Post War Britain' in Alan Tomlinson, Jonathan M. Woodham, eds., *Image, Power and Space: Studies in Consumption and identity*, (Maidenhead : Myer & Myer Sport, 2007).

Spitfire to Microchip: Studies in the History of Design from 1945.³⁵ Woodham gives a general overview of the state-run body's work in his book *Twentieth-Century Design*, but it is his essay, 'Managing British Design Reform II: The Film *Deadly Lampshade* – An Ill-fated Episode in the Politics of Good Taste', that unveils some of the contentious issues surrounding the Council.³⁶ It was perceived as dictating ideas of taste and what should be considered 'good' design, which was often reinterpreted as the Council defining wrong and right. However, BOAC, or at least the BOAC aircraft interior, is spotlighted as an example of good design within the film, highlighting the relevance of using the aircraft interior as a site of investigation for the period.

The Council-run *Design* magazine provides an extraordinary amount of material to add context to this study, in terms of both the design landscape and the progression of British aircraft interior design. For example, from the late 1950s through to the mid-1960s, a series of articles was produced reviewing the British impact on the design of aircraft interiors, particularly in the context of the global development of the industry. A key example is an article produced in 1965 by Robert Spark, titled 'Survey: Aircraft Interiors', which critiqued the role of the British design establishment in the development of aircraft interiors, noting the increasing expertise and dominance of American competition.³⁷

In addition to these core texts, several authors have covered the role of the Council and its projects and work in the development of modern British design following the end of the Second World-War. Texts such as Jonathan Woodham's *Twentieth Century Design* look to understand the Council in the context of post-war

³⁵ James Holland, 'The State as Design Client or What Did You Do in the Great War Daddy?' in Nicola Hamilton, ed., *From Spitfire to Microchip: Studies in the History of Design from 1945* (London: The Design Council, 1985)

³⁶ Jonathan M. Woodham, 'Managing British Design Reform II: The Film "Deadly Lampshade": An Ill-Fated Episode in the Politics of "Good Taste"', *Journal of Design History*, Vol. 9, No.2 (1996), pp.101-115

³⁷ Robert Spark, 'Survey: Aircraft interiors' in *Design* (1965), pp.201 - 212

reconstruction, noting their key involvement in the promotion of modern British design through events such as Britain Can Make it (1946) and the Festival of Britain (1951). Penny Sparke's *Did Britain Make It?* uses the Britain can make it event as an example of the Council's early use as a tool of propaganda for the British state.³⁸

However, the greatest amount of the material that has informed this thesis is located at the University of Brighton Design Archive, the holder of the Council's archive. It is these papers that enable a more accurate picture of the relationship with BOAC to emerge as well as the role played by the Council in suggesting designers, using BOAC for the promotion of British design and the role played by the Council in launching the British Airways identity in 1972.

BOAC and Its Designers

As already stated, this thesis doesn't focus on any single designer and his or her influence; rather, a number of designers are analysed alongside their contributions to the design history of BOAC. These designers also act as evidence of the key elements of the design process of the airline. Due to the nature of industrial design, much of the design work was carried out by unnamed, or relatively unknown, designers. However, the contribution of these designers can be reconstructed by bringing together a number of disparate sources. In many ways, the contributions that these designers made do deserve to be recognised in the wider context of British design history.

Some of these designers, such as F.H.K. Henrion, have become key figures in their respective fields. Ruth Artmonnsky's *FHK Henrion: Design*, a monograph on Henrion's work, gives a good general context to him as a key post-war graphic

³⁸ Penny Sparke, ed., *Did Britain Make It?* (London: Design Council, 1986)

designer.³⁹ More recent publications, such as Adrian Shaughnessy's *FHK Henrion: The Complete Designer* consider Henrion one of the most important figures in post-war British graphic design, a key influencer in the development of a visual language of corporate design in Britain.⁴⁰ It is interesting that such a revered figure's work for the Corporation has been largely ignored. This may be because his work for the airline was early in his career, probably some of the first commercial work he took on after his arrival in Britain. In the context of this thesis, Henrion's contribution is crucial. The designer produced the first visual representations of the new airline even before the cessation of war. Evidence of this comes from the British Airways Speedbird Centre in the form of a series of internal publications produced for the Corporation between 1946 and 1948. Known as *Wings Over the World* and *Speedbird* respectively, the publications are key to understanding the visual concept of the airline's brand, even though, due to post-war shortages, much of the vision couldn't be realised.

Other publications make links to a particular designer's work for the Corporation, but as seen in the wider canon of their work, such as Lesley Jackson's *Robin & Lucienne Day Pioneers of Contemporary Design* (2001) that documents some of the interiors that the famed industrial designers produced in the early to mid-1960s for the airlines VC10 jet aircraft.⁴¹ Similarly, the accompanying text for a V&A exhibition on textile designer Jacqueline Groag, *Textile and Pattern Design: Wiener Werkstätte to American Modern*, shows part of the work carried out by the Czech designer.⁴²

³⁹ Ruth Artmonsky & Brian Webb, *FHK Henrion: Design* (Suffolk & New York, NY.: Antique Collectors' Club, 2011)

⁴⁰ Adrian Shaughnessy, *FHK Henrion: The Complete Designer* (London: Unit Editions, 2014)

⁴¹ Lesley Jackson, *Robin & Lucienne Day: Pioneers of Contemporary Design* (London: Mitchell Beazley, 2001)

⁴² Geoffrey Rayner, Richard Chamberlain, Annamarie Stapleton, Jacqueline Groag, *Jacqueline Groag: Textile & Pattern Design: Wiener Werkstätte to American Modern* (Woodbridge: Antique Collector's Club, 2009)

While these texts have been useful in grounding the research, they only hint at some of the work that designers carried out for the Corporation. Much more has been added in the process of archival research during this project. It is also important to note that key figures from BOAC's design history have been completely overlooked by British design historians. Designers such as Gaby Schreiber and Richard Lonsdale-Hands, and design studios such as Charles Butler Associates, have had their contributions to British design and visual culture largely ignored. Lonsdale-Hands, for instance, designer of the first post-war BOAC aircraft interiors, was the founder of one of the first multidisciplinary design agencies in Britain. Equally, Schreiber, an Austrian émigré, became a key figure in the British design establishment and produced some of the airline's most iconic interiors; most notably, she was a leading female figure in a male-dominated industry. In understanding the work of these overlooked designers, archival material has been essential. Key sites for this research have been, beyond British Airways' own archive, V&A Blythe House and the University of Brighton Design Archives. In addition, archives related to the former manufacturers of BOAC aircraft, Mill Green Museum and the de Havilland Aircraft Museum, hold copies of the de Havilland aircraft manufacturer's internal publications, the *de Havilland Gazette* and *de Havilland Enterprise*, which give further details on the design process from the perspective of the British aircraft industry.

The Influence of American Designers and Agencies

A central theme of this thesis is the role of America in the development of post-war British design. It is a formative element that is often viewed separately, but the argument here is that American designers and design agencies played a central role in the development of commercial design across multiple media. It is through BOAC that this influence can be seen most acutely. It is a contentious issue due to the rules that stipulated that the Corporation needed to use equipment from within the

Commonwealth. Adopting American influences also went against the CoID's aim to foster a British design identity.

In a similar way to the designers that worked with BOAC, this area of research has named designers who are widely known for their involvement in the design of aircraft interiors, and others who have been given little or no recognition. A central figure in this study is industrial designer Walter Dorwin Teague. The designer's work has been covered in various contexts, by authors Stephen Bayley and the already mentioned Votolato and Fitton-Hauss.⁴³ As with many of the 'superstar' American designers, Teague published his own book on design in 1947: *Walter Dorwin Teague, Design this Day: The Technique of Order in the Machine Age*.⁴⁴ This was published at the start of his professional relationship with aircraft manufacturers Boeing and ahead of his work on BOAC aircraft, but it nonetheless gives an insight into Teague's approach to the process of design. The most revealing material on the designer has once again come from an archive. The Special Collections Research Center at Syracuse University Libraries is the holder of the Walter Dorwin Teague Papers. Included in these documents, which span the career of the designer, are memos to colleagues within his agency that outline his thoughts on the design of modern jet aircraft, specifically the Boeing 707.

Equally revealing is the material from the Boeing Historic Archive, Seattle, Washington State. The archive holds material that sheds light on the earlier conversion of the BOAC Stratocruiser, formerly a Boeing-produced bomber. Later documents reveal the design process involved in the production of the 707 and 747, with letters being evidenced between Frank Del Giudice, design head with the

⁴³ Stephen Bayley, *In Good Shape: Style in Industrial Products, 1900 to 1960* (London: Design Council, 1979)

⁴⁴ Walter Dorwin Teague, *Design this Day: The Technique of Order in the Machine Age*. (London: Studio Publications 1947)

Teague agency, and BOAC-appointed designers Schreiber, Day and the previously unknown Pamela Colgate.

A useful article in understanding the otherwise little-known designer Robert Price is John Zukowsky's 1997 article in the journal *Design Issues*, 'Design for the Jet Age: Charles Butler and Uwe Schneider'. Zukowsky, an aircraft and architectural historian, has written the only article on the eponymous Charles Butler Agency, outlining its work on several British design projects, including the VC10 and Concorde.⁴⁵ Defining this role further is an interview carried out with the former Vice President of the agency, Robert Price. Using Price's own archival material, the former work portfolio of the now-defunct agency gives another new perspective on the involvement of American designers in the British aircraft industry.

In addition to this key material on American designers, literature relating to the influence of the American design industry has also been essential. It is in understanding this influence that the unique role of BOAC can be understood.

While some writers, such as Frank Mort in his essay 'Paths to Mass Consumption: Britain and the USA Since 1945' (1997), are keen to stress that the role of America has been exaggerated in publications considering post-Second World War history, it is impossible to ignore the country's influence, particularly in the development of post-1945 modes of consumption. While Mort argues that '[c]onsumption is evoked as a meta-concept, used to explain the most disparate historical phenomena', it appears impossible to document a history of advertising without recognising 'the

⁴⁵ John Zukowsky, 'Design for the Jet Age: Charles Butler and Uwe Schneider', *Design Issues*, Vol.13, No.3 (Autumn, 1997), pp. 66-81

advanced techniques of selling derived from the USA'.⁴⁶ For example, Wally Ollins, in his book *The Corporate Personality*, notes that:

Corporate identity was not invented, together with management by objectives, cash flow control techniques and other management consultancy parlour games, some time around 1953. Its history is ancient, curious and, for the most part honourable.⁴⁷

During the late 19th and early 20th centuries, individuals emerged in America who translated advertising into a creative industry. It is important at this point to give recognition to figures such as Volney B. Palmer, who opened the first advertising agency in America in 1842, and George P. Rowell, 'who develops the first media directory: a guide to more than 5,000 newspapers across America, including their circulations and advertising rates.' As Jonathan Woodham explains in *Twentieth Century Design*, it is:

During this period the American advertising industry was transformed from a relatively unsophisticated medium to one which began to pay far greater attention to possibilities offered by an understanding of consumer psychology.⁴⁸

A wider reading of design histories also establishes the role of pre-industrial mechanisation advertising, branding and advertising agencies in a pre-consumerist era, notably being controlled by 'Empires, armies, navies, religious orders... to convey ideas about what they are like both to insiders and to the outside world.'^{49 50}

⁴⁶ Frank Mort, 'Paths to Mass Consumption: Britain and the USA Since 1945' in Nave, Nica et al, eds., *Buy This Book: Studies in Advertising and Consumption* (London: Routledge, 1997), pp.15 – 33

⁴⁷ Wally Ollins, 'Some definitions and some history' in *The Corporate Personality* (London: Design Council, 1978), p. 13

⁴⁸ Woodham, 1997, p.65

⁴⁹ Forty, 1986, p.222

⁵⁰ While this is undoubtedly true, there are pre-industrial mechanisation examples. Mark Tungate in his book, *Adland: A Global History of Advertising* (London & Philadelphia, PA.: Kogan Page, 2007), traces the roots of the advertising agency, giving a variety of examples that could be recognised as the genus of the business. Most notably, as early as the Sixteenth-century, Frenchman, Theophraste Renaudot, set up his Parisian '*bureau des adresses et des rencontres*'. Situated on the Île de la Cité it was initially intended as a notice board for the jobless in Paris, but 'soon became a veritable information clearing house for those seeking and offering work, buying and selling goods, and

Branding

The material that deals with the concept of branding in this study has taken two main forms. Firstly, existing modern theory has given a theoretical structure through which to analyse the brand of BOAC. Although numerous texts exist that place the brand within material and visual culture, the process of this research has used three core texts. Celia Lury's *Brands: The Logos of the Global Economy* (2010) outlines the importance of brands, from both the producer's and the consumer's point of view, in order for the product to be understood, noting that:

The interface – like the static frame of the window or mirror – is a surface or boundary that connects and separates two spaces: an inner and outer environment. So, as an interface, the brand is a frame that organises the two-way exchange of information between the inner and outer environments of the market in time, informing how consumers relate to producers and how producers relate to consumers.⁵¹

Supporting this, but from the viewpoint of the advertising agency, Sean Nixon's chapter 'Advertising and Commercial Culture' in his *Advertising Cultures* (2003) book, acknowledges the role that the agency plays in controlling this communication of the brand.⁵²

Linking both of these texts to the more tangible activity of design is Guy Julier's 2008 *The Culture of Design*, which gives an excellent explanation of the importance of branding to the designed object, a key observation being that:

making public announcements.' This type of intermediary, the actor between those selling goods, and those wishing to purchase goods reflects the future role of the advertising agency in the cycle of consumption; the lynch pin in the relationship between producer and consumer as Sean Nixon recognises in his book, *Advertising Cultures* (London: Sage Publications, 2003): 'the way agencies manage the commercial relations between consumers and their client... agencies play an active role in helping to constitute and articulate the economic relations between consumers and clients through techniques like planning and market research that they mobilise.'

⁵¹ Celia Lury, *Brands: The logos of the global economy* (London and New York, NY: Routledge, 2010), p.7

⁵² Sean Nixon 'Advertising and Commercial Culture' in *Advertising Cultures* (London: Sage Publications, 2003)

Brand management rhetoric tells us that *producer agents* – be they corporations, institutions or individuals – are responsible for controlling a coherent brand message throughout its circuit of culture, from production through mediation to consumption to consumer feedback. If a brand is typified into a clear, simple message, which is often crystallized as a slogan, then this should be reflected in all its manifestations.⁵³

Julier goes on to define these manifestations as 'the way corporate workers dress, talk, and act with customers and clients. 'In this way', he continues, 'the systems of branding inhabit much of the space of design culture, turning information into an 'all-around-us' architectonic form.'⁵⁴ All of these texts allow for the reading of the second form of branding material: materials taken from the archive that relate directly to BOAC aircraft, interiors and designers.

Global Design

It is worth also noting work that engages with the narrative of a global design history. Key texts such as Glenn Adamson, Giorgio Riello & Sarah Teasley's *Global Design History* deal with the term within a modern framework and more importantly clarify design in the context of the global, rather than just in the context of Western Europe and United States.⁵⁵ While this thesis is undoubtedly a history of a Western corporation, it aims to ground the influence of a British brand utilizing American equipment and branding strategies in order to be consumed in the global context as a truly global market place emerges. However, the text and others, such as Peter Eisele's, 'Global Identity in Marketing and Advertising' in the aforementioned *Global Design: international Perspectives and Individual Concepts*, doesn't aid this study as the examples

⁵³ Guy Julier, *The Culture of Design: Second Edition* [2000] (London: Sage, 2008), p.13

⁵⁴ Julier, 2008, p.13

⁵⁵ Glenn Adamson, Giorgio Riello & Sarah Teasley, *Global Design History* (London & New York, NY.: Routledge, 2011)

and context of the writing is after 1974, the final year of BOAC's existence.⁵⁶ Indeed, from Eisele's perspective, the notion of a global branding strategy that leads to a homegised product, is rooted in the 1990s:

Since the 1990s, the predominant global marketing approach has aimed at selling a uniform product in as many countries as possible. This not only means the same ubiquitous chain stores offering the same range of goods everywhere, but also places the emphasis on corporate branding whose goal is to associate a brand throughout the world with certain values, ideas, lifestyles, and attitudes.⁵⁷

However, this thesis shows that this approach was adopted by a British company at least two decades prior.

Globalisation

The theme of Globalisation is present throughout this thesis. Firstly, in the context of BOAC becoming a globally recognized brand and secondly, the impact of external forces on the airline and the decisions it made in relation to itself. While the timeline and subject of the thesis fits with Marshall McLuhan's 1967 suggestion in the *Medium is the Message* of a 'global village', a more robust understanding is outlined in Angelli Sachs, *Global Design: International Perspectives and Individual Concepts*:⁵⁸

Globalization is described as the interplay of political, economic, technological, ecological, and cultural processes characterized by their constantly intensifying global network. Thanks to information and transportation technology, time and space are compressed and their boundaries dissolve. But if the design of globalization leads

⁵⁶ Peter Eisele, 'Global Identity in Marketing and Advertising' in Angelli Sachs, ed., *Global Design: International Perspectives and Individual Concepts* (Zurich: Lars Müller Publishing, 2010)

⁵⁷ Eisele, 2010, p.208

⁵⁸ Marshall McLuhan, *The Medium is the Message: An Inventory of its Effects* (London: Penguin, [1967] 2008)

ultimately to feelings of discontinuity, placelessness, and heteronomy, regionalism can become a counter-image and an ideal.⁵⁹

While it worth noting that caution should be used in using modern texts to understand the historical development of globalisation, the definition given by Sachs is broadly, in the context that this thesis works within when analyzing the issue from the perspective of BOAC, a useful one.

National Identity

The theme of national identity is a constantly shifting topic and one that has been revisited by many academics and historians. Although these authors have overlooked design as an important cultural entity with which to identify a nation's identity, they have added some context to the study. These works have included Managan's 'The Grit of Our Forefathers: Invented Traditions, Propaganda and Imperialism', in *Imperialism and Popular Culture* (1986), John M. MacKenzie's texts *Propaganda and Empire: The Manipulation of British Public opinion, 1880–1960* (1984) and *In Touch with Infinite: the BBC and the Empire in Imperialism and Popular Culture* (1986), and, finally, Eric Hobsbawm's 'The Apogee of Nationalism: 1918–1950', in *Nations and Nationalism since 1780* (1990).⁶⁰

Several of the texts already mentioned deal with concepts of national identity. Some, such as Woodham, Massey and Sparke, provide overviews in relation to themes of design history. Others, including Buckley's *Designing Modern Britain* and, more recently, Catharine Rossi's *Crafting Design in Italy*, identify a specific time period in

⁵⁹ Angeli Sachs, 'Introduction' in *Global Design: International Perspectives and Individual Concepts* (Zurich: Lars Müller Publishing, 2010), p.6

⁶⁰ J.A. Managan, 'The Grit of our Forefathers: Invented Traditions, Propaganda and imperialism', in *Imperialism and Popular culture* (Manchester: Manchester University Press, 1986); John M MacKenzie, *Propaganda and Empire: The Manipulation of British Public Opinion, 1880-1960*, (Manchester: Manchester University Press, 1984); Eric John Hobsbawm, *Nations and Nationalism since 1780: Programme, Myth, Reality*, (Cambridge: Cambridge University Press, 1990).

which to examine the progression of a nation's design culture. While the texts that sit in both of these categories have already been outlined in this literature review, there are some publications that deal specifically with the notion of national identity as a separate topic and are worth mentioning.

Developing this picture of introspection, Jonathan Woodham also makes reference to a 1932 work by Sir Stephen Tallents, *The Projection of England*.⁶¹ Tallents, the then chairman of the Empire Marketing Board (EMB), attempts to clarify an identity for Britain, or rather England (for Tallents, as the book suggests, Britain was England), in the face of the rapidly modernising world of the early 20th century, one from which England stood to be excluded, particularly as Tallents notices the rise of the fascist states of Germany and Italy and their grasp of industrial modernity:

If a nation would be truly known and understood in the world, it must set itself actively to master and employ the new, difficult and swiftly developing modes which science has provided for the projection of national personality.⁶²

The notion of identifying with Britain or England is a fascinating topic that BOAC, on the whole moves away from, but at times still plays up for the foreign market, as will be discussed later in this study. For Tallents, the national image of England is inextricably linked to a set of elite bygone institutions and virtues:

It is an entertaining pursuit – this breaking up of the fame of England into its primary colours. At one end of the spectrum are to be found... such national institutions and virtues as: The Monarchy (with its growing scarcity value); Parliamentary Institutions (with all the values of a first edition), The British Navy, The English Bible, Shakespeare, Dickens; In international affairs – a reputation for disinterestedness, In

⁶¹ Jonathan Woodham uses the essay by the director of the Empire Marketing Board (EMB) to position the typical notions of a pre-war Britain in relation to other countries' design programmes.

⁶² Sir Stephen Tallents, *The Projection of England* (London: Faber & Faber, 1932), p.11

national affairs – a tradition of justice, law and order; In national character – a reputation for coolness; In commerce – a reputation for fair dealing, In manufacture – a reputation for quality; In sport – a reputation for fair play.⁶³

Tallents' description is symptomatic of the time in which it was written, one in which past glories and triumphs were relived, and people longed for a lifestyle that only few could realise.⁶⁴ As Woodham remarks, '[i]t was the England of the cultivated rich perhaps or England foreseen by Bernard Shaw when Britain's economy would depend on the export of chocolate creams.'⁶⁵ After the end of the war, England becomes referred to as Britain, perhaps symbolic of the national struggle between 1939 and 1945. However, the romanticised image of national identity continued even after the Second World War. While the immediate post-war years attempted to frame the modernity of Britain through design, later exhibitions, such as Brussels '58, referenced the pre-war sentiment that Tallents warned of, reflecting the tensions between modernity and tradition within Britain.⁶⁶ Woodham returns to the subject in *Twentieth-Century Design*, describing a plaque in the British Pavilion that read: 'In Britain roses grow on tea cups and wallpaper.'⁶⁷

It is this tension between the nostalgia of England and a new British modernity that this thesis identifies in BOAC's interiors, evidenced through archival material from the British Airways Speedbird Centre. This demonstrates that, in many ways, the airline had to reflect the interiors that their customers wanted, and certainly in the immediate

⁶³ Tallents, 1932, p. 14. Note to reader: the original format of this was written as a list but I have changed this to a paragraph for the formatting of this thesis.

⁶⁴ Tallents continues: 'I suspect also – so utterly does our memory of the England of yesterday becloud our perception of the England of to-day – that the same study would discover the need of a parliamentary projection of England herself.' p. 16

⁶⁵ Woodham after Kingsley Martin (2007), p. 144

⁶⁶ This study will refer to the exhibition as Brussels '58. It can be referenced in a number of ways including *Exposition Universelle et Internationale de Bruxelles 1958* and *The Brussels World's Fair 1958*.

⁶⁷ Woodham, 1997, p. 95

post-war years, may have been at odds with the state-sponsored concept of design and the modernity that BOAC yearned to employ.

Although Nicholas Hewitt's *Introduction: Popular Culture and Mass Culture, Contemporary European History* could also be listed amongst these more traditional texts, it has been key in this study as the author defines the first years of Queen Elizabeth II's reign as the 'New Elizabethan' era. This term is something that is also reflected on in the 2012 V&A exhibition *British Design from 1948: Innovation in the Modern Age*, and has also been useful in analysing the archival material of the time, such as a 1952 *de Havilland Gazette* editorial that reflects on the new age:

Elizabeth the Second, girl of magical qualities, heads a race highly experienced in worldly and constitutional problems, not easily misled or diverted, discerning as between the immediate prize and the long-term reward, the particular profit and general satisfaction... we are interested to improve our worth to the world rather than the other way... Elizabeth is the essence of our ideals, the living spirit of us. She personifies these principles and under her gracious reign we shall defend and uphold them at all times. God save the Queen.⁶⁸

A text that has made specific links to design culture, apart from those mentioned above, and which covers the whole period of BOAC and beyond, is Patrick J. Maguire's 2007 essay, 'Class, Culture and Conflict: Defining the 'British' in British Design in Post War Britain':

Taken together with the cultural baggage of empire and national self-image of heroic wartime endurance, ingenuity, invention and victory, if anything, reinforced cultural isolationism and supremacy.⁶⁹

⁶⁸ Anon (1953), 'Foreword' in *Enterprise: Coronation Issue* (June), p.51

⁶⁹ Maguire, 2007, p.32

The Interior

Notions of the interior are complex in terms of the aircraft interior. While several texts focus on the interior as a site of study, many of these have focused on the development of the domestic and public interior within static architecture, such as *Designing the Modern Interior: From the Victorians to Today* (2009) and *Performance, Fashion and the Modern Interior: From the Victorians to Today* (2011).⁷⁰ In many ways, the aircraft is a site associated with both the public and private 'spheres', as Penny Sparke's *The Modern Interior* (2008) puts it.⁷¹ It is public in the sense that most of the public can access it; however, it is also private, controlled by the airline, as access must be bought.⁷² In the historic context of BOAC, this is even more complex, the first flights being the preserve of the elite. However, as BOAC also sees the realisation of mass transport, the interior becomes increasingly accessible to the general public. This is also reflected in the way in which design is employed. The earlier aircraft interiors replicate the domestic arena, while the later interiors seen in aircraft linked with mass transportation, such as the Boeing 747, replicate a functional, public space. Providing a functional and useful historical overview of the development of aircraft interiors has been *Flight* magazine. The weekly industry publication gave regular updates on the aircraft being developed by BOAC and the respective aircraft manufacturers, often with a focus on developments in the interior design of the aircraft.

⁷⁰ Penny Sparke, et al. eds., *Designing the Modern Interior: From the Victorian to Today*, (Oxford; New York: Berg, 2009)

⁷¹ It is worth noting that the aforementioned texts from Gregory Votolato and Anne Wheleans add context to the design of interiors of aircraft and ships respectively.

⁷² Penny Sparke, *The Modern Interior* (London: Reaktion books, 2008)

The Original Contribution of this Study

This thesis offers a unique and original insight into British post-war commercial design viewed through a British company. As this literature review has shown, a range of texts and research already exists to document this period, but it is in analysing the core issues of commercial design through BOAC's 35-year history that differentiates this study from existing studies. Much of this literature has established a narrative that is concerned with the *concept* of state-sponsored good design and the following emergence and breaking away of pop design. By looking at the *reality* of business and process in British design at this point, this thesis presents something different—it adds to the existing history of design by presenting and analysing documentary material of the design process, in turn uncovering the reality of the British design industry and its key actors after the Second World War. In turn, this study could also provide a template that could be used to analyse other companies of the period.

Methodology

This thesis presents empirical evidence in order to define the key role that BOAC played in the development of British commercial design. This, as the literature review outlines, was initially carried out by a full review of the literature that existed in relation to the subject. Due to the nature of the study, many of these publications are well known and considered 'established' thinking in the field of British design history. However, there are, in addition, lesser-known publications that have also helped to set out the parameters of the study. Indeed, as many of the publications deal with established themes related to the research, archival work and interviews with those associated with the Corporation have been essential in defining a new narrative pertaining to this subject.

Archival Sources

The key archival source for this research has been British Airways Speedbird Centre, which holds a range of material on the airline, from printed ephemera for each BOAC aircraft to detailed records on the various management decisions of the airline. To support this research, several archives with smaller collections specific to a certain element of BOAC's history were consulted. These have included Mill Green Museum and the de Havilland Aircraft Museum, which both hold a range of material relating to the de Havilland's aircraft manufacturer, notably internal magazines that document the progression of key BOAC aircraft and their interiors. The National Art Library at the Victoria & Albert Museum and the museum's archive at Blythe House provided detail on designers such as Gaby Schreiber and Jacqueline Groag. The University of Brighton University Design Archives holds the archive for the CoID and files on key designers such as F.H.K. Henrion.

Brooklands Museum in Weybridge, Surrey is the former site of Vickers, a key British aircraft manufacturer which produced the final BOAC intercontinental jet, the VC10. Material found here that related to the VC10 interior added further context to the roles of Schreiber and Robin Day.

The Heritage Advertising Trust (HAT), based in Norfolk, holds the archive of Foote, Cone & Belding (FCB), the advertising agency that BOAC used throughout its 35-year history. In addition, this archive holds a range of sources that help to add context to the British advertising agency in the post-war era.

Boeing Historic Archive, Seattle, WA holds vast documentation on the Boeing aircraft used by the Corporation. This collection includes detailed design specifications on the Stratocruiser and the 707, including correspondence with designers such as Lonsdale-Hands, Day and Schreiber.

The Walter Dorwin Teague Papers Special Collections Research Center, Syracuse University Libraries was essential in giving more context to the role of the American industrial designer and his influence on the modern jet aircraft interior. It also holds revealing documentation on the nature of BOAC as a client of an American corporation.

Robert Price (1924–2013), former Vice President of Charles Butler Associates, was interviewed at his New Hampshire home. This was again extremely revealing, giving a firsthand voice from an American designer working in the British design industry.

Chapter Two

Chapter Two, 1939–1945: The Development of a British Brand During Wartime

Introduction

The aim of this chapter is to establish the early history of BOAC during its first six years of operation. Documenting this period will help to explore the roots of the airline and how important the design of the aircraft interior would come to be in the development of BOAC as a global brand.

This period in the context of British and global history is, of course, defined by the catastrophe of the Second World War, and it is hard to imagine that any business, let alone a British airline, could have been a success. In the context of bombed-out cities, unparalleled loss of military and civilian life, and severe shortages of even the most basic food stuffs, the concept of creating an airline with global ambitions could be seen as superfluous and highly unrealistic. However, the attention that the British government gave to the development of BOAC during this time shows the importance the state gave to its national airline, particularly its potential influence in a post-war world, where the projection of a strong national image would be essential to defining Britain's post-war role. These six years would prove key in the government's post-war plan, giving Britain's national airline a foothold in what was predicted to be a lucrative, global, mass-transport format.

These formative years of the Corporation are also important to understand as they present a markedly different narrative to the traditional, established history of British design. As highlighted in the literature review, the dominant themes of British design history throughout the 20th-century are pre-First World War, the inter-war years, and post-Second World War. The nature of these destructive global conflicts meant that industrial manufacture was, on the whole, given over to the production of war material. As such, the stories of brands and businesses during this time may seem of

little relevance, as well as being nearly impossible to trace. However, thanks to material held in the British Airways Speedbird Centre BOAC archive and the CoID files housed at the Brighton University Design Archives, a unique story emerges of a British company establishing itself in the midst of war.

This key archival evidence opens up research into several themes that have not yet been explored in either the history of British design or the history of BOAC. So, starting with the inception of the Corporation in 1939, this chapter moves through the first six years of the airline, covering the aircraft and interiors inherited from Imperial and British Airways Limited (BAL); the experience of flight during the war period; the initial relationship between the airline and the CoID; and, finally, the post-war planning between the government and BOAC.

The Origins of the Corporation

BOAC was brought into existence by the *BOAC Bill to Parliament* on 12th June 1939, the bill receiving Royal Assent in August of the same year and becoming officially established on 24th November 1939.⁷³ In practical terms, this meant the merging of two existing airline companies: Imperial Airways, already the nationalised airline of Britain, and the privately owned British Airways Limited (BAL). The government took its direction from the Cadman Report of 1938, which advised that: 'there should be two subsidised British companies for external routes, IAL [Imperial] and British Airways.'⁷⁴ The main reasoning behind this was to provide two distinct airline services, one covering intercontinental flights, and another providing a European-only service. Imperial was, at the time, providing an efficient intercontinental service, but its European flights were operating at a significant loss, resulting in the need for

⁷³Winston Bray, *The History of BOAC* (London: Wessex Press, c.1971), p.11

⁷⁴Bray notes that, unsurprisingly, the report to nationalise Britain's airlines was instigated under a Labour government but, perhaps more surprisingly, the recommendations were implemented by a newly elected Conservative administration.

greater subsidy from the government.⁷⁵ Meanwhile, British Airways, recognised at the time as offering a 'service [that] is so much faster than that of Imperial Airways' on European routes, seemed to provide an instant solution to this problem.⁷⁶ In this sense, BOAC became the rebranded successor to Imperial, while British Airways became—albeit in 1946 after the cessation of conflict in its key market of Europe—the Corporation's sister airline, BEA.

It is impossible to ignore the impact that the outbreak of war had on the newly proposed airline. As Kenneth Hudson and Julien Petifer state in their hugely informative *Diamonds in the Sky: A Social History of Air Travel*, 'Imperial Airways was a war casualty... [replaced] in 1940 by the British Overseas Airways Corporation'.⁷⁷ However, the former planning director at the airline, Winston Bray, took the view that it was BOAC which truly suffered, the war hindering the full implementation of the Corporation as a fully operational passenger service as specified under the Act:

Before the Corporation could be established under the Act, war broke out on September 3 1939 and as from that date the two existing companies were operated largely as one concern and both were immediately placed under the control of the National Air Communications, an organisation set up under the Air Ministry for all civil air operations.⁷⁸

As the Corporation was ultimately run under state control, it had to abide by the rules stipulated by the 1939 Act (these rules would later become the cause of major disputes). Bray's revealing history of the Corporation, under the unassuming title *The*

⁷⁵ Although the main focus was Empire routes, such as India, the Far East and Australia.

⁷⁶ *Flight*, 1938

⁷⁷ Kenneth Hudson and Julien Petifer, 'In and Out of the War' in *Diamond in the Sky: A Social History of Air Travel* (London: The Bodley Head, 1979), pp.115

⁷⁸ Bray, 1971, p.11

History of BOAC, reveals two of the Act's key functions: the first is that 'it shall be the duty of the Corporation... to secure the fullest development, consistent with economy, of efficient overseas air transport services'.⁷⁹ This is an important point, and one that suggests the Corporation was started for the sake of economic benefit and efficiency rather than on account of the imminent outbreak of war, as some authors have suggested.⁸⁰ Secondly, the Act stipulated that aircraft produced 'outside His Majesty's Dominions should not be used on the Corporation's services, unless with the approval of the Secretary of State.'⁸¹ This is critical, and would become a constant point of tension throughout the Corporation's history, as this thesis will demonstrate.

It is interesting to note the way in which other authors, either writing specifically about BOAC or aviation more generally during the same period, record the activities of the Corporation during the conflict. In their book, *British Aviation Posters: Art, Design and Flight*, Scott Anthony and Oliver Green note that 'BOAC's first years of operation... provided vital air transport support to a nation at war.'⁸² Although this is absolutely true, they go no further in recording the extent to which BOAC aided the war effort. There is also general confusion as to when the airline actually started full operations, with authors tending to cite 1940 as the first year. However, material from the BOAC archive points toward operations starting almost immediately after the 1939 Act of Parliament, with Imperial Airways stationary still being used, just with the Imperial

⁷⁹ Ibid, Bray, p.11

⁸⁰ I've used Bray's history as a reference for key dates, such as when certain equipment is brought into operation, when chairmen were in charge and timings under which the Corporation was set up. Bray's book on BOAC was never given an official publication as it was felt by the Corporation's board at the time that it revealed too much. In fact, so incendiary was the history that the majority of the print run was destroyed, the BA archive holding what is thought to be one of a only handful still in existence. Despite this, Bray should be seen as a reliable source. He was involved with the Corporation from 1939 and, as already stated, went on to be its planning director so it can be assumed that the history provided is a reliable one.

⁸¹ Bray, c.1971, p.10

⁸² Oliver Green, 'Conflict and a Changing World' in Anthony, Scott and Green, Oliver, *British Aviation Posters: Art, Design and Flight* (London: Lund Humphries, 2012), p.102

Airways logo crossed out and BOAC typed in its place. The document in question shows the Corporation being asked to run, by Air Command, a Consolidated Model 28 Catalina, with the specific purpose of operating a London-to-Lisbon route to carry Air Ministry freight.⁸³

These early files reveal the multi-faceted role that the Corporation was to play. Firstly, it was to be a chartered airline, under the auspices of National Air Communications (NAC), carrying government officials and military personnel; secondly, it was to be a logistical service, transporting much-needed materials for the war effort to succeed, as reflected by the 'ball-bearing run' between Scotland and Stockholm (the ball bearing being an essential item in the production of war materials).⁸⁴ BOAC, unlike other European airlines such as KLM and Air France, whose own operations effectively ceased upon invasion, had a strong network of Empire routes to maintain (figure 1).⁸⁵ Although, as Hudson and Petifer note, these routes:

... bore little resemblance to the Imperial Airways pattern which had existed in 1939. The former trunk routes from Britain to the Far East, Australia and South Africa were cut, and in their place came an important Britain-Cairo link, flights to the Soviet Union, and a complex system of North Atlantic and African services.⁸⁶

⁸³ Taken from file 895, British Airways Speedbird Centre, London. Throughout the War, Lisbon remained the only open European port for allied traffic.

⁸⁴ The ball-bearing flights used a variety of aircraft throughout the war, including a civilian version of the Armstrong Whitworth Whitley and later the de Havilland Mosquito. What brought all of these aircraft together was the use of the BOAC logo in conjunction with any military markings.

⁸⁵ The full name of the Dutch airline is Koninklijke Luchtvaart Maatschappij N.V., but commonly referred to as just KLM.

⁸⁶ Hudson & Petifer, 1979, p.115

Figure 1: Map c.1948, showing BOAC's clear focus on Empire. British Airways Speedbird Centre, London

It is worth noting here the role of Empire and Colonialism in the context of this thesis. While a study that focuses on Britain in the mid-20th century will undoubtedly encounter the issues of Britain's colonial past, evidence of this theme isn't apparent in the material researched in BOAC's archive material. Indeed, as the map shows, although the immediate focus of BOAC's post-war routes was Britain's territories abroad, later maps and imagery show that BOAC was quick to recognise Britain's new post-war position. Indeed, the airline, as this thesis intends to demonstrate, saw British identity not as a homage to the past, but as a modern, commercial entity.

In many ways, BOAC can be seen as representing an early shift in the British global outlook. The airline's former identity, Imperial Airlines, was much more explicit in its positioning of the national airline's role in the Empire and of the subject therein. Two posters taken from British Airways Speedbird Centre demonstrate this. The first, 'Africa by Imperial Airways' (appendix a), is reflective of the perception of the continents under colonial rule, depicting an imagined tribal scene with an Imperial (white) aircraft soaring above, the hierarchy clearly outlined. The second example

(appendix a), is a leaflet cover that accompanied a 1935 exhibition on Imperial Airways held at the Science Museum. Key here is the copy that exclaims that the airline is 'The Empire's Airway'. Although these two examples should be taken very much in the context of the period—the 1920s and '30s was the modern peak of the Empire, and advertising reflected this—BOAC never used imagery or language like this, focusing on the future and the nature of air travel, or—when selling to America—imaginary images of the English countryside and medieval pomp and pageantry.

The 1939 BOAC Aircraft Fleet

One of the major problems facing the newly formed Corporation was the suitability of the aircraft fleet inherited from Imperial Airways and British Airways. At the time of the BOAC Act of Parliament being passed, BOAC had an operational fleet of 73 aircraft from five different manufacturers. The suitability of the fleet for the newly formed Corporation was mixed. New aircraft were available, such as the de Havilland 91 (figure 3), known as the 'Frobisher', and the Armstrong-Whitworth 27 (figure 2), known as the 'Ensign'. Both of these four-engined aircraft were developed by Imperial Airlines and introduced in 1938, giving BOAC access to the latest in aircraft technology. The aircraft hinted at the late 1930s' demand for air-travel, with, in the case of the 'Ensign', cabins able to carry up to 40 passengers.

However, many of the inherited aircraft were better suited to European operations, which, even without a war, were no longer in BOAC's remit. One of these aircraft, the de Havilland 89A, a bi-plane, was also reflective of a pre-war era and had become quickly obsolete.⁶⁷ Other issues included cramped interiors, allowing for only a finite number of passengers, as was the case with the Lockheed's Electra 10a and 14 .

⁶⁷ The DH.86a was introduced in 1936 and ceased operations in 1941.

What is also ascertainable in reviewing the 1939 fleet is the focus of Imperial's main business. Nearly half of the aircraft available to BOAC were Shorts S.23 and S.30 Empire flying boats, which, as the name suggests, were used almost exclusively to connect Britain and its Empire. The practicality of these aircraft was not lost on the Corporation as the war progressed: by 1943, the Corporation had added a further 32 Shorts variants to the fleet and by 1945 the flying boat fleet alone totalled 70. Requiring only a clear stretch of water for take-off and landing, and able to use existing dock facilities, the flying boats provided an essential method of transport at this time.

Figure 2: Armstrong Whitworth 27, known as the Ensign. British Airways Speedbird Centre, London

Figure 3: de Havilland 91, known as the Frobisher. British Airways Speedbird Centre, London

The Interior of BOAC's Initial Fleet: Case Study of de Havilland 86A

Central to this thesis is the use of the aircraft interior to chart the development of commercial British design and BOAC's identity. As already highlighted in the introduction, existing literature on aircraft interiors focuses on the post-war interiors of 1960s and '70s aircraft, with the dominant focus being on the glamour and luxury

experienced in the aircraft cabin.⁸⁸ However, little or no attention has been given to the aircraft interior during and immediately after the war. The little that is written is covered in social histories of flight rather than design histories. The focus of works on the inter-war aircraft interior is extreme luxury, with the emphasis lying on planes such as Imperial's Handley Page HP.42 (figure 5), its interior design having more in common with that of a rail carriage or ocean liner. Indeed, when taking the Peninsular and Oriental ocean liner, the RMS *Viceroy of India* (figure 4), as an example—as Anne Wealleans did in her book *Designing Liners: A History of Interior Design Afloat* and Corin Hughes-Stanton did in his book *Transport Design*—the overriding design aesthetic to emerge is the use of materials to recreate mock historical styles. Hughes-Stanton illustrates this point with a lounge room c.1929 of the *Viceroy*, depicting it 'in mock Tudor including fake hammer beam roof, plasterwork and leaded stained glass windows.'⁸⁹ Aircraft of the same period followed a similar aesthetic, as Fitton-Hauss notes in *Airworld: Design and Architecture for Air Travel*: 'HP 42 emulated the plush trappings of an English drawing room'.

It was also popular with passengers, who enjoyed its fanciful interior and, on some routes, five-course dinners... [t]he cabins had elaborate wood paneling with inlaid scrollwork, sofa-style seats with a floral-patterned upholstery, chintz curtain, and a ceiling with profiled panels... the HP 42 established a reputation as 'virtual hotel of the air'.⁹⁰

However, looking at the image the Fitton-Hauss uses of the HP.42, it appears that the interior wasn't as extreme as similar ship or railway carriages of the period. Indeed, it could be said that the interior depicted reflected some elements of the art-

⁸⁸ This is the theme used by the following: Fitton-Hauss, 2004; Lovegrove, 2000; and the TeNeues Airline Design, 2005.

⁸⁹ Hughes-Stanton, 1967, p. 13

⁹⁰ Fitton Hauß, 2004, pp 82 – 122

deco style, although the overall themes appear to stress plush, decadent luxury, possibly reflecting the tastes of those travelling and certainly reflecting the luxurious finishings expected of an elite experience. This prioritisation of decoration is not uncommon in the transport interior and could be understood as a method of negotiating the new mode of the transport.

Figure 4: Elsie McKay, c.1929, lounge area of the *Viceroy of India*, P&O Shipping Line.

Figure 5: Handley Page HP 42 cabin interior.

Figure 6: de Havilland D.H.86A, de Havilland product catalogue, c.1938, Mill Green Museum, Hatfield

However, there are examples between 1939 and 1945 that contradict this assumed history of the aircraft interior; for example, the de Havilland 86A (D.H.86A). As a bi-plane, the D.H.86A (**figure 6**) appears from the outside to reflect the very earliest types of aircraft, but its interior reveals a machine more in tune with international

modernism than any historical references. The D.H.86A interiors, as seen in (figure 7), echoed the mantra of modernism as practised by Marcel Breuer and the Bauhaus, with bent, tubular steel-framed seating, covered in leather with a simple motif stitched in, a marked departure from the aesthetic of an English drawing room and reflective of the 'finely tooled machine that' it was.⁹¹ It hinted at the stripped back, functional interior of mass transport, which balanced comfort with increasing passenger numbers. But while the D.H.86A may have been equipped with an interior reflective of the modern and functional nature of air travel, it was also a small, cramped aircraft, carrying only eight passengers and ultimately falling short of the Corporation's wartime mission. The aircraft was therefore removed from service in 1941.

Figure 7: Interior of the D.H.86A. de Havilland product catalogue, c.1938, Mill Green Museum, Hatfield

The D.H.86A wasn't alone in falling victim to the war. De Havilland also produced the D.H.91 Albatross, a four-engine aircraft with capacity for 22 passengers, a significant number at the time. Entering service in 1938 and removed from service in 1943, it

⁹¹ Votolato, 2007, p.203

was another example of British aircraft manufacturers producing aircraft that were, by pre-war standards, ahead of their time for passenger-carrying aircraft. However, in the theatre of war they became obsolete due to the limited amount of troops or material that could be carried. The Albatross also marked a significant development in the aircraft interior and passenger comfort. Although originally designed as a mail plane, the aircraft, a sleek lesson in aerodynamic futurism, was far removed from the awkward bi-planes, such as the HP.42, and represented a development of the utilitarian interior displayed by the D.H.86A. A large cabin, with room for a grown adult to stand upright, carpeted floors, and large upholstered seating set out in groups of four around tables, the Albatross interior was designed to be lived in, allowing people to experience flight rather than just be transported.⁹²

⁹² The D.H.91 Suffered from a poor build quality. A number of the aircraft were written off after the landing carriage failed, the wooden frame of the D.H.91 unable to cope with the strain put on it.

Figure 8: Interior of the D.H.91, showing separated cabin areas. British Airways Speedbird Centre, London

Perhaps the most notable development in the D.H.91 was the introduction of separate cabins (**figure 8**). Although separate cabins had been used in flying boats, the Albatross was the first landplane to incorporate this design feature, aimed at giving the interior a larger appearance, with certain sections of the interior being given over to specific functions, such as dining room, dressing room, etc.⁹³ In many ways, it could be seen as an introduction of the private into the public space.

This almost immediate obsolescence wasn't just limited to British aircraft manufacturers. BOAC also operated a small fleet of American-made Lockheed 10a and 14s. The aircraft suffered similar fates to the de Havilland aircraft, being removed

⁹³ The term landplane refers to aircraft that use land based airports as opposed to the flying boats, which used marinas or harbours.

from service between 1939 and 1944. However, unlike their British-made rivals, aircraft from manufacturers like Lockheed had a lucrative home market in America, where flight was becoming a viable option to dramatically reduce travel time across the vast continent. As will be explained in the next chapter, the American domestic market would have huge implications for post-war civilian transport aircraft in Britain and across the globe.⁹⁴

So, with the majority of aircraft that BOAC inherited—with the exception of the flying boats—proving unsuitable, the Corporation was to make do with aircraft that it received through the Royal Air Force (RAF) or the National Air Command (NAC). Ultimately, this meant that, although the total number of aircraft that the Corporation operated was reduced, the number of different types of aircraft in its service actually increased. From operating just 65 types in 1939, by the end of 1945 the Corporation was operating in excess of 250 aircraft types. These ranged from military transport planes, such as the Douglas C-47 Dakotas or the Lockheed Lodestar. In some cases, aircraft from recently liberated countries were put into brief use as the war progressed; for example, the Focke-Wulf Condor, a Lufthansa aircraft taken from Denmark.⁹⁵ The Corporation was also given fighters/bombers like the de Havilland Mosquito to operate on, as already mentioned, the 'ball-bearing runs'.

It was this lack of fit-for-purpose aircraft that would lead to an intense period of planning by the Corporation and associated government agencies. This became known as the Brabazon Committee.

⁹⁴ The aircraft were purchased by Imperial prior to the stipulation that BOAC had to buy British or Commonwealth aircraft.

⁹⁵ Note: A file exists in the British Airways archive noting executives of Imperial visiting Focke, c.1938, to enquire about the use of the Condor prior to the war starting.

Planning for the Future

The Committee, named after its head Lord Brabazon (1884–1964), was a 'Ministry of Aircraft Production operation' that identified the 'importance of new types of aircraft for the post-war world.'^{96 97 98} The investigations resulted in a primary report published in 1943, which established the needs of the British civilian aviation market and, therefore, the types of aircraft that BOAC would eventually operate. The Committee was tasked with four main areas on which to base their findings, key amongst them being 'to prepare outline specifications of the several aircraft types that would be needed for post-war air transport'.⁹⁹

As Mike Phipp documents in the highly informative work *The Brabazon Committee and British Airliners, 1945–1960*, the Committee's early recommendations from its first meetings came with 'the following outline recommendations... made to the Secretary of State for Air and the Minister of Aircraft Production:

1. The adaptation for civil use of four types now in, or near, production:

- (i) Avro York
- (ii) Vickers Warwick (civil)
- (iii) Short Hythe (Sunderland III development)
- (iv) Short Sandringham

2. The design of five new Types:

- (i) A large, long-range landplane for the North Atlantic route

⁹⁶ His full name and title, John Moore-Brabazon, 1st Baron Brabazon of Tara. He was also an early pioneer of aviation, flying one of the first powered aircraft, constructed by the manufacturer Voisin, named the *Bird of Passage* in 1909.

⁹⁷ Jackson, 1991, p.174

⁹⁸ Robin Higham, 'The Brabazon Committee' in *Speedbird: The Complete History of BOAC* (London: I.B. Taurus, 2013), p.54

⁹⁹ Mike Phipp, *The Brabazon Committee and British airliners, 1945-1960*, (Stroud: Tempus, 2007) p.16

- (ii) An economical DC-3 replacement for European services
- (iii) A four-engine medium-range landplane for the Empire routes
- (iv) A jet propelled mail plane for the North Atlantic
- (v) A twin-engined fourteen-passenger feeder line¹⁰⁰

This seeming clarification of future design requirements, amending current aircraft for civilian use or speeding up the development of current aircraft, and a second stage that would identify new, advanced aircraft, led to the cabinet authorising a 'second Brabazon Committee to undertake more detailed work'.¹⁰¹ This second stage, published in March 1944, consisted of new aircraft to be developed and specified the manufacturers that had been approached to develop the designs:

I	Transatlantic non-stop	Bristol	Brabazon I
II	European transport	Airspeed	Ambassador
IIIA	Long-range Empire	Avro	693 'XXI'
IIIB	Medium-range Empire	Avro	690
IV	High-speed mail plane	de Havilland	106 twin boom
VA	Feeder line transport	Miles	Marathon
VB	Light transport	de Havilland	Dove ¹⁰²

A final meeting in November 1945, the fifth of the proposals to be submitted and the 62nd (and last) meeting of the Committee, provided 'final details of the Brabazon Types, plus their Air Ministry specification numbers:

¹⁰⁰ Phipp, 2007, p.17

¹⁰¹ Ibid, p.17

¹⁰² Phipp, 2007, p.20

I	Trans-Atlantic non-stop	Bristol	Brabazon I	2/44
IA	Trans-Atlantic non-stop	Bristol	Brabazon II	2/46
IIA	European transport	Airspeed	Ambassador	25/43
IIB(i)	European transport	Vickers	Viceroy	8/46
IIB(ii)	European transport	A-W	Apollo	16/46
III	Long-range Empire	Avro	693 'XXI'	6/45
IV	High-speed transport	de Havilland	Comet	22/46
VA	Feeder line transport	Miles	Marathon	18/44
VB	Light transport	de Havilland	Dove	26/43 ¹⁰³

By making early provisions for the post-war needs of BOAC, the Committee appeared to be well prepared to provide aircraft for the Corporation. However, the findings of the Brabazon Committee led to confusion when British aircraft manufacturers were consulted (to outline the full machinations of the Committee would distract from the central focus of this thesis). The resulting fallout from the Committee would have a severe impact on the operations of BOAC, one which it would never truly recover from. Although the initial work of the Brabazon Committee was to streamline aircraft production into specific aircraft types that reflected the key markets of BOAC and BEA, it ultimately led to endless prototypes being produced that, due to the time taken for designing and testing, were obsolete before entering service. Another, perhaps more fundamental, reason, as noted by Peter Fearon in his essay 'The Growth of Aviation in Britain', was that '[t]he Second World War totally disrupted... the development of civil aeroplanes' due to Britain's industrial complex

¹⁰³ Phipp, 2007, p.21

being entirely focused on the production of military aircraft, particularly bombers.¹⁰⁴

Conversely, American manufacturers were modifying civilian aircraft designs for military use, as Fearon goes on to mention:

American aircraft transported troops and equipment over great distances between 1941 and 1945; the output of civil aircraft for military purposes grew enormously, while research and development continued.¹⁰⁵

This disconnect between industry and the airline and the industry's lack of suitable resources, as Robin Higham notes, haunted the airline until the end of its operations in the 1970s, with the author commenting that 'BOAC was until the 1970s plagued with a multiplicity of types instead of getting down to a one two-type fleet.'¹⁰⁶ Indeed, for an airline trying to establish its identity and design aesthetic, not having a standardised fleet meant that multiple interiors had to be designed for the variety of aircraft, leading to a lack of a standardised brand for passengers to recognise.

However, at the time of the Brabazon Committee's planning—and despite the lack of tangible, physical aircraft to define the airline's identity—BOAC was planning an identity and design for its brand to be used in the post-war world.

Design by Committee

Intrinsic to the early history of the Corporation was the involvement and influence of Boards, ministries and other government agencies that had some say in the actions of the airline. Although this thesis considers the commercial design strategy of the Corporation, the initial development and implementation of design was an issue that required approval from several stakeholders. The Corporation itself had set up its

¹⁰⁴ Peter Fearon, 'The Growth of Aviation in Britain' in *Journal of Contemporary History* (Vol. 20, No. 1, Jan, 1985), p.34

¹⁰⁵ Fearon, 1985, pp.34-35

¹⁰⁶ Higham, 2013, p.55

own Board, the Design Committee, to handle the future design needs of the airline; the Council of Industrial Design (CoID), Air Transport Control (ATC), the Secretary of State for Air (SSA), the Minister of Aircraft Production (MAP) and, toward the end of the war, the Ministry of Civil Aviation (MCA) represented the state's control over the Corporation. Out of this list of government bodies, it was the CoID that had the clearest remit for recognising and influencing BOAC's potentially valuable design process, especially as the airline was a British business operating in the international sphere.

Under the terms of its operation, as set out by the Board of Trade (BoT), the Council's general objective was 'to promote by all practicable means the improvement of design in the products of British industry.'¹⁰⁷ Indeed, it was the Council that was encouraged to approach the airline by the ATC.¹⁰⁸ It was the insight of the Air Command that:

for the next 2 or 3 years they expect to carry much British and foreign civilian passenger traffic. They stressed the importance of good design in aircraft interiors and reception buildings and wanted the Council to help improve it.¹⁰⁹

The earliest reference to the Corporation's own Design Committee is in minutes held at the Brighton University Design Archive; these show the intention of the Council to approach the Corporation Board in February 1945, with a view to establishing a working relationship. The minutes note:

The Director reported the existence of a BOAC Committee on the design of equipment and fittings for civil planes and suggested it as a matter for possible action

¹⁰⁷ Holland, 1985, p.7

¹⁰⁸ During the six-year period of the war, the ATC was responsible for all air travel, both military and civil.

¹⁰⁹ Holland, 1985, p.7. They had now met an obstacle in their progress, in doubts expressed about their policy by the Director of Organisation and Administration, Air-Marshall Courtney. They wished to have the help of the Council not only in improving their design but also in overcoming these doubts.

by the committee... The council would wish to have some say on a design matter of such importance and influence.¹¹⁰

Unsurprisingly, due to the number of stakeholders involved in any design process involving the airline and, initially, a level of indifference from BOAC, the Council, through Sir Kenneth Clark (1903–1983) and Gordon Russell (later Sir, 1892–1980), deftly manoeuvred the bureaucratic issues, which resulted in key parties of BOAC, the CoID and ATC forming a final committee of design that would:¹¹¹

meet regularly and first work out a method of procedure and the details of a general policy, and in the second place get down to getting the designing done, overseeing it and criticising it.¹¹²

Further notes in the minutes for 1945 reveal that:

[BOAC]... wished to know whether they could obtain advice from the Council on how to tackle their design problems. They also indicated that they would be glad to hear from time to time of lesser-known but competent designers for various purposes.¹¹³

In fact, only one month later, the CoID file of 'suggested designers' reveals the names of 11 interior designers put forward to BOAC. Of these suggested designers, two, Ian Henderson (Designs for Interiors and Furniture of Rest Rooms) and Albert Smith (Menus), are listed in a 1947 special BOAC design issue of *Arts and Industry*

¹¹⁰ Council of Industrial Design (CoID) Committee Minutes, February 1st 1945, University of Brighton Design Archives.

¹¹¹ CoID Committee minutes from the 1 March 1945, note that range of stakeholders in the potential process was part of the reason the CoID was engaged by the ATC. Indeed it was members of the ATC who wanted the Council to use its influence to communicate the importance of its plans to ministers and the other members of the ATC. The minutes reveal that: "Sir Kenneth Clark said that he had talked to Lord Swinton on the subject of the Design Committee for the Equipment and Fitting for Civil Planes. Lord Swinton had not grasped his intentions at the first meeting, and had replied in a somewhat irrelevant letter but Sir Kenneth thought that the suggestion of an adviser from the Council would indeed be welcomed and that he might write to Sir William Hildred, Director-General of Civil Aviation proposing a member of the Council for the Committee. At the Chairman's suggestion Mr. Gordon Russell agreed to undertake the task, if it did not demand too much time."

¹¹² CoID Committee minutes, 10th August 1945, University of Brighton Design Archives.

¹¹³ Council of Industrial Design Directors File, August 10th 1945, University of Brighton Design Archives.

magazine as designers 'who co-operated with the BOAC Design Committee' (figure 9).¹¹⁴

¹¹⁴ *Arts and Industry: Special BOAC Issue*, May 1947, p.155

Figure 9: Page from 1947 *Arts and Industry* magazine, listing those involved in the BOAC Design Committee.

An earlier piece of archival evidence, a 1946 edition of BOAC's in-house magazine *Speedbird*, focused on the design approach of the Corporation and reveals that the Committee was headed by Kenneth Holmes; Holmes and a group select designers,

referred to as 'youthful experts', were employed as consultants and 'adviser[s] on matters of design'.¹¹⁵ The archive material points to BOAC's understanding, even prior to the end of the war, that it would need a coherent brand to operate in the globalised, post-war world.

It's worth mentioning that among the names mentioned are three émigré designers— Jacques Groag, Robert Gutmann and Bronck Katz. Indeed, further investigation of the file, which covers the first three years of the Council's existence, reveals a large number of émigré designers suggested to other manufacturers, corporations and businesses (figure 10). These include Hans Schleger, F.H.K. Henrion, Misha Black, Gaby Schreiber and Jacqueline Groag; all émigré designers, and all key figures in establishing the visual language of modern Britain after 1945 and introducing a version of modernism more acceptable to British tastes—what could be termed commercial modernism. Indeed, Schreiber and Jacqueline Groag would both produce interior design work for the BOAC Comet and VC10 aircraft.

¹¹⁵Viscount Knolly, 'Foreword' in *Arts and Industry: Special BOAC Issue*, May 1947, p.129

Figure 10: Page from the CoID suggested file of designers, noting the first group of designers suggested to BOAC. University of Brighton Design Archives, Brighton.

Although these articles point to the brand being developed for when the airline started official, public, passenger-carrying services after the war, documentary evidence from the Imperial War Museum shows an early, perhaps the first, evidence of a prototype brand being used. The images, entitled 'British "Civil" Flying in Wartime' (a copy of which is also held in the BOAC archives), show passengers in the Corporation's *Berwick* Boeing 317 aircraft during a 1944 flight to America (**figure 12**). Not only do the images reveal an accurate picture of flight during the war, but the cabin walls are marked where the interior fittings, which had made the flying boats so synonymous with luxurious flight, have been stripped of materials; the photos also reveal the extent of the passenger 'servicing' run by BOAC between '39 and '45. The small pieces of copy attached to the images refer to 'BOAC staff and cabin crew', with none of them in military uniforms—we even see a member of staff wearing a t-shirt emblazoned with the BOAC Speedbird logo (**figure 11**).

Figure 11: A BOAC staff member with the BOAC logo on a branded jumper. British Airways Speedbird Centre, London.¹¹⁶

However, it was the Design Committee that formed a robust vision of what the BOAC brand should represent and the extent to which it needed to exist in several different forms. Both articles clarify the initial understanding of what was required of a modern British brand. To the Committee, this meant identifying the key design needs of the airline, and ordering them as short-term, intermediate and long-term solutions. 'Short term' defined a direct approach to branding items with the BOAC logo, 'used not to decorate but to identify' the object as part of BOAC. The longer-term approaches, as *Arts and Industry* notes, meant the Committee was 'considering new materials and new developments in design for' items used by the airline.¹¹⁷

¹¹⁶ Note on figures 11&12. These are kept as photocopies in the BA archive. The originals were kept at the Imperial War Museum. It now appears that the originals have been lost so these are the best images available.

¹¹⁷ *Arts & Industry*, p.129

Figure 12: Interior of a BOAC flying boat during wartime. British Airways Speedbird Centre, London.

The Significance of BOAC's Brand

It is worth considering the extent to which a brand must operate if it is to achieve the recognition and aims that are expected of it by the company it represents. As stated at the start of this chapter, one of the ways in which BOAC offers a unique and original contribution to design history is the way in which it can be seen as a key example of a British brand developing a modern vision of itself during the war, and, a very formative brand of a modern, post-war Britain. A primary text in the context of understanding branding and design is Guy Julier's explanation of brands in his book, *The Culture of Design*. It provides a helpful starting point. He notes that 'If a brand is typified into a clear, simple message, which is often crystallized as a slogan, then this should be reflected in all its manifestations.'¹¹⁸ Julier goes on to define these manifestations as 'the way corporate workers dress, talk, and act with customers and clients. 'In this way', he continues, 'the systems of branding inhabit[s] much of the

¹¹⁸ Guy Julier, *The Culture of Design: Second Edition* (London: Sage, [2000] 2008), p.13

space of design culture, turning information into an 'all-around-us' architectonic form.'¹¹⁹

In terms of BOAC, it was its own Design Committee that made it 'in general terms responsible for seeing that everything made for, or used by, the Corporation that was to be used by, or seen by the public, should conform to the highest aesthetic standards.'¹²⁰ Although not necessarily understood as 'branding' at the time, this shows that the Corporation understood that the identity of BOAC was one that would be seen in multiple places and contexts and had, as was made clear by the COLD's approach to the Corporation, a valuable role to play in the promotion of British design and industry. As the *Speedbird* article notes, the wide extent to which this designed identity would be seen 'included the styling and decoration of the aircraft interior, the furniture and decoration of the offices, waiting rooms and lounges through which the passenger passes.'¹²¹ However, designs representing the BOAC brand didn't just need to be limited to the interiors of the various spaces that the passenger would pass through. The objects that the passengers would use also needed to be considered:

The silver, glass and china on the tables at which he takes his meal in the aeroplane or in one of the Corporation's restaurants. It extends to the uniforms worn by the staff, which must be modern, smart and well styled; the insignia in the Corporation's aircraft its motor vehicles; the printed material that the Corporation uses – magazines, information brochures, menu cards, publicity material and even luggage labels and tickets.¹²²

¹¹⁹ Ibid, p.13

¹²⁰ Anon, 'Presenting an Airline' in *Speedbird Magazine*, November 1946, p.13, London, British Airways Speedbird Centre

¹²¹ Ibid, p.13

¹²² Ibid, p.13

It is in this extract that the extent to which the airline had to reform its brand is revealed. It marks the first in a series of significant shifts in the new Corporation's understanding of how design could be used to develop a modern British brand identity and how that could be communicated. Why was this so different? In contrast, Imperial Airways were selling only a form of transport, the lifestyle expected by an Imperial passenger. The interiors and brand of the former airline presented a style that would have been expected by those that travelled with them. It could be argued that, while Imperial had its own identity, it existed only as a visual expression, a logo on printed material, without its spaces and objects being further expressions of its brand. The brand and interiors of Imperial existed in isolation from one another—Imperial certainly didn't intend its interiors to be a central space in which to reflect its brand. In contrast, BOAC recognised, as the 'Presenting an Airline' article suggests, that every object that a passenger came into contact with could be a method of reaffirming the qualities of the Corporation (**figure 13**). However, this recognition was still very much connected to the tangible, physical experiences of the consumer. In this sense, the brand and identity of BOAC was still linked to the immediate, the physical space of the aircraft interior and the objects contained within it.

Figure 13: A page from BOAC's Speedbird magazine, discussing the need for a consistent brand message across of all the objects and environments in which its brand might be encountered. This article was later published in Arts & Industry. British Airways Speedbird Centre, London.

It is also here that the external influence of the CoID can first be seen. In this case, it is the language used to explain the importance of design to the Corporation. In fact, all of the key texts used in this chapter as references can be said to be couched in the language of the Council. In concluding his 1947 article for *Arts and Industry*, Kenneth Holmes notes that the Corporation's design policy 'is the foundation of a good tradition in design.' Going further, he refers to the extent to which 'good design' goes beyond just a commercial benefit for the airline, rather it 'brought its reward [for BOAC]; not only in the commercial sense, but from the point of view of prestige and moral.'¹²³

In this sense, BOAC was borrowing a series of values from different agents to construct its brand and identity. Incorporating the language of the CoID and the state-approved approach to design ensured that it created a familiar visual language for potential passengers; however, as the purveyor of a cutting-edge method of transport, it also defined itself within the discourse of modernity. Celia Lury and Scott Lash refer to the superstructure that BOAC operated in. Their book, *Global Culture Industry*, notes that:

In 1945 and in 1975 culture was still fundamentally a superstructure. As a superstructure, both domination and resistance took place in and through superstructures – through ideology, through symbols, through representation. When culture was primarily super structural, cultural entities were still exceptional. What was mostly encountered in everyday life were material objects (goods), from the economic infrastructure.¹²⁴

¹²³ Holmes, 1947, p.152

¹²⁴ Scott Lash & Celia Lury, *Global Culture Industry* (Polity Press: Malden, Ma & Cambridge, 2007), p.4

However, BOAC operated in an almost unique industry, that transcended the superstructure.¹²⁵ Although it used the traditional methods of the economic superstructure, as explained by Lash and Lury, its brand also existed in several spaces at once. In posters that advertised potential destinations; in the travel agencies where flights were booked; in airports; but also in the aircraft that transported the passengers to their desired destination. This selling tool, depicting the destination—or an abstract idea of travel and escape—was something that would have been extremely powerful in the aftermath of the war, especially the conceptual ideal of escape via the modernity of flight. Roland Barthes reflects on the power of the image to incite desire in the viewer in *Camera Lucida*—is this not what a brand is also instigating? Certainly, it appears so through the material produced by BOAC in the immediate aftermath of the war.¹²⁶ While Imperial used the destination as the focus when promoting its services and to instigate desire, for BOAC desire was also generated by depicting the interior and the experience of flight.¹²⁷

The rise of the consumer is identified by Lury, particularly the way in which consumers (individuals) portray themselves through the goods they own. In the case of BOAC, a company that was required to represent a national identity, they collected designers, items, and equipment to create their identity—they were, in effect, consuming these things so as to reproduce another identity. This has been a common theme for writers focusing on individuals using consumer culture to

¹²⁵ Note: This is not in the context of the Marxist superstructure

¹²⁶ There were also tensions in the messages that the Corporation had to communicate. For a British facing audience, the message was one of escape, while those coming from areas unaffected by the conflict were warned on what to expect in war-torn country, as a leaflet, analysed later in the thesis demonstrates.

¹²⁷ 'An old house, a shadowy porch, tiles, a crumbling wall, a deserted street, a Mediterranean tree (Charles Clifford's "Alhambra"): this old photograph (1854) touches me: This desire affects me at a depth and according to roots which I do not know: warmth of the climate? Mediterranean myth? Apollinism? Defection? Withdrawal? Anonymity? Nobility? Whatever (with regard to myself, my motives my fantasy), I want to live there, *en finesse*—and the tourist photograph never satisfies that *esprit de finesse*. For me, photographs of landscape (urban or country) must be *habitable*, not *vistable*... it is fantasmatic, deriving from a kind of second sight which seems to bear me forward to a utopian time, or carry me back to somewhere in myself[.]' Roland Barthes, Trans. Richard Howard, 'To Waken Desire' *Camera Lucida* (London: Jonathan Cape, 1982), pp. 38 – 40.

assemble their identities—Hebdige identifies it for subcultures, Attfield for the everyday objects of design.¹²⁸ In this case, the identity being produced was of Britain's national image, but the items being used weren't necessarily of British origin or reflective of a modern, post-war Britain.

Six Years of Development

The six-year period covered in this chapter documents the rapid pace of the change that took place during the height of the Second World War. It is a complex period in which BOAC is formed following the merging of the former national airline Imperial Airways (1924–1939) with several private airline providers. The broad terms of BOAC's operations are defined by a 1939 Act of Parliament, which stipulated that the equipment used by the Corporation could only be sourced from within the British Commonwealth. In addition, BOAC is tasked with planning how it would be identified and understood as a passenger airline, which planes from Imperial's fleet could be used, and what new aircraft would be developed in the aftermath of the war.

In many ways, the inherited equipment of the former national airline, Imperial Airways, represented the link to inter-war Britain, its operations and equipment steeped in the ideas of Empire, its aircraft interiors defiantly luxurious for its elite passengers. However, for BOAC, this inherited fleet also represented the task of defining a modern identity for Britain's national airline. While the experience of flight that the Corporation offered would still match the luxury offered by Imperial, it was also when the Corporation looked to the British design establishment to help define a uniform brand message. It enlisted the graphic designer F.H.K. Henrion as an art director for its internal publications *Speedbird* and *Wings Over the World* and engaged with consultant designers such as Richard Lonsdale-Hands to define a

¹²⁸ Dick Hebdige, *Hiding in the Light* (London & New York, NY.: Routledge, 2002 [1988]); Judy Attfield, *Wild Things: The Material Culture of Everyday Life* (Oxford: Berg, 2000)

standardised interior that represented the brand of the new national airline and, in turn, the values of a modern Britain. What is key in this moment is that, while the CoID featured in the very early design discussion of the Corporation, the national, state-run airline largely ignored the state-run design body. This is essential in understanding the first six years of the Corporation. It held the value and importance of its own commercial design decisions in higher esteem than those of the utopian Council. Indeed, the Council only fed into the airline's own internal design Board. This, it can be argued, shifts the typical representation of the Council in relation to the advice it gave to industry. Equally, it could be argued that the nature of BOAC, as a state-sponsored corporation, gave it more autonomy from bodies such as the CoID, as many of the key management figures in BOAC would have been considered part of the London design elite. This wasn't a company in the industrial heartlands of Britain being given advice and direction by the Council; it was a major British company based in London, and, in many ways, it actually formed part of the design elite.¹²⁹

That isn't to say that the period was free from complexities or tensions; despite a brand being defined, much of it was initially realised only in print rather than in the physical interiors of aircraft—the Corporation suffered from a lack of purpose-built aircraft, often relying on ex-military equipment from the RAF and American sources. However, despite these shortcomings, the outlook was positive as the airline entered into the late 1940s, with the Brabazon Committee planning a range of suitable aircraft that would match the modernity of the airline's interior and brand designs. It is also worth noting that the use of print media allowed the Corporation to visualise the interiors it ideally wanted. For example, a leaflet promoting the BOAC Stratocruiser service appears to show photographs of interiors that have been coloured in order to

¹²⁹ Patrick Maguire notes the supposed elitism of the Council being based in London.

reflect the BOAC brand colours and the style of the interiors to be used when the aircraft entered service with the Corporation. This again confirms the shift that saw the interior of a space, or the idea of a space, become a key medium through which BOAC identified and presented itself.

This chapter has outlined and demonstrated one of the major contributions to knowledge that this thesis has set out to make: how a British brand developed during the Second World War, and the role designers and state-sponsored bodies, such as the CoID, played in its creation. Pre-existing assumptions of the development of a British brand, of any type, during this period are non-existent. It is therefore through the new archival material presented here that a unique case study of BOAC can be defined. It brings to light the previously undocumented process through which companies could liaise with the CoID. It also reveals that the Council and its sanctioned designers were active almost instantly, with a number of major British brands requesting assistance of some sort. However, despite the formation of extensive links with British companies, it also reveals that, contrary to the evidence presented in other commentaries, the CoID's control wasn't as powerful, as suggested by Patrick Maguire in his essay 'Class, Culture and Conflict: Defining the 'British' in British Design in Post War Britain', as was first thought. The government quango was quick to recognise the importance of the airline, but it can now be determined that BOAC wasn't required to accept its assistance. Rather, it aided the Corporation in making contact with the design community in Britain; many of the figures would later play a major role in the visual and material culture of the airline. In reality, it can now be argued that BOAC gained the most from the relationship with the body, taking advantage of the promotion that the Council offered to emerging

businesses.¹³⁰

¹³⁰ The Design Museum notes that in 1960, the British domestic goods manufacturer Kenwood was supplied with a list of possible product designers – this ultimately led to Kenneth Grange working with the company. However, the way in which this approach and relationship developed hasn't been fully documented. Further details can be viewed at: <http://design.designmuseum.org/design/kenneth-grange> [Accessed 01/09/2015]

Chapter Three

Chapter Three, 1945–1950: The BOAC Interior, 'The Show Window of British Culture'¹³¹

The five-year period immediately following the end of the Second World War was a complicated and divisive one in the design history of BOAC. While the extensive planning that took place during the war was developed and continued, the Corporation encountered major problems concerning the availability of civil aircraft that were fit for purpose. This, in turn, had a major impact on the type of passenger experience the airline could offer. In documenting this period, the aim is to challenge the oft-presented notion that flight has been a continuous narrative of luxury and glamour, as documented by authors such as Keith Lovegrove, in his text *Airline: Identity, Design and Culture* (2000), and Barbara Fitton-Hauß, in her essay 'A trip through time in the aircraft cabin' in *Airworld: Design and Architecture for Air Travel* (2004).

However, it was also a period when the importance of the interior was recognised for its ability to promote Britain abroad. In many ways, the interior and the materials found in it formed an unofficial exhibition of the capabilities of Britain in the aftermath of war.

As noted in the literature review, while the projection of Britain's national identity has been covered by previous authors, much of the previous focus has been on understanding the rhetoric of the government-backed CoID and its programme of design education. While this is an essential theme, it fails to understand or suggest a narrative of how British companies actually acted on this intervention. In this sense, BOAC's brand and identity in the interior allow for a new narrative to be constructed on the extent of the influence of the CoID on a new, post-war brand.

¹³¹ Anon, 'Fashions from Britain' in *Wings over the World*, May 1946

In order to explore this, this chapter investigates the tensions that arose due to the lack of suitable aircraft and the subsequent passenger experience in converted military aircraft; how the aircraft interior became a 'shop window' for British design culture; how BOAC produced materials to be consumed in the interior that position the airline and Britain at the centre of a new global business world; the early attempts at implementing the BOAC brand in the interior; and the reality of the post-war British aircraft interior.

In order to understand this seven-year period, the thesis has drawn upon archival material from the British Airways Speedbird Centre, including magazines published by BOAC, *Wings Over the World* and *Speedbird*, which have never been used in an academic analysis of the Corporation before. In addition to this, several periodicals of the time have been used, including *Flight* magazine.

The Post-War BOAC Aircraft Interior

As highlighted in the introduction to this thesis, existing texts, such as Vitra's *Airworld* and Keith Lovegrove's *Airline: Identity, Design and Culture*, that focus only on the aircraft interior are keen to present the experience of travel during this period as luxurious and glamorous—an exclusive experience for elite passengers.

Of course, the '50s and '60s did see extremely high standards of travel, which in turn created an 'atmosphere' of glamour, but this was directly linked to the price paid for flying. Capacity on many aircraft didn't exceed 50 passengers, so it was common for flights to be entirely first class. As Kenneth Hudson highlights in his highly informative *Diamonds in the Sky: A Social History of Air Travel*, this became a problem in that it limited the number of passengers who could travel, despite there being an emerging market of passengers wanting to fly:

[The] airlines were geared only to providing first-class travel, on the basis of which their business had been built up in the 1920s and 1930s, and had never come to grips with the problems of giving ordinary people in aeroplanes what ordinary people had always had in trains and boats, second- and third-class travel.¹³²

This representation of the aircraft interior as only being glamorous and luxurious is one that this thesis sets out to challenge and clarify in relation to the canon of British design history. No published material makes reference to the reality of flight in the immediate post-war period when BOAC was operating as a civilian passenger service. However, archive material held at the British Airways Speedbird Centre sheds some light on the experience of the immediate post-war BOAC interior. For instance, a promotional flyer for the converted Lancaster bomber, the Lancastrian service to Australia, describes the journey as a test of endurance rather than an experience of peaceful luxury:¹³³

The Lancastrian Speedbird flies the 11,669 miles from London to Sydney in 62 1/2 hours. This is the longest route in the world and the world's fastest inter-continental air service. No aircraft is better fitted for the high performance needed than the Lancastrian Speedbird – a conversion to civil use of the R.A.F.'S Lancaster Bomber.¹³⁴

Images also held by the archive, showing the first interior to be used on this London-to-Sydney route, depicts (to modern interpretation) a cramped, unconventional layout, with seating facing outward and lining one side of the aircraft (figure 14 & 15). Indeed, such was the unconventional nature of the aircraft and the interiors

¹³² Kenneth Hudson and Julian Pettifer, 'Low Fares or Luxury' in *Diamonds in the Sky: A Social History of Air travel* (London; Sydney; Toronto: The Bodley Head, 1977), p.130

¹³³ Although Kenneth Hudson does highlight the temporary nature of the first post-war airports in Britain. Heathrow for example, then London Airport, was known as 'Tent City'.

¹³⁴ BOAC Leaflet 'BOAC plan of Speedbird routes', c.1946, British Airways Speedbird Centre, London.

provided that, (figure 16), pamphlets were given to passengers educating them on the post-world war flight environment and on what to expect upon arrival in Britain.¹³⁵

Why was this necessary? In part, it was due to the obvious post-war realities in Europe and was most likely aimed at passengers coming from places untouched by the physical destruction of the war.

However, as has been covered in the previous chapter, extensive planning took place during the war to ensure that BOAC would have an adequate fleet of aircraft to match the predicted popularity of flight in the aftermath of the war. As the 1946 *Speedbird* article proves, it was recognised that the passenger experience had to match the modernity of the aircraft that were being produced.

¹³⁵ This appears to be in the style of F H K Henrion's work who was employed as an art director for the airline at the time.

Figure 14: BOAC Lancastrian interior, London, c.1946. British Airways Speedbird Centre, London.

Figure 15: A promotional leaflet for the Lancastrian aircraft showing the unconventional seating arrangement and detailing the flight to Sydney. British Airways Speedbird Centre, London.

Figure 16: *On Arrival in Britain* leaflet, explaining the conditions in Britain in the immediate aftermath of the war. British Airways Speedbird Centre, London

Promotion of British Design in the Aircraft Interior

It wasn't only the Corporation that was focusing on the requirements of new aircraft interiors. Publications of the period focused on the importance of the post-war aircraft interior for the Corporation and for the passenger experience. Of particular note is an article appearing in the January 1944 edition of *Flight*, reporting on the work carried out by the trade body, the British Colour Council (figure 17). The article reports on the work of the Colour Council, which produced an exhibition that took place at the Royal Academy of Arts, London in the first months of 1944. Although, as an official body, the Colour Council was promoting its industry members and the materials they produced (highlighting the ability of British industry in a similar way to the 1946 Britain Can Make It exhibition), the exhibition raised important and timely points on the rapid development of air transport.¹³⁶ Central to the display was a mock-up of a generic aircraft interior designed to highlight the importance of colour in the aircraft interior, with the article commenting that:

The aims governing the colour scheme devised are: (i) the elimination of boredom on long- duration flights, (ii) the reduction of the psychological tendency towards airsickness, and (iii) the utility value of the colours, ease of keeping clean, freshness, etc.¹³⁷

¹³⁶ I've approached the Royal Academy for information on the exhibition and, due to the paper shortages at the time, there has been no official of the event kept.

¹³⁷ Colour and Design in Civil Aviation: *Schemes to Fit All Heights and Latitudes by Day or Night in Flight* (January 27th, 1944), p.104

Figure 17: Article on the British Colour Council's exhibition on aircraft interior design. 'Colour and Design in Civil Aviation' in *Flight*, 27th January 1944, p.104.

In addition to the promotion of the psychological effects of colour in the aircraft interior, the organisers also recognised the wider cultural impact of an aircraft carrying passengers around the globe, not only to their own interests as 'ambassadors of industry' but also for the wider osmosis of British design. With a prediction that aircraft could become 'show windows' of British culture and 'sales windows' of British products, the article notes that '[i]t therefore becomes essential

that the decoration of aircraft... should be of the highest possible standard.¹³⁸

This is an essential point as it is the only clear reference to the ability of the aircraft interior, specifically the BOAC aircraft interior, to be seen as a tool in the promotion of a British cultural identity. The British Colour Council wasn't the only official body using the potential of British aircraft as a case study and to showcase British design. A 1947 CoID film, *Deadly Lampshade*, was produced to highlight the Council's efforts to educate the British public in 'good design' (figure 18). The film, as documented in Jonathan Woodham's 1996 article, 'Managing British Design Reform II: The Film *Deadly Lampshade*—An Ill-Fated Episode in the Politics of 'Good Taste'', was redacted by the council but, interestingly for this thesis, uses a mocked-up aircraft interior to highlight Council-sanctioned 'good design' in action. In the scene, the aircraft is part of a fictional exhibition that the film's protagonists visit to understand the Council's vision of 'good design'. The aircraft is shown with visitors appreciating the spacious accommodation, the storage and innovative design features that double as luggage racks, and a method to assist passengers in moving around the aircraft. Although the film is derided for its attempts to promote 'good taste', it again positions the aircraft as a central artefact in post-war British design. However, these examples were concepts rather than reality; the challenge of the Corporation was to realise the potential of its aircraft interiors, which relied on the delivery of sufficient aircraft.

¹³⁸ *Flight*, 1944, p.104

Figure 18: Stills taken from the CoID film *Deadly Lampshade*, 1947. A section of the film uses an aircraft as an example of the Council's 'good design' in action. University of Brighton Design Archives, Brighton.

Figure 19: The front cover of the May 1946 edition of BOAC's own magazine, *Wings over the World*. The inside cover credits F.H.K. Henrion as the art director of the publication, so it can be assumed that he created the cover of this edition. British Airways Speedbird Centre, London.

Positioning BOAC in Post-War Culture

As well as developing its physical fleet and brand appearance, BOAC also used the immediate post-war years to develop the less tangible aspects of its brand. Using archival material allows questions to be asked on how the Corporation saw itself in

the post-war world and how it intended to present and project an image of a post-conflict Britain. Clues can be found in the material published by the Corporation itself. A series of internal magazines published between 1946 and 1948, first called *Wings Over the World* and later *Speedbird*, help to show that BOAC understood that its role went beyond the simple operation of aircraft and the transportation of passengers. In the following examples, it positions itself as an arbiter of modern taste, informing on British fashion, the strength of British industry, new and future modes of transport and the role that air transport would play in a global business world. Unsurprisingly, the Corporation also used the publication to position itself as the leader and pioneer in aircraft travel, noting that:

The conquest of the North Atlantic [by air] is a largely British story – a BOAC story. It is one of the few benefits derived from the blood and tears of World War II... The conquest of the North Atlantic would not have progressed anything like so far as it has to-day but for... BOAC.¹³⁹

¹³⁹ K.C Boxall, 'Business by Air' in *Speedbird*, Winter 1947, pp.20

Figure 20: 'Business by Air' in *Speedbird*, Winter 1948, The image reflects the reach of BOAC and, in turn, the scope for promoting British industry and travelling by air. British Airways Speedbird Centre, London.

Ultimately, publications like *Wings over the World* and *Speedbird* helped to position the Corporation and Britain at the forefront of modernity even though the immediate post-war reality was markedly different. Several articles note the strength of British

industries, such as the article 'Textiles from Britain' from the August 1946 edition of *Wings Over The World*. The article was originally printed as a double-page spread, and the separate pages can be seen in figures (figure 21 & 23). The article is clear in its intention to promote 'the fine flowers of the products of British firms', and, perhaps surprisingly from a modern perspective, demonstrates a lack of acknowledgment of the Second World War. In fact, it goes on to remark that, 'One of the outstanding developments in the industrial sphere in recent years has been the advance of British manufacturers to the forefront of the fields of women's fabrics'.¹⁴⁰ But should this be so surprising? This was, after all, aimed at positioning the British design industry in a place of dominance; referencing the war in this context would have undermined that. The article, while short and really focused on the visual impact of the textiles, is also useful for its echoes of Cold rhetoric, noting that the magazine, through its circulation abroad, aims 'to bring to the notice of overseas buyers the quality, taste and distinction of the output of British designers and manufacturers.'¹⁴¹

¹⁴⁰ 'Textiles from Britain' in *Wings over the World*, August 1946

¹⁴¹ *Wings over the World*, August 1946

Figure 21: 'Textiles from Britain' in *Wings over the World*, August 1946, British Airways Speedbird Centre, London.

The Corporation also places itself at the centre of Britain's post-war rebranding; another article, 'Business by Air', revels in the modernity offered by aircraft and, in turn, the airline:

Air Travel is in a class of its own. You sit in an armchair, feel no forward movement unless you gaze down upon the moving countryside below you, and have far more freedom than you do in any long-distance train... For years I had seen the clouds above me and wondered just what it was like up above them. I know now. It is a sight never to be forgotten, giving you the feeling of exuberance that affects you when you see the first blossoms of the year. The whole perspective of life is transformed. I had one regret – that I was not able to take with me those dear to me to ride aboard the magic carpet of the airways into the lands which still hold all the mysteries of the East.¹⁴²

It goes so far as to position the BOAC aircraft as 'the only means of long-distanced [sic] travel without class or racial distinction', reflecting the post-Empire reality that Britain was facing but at the same time reinforcing the opportunities that still existed for British interests in its ex-Empire territories. Indeed, an article in the May 1946 edition of *Wings over the World* moves away from the interests of Empire and repositions Britain as an essential lifeline to the Commonwealth, supplying Canada with a whole host of products, including heavy industrial goods, designed objects such as furniture and pottery, and essentials such as rope (figure 22). The design of the double-page spread presents the goods over Canada, with lines, which could be understood as lifelines, linking them back to the British Isles; in BOAC's Britain, the country offers support instead of accepting it.

¹⁴² Boxall, 1947, p.22

Figure 22: 'What Canada needs from Britain' in *Wings over the World*, May 1946, British Airways Speedbird Centre, London.

Figure 23: 'Fashions from Britain' in *Wings over the World*, May 1946. This spread, from the first edition of the magazine, depicts a visual essay of fashions from the immediate post-war period. It presents the fashions as clothes to be worn when flying. British Airways Speedbird Centre, London.

Implementation of a Branded Aircraft Interior

This early recognition of the importance of the aircraft interior is matched by the work done internally by BOAC. At the same time that the Colour Council was presenting its exhibition, the Corporation were looking at American aircraft as a benchmark of what should be achieved in passenger accommodation. In a similar tone to the later 1946 *Speedbird* article on how the airline needed to present itself, a document from the British Airways archive, titled 'Comparison of British & American Civil Air Transport', shows the Corporation feeling that its future aircraft were 'not behind America in the consideration given to passenger comfort and accommodation. Comfort is costly in weight, and we may in fact be aiming for too higher a standard.'¹⁴³ However, in the summary of the report, there is an early admission that the methods that British aircraft manufacturers used to develop new aircraft needed to follow the American model. The summary notes:

That in evolving new aircraft structures, particularly where new methods are concerned, it would be most profitable for this country to rely less on theoretical stressing and more on the American method of large-scale testing of actual structures.¹⁴⁴

This early confidence that the Corporation would be competitive with American airlines came from the continued development of the proposed aircraft from the Brabazon Committee. As noted in the previous chapter, the Committee had outlined nine aircraft types that would be required by the Corporation and its sister airline, BEA, to provide a global post-war airline service.¹⁴⁵ The first of these aircraft to be

¹⁴³ Comparison of British & American Civil Air Transport, File No: 381/Aircraft General, 8th October 1944, British Airways Speedbird Centre, London.

¹⁴⁴ File No: 381, October 1944. This is a re-occurring theme that will be covered later in the thesis.

¹⁴⁵ This list can be seen on p.64 of chapter one.

produced, originally documented as the Medium and Long-Range Empire aircraft, was the Avro Tudor I and II.¹⁴⁶ Articles from the period reflect the confidence of the Corporation, as a 1945 article from *Flight* comments upon seeing the first full production model of the aircraft, taking particular interest in the cabin and passenger accommodation, noting the range of materials used to reinforce the quality and standards that BOAC saw itself as having to represent, noting:

The whole of the interior woodwork in the cabin is finished in natural straight-grain walnut—a beautiful wood which itself sets a standard of taste for the decoration. Half-bulkheads, which divide the passenger cabin into the three sub-compartments, and the whole of the interior wall and roof surfaces are covered with beige-pink Vynide, a synthetic leather of excellent appearance, whilst the chairs are upholstered in a deep scarlet moquette and trimmed with scarlet leather. It is with this colour scheme that we are a little unhappy. The dominant colour is extremely strong—too much so to be restful—and we feel that for psychological advantage, with its effect on comfort, probably the most effective colour schemes are those employing dark neutral shades for a base with contrasting areas of pastel shades as relief.¹⁴⁷

Images taken from BOAC publicity material of the time show the aircraft to be radically different in its approach to the cabin: a modern, functional space when compared to the ornate interiors of the Imperial Airlines HP aircraft, spacious and comfortable when compared to the D.H.91 and the Lancastrian. The interior is reflective of the design edicts of the time, and a clear CoID influence can be seen in the contemporary styling used. It is also interesting to note the relative informality of the images. **Figures 24, 25& 26** shows many passengers asleep and reclined in BOAC 'Slumberette' seating; this is in stark contrast to previous publicity material, in

¹⁴⁶ It is interesting to note the name of the new Avro aircraft being Tudor – despite the modernity of the aircraft, a reference is still made to British history.

¹⁴⁷ The Avro Tudor I: Passenger Accommodation in *Flight*, 28th June 1945, pp. 690 – 695

which passengers are depicted as awake and upright in their seating. This depiction of the relaxed interior is continued in a photograph of the rear cabin of the aircraft, which shows an informal tea being taken; male and female passengers are chatting, and one of the men is depicted leaning on the arm of the seat to chat to fellow travellers. Of course, it should be noted that the demographics of the passengers can be analysed in these images, and it appears that they haven't changed much in the 1946 aircraft interior; the majority of the individuals depicted seem to be older, and all of the passengers are still formally dressed—pointing toward the fact that flight was still an exclusive experience for the wealthy. However, equally interesting in this promotional material is the focus on the seating. **Figure 27** shows the importance given to the 'Slumberette' chair; no words are required since the image, which likens reclining in the chair to floating on a cloud, is symbolic enough. This set of promotional materials reintroduces the idea of flight and luxury, but also suggests a form of domestic comfort.

Figure 24: AVRO Tudor I cabin interior showing the described 'divide the passenger cabin into the three sub-compartments, and the whole of the interior wall and roof surfaces are covered with beige-pink Vynide'.¹⁴⁸ British Airways Speedbird Centre, London, c.1946.

¹⁴⁸ *Flight*, June 1945, pp. 690 – 695

Figure 25: Cabin section of the AVRO Tudor I, c.1946. The rear cabin could be converted to a dining area, with facing seating still installed. Of note are the built-in stow racks. Although these were for small belongings, this was one of the first aircraft to feature them. British Airways Speedbird Centre, London,

Figure 26: The promotional material for the AVRO Tudor I was the first post-war aircraft to show passengers enjoying the luxury and experience of flight. However, it is interesting to note that the age of these passengers still points to an older and wealthier audience being able to enjoy these flights. British Airways Speedbird Centre, London, c.1946.

Figure 27: In addition to the images showing passengers enjoying the luxuries of flight, comfort is also a key concept that is sold. The large 'Slumberette' seats are depicted as being central to this experience. British Airways Speedbird Centre, London, c.1946.

The article sums up the positive developments in the British aircraft industry:

'Summing up, one can honestly reflect that the Tudor I has every appearance of being an extremely useful and highly successful aircraft... All in all, the Tudor I would seem to be the herald of really great things to come'.¹⁴⁹ However, despite the confidence in the Tudor I and future planned aircraft types, the Corporation would struggle to realise the potential outlined in the studies of 1944–45.

The Reality of the Post-War BOAC Interior

The example of the Lancastrian that started this chapter was intended to be a short-term solution for BOAC. The use of hastily converted British war aircraft allowed the Corporation to function, albeit on a dramatically reduced scale, and start to enter the post-war marketplace as an operational passenger-carrying concern. Peter Fearon highlights the impact of the war on BOAC, British aircraft production and the subsequent chronic lack of fit-for-purpose civilian aircraft in his essay 'The Growth of Aviation in Britain', remarking that, '[t]he Second World War totally disrupted British air passenger services and the development of civil aeroplanes.' Despite assurances from the aircraft industry and the efforts of the Brabazon Committee to ensure that new aircraft types were available as soon as possible for post-war use. A report from the British Airways archive, *Fleet Policy for the North Atlantic*, dated October 1945, outlines that the 'Tudor I... was promised that the prototype would fly in January 1945 and assuming a short development period it had been hoped that the type might be on service within twelve months... the first Tudor I aircraft is now unlikely to be delivered to the Corporation until the end of 1945 so that, allowing for contingencies, a scheduled service cannot be started before the second half of 1946.'¹⁵⁰ ¹⁵¹ The

¹⁴⁹ Ibid, pp. 690 – 695

¹⁵⁰ File 309: Fleet Policy for the North Atlantic, 18th October 1945, British Airways Speedbird Centre, London.

reasons for the failure of the previously lauded Tudor aircraft aren't discussed in the archived files of the Corporation; however, further information is given:

The conclusions in the report advise that the Corporation should cancel the order for its Tudor aircraft, and highlights, that [a] part from experimental types such as the D.H.106 we are therefore faced with an indefinite gap after Tudor I.¹⁵²

This series of delays forced BOAC to reconsider its use of converted military aircraft and resulted in discussion of the use of ex-American military aircraft to provide an adequate passenger service while British aircraft went through further development. A telegram received by the Corporation in July 1945, 'Conversion of Military Aircraft', highlights '[a] large number of airplanes built for military purposes but suitable for conversion to civilian use are now becoming available for sale through the reconstruction finance corporation, U.S. Government-owned corporation.'¹⁵³

The five years between 1945 and 1950 demonstrated the complexities that BOAC faced in the immediate post-war marketplace. While forward looking, ambitious and positive about the adoption and application of its branded identity, the Corporation was undermined by the lack of available or suitable aircraft to apply its brand to. These years also highlight that, despite the war ending in 1945, the restrictions, conditions and repercussions of the conflict still held influence over nearly all aspects of British life. However, what marks this period as unique is the way that the aircraft, and, in turn, the aircraft interior, was positioned as an essential tool in the drive for modernity. Overlooked by other authors in favour of the narrative of austerity,

¹⁵¹ Although its payload was small, it had been hoped that the Tudor I would have been able to uphold prestige by reason of its outstanding performance.

¹⁵² File 309, October 1945

¹⁵³ Conversion of US Military Aircraft, 29th August 1945, British Airways Speedbird Centre, London.

evidence from BOAC's own magazines, *Wings Over the World* and *Speedbird*, presents the central role the aircraft and its branding would play in modern British life.

It is this apparent belief in Britain's ability to produce modern aircraft and interiors that contrasts with the advanced state of the American aircraft and design industry. As the archival evidence has demonstrated, the use of the American approach to aircraft design was recognised as being far more practical; however, there still seemed to be suspicions about the adoption of American design methods in the interior. The influence of America in Britain during the immediate post-war years is something that recurs throughout this thesis and is worth considering on its own in order to give context to its influence. In order to do this, two case studies have been added: the first on Americanisation in British design, and the second on the American aircraft brought into service by the Corporation between 1945 and 1950.

Chapter Four

Chapter Four, Case Study: Modes of American Consumption in Britain

The focus so far has been on the Corporation positioning itself both in post-war British culture and the radically different post-war marketplace of flight. However, undertaking any design history of this period is impossible without acknowledging the influence of America on Britain, specifically the influence it had on design and consumption. Although, as will be outlined in the next chapter, one of the major American influences on the Corporation was the use of American aircraft and designers, another, earlier influence has generally been overlooked—the impact of branding and advertising agencies, not only on consumers but also on British brands. It is therefore the aim of this short section to outline that influence and contextualise a key theme that resurfaces throughout the thesis. In order to understand this, the over-arching ideas of American influence on British consumer culture will be considered and case studies will be presented on: BOAC's own advertising agency, Foote, Cone & Belding, an American agency in London, and the work it produced for the Corporation; and Crawford International, a British agency that adopted some of the American marketing techniques and, in turn, became part of a vanguard of British agencies that began to lead America in advertising creativity.¹⁵⁴

Understanding Americanisation

As a starting point it is worth introducing the term 'Americanisation'.¹⁵⁵ The term, defined as 'the assimilation into American culture' is framed as problematic for Britain; in this context, Americanisation didn't represent the technological advances of modernity as experienced by the United States, rather, certainly in terms of Britain, it came to be seen as a dangerous ideology, representing in some quarters, the

¹⁵⁴ While the example of Crawford sits outside the timeline of 1945-1950, the example is relevant in the way American selling techniques took hold in Britain and, in turn, how a British agency adopted these techniques.

¹⁵⁵ John Zukowsky raises the term 'Americanised' in relation to the British aircraft interior – I investigate this further, later in this thesis.

end of established British culture and way of life. Dick Hebdige is useful here to understand the context of the term.

Although during the Cold War the *prospect* of Soviet territorial ambitions could provoke similar indignation and dread, American *cultural* imperialism demanded a more immediate interpretive response. Whenever anything remotely "American" was sighted, it tended to be read at least by those working in the context of education or professional cultural criticism as the beginning of the end...¹⁵⁶

As Hebdige describes, the term is used to refer to a range of supposedly negative associations with America; the dominance of American popular culture: film, TV, music, food, fashion, motor vehicles, travel e.t.c. Carrying on he notes that even by adding America to an explanation became shorthand for the dangers of American imperialism:

By the early 1950s, the very mention of the word "America" could summon up a cluster of negative associations. It could be used to contaminate other words and concepts by sheer proximity as in "Americanized sex", "the false values of the American film", etc.¹⁵⁷

But why this negativity toward a country that had been so pivotal to success in the War? Essentially, American culture was seen as one largely dominated by consumption, based, perhaps most importantly, on a freedom of choice of what to consume. It was this ideology that became America's cultural export and in turn began to be present wherever consumption took place in many post-war

¹⁵⁶ Dick Hebdige, 'Spectre of Americanisation' *Hiding in the Light* (London & New York, NY.: Routledge, [1988] 2002), p.52

¹⁵⁷ Dick Hebdige, 'Milk Bar Horrors and the Threat of Youth' in *Hiding in the Light* (London & New York, NY.: Routledge, [1988] 2002), p.56

environments.¹⁵⁸ In addition, the American presence in Britain during and after the war, as Hebdige notes, was one of the root causes:

This wider "official" resistance to American influence can only be understood in the light of particular historical developments – the American military presence in Britain from the early 1940s onwards and Britain's increasing dependence on American economic and military aid.¹⁵⁹

In some ways, the negative use of 'Americanisation' could be said to represent the reaction against modernity by some in British culture. That isn't to say that Britain rejected modernity during this period, in fact, post-war Britain was probably at its most receptive to a programme of modernisation since the Great Exhibition. But, there was a notable dichotomy between a utopian modernity and the yearning for a chocolate box self-image of Britain (one that never really existed). Hebdige goes on to note:

After the War, this covert hostility persisted and was exacerbated by new factors: by Britain's declining status as a world power, the disintegration of the British Empire coupled with the simultaneous rise in America's international prestige and the first indications of American imperial ambitions.¹⁶⁰

This negativity toward America was aimed at its new modes of consumption and the perceived potential for the erosion of the moral fabric of Britain. Within the context of BOAC, American methods of consumption became not only essential for the Corporation to survive as active airline operation, but also a blueprint of how an airline should be presented.

¹⁵⁸ In turn, stringent import regulations and trading agreements with other countries meant that American cultural imperialism was safeguarded.

¹⁵⁹ Hebdige, 2002, p. 53

¹⁶⁰ Hebdige, 2002, p. 54

For BOAC, this association was never stated in a negative light. In fact by the late '50s and early '60s, the Corporation actively lobbied for the use of the American Boeing 707, seen as more efficient aircraft and better suited to implement the strategies of carrying increased passenger numbers. It has to be noted that, despite the use of American aircraft, they were always branded, certainly with the Stratocruiser, Constellation and 707, as having some British connection; this could be Rolls Royce engines or interiors that reflected the identity of BOAC or Britain.

The Corporation saw, in the new post-war market place, its key competitors being American airlines such as Pan-Am and TWA. Both airlines had been free to expand during the war, albeit within a domestic market of the United States. This allowed a continuous period of refining their brand and methods of communication with potential passengers.

However, while BOAC may have felt that using the American model was suitable, branding agencies of the time needed to define how to represent Britain in this new global context.

This problem is summed up in an advertising manual from British agency Crawford International, which stated that 'Britain may still appear hesitant in accepting change, reluctant to have foreign methods and systems imposed upon her without reference to the native climate of opinion.'¹⁶¹ This insight came from Crawford's own book on modern advertising, published in 1963, *How to Break into World Markets*.¹⁶² The book, despite being laden with emerging 'buzz-words', acts as a key historical document that charts the emergence of the advertising profession as a global business (certainly in the western world). Alongside this, Crawford International also

¹⁶¹ Ibid, p.14

¹⁶² Originally started as W.S. Crawford.

attempted to define how Britain, as a concept, was to fit into this new global landscape within the chapter, 'The Emergence of a New Advertising Form: Business and the British Character'. The chapter starts with an attempt to frame the traditional view of an insular Britain, removed from the European continent:¹⁶³

That the British are insular is scarcely open to doubt. Nipped off from the continent and separated from its immediate influence by the waters of the English Channel, their characteristic has ever been that of an outsider looking in; the disengaged observer gazing with interest at the cavalcade of events passing across the water.¹⁶⁴

To some extent, this was true of inter-war Britain, and perhaps, to some extent, the immediate post-war country; however, the chapter goes on to note that, while removed, Britain hasn't been entirely resistant to outside influences:

While Britain may still appear hesitant in accepting change, reluctant to have foreign methods and systems imposed upon her without reference to the native climate of opinion, a change has in fact begun to occur, a new exciting transformation, perhaps unique among the producer countries.¹⁶⁵

¹⁶³ Established in 1915 in London by William Crawford (later Sir), Crawford's would go on to be a major global agency in the early to mid-20th century. Although no longer in existence, the Heritage Advertising Trust (HAT) still hold a large part of their company archive. It is in some of the material held at the archive that makes Crawford's an excellent insight, offering a first hand view on the influences of America on a British advertising agency. A short book the agency produced in order to define the functions of the modern British agency in the newly developing global marketplace provides a rare glimpse of a British business operating in the same period as BOAC. The book, *How to Break into World Markets* (London: Crawford International, 1963), although acting as a promotional tool for the agency, gives a solid foundation to understand some of its challenges but, most importantly for this investigation, also extols the virtues of British firms adopting American style business practices. It is quick to recognise 'the vastly increased sphere of influence of the U.S.A. on world affairs after 1945' and that this increased influence coincided 'with the equally rapid development of communications... business methods and philosophies of that great country'.¹⁶³

Crawford also define some of the difficulties of implementing American practices, in an early chapter, 'The Emergence of A New Advertising Form' which details the way in which both British consumers and business reacted to the immigration of American ideas:

Masked by an almost casual disinterest the British had been unconsciously examining, rejecting and absorbing these American influences, retaining that which was valuable; discarding that was inapposite to the British scene.¹⁶⁴

¹⁶⁴ Crawford International, 'The Emergence of A New Advertising Form' in *How to Break into World Markets* (London: Crawford International, 1963), p.13

¹⁶⁵ Crawford International, 1963, p.14

This concept was explored in the 2012 exhibition at the V&A, *British Design from 1948: Innovation in the Modern Age*, and was documented by the show's curators, Christopher Breward and Ghislane Wood, in their introduction to the accompanying exhibition book. They noted that '[t]he tensions between British traditions and the process of modernization in the post-war period ripple through the areas discussed [in the book]... the state, city, land and home.'¹⁶⁶ Breward and Wood don't define America as a distinct representation of modernity, preferring instead to view this problematic relationship in terms of two key British events: the Festival of Britain and the Coronation. Nonetheless, it is an interesting concept to introduce here, as it is perhaps how many British companies viewed and understood modernity (figure 28).¹⁶⁷

¹⁶⁶ Breward & Wood, eds., 2012, p.36

¹⁶⁷ It is worth noting that, while this thesis focuses on the aircraft interior, it is essential to take into account the work of FCB on the Corporations printed communication material as it enables to highlight the themes of Americanisation that continue to play out through the remainder of BOAC's history and therefore this research.

Figure 28: 'Business and the British Character', Crawford International's own publication on marketing Britain. Heritage Advertising Trust, Raveningham

Early Post-War Americanisation in Britain

Much of this early influence came from major American agencies, such as John Walter Thompson and Foote, Cone & Belding, opening their first offices outside of the USA in London. Obviously, in these instances, 'American influences had an effect... where they were imposed by American capital', but it was the wider impact of these offices that would 'change the whole approach to advertising in this country'.¹⁶⁸

Anxieties (American consumer culture taking a foot-hold in British culture) were compounded by the aggressive expansion of American-owned multinational

¹⁶⁸ Mark Tungate, *Adland: A Global History of Advertising* (London & Philadelphia, PA.: Kogan Page, 2007), p.4

advertising agencies in Britain, via acquisitions, mergers and takeovers. Companies such as Young and Rubicam and Foote, Cone and Belding led the assault.

While some writers, such as Frank Mort in his essay 'Paths to Mass Consumption: Britain and the USA Since 1945', are keen to stress that the role of America has been exacerbated in publications considering post-Second World War history, it is impossible to ignore the country's influence, particularly in the development of post-1945 modes of consumption. While Mort argues that '[c]onsumption is evoked as a meta-concept, used to explain the most disparate historical phenomena', it appears impossible to document a history of advertising without recognising 'the advanced techniques of selling derived from the USA.'¹⁶⁹

The first American agencies appear to be only a gradual evolution from the previous examples presented, of the intermediary between client, publication and print house. Viewed from a kinder perspective, in modern-day terms, these companies are what we would now term 'media agencies': that is, agencies that exist specifically to purchase and sell advertising 'space' in publications, billboards, television and radio, etc. They have no unique creative function as such.¹⁷⁰

What these proto agencies confirm is that the 'earliest advertising agents worked for newspapers rather than advertisers... [T]his arrangement meant that they had

¹⁶⁹ Frank Mort, 'Paths to Mass Consumption: Britain and the USA Since 1945' in Nave, Nica et al, eds., *Buy This Book: Studies in Advertising and Consumption* (London: Routledge, 1997), pp.15 – 33

¹⁷⁰ During the late 19th and early 20th centuries, individuals emerge in America who translated advertising into a truly creative industry. It is important at this point to give recognition to figures such as Volney B. Palmer, who opened the first advertising agency in America in 1842, and George P. Rowell, 'who develops the first media directory: a guide to more than 5,000 newspapers across America, including their circulations and advertising rates.' As Jonathan Woodham states in *Twentieth Century Design*, it is:

During this period the American advertising industry was transformed from relatively unsophisticated medium to one that began to pay far greater attention to possibilities offered by an understanding of consumer psychology.

nothing to do with creating the ads.¹⁷¹ The true 'agency' really arrives when its place in the cycle of consumption expands to embrace creative roles such as that of the copywriter. Although initially working for the first type of intermediary agency, individuals such as John E. Powers, recognised by *The Advertising Age* of 1999 as the first copywriter, begin to set up their own companies to allow for more creative freedom.¹⁷²

Key to this American model was the realisation that copywriters and creatives worked in tandem and, as such, copywriters and 'creatives' could work in creative partnerships. Key to the forging of these relations was Earnest Elmo Calkins, who, having become:

[f]rustrated that he could not improve the look of the ads that bore his copy... Calkins [left] to set up his own agency with Ralph Holden[.] Designing ads for clients rather than merely placing them, Calkins & Holden effectively became ad land's first creative hot shop.¹⁷³

It is the progressive steps that Calkins made that were to influence some of the familiar names that appeared as the industry moved into the 20th century, such as Young and Rubicam (Y&R), Foote, Cone & Belding and Doyle Dane Bernbach (DDB). John Walter Thompson opened agencies specifically to look after clients' needs by:¹⁷⁴

¹⁷¹ They are what we would now term 'media agencies', that is, agencies that exist specifically to purchase and sell advertising 'space' in publications, billboards, TV and radio e.t.c.

¹⁷² Tungate, 2007 after Advertising Age, <http://adage.com/article/special-report-the-advertising-century/john-e-powers/140264/> [Accessed 18/09/15]

¹⁷³ Tungate, 2007, p.16

¹⁷⁴ I have included the acronym after each full agency name as this is how they were and are most commonly referred to.

designing as well as placing ads. He opened offices in Chicago, Boston, Cincinnati and even London – the first US agency to expand abroad. In these ways and others, J. Walter Thompson created the first modern advertising.¹⁷⁵

In doing this, not only did the work they produced become a cultural export but the agencies themselves began to cement America's role as a dominant cultural and economic force at the start of the 20th century. Indeed, such was the extent of the expansion by American agencies that '[b]y 1960, there were twelve American-based agencies in London, controlling 30 per cent of all aggregate billings.'¹⁷⁶ However, Frank Mort notes that the export of cultural references and ideas from America, wasn't quite so simple. Many British businesses were wary of American selling techniques and noted the need for local variants in advertising methods. While the concept of the 'full-service' advertising agency was forged in America, it would be unwise to see the history of the advertising agency in simplistic chronological terms, being passed from one country to another. The reality is much more fluid. Indeed, the unbridled success of agencies, particularly during the inter-war years, could be applied to any number of British companies. Rather than lagging behind America in terms of consumption and advertising techniques, British 'dialogue with the USA points to an altogether more complex relationship between American models of commercial society and systems of provision across the Atlantic.'¹⁷⁷

Jonathan Woodham refers to the inter-war years in Britain as seeing 'the emergence of a small number of significant advertising agencies, such as S.H. Benson (established in 1893) and W.S. Crawford', but adds that '[m]ultidisciplinary design consultancies along the lines of the American model... were slow to emerge in

¹⁷⁵ Tungate, 2007, p.25

¹⁷⁶ Mort, 1997, p.23 after West, 1988

¹⁷⁷ Ibid, p.23

Britain.' Indeed, in Woodham's opinion, the first multidisciplinary agency to really emerge in Britain was Pentagram in the 1970s. This is an extreme reading of the state of British advertising agencies. Certainly, WS Crawford were far bigger and more influential than Woodham would have us believe and previous examples already existed in Britain, such as the Design Research Unit and the Lonsdale-Hands Organisation (as will be discussed later).

Defining the Advertising, Design and Branding Agency

It is worth defining the differences between the different types of agency used by BOAC. Previous design histories that have investigated the role of advertising, branding and design in the context of consumption have been inclined toward generalisation of the term 'agency'. It has been used as a 'catch-all' term for a company that mediates between a manufacturer of goods and their market. While it is true that these agencies collectively perform this role, it is important, for the purposes of this thesis, to define the differences between an agency concerned with advertising, an agency engaged in design, and an agency tasked with branding. BOAC, from its very early history, engaged with all three types of agency, each playing a unique role in the way in which BOAC's brand of Britain was built and disseminated. It is therefore worth defining each of their specific roles.

The branding agency fulfils potentially the most important role of the three. In defining the brand of a company or product, the branding agency creates the first, vital line of communication to the market and consumer. The essence of what is produced by the branding agency is normally distilled into a logo, something that becomes an easily identifiable mark for that particular brand or product. In the case of BOAC, this took the form of a graphic of its name, coupled with Thierry Lee Elliot's 'Speedbird' visual (**figure 29**). This 'lock-up' of typography and logo became the short-hand identity for

BOAC as an airline, with the Speedbird serving as a metaphor for flight and the dynamic leaning 'Cyclone' type of BOAC conveying the Corporation's promise of speed.

Figure 29: Image taken from BOAC News, 1963. An article described the inception of the original speedbird logo and its designer, Theyre Lee-Elliott. British Airways Speedbird Centre, London.

Yet the brand can't exist alone. It requires further explanation and differentiation, particularly when the company is operating in a market with other competitors. This is where the advertising agency plays its role, producing work that consumers see in

media, such as television, radio, print, etc. The creative remit of these agencies would be to create advertisements designed to depict a company's product in an attractive and desirable way, so that the viewer of the advert would be convinced of its benefits and compelled to purchase. A typical example of this type of agency would be Foote, Cone & Belding.

The final agency to be defined, the design agency, fulfils a broad number of functions that may include product, packaging, display and exhibition stand design, and various other forms of three-dimensional design. This agency occupies a fluid role in its relationship to the other agencies as the design of company goods can help to define a brand and its advertising; yet, it can also be harnessed to promote the brand and advertising at the point of sale (POS). Typical examples of BOAC POS can be seen in figures 20 & 31.

Figure 30: Promotional leaflet for BOAC and BEA, designed by German designer H.A. Rothholz. This is typical of the additional POS ephemera produced by BOAC's advertising agency FCB. University of Brighton Design Archives, Brighton.

Figure 31: Another Rothholz design. This image depicts a scale model of the large piece of POS, possibly for use in BOAC's sales offices. University of Brighton Design Archives, Brighton.

Foote, Cone & Belding: Selling BOAC

The Foote, Cone & Belding (FCB) agency was one of the dominant names to emerge in advertising during the 20th century. FCB could lay claim to a rich advertising pedigree, having been formed in 1942 after Albert Lasker sold the Lord & Thomas advertising agency 'to his three top managers: Emerson Foote in New York, Fairfax Cone in Chicago and Don Belding in Los Angeles. The following year, the agency was reborn as Foote, Cone & Belding', having relocated to New York in order to secure the Trans World Airlines (TWA) account.¹⁷⁸

¹⁷⁸ Tungate, 2007, p.20.

FCB were to go on to produce some of the most well-recognised advertising slogans of the post-war period, including 'Does she or doesn't she? Only her hairdresser knows for sure' for Clairol hair colour; 'You'll wonder where the yellow went when you brush your teeth with Pepsodent'; 'Up, up and away with TWA...'. It was this expertise with slogans that was replicated in their work for BOAC (See Appendix for example of the Pepsodent work).¹⁷⁹

The Heritage Advertising Trust (HAT) archive holds the BOAC guard files of FCB work for the Corporation.¹⁸⁰ The agency was to work with the airline until its transformation into British Airways. An exploration of this archive allows for a unique insight into the style of graphic communication used by the Corporation in its poster work, as well as documenting the broad range of graphic designers employed across three decades. Most notably, the archive helps to chart the way in which BOAC saw itself during the years immediately following the end of the Second World War.

The early work seems to introduce the public to the brands that BOAC encompassed, as seen in a 1946 poster by G.R. Morris (figure 32). But, as the account developed, then so did the slogan and messaging work; copy from 1947 posters, notably ones by émigré designer F.H.K. Henrion (1914–1990) and Tom Eckersley (1914–1996), announces that 'It's a Small World by Speedbird' (see figures 33 & 34).

Using the FCB guard files, it is also possible to plot the different ways in which the Corporation saw and positioned itself in the immediate post-war period. Apart from the G.R. Morris poster, the early work shows that BOAC's focus remained on its Empire routes. In fact, the route map shown on Henrion's 1947 poster depicts the

¹⁷⁹ Ibid, p.20

¹⁸⁰ In fact, FCB goes onto produce work for the first incarnation of British Airways in 1974. Although, it is eventually replaced in 1979, the newly elected government of Margret Thatcher, unsurprisingly, preferring the work of Saatchi& Saatchi.

wide variety of routes connecting the British Isles to mainland Europe, the Middle East, Africa, and South and East Asia. This focus on Empire can be seen again in the 1948 route map presented in Chapter 2.

While later posters from 1948 and 1949 still use 'It's a Small World by Speedbird' or 'It's a Smaller World by Speedbird', the messages being communicated by the graphics range from that of a dominant global airline, forging ahead in the white heat of new technology, as seen in Eckersley's work, to one which sees flight as the modern way to explore a post-Second World War world, as depicted by Beverly Pick in 1949 (**figure 35**). Interestingly, Pick's work could be seen as an early example of the 'atom' style that was used during the Festival of Britain. But, while BOAC may have communicated to the British market with innovative, contemporary graphic design techniques, the international markets, most likely America, were given the traditional image of a supposedly typical English country village, as depicted by artist John Chater in 1948 (**figure 36**).

Figure 32: G.R. Morris, BEA, BOAC, BSAA – British Airways, c.1946, FCB/BOAC file: 46–47, Heritage Advertising Trust, Raveningham.

Figure 33: Tom Eckersley, 'BOAC – It's a Small World by Speedbird', c.1947, FCB/BOAC file: 46–47, Heritage Advertising Trust, Ravensingham.

Figure 34: F.H.K. Henrion, 'BOAC – It's a Small World by Speedbird', c.1947, FCB/BOAC file: 46–47, Heritage Advertising Trust, Raveningham.

Figure 35: Beverley Pick, 'It's a Smaller World by Speedbird', c.1949, FCB/BOAC file: 47-48, Heritage Advertising Trust, Raveringham.

Figure 36: John Cheater, 'Fly to Britain by BOAC', c.1948, FCB/BOAC file: 48-49, Heritage Advertising Trust, Ravensingham.

Chapter Five

Chapter Five, Case Study: Introduction of American Aircraft into BOAC Service

Introduction

While the early adoption of American marketing techniques helped establish the brand of BOAC, a major issue for the Corporation between 1945 and 1950 was the availability of fit-for-purpose aircraft. The following chapter outlines that, while the Corporation could use the latest thinking in the way it promoted itself to potential consumers, it was still restricted by its own 1939 Act of Parliament in terms of the equipment it could use. However, as this chapter will outline, this approach was unsustainable and the Corporation, and in turn the British state, was forced to purchase American aircraft in order to operate. In order to understand this process, an in-depth analysis of the decisions that led to the use of American aircraft has been conducted by using archival evidence from the British Airways Speedbird Centre. In addition, a photo essay and written case study have been assembled in order to understand why the American-made Lockheed Constellation and Boeing Stratocruiser became so invaluable to BOAC and provided such a distinct alternative to the aircraft already available to the Corporation.

The offer to use ex-American military aircraft was contentious due to restrictions added to the BOAC Act of 1939, which stipulated that no material could be used by the airline that was produced outside of the British Commonwealth. Several offers from American representatives of the Reconstruction Finance Corporation were initially rebuffed on these grounds, as a reply to the American Economic Commission from BOAC in 1945 notes, acknowledging the offer of American aircraft but declining on the grounds of Section 3 of the British Overseas Airways Act 1939: 'I am to inform you that the use by the Corporation of aircraft designed or manufactured outside His Majesty's Dominions is restricted by Section 3 of the British Overseas Airways Act

1939.¹⁸¹

However, due to the distinct possibility that the Corporation wouldn't be able to actually provide an adequate service with their own converted military aircraft, a special dispensation was given by the Air Ministry that allowed BOAC to purchase American aircraft to satisfy their service needs until suitable British aircraft became available. A December 1945 memorandum noted that:

A small number of suitable American aircraft should be purchased for delivery in time to maintain continuity on the Atlantic after the Boeings i.e. October 1946; these aircraft must be good enough to look after our position on the route until about 1950.¹⁸²

The impact of this decision is another central theme of this thesis. Having previously recognised the value of British aircraft operating around the globe and serving as distributors of British design culture, how would the airline present itself and British design culture while using American equipment? Despite the Corporation framing the decision as an interim and emergency measure, it would go on to have a lasting impact on the way the airline presented itself.

While a variety of American aircraft were available to the Corporation to be brought into service, it was the Boeing 377, a conversion of the American military bomber, the B29 Superfortress, commonly referred to as the Stratocruiser, that was the first choice to be purchased to maintain a competitive service across the lucrative Atlantic route. However, these aircraft wouldn't become available until early 1947, meaning that the Corporation also needed further American aircraft to maintain a service up until the introduction of the Stratocruisers:

¹⁸¹ File 309: American and Canadian Equipment, Reply to the American Mission for Economic Affairs, 31st January 1945, British Airways Speedbird Centre, London.

¹⁸² File 300: Fleet Policy for the North Atlantic, 6th October 1945, British Airways Speedbird Centre, London.

In light of the latest information at our disposal, we must recommend the purchase of 5 Boeing 377 aircraft in order to ensure our competitive position on the North Atlantic from 1947 to 1950... consequent on the foregoing we must therefore recommend additionally as an interim measure the purchase of at least 5 Constellation model 49-46, which is in fact the civil version of the C-69.¹⁸³

The Lockheed Constellation was already in use by two major American competitors, Pan American Airlines (PAA) and Trans World Airlines (TWA); it was the obvious choice as an interim replacement since it was already in active passenger service. However, initially, the Corporation had reservations about the suitability of the aircraft. A letter to the Chairman, Viscount Knollys, from W.C.G. Cribbet questioned 'whether the Constellation is the most suitable type to buy', pointing to a recent internal report that picked up 'important reservations' about the aircraft.¹⁸⁴ While these reservations were mainly outlined as technical and economic factors, a series of reports from BOAC employees documented the passenger experience on the PAA and TWA aircraft. The reports, on a variety of routes, documented the interior and the overall experience of flight in the aircraft. They also acted as a record of the type of service provided by American airlines. Typical comments included '[t]he seating of the aircraft was... quite comfortable, but in my opinion left considerable room for improvement'; the stewardesses were considered 'to be very good indeed'; and the 'food served on board was appetizing'.¹⁸⁵ Critiques involved the crew of the aircraft, who it was felt 'showed complete disinterest in their passengers and on the odd occasion when they were seen they looked rather sloppy'; additionally, the cabin interior on a TWA flight was said to not be 'luxurious and is open from end to end without partition', which for the passenger meant that 'smokers have it all their way.

¹⁸³ Memo, American Aircraft, 13th December 1945, British Airways Speedbird Centre, London.

¹⁸⁴ Letter to Knollys from W.C.G. Cribbet, 13th December 1945, British Airways Speedbird Centre, London.

¹⁸⁵ Constellation Service, Memo to Chairman, 16th April 1946, British Airways Speedbird Centre, London.

The smell of stale smoke becomes objectionable and it is a question whether the pressurised system provides for sufficiently rapid changes of air.' A lack of books or papers on board was also noted.¹⁸⁶

However, the main concern was the noise experienced in the aircraft, as a report from April 1946 notes:

The chief drawback was the noise, the level of which I thought to be very disappointing, and the further forward one went the noisier it became. One passenger was off loaded at Kansas City and a seat became vacant in the centre section. This was taken by a passenger who had been sitting in the rear of the aircraft on the sector Los Angeles/Kansas City. After twenty minutes in the new position she returned to her old seat complaining that the noise was unbearable.^{187 188}

Some details are picked up and suggested for use by the Corporation, such as '[t]he small pillow which American airlines provide, is a good feature, and that it would 'probably improve the seat.'¹⁸⁹ Overall, the critique points out details that, while not ideal, ultimately reveal the reality of post-war flight in converted military aircraft; the experience still improved upon the services offered with the existing Lancastrian and Loadstar fleet. This was despite the overriding consensus that the Lockheeds were ideal, and the passenger feedback confirming the 1944 notion within BOAC that British interiors were 'if anything higher [quality] than the average American

¹⁸⁶ Notes on New York – Paris Journey, 19 – 20 February 1946, T.W.A. Constellation No. 865511, signed from Robert Maxwell, British Airways Speedbird Centre, London.

¹⁸⁷ Constellation Service, Memo to Chairman, 16th April 1946, British Airways Speedbird Centre, London.

¹⁸⁸ The letter continues: "Undoubtedly run up against ourselves was the bad handling of passengers after the aircraft landed and was taxi-ing to its arrival point. On the two landings which we made., i.e. Kansas and New York, all the passengers left their seats and surged towards the exit, blocking up the gangway and causing complete chaos in the cabin."

¹⁸⁹ Notes on New York – Paris Journey, 19 – 20 February 1946, T.W.A. Constellation No. 865511, signed from Robert Maxwell, British Airways Speedbird Centre, London.

standard.¹⁹⁰

Visual Essay: The BOAC Lockheed Constellation

This first-hand evidence of the experience during this period of flight breaks away from the existing narrative of flight, especially where the narrative of American airlines and aircraft is concerned. However, while some of the experiences described were not ideal, the Lockheed was a purpose-designed passenger aircraft and, despite the reports garnered by BOAC, provided a purpose-designed aircraft interior that was a marked improvement on the converted military aircraft that the Corporation was otherwise operating. What is interesting is the way that BOAC marketed its new aircraft. Perhaps aware of the break from using British equipment, or the need to justify the purchase of American equipment, the Corporation produced a huge amount of material to promote the aircraft. Several pieces of this material are reproduced over the next pages, with the captions providing analysis. However, it is worth pulling out the core messages here too. Rather than the converted military aircraft, such as the Lancastrian, the Constellation offered the Corporation the chance to promote its services through the experience of flight in the aircraft interior. The material show areas were designated for specific activities: the ladies' powder room, with seating for two to three women making it appear to be a social space; separate men's and ladies' lounges are offered, showing that gender separation was still not unusual—again, the differentiation was highlighted in terms of the social aspects of the areas. Perhaps the biggest departure from previous aircraft was the provision of an onboard galley—this is a major point of differentiation. The Corporation is keen to highlight that, along with the added comfort of the interior,

¹⁹⁰ Passenger Comfort and Accommodation, Comparison of British & American Civil Air transport in File No. 381, Aircraft General, 8th October 1944

there was also an at-seat service for food and drink, something not experienced on major long-haul flights previously.

Figure 37: A Lockheed Constellation in BOAC brand colours. The aircraft, G-AMUR, was one the first Constellations to enter service with BOAC. c.1948 British Airways Speedbird Centre, London.

Figure 38: The Constellation was one of the first aircraft to be promoted in full-colour printed material. This alone gives the aircraft a sense of glamour and luxury, particularly to a visually starved British public. This cutaway view of the aircraft highlights the spaces in the aircraft's interior, specifically the communal, social areas, which are gendered (men's and ladies' lounges). The key section that shows a move toward modern flight was the inclusion of a galley for the preparation of onboard meals. c.1948 British Airways Speedbird Centre, London.

Figure 39: Other material produced by the Corporation highlighted the experience of flight in a BOAC Constellation. These pamphlets highlighted a key feature of the aircraft. As the page above demonstrates, one of these features was the powder room, which acted as an informal social space as much as a practical one. It is also interesting to note that the women in the photograph are dressed in modern, contemporary clothes and are younger than the passengers previously shown in BOAC material. c.1948, British Airways Speedbird Centre, London.

Figure 40: In a short space of time, the Corporation replaced the Lancastrians on the London-to-Sydney route; while still an extensive journey, the interiors that the flight was experienced in were dramatically different. The copy in the advert highlights this, noting that the Constellation service was 'comfortable and completely relaxing'—this is in stark contrast to the language used in the Lancastrian leaflet advertising the same flight. c.1948 British Airways Speedbird Centre, London.

Figure 41: Additional promotional material is explicit about the service and comfort provided and drives home the message of the BOAC fleet's modernity. While the Constellation isn't specifically mentioned, it is the modernity of the American aircraft industry that allows this claim. However, the Constellation is always referenced as the 'Speedbird Constellation' rather than a Lockheed Constellation. c.1948 British Airways Speedbird Centre, London.

Figure 42: The same leaflet, when opened up, shows in colour the services provided. Interestingly, the passengers shown cover a range of ages, including children, professional couples, and young women together. The older, mature couples are still present, but as part of a wider social demographic. c.1948, British Airways Speedbird Centre, London.

Figure 43: A key sales strategy for BOAC was to get the 'buy in' from travel agents. In order to do this, a sales document was produced by the Corporation to circulate amongst its travel agents. The aim of the piece is to highlight the innovative design of and experience of flying in the Constellation. c.1948
British Airways Speedbird Centre, London.

The Boeing 377 Stratocruiser Case Study: A British Interior in an American Aircraft

While the Constellation was branded as a BOAC aircraft through the publicity material produced, the Corporation had the opportunity to have far greater control over the interior of the Boeing 377 as they were being purchased directly from Boeing. The British Airways archive identifies the British designer Richard Lonsdale-Hands as being responsible for the interiors of the aircraft; although his design had originally been intended for the Tudor I and II aircraft, BOAC provided his original colour charts and designs to Boeing to implement. A letter from BOAC to their Seattle-based office, dealing with procurement of the aircraft, mentions that the manufacturer would 'be receiving the new, up to date Lonsdale-Hands colour charts of the interior decoration of the Tudor II which you required to give to Boeings [sic] for the Stratocruiser decorations... the decoration as planned for the Tudor II should be fitted to the Stratocruisers in the best possible manner.'¹⁹¹ While the Corporation was initially happy for the materials documented by Lonsdale-Hands to be matched in America, subsequent review by BOAC of the matched materials resulted in the Corporation being advised to consider 'the supply of all furnishing materials from England' and that these 'might possibly be an improvement' on those found in America.¹⁹² Material from the Boeing Historic Archive, Seattle, WA, sheds some light on the actual design process and the involvement that the Corporation had. Initially, rather than having direct control over the design, the Lonsdale-Hands colour schemes were handed to Boeing's own design agency, Walter Dorwin Teague Associates, who, as they were based within the Boeing Seattle facility, acted as an

¹⁹¹ PL.293, A. to Chairman to J.C. Dykes, re: Lonsdale Hands Interior schemes, 21st September 1946, British Airways Speedbird Centre, London.

¹⁹² REF: SEA: 16, Avro Tudor II Colour Scheme, C. Dykes (BOAC) to Chairman (BOAC), October 7th 1946, British Airways Speedbird Centre, London.

in-house design team for the manufacturer. A collection of original BOAC materials for the interior are seen in (figure 44), along with notes on a Teague-branded envelope. While there is no documentation with the materials, it can be presumed that these were the initial materials rejected by the Corporation in favour of English materials.

Figure 44: Material samples of the BOAC Boeing Stratocruiser with handwritten note on Walter Dorwin Teague Associates' stationary, describing the material selection for the interior, c.1948, Boeing Historic Archive, Seattle, WA.

Figure 45: A black-and-white image of the first lower-deck interiors for the BOAC Boeing Stratocruiser. Note the apparent 18th century-style cabin-wall mural and the apparent age and style of the passengers.

The first printed evidence of BOAC's interior designs being implemented in the Boeing Stratocruisers comes from promotional material produced ahead of the aircraft's maiden flights with the airline (**figure 45**). However, the first interiors were confusing.

Stratocruiser: Initial Late 1940s Conversion with Lonsdale-Hands Colour Palette

Figures 46 & 47 shows one of the first four aircraft bought by the Corporation. These aircraft were originally assigned to Scandinavian Airlines Systems (SAS) before BOAC purchased them and instigated its own design changes. Evidence for this comes from Boeing's own archive, which holds the original press shots of the interiors, labelling them 'SAS – BOAC (Modified)'. The upper-deck of the aircraft had been designed in keeping with the original Lonsdale-Hands interior colour palette that was original specified for the AVRO Tudor I and II. However, the lower-deck bar is more revealing in the shared design history of the aircraft. Behind the passengers,

intricate illustrations can be seen on the cabin wall. The illustrations appear to be 18th century in style, with a floral motif and a rider on horseback visible. However, it appears that this image depicts one of the former SAS bars. Another image from the same press shots depicts a similar bar scene, with equally similar illustrations— careful inspection of the image shows an illustration spelling out 'Hans Christian Andersen'.

But what makes this image interesting in the context of this research? Firstly, it raises questions about the design control that BOAC had over these areas of the aircraft and points towards the desperation that the Corporation faced in securing aircraft that were fit for purpose. The original manifesto for the airline's brand, stated in the 'Presenting an Airline' article, is forgotten in favour of actually being able to exist as a functioning company.¹⁹³ It is the clash between the contemporary design of the Lonsdale-Hands upper deck, and the traditional design forms on display in the lower-deck bar, the cabin walls decorated with mock-18th century painted illustrations recalling another nation, that demonstrate the complex and confused nature of the post-war aircraft interior and challenge the concept of BOAC put forward by its own promotional material and magazines.

¹⁹³ It is also the depiction of the passengers and the interior decoration used in this bar area. The passengers are clearly older and well-dressed indicating that not only was the immediate post-war experience of flight in the Stratocruiser one that the Corporation wished to level at the elite, it was also attempting to frame the luxury in the language used in the advert, a caption noting that it was an 'An exclusive international club! In the luxurious lower-deck lounge, you relax in the gay and friendly atmosphere of transatlantic air travel at its best'.

Figure 46: Modified Stratocruiser interior for BOAC. Originally an aircraft designated for SAS use, Boeing used the Lonsdale-Hands Tudor interior designs to reflect some degree of BOAC brand and ownerships. Boeing Historic Archive, Seattle, WA.

Figure 47: An image showing an original SAS interior for a Boeing Stratocruiser. The similar illustration style to BOAC's bar can be seen on the cabin walls. Boeing Historic Archive, Seattle, WA.

Modernity Through Pamela Colgate

No material exists to suggest that BOAC was unhappy with these first Boeing aircraft, but it appears that they were aware that these first four aircraft represented a stopgap while officially sanctioned interiors could be implemented. In 1947, the British Airways archive notes the hiring of an American interior designer, Pamela Colgate, to oversee the implementation of the design on behalf of the Corporation, possibly to retain more control of the design process. Little exists to review other projects that Colgate worked on other than a record from the American Interior Department noting her work on a private residence in Virginia (figure 51) and an article in a September 1947 edition of *BOAC News Letter* (figure 48), which credits

her with earlier work on the airline's 'recently designed and completed the decorations of the Corporations Madison Avenue Terminal in New York.'¹⁹⁴

Figure 48: An article from *BOAC News Letter*, January 1949, detailing the revised interior, notably the lower-deck bar. Although this article doesn't name her, this would fit into the time frame that saw the Corporation hire Pamela Colgate. 'Interior of the Boeing' in *BOAC News Letter*, January 1949, British Airways Speedbird Centre, London

¹⁹⁴ 'She plans Boeing interior' in *BOAC News Letter: House Journal of British Overseas Airways Corporation*, No.18, September 1947, p.5 , British Airways Speedbird Centre, London.

Figure 49: The interior of a BOAC Boeing Stratocruiser bar, c.1949, shown in early promotional material for the BOAC flights with the aircraft. There is no substantiation to confirm that this is a Pamela Colgate interior, but it does appear that the lower-deck bar had been decorated to reflect the colours of BOAC and remove any overtly decorative elements as per the airline's brief to the designer. British Airways Speedbird Centre, London

The newsletter is also quick to note the progressive nature of hiring Colgate for the Stratocruiser job, stating that, 'Pamela Colgate, of New York, who recently came to see us in London, is doing a job no woman, so far as records go, has ever tackled before.' The nature of the design that Colgate (**figure 49**) intended to implement is outlined as '[U]sing much ingenuity to create a feeling of space with small compass by colour schemes of greys, blues and fawns. Skin-thick, canvas-backed paneling of English lizard grey oak will be used extensively; with 'Avtrim,' a new covering fabric, and gabardines, woolens and whipcords blending in the chosen colours.' Further material from the British Airways archive details the specific parts of the interior that Colgate was hired for, noting that:

her mission was to make recommendations to you concerning the following subjects:

(a), Cocktail Lounge – lighting, décor, general arrangement, (b), Upper Passenger

Cabin – lighting, colour scheme, materials, refinements of line, (c), Toilets – lighting and décor, (d), Seats and Berths – style and standard comfort, materials.¹⁹⁵

By regaining control of the design process and having a designer on site at Boeing, BOAC was able to ensure that uniformity was given to the aircraft interiors, and, most importantly, that they were reflective of the airline's brand.

Figure 50: Image of Pamela Colgate taken from the *BOAC News Letter* article, 'She Plans Boeing Interior', 1947, British Airways Speedbird Centre, London.

¹⁹⁵ SEA: 224, Boeing 377 "Stratocruiser" - Visit of Interior Decorator, From Plant Representative, Seattle to R.D.E.At, January 10th 1947, British Airways Speedbird Centre, London.

Figure 51: Pamela Colgate-designed domestic interior, c. 1938. Dining room area of the Collier House, Fairfax County, VA, built between 1939–1939 by husband and wife architects 'Mr. & Mrs. Charles Collier'. Library of Congress Prints and Photographs Division Washington, D.C. 20540 USA

Chapter Six

Chapter Six, 1950–1954: BOAC's Jet Age: British Hope Reborn

Introduction

Economic and political historians have long viewed the Reconstruction period in British society, from the late 1940s to the 1960s, as pivotal in the development of British society and the changing political dynamics of national identity as the British state was forced, frequently reluctantly, to accommodate the rapidly changing geopolitical, ideological and economic structures which dominated the post-war world.¹⁹⁶

The quote above, from design historian Patrick Maguire's essay 'Class, Culture and Conflict: Defining the 'British' in British Design in Post War Britain', sums up the new challenges that the British state, and, in turn, BOAC, was forced to take account of. Despite the Second World War ending in 1945 and the extensive planning programmes that concentrated on affirming Britain's place in a post-war world, Britain didn't start to experience the tangible benefits of post-victory reconstruction until the early 1950s, with rationing continuing in some forms into 1953. Combined with the fruition of wartime planning, these first years of the 1950s were a time of huge cultural, economic and political development for Britain and for BOAC.

Several major events overlapped to galvanise a sense that a modern Britain was emerging—a contrast of hope against the previous austerity. It was a time when the British became 'conscious of the awakening of a new period in [its] history'.¹⁹⁷ It is this rapid progression that this chapter will investigate, focusing on key events such as the Festival of Britain (1951), the death of King George VI, the accession of Elizabeth II (1952) and the subsequent Coronation in 1953, which provided a backdrop of national confidence united by the technical prowess of British engineering in developing and successfully putting into service, under BOAC

¹⁹⁶ Maguire, 2007, p.27

¹⁹⁷ 'Foreword' in *Enterprise: Coronation Issue*, June 1953, p.51, Mill Green Museum, Hatfield.

operation, the first commercial jet airliner: the de Havilland Comet. This chapter investigates the impact of these events on BOAC, asking, most importantly, how did the airline represent this new British vitality through its aircraft interiors and brand?

This series of prominent British cultural events is essential to understanding the motivations of the Corporation and its use of design. It is also the period that would reveal some of the tensions in British identity, represented by the utopian ideals of the Festival and the failure of the first Comet aircraft in 1954.

BOAC: Vanguard of the Jet Age

A new Britain came into being in the 1950s. Victorious in war, the British had united to revamp social order; prosperity and a future as a pre-eminent hi-tech nation awaited.¹⁹⁸

Figure 52: Sir Miles Thomas, D.F.C., M.I.Mech.E., M.S.A.E., Deputy Chairman of BOAC (centre), discussed the progress of the de Havilland D.H.106 jet airliner project with Mr R.E. Bishop, C.B.E., F.R.Ae.S., Chief Designer of the de Havilland Aircraft Company (right) and Major Frank. B. Halford, C.B.E., F.R.Ae.S., M.S.A.E., Chairman and Technical Director of the de Havilland Engine Company (left).¹⁹⁹ Mill Green Museum, Hatfield.

¹⁹⁸ Scott & Green, 2012, pp.102 – 105

¹⁹⁹ 'BOAC Chief Sees Comet Progress' *de Havilland Aircraft News*, No.50 April 1949, Mill Green Museum, Hatfield.

At the turn of the 1940s, despite the well-documented failings of the aircraft types proposed by the Brabazon Committee, such as the Avro Tudor I and II, and the Corporation being forced to use American-designed aircraft, one aircraft, the de Havilland 106, commonly known as the Comet Mk I, remained on course for introduction into service by the early 1950s. While the aircraft had been in development since the final proposals of the Brabazon Committee in 1946, it was not until 1949 that de Havilland made official reference to the aircraft in its own internal magazine, *de Havilland Aircraft News*, referring to BOAC's direct involvement in its development. An image, (figure 52), published in the April edition of the publication, 'BOAC Chief Sees Comet Progress', depicts senior BOAC and de Havilland figures inspecting the prototype jet aircraft, noting 'THE ESSENTIAL PARTNERSHIP. The traditional collaboration between builder and user is symbolised by this picture taken at a recent meeting at Hatfield, England'.²⁰⁰ The image is accompanied by a one-page article, 'First Details of the Comet: An Introductory Statement', giving a full description of the Comet project, outlining why the company had been reluctant to give any details sooner, and noting that '[t]he de Havilland Aircraft and Engine Companies feel that the time has come when some preliminary information... may be released, despite the fact that the aircraft is not likely to be in operation before 1952 and is not yet approaching the flying stage'.²⁰¹ The reasons cover familiar issues in the post-war British aircraft industry, namely the clear competition that America posed, commenting that:

²⁰⁰ "BOAC Chief Sees Comet Progress' in *de Havilland Aircraft News*, April 1949: THE ESSENTIAL PARTNERSHIP. The traditional collaboration between builder and user is symbolised by this picture taken at a recent meeting at Hatfield, England, when Sir Miles Thomas, D.F.C., M.I.Mech.E., M.S.A.E., Deputy Chairman of British Overseas Airways Corporation (centre) discussed the progress of the de Havilland D.H.106 jet airliner project with Mr. R.E. Bishop, C.B.E., F.R.Ae.S., Chief Designer of the de Havilland Aircraft Company (Right) and Major Frank. B. Halford, C.B.E., F.R.Ae.S., M.S.A.E., Chairman and technical Director of the de Havilland Engine Company (left), Mill Green Museum, Hatfield."

²⁰¹ 'First Details of the Comet: An Introductory Statement' in *de Havilland Gazette*, April 1949, Mill Green Museum, Hatfield.

[T]his resistance is necessary. In the first place because the project presents an opportunity for Britain to catch up the leeway lost in the war years it was, and still is, important that no design details should be released until the aircraft is well advanced; this attitude is accepted in a spirit of friendly rivalry by the American manufacturers.

It is worth considering why the Comet survived the process of development that was so lethal to the other Brabazon aircraft types earmarked for BOAC. The *Gazette* assumes, as has been mentioned previously (Fearon, 1986; Jackson, 1991), that the economic and post-war climate meant most manufacturers had changed their manufacturing process to focus purely on military fighter and bomber aircraft, remarking that the:

Pious intentions of that optimistic period were thwarted by new and very real threats to our national sovereignty, and British civil aviation could not be advanced properly while we were repairing the devastation of the war and pressing forward, at a very high level of national taxation, with the developments of fighters and bombers.²⁰²

However, de Havilland, despite having developed a series of pre-war civilian airliners, as investigated in Chapter 1, the D.H.91 and the D.H.95, was no better placed in its concentration on military production than other British manufacturers, such as Avro, Handley Page and Bristol. An assumption could be made that it was perhaps the largest British manufacturer and was thus better placed to handle large-scale development projects, but it is the *Gazette* that points to a clearer explanation when it notes that 'the progress with the missile should be the main cause of a major reorientation towards civil aviation.'²⁰³ Indeed, the company played a pivotal role in developing the Frank Whittle-inspired jet engines for post-war fighters.

²⁰² 'World-wide Suitability of the New British Airliner' in *de Havilland Gazette*, April 1958, Mill Green Museum, Hatfield.

²⁰³ *de Havilland Gazette*, April 1958.

The company's Chief Engineer, Major Frank Halford, had been central in developing the DH Goblin engine for the first British military fighters: the Gloster Meteor and DH Vampire. Together with the financial backing and direct influence of company head Sir Geoffrey de Havilland, the military fighter engine became the DH Ghost—a central development in pushing through the development of jet engines to be used in civilian airliners.

The Design Philosophy of the de Havilland Comet

It is worth clarifying why the Comet was considered such a radical aircraft. Apart from the obvious technical achievement of being the first operational jet airliner, it offered a revolutionary reduction in the time global travel took.²⁰⁴ A BOAC press release marked the first Comet flight in 1952, 'World's First Regular Jet airliner Service The Comet Goes into Operation with BOAC', and this highlights the impact that the aircraft would have on international flight, comparing the time the new Comet would take on the London-to-Johannesburg route to the time taken by existing Hermes aircraft.²⁰⁵

On the 6,724-mile flight to Johannesburg calls will be made at Rome, Beirut, Khartoum, Entebbe and Livingstone. The flying time is 18 hours 40 minutes, and the total journey time, including stops, 23 hours 40 minutes. The present BOAC Hermes services between London and Johannesburg, flying a route on the west side of Africa nearly 1,000 miles shorter than that flown by the Comet, take 27 hours 55 minutes flying time, and 32 hours 25 minutes total elapsed time.²⁰⁶

²⁰⁴ A press-release at the British Airways Speedbird Centre notes the Comets first flight: "The world's first regular jetairliner service will be opened by BOAC at 15:00 hours local time (14:00 hours G.M.T.) today, when the de Havilland Comet G-ALYP leaves London Airport on the inaugural flight from London to Johannesburg."

²⁰⁵ The Comet was the first operational jet airliner, however, other companies had tested prototype jet airliners ahead of de Havilland. These included: Vickers VC.1 Viking *G-AJPH*, which first flew on 6 April 1948 and in 1949 the Avro Canada Jetliner, although neither of these reached production.

²⁰⁶ *BOAC Air News*, 1952, British Airways Speedbird Centre, London.

In many ways, the details of the first commercial flight seem extraordinarily long, matching the details given by the Corporation of its first post-war Lancastrian flights. However, in context, the Comet reduced flying time by nearly 10 hours. The technical details of the Comet also set it apart from the existing BOAC fleet, since the aircraft was able to achieve cruising speeds of 450 to 500 miles per hour, at heights of between 35,000 and 40,000 feet.²⁰⁷ This can be compared to the average propeller-powered aircraft, which achieved speeds of around 250–300mph at heights of 10,000 feet. Publications of the time preferred to focus on the comfort and speed that had been achieved in the aircraft. Another *Gazette* article, 'Inside the Comet', dated August 1951, revealed details of the passenger accommodation inside the Comet. Indeed, it is the very experience of jet travel that is highlighted as the key to the passenger's comfort, with the article noting that:

All who have made long journeys in the Comet liners remark upon the unaccustomed restfulness of this new form of travel, the feeling of being poised in space, the strange facility of spanning intercontinental distances without the sense of having traveled.²⁰⁸

The article went on to mention the input of BOAC's expertise in the aircraft interior, referring to how the 'operator's wealth of experience has been drawn upon to provide the most satisfactory interior layout and the most desirable furnishings.'²⁰⁹ These furnishings are revealed in full in a photo essay, 'Let me Show you Over the Comet', featured in the December 1951 edition of the *Gazette* (figures 53, 54& 55). The article acts as an imagined passenger journey, depicting the 'touch-points' that the passenger would experience during a BOAC Comet flight.²¹⁰ The article starts with a

²⁰⁷ *BOAC Air News*, 1952

²⁰⁸ 'Inside the Comet' in *de Havilland Gazette*, No. 64, August 1951, p.89, de Havilland Aircraft Museum, London Colney.

²⁰⁹ 'Inside the Comet', August 1951, p.89

²¹⁰ The term 'Touch-Points' is an advertising term that refers to the points of interaction a consumer will have with a brand, either tangible or intangible.

welcome from a BOAC stewardess outside the aircraft, followed by an interior shot of a passenger having their coat taken at the aircraft entrance. This is followed by several shots of the aircraft's interior, the facilities available, the dining experience and the modern, at the time, distractions, which included an on-board library. Unfortunately, the shots are all reproduced in black and white, but in order to give an idea of the colour of the interior, an accompanying article titled 'From Leslie Carr's Sketchbook: Impressions of the Comet's Interior', was included (figure 56).²¹¹ From Carr's sketches, it is apparent that the typical colour ways of the Lonsdale-Hands and Colgate colour schemes have been retained. While this meant that the Comet would retain the typical brand colours used on the rest of the Corporation's fleet, these details challenge the *Gazette's* assertion that BOAC had made a 'revolutionary advance in the standards of passenger flight'. The Corporation had instead installed an interior design finishing that had first been suggested in 1945.

²¹¹ Leslie Carr was a painter, commercial artist and draftsman who produced work normally related to shipping and the railway. The London Transport Museum website notes: "Leslie Carr was a painter of maritime and architectural subjects. He designed posters for the LNER, SR and British Railways." Website: <http://www.ltmcollection.org/posters/artist/artist.html?IXartist=Leslie+Carr> [Accessed: 01/09/15]

Figure 53: 'Let me Show You the Comet...' in *Gazette*, December 1951, pp.132-133 .The article documents the new Comet interior through a series of photographs. The de Havilland Aircraft Museum, London Colney.

Figure 54: 'Let me Show You the Comet'... (ibid.). A key focus of the article is details related to passenger comfort, such as the aircraft's seats and its small reading library.
The de Havilland Aircraft Museum, London Colney.

Figure 55: 'Let me Show You the Comet'... (ibid.). Further details are revealed, such as cabins separated into sections to reduce the feeling of being in a tube and instead induce the feeling of travelling in a well-furnished room. The de Havilland Aircraft Museum, London Colney.

Figure 56: 'From Leslie Carr's Sketchbook: Impressions of the Comet's Interior.' A double-page spread published in the *de Havilland Gazette*, December 1951, pp.138-139
The de Havilland Aircraft Museum, London Colney.

This is not to say that the Corporation hadn't looked to implement a new interior with the Comet. A series of memos in the British Airways archive detail the Corporation's approach to Hans Schleger (1898–1976) (figures 57 & 58).²¹² The first, 'Interior Colour Scheme: Note of conversation with Mr. Hans Schleger', dated 9th August 1949, notes the initial approach to Schleger. A second memo, 'D.H.106 Interior Colour Scheme', dated 4th January 1950, notes BOAC requesting further information on the Schleger interior schemes, specifically:

Since Mr. Schleger's first visit to de Havilland on 23rd November 1949, nothing further has materialised. I should therefore be grateful if you could let me know what the position is regarding the interior colour scheme and whether we are in a position to give de Havilland any specific advice on this point, which, as you know, they have requested. The three points on which they want advice are as follows: 1. General Colour Scheme; 2. Material for the Chairs: Type and Colour; 3. Carpet: Type and Colour.²¹³

While this approach to Schleger, one of the pre-eminent graphic designers of the post-war period, may well have provided the Corporation with an interior to match the technologically advanced Comet, negotiations with Schleger wouldn't go any further. As Pat Schleger highlights in her biography of her husband's life, Schleger was drawn to America:

Serge Chermayeff was president of the Chicago Institute of Design, having taken over from Moholy Nagy. In 1949 he asked Schleger to become a visiting professor and head of the department of Visual Design. Schleger was unsure whether to accept, for one thing BOAC had just asked him if he would design the interior of their

²¹² Hans Schleger, commonly referred to by his artist signature, Zero, is considered one of the foremost graphic designers of the 20th century. He produced a variety of work including Ministry of Information posters during the Second World War, and major corporate identities for the John Lewis Partnership and the London bus stop logo.

²¹³ File No.: 915, 'D.H.106 Interior Colour Scheme' dated 4th January 1950, British Airways Speedbird Centre, London.

new plane, the Comet. Rolf Brandt, artist/illustrator friend and teacher, wrote to Schleger to persuade him to go.²¹⁴

The Schleger letters mark the continuation of the Corporation's record of seeking émigré designers to undertake key design projects, something that will be further investigated later in this thesis. While no further material exists in the British Airways archive to point toward the final decision-making process for the Comet interior, it seems that time constraints could well have been the explanation. If, by 1950, BOAC and de Havilland were still expecting designs from Schleger, then only a two-year window existed for the interior to be developed and implemented, which could be presumed to explain the use of the original Lonsdale-Hands interior.

²¹⁴ Pat Schleger, *Zero: Hans Schleger a Life of Design* (London: Lund Humphreys, 2001), p.254

Figure 57: A 1949 letter to the then BOAC chairman, Whitney Straight on the approach to Hans Schleger to produce designs and schemes for the de Havilland Comet interior.

Figure 58: A 1950 memo from de Havilland to BOAC noting a lack of response or work from Hans Schleger on a potential colour scheme for the Comet aircraft. British Airways Speedbird Centre, London.

Festival of Britain and the Modern Aircraft: Designing a National Identity

It is at this point that the technical achievement of de Havilland, as well as the wider hopes of the British aircraft industry, aligned with the wider context of British culture of the period. The 1951 Festival of Britain, noted for its reflection of British social, economic and political achievement, held the jet engine in high esteem, with the de Havilland Ghost jet engine and a mock-up of the Comet being presented as central artefacts in a display of current and future technical achievements in British transport. It is worth considering the impact of the Festival in order to link this work to the wider design history context of the period and understand the modernity that de Havilland and BOAC had developed, specifically against the backdrop of the Festival.

The Festival can be seen as a celebration of British visual material culture in the aftermath of the War, one that, unlike Britain Can Make It, seemed to understand the present as well as the conceptual future, 'it presented a striking [vision of] how far the

language of renewal and optimism was a shared one.²¹⁵ However, subsequent academic work on the Festival reveals tensions that position it in a less clear-cut temporal clarity. As outlined in the introduction to this chapter, the Festival was exhibited against the backdrop of a country that was still suffering from the aftermath of war: '[r]ation books and Utility merchandise had undermined the Festival of Britain as celebration of national rebirth.'²¹⁶ It came to typify the period, as suggested by Frederique Huygen in her text, *British Design: Image & Identity*: '[t]he British kept looking back towards the past glory of Empire and the 'heroic' Second World War, and had difficulty accepting their country's new, more mundane role.'²¹⁷

It is better to understand the Festival not in terms of the immediate impact it had on Britain, but rather in terms of the thinking it produced that was felt in later decades.

As Christopher Breward and Ghislaine Wood point out:²¹⁸

While the social and cultural changes of the 1960s made the Festival's mission seem a century away, many of those who cut their teeth in the energy of the Festival were instrumental in reshaping the fabric and culture of British society – from schools, hospitals and universities to the consumer landscape of our high streets.²¹⁹

Despite these tensions, the jet engine was a clear example of British technical expertise leading the world, made even more tangible by the aircraft they would power, the Comet, which was making public trials and was due to enter service within a year of the Festival's end. BOAC was present, with a presentation of its soon-to-be-

²¹⁵ Breward & Wood, 2012, p.54

²¹⁶ Ibid, p.54

²¹⁷ Huygen after Sampson. 1982, in *British Design: Image & Identity*, London: Thames & Hudson (1989), p.56

²¹⁸ Many of the designers involved in the festival would also become key designers for the Corporation in later years.

²¹⁹ Breward & Wood, 2012, p.48

introduced Hermes V aircraft, a model of which was presented in formal BOAC branding.

While a huge amount of literature exists to place the Festival and its displays in the context of British design history, most notably focusing on the architecture and visual material culture that were presented, very little has been written or refers to the Transport Pavilion and its exhibits. This underestimates the impact that transport development would have on the world, particularly the work done in the development of the jet engine and modern civilian aircraft. The pavilion, focused on air, road, sea and rail. In total, the number of exhibitors across all of the sections of the transport industry numbered in excess of one-hundred and fifty. Of this, fifty displays were dedicated to manufacturers directly associated with the aircraft industry. The list of exhibitors reads as a list of the major British aircraft manufacturers of the time, with companies such as Bristol Aeroplane Co., Vickers Armstrong, Shorts Bros., de Havilland and Airspeed, as well as companies dedicated to engine development, including Rolls-Royce Ltd and Airscrew, all represented.²²⁰ Although some of the displays, in keeping with the critique of the festival, focused on past triumphs such as the de Havilland Gypsy Moth and the Hadley Page 42, the majority of the items exhibited were connected to current and future developments in the industry.

Although the presence of BOAC and the various aircraft manufacturers pointed toward the modernisation of flight and its capabilities as a viable mass-transport solution, one that 'would prompt BOAC to become a key patron of modernism in Britain', it is interesting to note that the focus was still very much on technical achievement rather than the experience of flight, which would have still been a

²²⁰ *Festival of Britain: Catalogue of Exhibits: South Bank Exhibition* (H.M. Stationary Office: London, 1951)

novelty.²²¹ In this sense, the pavilion continued to present the notion of flight, particularly that of jet-powered flight, as utopian and the preserve of the elite

²²¹ Scott (2012), p.116

Figure 59: The interior layout of the Hermes V aircraft interior, an intermediate type used ahead of the Comet's introduction. The aircraft still uses the BOAC interior by Lonsdale-Hands that would continue to be used in the Comet Mk I. British Airways Speedbird Centre, London.

Figure 60: de Havilland cross-section in BOAC livery, showing the cabin layout of the aircraft for the Corporation, c.1949, The de Havilland Aircraft Museum, London Colney.

Figure 61: First prototype of the Comet Mk I in testing, .c.1949, The de Havilland Aircraft Museum, London Colney.

British Aircraft and the New Elizabethan Era

The Festival's combination of tradition and modernity, in terms of its presentation of British national identity, foreshadowed one of the major events of post-war British history. On 6th February 1952, King George VI died and his eldest daughter, Elizabeth, ascended to the throne. Although the period immediately surrounding his death was one of deep national mourning, this was, after all, the King who had acted as a figurehead for the country in the darkest days of the Second World War, the ascension of the 21-year-old Elizabeth led to a reaffirmed belief that Britain was facing a fresh, modern period in its history.²²²

Just one year later, on 2nd June 1953, the Coronation of Queen Elizabeth II took place with the full tradition expected of a 1,000-year-old monarchy, yet unlike any previous Coronation, it took place under the full glare of a newly connected world. It is this—as was investigated in the 2012 V&A exhibition, *British Design 1948–2012*—that presented, at the time, a clear-cut image of Britain; draped in the tradition of its monarchy yet tantalisingly close to a new period of modernity that the Festival, and the Comet, had hinted at. The new young Queen represented both.

Comparisons were made between Elizabeth I and the newly anointed Elizabeth II, and this was actively promoted by the newly appointed Conservative state. In fact, for the Conservative government, which viewed the welfare reforms and Festival of the previous Labour government with suspicion, using the tradition of monarchy to couch a new British modernity was much safer, as the V&A exhibition noted.²²³ 'It was an

²²² BOAC played a key role in bringing back the newly accessioned Queen from Africa upon hearing of the news of her father's death.

²²³ Yet perhaps it is misleading to draw too many distinctions between a 'socialist' Festival of Britain and a 'conservative' Coronation. Churchill's administration may well have bulldozed the Festival site with indecent haste, but in retrospect it is striking how far the language of renewal and optimism was a shared one. 1951 and 1953 politicians and planners were united in looking to build a golden future.

opportunity to enjoy the weight of money in the pocket as the Churchill government dismantled the mechanism of socialist reconstruction.²²⁴

Yet, while this was the image presented by the state, it is interesting to see how the British aircraft industry and BOAC perceived this new era of youthful monarchy and apparent modernity. For the Corporation, the 'New Elizabethan ambitions fermented in a culture where the pursuit of profit was balanced against the demands of national prestige.'²²⁵

De Havilland, with their own well-publicised advances—the Comet entered service with BOAC in 1952—were quick to make a direct comparison between themselves and the post-war boom of British technological achievement and the successes of the 16th century British pioneers.²²⁶ In a special 1953 Coronation issue of their internal publication *Enterprise*, figures 62 and 63, Queen Elizabeth I appears on the back cover, surrounded by the achievements of the period: victory over the Spanish Armada; the foundations of the British Empire being laid by explorers such as Sir Walter Raleigh; key statesmen such as William Cecil, 1st Baron Burghley; and the cultural impact of Shakespeare.²²⁷ The front cover, featuring Elizabeth II, attempts to mirror these earlier achievements with examples and people of the 20th century: technological advancement is obviously embodied by the Comet; and the Battle of Britain stands as a victory in the face of overwhelming adversity, with Churchill as the key statesmen. All of this builds an image suggesting that these events reflect the

²²⁴ Christopher Breward & Ghislaine Wood, eds., 'In the Service of the State: Change and Continuity in Design' in *British Design from 1948: Innovation in the Modern Age* (London: V&A Publishing, 2012), p.54

²²⁵ Scott Anthony, 'The Rebirth of British Civil Aviation' in Anthony, Scott and Green, Oliver, eds., *British Aviation Posters: Art, Design and Flight* (Surrey: Lund Humphries, 2012), p.114

²²⁶ The introduction of the Comet in the same year Queen Elizabeth II ascended to the throne can be seen as an example of what Nicholas Hewitt termed in his essay, 'Popular Culture and Mass Culture', the 'New Elizabethan'.

²²⁷ De Havilland published two internal magazines. *Enterprise* was considered to be for upper-management, while the *Gazette* was targeted at the general worker in the company. Both aimed to inform on the current de Havilland news, particular new aircraft releases.

16th century and would usher in the second Elizabethan era.

Figure 62: *Enterprise*, front cover, Coronation issue, June 1953, Mill Green Museum, Hatfield.

Figure 63: *Enterprise*, back cover, Coronation issue, June 1953, Mill Green Museum, Hatfield.

The magazine expanded on this theme in several articles, with a review of the design, architecture and engineering success of England in the first Elizabethan period, and a photo essay, 'Royal Occasions', on the interaction that the company had had with the royal family, in particular the newly crowned Queen.²²⁸ But it is the editorial foreword at the start of the issue that makes the clearest reference to the importance of the newly crowned monarch, not just to de Havilland, but to British modernity as a whole. A full image of the foreword is reproduced in **figure 64**, but the text is worth focusing on in order to really get a sense of how the moment was received by a British company:

We British people are conscious of the awakening of a new period in our history. Twice in this century our island nation has nearly gone down to destruction in wars that were none of our seeking; twice we have resisted, desperately and alone at one stage, twice we have settled the reckoning with a conciliatory aim and weathered long, hard years of reconstruction.

A cloud of further dangers, to the nation and to the individual, has threatened this revival, but the race, toughened and tempered, has faced them resolutely and the new Queen heads a people which is in a sense reborn. Her very youth is the promise and the symbol of new life.

Elizabeth the Second, girl of magical qualities, heads a race highly experienced in worldly and constitutional problems, not easily misled or diverted, discerning as between the immediate prize and the long-term reward, the particular profit and general satisfaction... we are interested to improve our worth to the world rather than the other way... Elizabeth is the essence of our ideals, the living spirit of us. She

²²⁸ de Havilland produced aircraft for the Royal Family, an article in the de Havilland magazine, *Enterprise*, 1955, depicting a custom made de Havilland Heron made for Queen Elizabeth II and the Duke of Edinburgh.

personifies these principles and under her gracious reign we shall defend and uphold them at all times. God save the Queen.²²⁹

Figure 64: Image of the foreword taken from the Coronation issue of *Enterprise*, June 1953, p.51, Mill Green Museum, Hatfield.

De Havilland Comet and Exports Abroad: A Commercially Viable Aircraft?

As if to support this new era of British prowess in technical achievement, a tangible example is reported in a later (August 1952) issue of the *de Havilland Gazette* (figure 65). The article, 'British Aircraft for Japan: Orders exceed one million pounds within three months of Peace Treaty', points to the advanced technology of the Comet being admired by other airlines, noting that:²³⁰

²²⁹ 'Foreword' in *Enterprise: Coronation Issue*, June 1953, p.51

²³⁰ Note: The irony that this technical prowess was being exported to Japan, seen as a defeated enemy of war, in need of assistance. The subsequent decades would see Japan at the forefront of technical achievement with major infrastructure projects as the Shinkansen, commonly known as the bullet train.

Within three months of the ratification of the Peace Treaty between Japan and the Allied Powers, the de Havilland Aircraft Company Limited is permitted to announce orders placed [for] [t]wo de Havilland Comet airliners [that] are to be supplied to Japan Airlines, an independent company which has taken the lead in the first stages of the Japanese revival in the air and to-day operates on the internal route linking the main islands of Japan... They thus will start with the most modern equipment offered to-day and will be able to build up their technical organization unencumbered with obsolescent engineering installations.²³¹

The rate at which the aircraft industry had developed, spurred on by the Comet, in just a few short years, particularly with the overall failure of the types designated by the Brabazon Committee, was something that de Havilland revelled in. A cartoon, (figure 66), in the Coronation issue of the *Gazette* reflected on the achievement of the first operational jet aircraft, depicting British passengers alighting from a Comet at a Russian airport, with a British passenger speaking to his supposedly Russian friend, who stares at the modernity of the Comet: 'Oh that old thing...!' The jet aircraft is surrounded by the propeller-driven aircraft of the Russians. While the clear competitors in the global marketplace were the Americans, the cartoon acts as a reminder that the ideological enemy of the time was Communist Russia. While the British competition with America was to produce a viable jet-powered aircraft for economic service, the Comet, when positioned against Russia, had a darker symbolism in the emerging Cold War weapons race.²³²

²³¹ 'British Aircraft for Japan: Orders exceed one million pounds within three months of Peace Treaty' in *de Havilland Gazette*, August 1952, Mill Green Museum, Hatfield.

²³² Russia entered the jet age with the Tupolev Tu-104B in 1956, operated by Russian national airline, Aerflot. It was the second jet airliner to enter service after the Comet.

Figure 65: An image from the *de Havilland Gazette*, highlighting the service to Japan and the sale of the aircraft to Japan Airlines. Mill Green Museum, Hatfield.

Figure 66: 'Oh that old thing...' a cartoon highlighting the notion, certainly from the point of view of de Havilland, that the British aviation industry was far ahead of the global competition. Mill Green Museum, Hatfield.

The Corporation also reflected on the Coronation as a link to the past. As author Scott Anthony reaffirms in his book, *British Aviation Posters: Art, Design and Flight*, the ascension of the new Queen became linked with the last Queen Elizabeth. The suggestion was that BOAC should be considered in the same sense as the explorers of the period:

Such was the mood crystallised by Queen Elizabeth II's ascension to the throne in 1952. 'Where the sixteenth century had Johnson, the twentieth had Christopher Fry,' as the Daily Herald had it, 'for Herrick they had Dylan Thomas, for Beaumont, Rattigan. Shakespeare remains unchallenged. In other fields, for Drake read any BOAC... pilot.'^{233 234}

²³³ Anthony after 'Elizabethans' 52' reprinted in BOAC magazine, April 1952, p.4

²³⁴ Scott Anthony, 'The Rebirth of British Civil Aviation' in Anthony, Scott and Green, Oliver, eds., *British Aviation Posters: Art, Design and Flight* (Surrey: Lund Humphreys, 2012), pp.102 – 105

End of the Utopia: The Comet Disasters

The introduction of the Comet aircraft had seemed to affirm the Corporation's position as a major international airline that was fulfilling its own state-directed mandate to operate British-made aircraft. With the Comet Mk I, it not only presented the Corporation as using the pinnacle of British engineering and technology, putting the Corporation firmly ahead of its American rivals in the global marketplace of the airline industry. By 1954, the Corporation operated nine Comets on what were still referred to as its 'Empire' routes: destinations in Africa and India. Indeed, the export of the Comet also seemed to fulfil the hopes of British industry, spearheading a post-war revival through export of British-made goods. Alongside BOAC, the aircraft was also operated by Air France, Canadian Pacific and South African Airlines.²³⁵ However, for the Corporation the optimism of the Comet, the Festival and the Coronation was short lived; indeed, it was the very technological achievement of the Comet Mk I that would undermine the post-war revival of the British aircraft industry. Indeed, even before the Coronation had taken place in June of 1953, two fatal accidents involving the Comet had already taken place, although these were put down to pilot error.²³⁶ It was accidents in 1954, however, that would severely damage the reputation of the Comet as an active alternative to other modes of powered flight. The first accident occurred on 10th January 1954, when BOAC Comet G-ALYP 'climbed away from Rome and disappeared'.²³⁷ Although this led to all of the Comet fleet being grounded and a detailed inspection taking place, the aircraft was cleared to fly again, with the Abell Committee, charged with the inspection, suspecting that

²³⁵ South African Airways chartered its Comet aircraft from BOAC, so they were still effectively part of the Corporation's fleet.

²³⁶ On the 2nd May G-ALYV broke up on take off from Calcutta. As Higham notes, '[t]he accident was attributed with some doubts to a severe storm.' He goes on: 'For BOAC itself the situation was serious as it had now lost two of its nine aircraft. The treasury permission was obtained to buy the remaining Canadian Pacific Comet. So far the accidents had been blamed either on pilot error or upon weather.'

²³⁷ Higham, 2012, p.141

'cracks had began to appear in the wings at 6,700 hours of flight.' With revised maintenance plans in place, the aircraft continued service until a further accident on the 8th April, when a South African Airways-operated Comet, G-ALYY, 'disintegrated near Naples after take off from Rome'.²³⁸ This final accident would lead to a four-year suspension of the Comet from operations with any airline.

The subsequent technical investigation of the aircraft, conducted on a national scale, proved that the cause was failure of the pressure cabin due to a hitherto unsuspected manifestation of metal fatigue.²³⁹

If the start of the decade was defined by the optimism of a rejuvenated Britain, the failure of the Comet can be seen to hold equal symbolism. The sobering moments that the Comet crashes created, highlighted that, while Britain had raced to a technical achievement, it was that very technology that would affect the resurgent British aircraft industry in a way that it would never recover from. The reality of the Comet's failure set the Corporation back to its immediate post-war problem of not having enough aircraft to run an efficient service. This failure of British industry becomes a common theme in texts on British history, with, in this case, de Havilland and the state having an 'inability to turn discoveries into commercial propositions.'²⁴⁰

This failure led to the reintroduction by BOAC of the American-made Boeing Stratocruisers. It also meant that the several-year advantage that British industry had gained over its American rivals was wiped out, with Boeing's 707 jet aircraft becoming the only viable alternative for western airlines.

²³⁸ Higham, 2012, p. 141

²³⁹ 'Comet D.H. 106: The World's Advanced Airliner' in *The de Havilland General Information Booklet*, 1955, British Airways Speedbird Centre, London.

²⁴⁰ Huygen after Artis, 1986, p.56

Conclusion

In documenting the development of the BOAC aircraft interior during the four-year period between 1950 and 1954, this chapter explores the exceptional and rapid development of post-war British design and industry. This chapter has identified a series of events that, while they could be viewed as very different to one another, all added up to create a new and modern concept of British identity. While these events have been well documented individually by several authors (as noted in the literature review), it has been important to review them together in the context of this thesis in order to understand their impact on the design decisions of BOAC—in doing so, understanding the impact of the events on commercial British design.

Although it could be argued that events and moments such as the Festival of Britain and the debut of the de Havilland Comet were simply the tangible results of long-term planning by various state-controlled bodies (as discussed in previous chapters), it is the fact that all of them became reality in a relatively compressed timeframe that generates an interesting background to this study. From the introduction of the Comet as a real, passenger-carrying jet aircraft to the celebration of British culture on the Southbank with the Festival of Britain, the first four years of the 1950s marked a unique moment in Britain's history in which a utopian future seemed within the country's grasp. The four-year period also threw up unexpected events, notably the death of King George VI and in turn a new monarch, which added to the radical nature of the formative years of Britain's 1950s, leading to the notion of a country shedding off the old and ushering in the new.²⁴¹

²⁴¹ It should also be noted that this development was experienced on a global scale and most notably amongst the key proponents of the war, Russia embarking on what would become the Space Race in 1957 with the launch of the Sputnik satellite.

Yet spiking this utopia was the reality of the period. The British state was still in the throes of rationing, and while each of the events highlighted in this chapter can be read as a case study of the modernity of Britain's future, they also act as signposts to the complex and confusing nature of Britain's national identity, one steeped in tradition, both imagined and real. In reality it was this mixture, a concoction of modernity and tradition, that blunted the white heat of Britain's reconstruction. BOAC wasn't immune to this confusion. The Comet, the representation of so many firsts, lacked an interior that matched the aircraft's futuristic promise and, ultimately, even the aircraft itself would succumb to technical failure.

So, what does this chapter say about the impact of the jet aircraft on the national identity of Britain? In turn, how did this impact the Corporation and the design it employed? While the early 1950s is often treated as a key moment in the reconstruction of Britain and the redefinition of its national identity, it is this thesis's suggestion—from the evidence presented in this chapter—that the period, specifically the first four years of the decade, marked the final moments for much of the post-war idealism. Rather than the start of a new vibrancy in British identity and visual material culture, it is the suggestion of this thesis, via the evidence of this chapter, that it was the end of an era rather than a new beginning.

While this was the result of various factors, from the perspective of the British design establishment and BOAC, it marks a significant moment when its own self-initiated ideas and projects began to falter. For BOAC, as will be analysed in the next chapter, it led to the Corporation looking to the global market place for design solutions that would allow it to best present itself as an airline.

Chapter Seven

Chapter Seven, 1954 – 1960: The Modern BOAC Jet Aircraft and The Importance of The Consumer Experience

Introduction

While the years between 1950 and 1954, as discussed in the previous chapter, saw a series of progressive projects that British design and, in turn, BOAC, were involved in, many, such as the Festival of Britain, only really existed as conceptual ideals.

Indeed, in the space of only four years, the Corporation went from being at the centre of the development of a new vanguard in British aviation to being without suitable aircraft to fulfil its remit as a national carrier of Britain. The failure of the de Havilland Comet Mk I affirmed the haste to attain the modernity promised by the white heat of technological development.²⁴² It was this thirst for a technological utopia that British industry, design, and, therefore, BOAC, seemed unable to sustain in the long term. However, while the first four years of the 1950s were ultimately confused, then the remainder of the decade would prove, through a radical departure in the equipment and designers used, to be more decisive in terms of a designed identity for BOAC and the airline's aircraft interiors.

That is not to say that the themes explored in previous chapters do not reoccur: the tension between British-made and American-made aircraft is again present as manufacturers on both sides of the Atlantic (and the rest of the world) develop their own jet-powered aircraft and the identity of Britain is still torn between tradition and modernity.

However, through an increasing reliance on American-made equipment and an openness to European designers, the six-year period between 1954 and 1960 saw BOAC utilise various media and designers in order to create a unique and

²⁴² The phrase 'white heat of technology' was famously used by British Prime Minister Harold Wilson at the Labour Party Conference, 1st October 1963.

contemporary identity for itself. It is through the Corporation's aircraft interior that a unique sense of contemporary and British design can best be understood—one that would challenge the state-imposed procurement procedures of the Corporation (as outlined in the 1939 BOAC Act of Parliament) and that can now be viewed as challenging the assumed narrative of British design of the period.

This chapter considers several overlapping issues in order to understand this change of direction and how BOAC capitalised on its aircraft interiors. Central to understating this period is the development of the first American jet passenger aircraft by manufacturer Boeing and its retained design agency, Walter Dorwin Teague Associates. It was the approach of the manufacturer and the design agency to the Boeing 707 that would change the entire approach to passenger aircraft design. In order to understand this, the 707 is taken as a case study, supported by unique archival evidence from the Walter Dorwin Teague Papers Special Collections Research Center, Syracuse University Libraries. Through the material held at the archive, a new and unique study can explore the way American industry and industrial designers saw the development of aircraft interiors. In turn, and most importantly in the context of this thesis, how BOAC and British designers adopted this approach to aircraft design will be considered.

The late 1950s also saw a number of countries attain the technology for civilian jet aircraft. The new realities of the post-war marketplace are considered in relation to their impact on the Corporation and the British aviation industry. Part of this new reality was the increasing dominance of American- and European-made jet aircraft and the lack of suitable British alternatives. While de Havilland continued to redevelop the Comet, now known as the Mk 4, the reality of air transport as a mass-transport solution was clearly identified by the Corporation and led to the need for the

707 to be used while the Corporation waited on the new Comet and the development of Vicker's VC10.

While the Corporation lacked suitable aircraft and once again waited on concept aircraft to be developed or purchased, the Corporation took the opportunity to embrace the American approach to the aircraft interior and develop it alongside the main design of the aircraft. This also allows for an in-depth case study of an oft-overlooked designer of the period, Austrian émigré Gaby Schreiber. Schreiber had a major impact on British visual material culture at the end of the 1950s and in the early 1960s, one of her most notable projects being the complete redesign of BOAC's aircraft interiors across the whole fleet.

To illustrate this complex period in BOAC's history, a variety of archival material has been used, including periodicals of the de Havilland aircraft company, internal correspondence from Walter Dorwin Teague and the Boeing Aircraft Company, and BOAC's own company minutes. To support this primary evidence, various texts that concentrate on British design and the national identity of the period have also been used.

Walter Dowin Teague and the Modern Jet Aircraft Interior

Figure 67: Cartoon published in the *de Havilland Gazette*. Mill Green Museum, Hatfield.

It's interesting to note that, pre 1954, the British aircraft industry and BOAC's focus was on the technical achievement of the Comet as opposed to the interior that would be the most tangible aspect to passengers actually using the aircraft. Unlike the wartime planning that saw the interior as an essential feature of the BOAC brand, the focus of the Comet was the aircraft itself, with the interior being considered a secondary feature. Indeed, the *de Havilland Gazette* hinted at the contempt in which the interior design of aircraft was held with a cartoon in a 1958 , as seen in figure 67, edition of the magazine depicting a potential customer inspecting a lavish aircraft interior, more akin to a palace rather than an aircraft, and commenting: 'This is the standard cabin layout, but of course it can be modified to customers'

requirements.²⁴³ This was in stark contrast to the American approach. Despite being behind the British in its development of a civilian jet-powered aircraft, the approach of how an aircraft should be designed is revealed in a set of notes by designer Walter Dorwin Teague. The notes, dated June 1950, are considerations of how the Boeing passenger design should be approached, with Teague commenting that:

The primary function of the airline operators is to transport passengers, goods and merchandise, i.e. to sell service through the mediums of speed, efficiency, comfort, safety, and passenger appeal. Therefore, the airplane, as a product, should be designed with consumer acceptance in mind.²⁴⁴

Teague's thoughts mark another major shift, from the limited space and luxury of early flight, which was sold to the elite individual, to the whole of the aircraft being sold as a means to travel somewhere in comfort and safety. Comfort and safety became important selling points, but, importantly, Teague's approach to design signalled a move toward selling to the mass market and not just elite, luxury market passengers.

This is at odds with the British approach of designing an aircraft and then applying interior features, such as the passenger interior, at the last stage of the aircraft's manufacture.

The notes also reveal the key difference in British and American aircraft production: the American model assumed that a design agency was a key part of the development of the aircraft, with Teague going on to comment that 'we must broaden our goal toward which we are working, with the cooperation of the operators, to

²⁴³ *de Havilland Gazette*. Mill Green Museum, Hatfield

²⁴⁴ 'For Our Discussion of June 19, 1950 on Commercial Transport Project', July 31, 1950, Walter Dorwin Teague Papers Special Collections Research Center, Syracuse University Libraries.

include consumer acceptance. The result will prove profitable to all concerned.²⁴⁵

Although this may not be reflective of the American industry as a whole, it reveals the unique position that Teague held within Boeing and why Teague, as a design agency that had worked on predominantly brand work for major American corporations, understood the design work of a new aircraft as a 'product', something that would be consumed in the same way as a domestic product, a vehicle or any other product where a brand would act as a tool of communication between the intangible and the tangible. In much the same way that the agency would produce a series of designs for a new consumer product, being involved from the very start of a product's conception, Teague saw the process of the Boeing work as a similar, albeit much larger, project. For Teague, a new revolutionary aircraft was a project where 'many inter-related aspects of design which, when correlated in the right perspective and proper sequence, result in a successful product.'²⁴⁶

Central to Teague's design philosophy was the idea that the agency should work alongside its clients, on their premises, becoming part of their company; Teague believed that 'his industrial designers must live with the customer and work side-by-side with the experts there.'²⁴⁷ In doing this, Teague removed some of the suspicion between a design agency and a manufacturer, the design department becoming part of the everyday consideration in a design project.²⁴⁸

²⁴⁵ For Our Discussion, 1950

²⁴⁶ For Our Discussion, 1950

²⁴⁷ Aircraft Interiors International, April 2002

²⁴⁸ Teague continues in his memo, 'For our Discussion': 'Experience has taught that on matters concerning interior design details, arrangements, appointments and color everyone considers himself an expert. Therefore, in order to avoid the costly process of constant change created by such a condition, it is my opinion that definition of responsibilities be such that the airframe and installation groups make the necessary correlations of the interior design requirements early in their planning. The responsibility for the coordinating the design of the interior details, arrangement, appointments, and color should rest with one man. This man is to have the authority to make decisions on interior design problems as they arise, with the confidence and backing of the mock-up board. Detailed

The difference in language between British and American design is striking. While BOAC and its aircraft manufacturers referred to the design details of the aircraft interior as 'furnishings' and 'finishings', and designers as 'colour experts', Walter Dorwin Teague Associates was firmly an industrial design firm that controlled everything in the interior of the aircraft, suggesting the shape of the 'internal cross section', terms that are normally associated, certainly within British industry, with engineering specialists. Sketches held in the Boeing Historic Archive give more evidence of this, with the Teague team working on the placement of major internal framework elements to aid the efficient use of space within the aircraft interior (see figures 68 and 69).

Figure 68: An early sketch of the 707 galleys, c.1954. The sketch displays the approach of Teague as an industrial designer to aircraft design; it was designed as a whole, as a product. Walter Dorwin Teague Papers Special Collections Research Center, Syracuse University Libraries.

engineering drawings should be closely coordinated with the interior design group through this man in order that design interpretation can be checked for accuracy of detail.'

Figure 69: Teague's sketch of a possible seating plan and markings showing how this worked with potential movement through the cabin. Walter Dorwin Teague Papers Special Collections Research Center, Syracuse University Libraries.

By 1952, the design process of the 707 was well advanced, with the first prototype of the aircraft, known as the Dash-80, flying, and by 1954, the interior design for the aircraft was almost complete. It was certainly complete in terms of what Teague wanted to achieve for the aircraft. In a letter, titled 'Comments on the 707, interior to Boeing's Commercial Salesperson, Ralph Bell, Esq, in June 1954', Teague outlined his design philosophy for the aircraft, particularly one that was so advanced as the 707. He set out his desire that the aircraft shouldn't follow the contemporary design tropes of the period, arguing that when 'a plane is so revolutionary and advanced in engineering and capabilities as the 707, it certainly should not follow a stereotyped path in its interior.'²⁴⁹ Teague, as his comments above confirm, understood that the new aircraft required interiors that reflected the advanced nature of modern jets, noting that '[t]he passengers should immediately be conscious of the fact that they are traveling in a plane that is far superior to any other transport, marking the beginning of a new era in air travel.'²⁵⁰ It was this consciousness of modern transport that aircraft like the Comet Mk I had desperately lacked, relying instead on the

²⁴⁹ Walter Dorwin Teague letter to Commercial Sales, Ralph Bell, Esq, Comments on the 707 interior, June 15th 1954, Walter Dorwin Teague Papers Special Collections Research Center, Syracuse University Libraries.

²⁵⁰ Teague, June 15th 1954

novelty of jet-powered transport; the Comet's interiors were reflective of past interiors, those used in the Stratocruiser, Constellation or one of the several intermediate British aircraft types. To Teague, these aircraft had 'a somewhat tentative and experimental appearance on the inside'.²⁵¹ It was, in his opinion, down to the materials being used, the preference being for fabrics, as seen in the Lonsdale-Hands, Colgate, Day and Wells Coates BOAC interiors.²⁵² It was the nature of the materials that disturbed Teague the most, with their being 'mostly synthetic, which do not create an impression of strength and are not conducive to comfort';²⁵³ the designer commented that '[w]e accept them only because we are used to them and have not seen anything better.'²⁵⁴ Most of his annoyance, it seems, was reserved for the decorations of the interior, such as window curtains, on which the designer remarks:

[T]he impression of strength will be enhanced if we can eliminate the silly little curtains with which all planes are now equipped. A polaroid shade will be much more effective and appropriate and will be another mark of advance. The benefits to maintenance are obvious.²⁵⁵

²⁵¹ Ibid, Teague

²⁵² Day, designer of some of the most iconic pieces of furniture and products in post-war Britain, had worked with the Corporation since the early 1950s when he and Wells Coates were asked to design a bar for the Boeing Stratocruiser aircraft – unfortunately, no pictorial evidence exists for this, although archive material from British Airways does document the designers being hired for the work:

I am instructed that two eminent Architects and Designers are going to give consideration to the Cocktail bar on the Stratocruiser with a view to making it more attractive. In the first stage it was considered that interior re-decoration only would be sufficient but suggestions have now been put forward that envisage alterations to the bar that would involve the structure and the method of providing the passengers with their requirements. The names of the two gentlemen concerned are Mr. Wells-Coates and Mr. Robin Day.

C.A.919, Memo from Catering Manager, Brentford to Manager No.3 (Attn Ca.O.) L.A.P. (c.c. Deputy Chairman, Bretford, N.A. New York, 26th December 1950, British Airways Speedbird Centre).

The designer would take over from Schreiber on the Super VC10 aircraft, designing the seating that would eventually be introduced across the BOAC fleet, including the Boeing 707.

²⁵³ Ibid, Teague

²⁵⁴ Ibid, Teague

²⁵⁵ Ibid, Teague

For Walter Dorwin Teague, the 707 interior was much more than just fabric finishings. It necessitated the early involvement of the agency in the design of the 707 interior, which allowed for an:

[A]rchitectural effect which is not only new but is far more reassuring as to strength and dependability than any fabric wall could be – This is a feature that should be retained for its psychological value just as much as for the extra inches of rooms it allows.²⁵⁶

It is interesting to note Teague's language here. Introducing words such as 'architectural' and a dismissive tone that is very much at odds with the approach of British designers—the first Lonsdale-Hands interiors for the Corporation were referred to as 'finishings'. Teague's analysis of what his own 707 interior had and should have achieved is worth considering in the context of academic work written on the interior and how the aircraft interior should be considered. On the one hand, the aircraft is a private space, a heterotopia as defined by Foucault, sealed off from the outside world while the process of travel takes place. In this respect, the typical furnishing that Teague had documented was one of the domestic sphere, a private space that recalled for passengers the comforts of home. This, of course would appear to make sense to airlines, trying to create passenger appeal by focusing on the familiar. However, it is Teague who first recognises the aircraft interior as a public space, controlled by the airline and designed to make maintenance of the airline's aircraft as simple as possible.

The multiple meanings of the interior, as defined by Penny Sparke in her 2008 publication *The Modern Interior*, start to become a reality; in the Teague interior, the

²⁵⁶ Ibid, Teague

spheres of the domestic space and the public space are used to communicate a variety of messages to the early jet passenger.²⁵⁷

It is a drastic departure from the drab blues and grays that have become standard uniform for the plane interiors. The designers tell us that they believe that a trip on the Boeing 707 Stratoliner, the finest, fastest and most comfortable of modern planes, should also be a gay and pleasant experience. They don't believe somber colours are appropriate - they recommend an airborne palette of light, luminous and high-keyed tones, similar to the color ranges used in the more sophisticated interiors today.²⁵⁸

Teague goes on to reference the seats of aircraft and suggest that they should 'approach the effect of the best grade of modern furniture and I am sure will not give the slightest impression of bus seats, which all airplanes seats do today. Why should the modern planes be classed in this respect with the cheapest ground transportation.'²⁵⁹ An example of the final Teague 707 seat can be seen in **figure 70**, a colour rendering of the final seat. This can be compared to the seat used by BOAC in the Comet Mk I, shown in **figure 71**. While the Corporation's seating isn't the same as that used in 'cheap ground transportation', it does have the appearance of an armchair, rather than the functional appearance of the 707 seat. Although Teague was attempting to approach the 707 seating as a piece of highly designed modern furniture, when seen against the BOAC seating, what was produced was highly functional seating for mass transportation.

²⁵⁷An interesting review of the new 707 is given by aviation journalist Inez Robb in her article, 'Praise of 707 Jet' Unkown publication, c.1957. She notes that: On the outside, this first American passenger jet may look like a bat-out-of-hell, which it is supposed to out perform. But on the interior, it is as lush as a Hollywood boudoir, and passengers have never had it so gay.'

²⁵⁸ Teague, June 15th 1954

²⁵⁹ Teague, June 15th 1954

Figure 70: Colour rendering of the Teague-designed seat for the Boeing 707. Walter Dorwin Teague Papers Special Collections Research Center, Syracuse University Libraries.

Figure 71: The standard BOAC passenger seat, the 'Slumberette', was still used in the first Comets. British Airways Speedbird Centre, London.

Realities of the Post-Comet Disaster Marketplace²⁶⁰

The major failure of the Comet Mk I led to a complete redesign of the structural integrity of the aircraft. While it set the British aircraft industry back and meant the Corporation wouldn't operate a British-designed jet for four years, it did allow de Havilland and BOAC to consolidate the planned updates to the aircraft that would make it a truly intercontinental airliner, able to complete non-stop runs across the Atlantic with double the amount of paying passengers.²⁶¹ The resulting aircraft was the Comet 4.²⁶² However, whereas the first Comet was the only jet aircraft and therefore had no competitors, the 1958 relaunch of the Comet 4 needed to operate in a very different marketplace. As well as the Boeing 707 entering service in the same year as the Comet 4, other countries had also staked claims to the jet aircraft market. Russia had introduced the Tupolev TU-104B in 1956, and American manufacturer Douglas had introduced the DC-8 in 1958; in addition, the French-manufactured Sud Aviation SE 210 Caravelle entered service in 1959 along with the third American-manufactured jet airliner, the Convair 440 (figure 72).

²⁶⁰ This section, from page 166 to page 174, has been taken from a section of my Masters dissertation that focused on the development of BOAC at the end of the 1950s with the variety of aircraft types offered by the Americans and the lack of suitable British aircraft available.

²⁶¹ The introduction of the Comet 4 introduced the larger body and mass-transport seating that was planned for the Mk. II and Mk. III Comets.

²⁶² Material of the period refers to the first Comet as the Mk. 1., and later variants as Comets 2, 3 and 4.

Figure 72: Jet airliners developed and that entered service with other country's airlines between 1956 and 1959. (L–R) 9.1: The Russian Tupolev TU-104B (1956); 9.2: America's Douglas DC-8 (1958); 9.3: Convair 880 (1959); and 9.4: the French-made Sud Aviation SE 210 Caravelle (1959).

A case in point was the Boeing 707. First introduced into service by Pan American Airways in 1958, the aircraft could carry 171 passengers in high-density formation as opposed to the Comet 4, which could carry only 81 passengers. An obvious gap was beginning to emerge.²⁶³ BOAC, recognising the disastrous potential of running Comet 4s as their only jet aircraft until a suitable British alternative was developed, proposed acting as 'any commercial organisation' would if faced with a competitive disadvantage. In fact, it seems that the BOAC Board had identified this as soon as 1956 according to the minutes of a 'Special BOARD' meeting, held on the 22nd June that year, which describe the investigations into potential aircraft replacements:

On the evidence put before it, and for the reasons given in the remainder of this report, the committee have come to the clear conclusion that it is necessary for a minimum order to be placed as a matter of urgency for 17 Boeing 707 or Douglas DC.8 aircraft [...] if we are to secure our competitive position from 1960 on the routes west from London.²⁶⁴

²⁶³ High-density seating refers to the formation of seats in economy cabins being three either side of the aisle, as opposed to the Comet which was two either side of the aisle.

²⁶⁴ SPECIAL Meeting of BOARD held on 22 June 1956, Conclusions of Aircraft Requirement reports: 3.1, London, British Airways Heritage Centre, BOAC Annual Reports: 1952 – 1965

Yet, while the Board had taken the commercial decision to acquire American-made aircraft, it now had to be approved by its government controllers. So worried were the Board at the potential shortfall in competitive aircraft that, in a letter outlining the proposed purchase to the Minister of Transport and Civil Aviation, BOAC chairman Gerard D'Erlanger reinforced the critical nature of the American purchase being approved while also attempting to reassure the Minister that there was 'no change in the Corporation's policy to fly British' and adding that 'such policy must necessarily be subject to the availability of competitive British aircraft at the times when they were required'.^{265 266} As Boeing 707s were being delivered to the Corporation's competitors by the late 1950s, the Board had fixed 1960 as the essential date by which new aircraft had to be acquired if the business was to retain its competitive edge. To add urgency to the order being signed off, D'Erlanger reaffirms that the aircraft would 'give the Corporation almost its last opportunity to rank among the first-class airlines in the world and to occupy the place to which this country's traffic generating power entitles it.'²⁶⁷

BOAC and American Jet Aircraft

The government initially agreed with the recommendation of the BOAC Board and signed off the order for the Boeing aircraft (figure 73). Yet, when the news leaked that the national carrier was to order American-made aircraft without looking at a viable British solution, questions were raised in parliament, to which the Minister replied:

²⁶⁵ 311th Meeting of the BOARD held on 25th October 1956, British Airways Speedbird Centre, London.

²⁶⁶ Gerald D'Erlanger, later Sir, served as BOAC chairman between May 1958 and July 1960. Source: Robin Higham, *Speedbird: The Complete History of BOAC*, (London: I.B.Tauris, 2013)

²⁶⁷ 311th Meeting, 25th October 1956

The purchase of American aircraft in this instance has proved necessary in order that the Corporation may hold their competitive position on the North Atlantic route from 1959–60 when the Boeings will be in service with foreign airlines. At that time no suitable new British aircraft can be available for that purpose and this purchase is therefore regarded, both by the Government and by BOAC as an exceptional measure to bridge the gap until a new British type is produced.²⁶⁸

Figure 73: Image taken from the '311th Meeting of the BOARD held on 25th October 1956', where government approval for the purchase of 15 Boeing 707 is noted. British Airways Speedbird Centre, London.

Although no specific mention is made of the of the government statement that the purchase of the Boeing 707s was to 'bridge the gap while a new British type is

²⁶⁸ 311th Meeting, 25th October 1956

produced' it seems that an agreement of sorts did take place as the minutes of the '315th Meeting of the BOARD held on 27th December 1956' make clear mention of a de Havilland aircraft, named as D.H.118. The minutes go on to state that de Havilland would require a minimum order of 50 aircraft, which was a figure above and beyond the number desired by BOAC. As such, the following '316th Meeting of the BOARD held on 14th January 1957' records the Chairman informing the Board that 'there was no longer any obligation on the part of the Corporation to confine their search for suitable aircraft to de Havillands'.²⁶⁹ As a result of this, BOAC set up its own 'Aircraft Evaluation Committee' to assess all the possible options available from British manufacturers. The Committee reported its findings to the Corporation at a 'Special meeting of the BOARD 23rd March 1957' in which a total of 11 aircraft were assessed.

What seems clear from the findings of the 'Aircraft Evaluations Committee' is that none of the proposed British jet aircraft met the benchmark set by the Boeing 707.²⁷⁰ Although historian Mike Phipps describes in *The Brabazon Committee and British Airliners 1945–1960* that 'BOAC issued its requirements for an Africa & Australia "hot and high airfield" airliner', the Board meeting minutes clearly point towards a need to find an adequate British alternative to the American-made Boeings. In fact, following the findings of the Aircraft Evaluations Committee, the correct course of action may have been to purchase more Boeing 707s to add to their existing fleet, but, of course, this was not an option for the Board, which, under pressure from the government, needed to find a British solution for its future needs. The British government, in its quest to earn its place at the table of global powers, saw the design and manufacture

²⁶⁹ 311th Meeting, 25th October 1956

²⁷⁰ The report concludes that: 'A detailed examination of the HP.97 should be pursued with the manufacturers and its technical features discussed with the Ministry of Supply and RAE. To enable the proposal to be properly assessed, the manufacturers must submit a firm contract specification defining the aircraft in sufficient detail for the purpose'. This proposal seems to have been sidelined in favour of the VC10.

of jet aircraft within its own borders as the ultimate symbol of a country in charge of its destiny through cutting-edge technology. For Britain, this was to come in the form of the Vickers VC10.

The Vickers VC10

Figure 74: The Vickers VC10 was notable for its four rear-mounted engines, leading to a reduced noise inside the cabin. British Airways Speedbird Centre, London.

Between 1956 and 1958, it seems an order was placed with Vickers for what would eventually become the VC10, see figure 74.²⁷¹ The '335th Meeting of the BOARD held on 09th October 1958', the next available record available from the archive, mentions that aircraft were purchased including the 707 and the VC10.²⁷² There is then little reference to the VC10 in subsequent reports, at least little that is recorded, apart from occasional updates of technical data. However, a Chairman's introduction to the *BOAC Annual Report Accounts of 1959/60* indicates that the Corporation 'had committed itself to the purchase of 15 Boeing 707 and 35 Vickers VC10 turbo-jet aircraft at a cost of £90 million'.²⁷³ It seems strange that the Board should have

²⁷¹ Vickers was founded in 1828 as steel foundry. It became nationalised in 1977 and was absorbed into British Aerospace.

²⁷² Unfortunately, the records for the remainder of 1957 weren't available at the British Airways archive.

²⁷³ The reason given being the 'knowledge that these aircraft will show a lower cost per seat mile than the types they supersede, and in the expectation that the improved economics of the new aircraft can be passed on to the public in the form of cheaper fares.' BOAC board minutes, 1959, British Airways Speedbird Centre, London.

chosen the proposal from Vickers, with the AEC commenting that 'while [the] Vickers VC10 show[s] substantial improvement in operating cost over the Comet 4, [costs] are disappointingly higher than the Boeing 707-436.'²⁷⁴ These costs are reproduced in figure 75.

Figure 75: The chart above shows the Boeing 707 being significantly cheaper on a pence per passenger basis, particularly on the lucrative New York route. British Airways Speedbird Centre, London.

Promotional material for the VC10, see figure 15, announces the aircraft as 'Triumphant, swift, silent, serene'. Yet the process leading up to the introduction of the aircraft was anything but. In the introduction to the *1959/60 Annual Report and Accounts*, we see obvious frustrations beginning to emerge within the BOAC Board at not being able to purchase aircraft on their own terms while the British aircraft industry was unable to produce a commercially competitive aircraft:

²⁷⁴ BOAC board minute, 1957, British Airways Speedbird Centre, London.

The Corporation's experience has shown that long pre-operational periods, as well as extra flying, has involved the Corporation in more expenditure for British types than for American types. This is due to the fact that the Corporation is the first operator of any British types that it purchases, whereas an American type would be otherwise developed by the time the Corporation acquired it.²⁷⁵

The Board minutes for 1959 that follow make further passing comment on the technical development of the VC10. It is only in the 'Minutes of the 347th Meeting of the BOARD held on 12th November 1959', in a report entitled 'The Corporation's capacity needs up to 1966/67 and its attitude to the VC10', that we see the BOAC Board start to express serious misgivings about the contract entered into for the VC10 with Vickers. In fact, the report is compiled in order to prepare the Board for 'expected further approaches from the new Minister of Aviation to give Vickers further VC10 orders either of the present specification or in a developed and larger form'.²⁷⁶ Indeed, the paper remarks that 'the VC10 cannot help us in any of these situations until 1964 onwards' and that the Board may even have to 'consider the purchase of additional American aircraft in this interim period'.²⁷⁷ The report concludes with the recommendation that:

We should not at present increase our order for VC10s beyond 35 and we should maintain our right not to have to decide before August 1962 whether to take up any of our option order. We can see no case for ordering a small fleet of Super VC10s at this stage and in present conditions.²⁷⁸

²⁷⁵ SPECIAL Meeting of the BOARD held on 30th July 1959', listing the Chairmans introduction to Annual Report and Accounts.

²⁷⁶ SPECIAL Meeting of the BOARD, July, 1959.

²⁷⁷ SPECIAL Meeting of the BOARD, July, 1959.

²⁷⁸ 'The Corporation's capacity needs up to 1966/67 and its attitude to the VC10' taken from: 'Minutes of the 347th Meeting of the BOARD held on 12th November 1959'

The minutes reveal that Vickers did approach the BOAC Board again, this time with a proposal for an aircraft with increased capacity, the Super VC10. But the motivation for the proposal of this new aircraft on the part of Vickers had little to do with a desire to produce a better-performing British jet aircraft in comparison to the Boeing 707. Rather, it was a desperate attempt to increase cash flow for the production of the existing VC10

Gaby Schreiber and the Modern BOAC Jet Aircraft Interior²⁷⁹

While the Comet 4 was being redesigned and consideration given to future aircraft types, BOAC and de Havilland had an opportunity to approach the interior of the aircraft via a method similar to that of Boeing and Teague. While evidence doesn't exist to point to the redesigned Comet being treated like a 'product' in the way that Teague approached his aircraft design, documents from the British Airways archive record BOAC hiring a consultant designer to oversee the interior design and decoration of its aircraft interiors for the first time since its initial plans for the Tudor aircraft in 1945. The designer chosen for the task was Gaby Schreiber, an Austrian émigré interior designer. Schreiber had escaped Nazi-controlled Vienna in 1938, settling in London with her publisher husband, Leopold. Unlike many émigré designers and artists who fled to Britain prior to the War, Schreiber avoided the usual route of alien internment camps and settled, entering almost immediately into established London high society. The couple moved to Sloane Square upon entering England.²⁸⁰

Having been trained in art and stage design in Vienna, Florence and Berlin, Schreiber had established her own design studio in 1935, from which she undertook

²⁷⁹ Between pp. 175 and 182, sections of this material were used in a draft article to the Journal of Design History. This article was not published.

²⁸⁰ Schreiber's husband, Leopold, was a publisher with strong connections within London.

a wide range of design projects both as a 'decorator and designer, and gained a reputation for her designs for pottery, glass, light fittings and everyday household objects.'²⁸¹ Despite her émigré status in wartime Britain, she quickly made an impact on the British design community. In 1943, she set up her own agency, Gaby Schreiber & Associates, which continued the multidisciplinary nature of her work in both product and interior design.²⁸²

Schreiber's aircraft interiors make an interesting case study in the context of the impact that BOAC had on modern British design history. This was the first time a standardised interior scheme had been adopted by the airline, bringing it into line with the original 1946 Speedbird article, which had underlined the importance of consistency for the brand. This understanding of the importance of consistency together with her knowledge of the application of multiple materials for interiors would be central to Schreiber's approach to the BOAC interiors of the late '50s and early '60s.²⁸³ The scale of designing an aircraft interior is put into context by the same press release:

The scheme includes not only the furnishings which are put into aircraft by operators after delivery from the manufacturers – the chair coverings, carpets, curtains, bed linen, crockery, e.t.c. – but the visible interior surfaces of the structure of the aircraft. These include the lining of the walls and ceilings and the decorative surfaces of the bulkhead, window reveals, and fittings of lavatories, pantry and galleys.²⁸⁴

²⁸¹ <http://arts.brighton.ac.uk/collections/design-archives/projects/women-designers/gaby-schreiber> - Accessed 17/10/2013.

²⁸² She was also commissioned as design executive for Runcolite plastics, some of the items – such as kitchen side cabinets – were truly revolutionary in their use of pioneering molded plastic techniques, especially in the context of post war austerity. Indeed, so revolutionary were the products that they would be displayed at the Museum of Modern Art New York.

²⁸³ As is noted in the press-release: "In addition to considerations of visual characteristics, texture, durability and weight (which are often incompatible), ease and economy of maintenance and the interchangeability [sic] of components such as seating necessitated meticulous reconciliation."

²⁸⁴ BOAC press release, 1958, London, British Airways Speedbird Centre.

Her first interiors, implemented across the BOAC fleet, were showcased in the new Comet 4, the Bristol Britannia and the soon-to-be-introduced Boeing 707. The interiors are most notable for their striking use of colour, pattern and texture, creating a 'modest sparkle of corn and pale blue linen head-rest covers, oatmeal and pale-blue seat coverings, stone and turquoise chair arms, brown and white check curtains and subtly varied cushions, all set against a background of green-blue carpet and oyster ceiling.'²⁸⁵

This was in contrast to the earlier BOAC interiors, which followed a strict palette of muted greys and blues, broken up only by wooden detailing, and creating the desired effect of an executive lounge rather than emulating the zeitgeist of jet-powered air travel. Schreiber's interiors, although in keeping with the BOAC-sanctioned colour scheme, sought to use colour to visually engage the passenger and break up the monotony of the interior. This was an essential part of the Schreiber design, as the press release titled 'Colour in the Sky' notes:

For many years Gaby Schreiber's organisation has been making a psychological analysis of the colour preferences of the air traveller in relation to the peculiar circumstances and as a result has produced an aircraft interior that remains equally attractive throughout the varied exterior conditions encountered during a long flight. In this respect particularly, the patterning of colour proved to be as important as shade and colour.²⁸⁶

Her scheme was, in effect, a move towards the realisation of luxury and glamour that is so often referenced in air-travel histories, as a press image from de Havilland's own in-house publication *de Havilland Gazette*, depicts in **figure 76**.

²⁸⁵ *Flight* 'Colour Consciousness', October 17 1958, p. 639.

²⁸⁶ BOAC press release, 1958.

Figure 76: Gaby Schreiber's Comet 4 interiors, first published in the *de Havilland Gazette*. Mill Green Museum, Hatfield.

Most notable was the use of patterning on the cabin walls, particularly in 'public' spaces such as the galley or toilet areas. Although credited as part of the Schreiber design, the work was designed by Jacqueline Groag, a textile designer commissioned by Schreiber to design all textiles and patterns for the aircraft interior. Like other émigré designers escaping persecution, Groag fled German-controlled Czechoslovakia along with her architect husband, Jacques, and came to join a key group of designers called upon by the CoID. Groag's patterns, such as *Grasses*, are

an example of Schreiber actively choosing to use contemporary design for the interiors (figure 77).²⁸⁷

Figure 77: Image of the Comet 4 galley, with Jacqueline Groag's 'Grasses' pattern on the cabin walls.
Gaby Schreiber Archive, V&A Blythe House, London.

However, while Schreiber seemingly had absolute control over the implementation of her interiors for British aircraft, American manufacturers and designers were less keen to recognise her as a consultant of influence. Rather, she was referred to as merely adding 'colour and finishings'. This lack of recognition is further evidenced in her never actually working directly with Boeing on their 707 jet aircraft. Rather, she

²⁸⁷ Jacque Groag, was a key émigré architect, working on the Festival of Britain pavilions and mentioned in the first list of CoID approved designers to work with BOAC.

was required to work in partnership with the aircraft manufacturer's retained design agency, Walter Dorwin Teague Associates, themselves the designers of the majority of interiors for other airlines purchasing the 707. Interestingly, it was BOAC who insisted that changes be made to Teague's proposed interior and that their own Schreiber-designed interior be implemented.²⁸⁸

A series of letters (figures 78 and 79), held by the Boeing Historic Archive, dating between 1957 and 1960, from Schreiber to Frank Del Giudice, head of Teague's Seattle office, record the nature of the relationship between the original designer and the American manufacturer's design agency. The correspondence starts in October 1957, with Schreiber sending through samples of materials for Giudice to match with American-made and manufactured materials. Although the letters reveal that Schreiber acted as a creative director on the project, with the designer signing off changes to the original design, a letter from May 1958 shows that she was sometimes removed from the decision-making process, with Schreiber commenting:

It is imperative that we should have... samples of the materials which are being used... apart from other considerations, these are needed when selecting additional materials and designs such as those for drapes to be used throughout the aircraft.²⁸⁹

By 1962, Schreiber had been replaced as design consultant to the Corporation by famed British designer, Robin Day. This was by no means the end of her influence on British design, with later projects including cabin designs for the Cunard QE2 and an interior for the National Westminster Bank in Brussels.²⁹⁰ But she would be the

²⁸⁸ A revealing document held at The Walter Dorwin Teague Papers Special Collections Research Center, Syracuse University Libraries, entitled 'Analysis of Comments – New York Mockup' shows the feedback given on specific areas of the interior for each the first 13 airlines to view the first 707 mock-up interior. Most of the comments, such as those from Pan Am, American Airlines and TWA, are focused on the practicalities of furnishing the interior of an aircraft, such as 'Upholstery should be demountable to float in an emergency'. Interestingly, BOAC's comments seem more concerned with the aesthetics proposed by the American company not meeting the standards of British taste, such as 'British public wd [sic] note generally accept wide use of plastic mtls [sic] & brite [sic] colors [sic]'.

²⁸⁹ Letter from Gaby Schreiber to Frank Del Giudice. 1958, Boeing Historic Archive, Seattle, WA.

²⁹⁰ 'National Westminster' in *Design*, 1972, 281, pp. 50-51

last European émigré and woman to work on a BOAC design project. The airline would still seek assistance from people of non-British origins, just to very different ends. While, in the post-war period, the Corporation's aim had been to create modern contemporary interiors, using British or European-trained émigré designers to that end, by 1964 their focus had changed in light of the perceived superiority of American aircraft interiors. As such, their attention turned to the American designers who would help them achieve their ambitions. It was the relationship with Boeing that seemed to usher in this new approach, leading to, as will be seen in the next chapters, a homogenised approach to the design of the aircraft interior, with only minor changes being made by the airline on aircraft interior designs otherwise controlled by the American manufacturer's in-house design agency, Walter Dorwin Teague, or, in certain cases, American designers being specifically hired in order to 'Americanise' British aircraft interiors.

Figure 78: A letter from Gaby Schreiber to Walter Dorwin Teague's Frank Del Giudice asking for clarification on Schreiber's suggested design treatment for the 707 interior. The letter is revealing of BOAC's appointed designers being left out of design decisions by the American agency. Boeing Historic Archive, Seattle, WA, May 1958.

Figure 79: Colour samples matched to Boeing's own colour references for the Schreiber 707 interior.
Boeing Historic Archive, Seattle, WA, May 1958.

A Unique BOAC Identity

If the years between 1950 and 1954 marked rapid change in the conceptual notions of what it was to be British, then the six years between 1954 and 1960 marked when some of these visions became tangible. However, it wasn't the purist, utopian vision of the Festival; rather, it was a unique identity formulated by BOAC, mixing the

notions of the early '50s with key ideas of American commercial design, as set out by Walter Dorwin Teague, designed by the Austrian-born designer Schreiber and implemented by Teague's own agency at Boeing. While the period is still fraught with the complexities and pressure to use British-made equipment, resulting in the development of unwanted aircraft such as the VC10, the Corporation acts with a unique vision, presenting and representing modern British identity. It is accepting of the failure of the aircraft industry and the wider influence of the state, forming a bricolage identity, formed of the best equipment and created by the best designers for the job. In many ways, it is this identity of the late '50s that pre-dates the assumed modernity achieved by Britain in the 1960s.

A significant part of this was due to Walter Dorwin Teague and his theories of how the design of an aircraft should be approached. BOAC was exposed to this thinking due to the need to use Boeing aircraft on account of the failure of the British aviation industry. While the Corporation began to realise the need for a standardised modern interior across its aircraft interiors, as implemented by Gaby Schreiber (notably in the Comet 4 and the VC10), the design process was still being approached as separated projects, rather than as a whole, as defined by Teague.

Chapter Eight

Chapter Eight, 1960–1967: 'British Designers Left Out in the Cold'²⁹¹

The previous chapters of this thesis have focused on BOAC's attempts to equip and position itself in the post-war marketplace. Although these years included long periods of stagnation as the Corporation awaited new aircraft types, by the start of 1960, BOAC was already operating the new Comet 4, was soon to receive its first American-made Boeing 707 aircraft, and was in the final stages of development with Vickers for the second generation of British jet aircraft, the VC10.

The seven-year period that this chapter investigates sees the Corporation develop into a truly international brand, one which is reinforced by the newfound confidence in Britain achieving much of the modernity promised at the start of the 1950s. It is also the period when, more so than previous decades, the aircraft interior is understood as a key signifier for airlines. In part this is due to the impact that the jet aircraft had on international travel. It was the introduction of the jet aircraft that opened up the idea of a truly global form of transport, dramatically reducing intercontinental travel times; many authors have pointed to this as a key catalyst in globalisation.²⁹²

In many ways the modern world is inconceivable without these new forms of long-distance transportation and travel. It is not the pedestrian flâneur who is emblematic of modernity but rather the train passenger, car driver and jet plane passenger.²⁹³

However, while this is now a familiar understanding of the impact of the jet aircraft, publications and commentators at the time were equally concerned with the discrepancies between the American and European approaches to design in the

²⁹¹ Robert Spark, 'Survey: Aircraft interiors' in *Design*, 1965, p.201

²⁹² This is a theme also highlighted by McLuhan in the *Medium is the Message*

²⁹³ Scott Lash and John Urry, 'Globalization and Modernity: Mobility, Modernity and Place' in *Economies of Signs and Spaces* (London: Sage 1994), p.252

aircraft interior. For example, Molly Neal wrote in a 1960 edition of *Flight* magazine that:²⁹⁴

It is now fair to assert that the British air-transport industry —constructors and operators—are very seriously concerned with making their aircraft interiors more attractive and effective. But so are the Continental and American industries, and designers in the United States have certain advantages over their European counterparts.

While Neal confirms much of what BOAC was aware of in the late 1950s, as covered in the previous chapter, it is interesting to note that the design and aviation press were only just noticing the specific importance of the interior, and the advantages that American designers and manufacturers held over their European counterparts, with the article going on to note:

The American aircraft industry is large enough to offer a mass market for cabin equipment, furnishings and fabrics, and it is consequently a commercial proposition for manufacturers of these ancillary goods to develop materials and products especially for aircraft use. This is not the case in this country, where it is often extremely difficult to find manufacturers willing to carry out special projects for the airlines, and it is inevitably costly.²⁹⁵

Neal's piece confirms what BOAC was aware of throughout the 1950s: The difference in the approach and size of the American aviation industry was in stark contrast to that of the British industry. It is a theme that recurs throughout this chapter, and raises several other areas for discussion, including the impact of American designers in Britain, and the sidelining of British design talent or, as a 1965 *Design* article noted, 'British Designers Left Out in the Cold'.

²⁹⁴ Molly Neal was a regular contributor to articles on design in the aircraft interior for *Flight* magazine.

²⁹⁵ Molly Neal, 'Transport Interiors: The art and engineering of furnishing an airliner', *Flight*, 22nd January 1960, p.113

However, while increasing Americanisation undoubtedly impacted the British design industry, the seven years between 1960 and 1967 also mark the moment when the aircraft interior transcends national boundaries and becomes truly global. It is this which the chapter attempts to frame—the positive nature of Americanisation and its subsequent impact on the BOAC aircraft interior. In order to understand this complex time, this chapter will unpack this shift by looking at several themes that have either never been considered or haven't been considered in this context. So, for BOAC, it is a time when, freed from its restrictive Act of Parliament, the Corporation attained aircraft that allow it to function to its full potential; it means that the design process is started in Britain but implemented in Seattle; for Boeing, it means the recognition of jet aircraft, allowing for the mass transportation of passengers, as evidenced by their epic 747 project; it is also when aircraft projects become joint, co-operative ventures between nations, such as the British and French Concorde. In addition, debates are raised over the direction of future travel, the 747 representative of the more democratic, transport for many paths, and Concorde reflecting the elite status of flight. Ultimately, through these themes, another unique contribution to knowledge can be made.

The archive and materials from the period have been essential to clarifying this unique contribution. Key to this is the first-hand insight attained from a designer of the period, Robert Price. Supporting this is a range of archival material taken from the Boeing Historic Archive and British Airways Speedbird Centre. Added context to this material came from periodicals of the time: *Flight*, a weekly publication for the aviation industry; and *Design*, the CoLD-produced publication. Both of these publications provided context from the respective industries.

To support this, various reports and reviews from the decade have been referred to, highlighting the increasing importance of the aircraft cabin to differentiate between

brands as the aircraft operated become almost indistinguishable from each other. Although, at the start of the decade, designers such as Schreiber and Groag continued to produce interiors for the Corporation's aircraft, it is also a period that saw the Corporation move away from European designers, opting instead for British and American aesthetics.

The Increasing Appeal of the Aircraft Interior

This chapter charts the change in the aircraft interior during the 1960s, and, as such, the start of the decade pointed to the importance with which the interior and the interior designer were held. Periodicals of the time, such as *Flight*, constantly return to the subject, with at least one yearly review of developments in the field. An article from January 1960 entitled 'Interior Industry' highlights the disparity with which the British aviation industry had approached the interior, seeing it as a trade-off between the engineering of the aircraft and the design of the interior:

Inevitably, perhaps, the often spectacular technical aspects of airliner design—those concerned with power plants, systems or performance—attract the most attention, and details of interior equipment concerned primarily with passenger-appeal and comfort tend to receive less consideration than their importance merits. In this *Flight* special feature the subject is examined in detail, first in a review of current British-made equipment and then in an article on the technical and aesthetic factors involved.²⁹⁶

Key to this 1960 review was an article by Molly Neal titled 'Transport Interiors: The Art and Engineering of Furnishing an Airliner'. Neal outlined the responsibilities of the interior designer if 'he' is to produce a successful interior, mainly the understanding of

²⁹⁶ 'Interior Industry', *Flight*, 22nd January 1960, pp. 105 – 114

the structure and design processes of the aircraft and an in-depth knowledge of the materials and finishing that are appropriate in the aircraft interior.²⁹⁷

Thus the interior designer, as well as being an artist and a craftsman, must have a good understanding of the anatomy of the vehicle and of its operational problems. He must know how materials stand up to service conditions, and must be conversant with development in new fabrics, furnishings and equipment (in fact he will probably be the initiator of many such developments). He will have to spend many hours in the air to ensure that his decorative schemes are effective in the very different lighting conditions experienced at high altitude, and that they are suitable for the climatic variations encountered on all likely routes. He will also want to study the reactions of average passengers: whether they have trouble in locating artfully concealed ashtrays, whether they are comfortable or restless, how they react to different colours, whether the lush Lurex-trimmed seat upholstery is detrimental to the ladies' nylons, and so on.²⁹⁸

The language also changed. Rather than being an 'interior colour scheme', as was suggested for the Corporation's first aircraft, such as the first Comet in 1949, the modern 1960s designer had to consider 'fabrics, furnishings and equipment', suggestive of the expanded role of the designer. Indeed, to highlight the expanded role of the designer, Neal uses BOAC's own interior designer, Gaby Schreiber, as a case of a designer stating the importance of the interior and its role in stimulating sales to overseas passengers:

She [Schreiber] believes that far more can be done to make the transport aeroplane really pleasant to travel in; and if the British industry can find the way to do this, then British airliners will increasingly attract not only passengers but also overseas sales. She would like to see key members of the transport and manufacturing industries

²⁹⁷ It is interesting to note that the designer is still referred to as a 'he', even though *Flight* has previously featured designs by women designers such as Gaby Schreiber.

²⁹⁸ Neal, 22nd January 1960, p.110

getting together to determine policy with the leading consultants in the field of industrial design. Chief executives, sales directors, and such people as design engineers engaged on structural and systems details should all be represented on the panel. She has already approached a number of well-known aviation personalities, and within a year it is probable that the panel will become a clearing-house of engineering information, good taste and dynamic new ideas.²⁹⁹

Although, earlier in the article, designers are referred to as 'he', using Schreiber as a case study notes the impact the designer made on the industry, and that the impact isn't that she is just a woman designer, but that she is making genuine attempts to modernise the approach to aircraft design in Britain. Indeed, a letter from Gaby Schreiber's archive (held at the V&A) notes the designer requesting the formation of a design Board to include key members of industry and state, including the CoID, (figure 80).³⁰⁰ However, as the *de Havilland Gazette* cartoon noted in the previous chapter, the efforts of designers like Schreiber to unify the varying groups involved in the design of an aircraft were still met with disdain in certain quarters:

There is still, unfortunately, a slight tendency among a few aircraft engineers to regard all such efforts as "arty" eyewash, and to treat stylists as prima donnas who are to be suffered, not welcomed, and who contribute little to the airliner as a practical vehicle. Yet the fact remains that they are of very great, and rapidly increasing, importance.³⁰¹

While the article in *Flight* expresses the ideas that Walter Dorwin Teague revealed some five years earlier, and the language is still, to some extent, couched in that of the CoID, the 1960 Neal article is a major moment in the wider recognition of British

²⁹⁹ Neal, 22nd January, 1960, pp.113 – 114

³⁰⁰ This image was previously used in my MA dissertation.

³⁰¹ Neal, 22nd January, 1960, p.114

commercial design.³⁰²

Figure 80: Letter from Gaby Schreiber to Mr J.R. Finnimore, aircraft development manager of BOAC, discussing the possibility of setting up a Design Panel for BOAC. Gaby Schreiber Archive, V&A Blythe House, London.

Interestingly, rather than just stating that the interior is just as important as the rest of the aircraft, there is also a realisation that different journeys would require different interiors and would, therefore, entail different design needs; Neal went on to note

³⁰² It follows that in so competitive a world nothing can be left undone which might increase the appeal of the aircraft to a potential customer, and the engineering of the interior can now be regarded as being in every way as important as the engineering of the vehicle as a whole. Like politeness, good design, costs little, and it can similarly pay handsome dividends. Neal, 22nd January, 1960, p.114

this, comparing Schreiber's work for BOAC and James Gardener's work for sister airline, BEA.³⁰³

There is an interesting contrast in approach between Mr. Gardner, who caters for the short-range, high-intensity seasonal operator, and Gaby Schreiber, who has concentrated upon long-haulers. The former looks upon his aircraft as a bus; Mrs. Schreiber sees it more as a traveling home-from-home, and emphasizes psychological considerations which Mr. Gardner is inclined to discount.³⁰⁴

This extract, while highlighting the differences in background between Gardner, the industrial designer, and Schreiber, the interior designer, also marks an important development for the interior. By identifying the differing needs between the short-haul and long-haul interiors, the extract points toward the separation taking place in the marketplace for mass-transport—the market begins to control and dictate the role of the journey and therefore the designers required for the interior. This, in turn, could be extrapolated to understand how these differing interiors are reflected in the branding and identity of different brands—in this case, BEA and BOAC.

This echoes similar studies of the period, such as that carried out by American aircraft manufacturer Douglas. In fact, as noted by the weekly column, 'Furnishing & Finishing' in *Flight* magazine (figure 81), by the mid-1960s American aircraft producers had produced a number of studies on seating. One such example featured in the magazine was a report titled 'The Passenger' compiled by Mr Stanley Lippert of the Douglas Interiors Design Group.³⁰⁵ The magazine reproduced a formal tabulation of 'design considerations with respect to comfort', as we see below:³⁰⁶

³⁰⁴ Neal, 22nd January, 1960, p.110

³⁰⁵ Part of the American aircraft manufacturer, Douglas.

³⁰⁶ This paragraph and the table from Douglas was previously used in my MA dissertation where I discussed the seating used by BOAC.

0–½hr: Seat construction not critical. Compare to rush hour streetcar, bus and train.

½ to 2hr: Seat should provide reasonable comfort, but space may be limited without causing an undue number of complaints.

2 to 4hr: Seat space should be adequate. A reasonable refinement of design to give comfort for both coach and first-class passengers is required.

4 to 8hr: Seat space allowance critical. Seat design critical. Foot-rests desirable.
Leg-rests optional.

8 to 16hr: Seat space allowance critical. Seat design critical. Leg-rests desirable.

Best seats will receive some complaints. Some activity and change of place and pace desirable.³⁰⁷

However, while the British press was buoyed by designers' new confidence and recognition in the industry, American designers viewed much of their work with disdain.

³⁰⁷ Blackburn, *Flight*, 1964, p.133. This table was previously used in my MA dissertation in relation to the BOAC seating.

Figure 81: A page from *Flight* magazine's series of articles on the aircraft interior industry.

Robert Price: American Designer for British Aircraft Interiors

Figure 82: BEA Vickers Viking interior designed by James Gardner, c.1960.

Figure 83: Charles Butler Associates Viscount Interior, c.1960.

While secondary sources are often used as sources to shed light on a historical period, and have been used extensively in this study, a first-hand source has been invaluable in adding a completely new and unique voice to the analysis; American designer, Robert Price, Vice President of aircraft design agency Charles Butler Associates (CBA), gave his own views on this difference in interiors.³⁰⁸ CBA were hired by British aircraft manufacturer Vickers to provide the interior design of the company's Viscount aircraft in an attempt to make it appeal to airlines outside of the UK.

Charles Butler and his eponymously named design agency played an essential role in the development of the British aircraft interior and, in turn, the mid-century British design industry. A biography of the designer is hard to find, but the most detailed account has been assembled by USS Intrepid Air Museum Vice President, John Zukowsky, in his essay: 'Design for the Jet Age: Charles Butler and Uwe Schneider'. A full extract of the piece has been added to the footnotes of this page, but the key details are these: trained in Architecture & Design at Pennsylvania Museum School of Industrial Design, he joined Raymond Loewy's design firm in 1944, where he worked on a variety of aircraft interior design projects before leaving the firm in 1948 to set up his own agency, CBA. Undoubtedly, the time spent with Loewy added to the pedigree of Butler's design reputation, with his first solo commission being the customisation of the Walter Dorwin Teague-designed Stratocruisers for American regional airline, Northwest.³⁰⁹

³⁰⁸ Charles Butler Associates was the eponymous agency of industrial designer Charles Butler. The firm worked on a number of design projects related to air transport, the most notable being Concorde and later, the Bell Jet Ranger helicopter.

³⁰⁹ The popularity of these new planes in North America led Butler to other jobs for British aircraft companies, although he was no newcomer to aircraft interior design even when TCA hired him. By then, Butler had customized interiors for Northwest's Stratocruisers in the late '40s (interiors originally designed for Boeing by Walter Dorwin Teague), as well as worked in Raymond Loewy's office from 1944-48, most probably on Martin PBM-5 seaplanes and the company's 202-404 aircraft. Butler, previously trained in architecture and design under Alexey Brodovitch in the Pennsylvania Museum School of Industrial Design (later Philadelphia College of Art and now the University of the Arts, in Philadelphia) in the '30s, left Loewy's firm in January 1948 to begin his own practice. He also worked on

By the late 1950s Butler had assembled an impressive client list of American regional and international airlines, his client list including interiors for Continental Airlines and branding work for Trans World Airlines (TWA). It was his well-established work in designing interiors for the mass-market regional airlines of America that led to Trans Canada Airlines (TCA) working on the Viscount aircraft, with Zukowsky noting that:

TCA had Butler "Americanize" the original interiors; he brightened the palette, squared off the seats, and made extensive use of new materials, particularly with Duracote or PVC-coated aluminium for the luggage rack and ceiling, replacing the rather old fashioned nylon netting that Vickers has in their interiors. The success of this job for TCA in 1953–54 prompted the Washington, DC-based Capital Airlines to hire Butler in 1954 to do the interiors of its new Viscounts.³¹⁰

While it is not a BOAC aircraft, it provides an important example, demonstrating how British manufacturers were now trying to keep pace with American manufacturers and airlines in a growing global aviation market – notably through new materials that reflected a contemporary understanding of interior design. Robert Price highlighted this in an interview in January 2013.³¹¹ Quoting the first British CBA project, the Vickers Viscount aircraft interior, as an example, Price describes the reasons behind hiring his agency:³¹²

[points to picture of the original Viscount interior figure 82], that's what Peter Cambridge [a British designer also working at CBA] would call a little... agricultural! You couldn't blame either one, either Vickers or [James] Gardner because Vickers

converting former military transports to corporate aircraft in this period.

³¹⁰ John Zukowsky, 'Design for the Jet Age: Charles Butler and Uwe Schneider', *Design Issues*, Vol.13, No.3 (Autumn, 1997), p.69

³¹¹ A full transcript is attached in the Appendix C.

³¹² Zukowsky notes on page 70 of his article that: 'He was subsequently hired to design many British airliner interiors in the 1960s – the Bristol Britannia and similar Canadair CL-44 (1956-60), the Vickers Vanguard (1957-60) for TCA and all Vickers VC-10s (1962), the BAC-111 (1962-63), the Hawker-Siddeley trident (1958/59 – 63/64), and even the British Aerospace Concorde (designed 1966-67, entered service 1976).'

had been doing bombers during the war and they were not doing sophisticated interiors... the interiors, you know, they've got screws that you could see. Well, this didn't go over well at all with the people from TCA so the British of course said, "well OK, what do you want? OK, we'll get our own American designer".³¹³

What Price describes here is the design process for the aircraft. Having secured the sale of the aircraft to TCA, the airline rejected the standard styling that was provided by Vickers. While airlines demanding their own interior specifications is the very basis of this thesis, it is the issue that is identified by TCA that is most interesting—that the interior did not meet their expectations of design standards for an aircraft interior. This was an interior designed by a notable British designer, James Gardner, and the interior itself included design features that the CoID had highlighted as innovative in its *Deadly Lampshade* film. Making a comparison and analysing the differences of the two respective interiors from a modern perspective, the differences may seem minute, but there are features that seem to echo Price's commentary: the TCA interior's features, such as luggage racks, passenger lighting and air-conditioning, appeared to be moulded from the cabin interior wall itself. Compare that to the original interior and these same elements are clearly fixed in place. It was this level of detail that was deemed to separate the approach of American and British designers, certainly from Price's point of view. The decision by Vickers to Americanise the interiors led to the Viscount being one of the bestselling British aircraft; by the end of its life, the aircraft had global sales totalling in excess of 400. It also led Vickers to retain CBA as the interior architects on their aircraft projects, including the VC10 and SuperVC10.

³¹³ Author's own interview with Robert Price, January 2013, Peterborough, NH.

Figure 84: The TCA version of the Vickers Viscount, with an interior designed by Robert Price at Charles Butler Associates.

Figure 85: Former CBA Vice President and designer, Robert Price pictured at home in New Hampshire, January 2013. Author's photo.

Figure 86: Page taken from the Robert Spark 'Survey: Aircraft Interiors' in *Design*, 201, 1965, p.42.

Figure 87: Page taken from the Robert Spark 'Survey: Aircraft Interiors' that focuses on the VC10 interior design by CBA and Robin Day. *Design*, 201, 1965, p.44.

A Highly Developed Design Consciousness in the Aircraft Interior

The growth of both air routes and numbers of passengers is dramatic. In 1945, the yardstick for the commercial airliner was the twin-engined Douglas *DC3*; today, it is the second-generation jet; in the future, it will be the supersonic transport.³¹⁴

By the mid-'60s more attention was being paid to the importance of aircraft design in the wider design press. This was emphasised during the mid-'60s, a period which saw the introduction of what *Design* referred to as the 'second-generation of jets on world air routes', noting that the new aircraft 'have focused attention on developments in aircraft interiors'.³¹⁵ The article by Robert Spark, featured in 1965 edition of the *CoID* magazine (figures 86& 87), gave an eleven-page review of the new aircraft that would be introduced by the world's major airlines. Although aviation, internal BOAC and manufacturers' publications had all focused on the interior design of aircraft, as has been referenced earlier in this chapter and thesis, this article marks the first public acknowledgement by *Design* magazine of the importance of interior design to the success of newly developed aircraft. As the article goes on to say:

These developments also raise the question of the importance of interior design in the success of a modern airliner, and the extent to which the influence of soundly designed interiors in the British and American aircraft industries is reflected in the sales of civil aircraft over the last 10 years. If factual answers to these points are not easily obtainable, there is one thing that is quite certain: interior design is vital to the success of an aircraft, in both its purchase and its subsequent operation.³¹⁶

As well as highlighting the importance of interior design, the article also focused on the issues facing the British aircraft industry and designers in the face of the near

³¹⁴ Robert Spark, 'Survey: Aircraft interiors: 1965' in *Design*, 201, p.39

³¹⁵ Sparke, 1965, p.39

³¹⁶ *Ibid.*, p.39

dominance of the American competition.³¹⁷ While the dominance of the American manufacturer has been a recurring theme, mainly in the context of the aircraft available in the years immediately following the Second World War, British industry had developed several options for domestically manufactured aircraft so as to fulfil the 1939 BOAC Act of Parliament.³¹⁸ However, with the successive failures of several proposed aircraft types, including the Tudor I and II, Brabazon and several prototype jet aircraft, American manufacturers were able to consolidate their post-war advantage:

In the expansion of the market itself, the American industry has predominated its technical lead, gained during the war in the design and construction of large transport aircraft, and was of immense value.³¹⁹

Although Spark was quick to highlight the successes of the British manufacturers, such as de Havilland and Vickers, with their Comet and Viscount aircraft respectively, even these aircraft carried complex stories of their development, as previously described.³²⁰ The key to American success, as Teague noted in his 1955 notes on the 707, was passenger appeal:

It is significant that American manufacturers realised before British constructors the vital importance of 'passenger appeal'. Where technical supremacy overshadowed all other considerations – as with the *Viscount*, for example – interior design was not so vital.³²¹

³¹⁷ It is interesting to note that of the six aircraft profiled in the article, five were from British manufacturers, while only one, the Boeing 727 was from an American company.

³¹⁸ As stated in Chapter Two, the 1939 Act of Parliament stated that BOAC was required to use equipment manufactured within the Commonwealth.

³¹⁹ Spark, 1965, p.39

³²⁰ Spark continues: "While Britain's major victory has been the turbo-prop *Viscount*, over 400 examples of which have been sold. An early triumph was the pure jet *Comet I*, which might have surpassed the *Viscount*'s sales but for the unfortunate accidents which occurred during the early stages of its operation" Spark, *Design*, 1965, p.39

³²¹ Spark, 1965, P.40

Despite Gaby Schreiber's work on the BOAC fleet, which was the closest that the British industry had got to an American approach to making passenger appeal a central focus in the development of the aircraft, Spark highlighted the essential nature of the aircraft interior in the success of aircraft:

The need for a highly developed design consciousness in aircraft interiors is essential because of the large number of complex requirements which must be fulfilled. Not the least of these is the flexibility of the modern airliner, which today is too expensive to use for only one purpose.³²²

This review again echoed the view of Walter Dorwin Teague that the aircraft should be seen as an overall product. By the mid-1960s, the product contained several options in the mode of comfort available; therefore, designers needed to go beyond the previous 'colour and finishings' approach and consider passenger demographics.³²³

Spark went on to outline the American approach to the design of the aircraft interior through retaining consultant designers and 'sizeable cabin furnishing departments to assist them in solving these involved design problems'.³²⁴ Designers such as Raymond Loewy, Henry Dreyfuss, Walter Dorwin Teague and Charles Butler had all been retained by manufacturers or operators. In fact, the design element had shifted very much to the manufacturer's sphere.

Despite this tried-and-tested American approach, the British manufacturing industry kept in-house design teams who worked with BOAC-appointed consultant designers, such as Lonsdale-Hands, Schreiber and Day. However, the success of the Vickers

³²² Ibid, p.40

³²³ It is worth noting that Teague approached this work as an industrial designer rather than an interior designer.

³²⁴ Spark, 1965, p.40

Viscount, and the work of CBA, convinced Vickers to keep the same approach for the design of their VC10 aircraft, with the article noting that.³²⁵

The colour and decorative treatment for BUA's VC10s was also by Charles Butler, while BOAC retained Gaby Schreiber. With the Super VC10, BOAC retained Robin Day for the colours and textures.³²⁶

The article provides an interesting critique of the approach of the British aircraft industry and of why, other than the impact of the war production, they were so far behind the Americans in their approach to design. Indeed, Spark notes that: 'British aircraft manufacturers started thinking seriously about the engineering and design of aircraft interiors in 1956. Previously, designers in Britain had only been employed by airlines or for surface treatments'.³²⁷

Moving Toward a Global Design Process

Through the archival material and evidence from publications of the period, this chapter has highlighted the gulf in approach between American and British aircraft designers. While earlier chapters have pointed toward this gulf, it was never pointed out so explicitly until the 1965 article by Robert Spark and his conclusion that 'British designers were being left out in the cold'. Left in the cold maybe, left behind certainly. However, there is perhaps another way to view this period. Rather than the British designer being left out, perhaps the overarching nature of design production was changing. What this chapter actually documents is the shift in design and production in Britain. Through the seven years from 1960 to 1967, commercial design in Britain

³²⁵ "Vickers, now the British Aircraft Corporation, was the first to tackle the problem by retaining Charles Butler Associates for the interior design of the VC10 and, later, the 1-11 'bus stop' jet". [Following Teague and the Boeing 707 aircraft] All major manufacturers have now adopted the dual purpose mock-up approach, and it is interesting to note that the Charles Butler scheme for the BAC 1-11 jet was adopted almost unchanged by the first customer, BUA. Spark, *Design*, 1965, p.40

³²⁶ *Ibid*, p.40

³²⁷ *Ibid*, p.40

changes from a national, insular process, of British manufacturers using British designers for aircraft interiors, to a global process of design, with British designers forming part of a global manufacturing system. The Boeing 747 provides the perfect case study: an interior created in the London offices of Gaby Schreiber Associates, signed off by BOAC at its Victoria headquarters, and sent to Walter Dorwin Teague's office in Seattle, where the agency would implement and oversee the production of the interior through manufacturers Boeing.

The following chapter, 'Defining the New Global Marketplace for Flight: Designing for Supersonic or Mass-Transportation' documents this change to a global design perspective, considering how this technique developed and offered a new blueprint for the experience of flight.

Chapter Nine

Chapter Nine, Case Study: Defining the New Global Marketplace for Flight: Designing for Supersonic or Mass Transportation.

While the mid-'60s articles from *Flight* and *Design*, which charted the new aircraft types and the importance of the interior, focused on the approach from American and British manufacturers and designers, they can also be read in another way: the shift of the aircraft interior from an elite, private space to a public space that reflected the growth in air transport and its ability to shrink the time of global travel.

Previous chapters have already documented the pre-Second World War aircraft interiors, such as the HP.42, which had a luxurious interior reflective of the domestic, private spaces of the wealthy: a private club, a smoking room or a library. The second generation of jets, as highlighted in the *Design* article of 1965, mark a departure from this idea, as identified by Walter Dorwin Teague, that jet aircraft interiors should be highly functional spaces, with references made to the experience of the aircraft itself, rather than domestic spaces. In this sense it is possible to apply some of the thinking outlined in Penny Sparke's *The Modern Interior* (2008). Taking each space as a sphere, the typical British interior employed by BOAC, prior to the Corporation hiring Gaby Schreiber, was, arguably, more representative of the domestic space, and certainly the domestic space used by the public. Promotional material on the airline's various aircraft through the '50s and '60s, presents the interior as a highly domesticated space, as seen in **figure 88**. Indeed, as already seen with the stratocruiser bar in **figure 49**, depicting the mid-18th century style illustration, is almost representative of a Georgian drawing room rather than a part of a 20th century aircraft, a space similar to that of the Geffrye Museum's reading room (**figure 89**).³²⁸

³²⁸ As has been previously discussed, this is due to the interiors originally being SAS and therefore reflective of Scandinavian folklore.

Figure 88: A typical representation of the BOAC aircraft interior. British Airways Speedbird Centre, London

Figure 89: The Reading Room at the Geffrye Museum, London. The room features a mural that is similar in style to those in the first Stratocruiser bar areas, depicting 18th century landscapes and riders on horseback.

For American designers, particularly Walter Dorwin Teague, the aircraft was stripped of any domestic value: Teague, as was covered in the last chapter, was particularly against window curtains for this reason. In this sense, the American aircraft, such as the Boeing 707, were defiantly public spaces; environments in which the public travelled together. In addition, the focus of the jets included in these articles was dominated by the size of the aircraft's cabin and the number of passengers it would be possible to carry. Two projects of the mid-'60s define this approach more than any other: Boeing's 747 jumbo, for carrying in excess of 250 people, and the Anglo-French Concorde, carrying less than 100 passengers, but at supersonic speeds. These projects, which went from concept to reality through the 1960s, became very literal representations of elite versus mass transport, with each project vying to be the blueprint for future travel. It is this trade off and the role of BOAC and British design that this chapter sets out to analyse.

Supersonic for the Elite: British Aircraft Corporation (BAC) /Aerospatial Concorde

Despite the Concorde disaster of 2000 which paved the way for British Airways and Air France to remove the aircraft from service, the supersonic jet has since been elevated to the status of a design icon. Although always held in the highest esteem as evidence of Anglo-French co-operation and technical brilliance, several recent publications have singled out the aircraft for special mention in the context of post-war British design history. As is often the case in design history, the object is elevated to the position of 'icon', raised above others as the very best of its type. The companion book to the 2012 V&A exhibition *British Design Since 1948* positions Concorde as 'the most important development in aircraft design and technology of the century', going on to note, rightly, that, '[t]he aircraft's first flight was celebrated in 1969 and seemed to capture all the futuristic aspirations of the Space Age'. Another publication of the same year, *Masterpieces of British Design* by Charlotte and Peter Fiell, echoed the sentiment, commenting that:

No passenger aircraft captured the imagination of the British public more than the streamlined, arrow-like Concorde as it pierced the sky. This remarkable plane promised a new age of supersonic passenger air travel, while the co-development programme between the British Aircraft Corporation in England and Sud-Aviation in France was a hugely symbolic event in the history of modern Britain, heralding a new era of European co-operation, or "concord".³²⁹

More recently, Amy E. Foster, in Grace Lees-Maffei's *Iconic Designs* (2014), places the aircraft in a similar canon. But, despite the aircraft's considerable political and technical achievements, it is perhaps best to understand the impact of Concorde in

³²⁹ Charlotte & Peter Fiell, 'British Aircraft Corporation (founded 1960) with Sud-Aviation (Aérospatiale) (founded 1957/1970) Concorde supersonic jet, first flight 1969' in *Masterpieces of British Design* (London: Goodman Fiell, 2012), pp.184 – 185

the context of the period it was being developed in and the role that BOAC would play in that development. Specific mention of Super Sonic Transport (SST) and their potential impact occurred in the 1960s, with various publications focusing on the potential of the aircraft. *Design* remarks on Concorde as part of Robert Spark's 1965 report on the aircraft interior and went on to give regular reports on the development of the aircraft. The updates focused on the challenges that faced the manufacturers, from environmental and economic challenges to, most importantly for *Design*, the interior of the aircraft. Spark highlighted the potential issues with the interior:

The interior of the supersonic jet BAC-Sud Concorde represents the most challenging design problem in the history of civil air transport. Basically, it means that a normal airline cabin has to be provided in a long, narrow tube which will be flying about three times as fast as current commercial aircraft.³³⁰

He went on to list the challenges as weight restrictions, writing that the 'fuselage cross section will be no more than that of a twin-engined airliner such as the Convair 440. Seating will be two-by-two in economy, and two by one in first class.'³³¹ Most notably, from Spark's review, the interior design of the aircraft would be taken into careful consideration:

Side wall shape, colours, textures and materials will have to be closely studied. Lighter colours, requiring more maintenance, will probably have to be adopted to expand the apparent size of the cabin. Environmental studies will be necessary to investigate many problems in this sphere. Lighting will also be more difficult, as there will be a limitation on the available power load. The Concorde will certainly be an

³³⁰ 'Designing for Supersonic Flight', *Design*, p.42

³³¹ Spark, 1965, p.42

aircraft which will bring into play all the resources of the designer and require the closest liaison with the aircraft's engineers to be a success.³³²

Unlike previous British aircraft introductions, BAC followed the tried-and-tested approach of American aircraft manufacturers, such as Boeing, in producing a full-scale mock-up at its Filton airfield base. The mock-up (figure 90), as remarked upon by *Design* in 1967, 'represent[ed] a marked change in the normal practice of the British aircraft industry.' Noting that, '[i]n the past, an aircraft has not been publically unveiled until it was already in production: and by then, it was a case of like or leave it.' Certainly, this had been the case with significant jets such as the Comet and VC10. The mock-up was important for a number of reasons. Firstly, in the same way that Walter Dorwin Teague pioneered with the 707, the mock-up was used as a sales tool for potential customers. It also allowed designers to work up concepts for the interior in-situ, understanding the constraints that the aircraft interior may have on their ideas.³³³ Most importantly, the aircraft was being approached from the interior as much as it was from the technical development of the jet, as was highlighted by the 1967 article:³³⁴

Besides giving prospective customers a chance to see what they are buying in advance, and thus provide them with an opportunity to draw up their own interior specifications before Concorde goes into production, the mock-up is important for another reason. In the past, and especially in the aircraft industry, Britain has believed that advance technical specifications and improved performance were all that was needed to sell a product. The mock-up at Filton, on the other hand, is clearly a recognition of the fact that even though the product represents a breakthrough in

³³² Ibid, p.42

³³³ Anne Wealleans, in her book, *Designing Liners: A History of Interior Design* Alfoat notes that in the design process of the QE2, mock-up rooms were used to test potential colour schemes.

³³⁴ 'The Right Approach to the 'Concorde' Interior' in *Design*, 220, 1967, p.23

design and transport concepts, the passenger is still interested in his own comfort and well being.³³⁵

Central to the creation of the mock-up, and to some extent the American approach to selling the aircraft, were CBA. While the agency are known for their work on the VC10 and Viscount, their work on Concorde has gone unrecognised by design historians. Robert Price was keen to outline the role played by the agency in the development of the interior, using his own archive to highlight the significance of the project. Indeed, it formed a central part of the agency's portfolio of the time.

Prices' own images are reproduced in figures 92 and 93. While photos that exist of the mock-up from the period are all in black and white, these previously unseen images show the initial Concorde interior in, for the time, neutral colourway: not in BOAC colours, but in colours designed to appeal to an international market.

As BAC and Sud-Aviation prepared for the very first flight of Concorde in 1968, and with '£500 million already invested by British and French taxpayers', doubts were beginning to be raised about the cutting-edge aircraft.³³⁶ Despite '16 airlines have signed options for 74 aircraft', and estimates by the two manufacturers of 'a world market for at least 200 Concorde by 1975', considerable doubts were being raised about the necessity of such an aircraft, particularly from America, where Boeing were seeking funding for their own SST. By 1969, as the Concorde prototype 002 began a series of supersonic flights across Britain, *Design* reported on '[a] Congressional subcommittee, chaired by that arch-opponent of SSTs, Senator William Proxmire, announced in resounding terms that Concorde would be a flop.'³³⁷ The Committee backed up its comments with robust figures on why, highlighting the doubts that had

³³⁵ *Design*, 220, 1967, p.23

³³⁶ 'Concorde Mock-Up Boosts Sales' in *Design*, 229, 1968, pp.50 – 51

³³⁷ 'Concorde Worries in the US' in *Design*, 262, p.23

plagued Concorde throughout its development, such as 'a very poor payload-range performance for Atlantic routes'. But it was the realisation that, due to the aircraft being state backed and being in Britain and France, that:

Only BOAC and Air France would willingly buy the aircraft and they might get Government subsidies to operate it; other airlines might be forced to buy Concordes in order not to be left out of the race, but to be lumbered with such an uneconomic aircraft would cost them dear.³³⁸

Ultimately, only 20 aircraft were ever made and, of those, only 14 were in operation between Air France and British Airways. Despite the focus on the interior in selling the aircraft, the limited economic viability discouraged other airlines, and, as was predicted, the aircraft became a symbol of national technical achievement, flown by national airlines and underwritten by the state, just as had been the case with previous British attempts to crack the global market for jet airliners. Concorde became a symbol of 1980s excess; the typical passenger being a business passenger flying between London and New York. Keith Hudson summed up the aircraft best, noting:

Concorde... is unmistakably the symbol of the rich in the air, just as Skytrain was the symbol of the poor, and much of the hostility that has been generated about the aircraft has certainly been due to precisely this. What is really being said, however, is 'Concorde is an elitist aeroplane'.³³⁹

³³⁸ 'Concorde Worries in the US' in *Design*, 262, p.23

³³⁹ Kenneth Hudson & Julian Pettifer, 'The Wide-Bodied Seventies', in *Diamonds in the Sky: A Social History of Air Travel*, London, Sydney, Toronto: The Bodley Head, 1979, p.153

Figure 90: A Design Article on the Concorde mock-up and its apparent impact on sales.

Figure 91: Exterior of the Concorde mock-up produced by Charles Butler Associates and used as a sales tool by BAC. Robert Price Archive, New Hampshire.

Figure 92: The interior of the Concorde mock-up with colour and furnishings designed by Charles Butler Associates. Robert Price Archive, New Hampshire.

Boeing 747: The 'Sitting Room in the Sky'³⁴⁰

Although Boeing would develop a mock-up of its own SST aircraft, its main focus was not on speed, but on the sheer number of passengers that could be carried in any one flight, up to three hundred and sixty-six. In this sense, the 747, or Jumbo as it became commonly known, was, and still is, one of the biggest developments and shifts in air transport. Although the Concorde has been framed as such, it was Boeing, together with Teague, who understood that air transport was a product for the mass market; it wasn't to be elite, but was instead to transport as many passengers as possible at one time in order to achieve, in a sense, economies of scale. It forged the blueprint on which modern air travel still bases itself: the more passengers carried on a single flight, the cheaper and more efficient the flight becomes, and the quicker the airline can break even on the flight. So, what did this mean for the design of the aircraft interior? Although the introduction of the 747 revealed that the advantages of air travel were embodied by the economies achieved for both passenger and airline, the sheer size and nature of Boeing's Jumbo also required a complete redesign of the interior passenger cabin.

BOAC produced a series of promotional materials to raise awareness of the Corporation's forthcoming fleet of 747s (figure 93, 94& 95). Similar in style to the brochures and leaflets produced for the VC10 and elements of the 707, the focus of these materials was firmly on the interior and the benefits contained therein rather than on any technical achievement of the aircraft. The first brochure, *BOAC 747: Newest, most exciting jet airliner of the age*, is quick to highlight that 'Individual look' cabins create an 'intimate atmosphere', noting that, despite the huge increase of passengers, the cabin layout would mean that a passenger would actually be surrounded by fewer fellow passengers:

³⁴⁰ 747 BOAC Leaflet, c.1967, British Airways Speedbird Centre, London.

BOAC has divided the 747 interior into five cabins: two first class and three economy class. In fact, in each of the economy class cabins passengers will find themselves surrounded by *fewer* people than they do when traveling by, say, the BOAC 707.³⁴¹

Adding to this new feeling of spaciousness was the design finish to each cabin section, which was 'furnished to look (and feel) like a totally separate, self-contained entity'. This was, the brochure announced, 'achieved by means of a different décor scheme for each one [cabin]. Fabrics, fittings, sidewalls... seats, head-rest covers, carpets, curtains... they all harmonise in a series of restful colour combinations; one for each cabin'.³⁴²

Although much of this description of the 747 interior is lost within the sales and marketing language employed by BOAC, a phrase presents itself at the end of the paragraph, noting that each of the cabins 'projects its own 'personality' as a 'distinctive, luxurious sitting room'.³⁴³ These personalities were effectively the different classes that the aircraft could carry: First, Club (BOAC's Business Class) and Economy. However, in the context of this thesis, it is the use of the language 'living room' that stands out, which, following the concept of Sparke's spheres, could be read as the domestic interior being sold in the context of the public space, although the emphasis of the promotional material was very much on the idea that the passenger inhabited a private environment. Further investigation of the brochure also reveals a continued focus on the interior, as in a later paragraph, 'More Sitting

³⁴¹ 'Individual Look Cabins Create Intimate Atmosphere' in *BOAC 747: Newest, most exciting jet airliner of the age*. c.1970, brochure, British Airways Speedbird Centre, London

³⁴² 'Individual Look Cabins Create Intimate Atmosphere' c.1970.

³⁴³ *Ibid*, c.1970.

Room in the Sky', which goes on to reinforce the concept of the domestic space in the air:³⁴⁴

The 747 inaugurates a new concept in air travel: sitting room comfort. Gone is the old tunnel shape: in its place, an interior of straight walls, flat high ceilings, more width than ever before. Spaciousness – that's the keynote... BOAC proudly introduces passengers of the seventies to the most spacious comfort ever achieved in the air.³⁴⁵

³⁴⁴ 'More Sitting Room in the Sky' in *BOAC 747: Newest, most exciting jet airliner of the age*. c.1970. leaflet, British Airways Speedbird Centre, London.

³⁴⁵ 'More Sitting Room in the Sky', c.1970.

Figure 93: The 747 interior, as can be seen from this BOAC press shot, was significantly larger than that of any other aircraft before. The focus of the aircraft was to increase the number of economy passengers. British Airways Speedbird Centre, London

Figure 94: BOAC 747 conceptual promotional material, highlighting the 'living room' spaciousness of the new aircraft. British Airways Speedbird Centre, London

Figure 95: BOAC 747 conceptual promotional material, noting: 'BOAC proudly introduces passengers of the seventies to the most spacious comfort ever achieved in the air'. British Airways Speedbird Centre, London

Chapter Ten

Chapter Ten, 1967–1974: Becoming British Airways

Introduction

The period from 1967 to 1974, the core years under investigation in this chapter, is one that marked huge upheaval for BOAC, the British design establishment, and Britain as a whole. While the narrative of the previous chapter, one in which the aircraft interior becomes a product of global homogenisation, thanks to the dominance of American civil aircraft production, the focus of this chapter shifts from the physical design of the interior to the intangible nature of the brand. Although the brand of BOAC has been a core theme throughout this thesis, it is the nature of how the brand is communicated, and what is communicated, that now becomes central.

With this focus on the brand, a shift in perception also occurs in what it is to be British. Several different sources have been assembled in this chapter in order to understand the seismic shift that took place in just seven years, from the end of the 1960s to the mid-1970s. The shifts, although all impacting on the Corporation, are also wider concerns of the creative industries between 1967 and 1974: the global nature of brands; the heightened role of the consultant designer and the rise of corporate design; the adoption of American business practices; and the merging of BOAC with BEA in 1974, and the CoID involvement in the process.

It is worth noting that there is a well-documented way of understanding this period in British and global design history. Traditionally, the 1960s is divided between the playful, space age-infused, pop design, kick-started by the quest for space travel, and greater social freedoms, with British design having become positioned as a key proponent in this established narrative through designers like Mary Quant, Barbara Hulanicki for Biba, and Terrance Conran for Habitat, as well as the wider social impacts of the teenage consumer. Wrapped up in this 1960s British design story is

the dominance of cultural exports like the Beatles, the Mini, and Carnaby Street, images and objects which have attained an almost meta existence, acting as signposts to the visual imagery of the playful 1960s and beyond—the core triggers of London's 'swinging sixties'.³⁴⁶

While it is unavoidable to include this depiction of '60s Britain in the research into BOAC—it is, after all, indicative of the shift in national perception—it can also be understood in other ways. The Montreal Expo of 1967, although taking place at the end of the decade, formed in many ways the earliest depiction of the revitalised British image; however, it is often ignored in favour of the earlier Festival of Britain when attempts are made to define the influence of design and national identity. Montreal is essential here—it includes all of the signposts mentioned above, but occurred prior to the wider cultural understanding of them, marking their presentation in a global context at an international exposition. It also helps to understand the shift that took place within the British design establishment and how designers started to present British identity. Most of all, it makes it possible to better understand the way BOAC started to understand itself and gives early clues as to the rebranding of the airline to become British Airways. In this sense, the British presence at Montreal provides an important case study with which to comprehend the change of the BOAC brand and how corporations began to display the concept of Britishness in the global consumer environment.

Also helping to clarify this shift is the influence of the consultant designer. Although mentioned in earlier chapters, the consultant designer becomes a key influencer through the design of corporate identities during this period.³⁴⁷ However, it is through

³⁴⁶ It is also interesting that British 60s design is often London centric.

³⁴⁷ Again, this is a well-documented area, with texts existing on the work of Saul Bass and his revolutionary designs produced for several American corporations. British designers such as Abram Games and Misha Black are also well known within this context.

new research that this thesis will add to the field. F.H.K. Henrion, already mentioned in the context of producing some of the first creative output for BOAC, played a key role in developing an image of a modern Britain in key design projects, such as the 1968 redesign of the BEA brand, and the British Pavilion at Montreal. In addition to Henrion's work, another British designer, Richard Lonsdale-Hands, and his agency, the Lonsdale-Hands Organisation, offer a completely new, and previously undocumented, view of the British creative industry during the 1960s. These two case studies allow an analysis of the business practices of American design agencies and how they were adopted by British designers and business at a time that current design history understands as a period of enormous social upheaval: the Paris student riots of 1968; the global impact of the American 'populuxe' dream, which unravelled so publically with the apparent failure in Vietnam; the early 1970s of western design blighted by conflict in the Middle East, which in turn pushed up oil prices and manufacturing costs.

Ending with BOAC merging with its European-focused sister airline, BEA, and the rebranding of British Airways, with the aid of the CoID, this section acts as a final case study that makes it possible to understand this transition and the period in question, which was also a precursor to the full privatisation of the airline.

Modern British Identity: The British Pavilion at Montreal 1967

The 35-year history of BOAC brings into focus several key exhibitions that present British identity in the post-war period. Previous chapters have referred to Britain Can Make It (BCMI, 1946), the Festival of Britain (1951), and the Exposition Universelle et Internationale de Bruxelles (1958) as examples of the difficult nature of representing British national identity in the immediate post-war period. Early exhibitions, such as

BCMI and the Festival, while looking to the future, were either rooted in the difficulties of post-war production and rationing or depicted a vision of the future through the lens of nostalgia or concepts of what might be.³⁴⁸ In the case of Brussels, the British Pavilion was defiantly inward looking—a fantasy vision of Britain that seemed unaware of the realities of late 1950s Britain.³⁴⁹ The narrative presented so far has plotted BOAC on a very different course to the narrative presented at these exhibitions. In fact, the Corporation was a rare example of a vision of Britain that wasn't reliant on the typical tropes of Britain's past. However, while the mid-1960s BOAC was mimicking the practices of American airlines and design practices, Britain finally presented a modern, contemporary understanding of itself at the Montreal 1967 Expo. While the exhibition itself was, as a whole, a reflection of rapid first-world development, a McLuhan-esque vision, it was arguably the first time that Britain had presented a modern understanding of itself at an international exhibition (**figure 96**).³⁵⁰ Britain's pavilion, an angular white piece of neo-modernism that hinted at the brutalism that was to become the blueprint for much of Britain's civic architecture in the 1970s, was heavy with symbolism, as Nicholas Taylor notes in a 1967 *Design* article:

Sir Basil Spence's moated fortress, undeniably [a] popular success for its symbolism, is an example of heroic papier-mâché. The beflagged tower, symbolising "unfinished creative achievement" and tapered in such a way that in another 50ft Britain's creative achievement assuredly would be finished, has a pseudo skin of asbestos (simulating concrete) which stops a few inches short of the ground in a kind of skirt.³⁵¹

³⁴⁸ Many of the products shown at BCMI were unavailable to consumers due to chronic material shortages. Rather, it acted as a propaganda piece for the British economy in the immediate aftermath of 1945.

³⁴⁹ This could be seen as a hangover from the 1953 Coronation

³⁵⁰ A McLuhan-esque vision in the sense that the expo was a demonstration of the global influence of technology, much like the predictions of Marshall McLuhan.

³⁵¹ Nicholas Taylor, 'Crowd Scenery at Expo' in *Design*, No. 224, 1967, pp. 23 – 36

Figure 96: The British Pavilion at the Montreal Expo, 1967.

Figure 97: TRS2, a cutting-edge, but never fully realised, British Aviation project.

With its angular, difficult form, the pavilion, as Jonathan Woodham explains, 'assumed an aggressively contemporary stance'.³⁵² It was also reflective of the forms being produced in British design and industry: the conical nose and triangular wings of Concorde, and the sharp, angular body of the defunct military jet, the TRS2 (figure 97). While the exterior could be read as a series of nods to wider architecture and engineering projects, the interior was where the real clues to the British zeitgeist lay. Woodham goes on to describe:

James Gardner's 'Swinging London' display referencing the fashion boutiques of Carnaby Street and the Union Jack motif that could be found on many contemporary products, including a jacket on the cover of The Who's My Generation, berets by Edward Mann, red, white and blue dresses by Dorothy Perkins, even oven gloves, available from the Gear boutique in Carnaby Street.³⁵³

A hint of the interior of the pavilion can be seen in figure 98. The image, taken from a review of the exhibition published in *Design* in 1967, was sadly only published in black and white, yet the objects on display reaffirm Woodham's description of a 'swinging' London.³⁵⁴ A Mini, decked out in the Union Jack, took centre stage and was surrounded by Carnaby Street consumables of the period. A rose garden was also present and could be seen as a grasp at the past, but, in the context of the other items shown, it seems to provide an ironic backdrop to what is otherwise an unapologetic depiction of modern Britain.

³⁵² Jonathan Woodham, 'Britishness In Design, Material Culture and Popular Artefacts: From Empire to New Labour', pp.137 – 162 in Alan Tomlinson, Jonathan M. Woodham (eds), *Image, Power and Space: Studies in Consumption and Identity* (Maidenhead: Myer & Myer Sport, 2007), p.156

³⁵³ Woodham, (2007), p.156

³⁵⁴ If there is to be critique of the exhibition it is that it presented a very London centric concept of Britain.

Figure 98: Part of the display in the British Pavilion

Figure 99: Display pointing toward the technical achievements of Britain.

While BOAC did not have a direct presence at the Expo, links can be made with some of the items displayed and the designers involved. One of the most prominent objects on display was a full-scale Rolls Royce Olympus engine, the embodiment of British technical achievement at the time, and a key component in the technical

success of the Concorde Supersonic aircraft.³⁵⁵ The space that the engine sat in is also worth considering. Surrounding the engine, which was housed on end in the tower of the pavilion, (figure 99), were Beverly Pick's depictions of great British scientists and thinkers, forming, as *Design* regarded it, 'a push-button Valhalla of national heroes'.³⁵⁶ It was, however, a historical reference to Britain's scientific past without appearing rose tinted. It presented a Newton-esque picture of standing on the shoulders of giants, with the Rolls-Royce engine being depicted as the current object of ongoing technical achievement.³⁵⁷

[I]n its third section, Britain Today, almost the only example at Expo of national self-portrayal which is also self-critical; for this we can thank Frank Jessup, as well as the designer, James Gardner. In the next section, Theo Crosby and Tom Margerison do a skilful hard-sell of British invention in a series of white domed eaves, tempered by [a] scarifying film on Sources of Power by Don Levy.³⁵⁸

It is within the Crosby and Margerison designed section (figure 100), the most instantly recognisable in its influence on the '60s Space Age aesthetic, that another link to BOAC reveals itself in the form of the mock-up of the QE2 cruise liner.³⁵⁹

³⁵⁵ It is interesting that engineering developments are being displayed, echoing the first de Havilland engines displayed at the Festival. However, rather than scale models, this was a full-size Olympus engine, communicating in many ways, the sheer power that British industry had achieved.

³⁵⁶ Taylor, 1967, pp. 23 – 36

³⁵⁷ The Beverly Pick designed posters that Taylor describes provide another link to BOAC, as Pick designed a series of posters for the Corporations' agency, FCB,. These can be seen earlier in the thesis.

³⁵⁸ Taylor, 1967, pp. 23 – 36

³⁵⁹ A 1969 edition of *Design* included a 32-page review of the QE2 that included key designers from the British design establishment, most of whom had been first recommended by the CoID in 1944.

Figure 100: Crosby and Margerison exhibition area, including QE2 model.

But why is Montreal '67 so important in the context of this thesis and BOAC? As previously stated, it was a defiant, almost aggressive, depiction of modern Britain, but one that the Corporation had already been aware of. That is, it was not necessarily an image communicated through objects (despite that being exactly what Britain's pavilion did), but one that was a mythology, a concept—embodied by the reappropriation of the Union Jack, for instance. It marked the redefinition of what it was to be British, and, in the case of BOAC, this was achieved through the brand.

A Brand of Britain in the Global Marketplace

It is worth mentioning that this section has the potential to cover a huge area of British design history. While the core focus is to understand the rise of the brands that adopted a distinct British image and which existed in a global marketplace, it is useful to chart the rise of the British creative industries in the global marketplace, or, as Wally Ollins phrased it, 'British design and designers actually became fashionable

internationally.³⁶⁰ Part of this fashionable nature of British design and designers is what was reflected at Montreal Expo '67. Mention should also be given to the CoID, notably under the directorship of Paul Reilly, who actively promoted British design abroad, although the way in which this was done was also problematic and will be discussed later in the chapter.

Consultant Designers Selling Britain

Throughout this thesis various consultant designers have been focused on to illustrate the importance of BOAC's use of design in the aircraft interior and the brand image. While earlier iterations of the Corporation's interiors may have been explicit in the requirement to use British materials, making the link between the national identity a physical materiality, consultant designers were utilising the conceptual ideal of Britishness, as seen in Montreal, to sell to the new voracious global consumers of the 1960s.

While this chapter focuses on the late 1960s, the notion of Britain being sold by designers is one that can be traced to the start of the decade, specifically 1961. Designer Richard Lonsdale-Hands, already introduced as the designer of the first post-war BOAC aircraft interiors, founded his own multidisciplinary design agency, the Lonsdale-Hands Organisation. Although a specific start date for the agency can't be determined, a promotional film that outlines the various functions of the company is dated 1961 (figures 101, 102& 103). As well as defining the role of a British agency at the start of the 1960s, the film is also revealing on account of how it

³⁶⁰ Wally Ollins, 'The Industrial Designer in Britain 1946 -82' in Penny Sparke's, ed., *Did Britain Make It?: British Design in Context 1946 – 86* (London: Design Council, 1986), p.62.

Ollins goes on to explain later in the same chapter: "They [businessmen] thought that design would help their companies to be more visible – or that it would help them to sell more products. British designers began to realise that they had flair and wit, that their work was easy to understand, that they had the discipline of the Europeans and the commercial instincts of the Americans, and that's when, for the first time since the great days at the turn of the century, British designers began to export"

defines the company's London headquarters. The film plays on the associations with British tradition, depicting the Royal Life Guards on parade, but contrasts this with the development of the South Bank. The message here seems to be that, while the organisation is happy to be associated with British tradition (especially Royal tradition), it must also be seen as modern in an international context—and London must be presented as a key city in a modern, globalised world.

Figure 101: Still from the Lonsdale-Hands Organisation promotional film. It details how the agencies make up the company.

Figure 102 Royal Life Guards on Parade, used as a link to British tradition.

Figure 103: View of London's South Bank, used as a cue for modernity—notably the construction of Shell's headquarters.

Another example comes from F.H.K. Henrion and his 1967 rebranding work for BEA. While it may seem superfluous to use the sister airline of BOAC to understand British branding rather than BOAC itself, the nature of the BEA rebrand acts as an important case study of a British airline operating in the international sphere in the late '60s. Several themes can be raised in reviewing this work. Firstly, Henrion was the first art director of BOAC after 1945—the BEA project thus allows an understating of how his views of what Britishness constituted had developed. Also, while the Lonsdale-Hands Organisation was an agency as opposed to an airline, it is interesting to chart how British identity developed rapidly in the space of six years. Finally, the BEA project is also interesting in the context of BOAC and BEA merging to become British Airways, something that will be investigated at the end of this chapter.

Figure 104: Cover page of the Henrion Design Associates pitch document. University of Brighton Design Archives, Brighton.

In order to support this investigation of Henrion's work, two archival documents from 1967 and 1968 will have been used, in particular the documents *Report on Preliminary Survey of Design for BEA* (dated 18th April 1967) (**figure 104**) and *Report on a Proposed Identification System for BEA* (dated June 1968). By this stage, Henrion had gone on to become one of the leading, if not the leading, graphic designers in Britain with his agency Henrion Design Associates (HDA). Several branding projects point to this, including his work for Dutch national airline KLM (**figure 105**), as the pitch document is keen to highlight:

I should like to add that we would find this a most exciting assignment. We feel, both from our general experience in design coordination and our past work for KLM, that we should be able to make a real contribution towards an appropriate design image which would assist your sales and marketing programme, increase the general good will which the company already enjoys, and overcome the flaws which have arisen in the past.³⁶¹

Key to the use of this document as evidence of the British brand agency is the language used and the definition given of what a modern corporate identity, or image as HDA prefers to call it, should achieve, with the document noting that (**figure 106**):

A corporate image is the totality of pictures or reputations of the corporation in the minds of the people who come into contact with it. An image is therefore a statistical concept, measurable by suitable sampling. It is continually affected by every contact between corporation and people. Some of these contacts are more controllable than others. The only aspects of image considered in this report are those controllable by visual design.³⁶²

³⁶¹ *Report on Preliminary Survey of Design for BEA*, Henrion Associates, 18th April, 1967, University of Brighton Design Archives.

³⁶² Henrion Associates, 1967.

Figure 105: Henrion's brand design for Dutch national airline, KLM. University of Brighton Design Archives, Brighton.

Figure 106: Definitions of branding terms as defined in Henrion's initial survey of the BEA rebrand project. University of Brighton Design Archives, Brighton.

The document also surveys the existing BEA brand, which is outlined in a section titled 'Analysis of the Present Situation'; the document notes that the c.1958 'red-square' design by British designer, Mary de Saulles, 'is well-established, and is believed to have strong associations with reliability and dignity.'³⁶³ However, just being reliable wasn't enough in the eyes of HDA, with the section going on to note:

But it is also thought to have increasing associations with impersonality, dullness, regimentation and lack of individual care for passengers... The symbol... now begins to have a rather dated appearance, probably because of its dry, typographic, non-dynamic design typical of the late 1950s.³⁶⁴

The final pitch document of June 1968 went further with this critique: 'It is unsuitable for typical long spaces, and the letters lack graphic distinction if used alone. It has no visual associations with Britain, flying or modernity.'^{365 366} Henrion was well placed to understand this notion of British modernity, not only from his early post-war work with BOAC, but also his work on major exhibitions in which British national identity was explicitly dealt with, including the Festival and the Montreal 1967 Expo. Henrion, joining an expert panel of designers for the Expo, was responsible for the Union Jack treatment that topped the stark British Pavilion. It was this use of the Union Jack, in an abstracted, almost cubist form, that Henrion also brought to the design work for BEA. The explicit use of Britain and Britishness is something raised in the first

³⁶³ Mary de Saulles was an architectural graduate who worked in London County Council's Architectural Department before designing the 'red-square' BEA logo.

³⁶⁴ *Report on Preliminary Survey of Design for BEA*, Henrion Associates, 18th April, 1967, Brighton University Design Archives, p.4.

³⁶⁵ *Report on a Proposed Identification System for BEA* (dated June 1968).

³⁶⁶ The report makes an interesting comment on the contexts that the logo will be seen, '[T]he red square has high recognition value on the tail fin of an aircraft at London Airport, but little recognition value in an American magazine advertisement.' *Report on a Proposed Identification System for BEA* (dated June 1968).

analysis of 1967—something that HDA saw as essential to the future BEA, with the document noting under the sub-header 'National Associations':

There is at present very little direct association with Britain in the house style – only in the rarely used full name. It is generally accepted that associations with national airlines tend to follow the patterns of associations with the believed national character. British airlines benefit from this, particularly in 'reliability-dependability' and 'correctness'. The North American market might also be favorable [sic] disposed to a clearly British airline rather than a vaguely 'European' one.³⁶⁷

The survey went on to list eight recommendations for the BEA brand, including 6.6, which states: 'Develop association with Britain where required.'³⁶⁸

³⁶⁷ *Report on Preliminary Survey of Design for BEA*, Henrion Associates, 18th April, 1967, University of Brighton Design Archives, p.7

³⁶⁸ Henrion Associates, 1967, p.7

Figure 107: Henrion Design Associates' rebrand of aircraft interior ephemera, such as cigarette packets. Note the use of abstracted Union Jack – similar to Henrion's work on the Montreal pavilion. University of Brighton Design Archives, Brighton.

The document is revealing not only in terms of the thoughts of the design agency on the key concepts that needed to be approached in order to achieve a successful rebrand of BEA, but also in terms of the size of the project at hand. An appendix attached to the document shows the intention of Henrion Design Associates to apply their new BEA brand to 12 different variants of aircraft, numbering in excess of 108 individual aircraft, to be branded inside and out. In addition to the aircraft, HDA

needed to allow for all ground vehicles, staff, buildings (including the 80 sales offices), stationary, signage etc (including cigarette packaging, **see figure 107**).³⁶⁹

Modern aircraft, cars, motorways, buildings, clothes and magazines set increasingly sophisticated standards of design and style. The red square and the other present elements are out of keeping with these.³⁷⁰

The most obvious element of the new BEA treatment was the use of the Union Jack, echoing Henrion's abstracted Union Jack on the Montreal pavilion. For the design studio, this was an essential part of the design, as the briefing document highlights:

This new element for carefully controlled use as a reinforcing adjunct to the red square of the logotype. This should replace the present aircraft symbol. It has been designed to suggest equally both Britain (by reference to Union Jack [sic]), and flying. It is sufficiently abstract to avoid becoming old fashioned.³⁷¹

The appropriation was done very much on purpose, with the hope that the attributes of Britain, the positive attributes that Sir Steven Tallents was so keen to highlight, would be manifest in the Union Jack and would therefore be reflected in the airline:

[P]eople... tend to ascribe national characteristics... to national airlines. The service given or implied, and the personal manner of the staff, are also important. So too is the visual presentation of the airline, which can draw together and reinforce many of the other factors to form a strong and attractive image.³⁷²

³⁶⁹ In terms of the re-designed brand's impact on the BEA aircraft interior, it appears negligible. This was a brand to appear as livery and on products as can be seen by the range of products and objects that it appeared on. In many ways, the re-branding of BEA was a pre-cursor to the merger and creation of British Airways – relying on a visual identity appearing on everything that passengers and consumers came into contact with to communicate brand values. It even hinted at an explicit use of British national identity to define the nation's airline. In many ways, the documents from Henrion outline the full realisation of the potential of branding first hinted at in the 1946 'Presenting an Airline' article.

³⁷⁰ *Report on a Proposed Identification System for BEA*, June 1968, p.5

³⁷¹ *Report on a Proposed Identification System for BEA*, June 1968, p.7

³⁷² *Report on a Proposed Identification System for BEA*, June 1968, p.5

Henrion also recognised that the new identity had a role to play in the future and in developing an ongoing customer base for BEA, noting the increased level of air travel and that it was only likely to increase in the coming years, especially amongst passengers in their mid-20s, who:

... may be only occasional passengers as yet they have years of air travel in front of them. They are likely to be the most interesting age group for airlines, both on business and leisure travel. Amongst this age group there is a widespread expectation of high standards of design, and of a general air of modernity.³⁷³

³⁷³ The report continues: 'Any changes to the identification must be acceptable for at least ten years and must also be effective today. To be effective today they must appeal to the most important segment of the population – those between the ages of 20 and 35. People over the age of 40 are naturally important to any airline, but they are known to be generally conservative in their habits: they have developed loyalties and they are not likely to change. Many are business people who use the same major airlines and choose the flights which best suit their schedules. Younger people's loyalties are less set. Many of them may be only occasional passengers as yet they have years of air travel in front of them. They are likely to be the most interesting age group for airlines, both on business and leisure travel. Amongst this age group there is a widespread expectation of high standards of design, and of a general air of modernity.'

Figure 108: Page taken from the Henrion Design Associates pitch document for the BEA brand. Noting the crowded marketplace, the agency was eager to play with the different style of the new brand logo.
University of Brighton Design Archives, Brighton.

Figure 109: The document also included a graphic documenting the transition of the BEA logo from old to new. University of Brighton Design Archives, Brighton.

BOAC: A Global Brand of the '60s?

As the British design industry moved toward a global perspective, so too did BOAC in its presentation of itself and the interior. While the specifics of the global BOAC aircraft interior were discussed in the previous chapter, it is interesting to see how the Corporation's new aircraft were promoted as they actually entered into service. A series of articles from the early 1970s pointed to the way in which BOAC saw itself:

The advertising campaign for BOAC's 747 flights got under way this week with a theme that's simple and direct: All the 747 needed was BOAC service. That's the one thing that all the other 747s already in the air do not have, the one thing no other airline could offer. Thus a new slogan was born. As the 747 services grow it will be translated and adapted to suit the varying demands of BOAC's worldwide markets.³⁷⁴

No longer concerned with operating sub-standard British aircraft, the Corporation received its first Boeing 747 aircraft in March 1971. *BOAC News* marks the event with the aircraft landing at Heathrow in full BOAC colours, with the headlines: 'Rarin' to Go... that's our 747 now it has all it needs' (figure 110).³⁷⁵ It is unsurprising to find the internal publication of the airline providing such a bombastic headline, and further reading of the article explains the reason for the self-assured announcement (figure 111). Titled 'All the 747 needed was BOAC service', the newsletter outlines the difficulty that BOAC and its advertising agency, FCB, faced in defining what would be unique about the Corporation's Boeings, noting:

Getting the proper theme to advertise a new product is seldom an easy task. In this case it was made more difficult by the fact that the 747 is already widely known

³⁷⁴ BOAC News, March 12th 1971, p.1

³⁷⁵ BOAC News, March 12th 1971, p.1

aircraft. After all, several million people have already flown in one and in most cases their views about the aircraft are, by now, firmly decided.³⁷⁶

Key to the work of FCB and BOAC was the understanding that the 747 had been in operation with American airlines and the nature of the aircraft—its ability to carry huge amounts of passengers—was already well known. As the article recognises: '[w]ords in praise of the aircraft have been exploited to the full'. But the Corporation and FCB also realised that the key point of differentiation was the BOAC brand, with the article noting that:

[A]ll 747s are the same. All airlines aren't. So it was that the "service" theme took shape, to be echoed around the world in one way or another wherever BOAC flies the new aircraft.³⁷⁷

³⁷⁶ Ibid, p. 1

³⁷⁷ Ibid, p. 1

Figure 110: *BOAC News*, 12th March 1971, arrival of the first BOAC 747. British Airways Speedbird Centre, London

Figure 111: *BOAC News*, 11th August 1972, first production shots of the BOAC Concorde. British Airways Speedbird Centre, London

BOAC and a New Relationship with the CoID

This thesis started by outlining the influence, or attempted influence, of various state agencies in the running of BOAC. In the context of this investigation, the CoID was the most relevant. Just months after its own inception, the Council was keen to influence the design decisions of the Corporation. Indeed, throughout BOAC's own history there was a continuing relationship of some kind with the Council. But while the immediate post-war concern of the Council was to impart its own national design aspirations in the way that the Corporation actually employed design in its aircraft, later work concentrated on using the airline's international reputation to promote the

Council's own Design Index, that is products of British design that were considered to be good examples of the British design industry (**figure 112**). Evidence of this relationship is kept in the Council's archive at Brighton University. A memo dated 26th January 1972 highlights one of these partnerships. Conceived as a touring exhibition under the name 'Pride of Britain', the memo details the role of BOAC in organising a touring exhibition that would, over a period of three weeks, visit key American cities, which were listed as: 'Boston/ New York, Miami, Los Angeles/ Philadelphia/ Washington/ Houston/ Chicago/ Detroit'.³⁷⁸ The memo goes on to define the purpose of the exhibition:

The aim of this is to show England under the reign of the two Elizabeths, and the Council of Industrial Design has been asked to co-operate in providing modern items which are synonymous with the reign of Elizabeth II.³⁷⁹

Accompanying the documents are lists of the objects and designers that were selected for the tour, such as Wedgwood, David Mellor cutlery and Sheffield Steel, each being requested to supply a product considered appropriate (**see figure 112**). For instance, cutlery designer David Mellor is requested to supply 'your sterling silver flatware 'Embassy''. From this initial list, the tour appears to be along the lines of Montreal '67—taking into account Britain's history, but keeping the key focus on contemporary British design. However, further details of the actual displays reveal themselves in the archive. A series of photographs in the same file point to the exhibition as presenting a nostalgia-laden image of Britain, with staff dressed as Tower of London Beefeaters, a model dressed as Elizabeth I standing in front of a table containing reproductions of the crown jewels, and watercolour paintings of castles, all set against flock wallpaper (**see figure 113**).

³⁷⁸ Memo, Council of Industrial Design, 26th January 1972, University of Brighton Design Archives.

³⁷⁹ *Ibid*, 1972

It raises the question of why, when both the Council and BOAC had worked so hard to present a modern vision of Britain, would they resort to historical fantasy? While the objects approved by the Design Centre must have been on show, it is interesting that these are the images that are retained in the archive—suggesting that the overall theme of the exhibition was whimsical, rather than forward-facing.

It can be framed as another attempt, as was seen in the posters produced in the immediate post-war period by BOAC (specifically the country village scene by John Cheater, reproduced on p.136) to play on the assumed, preferred even, image of Britain by America. In presenting new, modern design, alongside images of Elizabeth I and Beefeaters, BOAC and the CoID were tempering the familiar with the traditional. A tactic that runs throughout British design history and, as has been seen in this thesis, BOAC's own history.

Figure 112: Page from the CoID archive listing the objects requested for the American design tour.
University of Brighton Design Archives, Brighton.

Figure 113: Photograph of the joint BOAC and CoID 'Pride of Britain' exhibition, which toured major American cities. University of Brighton Design Archives, Brighton.

Becoming British Airways

An article in the July issue of *BOAC News*, announcing the news with the headline 'New Framework for the Future', noted that '[a]ll activities of BOAC, BEA and their associated companies are to be brought together under unified top management in the British Airways Management Group.'³⁸⁰ Central to the merger were the intercontinental services of BOAC and the European focus of BEA; under the newly defined British Airways, the airline would operate all of the global flight traffic as Britain's national airline. The reaction to the news was mixed, with unions worried about the implications of a merged workforce.

However, despite this export of a confused British identity, the Council was still keen to be seen a key promoter of modern design to a domestic audience. It was able to ensure this with its involvement in the transition of BOAC to British Airways, which was first announced in 1972. A letter, dated 24th January 1973, highlighted the importance the Council ascribed to the new identity:

Presumably the BEA, BOAC, Cambrian, Northeast, Channel Islands Airways and Scottish Airways will all lose their house styles and gain a new one under the name British Airways. If this be the case, the Design Council ought to be concerned right from the beginning to ensure the house style is progressive in design terms. Our association with British Airways might spin off a mezzanine exhibition to launch the new style maybe.³⁸¹

Although the process for the new identity had yet to be pitched for, a memo from the following day noted that agencies 'Negus & Negus, Henrion, and Lippincot & Margolis are all preparing schemes.' There was little follow-up after this initial

³⁸⁰ 'Special British Airways Group Edition' in *BOAC News*, July 1972

³⁸¹ British Airways – 24th January 1973 – Memo from Mr Branch to Mr Fellows. Brighton University Design Archives

identification of the importance of the project, although approaches clearly took place, probably directly to British Airways, as a memo a year later discussed the launch of the new identity at the Design Centre. This archive material echoes the previous approaches to BOAC and, although BOAC never presented their own design work through the Council, the same worries related to the origin of designs were still very much present in 1974:

I have now spoken to Mr Johnson about the points you made in your memo of 14 March 1974 concerning our policy vis-a-vis the foreign made products in the British Airways display. Mr Johnson agrees in principle about the need to take a flexible attitude, but he considers that where possible British made products should be shown in preference to foreign made products. For example, if we are showing the new livery as applied to aircraft, it might be better to show it on a Trident than on a 707. But since the object of the exercise is to demonstrate the application of the house style to a wide range of British Airways activities, there will inevitably be examples of foreign products which they will wish to include. We think it is perfectly reasonable to expect this, provided they are not given too much prominence.³⁸²

A key piece of evidence from the Brighton University Design Archives sheds light on how the Council were instrumental in the launch of the new British Airways identity.³⁸³ A draft script is held in the CoID papers at Brighton (see figure 115). The document is a near-final draft of the speech given on the 15th July 1975 at the Design Centre for the private viewing of the new British Airways identity and accompanying text for the exhibition that showcased the various examples of how the new Negus & Negus designed identity would appear. While the whole of this thesis has documented the slow shift towards more advanced methods of commercial design and promotion, the

³⁸² Memo From Mr. John Blake , 26th March 1974, University of Brighton Design Archives.

³⁸³ At the same time that BOAC were becoming BA, the CoID was soon to become the Design Council.

language used in the script is the first evidence of it being explicitly commented on and recognised by figures of the time:

Our visual image is an important means of projecting ourselves and our product to the customer. This exhibition is about our new corporate identification system and the role it plays in marketing our product both at home and abroad... In this highly competitive business a distinctive visual image is essential. We needed a bold new corporate face and personality to visually communicate our existence and our new name.³⁸⁴

The speech clarifies the shift that took place. The BOAC brand, now known as British Airways, had become about the intangible values of the brand, the pure perception of it, rather than the physical experience of flight. Compare this to the Kenneth Holmes article 'Presenting an airline' when there was an awareness of the reach that an airline identity could have, but was focused on every single object or situation encountered where the brand may appear. The speech does continue, however, to recognise the reach of the British Airways brand, noting:

You know us as an international airline – more than 16 million passengers will fly with us in 1974. What you may not know is that we offer our customers not only an air ticket, but also a worldwide chain of hotels, tour operations, car hire, special facilities for the business traveller and much more.³⁸⁵

The document also offers context as to why the brand was developed, highlighting the time that a project such as a rebrand takes. Under the header '**Research and Scheme**', the project is said to have started 'at the beginning of 1973 to discover the qualities that the new image should project.' It goes on to note:

³⁸⁴ Memo From Mr. John Blake, 26th March 1974, University of Brighton Design Archives.

³⁸⁵ This document was marked up with pencil written notes, asking that the text be reduced and made more factual.

The brief to the designers required that the visual scheme should symbolise Britishness, reliability, worldwide magnitude, innovative dynamism, warm friendly humanity and good value for money.

Comparing this to the other summaries of British national identity, such as those from Huygen and Stephen Talents, it is clear that British Airways saw itself at the dawning of a new era of design.

Figure 114: 4:9DC1. Design Centre Exhibition: Genreal Theme Layout, Layout of the proposed exhibition, drawn by Richard Negus, 01/04/74, University of Brighton Design Archives, Brighton.

Figure 115: 'British Airways Board Exhibition', 10th August 1974, University of Brighton Design

Archives, Brighton.

Conclusion

Conclusion

This thesis set out to investigate the former national airline of Britain, the British Overseas Airways Corporation, and its aircraft interiors. The airline's history reflected a dramatic change in the approach to branding and identity design in Britain. Two key questions were asked: how can the evolution of BOAC's interiors be used to understand design's role in building a British brand in post-war Britain? And can this evolution shed light on the influence of America on British design during this period? These are two inextricably connected questions, and in answering them conclusions could be drawn about the key influences in the process of design and its subsequent outputs during this period.

As was outlined in the first chapter, '1939 – 1945: The Development of a British Brand During Wartime', the first six years of the airline's history were focused on developing a new brand image and identity, fit for a new British company in the aftermath of the Second World-War. Archival evidence of the period, in the form of internal BOAC magazine *Speedbird*, demonstrated the Corporation's understanding that the development of a modern identity would be essential for it to be competitive in the post-war passenger aviation market. In doing so, BOAC saw the aircraft interior as not just a space to be designed in isolation from the rest of the brand, but rather as an essential part of the BOAC design strategy, where its own brand values could be communicated. It is at this point that the first major shift took place in BOAC, demonstrating its approach to modern commercial design.

However, tensions in this early strategy were quick to arise. A key part of the early story of BOAC was the lack of fit for purpose aircraft it had at its disposal. But, while the physical design and experience of the BOAC interior may have not been realised, its newly developed brand could communicate how it wished to be seen. To do this,

BOAC used a variety of advertising print assets to manipulate the perception of their aircraft interiors; so where an interior was yet to be finished or introduced for example, it could still be coloured to appear in the brand colours of the Corporation.

As documented in chapter three, '1945 – 1950, The BOAC interior: 'The Show Window of British Culture'³⁸⁶, the Corporation also relied on in-flight print literature to support its brand image, so that even when the aircraft and therefore the physical design of the interiors was not what BOAC had planned, it could still situate itself as a key promoter of British visual culture through the material it produced for its passengers to read. This highlighted another tension: the airline's relationship with the Council of Industrial Design. At this point, the airline had its own design committee that made the external help of the Council redundant. However, while the Corporation may not have promoted tangible examples of British visual material culture in the mode and style of the Council's edicts, it could still act as a promotional tool for the State through its passenger reading material. In this sense, the BOAC aircraft interior became a site for the promotion of Britain design and industry.

One of the biggest findings of this research was the huge influence of America, not only on BOAC but also on commercial design in Britain. This took two forms: chapter four's case study 'Modes of American Consumption in Britain' described the appropriation of American methods of branding and identity design strategies, with BOAC influenced directly through its American advertising agency, Foote Cone & Belding, who produced the airline's branding and advertising material. A second case study, chapter five's 'Introduction of American Aircraft into BOAC Service', highlighted the use of American-made aircraft, which in turn introduced the influence of industrial designers Walter Dowin Teague and Charles Butler Associates. Unlike

³⁸⁶ Anon, 'Fashions from Britain' in *Wings over the World*, May 1946

the British designers at that time, they identified the plane as a product, something that should be designed as a whole, with passenger comfort and safety as the focus of the interior, rather than a space to communicate the airline's brand.

While chapter six, '1950 – 1954, BOAC's Jet Age: British Hope Reborn', documented a brief resurgence in the British aviation industry with the de Havilland Comet, this was short lived. The enduring force of American design and its impact throughout this period was undeniable, as seen in the shift towards consumer-centric design, expanded on in chapter 7, '1954 – 1960, Modern BOAC Jet Aircraft and The Importance of The Consumer Experience'.

Indeed, the influence of America has become one of the defining elements of this research, a bigger finding than was first anticipated. While the corporation was at the forefront of technical firsts with the introduction of the first jet aircraft, and made innovative use of European designers to implement contemporary British aircraft interiors, it was the introduction of ideas from American designers that drove the shift from European to American designed interiors. So while BOAC acted as the client, the design process of the aircraft interior was ultimately controlled by an American manufacturer and its design agency, Teague, as documented in chapter eight, '1960 – 1967: 'British Designers Left Out in the Cold'. This resulted in greater homogenisation and globalisation in the design of the aircraft interior, which in turn followed another key change in the period; flight from an elite to a mass form of transport.

Chapter ten, '1967 – 1974: Becoming British Airways', investigated the absolute shift this thesis set out to investigate. By July 1974, the brand of 'British Airways' had been introduced. And while the interior remained an important focus for the airline, it no longer needed to communicate corporate identity. Rather, it was in the over-

arching brand design strategy that the airline's identity could now be communicated. Through design, corporate identity moved from interior to brand. And for British Airways, this identity was an explicit representation of 'Britishness' – the attribute that would come to best define and differentiate it in a global marketplace.

This thesis has focused on a previously under-researched area of British commercial design history. While the physical design that took place during the period was undoubtedly important, there were other influences and processes at play that led to these design outputs. By highlighting the importance of modern branding techniques to a British company and the influence of America on these techniques and processes, a new narrative and area of research can be added to British design history.

Taking the interior as the starting point has highlighted the development of a series of wider shifts in British design: from national to global, from government run to de-regulation, from elite to mass-travel, and ultimately from aircraft interior to brand as the site of corporate identity.

While this research adds to a specific period of British design history, it also raises questions that open up further research possibilities. Using this thesis as a template, an investigation into the interiors of British European Airways, and its subsequent transition into British Airways, seems particularly relevant. Equally, an exploration of the history of British Airways and its corporate design strategy after 1974 would be of value, particularly the dichotomy of a global brand representing itself through a single national identity.

Bibliography & Sources

Bibliography & Sources

Note on Referencing and Sources:

The following is a list of the sources engaged with during this study. A considerable amount of archive material has been used, however only the items that have had a direct influence on the finished text have been included. The reader should also note that the majority of the archives used only had arbitrary filing systems, with the material not having official titles. Where this is the case, I have tried to clarify the item and its date where possible.

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Box Number: 25

For Our Discussion of June 19, 1950 on Commercial Transport Project, July 31, 1950

Walter Dorwin Teague letter to Commercial Sales, Ralph Bell, Esq, Comments on the 707 interior, June 15th 1954,

Box Number 18C Oversize

An early sketch of the 707 galleys, c.1954.

Teague's sketch of a possible seating plan and markings,

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Interviews

Robert Price, Peterborough, New Hampshire, January 2013

Seminars

(*Paper given*) 'F.H.K. Henrion and BOAC', paper given as part of research seminar on Henrion at Brighton University, June 13th 2012

Symposiums

(*Paper given*) 'The British Overseas Airways Corporation: Designing a British brand' given at the University of East Anglia as part of *British Art as International Art*, 20th – 21st April 2012

(Attended) New Perspectives on Post War Art in Britain - Cross-Cultural Engagements, Austrian Cultural Forum, London, 16th March 2012

Talks

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APPENDICES

Appendix A: Imperial Airway Posters

Figure 116: Hal Woolf, *Africa by Imperial Airways*, c.1934, Anthony, Scott & Oliver Green, *British Aviation Posters: Art, Design and Flight* (London: Lund Humpheries, 2012), p.85

Figure 117 Therey Lee Elliot, The Empire's Airways, London Transport Poster, Anthony, Scott & Oliver Green, *British Aviation Posters: Art, Design and Flight* (London: Lund Humpheries, 2012), p.71

Appendix B: FCB Work, Pepsodent.

Figure 118: Pepsodent advert, FCB, c.1950

Appendix C: Robert Price Interview

Transcript: Robert Price Interview, Friday January, 2013, Peterborough, New Hampshire, USA.

Note on transcript: This is a section of a one and a half hour interview conducted with Robert Price. The section transcribed here is the content relevant to that used in this thesis.

Interviewee: Robert Price

Interviewer: Paddy O'Shea (Author)

Paddy O'Shea (PO): How did you come to work with Charles Butler?

Robert Price (RP): I applied to Pratt Institute, which is in Brooklyn which was one of the outstanding industrial design schools of the day, probably still is. It was a three year certificate course, it wasn't a degree course. I had four years coming to me based on GIBL, so I took a year of Fine Art in a school in the south part of Richmond Virginia commonwealth. So, then I went to Pratt, I graduated from Pratt in 1951 and my first job was to work for an interior designer in New York City. I was designing furniture; that table there was actually one of the designs [points at table in living room]. It was in Life Magazine because it extended way long. Anyway, it was part of a big spread of things. Also at that time, one of the tables I designed, a nest of tables, which was in the Good Design show at the Musuem of Modern Art (MOMA). My name wasn't on it, it was Bertha Shafer who was the designer. We did interiors, I worked with her on interior s and that kind of things. Then, Martie [Price's wife] we got married early in my career there. She was a model in New York, so we saved her money and lived off what I made, which wasn't much, but you could do that in New York in those days. It was marvellous, we could see all wonderful theatre and that

kind of stuff. So, we, we both quite are jobs and travelled to Europe for three months. We travelled to England and ...[pauses]...we went to Holland and to France and then down to Italy, Switzerland then Italy. So, then I came back, I tried to sell myself as a designer of furniture down in [can't make out] which is where the furniture industry was, major furniture industry. And that didn't work out, so I went to work for a fella called Paul McCobb, he was a designer at the time – he used to get a lot of publicity in Life magazine. Then, er, I think I was a threat to the young fella who was running the office so I got fired from there. So then I got another job working for another interior designer [unnamed] – he did a lot of work for showrooms and that sort of thing. We did some spectacular work, it was great work. Anyway, then eventually it petered out because he wasn't the greatest business man in the world. So then I had a temporary job with one of Raymond Lowey's people who had gone off on his own [price couldn't remember the name of the designer]. That was temporary job and at that time there was a choice of... a fellow who was a vendor, he would come through, anyway, he mentioned there was a job with Charles Butler doing aircraft interior design. So, I interviewed with Charles Butler and that time through an agency, I had an interview with Florence Knoll if you know who that is?

PO: Yes.

RP: So she offered me a job and he offered me a job. The difference was I had to pay a fee if I went to work with Florence Knoll and I didn't have to pay anything if I went to Charles Butler 'cause it just came through a vendor. So, I went to work for Charles Butler. It was a small design office. It was Charles, his secretary and there, I think, two other designers, so, er, that's the way I got to work for him. But as, I say, I graduated in Industrial design, so we were all designers there. Butler was a designer. His background, if you want me to say?

PO: Yes, if you could.

RP: He said he graduated, his Father was an architect, and he said he graduated from the University of Pennsylvania in architecture, but John, what's name? Up in New York?

PO: Is it Zukowsky?

RP: John Zukowsky. He looked it up and he said he couldn't find anything about Charles doing that [laughs]. Anyway, one of things that was interesting about him [Charles], he played the trombone and in those days, this was when the big band era where people like Glenn Miller and Tommy Dorsey and people like that would come to College? They would do College weekends? And they'd bring their own musicians and they would have filler musicians; he worked with a bunch of those musicians, so he was a top, a good quality musician. But he also worked in the museum school there in Philadelphia and that was how, have you ever heard of Bradavic? Aleksander Bradavic [designer not found].

PO: No.

RP: Well he was a famous two-dimensional designer. He did Vogue magazine – it was either Vogue or Harpers Bazaar, I've forgotten which one, anyway, he came from Europe, he became the head of [word unrecognisable]. He became a known figure in New York City. He did this course thingy, and so Butler decided he'd go and work for him [Bradovic] because he was doing some sort of furniture project for, er, a Museum of Modern Art show. Then after that I think he worked, he did during the Second World War, he worked for an exhibit firm in New York City and they did, I guess, a lot of work for the World's Fair, that sort of thing. And then after that, he went to work for Raymond Loewy. So he was in the transportation department of Raymond Loewy. Raymond Loewy in those days was very big. They had

transportation design, product design and store design. And so, at one point he was given the job of designing, what they designed were a tremendous number of trains, trains were a big thing right after the Second World War in the United States. So they were refurbishing, making new cars, putting new equipment on the railroad because airlines were a primitive sought of thing in the United States, before, during and shortly after the world war. After the war, the production of the big Douglas, the two main [aircraft manufacturers] and Lockheed had the Constellation – those were the two main transports. Boeing had a variation of the B?

PO: Was it the Stratocruiser?

RP: Yeah, the Stratocruiser. It was a variation of the last bomber that they had. But that was a relatively small airplane. Anyway, the main aircraft company was Douglas, which produced the DC6s and 7s. And then Lockheed had the Lockheed Constellation. So, anyway, there was a small airplane, a commuter kind of airplane, that was designed by Martin in Baltimore [Maryland]. So they went to Raymond Loewy for the interior and Charlie [Charles Butler] was the one that was sent to down there to start up, to do that design. The design was approximately, I mean the aircraft, was approximately the size of a Viscount [The Viscount was the first project that Price worked on for Vickers], so it was a commuter aeroplane like the Viscount. So that's where he got his real start in the aircraft industry. Then, he and a fellow named Zimmerman went into business with each other. Zimmerman was the head of the transportation department [at Loewy] as far as design goes. So they picked up some business but I don't know the history of that.

RP: So what happened was, TCA, now Trans Canada Airlines, was interested in the Viscount. How much do you know about James Gardner as a designer?

PO: I don't know him as an aircraft designer, but I know him from his exhibition work – Montreal 1967 I think he worked on, but I wasn't aware that he worked on aircraft.

RP: The Festival of Britain I think he did?

PO: Yeah, yes.

RP: Well he did a lot of British aeroplanes for BEA I guess? He was consultant for BEA on a number of these planes. So he was their consultant on Viscount. Well, I show you the pictures

[Price moves to get pictures]

RP: That's the 700 and that's the 800 and it was done by James Gardner.

PO: Right OK – great!

RP: I picked those up on online. Apparently James Gardner may actually still be alive?

PO: I don't think he is, but I'm not sure, I can check that out.

RP: So, anyway. The main aircraft in the United States was the DC6 and the DC7. These aeroplanes were much, well you can see [laughs], that what Peter Cambridge would call, oh, agricultural?!

PO: [Laughs]

RP: [Laughing] Well you couldn't blame either one, either Vickers or Gardner because Vickers had been doing Bombers during the war, they were not doing sophisticated interiors. And James Gardner, he was a consultant to them, so he, actually those hat racks have a lot of wood in them, you can't tell it there, but I think the structure is Ash? So, you can't really blame Gardner, but definitely the interiors,

you got screws left, as you can see. Well, this didn't go over at all with the people from TCA, so the British of course said:

"Well OK, what do you want?!"

and they said [TCA]:

"OK, we'll get our own American designer"

RP: So Butler knew that, on those Douglas aircraft, they were fabric lined, they were fabric-lined aeroplanes. And there was a track, there was two kinds of track; one of the window curtains and there was some other kind of track that trapped all that stuff so you couldn't see the joints. I mean, you could see joints, but you couldn't see hardware. Anyway, that's the kind of aeroplane they [TCA] they were expecting. So anyway, they hired Charles, and he went to Weybridge [site of the Vickers factory]... he also brought with him the knowledge of how there interiors were installed in the United States. And he also brought with him the knowledge of the hat rack! So that was satisfactory to Alex Howey [Head of Furnishings at Vickers].

*****END*****

Appendix D: BOAC Aircraft

Spread consisting of all BOAC aircraft used during its history. This was compiled through my own research at the British Airways Speedbird Centre using original files to determine and check against existing information. These acted as notes when compiling and writing-up my final thesis.

Aircraft	First flight	Retired	Aircraft information	No.	Interior style	On display
Airspeed						
Consul						
Oxford						RAF London
Armstrong - Whitworth						
Wellingtons			Military aircraft used for transport purposes by BOAC.			
A.W.27 Ensign	1938 - 1941	1945 - 1947	Four engined, 40 passengers, 170mph cruising speed, 800 mile range.	14		
A.W.38 Whitley	1942	1943		15		
AW 41 Albermarie GT 1	1942	1943		1		
A.V.ROE (AVRO)						
Avro Lancaster						RAF London
Avro 691 Lancastrian 1	1945	1946 - 1951		21		

Avro 691 Lancastrian 3	1947	1947		1		
Avro 691 Lancastrian 4	1948	1949		3		
Avro XX - Tudor 1			Carried up to 24 passengers a distance of over 4,000 miles			
Avro XX - Tudor 2			Carried up to 60 people for a distance of about 2,000 miles. Note: BOAC version was laid out to carry 40 day passengers or 20 Sleeps.		Project was cancelled	
Avro 685 York	1944 - 1949	1944 - 1957	Four engines, 12-21 passengers, 230mph cruise, 2700ml range.	39		RAF Cosford
Bristol						
Type 175 Britannia 102	1956 - 1957	1962 - 1966	Four engines, 68 passengers, 340mph cruise, 4500 range	15		
Type 175 Britannia 312	1957 - 1959	1958 - 1965	Four engines, 111 passengers, 380mph cruise, 6200 range	18		RAF Cosford
Boeing						
314A	1941	1948	Water boat	3		

377 Stratocruiser	1949	1960	Converted from the WW2 C-29 Stratofreighter, itself based on the B-29. Four engine, 81 passengers, 310mph cruise, 4000ml range	17		
707-420			Boeing's first jet airliner, first entered into service with Pan Am. Four jet engines, 146 passengers, 540mph cruise, 5520ml range		Walter Dorwin Teague, Schreiber	
707-336C	1965 - 1968		Four engines, 146 passengers, 540mph cruise, 6350ml range§	4	Walter Dorwin Teague, Schreiber, Day	
707-379C	1967			1		
707-436	1960 - 1962			18		
707-465	1962			2		
747-36			Four jet engines, 365 passengers, 567mph cruise, 6505ml range	12	Walter Dorwin Teague	
Canadair						
C-4 Argonaut (M)	1949	1957 - 1966	Four engines, 40 passengers, 250mph cruise, 3100 range	22		

CL-44D-4	1963	1966		1		
Consolidated						
Model 28 Catalina	1940	1944		1		
Model 28 Catalina I	1941	1943		1		
Model 28 Catalina IB	1942	1945		2		
Model 28 Catalina IVA	1943	1945		2		
Model 28 Catalina IVB	1944	1945		1		
Model 28 Catalina Canso	1944	1945		1		
Model 32 Liberator I	1941 - 1942	1944 - 1951		7		London
Model 32 Liberator II	1942 - 1946	1943 - 1951		23		
Model 32 Liberator III	1942 - 1946	1945		6		
Model 32 Liberator VI	1947	1946* Sold before entering service		1		
Curtis						
Wright CW-20	1941	1943	Prototype aircraft	1		
BAC						

Concorde			Four engines, 100 passengers, 1350mph cruise, 3653ml range.	8		Brooklands
de Havilland						
DH.86A	1936 - 1941	1941		7		
DH.89A Rapide	1945 - 1946	1948		7		
DH.91 Albatross	1938 - 1939	1940 - 1943	Four engines, 22 passengers, 210 mph cruise speed, 1040 ml range	7		
DH.95 Flamingo	1940 - 1941	1942 1950		9		
DH.98 Mosquito T III	1943 - 1945	1944 - 1945		3		RAF London
DH.98 Mosquito B IV	1943	1945		1		
DH.98 Mosquito FB VI	1943 - 1944	1943 - 1946		9		
DH.104 Dove						RAF Cosford
DH.106 Comet 1	1951 - 1952	1951 - 1959	Four jet engines, 36 - 44 passengers, 490mph cruise, 3860ml range	11		de havilland Museum
DH.106 Comet 1A	1953	1954		1		
DH.106 Comet 2E	1957	1960		2		

DH.106 Comet 4	1958 - 1960	1965 - 1969	Four jet engines, 81 passengers, 500mph cruise, 4800ml range	19		
Douglas						
C-47 Dakota I	1943	1944 - 1948	Two engines, 28 passengers, 205mph cruise, 2125 ml range	6		RAF Cosford
C-47A Dakota III	1943 - 1944	1944 - 1949		30		
C-47B Dakota IV	1944 - 1946	1948 - 1950		24		
DC-3						
DC-7C	1956 - 1957	1963 - 1965	Four engines, 92 passengers, 320mph cruise, 5500ml range	10	Introduced when the Comets were withdrawn from service.	
Focke-Wulf						
Fw 200B Condor	1940	1941		1	Taken from Denmark after WW2 broke out.	
Handley Page						
HP. 42W	1931	1940		1		
HP.70 Halton 1	1946 - 1947	1948	Carried upto 10 passengers	12	Coverision of the Halifax CVIII.	

HP. 81 Hermes 4	1949 - 1951	1952 - 1959	Four engines, 40 passengers, 275mph cruise, 2000ml range. Following reintroduction to cover the grounded Comet fleet, the Hermes operated a 56 seat configuration.	20	Conversion of the Halifax and almost identical to the Hastings, a transport aircraft for the RAF.	Example at Duxford?
Junkers						
Ju 52/2m	1937 - 1938	1940 - 1941		3	Originally British Airways aircraft.	
Lockheed						
10A Electra	1937 - 1938	1939 - 1944		3	Originally British Airways aircraft.	
Model 14 Super Electra	1938 - 1939	1939 - 1946		10	6 aircraft originally British Airways aircraft	
Model 414 Hudson III	1941 - 1942	1942 - 1945		4		
Model 414 Hudson V	1941	1941		1		
A-28A Hudson VI	1942 - 1943	1942 - 1943		16		
Model 18-07 Lodestar	1941 - 1944	1943 - 1948		15		
Model 18-08 Lodestar	1941 - 1944	1942 - 1947		23		
Model 049E Constellation	1946 - 1953	1951 - 1955	Four engines, 38 passengers, 315mph cruise, 4275ml range.	7		

Model 749A Constellation	1948 - 1955	1948 - 1963	Four engines, 40 passengers, 340mph cruise, 4300 range	17		
Short						
S 23 Empire flying boat	1936 - 1938	1939 - 1947	Four engines, 24 passengers, 165mph cruising speed, 760 mile range	27	These aircraft were operated by Imperial.	
S 30 Empire flying boat	1938 - 1940	1939 - 1947		9	Some of these aircraft were operated by Imperial	
S33 Empire flying boat	1940	1944 - 1946		2		
S 26	1942	1940 - 1943		3		RAF London
S 25 Sunderland III	1943 - 1946	1943 - 1949	Also called Hythes?	29		
S25/V Sandringham 5	1947	1951 - 1954		9		
S25/V Sandringham 7	1948	1950 - 1954		3		
S 45 Seaford	1946	1947		1		
S 45 Solent 2	1947 - 1949	1949 - 1950	Four engines, 30 passengers, 244mph cruise, 1800ml range	12		
S 45 Solent 3	1949	1950		4		
Vickers-Armstrong						
Type 415 Wellington IC	1942	1943	Converted from military	4		

			use			
Type 456 Warwick I	1942	1943		14		
VC10	1964 - 1965		Four jet engines, 111 passengers, 550mph cruise, 4400ml range	12	Charles Butler Associates, Schreiber, Day	
Super VC10	1965 - 1969		Four jet engines, 139 passengers, 548mph cruise, 4990ml range	17	Charles Butler Associates, Day	