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THE EMERGENCE OF DONALD BROTHERS AS MANUFACTURERS OF DECORATIVE FABRICS

(The feel for rugged texture)

by

Helen Douglas

Vol. I

Thesis presented for the Degree of PhD to University of Edinburgh

1997
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Finally in illus 2:12 it is possible to glimpse both Telfer Stokes and our son Laurie, sharing in my quest for texture. At times it has been fun, other times arduous, I thank them both for bearing with me.
ABSTRACT

Donald Brothers of Dundee were factory weavers who designed and manufactured rough woven textures as furnishing fabric between 1896-1983. This thesis examines Donald Brothers’ emergence as makers of decorative cloth within an artistic framework that established the aesthetic for texture, and by close examination of their sampled fabrics sheds light on the design and meaning of woven texture for the Arts & Crafts interior between 1896-1914.

Chapter 1 examines the basic unpublished documentation of the Donald businesses which establishes that the firm’s historical involvement in Dundee’s coarse cloth trade conditioned their emergence as makers of decorative texture in 1896.

The aesthetic context that precipitated this emergence is considered in chapters 2, 3 and 4, through a study of contemporary movements in painting, architecture and hand-crafted textiles. The appreciation for texture as an object of design in Britain and America is explained.

Chapter 5 provides an analysis of the industrial basis and practicalities of running Donald Brothers between 1896-1914. Examination of the firm’s records builds up a profile of the men who directed the firm and the methods by which they shaped its design and marketing policy.

Chapters 6-9 form the heart of the thesis. They examine in detail the unique sample book records to establish the character of Donald Brothers’ materials, manufactured between 1896-1914. Chapter 6 is devoted to a study of their plain and printed jute canvases used for wallcoverings. Chapter 7 examines their range in plain and printed linens and their uses, while chapter 8 explores in detail developments in their figured weaves. Chapter 9 focuses on the originality of the rougher textures developed in
jute canvas and linen between 1906-1914. The relationship of these factory-woven fabrics to the fashionable hand-woven fabrics of the Arts & Crafts Movement is defined.

Chapter 10 examines the unpublished business records of Gustav Stickley in order to establish the importance of Donald Brothers' materials to the Craftsman aesthetic. The contribution their fabrics made within the Craftsman, Arts & Crafts home is defined.

In conclusion it is claimed that Donald Brothers' early textures were Arts & Crafts in design and manufacture and quintessential Arts & Crafts fabrics for use within the American Craftsman interior in the early twentieth century.
INTRODUCTION

This thesis originated directly out of my sensuous response to textiles with the discovery of the sample book records of the textile manufacturers Donald Brothers of Dundee, held within the Archive at the Scottish College of Textiles. The records, beautifully bound in red leather and systematically kept by the firm between 1896-1960s opened to reveal, page after page, fabric samples of a directness in woven texture and clarity of inter-related colour which stimulated my curiosity.

On further investigation it rapidly became evident that the firm were deeply involved in the innovative design of texture and colour in furnishing fabrics for the interior between the years 1896-1970s. It was also evident that within this time span the firm's work fell into three distinct periods, the early Arts & Crafts period between 1896-1914, the Modernist period of the 1920s and 30s and finally the post-war period between 1946-1970s. This thesis examines Donald Brothers' original design of texture and colour and its relationship to the needs of the Arts & Crafts interior.

From an initial survey, it was evident that the fabrics of the middle, 1930s period fitted in with the modernist aesthetic which required these qualities for the interior. A study of Bauhaus design, Herbert Read's Art and Industry (1934) and Paul Nash's Room and Book (1932) had all elucidated this.\(^1\) Recent scholarly studies on Ethel Mairet and Marianne Straub's textiles had drawn attention to these important qualities as objects of aesthetic intent within British woven fabrics of the 1920s - 30s period.\(^2\) The textures and colours of Donald Brothers clearly fitted within such a context. Indeed the firm, marketing their furnishing textiles under "Old Glamis Fabrics" were considered, within contemporary and recent literature on the 1930s period, as originators in this field with other firms
such as Edinburgh Weavers of Morton & Co. and Warners & Sons. A page within The Studio Year Book (1933) (illus 0:1), illustrating Donald Brothers' "modern" woven linens alongside Warner & Sons fabrics, makes precisely this point.

The sample books of the later 1950s and 60s period revealed the continued innovation in the firm's exploration of texture and colour. Contemporary literature likewise focused on this aspect of their work. The magazine Design featuring "The design policy behind 'Old Glamis' Fabrics" (1953), records that with the increased interest in "surface texture" over twenty years, the firm could "rightly claim to be pioneers in the production of weaves and textures". Their woven designs formed in "the hands of one
or more individuals" were created by "a process of varying yarns, twists, colours and operations on the loom". By the 1960s such designs had received Design Centre Awards for distinctive texture and colour. The "style and character" of Donald Brothers' recognised work was admired for its "northern simplicity" and "feeling for craft-based manufacture". It was the "blending of the different textures of the threads" which gave their award winning cloth, Glendale (illus 0:2), "its special character".

For the two periods therefore, from the mid 1920s - 1930s and after the war in the 1950s - 1960s, the firm's work in texture and colour could be located within a design context which valued these qualities, and their significance for the interior. Research would document this work and clarify this significance, identifying the part and distinctive contribution Donald Brothers made to the Modern Movement in design.

Examining the earliest textures and colours originated by the firm between 1896-1914, it was evident that similar textural weaves, robust in
construction with yarns boldly expressed, had been manufactured. Here, as in the 1950s, design was manifest by a "process of varying yarns, twists, colours" and indeed "operations on the loom". I wondered what was the context for such design of texture and colour, within this period of its making. Certainly in the Arts & Crafts period, inspired by the championing by John Ruskin of textural expression in the Homespun, there had been a revived interest in the craft of hand-spinning and weaving. This revival had prompted the exhibiting of texture and colour in textiles at the Home Arts and Industries exhibition of 1900 and the last four Arts & Crafts exhibitions of 1906-1916. But that was hand-craft. Donald Brothers' fabrics were factory made. I wondered what was the relationship between their textures and those made on the hand-loom? Were their textures and colours in imitation of such hand-craft or were they themselves the result of genuine craft, formed in "the hands of one or more individuals" on the power-loom within the factory? Perhaps they were both, being unacknowledged examples of "craft-based manufacture" in texture and colour of the Arts & Crafts period. This was a nugget of an idea that needed to be explored, together with the market that required such texture and colour in the Arts & Crafts period.

This thesis aims to illuminate the nature of these rugged textured materials within a study concentrating on the emergence of Donald Brothers as manufacturers of Decorative Fabrics between 1896-1914. It aims to demonstrate that texture and inter-related colour were objects of aesthetic intent in the textiles of Donald Brothers in this period. It also aims to demonstrate that such texture and colour was crafted within the factory to express individuality and naturalism in making. It aims, therefore, to prove that the textiles of Donald Brothers were Arts & Crafts in design and making; not just Arts & Crafts as marketable style. Finally, it aims to locate
the firm's fabrics in use within the interior, to demonstrate their quintessential importance as furnishings of the Arts & Crafts. In this way the thesis proves that in design and use the fabrics manufactured by Donald Brothers constitute a significant group of Arts & Crafts textiles which cannot be ignored by historians of design and architecture.

Born out of the indigenous coarse cloth of Dundee manufacture, the firm's woven texture will be firstly studied within this context. It will then be considered within a wider context of the picturesque and building crafts which developed the crucial aesthetic appreciation for visual texture and the fashionable taste for woven texture in Arts & Crafts architecture and hand-woven textiles by the early 1900s. This led to the acceptance of Donald Brothers' textured materials as furnishings, and thus their emergence as makers of decorative fabrics. A study of the individuals, structure and workings of the company provides insight into the nature of the firm, preparatory to the study of their fabrics. Analysis of the firm's design and manufacture of constructed texture and colour in cloth, examined in relation to hand-crafted texture and colour, establishes the nature of the fabrics by Donald Brothers, and reveals the individuality of their design approach. The firm's approach to pattern is examined through a study of the printed and figured weaves, and is shown to have been conceived in relation to texture and colour, as an integral part of their range. This demonstrates a breadth in their work which at times verged on contradiction, and illustrates the widening vocabulary of Donald Brothers as makers of decorative fabrics. It also highlights, by contrast, the firm's consciously developed sophistication as designers of rugged texture. Finally, within the context of Gustav Stickley's Craftsman interior, the materials of Donald Brothers are studied in relation to their intended use.
They are understood as providing crucial background effect to establish design unity within the interior, and express a quality of picturesque naturalism in harmony with rugged nature.
SURVEY OF LITERATURE

To investigate the emergence of Donald Brothers as decorative manufacturers through a study of their design of texture and colour in cloth formed the basis of my research. This involved me in methods of study for which I did not find satisfactory models. Studies in textile history rarely put such focus on the aesthetic of basic cloths, or their meaning in terms of design and use. Alistair Drurie’s study of *The Scottish Linen Industry in the Eighteenth Century* (1979), while providing an understanding of the industrial background to Donald Brothers, is solely an economic history of this industry. Of the contemporaneous textile firms, only two, Alexander Morton & Co. and Warner & Sons, have been studied comprehensively, but such research tends towards biography on the one hand and design context on the other. Three Generations in a Family Textile Firm (1971) is a marvellous narrative about the men involved in developing the Morton companies, but does not provide any precise information on the designed aesthetic of their textiles, including the textured weaves that they manufactured. Likewise A Choice of Design 1850-1980. Fabrics by Warner & Sons (1981), provided design context for an exhibition of Warner fabrics which it accompanied, but almost no analysis of the fabrics themselves. Important woven textures of the 1930s are conspicuously not illustrated within the latter catalogue.

Donald Brothers itself has never been the subject of sustained research and, as indicated in the Introduction, has received notice only for its products that post-date 1920. This research demonstrates that such omissions have resulted in the misrepresentation of furnishing textiles, for the period 1896-1914, in three related spheres: surveys of Arts & Crafts textiles, studies of textiles as used in Arts & Crafts interiors, and studies of American Arts & Crafts interiors and architecture.

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In relation to surveys of Arts & Crafts textiles, Linda Parry, in her comprehensive account of *Textiles of the Arts and Crafts Movement* (1988), mentions Donald Brothers only four times, twice in the context of purchases by Heal & Son and twice in relation to designers, Ann McBeth and C F A Voysey, who sold designs to the company. Although her introduction explains that the book focuses on the contents of the Arts & Crafts Exhibition Society's exhibitions, the four passing references to Donald Brothers position the firm as passive participants in the development of textiles in the period. In addition, the Morton and Warner companies are included in the catalogue of designers, craftsmen, institutions and firms that forms nearly one quarter of the book: Donald Brothers is not, sustaining the impression that they did not make a substantial contribution to the Arts & Crafts aesthetic.

This thesis is the first research to make this claim for the products of Donald Brothers, and is original in doing so, in part, because the systematically-kept chronological records of the firm have never before been examined. Samples of their work in other company collections, the Heal & Son sample books in the National Archive of Art & Design and the production records of G P & J Baker, have also never been the subject of published comment on the company; *A History of Heal's* (1984) and *From East to West: Textiles from G.P. & J. Baker* (1984) omit any reference to Donald Brothers. In addition, while Donald Brothers' work of the post-1920 period is represented in museum collections, their earlier production is not. The publications documenting, both directly and indirectly, the holdings of the Victorian & Albert Museum, have in particular created the impression that the company only became innovators in this later period. In the catalogue of the exhibition *Thirties: British art and design before the war* (1979) for example, Donald Brothers are mentioned as innovators in
conjunction with Helios and Allan Walton, both founded in the 1930s. In The Victorian & Albert Museum's Textile Collection: British Textiles from 1900 to 1937 (1992), the earliest Donald Brothers' fabric illustrated dates from 1936, and the entry on the firm places similar emphasis on the 1930s:

"In 1936 described as the manufacturers of "Old Glamis Fabrics" with specialities listed as Art canvas, Art linens, and other decorative fabrics for Wall-hanging. Stencilling, Embroidering, Draping, Upholstering, etc. Best Known for high quality woven linen furnishings."  

By examining the company's development of texture and colour in cloth between 1896-1914 this thesis establishes that their innovation in the 1930s was based on earlier practices.

In her book English & American Textiles (1989), Mary Schoeser suggests that crafted texture and colour of the Arts & Crafts period was "motivated by idealism rather than fashion", that such fabrics were "never produced in enough quantities to become widely used". The textured weaves of Donald Brothers, however, were factory produced in quantity, and therefore needed a market. The recorded names of both British and American customers within the sample books demonstrate that there had been a market, one that was evidently larger than that recognised by Schoeser. From the name of one customer alone, the American craftsman Gustav Stickley, a context for the design and use of the materials made by Donald Brothers emerged. This was, that contrary to many of the textiles from the Arts & Crafts Movement - made to display design and technical virtuosity in visual brilliance - the materials by Donald Brothers were designed and manufactured to aid in the architectural goal of design unity. In their accentuated construction, their delight in texture and colour, they harmonised with the architectural exploration of construction and materials, providing harmonious background effect within the interior.
inter-woven with the exterior.

It was in this way that the textiles of Donald Brothers could be understood within a context of the picturesque and architectural craft -as opposed to the 'movable' crafts - a definition coined by Elizabeth Cumming and Wendy Kaplan in their book on The Arts & Crafts Movement (1991).\textsuperscript{16} Yet in these authors' discussion of architectural craft, no suggestion of the significance of textured fabric for the integrated interior between 1896 -1914 was made. Gillian Moss writing on textiles of the American Arts & Crafts Movement noted

"that textiles 'per se' were not very important in the American Arts & Crafts interiors. Both the architecture and the furniture were meant to dominate the look of a room with their prominent use of wood and their strong horizontals and verticals."\textsuperscript{17}

An examination of the writings and products of Gustav Stickley (1858-1942), manufacturer of Craftsman furniture and editor of The Craftsman magazine (1901-1916) who, committed to the ideal of design unity within the interior, was the main promoter of Arts & Crafts houses for the middle classes in America, allow this research to refute the conclusion of Gillian Moss, that textiles were unimportant to American Arts & Crafts interiors. Rugged, irregular textures and colours in fabric, many made by Donald Brothers, formed an essential part of the integrated plan of Stickley's Craftsman homes. Used for wallcoverings, portières, curtains and cushions, textured fabrics became integrated into the very fabric of the house. Because of their successful integration these textiles have been generally overlooked by historians and publishers in favour of the more decoratively ornamental and visually assertive textiles of the period. Yet their constructional nature, their material quality of texture and colour afforded an important component within the overall harmony of the interior which can not be ignored.
Much more inspirational for my chosen approach are Kenneth Ponting's perceptive essay "The Scottish Contribution to Wool Textile Design in the Nineteenth Century" (1987), examining the design of texture within the Scottish tweed industry and Mary Schoeser's study on Marianne Straub (1984). In both studies weaves are examined to reveal the designers' handling of fibre, yarn, colour and weave to construct texture. In the latter, weaves are technically described to explain the process of designing texture, and photographic illustrations draw attention to the aesthetic qualities found in the textural weaving process (illus 0:3).

*Illus 0:3 Photographic study of a 1950's woven fabric by Marianne Straub used on the cover of Schoeser's book.*
Likewise, Else Regensteiner's weaving manual *The Art of Weaving* (1986), uses close up photography to convey visually the art of textural process (*illus 0:4*) within her chapter "exploring the weaves".  

What is inevitably missing from a book such as this, geared towards explaining woven structure, is the interpretative meaning that the weaving process may convey. Indeed this can only be made by studying weaving within a broader cultural context which defines its making and use, and is therefore a premise that is fundamental to this study of Donald Brothers.

Rare examples of historical focus directed to the use of texture within the interior can be found in Mary Schoeser's cited book on Marianne Straub and also within her chapter on "basic cloths" in *English and American Textiles*. In the latter, basic cloths are introduced in chapter one to stress their importance as "the mainstay of fabric use and the points of departure for novelty and invention". Amongst them "unpatterned woven fabrics" are described as "the foil for more boldly patterned textiles or wall papers, as
complements to polished woods, understated modern interiors or cottage furniture". By acknowledging the importance of these basic cloths, Schoeser opens up the historical study of textiles, to probe more deeply into their meaning when used as a "foil" within the interior. Thus it is in this probing spirit, guided by aspects of the various approaches described above, that I returned to original sources as much as possible to develop my own approach. This involved research into the design and meaning of Donald Brothers' texture and interrelated colour as a picturesque background foil, within the interior.

The main sources for the study of the fabrics manufactured by Donald Brothers are the unpublished red leather bound sample books kept by the firm between 1896-1964. The majority of these, which include all eleven Canvas sample books (1896-1946), all six Tissue sample books (1910-1946), and eight out of the fourteen Linen sample books (1925-1927 & 1927-1946) are held in the Archive of Historical Textiles at the Scottish College of Textiles. These books, and eleven other similar bound books, recording sampled fabrics for the years between 1946-1964, were saved by design staff at the college, when William Halley & Sons Ltd took over Donald Brothers, and moved the latter out of the Old Glamis factory to the Wallace Craigie Works in 1983. The six remaining sample books, which fill the conspicuous gap in the college collection of Linen sample books for the years 1907-1925 & 1927 were found after three years of my research, within cupboards at the Wallace Craigie Works. These books are now held together in the pattern cutting area of Donald Brothers at the Works. For the years 1896-1914 therefore, the sample books recorded jute canvases in Canvases No. 1 (1896-1914), Canvases No. 2 (1904-1911) and Canvases No. 3 (1911-1914). Linen records were begun in 1907 with Linens No. 1 (1907-1911) and Linens No. 2 (1911-1921), and in 1910 records of union tissues
were begun in Tissues No. 1 (1910-1920). From the commencing dates of these sample books it would appear that Donald Brothers began making canvases in 1896, linens in 1907 and tissues in 1910. However other unpublished records demonstrate that linens were in production by 1898 and experiments in tissues were begun c. 1903.

The value of the sample books is that they provide a well catalogued, comprehensive view of the woven trials in fabric that Donald Brothers made in the years documented. Within each book, pages are numbered, holding four samples of fabric to the page. The pages record the samples under "name/number" and "colour", and sometimes give details of a fabric's width and fibre content. They also provide information on the dates when fabrics were either originated (trials), stocked or taken up by a particular customer. Such orderly documentation -not always so readily available in weaving records - helped me locate and identify the samples and systematically explore their developing subtleties of variation in texture. They also enabled me link the fabrics to a market via the names of customers.

The main drawback of the sample books is that the samples are quite small, approximately 6x13cm. This size is just sufficient for the visual reading of textured weaves, but not for patterned weaves. With the latter only a fragment of the pattern is presented and a sense of the whole is often lost. However within this study concentrating on texture, it has been possible to understand pattern in relation to weave and the construction of surface texture - as an integral part of the designed cloth.

In addition to the red leather bound sample books, two other early books of fabric samples have come to light in the course of this research. At the Wallace Craigie Works an undated counter book of stocked Art Linens: Plain and Figured, was found. This book (19x25cm) contains samples of
linens, some of which are recorded within Linens No. 1 and Linens No. 2. From these samples, the book can be dated to c. 1912 and certainly to before 1914, when some of the stocked linens were cancelled. Some of the linens in the counter book do not appear in either Linens No. 1 or No. 2 and can be understood as originating before 1907, the year when records of linens began.

The beauty of the counter book is that it provides insight into a stocked range of linen fabrics that Donald Brothers consciously marketed as Art in the Arts & Crafts period, thus also defining the market as 'Art' for their textures. Presented as larger samples than those within the sample books, the fabrics are held together at the spine rather than stuck down onto pages. This presentation enables both the observation of surface texture and most importantly gives a rare chance to see how woven texture looks against the light - as it would have appeared in use as curtains within the interior.

The other record of sampled fabrics, the Barclay Lockhart Sample Book, was given to me by Tom Lockhart of N. Lockhart & Sons. This book contains sample trials of "new decorative materials" in figured linen and union tissue that Donald Brothers - with N. Lockhart & Son - began to experiment with from 1903-06. It includes dated design sketches by David Tullo Donald, as well as five letters written by him and two by Frank Donald, discussing the venture into decorative materials and details related to the design and interpretation of pattern into woven cloth. The value of this book is that it documents work in linens and tissues, prior to the respective records begun in 1907 and 1910. It also provides invaluable insight into the design thinking of the firm's designer-director David Tullo Donald, in this early period.

In addition to the above fabric records, which are all classified

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within the bibliography as part of the Donald Brothers collection, other records of fabrics and printed designs related to the firm's early production can be found in other business collections. These collections are the furniture manufacturers and retailers, Heal & Son Archive, the design studio Arthur Silver Collection and the textile manufacturers, G P & J Baker Ltd. Archive. These three different collections—provide evidence of Donald Brothers' plain and figured linen productions between 1898 and 1912 (Heals'); their printed designs for canvases between c. 1896-1900 (Baker's); their printed linens between 1900-1909 (Heals'), and their purchase of print designs from the Silver Studio between 1906-1909. The importance of these records is that they identify areas of textile involvement which are undocumented by the firm's own sample books and thus widen the scope of this study to include Donald Brothers' plain linens made between 1898-1907 and that of their printed canvases and linens between 1896-1909.

From the above survey of primary, unpublished records of Donald Brothers' work it is shown that their plain, textured canvas (1896-1914), figured canvas (1906-1914), and printed canvas (1896-1900) can all be studied. Their work in plain and textured linen (1898-1914), printed linen (1900-1909), figured linen (1903-1914) and decorative tissues (1903-1914), can all be examined.

Widening the field of survey to include primary, published material on the work of Donald Brothers proved difficult. This is because journals, books and catalogues of the period did not tend to focus on plain textures, or if they did, they did not specify who had designed and manufactured them. For instance Hermann Muthesius in The English House (1904) and W Shaw Sparrow in Hints on House Furnishing (1909) both wrote of the popularity and importance of fabric texture for wallcoverings in the early
twentieth century. Sparrow concentrated on the quality of texture itself and Muthesius on its relation to stencilled pattern. Neither suggested in their accounts that such texture was purposefully manufactured. Indeed part of its attraction was that it was regarded as 'seemingly' raw and natural, like utility cloths. The discovery therefore, of two reviews of Donald Brothers' work in decorative texture, discussed in relation to their Decotex and stencilled pattern, within the *Journal of Decorative Art* of 1905, was a unique and important find. These reviews provide contemporaneous acknowledgement and appraisal of Donald Brothers' texture and colour. They also illustrate the otherwise undocumented work of their range in stencilled canvases at this period.

The problem of identifying the work of Donald Brothers, which was exacerbated by its modest role as natural background within the interior, led to the examination of unpublished business records, in conjunction with published literature of the period. The Heal & Son archive records identified materials by Donald Brothers that Heal's stocked. This enabled their attribution within Heal's *oeuvre* as advertised within their publicity literature.

The *Gustav Stickley Business Papers* at the Winterthur library revealed Stickley's purchase of canvases and linens made by Donald Brothers. This provided a sound basis for the matching of some of the firm's fabrics by name and description to Stickley's Craftsman fabrics which were discussed in his Craftsman publications. With this identification, an understanding of how their fabrics were perceived and used in the period was gained. Published Craftsman illustrations involving pencilled renderings of texture in use, on walls, cushions, portières and curtains could thus be effectively read as renderings of Donald Brothers' textures, and allow this research to contribute to the fuller understanding of
Stickley's interiors.

Much work remains to be done in this area of identification, through linking Donald Brothers in this detailed way with their customers. The two examples which were researched sufficed to link anonymous acknowledgements in published literature of the time to materials by Donald Brothers. Methodically searching outwards from the fabrics, it was possible, through a combination of both visual and literary cross-references to activate the firm's sampled fabrics within a context of use in the interior. For instance fabrics were matched to textures which were described by the Craftsman publications, and working from a viewpoint centred on the fabrics, the interior was gradually pulled into focus and made visible. The advantage of this approach was that the subject of this thesis, woven texture and colour, was given the focus it required to fully explore these qualities as allusive background effect.

The sources used to establish the conceptual framework that validated the study of Donald Brothers' fabrics included scholarly writings in economic textile history as well as in the field of art, architecture and design history. It also incorporated a survey of primary unpublished documents and published literature of the period. For example, to understand the emergence of Donald Brothers as a manufacturer of decorative fabrics within the context of Dundee's highly specialised manufacture in coarse cloth involved a general study of writings on the Dundee textile industry (see bibliography). Against this study, unpublished documents related to the Donald businesses could be examined and interpreted. Texts by E E Gauldie and others such as Dundee and Its Textile Industry 1850-1914 and The Dundee Textile Industry 1790-1885 proved invaluable, as also a study of the history of Dundee and its trades in the city museum.27 Such study enabled a
meaningful sifting through published Dundee directories and unpublished records of title deeds, inventories and valuations related to the Donald and Donald Brothers' businesses, held by William Halley & Sons.28 These established when, where and in what the firm's original businesses had been and suggested reasons for their subsequent development as manufacturers of decorative fabrics.

Sources used to establish the origins and development of texture as an object of aesthetic contemplation involved a general study of the picturesque, drawn from original texts by Uvedale Price and Richard Payne Knight as well as secondary texts such as Christopher Hussey's *The Picturesque: Studies in a Point of View* and Nikolaus Pevsner's essays on *Uvedale Price* and *Richard Payne Knight*.29 To trace the development of texture in architecture required a study of scholarly works on British and American nineteenth and twentieth century architecture.30 Texts such as Andrew Saints' study on *Richard Norman Shaw* (1976), J D Kornwolf's study on *Mackay Baillie Scott* (1972) and Vincent Scully's perceptive work on the American *Shingle and The Stick Style* (1972) proved invaluable.31 These texts enabled me trace the enactment of texture as a conscious aesthetic in architecture, which led to the examination of Stickley's Craftsman homes, where the textures of Donald Brothers were located. Stickley's extensive published works, including *The Craftsman* journal (1901-1916), *Craftsman Homes* (1909) and Craftsman catalogues provided crucial primary texts for this study. Using these texts as a starting point, this thesis makes the first known attempt to analyse textiles in relation to the picturesque.

The importance of the picturesque aesthetic for this study cannot be over-estimated. Historically the recognition of beauty in visual texture developed the textural inter-woven plan within architecture which linked
the exterior and interior of a building. This created the context for Donald Brothers' woven texture and encouraged me in my approach and structuring of this thesis.\textsuperscript{32} Gustav Stickley's delight in visual texture, including woven textures made by Donald Brothers, gave me the historical confirmation that the firm's textures had been made for the eye rather than their tactile value. The firm's textures have thus been explored in relation to light with both eye and camera. The camera - with close up lens - has itself given greater visual focus to this subject. Teasing out understanding of texture has also involved teasing out words for the text. Texture has been described in terms of how it looks aesthetically to the eye, with weave technique described from this viewpoint, to discern expression in the textural weaving process. Where technical terms are used the reader can refer to the Glossary.

Concurrent with this examination of picturesque texture, therefore, was the study of the critic John Ruskin's (1819-1900) concept of individuality of expression, discerned in the surface handling of texture, and of its meaning for the Arts & Crafts Movement. Ruskin's essay on "The Nature of Gothic" in \textit{Stones of Venice} (1853) provided the basic text for this study, whilst Ernst Gombrich's \textit{The Sense of Order} shed critical light on the importance of Ruskin's concept for the Arts & Crafts Movement.\textsuperscript{33} Arts & Crafts architecture studied from art journals such as \textit{The Studio}, as well as from scholarly writings on the subject, enabled the architects' preoccupation with building craft to be understood in relation to textural expression.\textsuperscript{34} E S Prior's (1852-1932) unique paper entitled \textit{Texture as a Quality of Art and a Condition of Architecture} (1889), examined in conjunction with an analysis of his design of texture through architectural practice at Home Place (1904-06), provided crucial sources for this discussion.\textsuperscript{35}

This research is the first to position textiles within the context of
architectural materials. By tracing a line through the above material on the picturesque and the Arts & Crafts it was possible for the purposes of this thesis to focus attention on the conscious development of texture, and even more specifically interwoven texture, *textura*, as an object of aesthetic intent in architecture. This provided the crucial context for the use of woven texture within the interior, and also a key to the analysis of woven texture of the Arts & Crafts period. In this field I found I was charting new ground. Unlike Linda Parry, who suggests in *Arts & Crafts Textiles* that "technique controlled design" in the developing interest for structure and texture in cloth by 1906, this thesis outlines how texture was developed as an object of aesthetic intent, designed as in architecture according to picturesque and Arts & Crafts principals.

To establish the historical accuracy of this belief required a broad survey of written material on the craft revival in hand-spinning and weaving and an examination of hand-woven fabrics. John Ruskin's championing of the Homespun and his appreciation for plain weaving was established from a study of his evocative description of weaving and the hand-loom, as rendered in stone on Giotto's Duomo tower, "The Shepherd's tower" in *Mornings in Florence*; from letters included within *Fors Clavigera* (1871-84), from an 1881 Report to the Guild of St George, and in addition from Albert Fleming's account of Ruskin's support for the Guild's revival of hand-spinning on the Isle of Man, all held within *The Complete Works of John Ruskin* (1903-1912). These texts illuminated the basis of the Arts & Crafts expressive interest in weaving as a constructional building art, while British journals such as *The Studio*, *Art Journal* and *The Artist*, and *The Craftsman* in America revealed the influence of Ruskin's thinking on practitioners. Texts were uncovered which alluded or referred directly to the inspiration gained from Ruskin for the development of irregularity (see (xxvi))
bibliography); texture becoming the focused expression of individuality. In addition, an examination of samples of plain hand-woven fabrics woven by craft industries such as The Spinnery and The Langdale Linen Industry dating to c. 1896 - c. 1910, now held within the Museum of Lakeland Life in Kendal, revealed the expressive nature of the constructive process, made visible through texture. Within this context it was possible to locate Donald Brothers' own machine-woven texture. This justified the comparative study made between examples of hand-woven texture and those of Donald Brothers developed within the factory to highlight the expressive constructive process developed by the firm before the World War I.

Research into the nature of the firm's highly competitive, factory-based business, which arguably was at odds with the idealism and expressive individuality of the hand-weaving industries, and therefore in need of clarification, required an extensive examination of primary sources. Published directories for Dundee and London located the whereabouts of the factory and offices for the business, whilst the firm's unpublished business records of Valuations of Heritable Property at the James Park Factory (1880, 1891, 1899, 1906), Valuation of Moveable Machinery (1880), an Inventory of Heritable and Moveable Machinery (1906), their Private Ledger No. 1 (1907-1918) and Private Letters No. 1 (1910-1914), all held by William Halley & Sons, provided information on the nature of the business itself. The valuations and inventory established the size of the firm's factory, its capacity and layout as regards machinery, and enabled speculation on the manufacturing and design facilities within the factory.

Private Ledger No. 1 (1907-1918) containing wages records, provided some idea of the staffing within the factory. In addition Private Ledger No. 1 also records balance sheets and profit and loss accounts for the years 1908-1918, and contains an important "analysis of accounts" for
the years 1899-1918. From this analysis, the net profit made by the firm in the early 1900s up to the war was established. *Private Letters No. 1* (1910-1914), being the bound volume of two hundred and forty four pages of correspondence, between the director Frank Donald (in the Dundee office) and Bernard Donald (in the London office) provided more detailed figures for the business. It contains details of the overall turnover for the company between 1906-1912, with a breakdown of their markets. It also provides some pricing of their fabrics. These figures sufficed to establish a skeletal framework of the firm's business and markets, in the absence of more detailed business records of orders, sales and prices.

*Private Letters No. 1* proved a vital document to this thesis. Comprising letters written on a day to day basis, the volume fleshes out with detail the factual framework of the business, established by the accounts. It contains information on the day to day running of the factory and the business and the firm's policy as regards design and marketing. It provides insight into the interaction between the manufacturing end of the business in Dundee and the London office and between the personalities involved. It also relates to the business interaction between Donald Brothers and N Lockhart & Son, their linen weavers. Because "team work" was considered paramount to the development of the Donald Brothers business in making cloth, a deliberate decision was made to refer to the firm as "they", as well as their "manufacture/products/etc.".

The important group of seven earlier letters (1903-06), written by David Tullo Donald and Frank Donald to Barclay Lockhart, discussing the design and manufacture of decorative figured weaves, contained within the *Barclay Lockhart Sample Book*, likewise provides invaluable insight into the design and manufacturing policy of Donald Brothers, and of their interactive working relationship with Lockharts. Both groups of letters
furnish a needed human intimacy to the subject of Donald Brothers, and those who creatively directed the firm. From them, in addition to the sample books themselves, the individuality of Donald Brothers' manufacturing is revealed. David Tullo Donald's letters give insight into his sensitive thinking as a designer, his understanding of the importance of craft as well as the realistic direction he sought for Donald Brothers as industrial manufacturers. Frank Donald's letters in *Private Letters No. 1*, written after David Tullo Donald's death, provide insight into this man's thinking as a manufacturer. They reveal his keen marketing flair and his understanding of the interactive process between design and marketing. Such insights also contribute important comparative material to the understanding of smallscale specialist textile manufacturers of the period, such as Foxtons, St Edmundsbury Weavers and Warners, of which only the latter's directors' motivations have been documented (*Choice of Design*, 1981).

More revealing material and leads related to the above two men who shaped Donald Brothers in the early period were uncovered through David Tullo Donald's granddaughter, Mrs Susan Campbell, and Frank Donald's daughter Mrs Deborah Kinnear. Of particular importance for this study were the typed copies of *Frank Donald Papers* on Donald Brothers and their furnishing fabrics delivered in the 1930s. Most of these papers are held by Mrs Kinnear, while some are held by William Halley & Son. Dating from a period beyond that covered by this study, the lectures are retrospective in their discussion of the early period before World War I. This meant that the early period is recorded through the mind set of the 1930s, Frank Donald's selected reminiscences reflecting closely Nikolaus Pevsner's view of the Arts & Crafts as the spawning ground of the modern movement. However, unlike many modernists with whom he was in
contact in the 1930s, Frank Donald argued against standardisation. Instead, he still championed the Arts & Crafts ideal of individual expression within industrial manufacture and declared the importance of the early 1896-1914 work for Donald Brothers' expression within the 1930s. Thus, the papers reveal Frank Donald as a man formed by and in sympathy with the Arts & Crafts period. It is in this spirit that they have been extensively drawn on as authentic documentation for the early period, to illuminate with conclusive authority the original design and manufacture of texture and colour in furnishing fabrics by Donald Brothers within the Arts & Crafts period.
Footnotes.


3. Donald Brothers' work was featured in many journals of the 1930s such as Architectural Review, The Studio, Design for To-day and Decoration. See also Pevsner, N. An Inquiry into the Industrial Art in England, Cambridge, 1937. For contemporary discussion of Donald Brothers see Schoeser, M. Fabrics and Wallpapers, (Twentieth Century Design), Bell & Hyman, London, 1986.


5. Ibid.


7. Ibid., 1964.


21. There are 36 sample books held within the *Archive of Historical Textiles* at the Scottish College of Textiles. Between 1896-1946 Donald Brothers sample books recorded canvases, linens and tissues separately. From 1946-1964 sampled cloths were not recorded by quality, but only by year. See my bibliography of unpublished sources: *The Donald Brothers Collection*, SCOT.


(***ii***)
26. The Stickley Archive, Coll. 60. 76x101. Winterthur Library, Delaware, U.S.A.


28. These records are all listed in my bibliography of unpublished sources: The Donald Brothers Collection, William Halley & Sons, Dundee.


30. See Bibliography: Contemporary Printed and Secondary Printed Material.


32. I researched in two directions, outwards from the unpublished company documents and fabric samples themselves, and conversely inwards, from the historical field of context that encircled the textiles, to locate the firm’s texture within the conceptual framework that validated their study. The latter approach established context and helped structure chapters 1-4, whilst the former examined the company and their fabrics and underlay the structure of chapters 5-9. The final chapter 10 drew on both approaches, to interweave the exploration of Donald Brothers' texture within a context of use in Stickley's Craftsman interiors.

34. See Bibliography: Contemporary Printed Material and Secondary Printed Material.


36. Parry, L. op.cit., p. 89.


38. See Bibliography: Unpublished Sources: The Donald Brothers' Collection, William Halley & Sons, Dundee.


40. See Bibliography: Unpublished Sources: The Donald Brothers' Collection, Papers, Coll. (1) & (4).

CHAPTER 1. THE STAPLE COARSE CLOTH OF DUNDEE

This chapter aims to show how the emergence of Donald Brothers as a manufacturer of decorative texture was conditioned by their own historical involvement in Dundee's indigenous coarse manufacture, reliant on rough fibre, yarn and weave. Section 1:1 provides a brief outline of the historical reasons and nature of Dundee's specialisation in coarse linen and jute cloth, drawing from scholarly studies made on the Dundee textile industry. Against this historical perspective in section 1:2, the rise, fortunes and nature of the Donald businesses between 1830-1890 and Donald Brothers' emergence as decorative manufacturers by 1896 will be traced, through an examination of primary unpublished records of the Donald businesses and primary printed matter in the form of Dundee directories and maps.

1:1. An Historical Perspective

When in the 1830s the Donald family founded their flax spinning business at the Pitalpin works, Lochee,1 Dundee, within whose burgh boundaries Lochee fell, was rapidly expanding as an industrial textile centre. Mill spinning was replacing hand spinning after the successful introduction of wet spinning flax,2 and hand-loom weaving - traditionally carried out by self-employed weavers within their homes - was being centralised within factories, gradually giving way to power-loom weaving by the 1850s.3

Since the middle ages Dundee's involvement with textiles had been established. Through exporting wool and woven plaids to Germany, and importing from the Baltic - not only timber for the building of their ships - but also flax to weave into sail canvas and bags for carrying cargo, and hemp to make into cordage, ropes, fishing nets and sacks.

Only with the early eighteenth century after the Act of Union, when Scotland was banned from exporting wool, did Dundee and the
surrounding district's textile interests turn entirely to working with flax. Encouraged by the British government to make this linen industry self-sufficient, arable land was selected by the Board of Trustees for Manufacturers for flax sowing and farmers were instructed in its cultivation. In comparison with flax grown on Irish soil, however, the crops harvested in Fife and Angus were coarse and accordingly hand-loom weavers turned to weaving coarser linens than the finer qualities their counterparts in Ireland could weave. Although home grown flax was soon abandoned in favour of Baltic imports, the expertise and markets established for Dundee's coarse staple ensured that specialisation developed in this area of the linen trade. Thus as the industry grew it established its superiority in the production of osnabergs, heavy linens, canvas and sail-cloth, broad sheetings, and baggings.

The dependency on cheap Baltic flax brought in further developments in Dundee's specialised coarse manufacture. It led to increased production in sackings, and to the introduction of jute. For, after the emancipation of serfs in Russia which adversely affected the farming and preparation of flax, Dundee manufacturers were obliged to adapt their machinery to cope with the cruder flax fibre, ensuring a constant flow in their production. This adaption of machinery to accommodate the rougher fibre inevitably affected the quality of their woven product and its possible end uses. It also became a key factor in Dundee's ability to switch from working with flax to working with jute. For, as differences in the quality of Russian flax and Indian jute narrowed, while prices for flax remained high in comparison with jute and also the threat of flax shortages grew as war loomed with Russia in 1853, many manufacturers adapted to working with jute, just because of the changes they had already made to cope with the coarse Russian flax.
Jute, unlike flax which had been used since ancient Egyptian times, was only recognised in the nineteenth century as an important textile fibre. Grown almost exclusively in Bengal, its introduction into textiles came at a time when there was a need for cheap coarse linen for naval and military requirements and when the East India Company looking for outlets for Bengal's products - began to push for its use. From 1791 onwards samples of jute were sent to Britain to stimulate interest, Dundee receiving its first consignment sometime between 1821-1824, at a time when linen inspection and stamping was lifted and manufacturers were free to experiment with cheaper flax substitutes. The first attempts at spinning jute were unsuccessful, since the brittle fibre snapped. It was not until the early 1830s (with the technological breakthrough of batching jute in water and whale oil to soften it) that the fibre was successfully spun into yarn. Once this was achieved, Dundee - already the centre of coarse linen weaving - turned to working with the cheaper jute fibre. It thus committed itself to coarser and cheaper manufacture; to an industry that paid even lower wages to its workers than the linen industry and required the production of enormous quantities of cloth to yield profit.

It was said that "dependence on low wage, low profit jute became a destroyer of public morale" in Dundee, and clearly by the latter half of the nineteenth century the city was dangerously over specialised. While in the 1850s and 60s its linen and jute industries expanded in direct competition with each other - stimulated by wars which required canvases and sackings, for tents, sails, gun covers, bags and sacks - by 1870 its linen industry had peaked. Similarly the jute industry - although continuing to grow until the 1890s - became increasingly vulnerable and hit by fluctuations in world demand for its goods. With many countries raising protectionist tariffs against imports of Dundee's linen and jute, and sharp competition developing from the Indian jute industry, only the large
Dundee firms with capital reserves survived the depressions. The smaller firms who could not sell their goods went under. 

It is against this historical perspective on Dundee's textile industry, specialised in manufacturing coarse linen and jute cloth that the establishment and fortunes of the Donald businesses and the emergence of Donald Brothers as a manufacturer of decorative canvas can be examined.

1:2. The Donald Businesses c 1835 - 1896

The early history of the Donald family business begins in c 1835 when James Donald, a son of a tailor, described as "sometime manufacturer, Dundee" established a flaxspinning business in the Pitalpin Works, Lochee, two miles outside Dundee. Listed in the Dundee directory of 1837-38 as James Donald & Son, merchants and flaxspinners, the partners in this firm were James Donald senior (b.1780) and James Donald junior (b.1805). In the 1840s the firm became known as James Donald and Sons and thus included James junior's brother John (b.1807). After the death of James Donald senior in 1851, James Donald junior became senior, heir to his father, and with his brother trustee for the firm of James Donald & Sons.

By 1851, the firm which originally had been involved in merchandise and flax spinning had begun manufacturing, and by 1856 they were also working with jute. This is recorded by written information on a plan of the Pitalpin Mills dated 1856 (illus 1:1); the plan itself giving some idea of the layout of their business and the space allocated to weaving and spinning at this period. Therefore Donald & Sons, by adapting to the coarser jute fibre, is proved to have been involved in the staple coarse trade of Dundee (1:1) by 1856.

Although sometime between 1857 to 1859 James Donald & Son went bankrupt, by the early 1860s the Donald family had re-established themselves with two family businesses. The first was Donald and Donald Brothers, "Millspinners and Manufacturers at Lochee", still based at the
Pitalpin works, the partners being James Donald (b.1805) and his two sons James Donald junior (1833-1918) and David Donald (1835-1912).

The second was Donald Brothers, "sometime Manufacturers and Merchants in Dundee", the partners being the two brothers James and David Donald. Thus for the first time the name of Donald Brothers emerged; established firmly in relation to manufacture as well as spinning and merchandise. In A. Walden's *The Linen Trade Ancient and Modern* of 1864, Donald and Donald Brothers' Pitalpin works was tabulated as equipped with 1,802 spindles, 85 power-looms, and employing 300 workers. However by 1869 this business, based at the Pitalpin works, was no longer in operation. Only Donald Brothers appears in the Dundee Directory of 1869-70; entered as linen manufacturers and merchants with an office at 20 Panmure Street. Therefore in c.1869 the spinning side of the Donalds' business had ceased, with James Donald senior retired, and the brothers David and James and their younger brother John going their own business ways. In the Dundee directory of 1871-1872 all the brothers are
listed separately; with different office addresses and with David Donald in possession of the Donald Brothers business.

The whereabouts of Donald Brothers' manufacturing base in the 1870s has not been established. It is not until the 1882 that the Dundee Directory for 1882-83 lists Donald Brothers with a manufacturing address at the James Park factory in Albert Street. A valuation of the James Park factory dated 1880 suggests that this property was acquired in 1880.

Equipped with only 21 power-loom, Donald Brothers of 1880 were a much smaller concern than the firm of Donald and Donald Brothers tabulated by Walden in 1864. Valuations of the James Park factory, recording dwindling lots of land attached to the property between 1880-1906, indicate that the business was contracting due to financial difficulties over this period. Clearly for Donald Brothers - as for other Dundee manufacturers - the weaving of coarse cloth for the canvas and sacking trade was no longer profitable. In 1899 the buildings and machinery of James Park factory were described as "old and worn."

Already however by 1896, the year Donald Brothers commenced sample book Canvases No. 1, the firm had begun to diversify into the decorative market using, it would seem, the same machinery as before. The firm switched from producing coarse utility canvas and sackings, in a market swamped by over production, to producing rugged canvas for the decorative trade. This change must have been largely stimulated by economic necessity and required a leap in imaginative thinking by the firm. It marks the beginnings of Donald Brothers as a manufacturer of decorative canvases and linens and came at a moment when aesthetic value was perceived in the staple coarse manufacture of Dundee when sacking cloth (illus 1:2) was replaced by Art Canvas (illus 1:3). As Frank Donald recalled the "artistic" breakthrough Donald Brothers made with their rough textured
weaves was shaped by the firm's historical involvement in Dundee's coarse trade.

"In the early days of our business, we were not thrown in the way of the finer silk and cotton yarns - the produce of more civilised countries. Dundee, and the surrounding neighbourhood, is the home of the old flax sail canvas trade. Jute came later. When we began to think along the lines of Furnishing and Decorative Fabrics, or in other words, when we realised there were artistic possibilities in linen and jute (it was really my brother who did so), we had to content ourselves with such comparatively rough yarns as came to our hands. Rough textures, very rough textures in linen and jute constituted our first efforts, and in the early days of this century, not only did they find a market as wall coverings for picture and other galleries, but they were used by the more enterprising decorators in private houses as well."
In summary of this chapter, three conclusive points can be made about the emergence of Donald Brothers as decorative manufacturers studied within the context of Dundee’s specialised coarse manufacture and the Donalds’ historical involvement in this industry. Firstly, the deciding factor in Dundee’s specialisation, dependence on rough flax and jute fibre spun into yarn, was that which determined the firm’s early rough textures for the decorative trade. Secondly, Dundee manufacturers’ historical adaptability in weaving rough yarns on the power-loom which shaped the Donald businesses of the 1850-1880s enabled Donald Brothers of the 1890s to draw on this specialised expertise and weave rough yarns into decorative texture. Finally, Dundee’s over-specialisation in the coarse utility market which caused serious financial difficulties for manufacturers, including Donald Brothers, between 1870-1890, must have encouraged the firm to seek a new market for their cloth, inciting David Tullo Donald to perceive artistic potential in linen and jute, and develop rugged texture for the interior.
Footnotes.

1. "Notes on Title Deeds to Pitalpin Works", compiled by Gulruth, Pollock & Smith held by William Halley & Sons.


8. Ibid.


10. Ibid. p. 118-129.


15. Index to Lockit book of Burgh of Dundee, Dundee 1841, April 8th.

16. "Notes on Title Deeds to Pitalpin Works" *op.cit.*
17. Dundee Directory 1850 and "Notes on Title Deeds to Pitalpin Works", op.cit. It is possible that the business based at the Pitalpin Mills had turned to manufacturing in the 1840s, although early descriptions of James Donald & Sons in the Title Deeds refer to the firm as Flaxspinners, and the designation of Pitalpin as mill rather than factory suggests the early business concentrated on spinning.


19. "Notes on Title Deeds to Pitalpin Works" op.cit.

20. Ibid.

21. Examination of the Dundee Directory indicates that it was Donald Brothers (i.e. David & James) who were responsible for re-establishing the Donald business in the early 60s. James Donald senior, although listed as flaxspinner and manufacturer, was not recorded with a business under section "Trade & Professions" of the 1864-1865 Dundee Directory.


23. Deduced from a comparison between the 1867-68 and 1869-70 Dundee Directories.

24. Mark Watson mentions in Jute and Flax Mills in Dundee, Hutton Press, Fife, 1990 (p. 208) that there was "a small and short-lived power-loom factory built by the owner of Pitalpin Works in his back garden" at Elmswood in the 1860s. This factory would almost certainly have been built by James Donald junior, brother of David Donald, who lived at Elmswood from c. 1865 - c. 1881. It would have provided him with his own manufacturing capability. It may also have manufactured for Donald Brothers, after the Pitalpin Works had been given up and before the James Park Factory had been acquired by David Donald in 1880. In the 1882-83 Dundee Directory James Donald, manufacturer residing at Elmswood, was not indexed, instead a James Donald, mill overseer at 25 Lawrence Street was listed. Most likely James Donald's business failed c. 1881 and he was forced to seek employment as an overseer in another mill.

25. Valuation of Heritable Property at the James Park Factory, dated the 5th January 1880. Held by William Halley & Sons. The James Park factory was built for hand-looms in the 1840s, (Watson, M. Jute & Flax Mills in Dundee op.cit.) but there is no record of who owned it then; presumably not the Donald family.


CHAPTER 2. THE FEEL FOR RUGGED TEXTURE

The quality of rugged texture which formed the essential character of textiles produced by Donald Brothers was in part a natural outcome of Dundee's indigenous coarse manufacture (1:2). Its development into a conscious aesthetic however had to do with other, quite different reasons. The origins of this aesthetic are to be found in man's growing fascination with nature as well as in his search for individual expression at a time when both were under threat through the advances of modern industrialisation. This chapter sets out to examine how these influences manifest within art, architecture and craft of the nineteenth century led directly to an appreciation of rough woven texture for interior furnishings in Britain and America. Without this appreciation there would have been no market for Donald Brothers as a manufacturer of decorative fabrics.

In section 2:1 a study of Uvedale Price's _An Essay on the Picturesque_ (1794), and visual analysis of nineteenth century landscape painting, demonstrates the aesthetic appreciation for texture found in nature, perceived in terms of "the painterly". Artistic expression, conveyed through the textural handling of paint is considered. This leads on to a discussion of the concept of "finish" in a work of art, and to a study of John Ruskin's _Seven Lamps of Architecture_ (1849), to understand the emotive value of textural handling, for the expression of craftsmen within the Arts & Crafts Movement.

In section 2:2 the picturesque principle of textural fusion between architecture and the landscape is established by reference to Richard Payne Knight's _The Landscape_ (1805). Through visual examination of examples of nineteenth century architecture, including the architect E S Prior's theory and practice, it is shown how the picturesque principle was combined with a renewed interest in building craft, to develop texture as an object of design. Further study of British domestic architecture, in section 2:3, reveals
how developments in rational planning and integrated design led to the nurturing of rough texture within the interior of the Arts & Crafts home. Examination of M H Baillie Scott's Ideal Suburban House (1895) demonstrates how a preoccupation for exterior and interior texture located a place of use for rough woven fabric, such as that produced by Donald Brothers for the decorative market by 1896. Finally, through a brief study of the artistic treatment of wall space within the "Contemporary Interior", of Herman Muthesius' Das Englische Haus (1904) it is shown how 'actual' woven texture - often combined with stencilling - had become the fashionable treatment by the turn of the century.

In 2:4 an analysis of examples of American domestic architecture (1880-1914) demonstrates how texture was developed in a vigorous way. Study reveals how materials and space were texturally inter-woven to integrate the interior with the exterior. To develop architectural 'textura', plain woven fabrics were integrated within the interior as an essential part of the textural plan. Examples of the use of woven textiles by Donald Brothers in the Craftsman homes of Gustav Stickley prove this development.


With the growing passion for nature of the late eighteenth century, artists and writers defined the picturesque\(^1\) as another category of aesthetic pleasure -in addition to those of the sublime and beautiful formulated by Edmund Burke in 1857\(^2\). In An Essay on the Picturesque (1794), Uvedale Price argued there was something "insipid" in the "smoothness and flowing lines" promoted as the ideal beauty in landscape; "curiosity, that most active principle of pleasure (was) almost extinguished."\(^3\) Price proposed pleasure in nature was found in its "irregularity" and "sudden variation", in the "roughness" of its broken textures.\(^4\) The quality of "intricacy" afforded
to the eye by rough, rugged, craggy and shaggy objects was that which he and others prized. Artists had long admired this quality which had been excluded from Burke's aesthetic. Price suggested that painters had been drawn to the irregular subject of nature because it presented to the eye accidental groupings of shapes, interesting light and shade effects and varied colour juxtapositions which could be rendered effectively with free and vigorous brush work on the canvas. Nature provided the painter with the opportunity to express, through painterly means, both the individuality of the subject and of himself as he sought to render his unique vision. Thus "picturesque" meant quite literally "after the manner of painting," and came to denote an aesthetic which, first defined by painters, was to be appreciated through the eye educated by painting to perceive the painterly in nature. Through it both the individuality and character of the subject and artist could be expressed.

During the nineteenth century, an appreciation for the picturesque and romantic in nature led to an increased awareness for wild rugged scenery and rough textures in both nature and painting. This awareness is well demonstrated by the water colour painting of Scotland's rugged landscape by Horatio McCulloch (1805-1867) (illus 2.1).
It is claimed - by Christopher Hussey in *The Picturesque: Studies in a Point of View* (1927) - that the tactile values underlying the concept of the picturesque "inspired much of the best contemporaneous and 19th-century painting".

John Constable's painting **Hadleigh Castle, 1828/9** (*illus 2.2*) exemplifies the revolutionary aspects of this development. His subject offered obvious picturesque qualities of variety, intricacy and texture and he developed the means of creating an equivalent of these textures, in his handling of paint on the surface of his canvas (*illus 2.3*). Likewise the
French impressionist Claude Monet (1840-1926) painted the wild, rough scenery of Belle Isle, 1886 (*illus 2:4*) to challenge his own individual means of expressing what he saw; developing a free energetic paint handling on the surface of the canvas. In both paintings, and indeed the watercolour, the individuality of the subject and that of the artist revealed through a painterly texture of brush marks forms a major part of our aesthetic appreciation.

This appreciation, which we now take for granted, took time to establish itself in the nineteenth century. Its acceptance grew as a primary function of art came to be considered as the expression of the unique vision of the artist and its transmission to the viewer. As a result, a completed work was deemed finished when the artist had conveyed what he set out to express, not when the technical smoothness of academic finish had been achieved. Rapid brushwork and a rough handling of materials became the prized hallmark of the artist's individual expression and touch. This is well
demonstrated in different mediums, by the Scottish painter George Henry's handling of oil paint in *Autumn* (1888) (*illus 2:5*), and the artist/craftswoman Margaret MacDonald's handling of gesso worked on a rough ground of hessian and scrim in *The May Queen* (1900) (*illus 2:6*). Indeed the latter example demonstrates just how important rough textured fabric had become to this artist's handling of surface and expressive touch.

The nineteenth century critic John Ruskin (1819-1900) contributed to this appreciation for textural expression and what constituted "finish" in a work of art. Within his writings on craft and craftsmanship, set forth in *The Seven Lamps of Architecture* (1849) and his essay on *The Nature of Gothic* (1853) Ruskin developed an acute visual reading of textured surfaces for evidence of human life and expression. His writings
Illus 2.6 'The May Queen' by Margaret MacDonal, 1900.

Centre panel and detail showing ground of woven scrim.
developed out of his abhorrence of the machine-orientated society of Victorian Britain and the social deprivation that went hand and hand with it. As part of his attack on industrial society Ruskin struck out vehemently against the artefacts that were made by it. Crucial to this attack, was the contrast Ruskin made between the textural variation within the "right finish" of hand-wrought craft compared with the uniformity of machine finish. "Right finish" was defined by Ruskin - as discussed above - as "rendering the intended impression"; not in terms of polish. A discussion of medieval stone carving from Soissons compared to Victorian machine cut stone was made by Ruskin to illustrate his point.

"I said, early in this essay, that hand-work might always be known from machine-work; observing, however, at the same time, that it was possible for men to turn themselves into machines, and to reduce their labor to the machine level but so long as men work as men, putting their heart into what they do, and doing their best, it matters not how bad workmen they may be, there will be that in the handling which is above price: it will be plainly seen that some places have been delighted in more than others - that there has been a pause, and a care about them; and then there will come careless bits, and fast bits; and here the chisel will have struck hard, and there lightly, and anon timidly; and if the man's mind as well as his heart went with his work, all this will be in the right places, and each part will set off the other; and the effect of the whole, as compared with the same design cut by machine or lifeless hand, will be like poetry well read and deeply felt to that of the same verses jangled by rote. There are many to whom the difference is imperceptible; but to those who love poetry it is everything.... the life and accent of the hand are everything.

"I cannot too often repeat, it is not coarse cutting, it is not blunt cutting, that is necessarily bad; but it is cold cutting - the look of equal trouble everywhere - the smooth, diffused tranquillity of heartless pains - the regularity of a plough in an even field. The chill is more likely, indeed, to show itself in finished work than in any other - men cool and tire as they complete: and if completeness is thought to be vested in polish, and to be attainable by help of sand paper, we may as well give the work to the engine-lathe at once. But right finish is simply the full rendering of the intended impression; and high finish is the rendering of a well intended and vivid impression; and it is often got by rough than fine handling."
In this text Ruskin demonstrated the beauty he found in the rough textured handling of surface. It enabled him to trace the "touch" of the chisel, to discern the individual expression of the craftsman. In contrast the even surface "cut by machine or lifeless hand" allowed no such reading and suggested the anonymity and lifelessness of machine labour. Thus by contrasting uneven handling with perfected polish, rough with smooth, and by association living heat with dead cold, Ruskin educated his readers to the expressive subtleties of surface texture. In this way he influenced architects and craftsmen of the Arts & Crafts to affect an awareness for rough texture, which, evident in the MacDonald gesso panel (*illus 2:6*) will be shown below to have become well established in architecture, interior decoration (2:2-4), and textiles (4:1-3) by the 1890s, the decade when Donald Brothers entered the furnishing market with their rough texture.


The painterly point of view which developed the nineteenth century aesthetic for rough texture influenced a redefinition of domestic architecture, to express man's desire to live in closer harmony with nature, of a rough and rugged type. As a result, changes occurred in the disposition of the house to the land and in the designing and building of its exterior, which encouraged Arts & Crafts architects to consider texture as an object of design by 1890.

In *The Landscape*, a poem written on the picturesque by Richard Payne Knight[12], two engravings by Thomas Hearne illustrate the beautiful in landscape and architecture according to the ideal of Capability Brown contrasted with that of the picturesque advocated by Payne Knight (*illus 2:7 & 8*). In the former a "lonely mansion" stands amidst "shaven lawns, that far around/In one eternal sweep."[13] In the latter, a rambling mansion
is fused through its broken silhouette and disposition of mass with a landscape - by choice broken and rough. Its irregularity merges with the trees, which themselves merge with one another and with the foreground made up of ferns, weeds and twisted roots.

Landscape is no longer improved, to be viewed from the refined interior of the house, but instead the house itself has been designed to be viewed as an extension of the rugged picturesque landscape. This principle, once established, was essential to subsequent architecture. It encouraged the fusing of the exterior of the house with the landscape and eventually the interior as well.
In the early stages of picturesque architecture the general broken, textural effect of a building viewed at a distance was of prime importance. However, by the mid nineteenth century architectural practice, stimulated by A W N Pugin's (1812-52) awareness for materials and building craft, together with Ruskin's teachings on textural expression in craftsmanship (2:1), began to focus attention on materials and their textural handling, as another means of linking the house more closely with its surroundings.

The Red House (illus 2:9) - designed by Philip Webb (1831-1915) in 1859 for his friend William Morris and considered the first Arts & Crafts building – was an early example of this practice. Built in red brick and tiles, Webb following Pugin's lead drew on local vernacular tradition. He used materials particular to that part of the country to explore their natural qualities, exposing them in "honest" construction to reveal the architectural beauty found in simple building craft. Both constructive and decorative, one course of brick was laid upon another, while others were sprung into arches to add variety in their texture and tone to the whole. Tiles coursed
one over the other, trapped fine lines of dark shadow. In this handling, the surface texture of the bricks and tiles and their constructive texture was directly expressed to bring the house texturally into an overall unity, which linked it from close up with the infinite variety of textures in nature that surrounded it.

Exhibiting a similar interest in building craft and materials, Norman Shaw (1831-1912) who had trained in the same architectural office as Webb developed an exuberant feel for texture. What he lost in terms of an honest use of his materials he gained in an individual freedom of their handling. His drawing of Leyeswood (illus 2:10) designed in 1868 and published in Building News in 1871 was a revelation to architects in Britain and America in its painterly and textural rendering - reproduced through the new medium of photolithography. Rich textured surfaces of brick, stone, tile hanging and half-timbering were rendered in fluent detail. Bolder textures provided by the bands of mullioned windows, ribbed chimney stacks and overhanging roofs were indicated through light and shade. Finally the whole house, loosely massed, irregular in shape and
perched on rocks provided picturesque texture in extreme. In this handling, texture was activated at every scale, from various viewing distances; rich to the eye from close up, at a middle distance and from afar.

Twenty years later Shaw's pupil, the Arts & Crafts architect E S Prior (1852-1932), proposed that the activation of texture in the manner of the two buildings discussed above was of "first importance" to architecture - if there was to be "any art of architecture" at all. His paper entitled Texture as a Quality of Art and a Condition for Architecture (1889), established the theoretical understanding of texture as an object of design in architecture. Affirming his allegiance to the picturesque aesthetic he firstly encouraged architects to learn from the harmonies nature evolved out of material texture - at every scale. Secondly, he suggested the architect borrow from "Nature's own Textures"; the building taking its character from the material used. Thirdly, in Ruskinian spirit - "as evidence of delight in texture" - he encouraged the architect to reveal the handling of his materials; "to show the fracture that the tool has made, the tokens of its struggle with granite."

He continued:

"Then of great value are our jointings of brick and stone, the piecing of our wood-work, the coursing of our slates and tiles. With these we may weave a lace-work over roof and wall and floor. More deliberate are rustications, diapers, and pattern work, our enrichments, flutings, egg and tongue and dentil courses. These, though designed, become merely Texture, when the particularity of their form is obliterated by distance, or fused by the imagination. At a still further distance the larger architectural features themselves - such as windows and piers, pinnacles and buttresses - merge into an undistinguished variegation of surface. Herein lie boundless opportunities for achieving the harmonies of Texture; and so we may provide, that from the first view of even the humblest building, this pleasant Texture should lead on by nearer approach to pleasant detail -itself well textured, - and so step by step to the last limits of sight, each step revealing a further veil to be lifted, a further mystery of beauty to be solved. This is the right use of Texture, in its most material sense; the Texture which Nature exhibits in such perfection, and which it has been the aim of all architectures to reproduce."
A photographic study made of Home Place, Norfolk designed by Prior between 1904-06 (illus 2:11), illustrates Prior's theory of designing texture through architectural practice. Viewed from close up nature's textures of flint and sandstone are displayed to harmonise the building with nature (illus 2:12). Likewise - viewed from close up - the craftsman's textural handling of materials; the cut and carved sandstone, the set flint, the constructive brick work is revealed (illus 2:13). Viewed from a step back, the jointings of brick, set flint and coursed tiles "weave a lace work over roof and wall" (illus 2:14). More deliberate patternwork of diapers, herringbone, chevrons and spirals "become merely Texture, when the particularity of their form is obliterated by distance, or fused by the imagination" (illus 2:15&16). And finally at a further distance the architectural features of the house merge into "an undistinguished variation of surface" and broken irregularity.

As exemplified in the theory and practice of Prior, with the status of architecture as a combined art, structural discipline and building craft gaining wider acceptance with Arts & Crafts architects, texture became considered as an "object of design". Valued on a par with form and colour but developed through the handling of materials in craft. Architectural texture - Prior insisted - could not be "drawn and dictated"; it relied on the executant's "hands to give or withhold."
Illus 2:11 Home Place, Holt, Norfolk, garden elevation, by E.S Prior, 1904-06

Illus 2:12 Home Place, Holt, Norfolk, garden walk, by E.S Prior
Illus 2:13 Home Place, Holt, Norfolk, side porch, by E S Prior

Illus 2:14 Home Place, Holt, Norfolk, side elevation, by E S Prior
Illus 2:15 Home Place, Holt, Norfolk, garden elevation, by E S Prior

Illus 2:16 Home Place, Holt, Norfolk, out house, by E S Prior
2:3 Architectural Texture: Outside to in

The design awareness and activation of texture on the exterior of a building led directly to its exploration within the interior and ultimately to the use of woven texture as manufactured by Donald Brothers by the mid 1890s. The basis for this exploration stemmed from two distinct developments instigated by Pugin in the 1830s and becoming fundamental principles of Arts & Crafts architecture. These were first that the house was designed around the needs of the family, with the rational planning of the interior being expressed clearly in the exterior form of the building, and secondly, that there was a greater interrelationship between the furnishings and interior of the house with the building itself.23

Webb designed the Red House around William Morris' needs of informality and intimacy. He allowed the inside of the house to shape the exterior. Since building for internal needs meant building the house, on the interior building craft and materials were revealed and cherished. Brickwork was in places left exposed (illus 2:17); constructive and
decorative, its material texture provided a link between outside and inside. Furnishings, such as the embroidered Daisy wall hanging (illus 2:18),

![Daisy Hanging](image)

designed by Morris for the main bedroom, revealed in its simple constructive embroidery and textural handling a similar feel for building craft and materials as the building in which it was placed.24

**Leyeswood (illus 2:10)** revealed in its loose textural grouping how Norman Shaw used the principle of rational planning to push outwards on the pliable picturesque exterior, making room on the inside for a central hall, around which the main reception rooms were comfortably grouped. Thus Shaw handled bold architectural texture to fuse both the house with
the landscape and the interior - through its visible expression - to the exterior. This bold textural planning influenced architectural developments in America and contributed to the original textural interweaving of interior and exterior space that occurred in their domestic architecture by the 1880s (2:4).25

In Britain, the influence of Shaw's medieval hall (which had opened up the interior and given manorial scale to the entrance of his houses) had by 1890 given way to something simpler and more rustic, the living hall modelled on the medieval tithe barn.26 M H Baillie Scott's (1865-1945) "Ideal Suburban House" published in *The Studio* in 1895 utilised this type of "barn" living hall (*illus 2:19*).27 Designed freely to connect with the sitting and dining room, the living hall provided a central family space and offered "simplicity and homely comfort". In designing this interior Baillie Scott assumed overall architectural control, to ensure a total integration of the whole building, inside and out.28

![Illus 2:19 An Ideal Suburban House, hall interior, by M H Baillie Scott, 1895](image)

Texture became the object of design in this integration. The textural handling of materials, implicit in Baillie Scott's sketchy architectural renderings and descriptive text, formed the character of both the interior
and exterior, designed to be responsive to "local conditions and site". On the exterior, brick work on the first level was contrasted on the upper level with timber-framing, infilled with brick and rough cast. Within the interior living hall there was the possibility of the same. "In the most simple and direct method" unplastered brickwork (or stonework) and half-timbering were revealed to dispel the "atmosphere of superficial pretentiousness" met in other suburban houses. These materials provided "texture to the walls" and were conceived as a background to "enhance the more delicate character of those portions set apart for more decorative treatment." In addition to the textures of brick and timber, Baillie Scott described for "superficial wall treatment" other materials to develop surface texture within the interior. He suggested oak panelling as "perhaps the most satisfactory in its effect" - although expensive - and "Tynecastle", a brand of low relief embossed woven canvas made by Morton & Co. of Edinburgh\(^29\), which offered "rich effects" of colour, texture and subtle modelling. "Arras cloths, made by Liberty & Co. and other firms" were also suggested as "another very suitable material".

In Baillie Scott's requirement of background texture within the "homely" interior, a context for the jute textured wall canvas made by Donald Brothers is located. For Liberty & Co.'s "arras cloths" were paired with "common sack-cloth" made from jute as suitable materials for stencilled wallcoverings by The Studio magazine in 1894 (6:1) and by 1896 Donald Brothers had entered the market producing plain and printed jute canvas for the decorator. By 1905 they were recorded as manufacturing a Liberty's Arras Cloth and were recognised as producers of "artistic canvases" (6:1&2). This involved the firm in producing, in addition to the plain and printed textures, stencilled, embossed and figure woven canvases for the decorative trade (6:2&3 & 8:2).
'Tapestried' to the walls, plain in Baillie Scott's dining room of 1908 (illus 2:20), and as an illustrated background to Heal & Sons "Simple Bedroom Furniture" (1898) (illus 7:1); alternatively stencilled in Charles Rennie Mackintosh's drawing room interior (1900-1902) (illus 2:21) and Donald Brothers' Decotex display (1905) (illus 6:29&30) or panelled in George Walton's The Leys' dining room (1901) (illus 2:22), textured woven materials provided the artistic, homely and cheaper alternative to the tapestries and wood panelling used within the Shavian hall by the turn of the century.
Herman Muthesius writing on "the contemporary interior" within his authoritative survey of Das Englische Haus in 1904, reported on this use of material in the artistic treatment of wall space by the early twentieth century. "Materials for covering walls", he explained, had "become extremely popular, most of all unbleached linen, also a huge selection of untreated cotton. Japanese or Indian matting (was) also used." He continued:

"Plain coloured wall coverings are either undecorated (especially when there is a richly decorated or painted frieze above the wall) or carry a printed or stencilled pattern. Stencilling in particularly has been revived most successfully for the decoration of wall coverings. The best interior designers, such as B. Walton and Mackintosh used nothing else".30

Although Muthesius made no mention of jute, Donald Brothers' own records and other sources demonstrate that jute canvas was also used on walls by the late 19th century. As an intermediary in weight, between linen canvas on the one hand, and the coarser imported mattings on the other, jute canvas offered a greater variety to the decorator than Muthesius suggested in his book. Together, these materials presented a graded range of qualities in woven texture which met the developing demand for
simplicity and constructive decoration within the interior. Their structural texture provided for the taste in "actual" as opposed to simulated texture on the wall (6:2), and gave substance to the wall as a flat surface, essential for an "artistic treatment" by the turn of the century.31

"To assert the wall; that is, preserve the solid look essential to a wall"32, canvases were either sized directly onto the wall or stretched over battens against the wall33, covering the filling area of the wall, between the dado (or skirting) and the picture rail. Once in position the canvased area was either left plain or divided vertically by battens into panels, as previously illustrated (illus 2:20 & 2:22). The battens, used architectonically to assert the flatness of the wall as a plane and its articulation in space,34 also covered over joins and helped in the stretching of the canvas onto the wall.35

Whether plain or panelled, the canvased wall gave a warmth through texture to a poignant newly found unadorned space within the
interior (illus 2:23) (6:1). Its woven texture provided a subtle sympathetic background for the display of paintings (illus 6:30) (6:1), gesso panels (illus 2:6) and appliquéd hangings (illus 2:33, 7:27, 10:11), all of which were themselves worked on varying grounds of woven texture. In addition canvas texture set off and harmonised with the simple, constructive lines and woodgrain of Arts and Crafts furniture (illus 7:1, 2:20, 2:23, 3:1). Combined with an ornamental frieze which was either painted, printed or stencilled in a variety of depths (illus 6:29&30), the textured canvas suggested an artistic restraint from pattern, a "repose" within the filling area which effectively shifted the focus of attention to the patterned frieze (6:2). Alternatively, worked over with colour and/or decorated with flat stencil patterns (illus 2:21), woven canvas was used as an active ground to establish the subtle surface qualities of hand-stencilled patterns (illus 6:37) and, through its assertive texture, enhance a greater resonance of pattern interchange between figure and ground, image and space (6:3). In all these treatments, it was the quality of material texture and its colour used to assert the wall's flatness as a ground or background, which made these canvases popular within the artistic treatment of wall space by the turn of the century.

Clearly the Arts & Crafts interior, such as Baillie Scott, C R Mackintosh (1868-1928) and George Walton designed, and the retailer Heal & Son promoted, offering artistic "simplicity" and "homely" comfort as an ideal for middle class living, ensured that surface texture such as Donald Brothers produced played its part in achieving the integrated character of the whole house. Indeed, encouraged and used by architect designers and manufacturers such as Charles Rennie Mackintosh and George Walton36 (illus 6:8) and Heal & Son (6:1, 3, 7:2&3), the firm liked to believe they were "among those who first broke away from the stodginess and stuffiness"37 of
the Victorian age with their textured canvases and linens. Their fabrics:

"Planned for those in revolt against the tendency to ape the palace and the mansion in the humbler home (were) simple in the extreme, and the texture always declared itself to be what it was."38

2:4 American 'Textura': The Interwoven Plan.

In America, where a related but at the same time distinctly original expression in domestic architecture developed in the Shingle and Arts & Crafts period39, texture was to play an even more vigorous part in achieving the integration of the interior and exterior of the house. There, the dynamic in architecture from outside to inside and inside to outside was to be more thoroughly explored, and boldly encouraged nature through rough and rugged textures into the home.

Coinciding with these developments Americans had begun to recognise in their wild country a cultural and moral resource to be cherished and preserved.40 By the 1870s they looked to wilderness as a means of regaining that raw closeness to nature which had shaped the pioneering spirit of their ancestors and their own national character. As a result large houses, small houses, cottages, cabins, camps and bungalows were built by the lake or sea shore, in the forests or mountains, as country retreats where occupants could for several months of the year lead a simpler life, regenerating themselves away from the city stress.41 In addition, for year-round living detached houses, Craftsman homes and bungalows in the suburbs away from the city centre, sprang up to answer similar psychological and physical needs, and became a popular early twentieth century architectural expression of this need to live in closer touch with nature.42

The James Hopkin Smith House (illus 2:24) designed by John Calvin Stevens in 1885 demonstrates American developments in the integration of exterior and interior planning, and how materials used to
link the house with its surroundings on the outside, began to enter the interior space as part of this essential textural plan for natural living.

Illus 2:24 The James Hopkins Smith House by John Calvin Stevens, 1885

Illus 2:25 'Hermitage at Warwick', engraving by Thomas Hearne, 1779
The ground plan and view of the exterior front and side elevations of the house demonstrate how the compactly organised open interior space pivoted around "the mass of the hall fireplace" was interwoven with the exterior. The visual dynamic of this 'interweaving' was described by Vincent Scully in his book *The Shingle Style* (1955) as being "beautifully related":

"The feeling of extension to the outdoors is also very developed. In the unified mass of the exterior the gambrel roof is beautifully related to the deep void of the covered piazza. The porch penetrates the volume of the house itself, so that interior and exterior are not merely closely related but actually interwoven in a serene extension of space which is continuous and clear."43

This dynamic, similar to that of Thomas Hearn's picturesque rendering of the *Hermitage at Warkworth* (1779) (illus 2:25), serves as a reminder of the essential search for painterly fusion between landscape and architecture which had been set in motion a century previously. In both, fusion was established through a visual play of volumes to voids, with a use of rough encrusted stone material drawing the eye in from external surroundings into internal architectural space. In the Hopkin's house, local stone, which had lain since pioneering days in an old wall, was purposefully and carefully reassembled (with encrustations of moss and lichen intact) to form ruggedly constructed walls at ground level; the walls in texture and colour harmonised with their surroundings and through the piazza and deep set windows entered the house. Similarly rugged texture, in the form of solid stone fireplaces rose from the ground, formed the hearth and heart of the home, and pushed out through the roof to link with the sky. In this manner texture activated by light, which increasingly poured into the interior as the division between inside and outside broke down, became a potent decorative force in the interweaving of the exterior...
with the interior, as it had been used to link the exterior of the house with its surrounding landscape.

Coinciding with this activation of rough texture within the home, a renewed interest in the interwoven use of wood and sticks combined with influences from Japanese wood architecture, also influenced architects to incorporate woven texture into the interiors of their buildings. A wonderful example of this is the living hall of the Victor Newcombe House (illus 2:26) (1880-81, designed by McKim Mead and White) in which an open lattice-work, derived from Japanese *ramma* and reminiscent of outdoors trellising, is brought in from the exterior veranda (with its woven basket chairs) and placed right in the heart of the house, the living hall. Here wood beams are visually interwoven and wood physically woven into open lattice work to create textural interest and a feeling for spatial articulation and continuity. The weaving provides a visual metaphor for the interwoven ground plan and hints at the connection that existed between it and texture; acting as a reminder that the etymology of the word "texture", derives from the Latin words "*texere*" to weave, and "*textura*" the woven web.
Frank Lloyd Wright's Martin Darwin House, 1904 (illus 2:27) provides a later, fully developed Arts & Crafts example of this feel for
textura. In this house, ground plan, elevation, materials and space are all interwoven through an interplay of horizontals and verticals to create a textural whole. And textiles, as another distinct material and texture are used within the interior to form a yielding architectural wall, dividing or uniting one room space with another (illus 2:28).

In a demonstratively rugged manner the wood bungalows by the Californian architects Charles Greene (1868-1957) and Henry Green (1870-1954) (illus 2:29), designed with interwoven porches and piazzas expressing indoor - outdoor living, illustrate just how expressive this handling of textura became within the American Arts & Crafts. In their vigorous interweaving of materials and space, rugged boulders, stones, cobbles and bricks were all encouraged as part of the textura (illus 2:30). Their Bandini House (1903) and Camp Bungalow (1904) interiors (illus 2:31&32) expressed in the interweaving of boulders and wood with the plain woven textured fabrics - as portières, cushions and carpet - the American desire for primitive living close to nature.
Illus 2:30 Theodore Irwin House by Greene & Greene, 1906

Illus 2:31 Arturo Bandini House, living room and dining room interior, by Greene & Greene, 1903
The Craftsman journal - which initially influenced and then championed Greene & Greene's work - promoted in a more picturesquely decorative form this feel for architectural textura, incorporating plain woven fabrics - as an essential texture - into their plans for Craftsman Homes.46 A modest Craftsman Bungalow (1907) (illus 2:33) illustrates how rough split stone used for the exterior foundations, porch and chimneys was encouraged - via the pivotal fireplace - into the interior of
this bungalow to develop, with the wood and woven fabric, rough textural effect (10:2), while a Craftsman Farm House (1906) (illus 2:34) illustrates how on the exterior of this house, a bold structural framework of interconnected horizontal and vertical timbers - sheathed with broad clapboard - was expressed to accentuate the deep shadowed recess of the porch as a penetrating void, set off by the highlighted projection of dormer above. The massive horizontal beams - extending the entire width and breadth of the house - define and inform the eye of the height, width and breadth of the lower story and serve as a strong interconnecting line for the window and door framings reaching from ground level. Within the living room
interior (*illus* 2:35), the horizontal woodwork at frieze and floor level, interconnected with the vertical framing used for windows, doorways and cupboards, echoes the outside construction. It defines through directional construction the room as a place and accentuates the wall opening and windows as expressions of the picturesque open plan and out-of-doors.

Within this arrangement plain woven textiles in the form of portières, wall coverings and window curtains and (striped) carpet are all employed to harmonise with this textural plan. The living room carpet with broad stripes emphasises the flat horizontality and breadth of the floor and interconnects with the verticals and horizontals of the walls. The light open weave curtains filtered by light echo the transparency and fenestration of the windows, their weave articulated in directional construction by the light. And rugged *Craftsman Canvas* in the form of portières and wall
coverings provides a wall of constructed canvas. As directional construction both materials developed in textile form the "structural ideal" at the heart of the Craftsman plan (3:1). As interwoven horizontals and verticals in translucency and absorbency they extended the architectural feeling for textura into the very fabric of the house.

In this design of textura Donald Brothers' woven textures found their aesthetic context within the America Arts & Crafts home. For both the firm's records and the surviving business records of Gustav Stickley reveal that Donald Brothers were a major supplier of canvas and linen to The Craftsman workshops by 1906-1914 (10:1). That in fact their fabrics dominated Stickley's purchase of Craftsman fabrics in these years, and their first decorative canvas Antique Canvas, was his famous Craftsman Canvas (3:1,4:3,6:1,10:1&2), introduced to the American public in 1903. The documentary evidence of this business connection is examined in 10:1. It provides the underpinning proof to link Donald Brothers' texture in an intimate way with Stickley's rugged Craftsman aesthetic.

The influences that lead to the appreciation and use of Donald Brothers' rough textured materials in Britain and America have thus been traced. Fundamental to their development was the picturesque desire to live in closer harmony with nature, which culminated in designs for simple living by the late nineteenth/early twentieth century. The influences developed from the picturesque feel for texture in nature to its enactment as a conscious aesthetic in painting and architecture and the interior. The importance of individual expression to this aesthetic of texture has been explored through a study of building craft, recognising texture as an object of design in architecture by 1889. The part texture played in the integration of exterior with the interior of the British Arts & Crafts home has been discussed, and has located a place of use for rough woven texture such as Donald Brothers produced (1896) within the interior by c 1895, becoming
the fashionable treatment of wall space by the turn of the century. And finally as American 'textura' it has been shown how woven texture became another essential material in the interweaving of the exterior with the interior, leading to the use of Donald Brothers' woven texture within the integrated plan of Gustav Stickley's Craftsman homes.
Footnotes.

1. The Reverend William Gilpin was the first person to use the word "picturesque" to define an aesthetic found in natural scenery. His *Observations Relative Chiefly to Picturesque Beauty in Several Parts of Great Britain* commenced in the 1770s and were published in eight volumes between 1782 and 1809.

2. Burke, E. *A Philosophical Inquiry into the Origin of Our Ideas on the Sublime and Beautiful*, London, 1757 (reprint Boulton, J.B. (ed.) London, New York, 1958). In his treatise on the sublime and beautiful Burke proposed there were two complementary categories of aesthetic pleasure. The beautiful - that which was pleasing, smooth and gentle - was defined in terms of the classical ideal with smoothness being its distinguishing tactile quality. The sublime - that which aroused feelings of awe and terror - was distinguished by the illusory quality of infinity and vastness.


5. *Ibid.* pp. 51-62. Price discussed the picturesque in many objects; hollow lanes and bye roads providing "a thousand circumstances of detail", "intricacy of ground" with "broken and abrupt" banks. Ruined abbeys, mills with their "variety of forms and of lights and shadows, of mosses and weather stains from constant moisture, of plant springing from the rough joints of stones". Broken water; "rapid and stony torrents and waterfalls, and waves dashing against rocks". The "rugged old oak", and "knotty wych elm" as well as the shaggy goat and sheep with "ragged" fleece.

6. "Picturesque" was a development of the word "pittoresco", used in the seventeenth century to describe a point of view characteristic of Venetian painters who sought to render tactile qualities in scenery through a loose handling of paint. "Lavorare alla pittoresca" was often used synonymously with "lavorar di furia" (to work in a frenzy); pittoresco, as its successor picturesque, therefore also implied the concept of the painter's individual inspiration, expressed through the loose handling of paint (see Hussey, C. & Salerno, L. *The Picturesque*. Encyclopaedia of World Art, McGraw-Hill Book Company, London, 1958).


12. R. Payne Knight, *The Landscape*. (1794)


16. This was in the office of architect G E Street. For a discussion of Street's importance to the developing architectural awareness for craft see Cumming, E. *op.cit.* p. 15.


18. *Ibid.* p. 10. Scully suggests that Shaw's "textural rendering technique" had a significant influence on architects and the new "architectural vision of warmly textured surfaces" which was to develop.


21. Ibid. p. 321. Prior preferred not to use the word design in relation to "purposing" texture, because of the dependence of design practice on drawing. "Texture may be called that quality of architectural surfaces which is independent of designed form and designed colour. I do not mean that Texture may not itself be the object of design in the sense of being purposed. But by the word "designed" I would rather mean produced by that process by which architecture is now practically always produced - that is, a drawing is made, by means of which the so-called designer dictates his purpose to the executant. Architectural Texture cannot be so drawn and dictated."

22. Ibid. p. 322.


24. See (4:1) for a discussion of this embroidered wall hanging.

25. Scully, V. op. cit., Chap. 1. In this chapter Scully discusses the influence of Shaw in the 1870s, on American architecture.


28. It was in the above article on the Ideal Suburban House that Baillie Scott wrote the well known passage; "It is difficult for the architect to draw a fixed line between the architecture of the house and the furniture. The conception of the interior must necessarily include the furniture which is to be used in it and this naturally leads to the conclusion that the architect should design the chairs and tables as well as the house itself." (p. 131).


31. Muthesius reported how "Artistically speaking it has been important for the treatment of walls during more recent years that the artistic movement was instigated by painters". Their first move had been to 'look at the wall as a surface' and this led to 'treating it as a flat surface'. (p. 166).


33. William Sparrow reported in his chapter on wall treatment, (ibid.) how a Belgian artist had "sized canvas to the walls", and the Journal of Decorative Art, (Vol. XXI, 1901, p. 165) ran a short article on "How to fasten Canvas on a large painted ceiling". It described how the selvage edge of the linen canvas was cut off, the material rolled onto a roller, then the ceiling "given a heavy coat of hot size and paint", and the canvas unrolled and brushed on. The House Vol. XIII, June 1903, described in an article "Walls and their coverings" how canvas was "tacked on to battens".

34. James McNeil Whistler's painting Harmony in Grey and Green Miss Cicely Alexander c. 1872-74 illustrates the manner he used battens to assert the wall as a plane and structure space. Whistler's contribution to wall treatments can be seen in the prepared colour schemes for the interior walls of Aubrey House, home of his patron, W C Alexander now in the Hunterian Museum. In contrast to Morris who ornamented and filled wall space, Whistler focused on the space itself, and enhanced this quality through a painterly handling of colour, and textural application of paint, which respected the wall as a simple unified surface. Through his design work which reflected his early interest in Japanese art, Whistler influenced the trend for simpler wall treatments which became fashionable by the 1890s. For more information on Whistler as a decorator see Weber, S. Whistler as a Collector, Interior Colourist & Decorator, MHDA Thesis, May 1987, Glasgow University.

35. A piece of Mackintosh's stencilled wallhanging for the back salon of the Willow Tea Rooms (Billcliffe: 1903.G) now in the Hunterian Museum shows how these linens were panelled onto the wall with battens.

36. Donald, F. "Furnishing Fabrics. Some Comments of a Manufacturer on his trade", Address at the Royal Academy Exhibition Art & Industry, 1935 "The 'moderns' of those days (and there were men in revolt at the beginning of the century just as there are thousands of
them to-day) liked and used our fabrics - men of the calibre of Charles MacIntosh and George Walton." p. 9.

37. Ibid. p. 9.
38. Ibid. p. 13.
39. The cross-fertilisation of ideas within British and American domestic architecture between 1870-1910 is a fascinating subject though beyond the scope of this study. For some understanding of the subject see Scully V. op.cit. for the 1860-70s period and Kornwolf, J.D. op.cit. for the 1880/90s period. The architectural historian H.A. Brooks has been quoted as writing that "California, Chicago and Britain were all linked together in this period as "part of one great Arts and Crafts school", Kornwolf, J.D. op cit. p. 364.

40. Nash, R. Wilderness and the American Mind, Yale University Press, Revised ed. 1973, Chap. 4. Vincent Scully wrote that Andrew Jackson Downing (1815-1852) the instigator of the Stick Style represented "the same turning-away from the newly developing industrial scene as do the painters of the Hudson River School." op.cit. p. xviii.

41. Scully, V. op.cit. also Kaiser, H. Great Camps of the Adirondacks. Boston, 1982. The Camps built in the Adirondacks, provide an extreme example of this search for the "rugged" in wilderness.

42. From May 1903 onwards, each month The Craftsman edited by Gustav Stickley featured Craftsman houses. A selection of these were published together in Stickley, G. Craftsman Homes, Architecture and Furnishings of the American Arts & Crafts Movement. N.Y. 1909, (Reprint, Dover Publications, N.Y. 1979.) The bungalow received enormous publicity and was adopted "unofficially" as the Craftsman house. (See Alan Weissman's introduction to Stickley, G. Craftsman Bungalows. (reprint Dover Publications, 1988) p. vi).


43. Scully, V. op.cit. p. 119.
44. Scully, V. *ibid.* See the introduction for a discussion of the stick style and its developed feel for "basketry", as well as for an understanding of the possibilities it offered for an architecture "based upon the dynamics of interwoven members." Scully's chapter 8, illustrates how an interest in Japanese and American "stick-style sensitivities" evolved.

45. The veranda or piazza - barely used in England - and porch were profoundly important in "habituating Americans to indoor-outdoor living". Scully, V. *op.cit.*, p. xlvii. For a discussion of Greene & Greene's work see; Makinson, R. *Greene & Greene: Architecture as Fine Art*, Peregrine Smith Books, Salt Lake City, 1977.

CHAPTER 3. THE CRAFTSMAN AESTHETIC

Gustav Stickley (1857-1942) was a central figure within the Arts & Crafts Movement in America. As influential editor of the American Arts & Crafts journal The Craftsman, (1901-1916), he also successfully designed, manufactured, marketed and publicised his Craftsman furniture, furnishings and interior schemes of decoration to the American public. His Craftsman aesthetic, manifest within his rugged structural and picturesque approach, establishes the ideological and aesthetic context for the appreciation of Donald Brothers' woven texture within the Arts & Crafts.

In section 3:1 an understanding of Stickley's "structural idea" eloquently described in Craftsman Homes (1909) and other texts - is gleaned from an analysis of Craftsman furniture. This idea is then considered in relation to woven textiles and his choice of Antique Canvas manufactured by Donald Brothers as his prized Craftsman Canvas. In section 3:2 Stickley's picturesque aesthetic for the interior - succinctly laid out within the introduction to the publication Craftsman Fabrics and Needlework from the Craftsman Workshops (c1908) - is studied from this text and understood in relation to his appreciation for the textural colour of Antique Canvas to develop natural background effect within the Arts & Crafts home.

3.1 The Structural idea.

As craftsman/manufacturer, one of Stickley's greatest achievements was to combine the Ruskin ideal of individuality in craftsmanship expressed through texture (2:1) with a democratic furniture that was made for the American people. It is claimed that Stickley produced, with the aid of machines, the "first popular modern furniture" in the United States.

Influenced initially by the British Arts & Crafts, Stickley produced his sturdy furniture to get "away from shams" (imitations of past historical
styles) and provide his public with the "real thing"; "something he needs and understands", constructed in a manner that could be "readily grasped". So important, in Stickley's view, was the characteristic American need "to know how things are done", that it lay at the heart of his structural idea.6

"To recognise, display, and emphasise the structural idea; the idea that reveals, explains, and justifies the reason for the existence of any being, organism or object", was to be his guiding principle.7

Two patented pieces of furniture, a table and chair of 1901 (illus 3:1) illustrate the origins of this principle. In each, sturdy, plainly cut wooden members made up the structure, obtrusively jointed into one another. Tenons, projected beyond their mortises, accentuated the interpenetration of horizontal with vertical parts. Bridle joints emphasised the supporting nature of legs to the flat plane of the table top, while wooden brackets generously extended support from the vertical members of the chair to its wide arm rests. The pronounced stitching of leather upholstery emphasised the simplest and most direct movement of a needle as it tacked
one material onto another. In sympathetic contrast the sturdy wood support and leather upholstery provided a pliable support into which the user could rest.

In these two pieces of furniture all Stickley’s requirements for the expression of his structural idea were met. Firstly, the structural emphasis accentuated the use of the furniture, the table top for books, the chair to sit on and relax into, and secondly it clarified how the furniture was made and the nature of the materials it was made from. Thus the rugged textural construction of horizontals and verticals designed to reveal the object’s use through its making could be read - as Ruskin’s reading of textured surfaces (2:1) - to signify Stickley’s Craftsman expression of individuality.
In this broad reading of texture, Stickley shifted emphasis in the American Arts & Crafts understanding of individuality, from the Ruskinian concentration on expression within hand rendered/wrought texture to the bold primitive expression of construction revealing purpose.

"It is only when a thing has the honest primitive quality that reveals just what it is made for, that it comes home to us as something which possesses an individuality of its own".8

This shift enabled Stickley to incorporate the use of machines to aid in the craft manufacturing of his bold purposeful furniture, and in this way to produce furniture in a quantity and at a price which - advertised through Craftsman catalogues (illus 3:2) - met the demand of the American Arts & Crafts public. The broader reading of texture also allowed for a similar approach to be taken in the machine manufacture of boldly expressed texture in constructed textiles (4:2). Stickley's structural idea thereby laid the ideological foundation for the acceptance of the factory woven materials of Donald Brothers within the American Arts & Crafts.

Aesthetically architectural textura had formed a context for the use of rugged woven texture by Donald Brothers within the interior (2:4). Stickley, working outwards from his structural idea in furniture making, embraced this aesthetic. Sensitive to the importance of woven textiles to the integrated plan of the Craftsman home, Stickley carefully chose Craftsman fabrics to work alongside woods, metals and leather to create the harmonious interior which he desired and which he did so much to popularise.9

His search for fabric was shaped by the picturesque ideal (2:1). It was principally chosen on grounds of "texture" and "character". Colour, though important, came second. Silks, plushes and tapestries (commonly used for furnishings at the time) he regarded as "utterly out of keeping with Craftsman furniture". Instead Stickley required;
"fabrics that possessed sturdiness and durability; that were made of materials that possessed a certain rugged and straightforward character of fiber, weave and texture, such a character as would bring them into the same class as the sturdy oak and wrought iron and copper of the other furnishings."

What Stickley found were linens, roughly woven dull-finished silks and above all, his prized Craftsman Canvas:

"a canvas woven of loosely twisted threads of jute and flax and dyed in the piece, - a method which gives an unevenness in color that amounts almost to a two tone effect because of the way in which the different threads take the dye. This unevenness is increased by the roughness of the texture, which is not unlike that of a firmly woven burlap."

Stickley's description of Craftsman Canvas, focused on the tonal effect of colour achieved (in the dying) by the mixture of jute and linen fibre and the roughness of its burlap-like texture resembled closely Frank Donald's later description of his brother David Tullo Donald's Antique Canvas.

"Our first decorative fabric was, more or less, an accident. My eldest brother had been experimenting in spinning flax and jute together - a canvas was made from this mixture - a soft wool-like canvas, and when dyed, the two fibres had a slightly different colour value. In that slight difference of colour value my brother saw something of interest, of beauty, and went on to develop the idea. That fabric ultimately was used in many art galleries, as well as to cover the pedestals of the statuary in the Royal Academy year after year. It also had a great vogue in America, during a period when a particularly fine type of Craftsman furniture was the rage, for hangings and curtains. It did not keep its colour well, but one man in New York, who could never get enough of it (it was such a good background for his furniture) prized it for that very reason. 'Ah! Mr Donald', he once said to me, 'it fades elegantly'."

Analysis of the canvas (illus 6:1-7) (6:2) and Stickley's business records (10:1) confirm that Antique Canvas was indeed Craftsman Canvas. Therefore it was Stickley's pronounced appreciation for Antique Canvas that verified David Tullo Donald's origination of Antique Canvas' texture as an object of design. As a "good background" for Craftsman furniture, the
similarity of *Antique Canvas* to "finely woven burlap" provided a continuity of Stickley's structural idea. It provided for practical need and revealed a directness of making in its plain weave. Its elementary weave structure presented a means of understanding weaving as a most essential and primitive art. Thus the texture of *Antique Canvas* was as expressive of individuality as Stickley's furniture. By creating its "vogue in America, during a period when a particularly fine type of Craftsman furniture was the rage, for hangings and curtains" Stickley's Craftsman aesthetic enabled Donald Brothers establish their market within the American Arts & Crafts in the early 1900s. This, in turn must have provided the ideological and aesthetic stimulus for the firm to develop texture, as object of design and as an expression of their craftsmanship within the factory (6-9).

3:2. Picturesque "Texture".

In addition to the Craftsman aesthetic for rugged plain weave, Stickley's appreciation for *Antique Canvas* was described in terms of its unevenness of colour. This appreciation was reliant on his picturesque understanding of the significance of "texture" for colour, and its effect in use as natural background effect within the Craftsman interior.

As outlined, the picturesque quest for textural fusion between landscape and architecture, which had permeated the interior, influenced Gustav Stickley's conception of the Craftsman home (2:4). Working from the inside of the house outwards, Stickley was to explore this aesthetic in terms of a landscape within his Craftsman scheme of decoration.

Stickley's landscape interior was dependent on two factors. Firstly on the established architectural development of opening up the ground plan of the house to give a sense of space and freedom within the interior in connection with the outside (2:4). Secondly, it was dependent, on preserving "the relationship between the natural background of walls and
floor and the more prominent furnishings in the room". Each part, given its own "value", fell into its own place "as naturally and inevitably as the trees, hills, valleys and brooks combine in the harmonious relationship that makes a beautiful landscape." 14

Thus in this second requirement, the poetic vision of Stickley for the landscape interior was revealed, as was its reliance on his understanding of the "significance" of texture for colour. To illustrate what was meant by this Stickley described the visual effect of a maple tree in autumn:

"If the single leaves of brilliant red or yellow could be formed into one large smooth surface, the effect would be that of harsh and brilliant color that would inevitably become tiring and obtrusive. But when the tree is seen from a distance it sinks into its place in the background of the woods and harmonises with everything around it for the reason that its surface is so broken into myriads of lights and shadows that nothing is distinguishable except a soft blur of color made up of many variations. This may be called the "texture" of the tree, and upon it depends the whole quality of the color that makes the autumn woods a joy of which we never tire." 15

With this understanding of "texture" and its dependable effect on colour, Stickley concluded that a quality of "soft radiance" as "the ideal background" could be achieved. It was this quality which gave "an atmosphere of color to the entire room." 16

Within the Craftsman scheme of decoration, therefore, wood-work, wall surfaces, rugs, portières and larger pieces of furniture all formed part of this "soft radiance" of texture/colour background. Smaller decorative features such as appliqué and metal work were introduced in relation to this background as "high lights in a picture", to "accent the whole scheme". 17 In such a picturesque scheme it can be understood how Antique Canvas, already chosen by Stickley for its character as rugged woven texture, was also appreciated for its "texture" and dependant quality of soft tonal colour.
Offering soft textural colour in rugged texture, Antique Canvas thus found its aesthetic place as wall coverings and hangings. It accorded with the sturdy character of Craftsman oak furniture and woodwork, and with it provided the quality of soft atmospheric radiance with which Stickley sought to unify the interior. In this manner it contributed to the quality of wooded landscape within the home to express harmonious living close to nature, which lay at the heart of the Arts & Crafts - and Craftsman dream (10:2).

Through study of Gustav Stickley's rugged Craftsman aesthetic, guided by his "structural ideal" for Craftsman furniture, it has been possible to demonstrate the appreciation for rugged plain woven fabric in the Arts & Crafts, which enabled Donald Brothers' Antique Canvas to have its vogue as Craftsman Canvas in America. As a constructive background to Stickley's furniture it was shown how Stickley's picturesque understanding of nature's "texture", with its interdependence of colour, was also instrumental in his appreciation of Antique Canvas' textural colour and his choice of it as a soft radiant background for the Craftsman interior. And finally as rugged texture and "texture"/colour it was demonstrated how Stickley recognised these qualities as objects of design in the fabric of Donald Brothers for the Arts & Crafts in America.
Footnotes.

1. Stickley went into bankruptcy in 1916. Difficulties in paying Donald Brothers by 1914 suggests that Stickley's Craftsman business was already in difficulties by 1914.


3. Stickley, G. *Craftsman Fabrics and Needlework from the Craftsman Workshops*, reprint, Razmataz Press, N.Y. 1989. This catalogue, dated to ç 1905 by Razmataz, in fact dates to Feb./March 1908, the year it was advertised in *The Craftsman* (Vol. 13, No. 5, Feb. 1908).


5. Ibid, p. 44.


8. Stickley, G. *Craftsman Homes* op.cit. p. 158. Clarifying that the word "primitive" was not to be mistaken for "crudeness" Stickley explained that "the primitive form of construction is that which would naturally suggest itself to a workman as embodying the main essentials of a piece of furniture, of which the first is the straightforward provision for practical need."


10. *Ibid*.

11. *Ibid*.


15. Ibid. pp. 5-6.
16. Ibid. p. 6.
CHAPTER 4. THE HAND SPINNING AND WEAVING REVIVAL.

Gustav Stickley's Craftsman appreciation of woven texture and textural colour as objects of design in Antique Canvas demonstrates an awareness that had developed for weaving as a building craft by the 1900s. Stimulated by architectural developments (2:2) leading to a requirement for constructed textiles within the interior (2:3&4), the recognition of weaving as a building craft had also been developed simultaneously by practising craftspersons within the revival of hand-spinning and weaving in Britain and America. This chapter seeks to illuminate this craft as a context and a point of comparison for the subsequent study of the parallel development of Donald Brothers' own constructed texture and colour within the factory.

In 4:1 a brief discussion of Arts & Crafts textiles developed by William Morris will be used to highlight through contrast John Ruskin's appreciation for textiles and weaving as "palace masonry". An understanding of Ruskin's homespun, and his teaching on textural expression will demonstrate in 4:2, through study of contemporary literature on the hand-weaving revival and an examination of hand-woven fabric, the influence he had on the practice of men and women to develop texture and colour as objects of design in textiles by the late nineteenth century. In 4:3 an examination of the craft revival in America, studied through the perceptions of The Craftsman, will reveal how woven texture was developed in this country. Through Gustav Stickley's lucid appreciation, hand-craft is directly related to the crafted aesthetic of Donald Brothers, developed within the factory. Colour reliant on material texture is studied separately in section 4:4 to highlight its particular importance for textiles by the 1880s/90s. Through a study of two distinctive artistic trends, it is shown how William Morris and Arthur Liberty, working with Thomas Wardle of Leek, developed an awareness for the art of dyeing and a market demand for Art Colour. Finally it is shown how this feel for colour was
crucial to the aesthetic appeal of textured productions in Art Canvas and Art Linen by both hand-weavers and Donald Brothers.

4:1. Weaving as a building craft: Palace Masonry.

It is said that William Morris (1834-1896) took "Ruskin's love of the hand wrought roughness of the crafts and wanted to see it applied to modern commerce".¹ His early textiles did indeed emphasise craftsmanship through their rough and "homely" look. The embroidered Daisy hangings (illus 2:18), designed by Morris as wall coverings for the main bedroom of the Red House, were worked by him and his wife Jane Burden "in bright colours in a simple rough way", boldly couching down lengths of wool to form flowering plants which left expanses of plain rough material exposed.² While perpetuating something of this distinctive homely look, by using fibres such as wool and linen and carefully developed soft natural colourings, Morris' later textiles, produced by his company Morris & Co., were increasingly sophisticated in design and manufacture. Visually brilliant, Morris principally relied on his ability as a designer of drawn pattern allied to his craftsmanly understanding of techniques, to express artistic individuality in manufactured textiles. Under his enormous influence this trend was to be developed in the Arts & Crafts textiles of the 1880s and 90s.³ These patterned textiles, beautiful as they are, were increasingly at odds with the rational, homely simplicity of Arts & Crafts architecture (2:3)⁴ and essentially estranged from Ruskin's original plea for hand-wrought roughness in manufacture. They were also a far cry from Ruskin's own championing of the homespun which began to take root and establish itself through the hand-spinning and home-weaving revival, as an alternative in Arts & Crafts textiles by the turn of the century.

The revival - undoubtedly influenced by William Morris' practical involvement in hand-weaving - was inspired by Ruskin's writing and
active interest in textiles, as well as by his philanthropic initiative in the founding of the Guild of St. George in 1871. Ruskin considered weaving to be "the art of the queens" and described it as "palace masonry". Inherent in this description was his appreciation for weaving as a constructive art. His appreciation went far deeper than a contemplation of the sumptuous surfaces of patterned cloth. It stemmed from his interest in the nature of raw materials, and the fascination he found in the processes of construction itself. The nature of fibre made the starting point of Ruskin's appreciation for a textile. He wanted to know "why wool is soft, and fur fine, and cotton downy, and down downier". Secondly he appreciated the processes by which fibre was manipulated into textiles, through dyeing, spinning and weaving; to form "rude and smooth" as well as patterned surfaces. Thirdly - and above all - Ruskin's particular delight in weaving lay in its involution, the simplicity of "the eternal harmony of warp and weft" in all woven cloths. Musing over the frequent use and evident pleasure found in the bold woven motifs rendered in Romanesque carving (illus 4:1), Ruskin suggested man's enjoyment in the woven structure lay in his "innate love of mystery and unity"; in his "dim" sense of weaving as a symbol of the "intricacy, and alternate rise and fall, subjection and supremacy of human fortune."
Ruskin's interest in the nature of raw materials, his appreciation for the textile processes and profound understanding of weaving as metaphor - the web of life - combined with his love for hand-wrought roughness in craft laid the foundations for a new awareness of textiles. This was the constructed textile, in which texture became, as in architecture, an object of design and aesthetic appreciation.

4:2 The Hand-spinning and Hand-weaving Revival.

Ruskin's support of the hand-spinning and hand-weaving revival took concrete form when, through his Guild of St. George (1871-1884), he gave financial encouragement to Egbert Rydings' initiative to revive the home-spinning industry at Laxey on the Isle of Man in 1875. Money was provided to encourage "aged women who had no other means of subsistence but work in the mines" to hand-spin thread, with a water-mill, St. George's Woollen Mill, built for weaving up "the homespun thread." The mill's woven product, "Laxey homespun", was all wool, made from a blend of natural coloured black and white wool provided by local farmers. Dependable for its qualities of material and colour, Laxey homespun derived its name and character from the distinctive wool blend and irregular quality of hand-spun yarn which was revealed in the plain woven material. Its textural imperfections undoubtedly expressed individuality in craftsmanship. That a "square of Laxey homespun of a given weight" was to be used as one of the standards of value in St. George's currency as well as determine a standard of material in dress, illustrates the worth Ruskin perceived in simple woven textured stuff.

Although the Laxey venture proved uneconomical and the cloth unfashionable with the "better classes" of the 1870s because it wore too long, it did mark the beginning of Ruskin's involvement with the hand-spinning and - weaving revival. In the 1880s he again gave his support (although not financial) to this revival. This time the beneficiary was the
Langdale Linen Industry established in 1885 by his friend Albert Fleming near Ruskin's home on Lake Coniston in the Lake District. Managed by Mrs Abigail Pepper (illus 4:2) this industry provided employment in hand-spinning, weaving and embroidery for local people well into the 1920s and influenced the establishment of subsequent hand-spinning and weaving industries. Fleming's account of the setting up of this industry reveals the importance of Ruskin's teaching on individuality in craftsmanship for the encouragement of this enterprise, and how aesthetic appreciation for plain woven, textured cloth had developed by the 1880s.

"We then secured an old weaver, and one bright Easter morning saw our first piece of linen woven - the first purely hand-spun and hand-woven linen produced in all broad England in our generation. A significant fact that, if you think all round it. Over that twenty yards the scoffers rejoiced greatly. I own it seemed terrible stuff, frightful
in colour, and of dreadful roughness, with huge lumps and knots meandering up and down its surface. But we took heart of grace, and refreshed ourselves by reading that beautiful passage in the Seven Lamps which convinced us that these little irregularities were the honourable badges of all true hand work. Better still, an elect lady called one day, and even without the preliminary refreshment of the passage from the Seven Lamps, she pronounced the stuff delightful, and bought a dozen yards, at four shillings a yard.”

Therefore although Laxey homespun was rejected by the "better classes" as unfashionable in the 1870s, by 1885 at Langdale an "elect lady" - who had not necessarily read Ruskin’s Seven Lamps pronounced rough, knotty stuff "delightful". An undated sample of hand-spun, hand-woven Langdale Linen (illus 4:3) worked with Ruskin lace\(^{15}\) as an apron, provides an example of this roughness, knots and irregularity in cloth. The acceptance of such 'flaws' was inextricably bound up with Ruskin's rejection of machine precision and his enjoyment in imperfections as indication of individuality and honest craftsmanship.

By the mid 1880s it seems a context for the appreciation of roughly textured cloth had been established, and most importantly a market was
forming. This was demonstrated by the foundation of the Home Art and Industries Association in 1884 - one year before Langdale - to co-ordinate rural craft activities and provide hand-spinners and weavers with a London outlet and annual exhibition venue for their work.

Inspired by Ruskin ideals and Abigail Pepper's work at Langdale, Annie Garnett (1864-1942) established classes in hand-spinning and weaving at nearby Windermere c 1890, and set up the Windermere Industry - later known as The Spinnery. At the height of its success (c 1909) The Spinnery used eight looms and employed between 65-100 female outworkers and has been described as "one of the most successful ventures of the Home Arts and Industries Bureau". Spinnery fabrics included hand-woven linens, coarse and fine throwans (woven with a linen warp and silk weft), shot silks, samites (silk warps, aluminium metal weft) and brocades. These fabrics were admired at this period for their qualities of texture, surface and colour. The Studio remarked these qualities were "so satisfying to the eye as to make pattern superfluous." Two examples of Spinnery fabric, one dated to c 1896 (illus 4:4) the other undated (illus 4:5) reveal this aesthetic for texture and textural colour. These qualities were nurtured by the irregularity of hand-spun yarn and its employment in shot weaving. They were designed through building craft.

Another important centre of hand-weaving established in the 1890s was at Haslemere, Surrey. The Haslemere Peasant Industries - as the Lake District industries - exhibited with the Home Arts & Industries Association; in addition they had their own London depot for the sale of work. Founded in 1894, the Peasant Industries encompassed many crafts, but the textile industries, developed in four distinct workshops, formed the most important group. Part of their importance to this study lies in the fact that Haslemere formed a direct link between the feel for woven texture being developed by the hand-weaving revival and the parallel industrial
Illus 4:4 Hand-spun and hand-woven fabric (yellow linen warp, white silk weft) produced by The Spinnery, 1896

Illus 4:5 Hand-spun and hand-woven fabric (blue linen warp, red silk weft) produced by The Spinnery (Enlarged)
developments within the Donald Brothers' factory. For although Dundee and Haslemere are geographically hundreds of miles apart, David Tullo Donald, in charge of the design direction of Donald Brothers, lived in Haslemere c 1903-05 and was undoubtedly aware of the Peasant Industries' work by 1900 (5:1:1).

The Haslemere Textile Industry was founded in 1894 by Mr & Mrs Joseph King at Foundry Meadow. This first workshop whose building was accommodated with four large windows for light (*illus 4:6*) specialised in hand-weaving plain and figured materials in linen from machine spun Irish flax. The figured designs were woven on Swedish looms according to Swedish tradition by which the woven pattern was made with an extra, thicker, coloured weft thread inserted with the fingers, against a plain or slightly geometrically patterned background. Illustrated in *The Artist*, details of sideboard cloths designed by Godfrey Blount (*illus 4:7*) reveal the intended roughness of pattern work, the geometric nature of weaving made evident in the rendering of form. The plainer cloths woven on
"primitive" treadle-looms included stripes, coloured and shot linens. These "rare fabrics" were discussed but not illustrated in journals -including The Craftsman- at the period. They were praised - as The Spinnery fabrics - for their "texture and tint", triumphing "artistically" (in Ruskinian spirit) over "the dead uniformity" of power-woven linen, through their "variety and irregularity which always makes personal work interesting".23

From 1896, the King's plain irregular woven fabrics (illus 4:12) were utilised in the making of "Peasant Tapestry" worked - as photographed in the foreground of (illus 4:8) - by the Peasant Art Society, established by Mr and Mrs Geoffrey Blount. Peasant Tapestry (illus 4:9 & 10) was a form of

Illus 4:8 Interior view of The Haslemere Peasant Industries showing the making of Peasant Tapestry, 1906
Illus 4:9 "The Spies" Peasant Tapestry appliquéd in hand-woven linens by The Haslemere Peasant Industries - designed by Godfrey Blount, 1900

Illus 4:10 Peasant Tapestry appliquéd in hand-woven linens by The Haslemere Peasant Industries - designed by Godfrey Blount, 1896-7
appliqué embroidery made with bold shapes of different richly coloured linens, arranged to form a decorative image and sewn down in hard outline onto a distinct background. This form of needlework, in its use of linen and bold stitched appliqué forms, was similar in working - though not in design - to that of contemporaneous Glasgow embroidery, such as Jessie Newberry’s unfinished linen appliqué tea cosy (c 1900) (illus 4:11).24

Both centres of needlework demonstrated a developing awareness for flat abstracted pattern which emphasised colour and the surface texture of materials (illus 4:12). By 1903 Gustav Stickley’s Craftsman embroidery/needlework worked in Donald Brothers’ fabrics (illus 7:26) - initiated at the time of Harvey Ellis’ brief but important influence on Stickley’s production - was developed along similar lines. While the connections between the three groups remain to my knowledge uninvestigated, Donald Brothers’ links with them all suggests that this type of embroidery/needlework, allied as it was to stencil work, formed an important context for the use of Donald Brothers’ canvas and linen in embroidery at this period (7:2).25
The two other weaving industries that developed at Haslemere were Green Bush Weaving House and St. Edmundsbury Looms, established respectively by the weavers Luther Hooper and Edmund Hunter in 1901 and 1902. Both were more sophisticated weaving establishments and used hand-loom jacquards to weave patterned textiles. Hooper produced silk, worsted and cotton damasks, brocades, velvets and carpets and Hunter specialised in luxury silk goods often for ecclesiastical use. Predominantly reliant on pattern, both weavers did explore the qualities of colour and texture through the craft of weaving a cloth, thereby making them part of the design. Their weaving demonstrates the breadth of textile skills and making that had developed in Haslemere by c 1903. It also highlights, with the Swedish pattern weaving and Peasant Tapestry, a particular aspect about the literature on hand-woven textiles at this period. Namely, although the simpler peasant fabrics were admired for their artistic and rare qualities of "texture and tint", it was the decorative patterns of Haslemere's textiles that were illustrated and chiefly discussed. This
may have partly resulted from the difficulty in reproducing for illustration the colour and textural qualities of textiles. But secondly - and probably more accurately - it was because the pictorial qualities of surface pattern, relying on the drawn image, were still more easily recognised and discussed in relation to design in textiles.

Despite this bias towards the "photogenic" patterned textiles, as Linda Parry points out in her invaluable catalogue Arts & Crafts Textiles (1988), the revived interest in the craft of weaving had by 1900 led to a "number of moderately priced, beautifully coloured and imaginatively textured examples" being shown at the Home Arts and Industries exhibition of that year, as well as coming to dominate the textile section of the last four Arts & Crafts exhibitions (1906-1916). Parry concludes:

"From this time fabric structure and texture took over from surface pattern with the greater use of draft, heddle and simple frame loom. Technique controlled design."

Certainly the innovative trend in textiles seems to have been towards a concentration on fabric structure and texture but the conclusion that "technique controlled design" is not correct. Design in fact still controlled technique but now design embraced an understanding of the qualities of raw materials and the manner in which they could be manipulated through technique to produce a textile of visual and tactile interest. With this development, the aesthetic feel for texture which had been nurtured over a hundred years in painting, architecture and craft now became an object of design in textiles.

It is within such a context of design that the textured fabrics of Donald Brothers can be studied and assessed. Their canvases and linens, like those of the hand-weavers, were designed to display roughness and irregularity and reveal, in their making, weaving as a constructive art (6-9). They were admired for their individuality of texture and inter-related
colour and like hand-woven cloths were used plain (6:1, 7:1, 2, 9) or in conjunction with appliqué (7:2) and stencilling (6:3) by decoration within furnishings for the Arts and Crafts home (6-10).

4.3 American craft in textiles.

In America, where a similar design awareness for texture in fabrics developed, rugged texture was encouraged as in architecture (2:4, 3:1). Gustav Stickley did much to promote this awareness and feel for rugged texture, publishing articles on hand-spinning and weaving, rug making and needlework within The Craftsman. For Stickley, American Indian textiles formed a living ideal of ancient primitive craft. Made out of a "spontaneous growth of necessity" these textiles were admired for their "absolute natural expression of the individuality of the maker". A photograph of an American Indian spinning (illus 4:13), published in 1903, demonstrates, in contrast to that of Abigail Pepper (illus 4:3) and the Haslemere Peasants (illus 4:7), just how evocative the homespun, linked as it was with primitive living, could be in America. Flat woven American Indian rugs were frequently illustrated within Craftsman homes (illus 4:14 & 15) published by The Craftsman and contributed to the fashion that developed for them. Characterised by bold geometric patterns and stripes,
Illus 4:14 Craftsman living room interior with American Indian rugs, 1909

Illus 4:15 Craftsman entrance porch with American Indian rug showing random striped texture, 1906
these rugs offered a simple ruggedness in floor coverings for the Arts & Crafts interior. Random striped patterns (*illus* 2:31 & 4:15) formed by the broken use of the weft, demonstrates how textural interest was the outcome of practical weaving, designed on the loom.

Woven texture was also evident in modern rag rugs. In 1907 *The Craftsman* ran an article on "The Techniques of Simple Rug Making" in which rag rugs woven on the loom were illustrated in unusual close up detail to demonstrate the processes of yarn construction, woven structure and the resultant surface texture created.34 Bold rag yarn - colour mixed or twisted - is revealed on the woven surface (*illus* 4:16) or is held in check by the dark warp (*illus* 4:17); the eye is able to follow the weft in the process of weaving, and in the act of making texture itself. This use of yarn to form the texture and character of a fabric was implicit in Ruskin's use of the word homespun and evident in the Langdale linens examined. However it was *The Craftsman*, in its desire to "explain" within the structural idea in making (3:1) which put images and words to the aesthetic to be found in the constructive craft of textiles at the period.
Writing on textile handicraft, Stickley stressed that for "a hand-woven fabric, to be interesting and individual, (it) must have other qualities than are given merely by weaving ordinary threads on a handloom". The "charm" in "handwoven fabrics made by peasants in foreign countries" lay largely in their handling of fibre, "the way the thread (was) spun and dyed, and the way the quality of each (was) preserved in the weaving." Therefore for Stickley, "individuality" in a hand-woven fabric did not rely on throwing "the shuttle by hand instead of machinery" but in the "care, interest and knowledge ... devoted to the preparation of raw material", in the spinning and dyeing of yarn and in its direct revelation within the structure of weaving. This meant that whether a woven fabric was made with the aid of the machine or not, individuality and character could be expressed through the careful nurturing of material texture and colour. This was the point Stickley made when writing on Craftsman Canvas in his article entitled "'Fancy Work' as a phase of Industrial Art" in 1906.

"The canvas has a curious and interesting variation in colour secured by a combination in the weaving of linen and jute which dyed in the
piece, each raw material absorbing the colour according to its own individual character. This variation of colour affords the same joy to the thinking beholder that the uneven weave from a hand-loom does, or the uncertain texture of a hand-made paper. It suggests personality instead of the machine. It is companiable as never a bleak even surface can be. 38

Clearly Craftsman Canvas manufactured as Antique Canvas within Donald Brothers' Dundee factory produced in Gustav Stickley the same joy that he gained from fabrics produced on the hand-loom. Inextricably its aesthetic of picturesque "texture"/colour variation (3:2) was bound up with Ruskin's rejection of machine precision and even surface. Its variation suggested personality - rather than the machine - although as a "thinking beholder" Stickley was in no doubt that the canvas had been made on a power-loom.

This acceptance of the machine as a tool in craft was important to the Craftsman idea (3:1). In the same year (1906) Stickley stated his belief - shared by other of his American Arts & Crafts contemporaries - that "the question of hand work as opposed to machine work" was "largely superfluous" in the debate on craft. Craftsmanship was for him "the putting of thought, care and individuality into the task of making honestly and well something that satisfies a real need". 39 Thus Antique Canvas manufactured by Donald Brothers met Stickley's criteria for a Craftsman canvas. It expressed the individuality of Donald Brothers' care and thought in its textural variation. It possessed a certain rugged straightforward character of fibre, weave and texture which made it sturdy and durable in keeping with his furniture (3:1). And like Craftsman furniture, Antique Canvas was made by machine in quantity, to satisfy a real need, at a price ($0.57 (stock), $1.25 (retail) per yard) that enabled it to have its affordable "vogue" with the American middle classes. Like Craftsman Arts & Crafts production it was "democratic". 40
Indeed it was this ability of Donald Brothers to meet, both in design aesthetic and costing, the requirements of Craftsman products that established Stickley's dependency on other of the firm's fabrics for the realisation of his Craftsman Fabrics (10:1, 7-9), for use within the Craftsman scheme of decoration within the Craftsman home (10:2). This in turn influenced Donald Brothers to develop their own crafted aesthetic in texture in relation to hand-woven cloth for the Arts and Crafts market in America between c 1903 and 1914 (7:2, 8:2, 9).

4:4 Crafted "Art" Colour and its interaction with texture.

The dependency of colour on material texture appreciated in Antique Canvas and hand-woven fabrics highlights an awareness for the art of colour that had developed in textiles by the 1880s. Stimulated by picturesque ideas, craftspersons and manufacturers developed soft harmonious colours in reaction to the harsh discordant mineral dyes, to signify "Art" and evoke a sense of "naturalness" of a by-gone, pre-industrial age.

Ranging over a wide spectrum of colour, from rich mellow through to pale delicate tints, Art Colour developed out of two distinct trends in the painters' palette which merged together in textiles by the late nineteenth century. Firstly there was the colour palette of the Pre-Raphaelite circle originated in the 1850s. This can best be described as richly mellow, naturalistic and antiquarian, laced with pure primaries, such as that found in medieval book illumination and tapestries, as well as in nature tinted by the medieval as illustrated by John Millais' Mariana of 1850-51 (illus 4:18). Translated into textiles, it was William Morris who skilfully captured this colour; through his willingness as a craftsman to involve himself directly in the art of dyeing. Throughout the 1870s and into the 1880s Morris experimented with vegetable dyes and with the help of Thomas Wardle -
who ran a commercial dying business in Leek - and was able to achieve a range of clear mellow colours based on madder-red, weld-yellow and indigo-blue in his dyed yarns and printed fabrics. As a result of Morris work, mellow tertiary colour became popular, and an awareness for the art in dyeing became established.

The second colour trend, which relied on arrangements of light subtle tints of pinks, blues, yellows and greys was originated by the painters James McNeil Whistler (1834-1903) and Albert Moore (1841-1892). It was inspired by Japanese and classical art as well as by the hand-dyed eastern silks imported by Arthur Liberty of Liberty's & Co., as illustrated in Moore's Azaleas of 1868 (illus 4:19).
Arthur Liberty, who learnt about fabric while working and then managing the Oriental Warehouse at Farmer and Roger's in Regent street between 1862 and 1875 - recognised with his artist customers the essential beauty of Eastern silks. Artists particularly appreciated:

"The soft delicate coloured fabrics of the East ... because they could get nothing of European make that would drape properly and which was of sufficiently well balanced colouring to satisfy the eye."\(^{42}\)

Albert Moore's painting of a woman draped in these fabrics - painted with glazes of overlaid colour - illustrates the inspiration of these diaphanous finely textured and coloured fabrics for the artist. Their delicate colour was visually at one with the textural quality of the material. They were inter-dependent.
Through the shop Liberty & Co. - which opened in 1875 - these silks and their delicate shades of colour became disseminated to a wider public. By the 1880s as demand grew for them, Arthur Liberty persuaded Thomas Wardle of Leek "to experiment with Eastern dyeing techniques", and this resulted in their "greatest triumph"; Liberty "Art Colours". This was a range of pastel tints, achieved with aniline dyes, with which quantities of imported silk were dyed to, and sold through the Liberty shop. Therefore through the co-operation of Thomas Wardle, both Morris' rich mellow colours and Liberty's lighter colour range were manufactured and offered to the public. This established a wide spectrum of Art Colour in fabric and led - through colours inter-dependence on material - to the fashionable market for Art Fabrics by the 1890s.

As one example of this fashion for colour in Art Fabric, the commercial manufacturers of linen Jonathan Harris & Sons, boasted over 50 shades of colour in Art Linen by the 1890s, and by 1910 their colour card offered a record eighty-five shades. Within the hand-weaving revival this feel for the art of colour explored in relation to material was crucial. Annie Garnett textured Spinnery fabrics of the 1890s and 1900s were woven with yarns dyed to her own exacting specifications by Thomas Wardle. Inspired by nature's colours, Garnett would "grow" and "think out" the colour effects for woven stuffs in her garden and send specimens of flowers, or other natural objects for Wardle to match in dye. The - un reproduceable - display of her fabrics at the Kendal Museum of Lakeland Life provides an insight into the richness and subtlety of her colour spectrum. It reveals the art found in colour by this craftswoman and the crucial inter-play between colour and texture explored within the hand-weaving revival at the turn of the century.

It is within such a context that Donald Brothers also began to manufacture. Their canvases and linens - marketed as Art - also relied on
colour developed in relation to material texture. This was Donald Brothers’ aesthetic. Their range of colours achieved with aniline dyes were often inspired "from the woods and hills" that surrounded them. Although they were not named after nature - as Garnett’s were - they were specifically referred to in America as "forest shades", a name which fits closely with Gustav Stickley’s own range of "forest tones" in Craftsman Canvas;

"three tones of wood brown, - one almost the color of old weather-beaten oak; another that shows a sunny yellowish tone; and a third that comes close to a dark russet. The greens are the foliage hues, - one dark and brownish like rusty pine needles, another a deep leaf-green; the third an intense green like damp green in the shade; and a fourth a very gray-green with a bluish tinge like the eucalyptus leaf .... The blues are in ocean tones, and there are three tones of yellow, ranging from wheat color to golden brown".

These Craftsman colours described in terms of nature evocatively suggested the picturesque harmony of the wooded landscape Stickley sought for the Craftsman interior (3:2). As artistic colour in canvas, the dye was reliant on the "texture" of the canvas - as Stickley’s maple tree (3:2). It sank into the sturdy material and this in turn enhanced the textural quality of it. Indeed fading - by which colour sunk ever further into the material texture - was considered "artistic". It was Gustav Stickley who prized Antique Canvas for this very reason

"Ah! Mr. Donald', he once said to me, 'it fades elegantly'."

However elegantly textile colour faded, with the introduction of Alexander Morton & Co.’s Sundour unfadable dyes in the first decade of this century, many subtleties of Art Colour were doomed. Manufacturers were forced to offer fabric guaranteed as "fadeless". As late as the 1930s Frank Donald, in pursuit of beautiful colour, was vexed by this development

"A rather pernicious trade practice has become almost general, and the public will not now buy curtain material except (if) they are guaranteed not to fade. The public may continue to get the
guarantee. It is likely, however, to be at the expense of real beauty and variety of colour. If the guarantee is to be insisted upon, we manufacturers, who have made a real study of colour and never hesitated about a shade if we thought it most beautiful, are likely to be defeated in our aims, and compelled to revert to the use only of the cruder, faster shades.50

To make a real study and develop beauty and variety of colour in a textile was an important design aim of Donald Brothers. Colour inter-related with woven texture formed the distinctive character of Donald Brothers' fabrics in the Arts & Crafts period, and was to do so throughout the firm's manufacturing life. It was in designing these qualities that Donald Brothers expressed their own individuality as craftsmen in the late nineteenth and twentieth century (6-9).

In summary, this chapter has shown how John Ruskin's understanding of weaving as a constructional art, together with his championing of individual expression in homespun influenced craftsmen in the revival of hand-spinning and hand-weaving. By the 1880s an appreciation for texture in fabric had developed. By the 1890s and 1900s craft industries at Langdale, Windermere and Haslemere were acknowledged by art journals for their woven textures and colours in fabric. Through analysis of hand-spun and hand-woven fabric it was shown how texture and textural colour had become objects of design, developed through practice. It was proposed that it was within such a context of design that the textiles of Donald Brothers can be studied.

In a study of The Craftsman literature it was shown how the aesthetic for texture was developed within textile craft in America. With Stickley's acceptance of the machine in craft production it was established that his appreciation for hand-crafted fabric was extended to his appreciation for Donald Brothers' Antique Canvas crafted within the factory. It was concluded that this appreciation also explained Stickley's reliance on other of their canvases and linens for the realisation of his
Craftsman Fabrics c 1903 - 1914. Finally through a study of artistic trends in colour it was shown how an awareness for art in colour, and a public demand for Art Colour, stimulated crafts-persons and manufacturers - including Donald Brothers - to involve themselves in the art of dyeing to develop colour in relation to texture as objects of design in Art Fabric.
Footnotes.


2. Fairclough, O. & Leary, E. Textiles by William Morris and Morris & Co. 1861-1940. Thames & Hudson, London 1981, p. 22. From the above we learn that in 1862 Morris, Marshall and Faulkner & Co. exhibited embroidery hangings similar if not identical to the Daisy hangings made for the Red House. These were reviewed derisively at the time for their "homeliness" and considered inappropriate for middle class home furnishings, and were suggested for a "quaintly-furnished bachelor room of the artist, or the private snuggery of a medievalist." In their "homeliness" and roughness of direct handling these hangings provided a potent alternative to the prevailing high Victorian taste for silks, brocades and perfected finish.


4. This can be seen in Charles Voysey's work. The architectural historian Duncan Simpson wrote - in his introduction to the book on C.F.A. Voysey - that there was a "wide and understandable gulf between Voysey's work in two and three dimensions; it is symptomatic that he never upholstered a furniture design with one of his own, or anyone else's, patterned fabrics. Nor did he, except very rarely, use in his houses a patterned covering or patterned hanging."

5. John Ruskin's writings on textiles do not fall into one distinct group. They are dispersed, fragmentary, but highly evocative, appearing in a number of his works.


7. Ruskin, J. Fors Clavigera Letter 95 Oct. 1894, in The Complete Works of John Ruskin, op. cit. Vol. VIII pp. 510-511. Raw fibres such as wool, cotton, fur, hair, down, hemp, flax, and silk were to form the first part of the textile exhibit that Ruskin sketched out for the Sheffield museum. They were to illustrate and if possible explain through the aid of a microscope, the different tactile qualities of various fibres and cloths.


12. Ibid.


15. Ruskin Lace was worked on the warp and particular to the Lake District. See Parry, L. op.cit. p. 131.

16. For information on Annie Garnett and The Spinnery see; Garnett, A. *Notes on Hand Spinning*, Dulan & Co., London, 1896. Garnett, A. *Spinnery Notes*, Windermere, 1913. Medland, G. *Annie Garnett*, Unpublished B.A. Dissertation, Manchester Polytechnic, 1979, and Parry, L. op.cit. p. 124. Garnett's industry was established in 1891 and at first was called the Windermere Industry renamed The Spinnery in 1898. In *Notes on Hand Spinning*, Garnett's debt to Ruskin and the Langdale Industry is clear. She wrote of her hope and objective of producing by hand "something more beautiful than can be found in the sameness of machine-made things" p. 12 as well as of her philanthropic objective of teaching "spinning and embroidery to village women" p. 13. By the time of writing *Notes on Hand Spinning* (1896) the industry had 21 spinning wheels "lent out to the cottages", as well as many other women working on their own wheels. As well as this one experienced weaver was kept "at work the year round".

17. Parry, L. op.cit. p. 124.


19. The Peasant Arts Society depot was at 8 Queen's Rd, Bayswater. The society also sold through "The Guild of Handicraft based at 9 Maddox St, as well sometimes through Liberty & Co. and Heal & Son.
20. This point was made by R E D Sketchley in his article, "Haslemere Arts & Crafts" Art Journal, 1906, pp. 337-342.

21. Machine spun linen thread was used by Maud King because she found hand spun flax made "the products of the industry too expensive to be saleable". Cox, M. "Two Surrey Village Industries", The Artist, 1897, pp. 556-562. King, an expert spinstress seems however to have introduced some handspinning by 1902. Woolson, M. "Revival of English Handicrafts - The Haslemere Industries" The Craftsman, Vol. 1 Jan. 1902 pp. 25-32.

22. As swivel weaving, the coloured weft threads were woven into the cloth only where the pattern was required, they did not run the whole width of the cloth.

23. Cox, M. op.cit. p. 562, Sketchley, R. op.cit. p.341, Wilson, M. op.cit. p. 29. The Craftsman article describes their fabrics as "delightful in texture and harmonious in colour" and relates how visitors who had "heard of the rare linen and cotton fabrics... often came long distances to see them".

24. For more information on Glasgow appliqué embroidery see, Glasgow School of Art Embroidery 1894-1920, Glasgow Museum and Art Gallery, 1980.

25. With this established use, Donald Brothers' produced counter books of Embroidery Linens in the 1920s and 30s. In the 1930s they also had their own Embroidery and Needlework Department run by Mrs Hudson (from Leicester) and employed two or three girls. Mrs Hudson had two married daughters, Vera Low and Mrs. Miller, who also worked in the department and continued after the war. Other women connected with this department were Miss Barnett and May Adams. Their work included sample embroidery on embroidery cloth for sample books, preparing sample books of Old Glamis Fabrics, making table mats "a steady thing", table cloths, peg bags, cushions. They embroidered and tufting cushions and curtains (e.g. those made for the Queen Mary, 1936, on Roslyn fabric) and made rugs. Conversation with Elizabeth Adams, 1990.

26. Sketchley (op.cit.) commented that "the weaving works of Mr. Luther Hooper and Mr. Edmund Hunter are not peasant industries. They demand in the work a higher executive skill" p. 341.
27. Edmund Hunter, experienced as a designer for factory manufacture, turned to practical weaving "for the realisation of design in material, and its adaptation to suggestive opportunities in practical works". Sketchley, R. *op.cit.* p. 342. Luther Hooper believed the "invention of the Jacquard loom, with its multiplication of patterns, was responsible for the separation of the art of designing from the craft of weaving" and sought in his work to re-unite them. Coatts, M. *A Weaver's Life: Ethel Mairet 1872-1952*, Craft Council, London, p. 44.

28. Both the *The Artist* and *Art Journal* articles refer to this.


33. This illustration is from Wharton James, G. "Primitive Inventions" *The Craftsman*, Nov. 1903, Vol. V, No. 2. pp. 125-137.


Morris recognised dyeing as an art form. In his essay "Of Dyeing as an Art" Arts & Crafts exhibition catalogue, 1889, Morris made a clear distinction between commercial dyeing and the art of dyeing. "There is an absolute divorce between the commercial process and the art of dyeing. Anyone wanting to produce dyed textiles with any artistic quality in them must entirely forego the modern and commercial methods in favour of those which are at least as old as Pliny, who speaks of them as being old in his time." p. 57. However in practice Morris did occasionally use aniline dyes when they gave him a colour he needed. Fairclough, O. & Leary, E. Textiles by William Morris and Morris & Co. 1861-1940, Thames & Hudson, London, 1981, p. 34.


Linda Parry discusses the retail outlets for "Art Fabrics' in her book, Ibid. p. 113. "Art Linens" became increasingly popular for interior furnishings by the turn of the century (7:1).

Jonathan Harris & Co. manufactured their linen fabrics at Derwent Mill in Cockermouth, the Lake District and had a shop in Old Bond Street. Harris Art Linens were frequently referred to in The House. Swatch books and cards of their linens are in the Victoria & Albert Museum textile collection.

Garnett, A. Spinnery Notes, Windermere, 1913, p. 8.

Donald, F. Address To the Incorporated Institute of British Decorators, at Dundee, 4th February 1937, p. 4.


Donald, F. "Furnishing Fabrics. Some Comments of a Manufacturer on his Trade" Address given at the Exhibition of Art & Industry, The Royal Academy, 1935, p. 11.
CHAPTER 5. THE DONALD BROTHERS AND THEIR BUSINESS

The textiles of Donald Brothers, developed in parallel with the revival in hand-weaving, and appreciated by the Arts & Crafts market for their individuality of texture and colour, were not individually hand made. Neither were they, as far as I know, made under conditions inspired by philanthropic or socialist ideals. As manufacturers of decorative fabrics emerging out of the highly industrialised and competitive jute and linen industry of Dundee (1:2), the firm were, from the outset, industrial in their approach. They had a factory, used power-looms and aniline dyes and were committed to originality in design and competitive marketing as a means to making profitable business. This was essential for the survival of the firm. Only through profitable business practice was Donald Brothers able to achieve the viable alternative in manufacture for their company, and thus establish themselves as an active force in twentieth-century furnishing textiles.

This chapter aims to provide information on the Donald Brothers business, as an organism of individuals and team workers intent on manufacturing decorative fabrics c 1896-1914. In 5:1 profiles of the three Donald brothers who creatively directed the business are drawn from a study of business papers, Frank Donald’s lectures and other relevant contemporary documents. In 5:2 information on the organisational structure and manufacturing base of the business is provided. This is extracted from surviving business papers, in particularly from Frank Donald’s Private Letters No 1 (1910-1915), which are related to the directors, the Dundee and London offices, their James Park factory and manufacturing connection with the linen weavers N. Lockhart & Sons of Kirkcaldy.

In 5:3 the firm’s design and marketing policy gleaned from the directors’ letters contained within the Barclay Lockhart Sample Book and
Private Letters No 1, and other sources is explored. Design is discussed in relation to David Tullo and Frank Donald's own contributions and their team work with others. Design is also considered in relation to "experimentation" developed at the James Park factory, and pattern design and hand-craft at Lockharts. The firm's use of free-lance design is also considered. The inter-connected relationship sought between design and marketing as creative marketing is understood in relation to the industrial design process.

In 5:4 factual information on the firm's markets and trade found within Private Letters No. 1 and other records is provided. Names of customers in retail and trade are given. Prices for cloths are considered. Finally, surviving details of the firm's net profit account (1900-1914), turnover with London retail shops and decorators (1906-1912), and overall turnover (1906-1911) are tabulated and discussed.

5:1 Three Donald Brothers

David Tullo and his brother Francis James, although not the only brothers, were the two men who did most to lay the foundations and develop the direction of Donald Brothers as a manufacturer of innovative furnishing textiles. Writing on the initiators of the modern movement in the English textile industry, Nikolaus Pevsner named D.T. and F.J. Donald of Donald Brothers - alongside Sir Frank Warner (Warner & Sons) and Sir James Morton (Alexander Morton & Co.), as the men who "consciously transferred the unconscious tradition of exquisite weaving to the factory and carefully developed it there." At the height of the firm's success in 1935, Frank Donald recalled the part his eldest brother played in this initiative. Of his other brother, Bernard, he remained silent:

"It was my eldest brother, away back about 1890, who really started using linen and jute in the production of decorative fabrics. He was an artist in every sense of the word, and had he lived (he died at the
5:1:1 David Tullo Donald

David Tullo Donald\(^3\) (1867-1906) (illus 5:1), was the second child of a family of three boys and three girls born to David Donald and Margaret Spiers Rule. As the eldest son, David Tullo joined his father in the family linen and jute business, in \(\approx\) 1888.\(^4\) Whether he received formal training in textiles is unclear.\(^5\) His letters (1903-1905)\(^6\) indicate that while he had a good grasp of the basics of weaving he sought practical guidance from others in technically translating his figurative ideas into woven structures. David Tullo's training in textiles was therefore probably learnt principally within the factory. It was from there that he began to make experiments "about 1890" with the raw materials of his trade, in twisting jute and linen fibre together, to be woven in basic weave.
Described by his brother Frank as an "artist in every sense of the word", a small number of pencil drawings dated to c 1894, illustrate that David Tullo's sensitivity extended beyond the weaving trade. Two of these drawings of rugged, brittle trees (illus 5:2&3) indicate his eye for picturesque texture and tone.

*Illus 5:2&3 Trees by D.T. Donald, c 1894*
They demonstrate his willingness to use drawing as a means to explore these qualities, and suggest that his appreciation of the aesthetic possibilities of texture and textural colour in sacking cloth was developed with the eye for texture his drawings reveal he possessed.

The nature of David Tullo's life and work between c. 1890-1900 remains obscure. He visited Sweden in 1894, and around this time met Rose Hilda Redford, a Yorkshire girl who had trained abroad as a singer (*illus 5:4*). In 1897 they married - after several years of family opposition - and were living at 3b Cambridge Road, Battersea, London by October 1897. In November the couple had a daughter, Davida Mary, and on her birth certificate it is recorded that David Tullo's profession was that of a "Jute Merchant". Therefore, by this date, working in London as a jute merchant, David Tullo must certainly also have been engaged in establishing the market for the firm's decorative fabrics, which, begun "around 1890", were officially recorded in *Canvases No. 1* by May 1896 (6:1).

*Illus 5:4 D T Donald and his wife Rose Donald c 1904*

In these years it is believed David Tullo also designed for Liberty & Co. Mrs Campbell (David Tullo's granddaughter), recalls that her mother had Liberty materials designed by David Tullo, some of these she believes
were prints. There is no real reason to doubt this 'legend'. David Tullo
could draw, he designed figured weaves (1903-1905) (8:1), and prints did
form a part of Donald Brothers' early decorative range in canvas (6:3) and
linen (7:3). Either he designed directly for Liberty's, or he designed fabrics
exclusively manufactured by Donald Brothers, for Liberty's. Liberty's
policy of anonymity in their use of designers has made the claim
impossible to substantiate. This is particularly the case as a distinctive style
from David Tullo's own hand is not readily identified, and no prints from
this period are recorded within the Donald Brothers collection itself. Being
a jute merchant for Donald Brothers, intent on moving into the decorative
market, and a designer for Liberty's would not have been incompatible.
Indeed it would have been inspirational. Contact with Liberty's would
have provided David Tullo with an insight into their Art Fabrics (4:4) and
the work of leading designers associated with this company.12 This would
have helped him considerably in his object of establishing the firm in the
decorative market, and with the innovative design of that period.

By 1900 Donald Brothers had established their own office in London,
registered in *Kelly's Commercial Directory* as "Donald Brothers of Dundee.
Jute, linen & hemp manufacturers, 41 Berner Street." In the same year
David Tullo was made a partner in the firm. Therefore by this date, much
of the initial ground work in establishing a market for decorative fabrics
must have been achieved by David Tullo and an office must have been
required to give the business a sure foot-hold from which to operate in
London.

An indication of David Tullo's new-found direction is evident in his
recorded visit to view the decorative arts at the Paris exhibition of 1900.
There he saw at first hand the continental Art Nouveau and had the
satisfaction of viewing the firm's printed linen, *Rose Trellis*, (*illus* 7:33)
used extensively, side by side with *Haslemere Peasant Tapestry*, on Heal &
Son's exhibition stand (7:3). The exhibition provides early proof of David Tullo's success with Donald Brothers, and a firm date by which he must have become aware of the Haslemere Peasant Industries.

Where David Tullo and his family lived between 1900-1903 is not known. In charge of the London office in Berner Street and joined by his brother Bernard in 1902, he was by late 1903 living at Causewayside (illus 5:5), in the High Street of Haslemere, Surrey\textsuperscript{13}. His move to Haslemere was thought by his descendants to be instigated for reasons of health,\textsuperscript{14} and because it reminded him of Scotland. It must also have been because of its prominence as a centre of hand-weaving (4:2). An article on Haslemere and its handicrafts in Gustav Stickley's journal The Craftsman (1902)\textsuperscript{15}, describes the delights David Tullo would have found in this ancient "village", with its handmade tiles, old stone and half-timbered cottages, and, most importantly, in the hand-crafted textiles produced by the Haslemere Peasant Industries at Foundry Meadow (4:2).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{causewayside.jpg}
\caption{Illus 5:5 Causewayside, Haslemere, 1897 - David Tullo's house was at the far end of the street}
\end{figure}

The King's workshop (illus 4:6) was only a fifteen-minute walk from David Tullo's own house in Causewayside. David Tullo must have visited these workshops, given their mutual contact with Heal's in Britain (7:3),
The Craftsman in America\textsuperscript{16}, and common interest in developing texture and harmonious colour as objects of design in cloth (4:2\&3). Indeed as acclaimed handicraft production their textiles may have influenced him.

Stimulating as a hand-weaving centre, Haslemere was also connected by railway to London. David Tullo no doubt sought the best of two worlds: contact with the vigorous handweaving revival in Haslemere and contact with the London market. Both would have aided him in innovatively directing the manufacturing end of his firm's business in Dundee and the selling end in London, influencing the development of texture and colour in factory-woven manufacture for the Arts & Crafts furnishing market.

It is from Haslemere that David Tullo wrote letters discussing his ideas for new decorative fabrics that he directed the firm to make.\textsuperscript{17} These letters provide insight into his sensitivity as a designer (8:1). They reveal his views concerning the place of the pattern weaver and handloom within factory manufacturer and of his realism as a director of Donald Brothers (5:3:1 \& 8:1). Only five of David Tullo's letters survive. By 1905, suffering from tuberculosis, David Tullo moved to Hyères in the South of France, and the following year he died in Haslemere.

\textbf{5:1:2 Francis James Donald.}

"If heredity has any hand in predetermining events .... I ought to be a weaver, for I am sprung from a long line of weavers on both sides, - on my Mother's side, weavers of Paisley shawls, (which I love), - on my Father's side, weavers of linen, - the greatest and best beloved of all the textile fibres."\textsuperscript{18}

Frank Donald (1871-1953) did not initially enter the family business like David Tullo. He related;

"the linen business of my Father, which was not then making decorative fabrics, was not very flourishing. A gifted elder brother was doing his part, but there was no room for me."\textsuperscript{19}
Instead he went to India in 1896, became a tea planter and remained there until 1904, the year David Tullo contracted tuberculosis, when he was recalled to join the family business.

India was to be a formative experience for Frank Donald as a manufacturer of decorative textiles. He said it taught him how to work with others, essential for the "team work" of the Donald business, and most importantly, it developed in him a sense of colour, and an awareness for the beauties of colour and rough texture to be found in textiles. It was in India that he developed his crucial appreciation for hand wrought craft exhibited in Oriental rugs. These satisfied his "hunger for colour, texture, romance, poetry and beauty" and became a source of inspiration; a standard of what was possible to achieve in terms of colour and texture within a crafted textile.

"I would like to believe Oriental Rugs have had their part also in developing my taste for the rougher weaves. These rugs have always been to me a source of inspiration. Their uneven surfaces and beauty of colour, the wonderful varying shades of the same colour to be found in them, their human imperfections and surprises, the way they respond to sunshine and shadow, are assuredly worth the study of any textile manufacturer."

"To the budding decorative fabric manufacturer, I would unhesitatingly say, - go to the rugs of the East, and learn of them. They will set you a standard that cannot be surpassed."

Therefore, on his return from India Frank Donald joined Donald Brothers with an awakened eye for the beauty of colour and texture to be found in hand-woven textiles, but with no practical experience of weaving or the textile business. The change for him, he admitted "was no easy one".

"I knew nothing of the technical side of the business, and in order to make my presence felt, and earn a salary, I took up the selling end, rather than the manufacturing end. It was beginning at quite the wrong end, and to this day I am deficient in much I ought to know."
Indeed Frank Donald became an insatiable marketing director for Donald Brothers (illus 5:6). He "travelled up and down the country", first went to America in 1905, and then returned there every year - apart from the war years. He travelled on the Continent, and went as far as New Zealand and Australia in 1922. He said he learnt about textiles while on the road "selling and talking of fabric":

"I got a lot of fun out of it, and it soon helped me to a knowledge of what was good, as well as bad, in furnishing fabrics.... in no other way, could I have come to gauge the tastes and ideas of the public I was to serve, so quickly."  

Frank Donald's enjoyment and creative approach to marketing meant he also engaged in the design process (5:3:2). Through contact with buyers, designers and architects who bought and used the firm's textiles he developed his own ideas for textiles. He said he "got many suggestions and ideas from men far more versed in their trade" than he was in his:
"Every now and then I used to return to the factory, and try to express in new weaves, colours and textures, something of the spirit, something of the vision of these men who had really been teaching me."  

After the death of David Tullo, it was Frank Donald who became the design spark that set, and kept, the looms in motion.

To realise his ideas in fabric form, Frank Donald relied on Charles Robertson (who had entered the Donald Brothers business in 1898 as a young office boy), as his right-hand man. He said they worked almost "as one man, or as partners at tennis."  

"I could have done very little alone. Through all the years I had a "technocrat" to help me. Without Mr Robertson, I should have been as a painter without the skill to use his paints, a carpenter, who could not use his tools ... Mr Robertson has literally been the "god behind the machine"."  

Thus with Charles Robertson and others, Frank Donald could materialise his ideas and make textiles. His ability to build a team and work with it was part of his success as a textile manufacturer; "team work" he insisted was the "essence" of the business.

5:1:3 Bernard Spiers Donald

Little is known of Bernard Spiers Donald (1869-?), except what can be learnt through Frank Donald's Private Letters No 1 written to Bernard between 1910 and 1915. As relations between Frank and Bernard were often strained, these letters are biased by Frank's own overriding ability and will in business matters. Therefore, although it has been impossible to assess independently Bernard Donald's contribution to Donald Brothers in the early years, it is appropriate that an insight is offered into his working relationship with the firm, if only from the point of view of Frank Donald.

In 1902 Bernard joined the London office, taking over the management of this end of the business by 1904. He remained in charge
there until 1925. Working under pressure, Bernard frequently suffered from nervous exhaustion and ill health. His weak constitution and a certain unpredictability of manner caused offence to those within the company and at times to customers. This meant Bernard was never able, as David Tullo was, to provide the close team work that Frank believed so essential for the firm's success.

Bernard rarely visited the Dundee headquarters, and what Frank Donald described the "creative end" of the business. This had two important consequences, affecting Bernard's position within Donald Brothers. Firstly, after 1912, when Bernard became joint managing director of the company with his brother, Bernard effectively left Frank to deal with the entire finances of the firm, without official sanction from himself. Secondly, Bernard did not actively involve himself in working out new weaves for their range. This lack of interest in business finance and the "hands on" involvement in design distinguished Bernard from his brothers David Tullo and Frank. The latter directors both took an interest in every aspect of the firm's business, in particular with the process of design as it was developed within the factory.

5:2 The Business

It was not until 1900 that David Donald - a founding partner of the original Donald Brothers - brought into partnership his eldest son David Tullo. In the same year the London office opened; both events signalled the elder Donald's recognition of David Tullo's contribution to the business, and his willingness to build upon it.

By 1902 Bernard was brought into the business and finally Frank was made a partner in 1906, the year David Tullo died. In 1912, with the death of the elder Donald, Frank and Bernard Donald became joint
managing directors, an arrangement which continued until 1925, when Bernard resigned and considerable changes took place.

There were two established ends to the Donald Brothers business. At the manufacturing end in Dundee was the head office, their own James Park factory, and indirectly N. Lockhart & Sons (their linen weavers based in Kirkcaldy) as well as their dyers and finishers Francis Stevensons & Sons. At the London end was the London office and warehouse. Whilst the offices directed the business, its heart - the beating shuttle - lay within the factory.

5:2:1 The Dundee and London Offices

The Dundee office was the headquarters of the business. Originally established in c 1862 for co-ordinating spinning, manufacture and merchandise, its function changed once the firm turned to manufacturing decorative fabrics. By the turn of the century, the main function of the Dundee office was to direct the manufacturing within the factory and co-ordinate this with design and marketing. Once a London office was established in 1900 this co-ordination became crucial to the success of the firm.

At first based at 2 and then 20 Panmure Street, by the 1890s the office was located at 9 and then 2 Meadow Place Buildings. It remained there until 1911, after which it became housed in the re-constructed James Park Factory.38

Over this entire period, the elder David Donald remained in charge of the office, with Frank gradually taking over responsibility around 1910. Also based at this office was Charles Robertson - the "technocrat" (5:1:2) - who held the position of head clerk and was Frank Donald's right-hand man. Increasingly he helped Frank Donald in both the financial and the manufacturing side of the business. When Frank made his annual selling
trips to America, it was Robertson who was left in charge, rather than Bernard at the London office.

The London office was established in 1900 by David Tullo. Its function was to further the firm's contacts and market, and through these contacts work up new design ideas in conjunction with the creative end in Dundee. Over the years the office was located at various addresses, always in close proximity to Regent or Oxford street, where contact with the large shops and buyers could be established and maintained.

At first based at 41 Berner Street - registered as "Jute, linen and hemp manufacturers" - the office had moved by 1904 to 27 King Street at the back of and practically adjacent to Liberty & Co. Here the firm - registered as "Linen manufacturers" - dropped, in name, their 'cheaper' associations with jute.39 Between 1909 and 1920 the office was found at 23 Heddon Street, where Donald Brothers leased the first, second and top floor, providing both an office and warehouse space to hold stock.40 In this period, the office became increasingly expensive to run, and with the advent of war in 1914 was to undergo reductions in staffing and stock.

David Tullo was in charge of the London office, with Bernard taking over responsibility sometime in 1904. Also at this office was a Mr Faiers - until his resignation in 1913 - and Edmond Archer (illus 5:7). Archer joined the company in 1905 and remained with it, except for a break of several years due to "war circumstances", for all his working life. In 1925 he became a director and took over the management of the office, after Bernard Donald's resignation, enabling him to contribute significantly to the firm's success in the 1930s.

From these two offices Donald Brothers marketed their original line of utilitarian fabrics, "Non Art", alongside their decorative "Art" fabrics.41 The London office was responsible for marketing Art fabrics, establishing contacts with London, England, Australia, New Zealand and the
Continent. The Dundee office covered Scotland, America, and to a certain extent overlapped with the London office for the north of England, Wales and Ireland. Non Art goods were entirely marketed by the Dundee office, and contributed to the overlap in certain large cities such as Liverpool and Manchester in England.

5:2:2 The James Park Factory

The firm's James Park Factory was situated off Albert Street in Dundee. One hundred and nine feet in length, it was split between two and four floors in height, as indicated by the superimposed line on the recent photograph (illus 5:8). The large size of the building, in contrast with the workshop of the Haslemere Weaving Industry (illus 4:6) is self evident. It was a factory. Its internal layout in 1906 gives some indication of the size and nature of the firm's own manufacturing capabilities at the time. On the ground floor were positioned nineteen power-looms of
varying widths (45", 60" and 80"). With a plain or twill shaft mechanism, these looms technically determined the basic nature of the firm's early decorative cloths. On the first floor were a hydraulic packing press and cop winding machinery for winding weft yarn onto perns. On the second floor there was winding machinery and two warping mills; these indicate this floor was entirely given over to the preparation of warps. Finally on the third floor, amongst many necessary items for weaving, could be found two power reels for winding yarn into hanks, (a necessity for dyeing yarn), three twisting frames (one with dampening troughs to work brittle yarns), and four 45" power looms. This third floor therefore seems to have been set aside for design experimentation. The power reels indicate the firm's involvement in dyeing yarns, and the twisting frames, their experimentation in twisting yarn as a means to design innovation. The inclusion of four power looms - away from the others on the ground floor - suggests these were for the weaving of trials. The noticeable absence of a hand-loom indicates the industrial basis to the design experimentation within the James Park factory.

Described as old and worn in 1899, the factory was reconstructed between 1901-07 with electricity installed in 1910. In 1911 an extension was added (probably the remainder of the building illustrated within the photograph) (illus 5:8), a warehouse provided, and the Dundee office incorporated within the building. Probably within this period of extension more 50" looms were added. By 1914 the number of looms had increased to thirty-five; only two (54" & 72") of these could weave linen fabrics. Therefore, although the factory expanded prior to the First World War, it was still only equipped to produce the heavier flax and jute fabrics, and the firm continued to use N. Lockhart & Sons of Kirkcaldy to manufacture all their fine and figured linen cloths (5:2:3).
Whilst the above information gives insight into the firm's manufacturing capabilities within the James Park factory, there is no information about the number of people employed on the premises, or their conditions of employment. The subject is a matter for conjecture. From the 1906 inventory of machinery it could be estimated that up to forty people were employed. However this number is far higher than the twenty that can be deduced from an analysis of the factory wages. The wages bill for the years between 1908 and 1912 remained steady, averaging out at approximately £760 per year. In Dundee, a weaver's wage in 1906 ranged between 12/- and 19/- a week, an average of around 15/- per week. Other work such as reeling and winding was paid less. Taking 15/- as an average wage for workers in the factory, the company therefore seems to have employed around twenty workers. Even if the number of workers was closer to twenty five - which it may well have been, taking into account the low wages that existed in Dundee - it is clear that the work force of Donald Brothers remained small up to the First World War.

The conditions of employment for the firm's workers in the years 1896-1914 are also unknown. However, compared to the demoralising nature of much of Dundee's employment in coarse manufacture (2:1), its workers were employed to produce fabrics which increasingly came to be admired for their individuality and beauty. With this appreciation a different monetary value was established for the firm's cloths, and some sense of identity and work satisfaction for their factory workers did evolve. By the 1930's a job at Donald Brothers was a sought-after post.

5:2:3 N. Lockhart & Sons

In addition to their own weaving capacity, Donald Brothers contracted out work to N. Lockhart & Sons, based in Kirkcaldy. Lockharts were long-established linen manufacturers, with a history that reached
back into the eighteenth century. Their speciality was that of close, even weaving, producing sheetings, glass towels and, amongst other cloths, the Kirkcaldy Stripe, a fine 1/8" striped twilled cloth used for the skirts of fishwives.52

Once Donald Brothers entered the decorative field, the necessity of producing finer linen cloths as part of their decorative range became essential, and the connection with Lockharts - if not already established - was sought. Their code name for Lockharts was A84, and derived from the standard plain linen which appears pasted into Heal & Son's first guard book of 1898 as Donald Brothers' A84 Linen (7:2). This fabric may well have been the first linen Lockharts wove for Donald Brothers and provides a date by which the connection between the two firms can be established. However not until 1903, when Barclay Lockhart and David Tullo Donald began experimenting with figured woven linens and tissues (8:1), does recorded information on the firm's connection with Lockharts emerge.53 Later, between 1910-1915, Frank Donald's Private Letters reveal more information on this important connection.

From the correspondence written by David Tullo to Barclay Lockhart regarding figured cloths, it is clear that the experimentation they embarked on together was as new for Lockharts as it was for Donald Brothers. At the firm's instigation Lockharts employed a pattern weaver and installed a hand-loom, with Donald Brothers pledging their "earnest endeavour to keep a good man profitably employed".54 Lockharts' knowledge of jacquard weaving was specific to the fine weaving of written borders for linen glass towels. This meant that the foundation for weaving all-over jacquard patterns was established. It seems the early production of figured cloths was carried out by adapting an existing power loom.55 By 1910, when Tissue sample books commenced (8:3), Donald Brothers and Lockharts were far beyond the experimental stage. In the lead up to the
Great War their figured cloths became increasingly complex in design structure and displayed virtuoso skill.

The initial agreement reached between the two firms over the development of figured fabrics and their subsequent production was a friendly one. Based on a quest to succeed, it was never made on a legal basis. The arrangement (by which Lockhart would only produce jacquard decorative cloths for Donald Brothers and they in return would not seek production elsewhere) lasted over 50 years and reached a high point in the 1930s, when thirty to forty jacquard looms were in steady work producing designs for Donald Brothers.56

Although the agreement worked well in good times when Donald Brothers was selling well, it came under considerable strain when trade was not good, and Lockharts - bound by their agreement - were unable to seek their own outlets for jacquard cloths on the open market. In the difficult trading times leading up to the First World War, Lockharts attempted to force the firm's hand. Indeed Donald Brothers were forced in one instance into taking on a design and stocking a fabric which Lockharts had originated, in order to stop Lockharts selling directly into the decorative market.57 However, Donald Brothers were ultimately the leaders in terms of design and controlled the marketing for their Lockharts woven fabrics. After the First World War when markets were re-established, it was Donald Brothers who once again brought Lockharts into profitable jacquard business. In good times both firms contributed to each others' prosperity.

The financial arrangement with Lockharts worked thus: Donald Brothers paid them weekly at two months' credit58 to enable the firm prepare designs for production, buy in necessary stocks of yarns etc. and hold stocks of woven cloths. Payment was made per yard of cloth, the prices being reviewed from time to time. Prices quoted for Lockharts'
linens and tissues in Private Letters No. 1 ranged between 9d-10d per yard for the plain fabrics, to 1/3d, 1/6d and 1/10d per yard for the figured fabrics. Also recorded were the total sums paid by Donald Brothers to Lockharts between 1907-1912. These were for 1907-08: £6955, 1908-09: £6757, 1909-10: £7455, 1910-11: £7577. From these figures it can be very roughly calculated that Lockharts probably produced between 80,000 - 100,000 yards of cloth per year for Donald Brothers in these particular recorded years.

5:3 Design and marketing

Donald Brothers were a design-conscious company, led by directors who actively involved themselves in the process of design, and sought to link it imaginatively with manufacture on the one hand and marketing on the other. Without this inter-active process, which is now recognised as Industrial Design, the firm could not have initiated, built up and sustained their reputation as a manufacturer of artistic materials. It was David Tullo, working at the factory and then from the London office and his home in Haslemere, who initially gave design and marketing direction to the Art production of the company. After his death, Frank Donald based at the manufacturing end picked up the threads of David Tullo's work and developed a highly creative approach to design, manufacture and marketing.

5:3:1 Design

Despite the emphasis on design, Donald Brothers did not employ a recognised "designer" as such at the James Park factory. Neither did they have a design studio. Both were later 1930s developments. Instead "experimenting" took place on the top floor of the factory and trials were woven on power-looms. It was there that David Tullo must have begun "experimenting" with mixtures of linen and jute fibre in decorative canvas,
and later Frank Donald, aided by Charles Robertson, realised his "novelties".

At Lockhart & Sons the situation was different. On David Tullo's suggestion, Lockharts used a hand-loom and employed a pattern weaver, expressly to translate design ideas into woven structure. Barclay Lockhart, who directed the business, was also encouraged to have "ideas" of his own. At Lockharts the company office was used for design and drafting purposes, an arrangement that persisted into the thirties. Barclay Lockhart's nephew, Tom Lockhart (who entered the firm in the 1932), recalls how design work was part of office work, "everyone mucked in". When office work had been attended to, the desk top flap was raised and drawing and drafting begun. Only if things got too busy was "work farmed out to other capable draftsmen."60

The word "design" was therefore rarely used in the early years of Donald Brothers' manufacture. When it was, it described quite specifically drawn patterns for figured woven and printed fabrics. Cloths which relied on a structural manipulation of yarn and weave for their aesthetic appeal, in which qualities of colour and texture were of paramount importance, were largely the result of "experimentations", "working up new ideas" and "creating new effects": designed by those with a knowledge of weaving on the one hand and the market on the other. Only with the revival of hand-loom weaving and subsequent design teaching at Arts & Crafts schools in Europe and the Bauhaus, Weimar, in the 1920s, with the emphasis placed on materials and craft manipulation, did these particular characteristics and qualities of texture and colour in constructed textiles begin to be discussed and accepted as objects of design.61

It is nevertheless exactly with this notion of design and the accepted pictorial definition of drawn pattern, together with that of the industrial design process, that Donald Brothers' approach to design in the early
period can be appreciated. To understand what this meant in terms of design it is worthwhile considering the breakthrough David Tullo made with *Antique Canvas* (3:1) for the decorative market.

In a letter written to Bernard, Frank Donald described his brother David Tullo as having a knowledge of manufacture, artistic instincts and ability as a salesman (5:3:2). Brought into the declining family business it was he who, by c 1890 had begun "experimenting in spinning flax and jute together". In this process, David Tullo stumbled across something of "beauty", recognised this beauty and its potential, and went on to "develop the idea" and market it. This established the crucial turning point in the fortunes of Donald Brothers.

Within this design process, craft skills, aesthetic appreciation, an imaginative perception of the market, and awareness of manufacturing and business practice all played an important part in shaping the firm's new decorative direction. The early woven designs, produced in a beautiful range of colours and textures, which were explored through variations in fibre, yarn and the simplest of woven structures, were the result of factory experimentation and craft, sampled on the power-loom. It was in this way that David Tullo "consciously transferred" what Nikolaus Pevsner called the "unconscious tradition" of hand-weaving to the Dundee factory.

Although the hand-loom was not employed as an intermediary design tool at the James Park factory, it was so employed at Lockharts. There, a pattern weaver and sample hand-loom(s) were employed to assist in realising figured designs into woven cloth. David Tullo, in overall design control, thus employed a craftsman with a knowledge of pattern weaving, as an intermediary, to realise his ideas into woven form suitable for production. Through this process another weaving tradition, that of Fife's fine damask weaving, was transferred to the factory.
A letter written by David Tullo Donald to Barclay Lockhart in December 1903 discussed this design development in considerable depth under the sub-title "Re a Pattern Weaver" (Appendix A). It revealed David Tullo's wish to secure the services of a "well trained or technically educated" weaver to bring new expertise, with skills to overcome the foreseen difficulties in realising the figure woven cloths, into the work of Donald Brothers' design. Secondly it demonstrates that the pattern weaver was to work "on pattern making on the hand-loom", and "in preparing work" for it. Thirdly it reveals that if experiments with the figured cloths were successful, it was envisaged the weaver would be fully occupied in the "preparation and production of patterns and in superintending the production by power-loom of his and our latest creations". "His and our" demonstrating that David Tullo envisaged the weaver would develop his own ideas for figured designs as well as "prepare" drawn designs by others onto draft point paper in preparation for hand-weaving trials. It is evident therefore that the weaver's role in preparing as well as interpreting or converting drawn designs into woven structure was recognised to be one of some importance. Indeed by suggesting the weaver should "superintend" the power-loom weaving, his importance was again affirmed, although over this David Donald was slightly worried that he was "endowing him with too high powers". (Appendix A).

In the same letter David Donald wrote with clarity of his belief that the weaver and the hand-loom should be used expressly to advance design. Evidently David Tullo was not interested in reviving hand-weaving as a means of production, unlike his Arts & Crafts contemporaries at Haslemere. He argued against it on four accounts. Firstly because of the cost of production, secondly because of slowness, thirdly because of the difficulty of disposing of small quantities of cloth and fourthly because the hand-loom would be tied up in production rather than in pattern making.
If the hand-loom was to be used for producing the "first few pieces ... of an expensive nature" - as his father had suggested - David Tullo urged for another hand-loom and weaver to be employed "ready for a new use at a moment's notice". (Appendix A).

David Tullo exerted a sensitive and exacting control over the translation of his stylised designs into figure woven cloths, relying heavily on Lockharts to carry this out (8:1). Technically, his understanding of weave structure was limited. He wrote in one letter to Barclay Lockhart that a group of his drawn designs had been executed "with only a rough idea of what was practically possible". 64 By contrast Barclay Lockhart had a finer Dunfermline weaving tradition to draw on, had trained at Glasgow Technical College, Weaving Branch65, and had far greater knowledge of weave structure and the technical capabilities of the loom. Barclay Lockhart certainly guided David Tullo in the practicability of his figured designs and, it would seem was encouraged to submit his own ideas to Donald Brothers for consideration.

"You speak of ideas of your own which you expect to submit. Such will be welcome, I assure you, but you know that."66

Exactly which were the designs by Barclay Lockhart and the pattern weaver for Donald Brothers is not documented. Analysis suggests they were those a more intricate nature, which began to predominate in their figured cloths (8:3) after the death of David Tullo.

After David Tullo had contracted his illness it was Frank Donald who liaised with Barclay Lockhart, to develop the threads of David Tullo's design work, and continue the business and creative rapport with Lockharts.67 Through his experience in marketing Frank felt his way into textiles, and the process of returning to the factory with new design ideas, to give design direction to the firm. With his stimulated sense for texture and colour gained from Oriental rugs, but with little technical knowledge
of weaving, Frank Donald relied heavily on Charles Robertson at Donald Brothers and Barclay Lockhart at Lockharts to work out any ideas that he had. He also must have relied on them to come up with ideas of their own. Only through such team work in design origination did the firm continue to develop their strong design identity and direction. This team work, drawing on local weaving tradition and the inspirational Arts & Crafts market for constructed textiles, enabled the firm to maintain their position as makers of decorative fabrics.

In the early years it is also probable that Donald Brothers bought drawn pattern designs from free-lance designers to supplement their own design ideas. Although no documentary proof exists to substantiate this for the years 1896-1905, between 1906-08 designs were bought from the Silver Studios (7:3). Nikolaus Pevsner indicated such a practice when he wrote that the same men who consciously transferred the unconscious tradition of weaving to the factory had also "induced the great designers of the late Victorian decades to work for commercial production."^6^8

The use of free-lance designers by manufacturers such as Alexander Morton & Co. and Warner & Sons, as well as others not mentioned by Pevsner, such as Liberty & Co. and Turnbull & Stockdale, suggests that Donald Brothers, under David Tullo, may easily have done the same. Printed patterns on canvas, 1896-1905 (6:3) and linen, 1900 - c. 1909 (7:3) formed a small but integral part of the firm's range right from the start of their work in the decorative field. An involvement with pattern design as well as free-lance designers, as a recognised involvement with design, would have heightened awareness of Donald Brothers as an innovative, design conscious manufacturer of artistic materials.

To distinguish the designs by free-lance designers is particularly difficult; only small samples of designs remain and a firm idea of the range of David Tullo's own ability and hand as a pattern designer has not been
established. His stylised drawn designs for patterned weaves date from 1900 onwards; they suggest that some of the printed linen designs were by him, but this is not definite. These printed linen designs, revealing a preference for abstracted natural forms with a stencil-like execution, are innovative in their simplicity (7:3). The printed figure and its surrounding space are active elements within the pattern, which draw attention to the fabric ground as a surface. These interests were in keeping with the most original designers of the day, such as C A Voysey and the Glasgow designers (illus 4:11), and paralleled the designs used by innovative manufacturers such as Liberty's and Turnbull & Stockdale (illus 7:42) at the same period. Not surprisingly, Donald Brothers' designs in printed linen are found displayed side by side with those of C A Voysey and Turnbull & Stockdale within the guard books of the retailers Heal & Son - one of the most progressive shops of the day (7:3).

5:3:2 Creative marketing.

Inspired by David Tullo's initial work, Frank Donald encouraged a dynamic approach to marketing, and interconnected it fully with design and manufacturing in the early years. His approach was formulated at a time when trading generally slumped for the British textile industry, and increased competition developed from abroad and between companies. It stemmed from the realisation that only through increased sales and production could Donald Brothers use to the full its expanded manufacturing capacity, keep its looms in operation, and thereby, through reductions in unit costs, remain competitive and successful.

His marketing strategy, outlined in his Private Letters No.1, was two-fold. Firstly he encouraged the London office to seek out the buyers
and other potential clients such as architects and "interview" them, and secondly he argued strongly for sales concessions to be made.

"When Mr. F.J.D. was recently in London you mentioned to him your disappointment that such men as Mr. Oram of Liberty's, Mr. Palmer, and Mr Giek of Burnett's did not come to you at your warehouse. In the old days, when certain London firms, you say, were spoiled, the London principal we feel sure at that time did not wait for buyers to go to him. These were the days when frequent meetings, and no doubt frequent concessions, led to the most fruitful results.....

'The writer claims that a necessity of our business is, the cultivating the artistic sympathies of those that buy our fabrics, and this often has to be done by making concessions.\textsuperscript{69}

Through concessions - which meant "any order over 12 yards should be invoiced at piece price"\textsuperscript{70} - Frank Donald built up a creative rapport with the buyer. The buyer could risk trying out new fabrics, thereby stimulating and testing new interest on the part of the consumer, and in return, Donald Brothers was led by the buyer's knowledge of the market to make a different cloth, a different colour way or indeed try out a new design idea. To make his point, Frank reminded his brother of his own experience with the Glasgow firm "B & B", the retailer Messrs. Brown & Beveridge in Bath Street.\textsuperscript{71}

"The friendly relations between B. & B. and Mr. F.J.D. have resulted in our stocking certain colours and fabrics that have meant very excellent business for our firm. To take 3 instances, B.& B. were the first to urge us to stock Col. 48. They were the first to order Col.B.29, and it was at their request we first made 36 \textit{Silver Grey Flax C.C.}\textsuperscript{72}

Implicit in the above is the inter-connection Frank Donald sought between marketing and the nurturing of new design ideas. This was more fully expressed in a letter written to Bernard in 1913, when Frank Donald argued for an effective London team in which marketing and design would be firmly interconnected with each other, and with the manufacturing end of the business. Only through this effective co-ordination could Frank
Donald envisage the possibilities of business growth, necessary to meet the production potential of the factory and other manufacturing sources.

"Our producing possibilities (including our own Factory, A84, No.2. and other sources)\textsuperscript{73} are capable of considerable further development .... it seems to me that what we want in Mr Faiers' place is a man with some knowledge of manufacture, artistic instincts and a good salesman. In brief we want a man with the qualities David had in such a high degree.

"Mr. Archer, while no doubt a good traveller, has rarely, so far as I know, made any valuable suggestions in regard to new fabrics, so that the whole burden falls on yourself (as far as London, England, Australia, New Zealand, or the Continent is concerned), of reporting on and working up new ideas suggested by users of our goods. With the limited time at your disposal for working along these lines, we do not make that progress we all desire.

"With such knowledge and ability as I have, I try to produce Novelties, but as I come in contact with a very small number of consumers my efforts in that direction are limited, and I frankly admit that so far they have met with no very marked success.

"I may be asking for qualities in an assistant which only a partner should be expected to possess, but I do not think that is entirely so.

"The ideal man for you would be one who had experience first at this end, but I am sorry I have no one to offer.

"It may be that you should re-arrange your staff - Give Mr. Archer control of the executive work of your office, get a strong man i.e. one with ability, for travelling, and you, with greater freedom from office details devote more of your time to what might be called creative work.

"Any one doing creative work must of course come frequently to the manufacturing end to see his ideas are being rightly carried out.\textsuperscript{74}

From the above it is clear Frank Donald's approach, linking design inseparably with manufacture on the one hand, and the market and consumer on the other, was industrial in its outlook. It is similar in approach to American twentieth-century design as it emerged in partnership with marketing strategy as a means of stimulating the sale of mass produced goods.\textsuperscript{75} It was probably shaped by Frank Donald's experience of marketing within the United States as well as by the company's roots in Dundee's highly competitive linen and jute industry.
Whilst making sales trips to the United States, Frank Donald perceived the need for Donald Brothers to sell at a "keen price", in order to hold onto their American connection (5:4). By doing this Donald Brothers were able to establish and develop a considerable rapport with the Arts & Crafts market in America, something that not all British manufacturers were able to do. This in turn was to have considerable spin-off in terms of design. Although modest about his own ability as a producer of "novelties", Frank Donald's successful business with Gustav Stickley must have reinforced in his mind the importance and strength of the simple rugged fabrics Donald Brothers produced. Indeed, it probably provided the impetus for the experimentations in rough weaves, with twisted yarns and new textures, which laid the foundation of the firm's future success after the First World War in the 1920s and 30s and indeed into the 1960s (9:2&3&4).

5:4 Customers and Trade

An indication of some of the firm's customers and markets can be established from surviving records and sample books. In the early years fashionable London shops such as Liberty & Co., B. Burnett & Co., Story & Co., Waring's Ltd and Heal & Son all stocked their fabrics. In America, B. Altman & Co., A. Vantine & Co. (both of New York), Marshall Field & Co. of Chicago, and R. H. Stearns & Co. of Boston were a few of the many stores that did likewise.

As well as selling to the retail trade, the canvases and linens of Donald Brothers were used by architects, decorators and designers. For instance the architect/designers C R Mackintosh and G Walton encouraged Donald Brothers in the early years (6:1), and Gustav Stickley imported extensively their fabric (10:1&2). Other exclusive decorators involved with innovative design, such as the firms Wylie & Lochhead in Glasgow, W H
Hayes in London and McHugh & Co and James McCreery, both in America, were also customers of the firm. Contact with "such men of ideas" would have been an inspiration for Donald Brothers. They created the context of use for the textiles of Donald Brothers and helped the firm establish their name within the trade. By 1905 the British trade publication Journal of Decorative Art reported that Donald Brothers "have been known for many years in the furnishing and decorative trade, for the beauty of their productions in textiles of all kinds" (6:2).79

The success of Donald Brothers in trading relied on producing beautiful textiles which could be offered at a reasonable price to a middle-class Arts & Crafts market. Their prices, in comparison with those for hand-woven linens (which ranged from anything between 3s to 6s per yard) worked out favourably at under half the price.80 While no comprehensive list of prices charged by the firm exists for the period between 1896-191681, a few figures gleaned from various sources82 indicate a price range of ls to 2s, illustrating the good value it offered. For instance in linen furnishings, the 1904 retail prices of Heal & Son's 36" "Casement Flax", a Donald Brothers' linen, ranged between ls 3d per yard for natural, ls 8d for figured woven, 2s for dyed, and ls 10d to 2s 9d for printed. Similarly a figured linen "Lintrel", made by Lockhart & Sons for Donald Brothers at ls 3.5d per yard, had a 10% profit margin placed on it, which brought its wholesale price up to ls 5d. Only the printed linens seem to have risen above the ls to 2s price range, and these fabrics, while important, formed only a small part of the firm's range. In canvas wall coverings, three jute crepe canvases were offered wholesale in 1911 at between 10d and 12½d per yard, while a figured jute canvas noted for its "interesting design" was offered at ls 8d per yard in 1912.

Whilst information on Donald Brothers' fabric prices is scarce, details of their profit and turnover figures for the early years survive.83
earliest record of the firm's business profits dates to 1900, when a net profit of £1684 was made. The following year the firm achieved similar results. In 1902 the net profit dramatically increased to £4201, and remained in this region for the next two years. Both 1905 and 1906 showed a drop of practically £1,000 in net profit. In 1907 profits rose again to £4257, and then settled for the years 1908-10 at around £3500. The years leading up to World War I were not so profitable. In 1913 the net profits fell drastically to £2390, and in 1914 to £1881.

From an analysis of these accounts, it is clear trading by the firm blossomed in the very early years of the 1900s, at a time when confidence in British architecture, design and manufacture was at its height. The poorer years of 1905 & 1906 reflect the commercial depression that hit trade at this time, which shook the confidence of the Arts & Crafts Movement and progressive British design and manufacture, and led to increasingly difficult and competitive trading times before the First World War.84

Business dealings with London firms definitely reflect this trend. Details for the years 1906-1912 reveal a gradual down-turn in trade (Table 1).

<table>
<thead>
<tr>
<th>Name of Firm</th>
<th>1906/7</th>
<th>1907/8</th>
<th>1908/9</th>
<th>1909/10</th>
<th>1910/11</th>
<th>1911/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberty &amp; Co. Ltd.</td>
<td>£597/0/4d</td>
<td>£707/1/3d</td>
<td>£628/2/9d</td>
<td>£594/19/4d</td>
<td>£646/11/6d</td>
<td>£630/6/2d</td>
</tr>
<tr>
<td>B Burnet &amp; Co. Ltd.</td>
<td>£757/0/8d</td>
<td>£604/9/11d</td>
<td>£436/13/7d</td>
<td>£437/7/13d</td>
<td>£627/6/7d</td>
<td>£492/1/7d</td>
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<tr>
<td>Story &amp; Co.</td>
<td>£507/13/5d</td>
<td>£440/14/10d</td>
<td>£410/16/10d</td>
<td>£228/9/7d</td>
<td>£207/15/2d</td>
<td>£170/12/7d</td>
</tr>
<tr>
<td>Waring's Ltd. (Oxford Street)</td>
<td>£605/9/5d</td>
<td>£736/5/3d</td>
<td>£555/1/2d</td>
<td>£315/12/8d</td>
<td>£235/14/8d*</td>
<td>£258/19/1d</td>
</tr>
<tr>
<td>Heal &amp; Son Ltd.</td>
<td>£681/5/6d</td>
<td>£467/15/8d</td>
<td>£229/4/7d</td>
<td>£164/1/6d</td>
<td>£368/15/8d</td>
<td>£240/3/4d</td>
</tr>
<tr>
<td>W H Haynes</td>
<td>£288/7/11d</td>
<td>£196/6/10d</td>
<td>£241/15/2d</td>
<td>£49/7/11ud</td>
<td>£144/6/6d</td>
<td>£101/13/11d</td>
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<tr>
<td>Hampton &amp; Sons Ltd.</td>
<td>£148/12/9d</td>
<td>£147/5/3d</td>
<td>£214/12/3d</td>
<td>£235/0/8d</td>
<td>£271/1/2d</td>
<td>£21/6/5d</td>
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<td>Harvey Nichols &amp; Co. Ltd.</td>
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<td>£161/17/1d</td>
<td>£286/6/1d</td>
<td>£229/11/5d</td>
<td>£144/19/-</td>
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<tr>
<td>Goodyers</td>
<td>£141/18/5d</td>
<td>£177/2/6d</td>
<td>£80/7/5d</td>
<td>£86/9/5d</td>
<td>£104/7/10d</td>
<td>£81/18/10d</td>
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<td>Naple &amp; Co. Ltd.</td>
<td>£364/9/7d</td>
<td>£273/4/7d</td>
<td>£404/14/6d</td>
<td>£388/5/6d</td>
<td>£443/11/7d</td>
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<tr>
<td>Jas. Shoolbred &amp; Co.</td>
<td>£208/11/6d</td>
<td>£93/1/11d</td>
<td>£114/11/9d</td>
<td>£143/13/3d</td>
<td>£146/6/6d</td>
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</tr>
<tr>
<td>John Barker &amp; Co. Ltd.</td>
<td>£26/19/7d</td>
<td>£35/8/1d</td>
<td>£71/18/4d</td>
<td>£95/3/5d</td>
<td>£151/10/2d</td>
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<td>Holroyd Barker Ltd.</td>
<td>£51/6/11d</td>
<td>£45/7/10d</td>
<td>£61/8/3d</td>
<td>£44/9/7d</td>
<td>£58/0/3d</td>
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<td>Williamson &amp; Cole Ltd.</td>
<td>£3/7/6d</td>
<td>£32/4/-</td>
<td>£271/12/3d</td>
<td>£157/11/4d</td>
<td>£166/13/11d</td>
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<tr>
<td>Marshall &amp; Snelgrove</td>
<td>£77/1/1d</td>
<td>£70/10/4d</td>
<td>£107/7/6d</td>
<td>?</td>
<td></td>
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</tbody>
</table>

Whilst its turnover with Liberty & Co. remained constant at around £600, that with B. Burnet & Co. fell by approximately £300, from £757 to £459. Trading figures with Heal & Son show the most dramatic fall from £681 in
1906/07 to £164 in 1909/10, to £240 in 1911/12. These reflect the drop in demand for prints in the Donald Brothers range (7:3) and the serious competition that the company met with their plain linens from other manufacturers, in particularly Alexander Morton & Co. (7:2).

Records of the overall turnover figures that survive for the years 1906-12 show how vital foreign markets were for its business (Table 2).86

<table>
<thead>
<tr>
<th>Year</th>
<th>America</th>
<th>Canada</th>
<th>Australia</th>
<th>&quot;Non-Art&quot;</th>
<th>Other Art Business</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1906/7</td>
<td>£5997/13/5d</td>
<td>£428/9/7d</td>
<td>£558/4/8d</td>
<td>£2293/7/11d</td>
<td>£15034/2/6d</td>
<td>£24311/7/6d</td>
</tr>
<tr>
<td>1907/8</td>
<td>£4721/0/6d</td>
<td>£150/9/6d</td>
<td>£1173/13/5d</td>
<td>£1969/7/11d</td>
<td>£14763/14/10u'd</td>
<td>£22778/6/2u'd</td>
</tr>
<tr>
<td>1908/9</td>
<td>£5315/2/1d</td>
<td>£385/2/1d</td>
<td>£1894/17/11d</td>
<td>£1515/1/2d</td>
<td>£13467/8/0u'd</td>
<td>£22477/11/3u'd</td>
</tr>
<tr>
<td>1909/10</td>
<td>£4831/8/6d</td>
<td>£1695/7/1d</td>
<td>£2152/16/5d</td>
<td>£1576/8/10u'd</td>
<td>£16683/3/0u'd</td>
<td>£21944/4/5d</td>
</tr>
<tr>
<td>1910/11</td>
<td>£3357/14/7d</td>
<td>£1608/8/6d</td>
<td>£2412/10/5d</td>
<td>£1204/14/9d</td>
<td>£12554/13/1u'd</td>
<td>£21878/14/8u'd</td>
</tr>
<tr>
<td>1911/12</td>
<td>£4251/0/2d</td>
<td>£1223/17/6d</td>
<td>£2489/4/5d</td>
<td>£3827/17/6d</td>
<td>£13632/10/6d</td>
<td>£22886/15/4d</td>
</tr>
</tbody>
</table>

The American market, which was first established in £1902, was particularly important. For instance in the year 1906/07, out of an overall turnover of £24,311 trade with America amounted to £5997, accounting for just under one quarter of their entire business for that year. Similarly the year 1908/09 reflected the same proportion of American business. However by 1910/11 trade with the USA had fallen to £3357 (one seventh of its business), possibly reflecting a shift in aesthetic taste and the effect of American protectionist tariffs.87 However in its place, business with Australia increased from £558 in 1906/07 to £2412 in 1910/11.

Included within the overall turnover figures was Non Art as well as Art business. Art trade to America therefore made up an even higher percentage of their decorative market in the early years. This business explains why Frank Donald was so eager to hold on to this market, and suggests just how influential the American Craftsman aesthetic must have been to the development of Donald Brothers.

From the findings in this chapter it has been demonstrated that Donald Brothers was directed by two men who combined business acumen with artistic understanding. David Tullo's drawings reveal his artistic
sensibility, while his charted movement to London, Paris and Haslemere suggest how he deliberately positioned himself within a context of formative design that enabled him develop the design and marketing direction of Donald Brothers between c.1897-1904.

Frank Donald’s profile reveals a man with a passionate understanding for the texture and colour of hand-woven Oriental rugs. He had a willingness to learn from them and from the firm’s customers in Britain and America. These influences encouraged him to express, with the help of Charles Robertson’s technical expertise, the firm’s design aesthetic in weave, texture and colour.

Team work being crucial to the business, it was revealed in 5:2 how the organisational arrangements of the company meant the firm had offices at the manufacturing end in Dundee and the marketing end in London, the latter established in 1900. The three Donald brothers were strategically positioned within these. The London office, in touch with the retail market, was expected to liaise closely with Dundee “the creative end” in developing new design ideas.

In 5:2:2, a study of the James Park factory c.1906 revealed a sizeable building, which when reconstructed between 1901-1907, housed between 25-40 employees. Equipped with basic power-looms, which numbered 35 by 1914, it was noted the firm’s own weaving was technically restricted to plain and twill canvas. Only two of their looms were suitable for linen weaving. Study revealed that on the top floor of the factory, machinery was set apart for experimentation. Design was developed on the capabilities of power-looms.

By contrast, it was shown in 5:2:3 how the arrangements of Donald Brothers with N Lockhart & Sons, enabled the firm extend its design range, technical capabilities and manufacturing capacity. At Lockharts a hand-loom and a pattern weaver were employed to originate figured woven
designs, and their power-looms were technically suited to weaving fine woven plain linen and figured cloths, as an integral part of Donald Brothers' decorative manufacture.

The approach to design and marketing of Donald Brothers was considered in depth in section 5:3. In 5:3:1 it was revealed how design was considered as "experimentation" and "working up new ideas". It was directed by those with a knowledge of the market and manufacture, and was developed through factory craft within the James Park factory. It was shown that at Lockharts, design was also considered in relation to pattern. However, the emphasis placed on the pattern weaver, the hand-loom and everyone "mucking in" illustrated the crucial "hands on" involvement with weave craft, as an integral part of the design process.

In addition to the design lead of David Tullo and Frank Donald, it was noted that Barclay Lockhart and the pattern weaver at Lockharts, and Charles Robertson at the James Park factory, all contributed to design origination. It was also established that Donald Brothers bought pattern designs from the Silver Studio (1906-08), which suggests that they may have used other freelance designers between 1896-1906.

In 5:3:2 Frank Donald's approach to creative marketing, linking design inseparably with the buyer and consumer, was explained in relation to the industrial design process. His approach was considered as possibly influenced by, and certainly important to, the firm's rapport with American business and the Arts & Crafts market 1902-1914.

In the final section 5:4, information on the firm's customers and trade established proof of the Arts & Crafts market Donald Brothers sold into and the good value they offered. It demonstrated that the firm's greatest successes were in 1902-04 period and again in 1907, and illustrates how important the American market was to this success by 1907.
It can be concluded from these findings, and those of previous chapters, that Donald Brothers had emerged out of the coarse linen and jute trade and into the decorative market by 1900. They flourished in the period when the Arts & Crafts market required increasingly simple, beautifully textured and coloured textiles to contribute as another material within the overall harmony of the interior. Committed from the start to industrial methods of production in Art manufacture, the firm offered fabrics in quantities and at a price that met the needs of their retail customers and the middle-class buying public.

In this manner Donald Brothers differed in a fundamental way from the hand-weaving enterprises with which their fabrics were compared. The latter, committed to philanthropic employment and hand-crafted manufacture, were limited in the quantities of fabric they could produce and faced with higher production costs were obliged to sell at a higher price. However, in their design, the fabrics of Donald Brothers and those of the handweaving revival were similar in origination. Both were the result of experimentation with the raw materials and basic weave structures of the craft and relied on the reinterpretation of tradition through a newfound sensibility for constructed texture. In the study of Donald Brothers' textiles that follows, a greater appreciation of this design approach can be gained. Subtleties of texture and colour will be shown to be important features and revealed as objects of design within Arts & Crafts furnishing textiles.
Footnotes.


3. David Tullo Donald will be referred to as David Tullo throughout the thesis to distinguish him from his father David Donald.

4. *An exercise jotter* dated 16th January 1888 which belonged to D T Donald, with written-up notes on "Jute, Lecture 1" illustrates his academic interest in this subject by 1888.

5. The above *exercise jotter* suggests the possibility that David Tullo may have attended classes at the newly opened Dundee Technical Institute (1888). For information on this Institute, which offered teaching in technical subjects as well as making some provision for instruction in the applied arts in 1911 becoming the Dundee Technical College and School of Art, see *Dundee Institute of Technology. The First Hundred Years, 1888-1988*, Dundee Institute of Technology, 1989.

6. These letters written to Barclay Lockhart exist within the *Barclay Lockhart Sample Book*.

7. One of these drawings is dated 1894, and was made in Sweden. All are in Mrs Campbell's collection.

8. See above.

9. *Wandsworth Electoral Register* confirms that David Tullo Donald was living at 3b, Cambridge Road from October 1897 till October 1900. The house had only just been built when he moved there with his wife in 1897.

10. This certificate is in Mrs Campbell's possession.

11. This is three years earlier than Frank Donald suggests in Donald, F. *Furnishing fabrics, op.cit.* p. 1.
12. Liberty's purchased furnishing pattern designs from "all the leading designers of the day, including Butterfield, Voysey, Napper, Haite, Mawson, the Silver Studio and Allan Vigers, see Parry, L. Textiles of the Arts & Crafts Movement, Thames & Hudson, London, 1988, p. 133.

13. Two letters headed 'Haslemere' and written by David Tullo to Barclay Lockhart in 1903, The Barclay Lockhart Sample Book. In 1905 David Tullo residing at Causewayside, Haslemere appears on the electoral roll for Surrey. The photograph of Causewayside was found within an album dated 1897 held at the Haslemere Educational Museum.

14. It was in the 1880s that the scientist Professor John Tyndall discovered and spread word of the clear, healthy air of Hindhead - the hill overlooking Haslemere. He found its air as invigorating as that in the Alps. See Winter, T. & Collyer, G. Around Haslemere and Hindhead in Old Photographs. Alan Sutton Publishing Limited, 1991, p. 8.


16. It was in 1903 that Gustav Stickley first mentioned Donald Brothers' Antique Canvas within The Craftsman.

17. The Barclay Lockhart Sample Book. The letters date between 1903-1905.


20. Ibid. p. 3.


22. Donald, F. Old Glamis Fabrics, p. 3.

23. Ibid. p. 2.

24. This photograph of Frank Donald accompanied a review of Donald Brothers' exhibition trade stand at the Convention of Master house Painters and Decorators, within the Journal of Decorative Art, 1905 (6:3).

25. Donald, F. Old Glamis Fabrics, p. 3.

27. Donald, F. Old Glamis Fabrics, p. 3.


29. Donald, F. Old Glamis Fabrics, p. 3.

30. Ibid. p. 2.

31. The private correspondence of Frank Donald dating between 15th June 1910 - 5th May 1915, was chiefly written to Bernard Donald at the London office and is bound in the volume, Private Letters No. 1.


33. Private Letters No. 1. pp. 19, 21, 156.

34. Ibid. pp. 16, 21, 22, 39, 65, 167 and Donald Brothers Limited Minute Book. pp. 110-112. Due to this the Donald Brothers' Board of Directors forced Bernard to stand down as a joint managing director of the company in 1925.


36. Ibid. p. 138 On the 13th March 1913 Frank Donald wrote to his brother: "While there is nothing calling for your immediate presence here, I have the feeling that in the interests of our business you do not come often enough to Dundee. This is the "creating end" and if for no other reason you should occasionally be here to lend me your hand in creating new effects. We want to keep our looms running, instead of only a few, and as you are in a better position to know what is wanted by the trade, your help ought to be invaluable at this end."

37. Moneys drawn from the company profits give some indication of the relative positions of those within the firm. In 1905 they were as follows: David Donald, 1,000; David Tullo Donald, 900; Bernard Donald, 784-13-3. In 1909, three years after David Tullo's death and Frank Donald's entry into company partnership, the business profits were divided as follows: David Donald, 45%; Bernard Donald, 32.5%; Frank Donald, 22.5%. By the following year the profits were divided equally. Private Ledger. No. 1. pp. 305, 187.

38. Dundee Directories.
39. Kelly's Post Office London Directories. Donald Brothers is listed under street and under the commercial section.


41. These were Donald Brothers' own differentiating terms. Non Art goods were dropped in £1927.


43. Valuation of James Park Factory, 12th April 1899.

44. This information comes in the Inventory of Heritable and Movable Machinery & Effects as contained in James Park Factory, 6th April 1906.

45. Valuation of James Park Factory, 12th April 1899.


50. In the war years the work force seems to have increased. The wages bill rose sharply: 1915, £1,470; 1917, £3799; 1918, £5331. This increase probably in part reflected the payment of war-time bonuses. However an increase of 500% between 1912 and 1918 is far higher than for instance Baxter Brothers' wages bill increase of 100%, and suggests Donald Brothers employed more workers over the war period once government contracts for canvases had been secured. After this date wage figures do not exist, and while it probably can be assumed that payment per worker dropped in line with other manufacturers to practically pre-war levels, we have no indication as to the numbers employed by Donald Brothers in their factory until the thirties.

51. Conversation with Elizabeth Adams, an employee of Donald Brothers who began work in their warehouse in 1934.

53. The Barclay Lockhart Sample Book.


55. Ibid. p. 7.


57. See Private Letters No. 1 p. 128 and 203-204.

58. Ibid. p. 124.

59. Ibid. p. 85.

60. Interview with Tom Lockhart, 1989.


63. Ibid.

64. Ibid. Letter dated 12/12/03, p. 34.

65. An exercise book, Design Book, Technical College Weaving Branch, Well Street, Carlton, with B. Lockhart, 12th September 1884 written on the first page, indicates that Barclay Lockhart attended this college, which had opened in 1877. The exercise book was by the 1900s in the hands of David Tullo Donald, who referred to it in one of his letters and seems to have used it to gain an understanding of weave structures. For information on the early Glasgow Technical College Weaving Branch, see Blair, M. A Short History of Glasgow Technical College, (Weaving Branch), Alexander Gardner, Paisley, 1908.


68. Pevsner, N. op.cit. p. 55.

69. Ibid. p. 38.

70. Ibid. p. 37.

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71. Brown & Beveridge was recommended by the Glasgow designer Ann MacBeth in 1926 as a shop that stocked Donald Brothers' Old Glamis Fabrics "artistic materials" suitable for needlework. "Needle Weaving is a Fascinating Craft and an Easy One" The Needlewoman, No. 49, September 1926, pp. 11-12.


73. It is not clear who the "other sources" were. There is no doubt Donald Brothers did contract out work.


76. Private Letters No. 1, p. 60.

77. This is partly because the majority of designs of these British Arts & Crafts textiles were not in sympathy with the structural approach of American Arts & Crafts Mission and Craftsman furniture, and partly because of their high price, exacerbated by the McKinley tariff. See Schoeser, M. & Rufey, C. English and American Textiles, from 1790 to the present. Thames & Hudson, London 1989, pp. 139-140.

78. Within my discussion of Donald Brothers' textiles I have indicated wherever possible customers who took up a particular fabric. However names of customers who bought stocked fabrics do not appear in the sample books. Therefore although featuring in the turnover figures of Donald Brothers London business (see Appendix B) Liberty's name only occurs three times in the pre-war sample books and Goodyer's not at all. Likewise Gustav Stickley's name is entered for the first time in 1906, although he began stocking Antique Canvas in 1903.


80. The best record of prices for hand-woven linens can be found in the St. Martin's Order Book of the Langdale Linen Industry. The Museum of Lakeland Life and Industries, Abbot Hall, Kendal.

81. Price lists exist from 1917 onwards, held by William Halley & Sons.

82. The sources for these are: Private Letters No. 1, 1910-1915, Canvases & Linens Sample Books and Heal & Son Guard Books.
83. These are found in "Analysis of Accounts", Private Ledger No. 1. pp. 305-306. The net totals quoted have been rounded to the nearest pound.

84. For instance Ashbee's Guild of Handicraft was forced to dissolve in 1908: "after three years of acute depression and heavy losses". Naylor, G. The Arts and Crafts Movement. Studio Vista, London. 1971, p. 171.

85. The figures given in Table 1 are copied from Private Letters No. 1 p. 45 and 83.

86. The figures given in Table 2 are copied from Private Letters No. 1 p. 46 and 82.

87. Gustav Stickley Business Papers, Purchases, Return Allowances, Winterthur Library, No. 76x101.48-53, record how Stickley had to pay a heavy import duty on Donald Brothers' fabrics from 1910 onwards.
CHAPTER 6. CANVASES: PLAIN & PRINTED 1896 - 1908

In May 1896 Donald Brothers began to keep samples of their jute canvases pasted into leather bound books, which over the next fifty years were to be numbered from No. 1 - No. 11. The instigation of Canvases No. 1, in 1896 must mark the year when the firm, consciously realising they had moved into the decorative market, needed to keep documentary records of their canvases as a reference for their new business. This chapter aims to study the canvas production of Donald Brothers between 1896-1908. In section 6:1 the firm's plain canvases recorded within Canvases No 1 & 2 will be examined, to recognise the particular qualities of texture and colour that were designed and manufactured in decorative canvas. The emerging fashion for material wallcoverings as an artistic treatment of the wall (2:3) provides the context by which these canvases can be considered in relation to their use as background and, identified with other materials such as arras and Japanese grasscloth, as a ground for stencilling. In section 6:2 a study of the reviews of Donald Brothers' decorative texture Decotex within the Journal of Decorative Art (1905) documents the contemporary appreciation the firm received with their canvases and provides more information on their productions and how they were used by the decorator. Artistic focus placed on texture as a ground for stencilling is studied in section 6:3 and leads to an examination of the printed canvas production by Donald Brothers (1896-1905), the visual evidence of which survives within the Baker Archive (1896-1900) and the Journal of Decorative Art.

6:1 Rough Textures 1896 - 1908

"Rough textures very rough textures in linen and jute constituted our first efforts, and in the early days of this century, not only did they find a market as wall coverings for picture and other galleries, but they were used by the more enterprising decorators in private houses as well."2
The recognition of texture and colour as aesthetic qualities to be developed in decorative textiles was the crucial factor that separated the canvases produced by Donald Brothers from Dundee's indigenous canvas trade (1:2). Yarns spun and textural effect and simple weave structures consciously explored and developed in relation to colour and finishing techniques were the means used to achieve these important qualities in fabric, for use within the interior.

Illus 6:1 Two samples of 54" No 1 Antique Canvas, 1896, jute flax, Old Red & brown.

54" No. 1. Antique Canvas (25/5/96) (illus 6:1) was the first decorative fabric that David Tullo Donald originated and put into production. Between 1896-1914 fifteen other qualities of the canvas (36", 50" and 54") were produced. Woven in plain weave with approximately 17 warps and wefts per inch³, the fabric's distinctive character developed out of its subtle qualities of yarn. The yarn was made from a mixture of jute and linen.
fibre, which "wooll-d" before weaving, took colour differently because of its fibre mix, when piece dyed in the canvas (illus 6:2).

Frank Donald's account of the origination of this canvas and Gustav Stickley's appreciation of it (3:2), indicates that the textural quality of colour just as much as that of the physical "soft wool-like" quality of the fabric was at the basis of the success of Antique Canvas. They were of course interdependent; the subtle variations in colour achieved through the mixing of fibres in spinning, and their subsequent dying in the woven cloth, gave a random textural quality to the cloth which was supported by the uneven, irregular nature of the yarn; both optical texture of tonal variation and the physical texture of surface grew out of the character of the yarn and its use in the plain woven cloth.

A comparison of other qualities of Antique Canvas with No. 1 Antique Canvas illustrates the variations of texture achieved with this canvas and, importantly, the manner in which weave set was used more
boldly by c 1906 to influence the way a yarn could be persuaded to 'speak' within a woven cloth. 54" 4W Antique Canvas (15/6/06) (illus 6:3) was probably introduced in 1906 and the date refers to when the canvas was taken up. Woven on the same number of warps (17 per inch) as No. 1 Antique Canvas, this quality gives a rougher effect than No. 1 because of the thicker weft yarn. This was set at 14 wefts per inch and predominates on the surface of the canvas to display boldly the tonal variations of colour created by the unevenly dyed flax and jute fibres. For even bolder effect, a stiffened 44" Cord Antique Canvas (taken up 12/12/07) (illus 6:4), loosely
set with approximately 10 warps and wefts per inch, was woven with a
twisted yarn made from a flax and jute thread. While the thickness of the
yarn and loose setting establishes the greater roughness in texture, the
twisted yarn itself creates a more all-over controlled fleck of tonal variation,
which was developed in later canvases such as Titian (9:4). The range of
possible colours for Antique Canvas was large. Canvases were held in
stock colours, as illustrated by the twenty-six colours offered in 5W
Antique Canvas Counter Book (illus 6:5, see overleaf), and others were
dyed to order. Named colours such as Crimson, Scarlet, Cardinal, Terra
Cotta, Orange, Rose, Old Red, Salmon, Light Terra Cotta, Brown, Red
Brown, Light Brown, Dark Gold, Grey Gold, Green, Light Green, Moss
Green, Sea Green, Dark Green, Navy Blue, Grey Blue, Pale Blue, Peacock
Blue, New Blue and Lavender give some indication of their range.
However, as illustrated (illus 6:6, see overleaf) the range was appreciatively
larger, endlessly exploring colour and its possible tints.

Such a range of mellow colour, integral to the textural character of the
cloth, bedded within, to sink still further through fading into the cloth
(illus 6:7), must have given the canvas its name 'Antique', and contributed
to its essential artistic appeal within the Arts & Crafts period before the
introduction of fadeless dyes (4:4).
Illus 6: 54" 5W Antique Canvas, c 1906, stocked colour range.
Illus 6.6 No 1 Antique Canvas, a selection of sampled colours. (This photographic range is an equivalent).
Once produced, Antique Canvas was "immediately selected for the walls of the Royal Academy" and was used over the years in many art galleries. Its selection coincided with the general shift, initiated by artists and architects of the Arts & Crafts Movement, away from the use on the walls of expensive ornamental materials such as silks and damasks towards the use of simpler, cheaper materials (2:3). Its soft tonal colour and texture established a sensitive visual relationship between the wall as a background and the art objects it displayed. This appealed to those who called for "subdued" tints and "undecided" pattern "for a background to paintings". Commenting on the value of Donald Brothers' rough woven jute as a background for objects, Frank Donald said:

"Put any object, be it picture, statue or vase, in front of a plain fabric, and it will reveal its beauty to greater advantage than if the background be paper or paint, no matter of how fine a quality."7

As a background for paintings, he described specifically why he believed jute canvas won the approval of artists:

"Artists, the painters, invariably work on a linen background because of its texture. When displaying their work they find nothing so satisfactory as a jute canvas. Its colour value, its texture value and its price value have made it the most generally accepted wallcovering for pictures throughout the world."8

Two influential architect/designers, Charles Rennie Mackintosh and George Walton, whom Muthesius described as using linen canvas ground in their "artistic treatment of the wall" (2:3), were both recorded by Frank Donald as having used the predominantly jute-based Antique Canvas. Frank Donald recalled they "liked it and used it and encouraged us to go on" and remembered Mackintosh once saying to him, "produce brown paper shades in your canvases, there are none so beautiful."9(illus 6:8).
Within the literature on Mackintosh there is no documentation to substantiate this. Mackintosh’s use of grey-brown wrapping paper for the walls of his dining rooms at Munich (1898) and the Main Street flat (1899-1900) (illus 6:9) suggests the more sombre and sturdier design of the dining room, as distinct from the lighter drawing room (where linen canvas was often used), as a suitable location in which Mackintosh could have used Donald Brothers’ jute textured canvases.

In America, the vogue Antique Canvas enjoyed as Gustav Stickley’s prized rugged Craftsman Canvas (2:4, 3:1, 4:3, 10:1&2), which resulted in its use for wallcoverings and curtains as a background to Craftsman furniture within the interior (illus 2:35), explains the presence of many names of prominent American customers in the pages of Canvases No. 1-3. This is particularly true for the years between 1906-1912 when the American Arts & Crafts Movement was at its height. Gustav Stickley, R H Stearns & Co., B Altman & Co., Carson Pirie & Scott, A A Vantine & Co. and Marshall Field & Co all ordered Antique Canvas from Donald.
Brothers in these years. After the war into the 1920s other recorded customers, most notably Nordiska Kompaniet of Stockholm, demonstrate the continuing appeal of this canvas, which undoubtedly would have remained in production into the texture-conscious 1930s if it had not, in the face of stringent demands for guaranteed fast fabrics "faded out of existence in the long run just because it faded, faded so easily, yet faded so beautifully."  

Another early range of decorative canvas to develop the "artistic possibilities" of jute for the trade was Art Canvas. Whilst 'Art Canvas' was a name given to a particular group of canvases, other canvases with individual codes (pasted within the pages recording Art Canvases, although not all indexed at the back of the book) indicate other variations that were made. These have been included in this group to facilitate an understanding, through comparative study, of the variety in the texture and colour that Donald Brothers offered to the decorator for use as wallcoverings.

Just as Antique Canvas, in which textural character was largely dependent on qualities of yarn and colour, so in Art Canvas yarn and weave structures were used in conjunction with colour to develop actively this important quality. Reliant on the different textures, colour was offered either "stocked" or "to order" in a broad range of tints which added extra variety and individuality to these canvases. Coded colours recorded under Art Canvases were explored in a similar range to Antique Canvas - and therefore to avoid repetition have not been illustrated individually. They were as follows; 1-30 A. cardinal, plum, crimsons, reds, rose; 1-12 B. brown reds, old rose, terra cottas; 1-14 C. red browns, fawns, "Roman Brown" (pale red brown), brown, green brown; 1-22 D. golds ("Pale", "Rich", "Palest", "Dark Old"). straw, yellow, fawns, cream, orange, brown orange, dark tan brown; 1-50 E. dark to light shades of green, moss green, and olive green,
sea green, grey green, apple green, leaf green, emerald; 1-41 F. "Dark Blue", "Peacock", "Turquoise", "Pale Peacock", "Grey", "New Blue" (dark petrol blue), "Light Blue Green", duck blue, acqua marine, pale blue, blue white; 1-5 G. neutrals; 1-2 H. "Helios". The predominance of green and blue suggests the taste for natural "forest shades" in green on the one hand and Aesthetic shades in tapestry blues and peacock on the other (4:4).

No. 14/17 Art Canvas (25/5/96) (illus 6:10) was the plainest of the original Art Canvases. It was originated at the same time as Antique Canvas and had a warp and weft of comparable thickness set at 16 picks per inch. Woven with a pure jute yarn and mostly piece-dyed, this canvas provided greater tonal evenness compared to the variation of Antique Canvas. However, one sample dated 1897 (illus 6:11) woven in shot effect (a gold brown warp and terra cotta brown weft), does illustrate the use of colour to create textural effect in this canvas, which in date parallels the
subtle shot effects being produced by the Peasant Weaving Industry in Haslemere (4:2).

In essence a finely woven sack-cloth, the canvas provides an opportunity to reflect upon the initial transition Donald Brothers made from producing 'Non Art' to 'Art' canvases, and the connections forged between their canvases and other material wallcoverings by £1896. By naming No 14/17 as an 'Art Canvas' in May 1896 it is clear the firm were familiar enough with the decorative business by this year to recognise and market their canvases as an 'Art' line, distinct from their 'Non Art' utilitarian sack-cloths and sheetings. As this was the case, it is probable that they had entered the market a year or possibly even two to three years previously. Indeed they may well have been influenced to do so by the demand for sack-cloth as a material ground for stencilling which developed in the same crucial years between 1893-96, as recorded by The Studio magazine.

In 1893 "sack-cloth" began to be used for stencilling; the designer Francis Heron exhibited a stencilled sack-cloth at the 1893 Arts & Crafts Exhibition. In 1894 The Studio ran an article on "Stencilling as an Art", in which inexpensive materials such as the "common sack cloth Mr Heron had employed" and "the arras cloths such as Messrs Liberty (sold), costing a few pence per square yard" were described as offering "capital surfaces" for stencilling. By 1895 "Stencilled Fabrics for Decorative Wallhangings" were considered for the first time; "fabrics prepared partly by stencil" issued by Liberty's were singled out, as also Arthur Silver's stencilled designs on "jute" and "arras". The latter, exhibited publicly at Alexander Rothman's in 1895, were praised within The Studio article as a "complete effort to acclimatise the Japanese idea" of stencilling to the British market. Surviving stencilled designs by the Silver Studios worked on Japanese grasscloth, flax, scrim and jute canvas (illus 6:33-36) illustrate the
interchangeable use of various woven textures for stencilling. As substitutes for grasscloth, flax and jute canvas provided "acclimatised" British vernacular materials; the illustrations demonstrating the quality of jute's "broken surface - rich but not heavy in effect" that The Studio particularly admired. As substitutes therefore, they demonstrate how the recorded transition of jute from "common sack-cloth" to "jute" paired with "arras", hinged on its suitable picturesque aesthetic of broken texture as a ground. This transition must also demonstrate Donald Brothers' own unrecorded transition, from a 'Non Art' to an 'Art' aesthetic in canvas, culminating in its recorded Art Canvases of 1896.

36" & 72" No.14 Art Canvas (illus 6:12) was another of the firm's original Art Canvases and illustrates well this aesthetic for broken texture sought by the decorator. By 1905 the canvas was used for printed Decotex (6:3). Woven in hopsack with an evenly spun jute yarn either dyed prior to weaving or piece-dyed in the canvas, four weft yarns were bunched together to pass over and under four evenly arranged warp yarns so that a broad, bold uniformly coloured canvas of 8 picks per inch was created. In essence a sacking cloth, the beauty of the fabric lay in its colour which, tonally chequered by a play of light over the woven surface, attracts the
viewer's eye to a Ruskinian appreciation (4:1) of its bold weave structure (illus 6:13).

Other hopsack canvases which were similar in weight and scale but subtly different in textural effect to No. 14, were 36" D.H. Dyed Canvas (undated) (illus 6:14) and 18T/YD Art Canvas (25/5/96) (illus 6:15).

D.H. Dyed Canvas was made with single thick yarn warps and paired finer yarn wefts. As a result the thick warp simplified even further the
boldness in weave compared to the finer intricacy (achieved by the four parallel strands of repeating warp yarn) of No 14. By contrast 18T/YD Art Canvas, was woven with a twisted yarn in the warps and wefts (possibly 18T for twisted, YD for yarn dyed). This use of yarn provided greater sparkle and visual intricacy to the chequered surface of the cloth as light activated it (illus 6:15). All three of these canvases, in their textural interplay with light and tendency like jute to fade, illustrate closely the qualities that William Sparrow described in his book Hints on House Furnishing (1909), as so pleasing in textile wallcoverings:

"They (textiles) look well between a dado and good frieze particularly when their texture is strong and their colour uniform. Texture is invaluable because it gives variety to a flat surface. Light plays upon it attractively, and colour looks uneven, broken, diversified; and when textiles fade a little their tints are often more pleasing than fresher hues."15

As if to accentuate the tonal variation of colour produced through woven texture Donald Brothers introduced Melange Art Canvas c 1906 (illus 6:16).

Structurally the same as No. 14 Art Canvas, this fabric employed different colours for warp and weft threads. The two colours of yarn often close in tone, such as two shades of green, heightened what was in No. 14 a natural two-tone chequered effect of the cloth's broken surface. Other
combinations of more contrasting colour accentuated this chequered effect more boldly (illus 6:17).

In these, colour lifts from the physical texture of the canvas surface and appeals outright to the eye, providing at a distant vantage point a strong optical suggestion of the tactile woven surface.

Finer, smaller-scaled effects in hopsack weaves were also produced in Art Canvas. Examples of these are X.B. Art Canvas (c 1908) (illus 6:18), which was finished with a lustrous surface and No.14/2 Canvas (31/8/99) (illus 6:19). The texture of No 14/2, was created by the crammed warps, which are pushed very slightly by the wefts into prominence on the surface of the cloth and which catch the light and provides a play in optical texture.
Another finer canvas entered amongst the Art Canvases was 50" 3/4 D.W. Ribbed Canvas (20/3/01) (illus 6:20), reintroduced as 50" Repp Canvas in 1911.

Similar to No 14/2, in D.W Ribbed Canvas fine paired yarns formed the prominent warp (11 per inch), with one thick twisted yarn of matching or
paler colour employed in the weft (approx. 13 per inch). The textural effect of this canvas was quite similar to high warp tapestry weaving, because of the paired warps and their prominent repetition across the surface of the cloth, with the (sometimes) paler more lustrous weft glimmering through in places. This canvas was taken up in rich brown and gold by Joseph P McHugh & Sons, New York (self-proclaimed originator of the American Mission style furniture), and in red by Paine Furniture & Co., Boston, in 1907.

The visual similarity of D.W. Ribbed Canvas to high warp tapestry suggests the direct connection that can be made between Donald Brothers' jute wallcoverings and tapestry for the 1890-1900s period. By the 1890s tapestry, which had been revived by William Morris and his circle in the 1870s and 80s as a major decorative art form for interior wall decoration, was still considered as something of a persuasive "ideal" in wallcoverings. As late as 1904 the architect Norman Shaw - in true Morris spirit - wrote that "the most beautiful wallcovering is the tapestry"; full of "entrancing interest, it keeps its place flat against the wall." Other architects whilst still admiring of the qualities of tapestry as an ideal, sought in reality something simpler and cheaper for the walls of the modest home (2:3). 'Arras' by definition of its name (meaning wallhanging especially of tapestry), jute canvas by nature of its rustic barn-like associations with sackcloth, and Japanese grasscloth, the three stencilling materials discussed by The Studio provided such modest, homely alternatives. "Tapestried" to the wall, woven jute gave an interest, warmth and softness associated with tapestry but without its historicism, grandeur and expense (2:3). In colour too, jute, which took colour well and faded equally well, also evoked tapestry; Antique Canvas (as Stickley's Craftsman Canvas) was initially described to the American public in terms of the "soft dull colours of and
shades found in the old French Tapestries; the pomegranates, the blue-greens, the king's yellow, the foliage browns."\textsuperscript{19}

While the mellow tonal colour and soft 'wool-like' texture evident in Donald Brothers' \textbf{Antique Canvas} does evoke the antique quality of tapestry remarkably closely, so also do the colours and weaves of other of its early jute canvases such as \textbf{No.14/17 Art Canvas} and \textbf{3/4 D.W. Ribbed Canvas}. The latter gave a sense of the subtle surface interest of tapestry, without its obvious figurative imagery. Combined with artistically conceived and rendered imagery, as jute and linen canvases became through stencilling (2:3, 6:2 \& 6:3) (illus 2:21) and with linen embroidery/appliquè (7:2 \& 10:2) (illus 10:11), the relationship of these material wallcoverings to tapestry was even greater, and can be viewed as the later 'modern' answer to the Arts \& Crafts ideal of tapestry as wallcovering.\textsuperscript{20}

A quality of Donald Brothers' \textbf{Art Canvas} which developed this link between jute canvas, stencilling and tapestry was 50", 54", 72" \textbf{D.C. Art Canvas}. First introduced in 1903 as 54" \textbf{D.C.1 Art Canvas} and pasted into the front pages of \textbf{Canvases No.2} in 1904, this canvas was used by Donald Brothers for its paper-backed range of \textbf{Decotex} wallcoverings, which, introduced in 1905, were described as admirable for stencilling (6:2). Produced in eight almost identical qualities (2-8 were introduced later between 1911 and 1912), 50" \textbf{D.C.7} became renamed as "\textbf{Liberty's 50" Arras Cloth}"\textsuperscript{,} thus confirming the link between Donald Brothers itself and this quality of tapestry cloth, with its original association with jute.

The original \textbf{D.C.1 Art Canvas} (illus 6:21) was woven in plain weave (approximately 14/15 warps and wefts per inch), with a finer warp which gave emphasis to the weaving of the weft on the surface of the cloth.
Relatively even in texture and woven with clean lustrous jute yarn (the distinction between D.C. Art and D.C Canvas seems to have rested on differing degrees of lustrousness), the surface appearance of D.C.1 Art Canvas was crisper than the earlier No. 14/17 Art Canvas, and similar in quality to linen (7:2). Dyed in the piece, the colours produced in D.C.1 Art Canvas between 1904-1913 are noticeably affected by this crispness of material. Some resemble in quality and hue the colours of Donald Brothers' dyed linens and may have been produced to co-ordinate with their furnishing linens such as Casement Flax (7:2). Clearer and less tonal, the colours were distinct from one another, and were produced in nothing like the subtle range of tints of previous Art Canvases. Whilst offered in some of the tapestry blues, golds, browns and Nature's greens, this canvas was also produced in a number of shades of grey and pink as well as sampled in chalky violet, mauve and turquoise in 1909, bright red, blue and purple in 1911, and pink, orange and purple in 1913.

This diversity of colour indicates the changing tastes for colour in interior decoration that occurred in the early twentieth-century period. The range embraced some of the tapestry colours that continued to be influential in the period. It included the paler shades of colour such as the
range of cool greys, which inspired by Aesthetic colour (in particularly that of Mackintosh and his circle) had become influential within interior decoration by 1902. Finally it included the later vivid colours which were inspired by the rich vibrant colour of Post-Impressionist painting and the Russian Diaghilev ballet, and were introduced into the interior c 1912.

Against a number of shades sampled in the books are references to some of the firm's customers. These give an indication of the international market for its colour and texture in these years (illus 6: 22). They included

B Burnet & Co. of London (dusty dark blue, 1904; pale grey, 1906; three shades of stone, one dated 1907), Society of Artists, London (deep gold, 1905), Maple & Co. Ltd of Paris (petrol blue, 1908), Marshall Field & Co. of
Chicago (ecru, dark green, grass green, dark blue and mustard, 1910), McCreery & Co. of Pittsburg (mushroom brown, two shades of green, dark tan and orange, 1910), Beard Watson Ltd of Sydney (mid-blue and burgundy, 1912 and brown 1914), and Waring & Gillow Ltd of Paris (three shades of grey/mauve, 1912) (illus 6:22). A "special gray shade" (1907) was supplied to Liberty & Co. and this company also in 1912 took up the similar quality 50" D.C.7 Art Canvas as "Liberty's 50" Arras Cloth", in ecru, two shades of green, turquoise blue, smoke blue, gold and terra.

Another canvas of lustrous surface was 36" AMS Dyed Canvas (27/9/07) (illus 6:23). Produced in two soft shades of green and blue, and one shade each of rose red, ecru and grey, this canvas was woven on a thick evenly spun warp yarn with a finer weft thread, 13 picks per inch. Cropped and mangled after weaving to remove all stray wisps of fibre and flatten the warp-dominated surface, a clean lustrous sheen, even greater than that of lighter weight D.C.1 Art Canvas, was produced in this canvas.

Illus 6:23 AMS Dyed Canvas, jute, two greens, 1907.
Compared with the soft absorbent wool-like surface of Antique Canvas (illus 6:1), AMS Dyed Canvas's surface was harsher and reflective, and both canvases illustrate in their differences the variant nature of jute fibre and Donald Brothers' versatile manipulation of it to produce surface interest in canvas.

54" A90/JX Dyed Canvas (26/10/07) (illus 6:24) provides a further example of this variety in material. Stiffened with starch to facilitate its application to the wall, the canvas was woven with a thick unevenly spun warp and fine weft at 13 picks per inch. The essential roughness of this canvas was produced by the use of coarser fibre and the loose, open handling of weave set. This displays to advantage the unevenly spun yarn. Produced in neutral and dyed to shades of green (two shades), crimson and terra, the canvas illustrates through comparison with the more even, lustrous surface of AMS Dyed Canvas (illus 6:23) how Donald Brothers consciously held on to the rough quality of Dundee's coarse manufacture in certain of their canvases while at the same time seeking a greater evenness and lustre in others.

By the early twentieth century, the sensibility for such variety in qualities of material surface had become acute through Arts & Crafts emphasis on building practice (2:3&4), and resulted in the inter-related fashion for its use with more restrained pattern and paler shades of colour.
within the interior. John Scott, advising decorators on colour at the Birmingham Convention of 1908, emphasised the inter-relating effect he perceived colour exerted on the awareness for material:

"You can always get a certain amount of richness in a deep colour, even in a poor material, but when you come into the lighter shades, the feeling for the material becomes much more pronounced. Indeed in the light colours the feeling of quality of material is almost as strong as the colour sense".21

Three different qualities of ecru canvas, 4W Antique (illus 6:25) AMS (illus 6:26) and A90/JX (illus 6:27), all sampled in 1907, indicate Donald Brothers' response to the demand for pale colour and this awareness for material that resulted.
They also illustrate in their textural variety that jute canvas, although poor by virtue of its cheapness and association with sack-cloth, was in fact rich in visual interest. It could be manufactured, either to discard its former humble associations with sack-cloth through a lustrous evenness (illus 6:26) or to reveal through rough irregularity (illus 6:25 & 27) a new found richness in such humble ruggedness. Interrelated with colour (dyed or applied by the decorator), the latter’s ruggedness could be either held in check by pale delicate colour or further enhanced through the use of earthy rich hues (illus 6:28), depending largely on the effect the decorator and buying public wished to express with it.

The canvases so far discussed illustrate in some depth the variety and subtleties of texture and colour that Donald Brothers were producing in their plain canvases of the early years. Ranging from rough wool-like texture to lustrous glistening texture, from even surfaces to broken surfaces, and fine weaves to bold weaves, they demonstrate the firm’s manipulation of their materials through process to achieve relatively fine as well as consciously rough effects in jute.

Between 1904-7, this manipulation had become increasingly sophisticated. It was to develop, on the one hand to a fineness and delicacy in woven canvases which led to the introduction of figured effects in the firm’s range of wallcoverings about 1904/5, as well as to their launching of "Tissues" as a distinct new quality of fabric in 1910. These fabrics are discussed in Chapter 8, "The New Decorative Materials". Ironically the
increased sophistication led to Donald Brothers producing on the other hand a greater ruggedness in their plain canvases, which while still related to Dundee's coarse staple manufacture also consciously explored and combined this with influences from architecture and the contemporary hand-weaving revival. These rugged canvases form a distinct line of development in the firm's manufacture, and have been singled out for separate study in Chapter 9 "The Very Rough Textures".

6:2 "Decotex" and the Appreciation of Donald Brothers' Canvases for the Decorative Trade in the Journal of Decorative Art.

In 1905, as Donald Brothers' work in canvases grew in assurance and sophistication, the firm put onto the market Decotex, a canvas backed with paper to facilitate its application onto the wall. As the name "Decotex" suggests, providing deco(rative) tex(ture) for the decorative trade had become a major aspect of the business by this date. By giving a paper backing to woven texture, thereby making it easier to use, the firm broadened the appeal of its products within the trade.

To launch Decotex, Donald Brothers took stands at the Scottish and the English & Welsh trade exhibitions for Master House Painters and Decorators, which coincided with the annual conventions of their respective Associations (illus 6:29&30). The firm's presence at these two exhibitions instigated both reviews of its work in the Journal of Decorative Art. These reviews, incorporating a visual record of Donald Brothers' stands, provide a glimpse of some of their canvases and the uses to which they were put, as well as unique evidence of their otherwise unrecorded stencilled canvases. The written documentation provides proof of the firm's standing within the trade at this date and concrete evidence (in support of what has been written), of the contemporary appeal of their textures and colour with decorators in the period. It also provides specific information on the Decotex range. This written material is studied first, as
Illus 6:29 Edinburgh.

Illus 6:30 Plymouth.

Illus 6:29,30 Donald Brothers’ Trade Stands at the Edinburgh and Plymouth Conventions, 1905.
it provides a breadth of view of Donald Brothers’ manufacture within which the illustrations, featuring the use of Decotex and the predominantly displayed stencilled Decotex, can be studied in this and the subsequent section on printed canvases.

From the reviews (Appendix B) it is evident that Donald Brothers were well established by 1905 and known in the "furnishing and decorating trades, for the beauty of their productions in textiles of all kinds". The firm's registered paper-backed wallcovering Decotex was considered as a development of "their very artistic canvases." At first produced in one quality of Art Canvas (D.C. 1 Art Canvas) in a "large range of colours" , the canvas was either left plain or printed. Specifically developed to facilitate the paperhanger in applying canvas to the wall as "ordinary wallpaper", Decotex was singled out for being "admirably adapted to meet the present day taste for texture and a quiet, reposeful feeling on the wall". The woven texture fitted the taste "for actual texture" and "solid qualities of surface" on the wall, and its "great appeal to decorators (lay) in the range of soft colour effects obtained, and the quiet play of colour which (was) obtained by the fall of light upon it".

By November 1905, the journal reported on the "large response" Decotex had received from the trade, one which encouraged Donald Brothers to develop its range. By autumn the firm had introduced further qualities of textures and more stencilled canvases into the range, as well as extended market awareness of Decotex, as a suitable canvas to be "worked upon by the decorator". New canvases introduced were "broader textures" for those "desiring bolder effects", which suggests rougher and bolder textures such as Antique Canvas and No. 14 Art Canvas. The range included an unidentified embossed canvas that preserved "the texture of the fabric" and enriched it "with a raised pattern just sufficient to give additional interest and attention to the wall". This suggests an effect
similar to **Tynecastle Tapestry**, the paper-embossed canvas manufactured by Tynecastle & Co. (2:3), a company with which Donald Brothers are regarded as having connections and supplying by 1913.\(^{24}\) Finally, the range included a fancy woven **Union Tissue**, which possibly was the **Union Tapestry** designed in January 1905; sketches and photos of the design still exist (illus 8:14-16) (8:1). The latter two qualities, as moulded and woven pattern, indicate the firm's search for other means, besides printing, of introducing decorative pattern into their canvases, which at the same time developed the important qualities of surface and feel for "actual texture", qualities that formed the basis of their success within the field.

So important was this feel for texture and weave that it lay at the heart of Donald Brothers' approach to printed canvases as well, "the texture lending itself admirably to stencilling and colouring." However the illustrations of the firm's stands at Edinburgh (illus 6:29) and Plymouth (illus 6:30) reveal very little of this texture (and none of the colour) so admired in their canvases. Indeed without the written documentation and the study made of their textures and colours in canvas (6:1), it could be presumed from the illustrations that the firm were essentially printers rather than weavers of wallcoverings. They were obviously both. The illustrations, in the absence of any material samples of stencilled canvases, provide unique evidence of the importance of stencilled pattern to the enhancement of Donald Brothers' range. They also confirm the context of use for their canvases was as Muthesius reported in *Das Englische Haus* (2:3).

In the Edinburgh display (illus 6:29), three schemes of panelling were shown. The scheme on the right displayed a patterned, vertically striped filling with no frieze, the middle scheme an all-over repeating filling reaching from the floor to picture rail with a patterned frieze above,
and the third scheme a plain textured filling with considerably deeper stencilled frieze. This final scheme was repeated, though with a different patterned frieze, in Donald Brothers' more consciously integrated display at Plymouth in September 1905 (illus 6:30), and reflects the contemporary vogue for this simpler treatment. In this scheme texture unified the wall as a plane, established it as a flat ground to display paintings against and acted as a foil to set off the decorative frieze.

6:3 Printed Canvases 1896 - c 1907

The stencil patterned canvases displayed on both of Donald Brothers' stands, illustrated in the Journal of Decorative Art along with two illustrations of all-over repeating prints (illus 6:49&50), are the only record of the printed canvas wallcoverings by Donald Brothers from the period around 1905. Earlier print designs of the firm, found in records of the Swaisland printworks25 dated to between c 1896-1900, indicate the firm provided printed canvases as part of their range in wallcoverings right from the beginning of their work in the decorative trade. Their predominance on the stands (especially at Edinburgh) demonstrates the important part print played in complementing the range in textured canvases, although just how important their printed range was to the business is not known.

As patterns, displayed on the stand, stencilled canvas would initially have been the wallcoverings to have caught the decorator's eye at the busy conventions. Indeed they may have been devised partly for this reason. As prints on woven canvas they would have brought awareness to the subtle qualities of textured surface and suggested its potential for wallcoverings, as a material in itself, as a ready-stencilled material and as a material to be embellished by the decorator. The significance of these printed canvases therefore lay in the firm's search to complement their woven fabrics with
prints of contemporary design, which creatively used woven texture as an integral part of the aesthetic appeal of a printed cloth. This approach, influenced by the contemporary artistic revival of flat stencil pattern and probably encouraged by the established Arts & Crafts market for printed pattern as recognised 'design', formed the basis for Donald Brothers' print involvement and development.

Stencil printing was used at the turn of the century as a successful means of originating designs in small runs at limited cost. It was considered as an artistic means of expression in decoration, and influenced both the design of patterns and the manner in which they were related through printing to their material ground. A discussion of the 1890's stencilling revival and the distinguishing characteristics of stencilled pattern therefore provides a logical introduction to the study of Donald Brothers' own involvement with pattern design and printed canvases, as well as a greater understanding of why decorators would have found the firm's textured canvases particularly suitable as a ground to work on.

The stencil revival was established in Britain by the 1890s through the practice and writings of Arthur Silver and others, under the direct influence of Japanese stencil printing. It re-kindled interest in the essential flexibility of the decorator's stencil as a means of producing patterns on the wall in situ, or within the workshop. It provided the artist/decorator with an effective means of controlling both the design and execution of pattern within the interior. Although chiefly perceived as a decorator's process, the popularity of stencilling was such that various wallpaper firms such as Alexander Rottmann, Charles Knowles & Co. and later William Shand Kydd, and textile firms (F Hargrievs Smith and G P & J Baker) all began to factory-produce at the turn of the century ready-stencilled papers and fabrics for the decorator. This production is illustrated by the
photographs of Rottmann's factory in Japan and Knowles & Co. in Britain (illus 6:31).

The technique of stencilling was straightforward and was seized upon by designers to act as a legitimate restraint in the conception of pattern. The stencil plate (made from stiff paper, copper, zinc or tin) was perforated, the cut-out areas forming the design. Laid on top of the material to be printed, colour was applied through the cut-out areas of the stencil onto the material below and a print formed. Pattern was conceived in terms of cut-out shape with the ties of the stencil (essential to the strengthening of the stencil plate) incorporated into the drawing of the design, as demonstrated by Arthur Silver's stencilled catalogue cover of 1895 (illus 6:32). Silver believed ties were "the spirit and essence of the stencil"; their constructive purpose acted as a constant restraint that prevented the designer from "lapsing into too realistic details".

In addition to these essential characteristics of shape and drawing in stencil pattern, the "whole art" in stencilling, as revived by Arthur Silver, lay in its execution as a hand process. It relied on the way that colour was loaded onto the brush by the decorator, on the "instinctive touch of the
worker" as he/she "patted" the "brushed" colour into "the fabric more or less energetically according to its texture" and how it was graduated in tone from dark to light, as the brush became dryer (illus 6:33-36). In this manner, graduated "broken" colour revealed in the individual's textural handling of material surface (2:1) became the prized quality of the revived stencil printing and distinguished it from the 'old' stencilling:

"the old and erroneous idea was that hand-work, especially in repeated ornament, should try to achieve the dull accuracy of machines; so in the old stencil flat equal colour was a sine qua non; the newer and better idea is surely to impart to mechanical work all possible accident of individual expression."
Illus 633 The Tulip Garden, detail, stencil on grasscloth, by Arthur Silver, 1895.

Illus 634 The Tulip Frieze, detail, stencil on flax, by Arthur Silver, 1895.
Illus 6:35 The Terrace Frieze, detail, stencil on cotton scrim, by Arthur Silver, 1895.

Illus 6:36 Basket Frieze, detail, stencil on jute, by Rex Silver, c 1905.
Just how important the material ground was to this textural expression is revealed in the close-up details of stencilled wallcoverings produced by Arthur Silver and the Silver Studio between 1895-1905. The details are as follows: The Tulip Garden (1895) on Japanese grasscloth (illus 6:33), The Tulip Frieze on flax canvas (illus 6:34) (the latter exhibited at the Rottmann exhibition 1895 and both illustrated within The Studio article), The Terrace Frieze (c 1895) on cotton scrim (illus 6:35) and the later Basket Frieze (1905) on jute canvas (illus 6:36). These detailed samples demonstrate how variations and irregularities in fibre, yarn and weave were used to inter-act with the paint handling, to enhance the expression of the printed image. It is precisely in this manner that Donald Brothers' offered variety in textures in jute and linen (6:1,7:2, 9:1-3) would have been appreciated as a ready-stencilled canvas or as a material to be stencilled by the decorator.

The earliest record of Donald Brothers' own involvement in print design can be found within the Swaisland Works' first Block Impressions book dated 1893-1909. This book establishes that Swaislands (owned by G P & J Baker Ltd) commission-printed for Donald Brothers between c 1896-1900. The eleven sampled pieces (illus 6:37-47) were printed on paper and record only part of each design, illustrating their large scale and something of their patterns. All but one of the designs were conceived in bold flat shape, and although most were evidently block printed some, particularly B611 (1898) (illus 6:44) and B628 (1899) (illus 6:45), were broken by consciously-designed "ties". These indicate the influence of the stencil on these patterns and suggest the possibility, as revealed in the uneven printing of B611, that this method of printing may have been used for this design.
Illus 6:37  B486, block print on paper, 1896.

Illus 6:38  B570, block print on paper, 1897.

Illus 6:39  B589, block print on paper, 1897.
Illus 6:40  B590, block print on paper, 1897.

Illus 6:41  B605, block print on paper, 1898.
Illus 6.42 B609, block print on paper, 1898.

Illus 6.43 B610, block print on paper, 1898.

Illus 6.47 B687 block print on paper, 1900.
Illus 6:44 B611, block or stencil print on paper, 1898.

Illus 6:45 B628, block print on paper, 1899.

Illus 6:46 B631, block print on paper, 1899.
In design the patterns ranged between simplified historical forms, suggestive of fifteenth and sixteenth-century damasks (*illus 6:37, 6:43*) and heraldic (*illus 6:39, 6:44*) motifs. These prints were produced between c 1896/97 and 1898 and would have provided a sense of grandeur and bold direction in printed wallcoverings for the decorator. The Lion Rampant design **B611** (*illus 6:44*), printed on light brown jute canvas was chosen by Heal & Son in 1898 as a wallcovering.\(^39\) It illustrates, with much design of the period, how the medieval was combined with modern simplicity (*illus 6:48*). By contrast the two patterns produced in 1899 used plant forms as a basis for design (*illus 6:45, 6:46*) and were more natural in feel; **B631** appears to have designed as a frieze.

Printed on paper, it is important to imagine how these designs would have looked on textured canvases produced by Donald Brothers (6:1). Mostly printed in one colour, the patterns allowed for areas of the canvas to form either the ground or figure. In this way the designs would have depended on the interaction of the colour, with the texture of the material and weave for much of their appeal and interest. Warmth and richness of effect achieved through texture, colour and pattern, either boldly accentuated or subtly merged with the material through a choice of texture and colour for the figure and ground, formed the main characteristics of these early printed canvases.

The above designs, printed as wallcoverings, would have contributed to the range in printed arras cloths that were fashionable by the 1890s. These as already discussed were linked with jute canvas (6:1) and recommended by Baillie Scott in 1895 as suitable inexpensive wallcoverings for the living hall of the house (2:3). In 1903 *The House* described arras as: "a kind of printed canvas .... very inexpensive, and suitable for halls and libraries, or the hall sitting room of a country house. (It was considered particularly) suitable for rooms in a severe style and as a background to
Although The House did not provide images to illustrate this look, Walton & Co.'s stencilled heraldic pattern combined with wood panelling for the walls within the hall at Elm Bank, (1898) (illus 6:48) demonstrates this severe style. It also suggests, through its similarity to Donald Brothers' contemporaneous canvas B611 taken up by Heal's, the type of look that would have been achieved with the firm's printed canvases.

After 1900 Donald Brothers must have continued to produce printed wallcoverings, although no evidence of them has come to light until their launch of Decotex in 1905.41 Printed furnishing linens dated to 1900-1905 prove the firm's interest in print did continue in the intervening years. These printed linens (stylised and abstracted in design, (7:3)) establish a further shift that Donald Brothers made in their print work from the historicism of the Swaisland prints to the contemporary 'modern' design, which, influenced by stencilling techniques, explored abstracted, energised plant form by 1901.

The Decotex range in printed canvas illustrated by the Journal of Decorative Art in 1905 reflects this change, with the use of the stencil clearly established in the design and execution of these printed wallcoverings. It is not known who designed the stencil patterns or which
company stencil printed for Donald Brothers. In Design 1 & 2 (illus 6:49,50).

Illus 6:49 Design 1, 1905.

Illus 6:50 Design 2, 1905.

Illus 6:49 & 50 Stencil printed Decotex, Design 1 & 2, 1905.
the ties, necessary to the supporting of the stencil, are evident in the neutral unprinted lines. They formed the drawing of the abstracted floral patterns, and linked them securely with their grounds. In Design 1 (a one-colour print), clustered flower heads were abstracted into flat shape to create an all-over diamond half-drop repeat. In Design 2 (a two-colour print), flower heads and leaves were reduced to more angular abstracted flat shapes, to visually cut over each other and create bursts of growth, the ties giving a sense of compressed energy and direction to this half-drop pattern. Similarly in Design 3 (a two-colour print), prominently displayed on the Plymouth stand (illus 6:30), simple shapes were combined to create abstracted plant forms which provided both a sense of movement and counterbalanced restraint. Indeed in the play between movement and restraint, figuration and space, this masterly pattern illustrates the influence of the Glasgow style, or the possibility that it was designed by one of the Glasgow designers. George Walton's stencilled frieze for the Kodak interior c 1900 (illus 6:51), is similar in feel and demonstrates once more a context for the design and use of Donald Brothers' canvases.

In the printing of these canvases, colour appears to have been applied flatly and perceptibly "broken" by the texture of the material. The close-up photographs of Design 1 & 2, illustrated by the Journal of Decorative Art to give an idea of "the nice quality and feeling which is to be obtained in this
particular material", suggest something of this broken textural colour, and the probability that a bold woven canvas such as No. 14 Art Canvas was used for Design 2.

In addition to the all-over printed canvases were the stencilled friezes. These illustrate the firm's readiness to present a complete package to the decorator of plain and printed texture for the filling below the picture rail, complemented by the fashionable stencilled frieze. The latter were probably produced to order rather than held in stock. The designs for the friezes were more elaborate than those of the all-over repeat designs discussed above. However, in comparison with the contemporary trend for scenic friezes (produced by firms such as A Sanderson & Sons), the Decotex friezes showed a marked degree of restraint with the emphasis still on abstracted pattern. This tendency is illustrated by both Frieze 1 & 2, (illus 6:29) in their light and airy "tree of life" patterns; the slender, elongated forms of Frieze 2 are similar to David Tullo Donald's woven designs for the "New Decorative Materials' 1900-1905 (8:1), and may have been by him. In contrast to 1 & 2, Frieze 4 (illus 6:30) produced greater tension in design, evident within the restrained movement of the Celtic knots which are reminiscent of Archibald Knox' designs for Liberty's. In Frieze 3 a more exuberant and fleshy quality (reminiscent of the British Art Nouveau of the 1880-90s) was achieved. Stencilled shapes, rendered in graduated colour, are swollen, tapered and curve back on themselves. Whether this additional quality of graduated colour was a result of the expression of the hand-worker, or in fact that of the Aerograph Spray Painter (introduced into wallpaper manufacturing and considered "indispensable in the production of stencilled friezes" by c 1905) is not established. The industrial base to Donald Brothers' manufacture suggests the spray may well have been used.
For the years after 1905, the only other evidence of the firm's continued involvement in printed canvases is an arrangement of motifs for stencil decoration submitted to a competition by the *Journal of Decorative Art* in 1907, in which *Decotex* came second.\(^42\) Probably by \(\approx 1906\) (as the evidence of Donald Brothers' printed linens suggests (7:3)), their work with printed materials had already peaked. This date coincides with the beginning of a time of greater uncertainty, when generally confidence in Arts & Crafts design began to slump as trading became tough (5:2) and period styles in print design, to which Donald Brothers was not particularly suited, began to emerge as a trend in furnishing fabrics (7:3). This trend became dominant within the interior by the war, and led to the demise of wallpaper pattern altogether in the middle class home by the 1920s.\(^43\)

1905 also marked a more personally decisive point in the fortunes of Donald Brothers as it was the year in which David Tullo Donald moved to France and left the firm vulnerable and without his strong design direction (5:1). Before and during his illness, between late 1903 and 1905, David Tullo had begun to make experiments in figured cloths. As woven solutions to producing pattern, these "New Decorative Materials" (8:1-3) would have appealed to a market increasingly interested in constructed pattern and solid qualities of surface in wallcoverings. They would also have been more suited to the ability of those left in charge of Donald Brothers after David Tullo's death in 1906. Their prominence within the firm's tissues and figured canvases indicates that woven pattern did indeed eclipse the earlier printed patterns sometime between 1906 and 1910.

In summary of this chapter, which examines Donald Brothers' plain woven and printed jute canvas production between 1896 and 1908, a number of conclusive points can be made. Firstly, the emergence of the firm into the decorative field with *Art Canvas* in 1896 suggests its transition into decorative production occurred in the same years between \(\approx 1894\) and
1896 when decorators turned to using jute arras and sacking cloth in the interior as a background and a ground for stencilling. The print production of Donald Brothers, which began in 1896, illustrated the integral role that print played in the aesthetic and market in textured canvas.

Secondly, the decision of the firm to manufacture 'Art' has been demonstrated to have been consciously explored in order to provide variety in texture and colour as objects of design in canvas. Study has revealed a range that varied from being soft, tonal and absorbent to crisp, lustrous and reflective, from being relatively even to ruggedly broken in woven effect. Such a range illustrated the firm's ability in the manipulation of their materials. They proved able to hold onto their rugged connections with sacking cloth and to provide greater fineness in jute canvas. The design manipulation of fibres, yarn and weave structures, colour and finishing techniques was shown as crucial to this production.

Thirdly, through the study of constructed texture in relation to its inter-active connection with colour and the activating medium of light, the canvases produced by Donald Brothers were demonstrated to provide qualities in wallcoverings that became popular with decorators. The reviews in the *Journal of Decorative Art* of Decotex confirmed that there was a fashionable demand for the use of actual texture and the quiet play of colour in wallcoverings. The firm contributed to this and were acknowledged in the press, by 1905, for these qualities. The reviews also illustrated how such qualities were used in situ to provide background effect, and be worked, as a ground in conjunction with stencilling.

Fourthly, with the connection made between Donald Brothers' canvas texture and stencilling, an examination of examples of stencil practice showed the paramount importance of the quality of broken texture to the stencil revival as an artistic process. The method of conveying expression through the sensitive reliance of printed pattern on the textural
broken ground was described. It was in this light that the involvement of Donald Brothers in their own print manufacture was considered. The firm's flat patterns were discussed as being conceived in relation to the material ground they were printed on, integrated to provide textural warmth in the simplified patterns used within interior wallcoverings. Finally it was suggested that the fashion for solid qualities of surface and constructed pattern on the wall probably led to the demise of printed canvases and to Donald Brothers' introduction of figured effects as a co-ordinate with their textured canvases by 1906.
Footnotes.
1. Nos. 1-11 span the years between 1896-1946. After 1946 Donald Brothers recorded their canvases, linens and tissues all together, by year, within the sample books.

2. Donald, F. Address to the Incorporated Institute of British Decorators, Dundee, 1937, p. 5.

3. Inches are the measurement used throughout this thesis, in keeping with the conception of the weaves in relation to their production widths. See Appendix C for a conversion of inches into centimetres.

4. "Wooll-d" was a process referred to in Canvas No. 3 p. 351.

5. Donald, F. Address to the Incorporated Institute of British Decorators, op. cit. p. 4 and Donald, F. "Furnishing Fabrics. Some Comments of a Manufacturer on his Trade" Address delivered before the Red Rose Guild and Design & Industries Association, Manchester 1935, p. 2.


7. Donald, F. "Furnishing Fabrics." p. 3.

8. Donald, F. "Linen and Jute." The Cabinet Maker, 1932. No prices for these particular canvases exist. However a crepe jute canvas produced for 10d in 1911 suggests the early jute canvases must have been produced at around this price, and probably for slightly less.

9. Donald, F. "Furnishing Fabrics." p. 3. Frank Donald continued by saying Mackintosh "once patted me on the back, and made me feel very proud. I was a young man then." Either this could have been in 1896, just before he went to India, when he would have been a young man of 25, or it could have been after his return in 1904 when he joined Donald Brothers at the age of 33.


11. Donald, F. "Furnishing Fabrics." p. 3


18. In "A visit to Morris' shop", The Craftsman Vol. I, Feb. 1902, pp. 44-45, it was noted that the price of Morris' tapestry "put it beyond the reach of any but the very rich" and that the only place it could be seen by the "people" was in public buildings.


20. I have used "modern", as in the Journal of Decorative Art (1905) description of the interior decor of a café in Bruges, whose walls had been hung with a cream canvas filling and frieze, stencilled with Mackintosh-like roses as "in every way essentially modern".


22. The exhibitions were held between the 8-11th March, 1905 in Edinburgh and between the 19-23rd September, 1905 in Plymouth.


24. Tynecastle Co. was based in Edinburgh and was well known in the late nineteenth century for its production of Tynecastle Tapestry, an embossed linen canvas invented by William Scott Morton and used for wallcoverings. (See Hardie, E. "William Scott Morton" The Antique Collector, March 1988, pp. 71-79). How much connection there was between Donald Brothers and Tynecastle Co. is not known. Elspeth Hardie has found no reference to Donald Brothers in her work on William Scott Morton and Tynecastle Tapestry, but in a letter (Private Letters No. 1, p. 158) dated 12th June 1913
Frank Donald related, "I spent yesterday afternoon in Edinburgh. My principal object in going through was to see the Tynecastle Co. with reference to some canvases. You will see our invoice for certain short lengths in the course of a few days." The letter confirms that business between the two firms did occur and suggests there could have been a connection between them earlier, possibly even in the late nineteenth century: both the firms were to use the same dyers, Francis Stevenson & Sons in Dundee.


26. Indeed there is no doubt that the market for pattern was stimulated by the growth in awareness for design and the design profession. William Sparrow commented on this relationship within his book Hints on Household Furnishings (p. 131), "Patterns are common in decorative-art because designers cannot earn money out of self coloured wall papers and fabrics; and so they have much to say about the pleasure that patterns give". By inference, Sparrow suggests that plain wall papers and fabrics were not promoted or "designed" (5:3).

27. This approach also formed the basis of their success with print in the late 1920s and 30s, when artist designed textiles and flat silk screen printed patterns were produced alongside and in combination with weave texture and colour as the hallmarks of their Old Glamis Fabrics.

28. Stencilled materials required the simplest of equipment to originate, therefore could be produced in small runs and with design of an original nature planned to meet specific and individual tastes and requirements. In comparison roller printed fabrics involved costly equipment, were expensive to originate and had to be produced in "hundreds of yards", with designs "planned to meet the average requirements" if profits were to be made. See Silver, A. "The Modern Stencil and its application to Interior Decoration" The Building News, Feb. 1896, pp. 305-308.


30. Ibid.


32. See White, G. "Stencilled Fabrics for Decorative Wall Hangings" p. 182. White wrote that the use of "ties" "to supply the "drawing" of the design... so that none shall mistake the fact that the result has been secured by
stencilling, and no other process" distinguished Arthur Silver's stencil designs from other "English examples, and from the multi-coloured Japanese stencil patterns."


34. Silver, A. op. cit. p. 305.

35. "Broken" colour was essentially textural colour; "long the joy of the artist, (it) is at last beginning to be appreciated by people of average taste. This truth, brought home to us by a study of the glaze of Japanese pottery, and the apparent accident of dye in Japanese fabrics, is accepted as the governing principle of these stencils. For herein the flat surfaces of monotonous pigment, hitherto ideal of commerce.... are not merely avoided, but the exact opposite is deliberately sought." White, G. Some Notes on Stencilling. Catalogue introduction to Arthur Silver's exhibition of stencils held at Rottmann's 1895.

36. Silver, A. op. cit. p. 305. Hargreaves Smith, who also specialised in stencilling canvas explained; "it is the idea of individuality in treatment by the worker himself that we are especially desirous of bringing into play in the industry". Hargreaves Smith, F. "The Dyeing of Fabric", The Artist and Journal of Home Culture, XXII, Sept. 1898, pp. 31-33.


38. The prints were recorded within a "Block Impressions" book and some show the hallmarks of rimmed dye to the edges of the printed pattern.


41. Their printed linen "Rose Trellis" was used by Heal & Son on the walls of their "Guest Room" at the Paris Exhibition of 1900 (7:3).


43. Ibid.


CHAPTER 7  LINENS: PLAIN AND PRINTED 1898 - 1914

While the textured jute canvases discussed in chapter 6 formed the backbone of Donald Brothers' manufacture in the early period, it is clear from sample book records and other documentary sources that their linens, woven by Lockhart & Sons, formed an interesting and successful part of the business. As a finer and more traditional furnishing material than jute, linen provided a breadth in quality to their range in decorative fabrics which was more readily identified with the artistic in textiles.

This chapter sets out to examine this phenomenon. In section 7:1 through an examination of contemporary literature and Frank Donald's own writings, the various qualities of linen as a material that gained acceptance as an Art Fabric are identified, and understood as those that Donald Brothers was intent on developing in decorative fabric. Section 7:2 then proceeds on to an in-depth examination of the firm's plain linens. No pattern books have survived as a record of their earliest linens manufactured between c 1898-1906.1 For these years, a tantalising incomplete picture of their production exists within the Heal & Son Archive. Heal's Guard Books dating from 1898 onwards record plain, printed and figured linens that were bought from Donald Brothers in these years.2 These records and other publicity documents within the Heal's archive form the basis for the study and dating of the early linens and provide information on the market and context into which Donald Brothers sold in Britain. Other relevant records include an undated counter book, Art Linens; Plain and Figured, identified as dating to c 19123, and the David Tullo Donald letters (1903-1906) contained within the Barclay Lockhart Sample Book.4 This book also holds samples of the firm's early experiments in figured linens which the Heal's records confirm were in production by 1904 (8:1).
After 1906, sample books, beginning with Linens No. 1 (1907-1911) were kept systematically by the firm. These records are held in two separate collections. They provide substantial evidence of Donald Brothers' linens dating between 1907-1914 and the market, in particularly the Craftsman market in America, that the firm supplied in the Arts & Crafts period before the First World War. Therefore in addition to the Heal's publicity literature, it has been possible to use Gustav Stickley's Craftsman publications to identify Donald Brothers' linens in relation to their market in America between the years c1903-1914.

The firm's small surviving range of printed linens is examined in section 7:3. Evidence for this exists in the form of printed samples within the Heal & Son Archive, and photographic records of designs bought by Donald Brothers from the Silver Studios (1906-1908) within the Silver Studio Archive. These sources provide insight into the firm's choice of patterns for their linen range and more understanding of the particular approach to print that had been initiated in canvas (6:3). The firm's figured linens and very rough weaves in linen and crash, which formed part of their range in Art Linens, are examined separately within chapters 8 & 9, respectively.

7:1 Linen as Art Linen

"Linen is truly a peer among fabrics. It is of ancient lineage; is wedded to romance; it gives satisfaction to the artist; it dignifies the home; it is the delight and pride of the house-wife." 

Flax from which linen is woven was described by Frank Donald as an "aristocrat among fibres" because of its fine, "latent strength". First used in ancient times to produce fine linens for dress and interior purposes, flax/linen was in time displaced by other materials for many furnishing uses. "One wonders why," Frank Donald wrote "with its durable, hygienic, beautiful and pleasant qualities, it ever came to be displaced by cotton or
wool". On account of its strength, particularly during washing, linen did, however, remain the pre-eminent material for many house-hold uses. Table-cloths, napkins, towels, sheets and pillowcases were all made from linen well into the nineteenth century; only later in the century did cotton begin to undercut and replace it for these traditional uses. Thus still in circulation as a house-hold material, but rivalled by the cheaper and less durable substitute cotton, by the late nineteenth century the conditions were set for the revival of linen as a decorative material for the home. The House journal writing on "Linen as a Decorative Medium" in 1901 put it this way;

"If we start with tea-cloths, we may perhaps get as far as bedspreads, and possibly some bed hangings, but there are hundreds of women, and men too for the matter of that, who have never been made familiar with the uses of linen and flax, for what may be described as purposes of pure house decoration."

Instrumental to the acceptance of linen as a decorative fabric was the developing Arts & Crafts fashion for traditional materials which combined qualities of purpose and homely comfort with simple beauty, to express the concept of "simple living" within the home (2:3). With the revival in hand-weaving and homespun, craft industries such as those in the Lake District and at Haslemere chose to weave plain serviceable linens, which, "wedded" to the romance of the past, were admired for both their durable quality as well as their simple beauty in texture and colour (4:2). Left plain or embellished with stylised embroidery, appliqué and stencil work, as illustrated by examples already cited (illus 4:9-12), linen provided appropriately useful and decorative furnishings. In addition to table cloths and sheetings, other items such as bedspreads (illus 7:37&53), bed hangings, table runners (illus 10:18), curtains, casements (illus 7:12) and portières (illus 7:27&49), cushions and window seats, screens and wallcoverings (illus 2:21), were all made from this material.
The House in its short article did not list the above uses for linen in house decoration. However, in its discussion it did highlight two important qualities, characteristic of the material. It noted the "cool" and "glistening" qualities of linen and flax and the aesthetic effect these had on the interior.

"Amongst the materials which may be described as 'cool' linen certainly takes a first place. ...The beauty and coolness of such rooms as Messrs Jon Harris's at 25, Old Bond street, themselves bear weighty testimony to the value of the materials named, for be it known, nothing is to be found there that is not linen or flax. The glistening and elaborate embroideries are all done in the one thread, with, of course, many varieties of colour and manufacture."12

On the re-evaluation of linen as the 'latest' in decorative materials by The House, it was its cool and glistening effect that was most admired. Bleached white or dyed to a cool, dignified range of colour, such as the fashionable greys and purples (7:2), this effect was to be further heightened. In contrast to its poorer relation jute, admired for its rugged textural warmth and mellow effect within the interior (6:1), the textural and colour coolness of linen, combined with both its 'aristocratic' associations of fineness and strength as well as its practical durability and hygienic properties, provided a new aesthetic of cool, cleansing restraint within interior furnishings. It was in this spirit that decorators such as George Walton (illus 6:51), C R Mackintosh and his wife Margaret MacDonald (illus 2:21) and retailers such as Heal & Son (illus 7:3) turned to using linen as the material ideally suited to the artistic home of the 1900s. Indeed as Art linen, woven on hand-looms or alternatively on the power-loom, by firms such as Jonathan Harris & Sons and Donald Brothers, linen became the fashionable Art fabric which most successfully met the expressive demands for individuality and truthfulness in material with the artistic requirements of purpose and aesthetic restraint within the Arts & Crafts interior.
In the 1930s Frank Donald wrote on the particular individuality and truthfulness of linen as a material and of its appeal to the artist and artistic public. He revealed how these prized qualities were expressed in power-woven linens through the natural irregularity of the linen yarn and the "robustness" of the heavier weaves.

"In the whole range of linen decorative fabrics there is a subtle, indefinable quality which admittedly appeals to the discriminating, the artistic public. Happily, linen cannot be spun without a certain irregularity, and it is just this irregularity which gives it an individual, almost human character. This feature applies equally to the finest of fine counts of yarn, as well as to those used in certain present-day fabrics, where a single thread is stout enough and strong enough to hang a good sized man. "I find decorative linen fabrics make a special appeal to artists. They rejoice, not only in the irregularity of the texture, but in the slightly irregular way in which linen takes colour. They love, too, the robustness and virility of the heavier weaves, and the unrivalled light and shade obtainable in them. Linen will not efface itself; it refuses all disguise; it will not take a cotton finish, as cotton will take a 'linen finish'. It is individual and truthful - qualities beloved by artists."

Frank Donald's understanding of linen, as a fabric of individuality and truthfulness with special artistic appeal, was clearly founded in his early experience with Donald Brothers and their market for Art Linen. The fashion for individuality expressed through texture, as defined by Arts & Crafts theory and practice (2:1 & 4:1&2), prized this characteristic of hand-woven and power-woven linen materials. Not surprisingly the critical connection that Donald Brothers made, in the pre-World War I period, between their power-woven texture and hand-woven cloth was later identified by Frank Donald. He related how in search of textural effect the firm sought to give their fabrics "the appearance of having been produced on hand looms, rather than power looms"(9:1).

With the above identification, the emphasis placed on the irregularity of linen yarn and the "individual, almost human character" it
gave to a linen fabric, can be studied in the firm's linens in relation to the context of contemporary appreciation and market for hand-woven linen in the Arts & Crafts. It can be understood as infusing, through textural irregularity, a psychological and visual warmth that at times offset the essential "cool" characteristic of linen. This textural warmth constituted an equally important quality of Art Linen in the Arts & Crafts period. Manifest within the firm's plain linens (as well as their rougher, "robust" weaves in linen (9:1-3) through their design choice of yarns, weaves and a more mellow colour palette of ecru, straw and gold, it was also evident in Gustav Stickley's choice of linen and crash (7:2 & 9:1&2), as described in Craftsman catalogues. Through Stickley's documented reliance on the materials of Donald Brothers, including linens (10:1), this quality of textural warmth can be understood as one and the same for both firms. By the matching of Craftsman descriptions to samples of the firm's linens, it is possible to appreciate this warmth in linen, and perceive it in relation to its use within the Craftsman home in America by the mid 1900s (7:2 & 10:2).

Inspired by hand-woven texture, the linens by Donald Brothers therefore exemplify the achievements of one firm to nurture texture in power-woven linens that expressed individuality and psychological warmth within factory manufacture. In colour and texture the linens illustrate how a variety and subtle range in visual temperature was designed by the firm to meet different market requirements for furnishing linens in Britain and America, c. 1898 -1914. Marketed at half the price of their hand-woven counterpart (5:4), in quantities sufficient to supply retailers and public demand for Art Linens (4:4, 7:2), the linens of Donald Brothers demonstrate how the firm were able, through their commitment to industrial methods of design, manufacture and marketing to produce fabrics that were both individual and democratic for the Arts & Crafts interior c. 1898-1914.
The success Donald Brothers achieved with their pre-1907 linens can be ascertained from their evident trading with Heal's and from a letter written by David Tullo Donald to Lockharts that referred to their "novel" linen production:

"With Linens it was different. We practically had the field to ourselves. Our productions were novel and occasionally original. That sold them."15

As an independent assessment, the Journal of Decorative Art review of 1905 acknowledged the recognition the firm received from "the furnishing and decorating trades, for the beauty of their products in textiles of all kinds" (Appendix B). Although the journal did not directly mention linens, it was clearly referring to them, for linens with the jute canvases constituted the basis of the firm's range for the furnishing and decorating market in the early period.

The earliest evidence of plain linens by Donald Brothers is found recorded in the first Heal & Son Guard Book: Cretonnes and Dimities (1898).16 On the second page their 36" Dyed Flax Canvas in green was sampled at 2s per yard; their 35" A84 Linen in peach and pink at 1/6d per yard. Both were evenly and closely woven. Dyed Flax Canvas provided an intermediary in weight between Donald Brothers' jute canvas (6:2) and their much lighter A84 Linen; it probably was used for wallcoverings. The fineness of A84 Linen suggests this material was used for bed hangings and casement curtains. The stocking of these modestly priced linens was at the time when Ambrose Heal took the initiative and began to produce and market "decorative, hygienic and inexpensive Simple Bedroom Furniture" (illus 7:1).17 The illustration of this furniture with woven texture background provides a graphic demonstration of the connection between the plain aesthetic that Donald Brothers manufactured in canvas and linen and Heal's early plain furniture.
The specific connection between the firm's plain linen and Heal & Son is demonstrated by Donald 36" T Linen, launched exclusively as Heal & Son's own Casement Flax. Fine, but more loosely woven than A84 Linen, Casement Flax was sold in natural at 1/3d, cream and white at 1/6d, as well as in a dyed range of colours at 2s per yard; dark and light blue, dark, leaf and apple green, yellow, purple, red (rose) and brown. Heald's brochure entitled Casement Curtains (1901) publicised Casement Flax with small swatches of cloth (illus 7:2), describing it as "a new material only to be obtained of Heal & Son":

"The want of a material which would drape well in the short lengths demanded by casement curtains, and which at the same time was not expensive has led to the production of Casement Flax, which although pure linen, is not harsh, but always hangs in soft folds: it wears well and washes well, and great care has been exercised in selecting the fastest of dyes, only those being used which have withstood severe tests of strong sunlight.
"It will be found that "Casement Flax" i) Hangs in graceful folds ii) Wears well and keeps its colour iii) Is very inexpensive."
Illus 7.2 Samples of Donald Brothers' T Linen as Heal's Casement Flax, Casement Curtains booklet, 1901.
From the publicity it is apparent that Donald Brothers power-woven T Linen met Heal’s requirements for decorative simplicity, durability and economy in their merchandise. The unstated choice of linen accorded with the "Hygienic Principles" of their simple bedroom furniture. Aesthetically it was Donald Brothers' use of a slightly looser weave that enabled the decorative soft, graceful drape in this linen. The looser weave, anticipated within the illustrated background for Heal's furniture (illus 7:1), also gave the irregular nature of the fine flax yarn space to be perceptibly asserted within the cloth. This provided an all-over irregularity of texture which undoubtedly appealed to the discriminating, artistic public when highlighted in translucency against the light of the window as curtains (illus 7:51), or framed within the rich textures of the casement woodwork (illus 7:3).

Within the Heal's 1904 brochure for casement curtains, a drawing of a casement window furnished with plain Casement Flax for the short curtain blinds and printed Casement Flax for the long curtains (illus 7:3),
predictably did not reveal this subtlety of textural irregularity. Only with the inclusion of various sampled casement materials was this particular quality of linen highlighted (illus 7:4).

Instead the illustration focused on the textural drape and the pattern of this material within the window and woodwork casement surround. Such patterned fabrics in linen and cotton were indeed stocked by Heal's, and some were produced by Donald Brothers (7:3). However, from the literature and the Heal's Guard Books, it is evident that natural and dyed Casement Flax was the particular speciality and most popular casement material sold by Heal's. Between 1901 and 1910 Heal's constantly re-stocked T Linen; in 1902 Natural (No. 3659) was re-stocked practically each month in 238 yard lengths with a record of 733 yards in June of that year.

By 1911 Donald Brothers' exclusive hold on their Heal's business in Casement Flax, already under pressure from competitors such as Ireland & Wishart by 1908 - gave, and was taken over by Alexander Morton & Co. In 1912 a Morton & Co. linen was launched as Heal's "Sphinx" Casement Linen and directly replaced Donald Brothers' T Linen in

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quality and colour range. The reason for this was that "Sphinx" Casement Flax - "Heal & Son's Exclusive Speciality" - not only hung in "graceful folds" but was also offered in the "first range of guaranteed fast colours". Thus, Morton & Co.'s pioneering work with vat dyes (marketed under the brand-name "Sundour", "guaranteed unfadeable colour"), combined with their determined promotion of these dyes within the market for plain piece-dyed fabrics, is shown in this documented example to have adversely affected Donald Brothers' own original manufacture of plain linens and their business established with Heal's.

Direct competition from Morton & Co. for Heal's business was also experienced by Donald Brothers with two others of their casement linen fabrics; Donald 92 T and Donald 108 K (1908) were both substituted by Morton & Co. linens in 1912. This competition was probably more widely experienced by the firm and must undoubtedly have contributed to their general trading difficulties between 1912-1914. Frank Donald continued to display in the 1930s a piqued competitive edge with Morton & Son, when discussing the issue of guaranteed fast colour (4:4). He believed Morton & Co.'s work with vat dyes effected a decline in the market for subtle variation in colour and thus Donald Brothers' own business in Art colour (4:4). It also placed the firm in the dilemma between responding to a market demand for guaranteed colour or pursuing their original Arts & Crafts "study of colour", which aimed to produce "real beauty and variety of colour" in a fabric.

To appreciate this pursuit and the "real study" Donald Brothers made of colour is not easy from an examination of their linens within the Heal's Guard books. Dispersed amongst those produced by other firms, their samples do not provide an accumulative experience of colour, in which one subtle shade is set off by another. Within the counter-book Art Linens: Plain & Figured, however, sampled colours in 50" A 61 Linen - a
standard fine linen similar to T Linen and mentioned in letters of 1905—illustrate the wider range and clarity of colour Donald Brothers offered in their stocked Art Linens before the war.

Produced in two pinks, three reds, six greens, three blues, three helios-purple, white, natural, silver grey, stone, orange and brown (illus 7:5), the firm offered a distinctly wider range in colour to their customers than Heal's chose to stock in their Casement Flax. Another early plain Art Linen sampled within the counter-book was 50" A98 PD Linen. Woven with heavier yarns and visibly more textured than A61 (illus 7:6), this
fabric was offered in a similar wide range of colours, and stocked in a range of eighteen colours by Brown & Beveridge's of Glasgow, and in twenty colours by James McCreery of New York.32

An examination of the colours produced in A61 Linen and A98 PD Linen demonstrate the subtlety of their variations and contrasts. The greens were tonally close - varying from a pale apple green, grey/green, blue green, moss green to mid olive green - and provided a range in "naturalistic" greens as a gentle foil to the contrasting pinks and beautifully vibrant orange and helios shades (illus 7:7). In addition, the prominent neutral shades (illus 7:8 see overleaf), far from being non-colour, were important and emphasised the cool nature of linen as a material.

To develop such subtle variation in colour was a recognised design objective of Donald Brothers. Their search for beautiful colour and willingness to dye up particular shades for customers was recorded in letters and Linens No. 1. These records demonstrate the firm's sensitivity to almost imperceptible differences in colour and their individual, interactive interpretation of the "discerning artistic" market for colour before the war.

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Illus 7:8 Neutral Shades in Donald Brothers' stocked range in Art Linens.

Illus 7:9 Dyed to order shades of grey and purple in 50" A 61 Linen.
It was at the retailer Brown & Beveridge's request that the firm first made silver grey in 36" Dyed Flax CC\textsuperscript{33}; within Linens No. 1 four other variations on the theme of grey were dyed to order in the same material in 1910. In 1909 two pale purple greys dyed to "Shand Kydd's Grey shade", flanked by a purple dyed up for B Burnet & Co. of London, were all produced in A61 Linen (illus 7:9). This concentration on the silver greys, purple greys and purple illustrates the preoccupation of the firm and their British customers with a cool, regal spectrum in Art colour for linen. The part Brown & Beveridge of Glasgow played in the instigation of silver grey suggests the importance of the Glasgow School in developing such colour trends. Both grey and purple linens were used by Mackintosh and MacDonald in their white interiors of the early 1900s, and a detail from the fireplace (illus 7:10) within the drawing room of Hill House (1902) demonstrates their exploration of these colours in other similar cool materials such as tile and steel.

\textit{Illus 7:10 Tiling in greys, pinks and purple, fireplace, Hill House by M MacDonald & C R Mackintosh., 1902.}

In contrast to the cool colours essentially identified with the British market in Art Linen, at the other end of the temperature scale, a warmth of colour in linen was also sought by Donald Brothers and their customers.
This can best be seen in 36" A84/No 20 Dyed Linen, which in 1909 was dyed to shades of brown, gold, cream and orange for Gustav Stickley (illus 7:11).34

These colours demonstrate the very different quality of colour harmony required by Stickley in furnishings for his Craftsman interiors, where the warm tones of nature were to predominate in the woodwork, walls and furniture (10:2).

Studied within the Craftsman context, A84/No 20 Dyed Linen also illustrates how the 'temperature' of a colour could be enhanced by the weave of cloth and, through an interaction with light, used to heighten the
visual warmth within the interior as a whole. As discussed with T Linen, the use of slightly loose weave enabled Donald Brothers achieve a soft draping quality in this casement linen. Likewise A84/No 20 Dyed Linen woven with fine linen yarn in a much looser weave, giving an effect of fine scrim\textsuperscript{35}, produced an even softer handle and drape in linen fabric, that visually enriched the mellow warmth of the dyed fabric. When hung as casement curtains against the window (as Gustav Stickley described loosely woven, scrim linens being used within the Craftsman scheme (illus 7:12 & 10:8) (10:2)), the daylight shining through the brown/gold/orange linen enhanced the material’s translucency of texture while at the same time intensifying its material colour. In this manner Donald Brothers scrim linen provided a heightened visual warmth and "the effect of a glow of sunlight in the room".\textsuperscript{36}
The effect of texture on colour, both in terms of material quality and weave, is critical to the discussion of the firm’s exploration of colour and for a more sensitive understanding of the Arts & Crafts market in plain materials. Two comparative examples illustrate this. The first, an extreme comparison between two shades of pale green produced in 48" Dyed 247 Embroidery Linen (1906) and 5W Antique Canvas (illus 7:13),

 Illus 7:13 Comparative samples in green: 48" 247 Embroidery Linen & 54" 5W Antique Canvas c 1906.

demonstrate how in the former, the clean quality of the linen fibre, the cool quality of the linen fabric and the glistening finish evident in its surface provided a clarity of colour in this embroidery linen, just as the rough quality of the linen/jute fibres and soft absorbent nature of Antique Canvas stimulated a mellow warmth through irregularity of colour in a similar pale green shade. The second, more subtle comparison between the fine woven A61 Linen and heavier A 98 PD Linen (illus 7:14), illustrates

 Illus 7:14 Comparative samples in blue: A 61 Linen & A 98 PD Linen.
similar, though less extreme contrasts. The smooth, clean and closely woven hard surface of A61 provided greater overall evenness, clarity and thus coolness of colour in this blue linen compared to the softer, more yielding textural irregularity of woven surface in A 98 PD Linen, which in contrast provided tonal variation and a warmth of blue in this linen.

Conversely, the effect of colour on texture, both in terms of enhancing or alternatively subduing texture, was also explored by the firm. This can be demonstrated by their Dyed 247 Embroidery Linen (illus 7:15).

Illus 7:15 Stocked colour range in 48" Dyed 247 Embroidery Linen, 1906.
The beautiful pale shades of cream, pink, straw, blue, yellow, and greens dyed to "Harwin's shade(s)", as well as a pale purply grey dyed "as Sanderson's Wallpaper cutting Oyster Grey", interacted with and enhanced the cool glistening quality of this linen material.\(^\text{37}\) In contrast, darker 'tapestry' shades of colour introduced in 1909, such as deep blue, rich gold, red and dark green, tended to dominate over the fine coolness of this linen and dampen its glistening quality of texture. The range of colours in this embroidery linen, therefore, provided for different market needs; for cool clear colour in a fine glistening texture on the one hand and for deeper tapestry colour in a fine matt texture on the other.\(^\text{38}\)

The firm's exploration of the interplay between colour and texture in plain weave can also be appreciated in their Bloom Linen, an undated linen which, most probably, was originated in the early 1900s.\(^\text{39}\) Sampled in two qualities within the counter book Art Linens; Plain & Figured, Bloom Linen was woven 'shot', with a different coloured warp to weft. This highlighted the plain weave construction of the cloth and produced a shimmer and play of colour on its surface. The shimmering quality was particularly evident in the fine, closely woven Bloom Linen, sampled within the counter book (warp to weft), in pink/light green, green/white, pink/white, pink/yellow, green/pink, green/blue, pink/light tan, blue/rich brown (illus 7:16).

Illus 7:16 Stocked colour range in 50" Bloom Linen, c 1900-1902. Continued overleaf.
Illus 7:16 Continued. Stocked colour range in 50" Bloom Linen, c 1900-1902.
Weave construction on the other hand was more overtly expressed in the heavier weight and later **No. 2 Bloom Linen**, sampled in grey/orange, green/rich brown, old red/bottle green, deep turquoise blue/cobalt blue, grey/light grey, and deep rose/rose (*illus 7:17*).40

Thus in **No 2 Bloom Linen** a mid-grey warp crossed with a light grey weft (*illus 7:18*) produced a slight textural variation and shimmer of tone for the eye in what looked like a plain coloured linen, highlighting through subtle tonal contrast the physical textural irregularities of the yarns and weave.
In another grey/orange shot sample (*illus 7:19*), contrasting colour produced a bolder variation in optical texture, which, dominated by the orange, emphasised both textural irregularities within the yarn as well as the dynamic action of the irregular stubbed yarns as they interwove and visually streaked across one another.

This quality of directional construction, particularly evident in No. 2 *Bloom Linen* because of the use of heavier, irregular yarn, had by 1910 become an important theme of development in the firm's work. Consciously developed within the jaspés, stripes and robust weaves in linen and crash as well as in the rough textures in canvases, this quality will be examined separately in Chapter 9. Underlying the attention paid to directional construction was Donald Brothers' understanding of the potential of irregular yarn to design texture and achieve a quality in industrial manufacture similar to that produced on the hand-loom.
When exactly the firm began to emulate consciously a hand-woven look in their linens is difficult to establish in the absence of working sample books before 1907. Their plain linens, such as A61 and A98 PD Linens (illus 7:20), because they were woven with yarns, which however finely spun produced irregularity, highlighted the weaving process as construction and provided variations in woven surface. It was such texture that produced the "individual, almost human character" in plain linen associated with hand-woven linens (4:1).

To place diverse samples of hand-spun and hand-woven linens, a fragment of sail cloth (18th century), a Langdale linen (c 1890s) and a Spinnery shot linen/silk fabric (1896) (illus 7:21) next to Donald Brothers' power-woven A61 & A98 PD Linens (illus 7:22) illustrates the similarities between the two. Visually it is difficult to perceive differences. All the samples employ yarns of varying thickness which draw the eye to irregular areas of concentration and to follow the constructive direction of the yarns as they accommodate and traverse each other.
a) 18th century sail cloth.

b) Langdale linen, enlarged.

c) Spinnery linen/silk, enlarged.

Illus 7:21 Samples of hand-spun and hand-woven linen fabrics.
When set off against the light, as A98 PD Linen would have been in use as curtains, this irregularity and constructive direction is illuminated beautifully (illus 7:23). Likewise, by combining contrasts of colour in shot weave this effect is consciously emphasised in both the hand-woven Spinnery sample (c 1900) (illus 4:5) and the power-woven No. 2 Bloom Linen (illus 7:24).
The earlier Bloom Linen produced a similar, but finer textural imperfection and can be further considered within the context of appreciation for hand-woven linens. By the early 1900s, when Donald
Brothers originated this **Bloom Linen**, both The Spinnery and The Haslemere Peasant Industries also produced shot linens. Those made at Haslemere and worked into Peasant tapestry would have been known to David Tullo Donald (5:1). By 1904 Gustav Stickley's *The Craftsman*, influenced by English "Peasant Embroidery", advocated a similar use of shot linen for appliqué needlework worked on *Craftsman Canvas*. The Craftsman's description of their "imported" shot linen as "bloom" linen, a name used thereafter to describe this quality of linen, suggests that Stickley's bloom linen may have been by Donald Brothers. Indeed Stickley's reliance on materials "imported from the Old World" for Craftsman Fabrics coupled with the prominence of Donald Brothers within his business records as a supplier of *Craftsman Canvas* and linens by 1906 (10:1), demonstrates - unless proven otherwise - that Bloom Linen produced by Donald Brothers was *Craftsman "Bloom" linen*.

Considered within the Craftsman context, Stickley's description of **Bloom linen** provides insight into the contemporaneous appreciation for the textural colour and 'shimmer' of this fabric.

"'Bloom' linens are so called because of a charming play of surface color, produced by a clever trick of the weaver, the warp and woof being contrasting colors. "The use of these is confined almost entirely to appliqué, as the two-toned effect caused by the different colors of warp and woof gives a shimmer that is charming when it is seen as part of design applied upon some rough lustreless material. One color is bright golden yellow, woven so that the accompanying red forms merely a darker undertone. In another combination of red and yellow the red predominates, giving the material the effect of changing tones of russet. Then there is a combination of dull rose and green, one of blue and green and one of red and dark blue which gives the effect of deep reddish purple."43

Through the close attention Stickley paid to the individual quality of different colourways, which occasionally tie in with Donald Brothers' own stocked colours, it is possible to admire through his eyes the "darker"
undertone" of green in Donald Brothers' predominantly pink Bloom Linen and conversely the light shimmer of the pink in the predominantly green version; the almost imperceptible "effect of changing tones" in the pink/light tan colourway and the brownish purple effect in the dark blue/rich brown Bloom Linen (illus 7:16). With such detailed appreciation, a sensitive historical understanding of the Arts & Crafts interest and market for the firm's 'plain' power-woven materials is established. Stickley's admiration for the shimmering texture of Bloom Linen for use in appliqué worked upon "some rough lustreless material" such as Craftsman Canvas illuminates how important were the different textural and colour qualities of materials by Donald Brothers, and those produced by hand-weavers, to the realisation of the appliqué needlework carried out by Arts & Crafts practitioners.

In the Haslemere Peasant Tapestry of 1896-97 (illus 4:10&12), shot linens were cut and appliquéd to maximise subtle contrasts in woven texture and colour. The lustrous quality of the grapes were rendered against the matt expanse of leaves, figures and ground. In the appliquéd bedspread, worked in the abstracted Glasgow style by Jane Younger for the Hill House (illus 7:25), shot linens in shades of heather and green were
used to assert decorative texture and colour in surface pattern, providing contrast to the white linen ground of the cover. Finally, in American Craftsman Needlework (1903-1916), identified as being worked in Donald Brothers’ Bloom Linen on their Antique Canvas, appliqué work was designed to capitalise on the rich textural contrasts between the fineness and shimmer of Bloom Linen and the rugged lustreless absorbency of Craftsman Canvas. Black and white photographs of Craftsman Needlework, such as the Orange design pillow (illus 7:26) worked on warm reddish brown Craftsman Canvas with appliqué of golden Bloom Linen outlined in olive floss, illustrate something of this textural contrast.

Positioned within a context of use these contrasts in appliqué work contributed to the overall decorative scheme of the Arts & Crafts interior. Goodyer’s of London, retailers and furnishers in artistic fabrics, described as a “central depot for the distribution of textile fabrics of home manufacture”, were also an outlet for factory-woven materials manufactured by Donald Brothers. Their use of appliqué hangings within the music room interior (1905) (illus 7:27), in which the ground fabric relates tonally and texturally to the wood panelling, as background, with the appliqué in linen relating to the decorative detailing in inlay and
lead work, as a highlight, demonstrates how hand-woven and Donald Brothers' power-woven linens were used.

In America, the proven use of the firm's materials in the Craftsman pillow, placed on the large Craftsman willow settle upholstered with Craftsman Canvas (illus 7:28), demonstrates how textural contrasts

Illus 7:27 Appliquéd portière in music room by Goodyer's, 1905.

Illus 7:28 Craftsman willow settle upholstered in Craftsman Canvas with appliquéd pillow (see illus 7:26).
reverberated from the appliqué cushion to the upholstery, to the lustrous willow settle. The willow finished "to a golden brown" in which there was also a "suggestion of spring-like gray and green" was indeed like the shot bloom of the appliqué linen. It provided surface "sparkle" like a "growing tree as it becomes lustrous with the first stirring of the sap". In this spirit of textural exploration through juxtaposition of material and colour/texture the materials of Donald Brothers were appreciated and came alive in use.

It is in this way that Arts & Crafts Needlework, worked on portières, pillows, table runners and bedspreads, established an important use of the firm's materials in furnishings for the Arts & Crafts interior. As well as Bloom Linen, other plain linens such A61 and A98 PD Linen taken up by Stickley and McCreery may also have been used for embroidery work, although this has not been proved. Only because of its name, No. 247 Embroidery Linen, dated to 1906, can a precise record and date be cited, as proof of the firm's own acknowledged participation in the market for embroidery linen at this period. By 1910 other linens, such as 68" A84 BFB Embroidery Linen and 68" AAE Twill Embroidery Linen, continued this trend. These were taken up by Gustav Stickley and James McCreery & Co. respectively and again demonstrate the appeal of linens provided by Donald Brothers for Craftsman Needlework in America in the early years of the twentieth century (10:2).

The importance of both the American market and the Craftsman context for the firm's plain linens is documented by the names of customers such as Gustav Stickley, J P McHugh & Co., James McCreery and others in Linens No. 1. These names, which gain particular prominence in c. 1909/1910, reveal how The Craftsman ideal in simple furnishings was at its height in these years. They also suggest the inspirational market rapport (5:3:1) Donald Brothers enjoyed with their plain linens in America, at a time when the firm's British market was under pressure from competitors and
the shift in taste towards period styles in furnishings (7:3, 8:3). Records establish that in 1909 **A61 Linen** was "dyed to order" in a yellow shade for Gustav Stickley, and another linen, **50" 222 Linen** (similar in weight to **A98 PD Linen**) was also dyed for him in green and gold. **A98 PD Linen** itself, stocked in a wide range of colours by James McCreery & Co. in 1910, was also taken up in a variety of colours by other American customers such as Sterling Welch & Co. of Cleveland, Ohio (in tan and green, 1909); Carson, Pirie Scott & Co. of Chicago (in clear pale shades of blue, yellow, terra, 1910); Marshall Field & Co. of Chicago (in deep gold and drab); and Edwin C Foss of Boston (in deep gold and old rose/terra).49 A lighter weight linen **36" Dyed Unilins** (1909) (**illus 7:29a**) was likewise taken up by Sterling Welch & Co. in green, light blue, rose, yellow and cream. This linen or **36" S.K.I. Unilins** (**illus 7:29b**) woven with an irregular slubbed yarn may have constituted Gustav Stickley's own **Dyed Unilin**, which was recorded within his Inventories as stocked in brown, blue and dark blue by 1909.50
The fine casement scrim A84/No 20 Dyed Linen (illus 7:11) taken up by Stickley in the same years of 1909, 1910 and 1911 was also ordered in blue and shot orange/drab by McHugh & Co., while 36" Dyed Linsell (illus 7:30 see overleaf), an even lighter weight in linen casement scrim (entered immediately after A84/No 20 Dyed Linen within Linens No. 1) was likewise ordered by Stickley in 1910 in blue, two shades of gold brown, green, and cream, as well as by McCreery in the lighter and brighter shades of rose, ecru, brown, and two shades each of green, blue and cream. Indeed Linsell and the related, slightly heavier A84/No 20 Dyed Linen would together appear to have constituted Gustav Stickley's own Linsell Casement Fabric, (illus 7:31 see overleaf) offered in two weights within his Craftsman Furniture catalogue of 1910. In quality, colour and date the fabrics described by Stickley corresponded exactly with Donald Brothers':

"Linsell is a sheer, loosely woven fabric made of pure linen threads. We carry it in two weights, one as fine and thin as scrim and the other woven quite as loosely, but of heavier thread. This fabric admits the light freely, as the heavier weight is of such an open
weave that it is as translucent as the other. The finer woven quality comes in tea color, light wood brown, delft blue and leaf green, and the heavier weave in straw color, coffee color, copper color and wood brown."\textsuperscript{52}
McCreery's choice of colour in Linsell was chosen in reference to another related linen, 36" 3A Antique Linen entered directly after Linsell in 1910 within Linens No. 1, and also taken up respectively by McCreery and Stickley in 1910 and 1912 (illus 7:32).54

This sturdy linen was loosely woven with a 2-ply twisted linen yarn, and as a result achieved a much heavier weight in linen than either A84/No 20 Dyed Linen or Linsell. Beside the sampling of 3A Antique Linen, a note reading, "For previous Nos. see other key"55, suggests other qualities in Antique Linen were produced before 1906. Indeed it is probable that Antique Linen was one of the earliest linens, originated and conceived by Donald Brothers in relation to their successful Antique Canvas. As a co-
ordinate with Craftsman Canvas on the one hand and the finer casement Linsells on the other, Antique Canvas must also have been Gustav Stickley's own 36" Antique Linen, which he listed within the 1910 Craftsman catalogue immediately after Craftsman Canvas and before Linsell Casement Fabrics. In this catalogue Stickley's craftsmanly appreciation of Antique Linen's textural irregularity, translucency and texture/colour dependency once more clarifies the manner in which the linens of Donald Brothers were perceived and used as material in the Craftsman period.

"This material is particularly good for fairly heavy window curtains where it is necessary to give a warm tint to the light admitted into the room. The weave is loose and coarse and the thread loosely twisted and irregular, giving not only an unusually interesting texture, but also a quality of translucency that produces a richer and deeper tone of color when the light shines through it than appears in the piece. The color that we find best for curtains is a rather deep straw, that takes on almost an apricot tone when the light shines through it, giving the effect of a glow of sunlight in the room."

The identification of Stickley's Bloom Linen, Antique Linen, the Linsell Casement Fabrics and probably Unilin, as Donald Brothers', in addition to their Antique Canvas as Craftsman Canvas, provides a clear picture of Stickley's dependency on the firm's textures and colours for his fabrics. This dependency and its meaning for the Craftsman interior, as well as its inspirational effect on Donald Brothers' development of texture as an object of design in other linens and canvases, is studied in greater depth in chapter 8, 9 and 10. It is only because of the special attention Stickley paid to the describing of Craftsman Fabrics, in terms of texture and colour and their effect within the interior, that a substantial surviving record of the appreciation and use of the firm's plain fabrics within the Arts & Crafts home exists.

This of course does not diminish the importance of the Heal & Son records and their connection with Donald Brothers to this study. Their
records provided considerable insight into this innovative firm's earlier use of linens produced by Donald Brothers in Britain. They demonstrated how Heal's, on launching their simple furniture in 1898, stocked the firm's plain linens as sympathetic co-ordinating fabrics, and in 1901 made one them their speciality in Casement Flax. In a similar way the printed linens by Donald Brothers are also identified significantly with the developing range in Heal's interior furnishings (7:3). However for this study in texture and colour, it is necessary that these more visually assertive printed linens do not eclipse the subtlety of the firm's innovative work with their simple plain linens.

Through the examination of the firm's aesthetic in plain weave it has been shown how their linens were designed to meet the demand for simplicity, hygiene and economy with artistry, expressed in texture and colour, for the Arts & Crafts interior in Britain and America. Their weaves ranged from close to open woven texture. In this way they provided a hard or soft handle in linen, which, glistening or matt in surface, was combined with endless variations in colour to produce a range in visual temperature that varied from cool to warm. With such a range in visual temperature the linens by Donald Brothers were identified with the different artistic requirements in furnishing fabrics for the interior in Britain and America. Their particular qualities of texture and colour were ideally suited to the Arts & Crafts appliqué needlework. This was shown to have been worked with both hand-woven and Donald Brothers' power-woven linens. By comparing a hand-woven linen with the firm's factory manufacture it was concluded that it was visually difficult to distinguish one from the other. Irregularity of texture produced by the linen yarn and its expression in directional construction on the surface of the cloth was the distinguishing feature of them both. Interrelated with colour, either as a shot effect or as a piece-dyed linen, this irregularity was
enhanced. This subtlety of inter-active exploration between texture and colour, being the distinguishing feature of the firm's work with Art Linens, was to characterise their future developments in fabric, and encourage them to emulate hand-woven texture in the conscious design of expressive irregularity. It also distinguished their particular range in printed linens.

**7:3 Printed Linens 1900 - c.1909**

Between 1900-1909 Heal & Son stocked in addition to the plain linens, a small range of printed linens by Donald Brothers. The Heal's records form the only evidence of the firm's printed linens, which, though evidently short-lived, were remembered with affection by Frank Donald in the 1930s:

"There was a modern movement in the early years of this century. At that time we had, what we considered, an interesting range in printed linens, - it consisted, for the most part, of small, conventional designs."**58**

Recalled in relation to the modern movement, the printed linens recorded by Heal's side by side with other printed fabrics produced by innovative manufacturers such as Turnbull & Stockdale and G P & J Baker, reveal Donald Brothers' own position as a producer of printed textiles within this modern movement in design.**59** They demonstrate the firm's assured commitment to abstracted plant form and stencil-like flatness in pattern, which at times was innovative in its stark simplicity. Produced under the design direction of David Tullo Donald, it is not known whether the early designs were originated by David Tullo himself or were bought in by him from freelance designers of the day. Some of the designs have been tentatively identified with designers, whilst surviving records from the Silver Studio for 1906-08 demonstrate that in the years immediately after David Tullo's death, Donald Brothers turned to this studio for designs. Who commission-printed the linens for the firm is likewise unknown; references to Donald Brothers in the Swaisland Works' records peter out in
1900 (6:4), and not until the 1920s does evidence indicate that Wardle & Co. became Donald Brothers' printers. Although conceived as stencil pattern, evident pin marks and joins in the green printed version of Rose Trellis indicates that this pattern and probably all the linens stocked by Heal's were block printed.

Rose Trellis (1900) (illus 7:33)\(^6^0\) was the first of the firm's printed linens to be stocked by Heal's. It, like Casement Flax, demonstrates the firm's particular standing and connection with Heal & Son at this date. Heal's publicity literature reveals that Rose Trellis was "specially designed" and extensively used within their Guest Room exhibited at the Paris Exhibition of 1900 (illus 7:35).\(^6^1\) Its design (approx. 4 1/2" repeat), which was initially entitled "Rose Ogee", displayed a simple stylised pattern showing a rose surrounded by an ogee shape made of leaves. Although conceived in flat shapes, the design retained a degree of naturalism and movement, with the rose petals cupped and the leaves twisted and turned to provide a sense of form and direction. Stocked as a one-colour print in blue, red, or green on a natural linen ground at 1/11d

*Illus 7:33 Rose Trellis, printed linen designed for Heal & Son, 1900.*
per yard, and as a discharge print in green (illus 7:34) at 2/3d a yard, Rose
Trellis was also produced in 1901 on neutral and dyed Casement Flax in a
variety of colour combinations (print/ground; dark blue/green, dark
blue/light blue, brown/green, red, green, blue/natural, and discharged
white/natural) as a print co-ordinate to the plain Casement Flax launched
in that year.

Produced as a discharge print of white on an apple-green ground,
the linen was used as a wallcovering and chair upholstery cloth (illus 7:34),

*Illus 7:34 Small chair & easy chair upholstered in Donald Brothers’ Rose Trellis linen in white and green. Furniture
exhibited within Heal & Son’s Guest Room, Paris Exhibition, 1900.

- in decorative contrast to the cherry coloured carpet and curtains - within
the Heal’s exhibit in Paris and in the following year at the Glasgow
International Exhibition. The exhibited room (illus 7:35) was designed by
the architect Cecil Brewer, with furniture by Ambrose Heal (illus 7:36 &
37), and marked the emergence of a distinctive Ambrose Heal style,62
visually richer than Heal’s previous work.63
Illus 7:35 Heal & Son's Guest Room designed by Cecil Brewer, Paris Exhibition, 1900.

Illus 7:36 Polished oak wash stand with pewter and ebony inlay, designed by Ambrose Heal, Paris Exhibition, 1900. (Illustration continued overleaf).
The choice of Donald Brothers' Rose Trellis was, therefore, of significance. The fumed and polished oak furniture (illus 7:36), inlaid with decorative pewter and ebony motifs of diamonds, checks and ogees,
displayed against walls decorated with white painted wood work panels in-filled with Rose Trellis, demonstrates how this richness of effect was extended to the room as a whole, through the use of the firm's fabric. As a "specially designed printed linen", Rose Trellis was probably exclusively designed and made for Heal's, to co-ordinate loosely with the ogee motifs inlaid in Ambrose Heal's furniture. Thus unlike the Haslemere Peasant Tapestry bed hangings and coverlet within the exhibit (illus 7:37), which in decorative design and effect were a focus within the room and have remained distinctly recognised ever since as such, Donald Brothers' linen was designed and merged as a unifying all-over decorative effect within the Heal & Son exhibit as a whole.

Perhaps in anticipation of the exhibit of this room at the Glasgow International Exhibition of 1901, the firm's next printed linen, Donald 5042-6 (illus 7:38), stocked by Heal's in January 1901, revealed a shift in print design towards greater stylisation and abstraction, similar to that of the Glasgow School and popularised by the Glasgow Exhibition of 1901.
Produced as a two-colour print on linen in five colourways, this fabric retailed at 2/9d a yard. The design sold consistently between 1901-1905, illustrating the modest public demand for such abstracted patterns in England, as well as Scotland, in the first few years of the twentieth century. The design of this linen was made up of a semi-circular group of flat, geometrically abstracted flower heads - printed blue with green centres - supported by semicircular stems and crowned by a square form made up of four more flower heads - printed in green, with blue centres. The positive white of the design, achieved by fully activating the ground of the cloth as in stencil patterning (6:4), provided the line drawing within the design, and emphasised, as ground and space, the nature of the abstracted shapes and flatness of this printed pattern. Thus in contrast to Rose Trellis, where naturalistic detailing lingered, in Donald the flower heads and stems were rigorously abstracted and compressed within a hidden geometry of the square and semi-circle to energise shape and activate the flat ground of the cloth, in a manner similar to that of the Glasgow style. Indeed with these two diverse patterns, it can be suggested that if Donald Brothers bought designs from the most distinguished designers of the day as Pevsner indicates they did (5:3:1), Rose Trellis' stylised naturalism could be identified with C A Voysey's hand, the treatment of the rose being like the rose in his later design for Morton & Co. (1929) (illus 7:39), while

Illus 7:39 &40 Comparative textile designs by C A Voysey, 1928, printed linen upholstery by G Walton, c 1901.
the energised, geometric abstraction of Donald 5042 is suggestive of George Walton's contemporaneous patterning in linen upholstery used within the sitting-room at Ault Wharrie, Dunblane (c 1901) (illus 7:40).

Another printed linen, designed with an abstracted, geometric flower pattern, was Donald 5155 (illus 7:41), stocked by Heal's in 1902-1905.70

Produced as a one-colour print in a number of colourways on Donald T Linen (Heal's Casement Flax), the print illustrates clearly the modern feel for artistic design that characterised the printed fabrics of Donald Brothers at this date. Like other printed designs stocked by Heal's in 1902/03, such as Turnbull & Stockdale's 6570 & 5944 (illus 7:42), the design extolled the rigid geometric abstraction of plant form, through its uncompromising flatness and its articulation in space. In addition, as a print on linen, all these qualities of the design were used to emphasise the
surface texture of the woven ground, to ensure that texture itself became an integral part of the design in this printed linen.

This sensitive awareness of the inter-relationship between pattern and surface texture evident in Donald 5155 was to characterise Donald Brothers' distinct approach as weaving manufacturers to originating printed linens, and had been initiated in their canvases (6:3). It meant that not only was pattern designed to activate surface texture, but also, and conversely, that material texture was used to activate printed pattern. In Frank Donald's opinion it was the effect of the material texture of linen on the actual printing of a design that made a

"Printed Linen... in a class of itself, pre-eminently an aristocrat among printed fabrics. It may be asked why this is so; undoubtedly the answer is, because of its inherent, its characteristic texture, which so wonderfully helps the artist printer in obtaining subtle and charming effects."72

Subtle irregularity in textural colour crucial to the artistic appeal of plain dyed linens was therefore also critical to the printed linens bought by Heal's. Examining the printing of Donald 5042 (illus 7:38) and Turnbull 5944 (illus 7:42) demonstrates this. The texture of linen was used by both these innovative manufacturers to interact visibly with the dye and produce irregularity; to "impart to mechanical work all possible accident of individual expression", as advocated by Arthur Silver in the artistic use of the stencil (6:4). In this way it was not only the patterns of these printed linens, but also the manner in which they were interpreted into printed fabrics, through the subtle interaction between pattern, material texture and printed colour, that constituted their originality in design and made them artistic and appealing to the discriminating artistic public at the time.

The two other of the firm's printed linens stocked by Heal's in 1902 were Donald 5158-60 (illus 7:43) priced at 2/6d a yard and reduced to
2/3d when restocked in 1904/5, and **Donald 5117**, entitled "The Bell" (*illus* 7:44), priced at 3/- a yard.73

The former design, produced as a discharge print in white on red, pale olive green or blue ground, was conceived in terms of flat shape, but with some naturalism in the depiction of plant form. This design is once more suggestive of C A Voysey's patterning; the stylised plant growth is similar
symmetry and naturalism to his 1907 wallpaper design (*illus 7:45*), and the
tufted grasses, to those depicted within his later nursery chintz (1929) (*illus 7:46*).
Conversely, **The Bell** was closer to the Glasgow school in design conception, through the exploration of abstracted plant form and energised shape. The stems of the bells rise up as stems out of the abstracted pattern of line. Contrived and compressed, they turn back on themselves to form the heart and downward movement, and pulled back into the interlacing linear pattern they provide a sense of movement and tension within the design.

This quality of linear movement was also characteristic of the Art Nouveau 'Celtic' intertwining patterns of Archibald Knox (1864-1933) and Jessie King (1876-1949) designed for Liberty at this time (*illus 7:47*).

![Liberty Tudric pewter vase by Archibald Knox, c. 1903.](image)

It was further developed in a different manner in **Donald 5169-5172** (*illus 7:48 see overleaf*), stocked by Heal's in 1903. Produced as a two-colour print in four colourways, this design was made up of negative and positive shape, whereby the positive print of leaves, flowers and stems was broken up and balanced off against the fine negative lines made by the neutral ground of the cloth. Both positive and negative line became active

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and manipulated into movement to form square-shaped frames, within which the ground of the cloth was emphasised as space.

Therefore unlike the stem lines in The Bell which visually interlaced, the stems in Donald 5169-5172 did not. Instead they moved outwards and upwards, and counter-changed with the white ground as line, to create movement. A similar feel for positive and negative line and spatial ground was evident in E Taylor's stencilled design for the Wylie and Lochhead pavilion at the Glasgow exhibition of 1901 (illus 7:49).
The balance sought between the printed pattern and ground of the cloth in linens such as Donald 5155 and Donald 5169-5172 was also explored in Pimpernel stocked by Heal's between 1905-1917 and initially priced at 2/3d a yard (illus 7:50).75 Pimpernel, in sharp contrast to the designs discussed above, marked a fashionable turning point towards traditional styles in design, which Heal's promoted and Donald Brothers embraced. Printed with a single repeating motif of flowering plant, the linen relied entirely for its effect upon the interaction between the printed pattern and woven figured ground of Donald Brothers' CC Linen (illus 8:20-24).76 The figured white diamonds, woven on the neutral ground, accentuated both the physicality of the woven surface as well as hovering spatially (due to their whiteness) against the natural ground of the linen. In this way the printed design of the plant itself is affected; for although conceived and printed as flat, the plant forms are visually lifted from their ground by the woven diamonds to also hover in the light airy space. Therefore Pimpernel illustrates a shift from the stark geometric abstraction of plant form and non-illusionistic use of texture and spatial ground developed by Donald Brothers in their linens c 1901-1903, towards design which instead used surface texture and pattern to create illusions of space within the cloth.
This illusionism was also evident in other contemporary printed fabrics stocked by Heal's, such as Turnbull & Stockdale's **Heal 4038** (1904) (*illus* 7:51) and Newman Smith & Newman's **Heal 4435 & 4436** (1907) (*illus* 7:52).77

With these fabrics, weave effects were actually simulated in print and achieved a further sense of illusion within fabric, which became more obviously eighteenth-century in its inspiration after 1905, as demonstrated by the Newman prints and Donald Brothers' later woven tissues of 1910 (8:3). The appearance of illusion within pattern design coincided with a period when the impetus for innovation within the Arts & Crafts movement in Britain, which had actively drawn inspiration from tradition to develop simplicity in design, was itself to become eclipsed by traditional styles in design.78
Heal & Son's own furniture production illustrates the trend towards tradition, and the effect this was to have on the type of textiles the firm promoted and stocked. Having attained "the ground work of severity and simplicity" in their early plain oak furniture (illus 7:1), Heal's then turned to study and reproduce "the best periods of English furniture, the Tudor, Stuart and Georgian".79 "Simple Furniture in Oak, Chestnut and Colonial Mahogany" (1904) was promoted for "its daintiness of surface and a warmth and cheerfulness of tone" (illus 7:53), with Colonial Mahogany singled out as "particularly suitable, by reason of (its) quiet colouring, to the bright chintz hangings and gay papers which (were) again coming into vogue in bedrooms."80

Thus as Heal's had sought Donald Brothers' plain woven Casement Flax as a co-ordinate with their plain oak furniture and Rose Trellis with their furniture of 1900, so by 1904 they actively embraced and promoted the developing vogue for chintzes and "Old Fashioned Fabrics" ("being reproductions from old embroideries in Printed Linens") as a co-ordinate with their traditional styles in furniture.81
The effect of Heal's return to tradition for Donald Brothers can be gauged by Pimpernel; in its simplicity and lightness this fabric resembled the old-fashioned fabric with simple repeating plant motif illustrated as the bedcover in Heal's "Simple Furniture in Oak, Chestnut and Colonial Mahogany", as well as the light airy illusionism of the trellis effect used on the cover of the Heal's booklet "Old Fashioned Fabrics" (illus 7:54).

These designs illustrate the changing context for traditional style within which the firm's Pimpernel and their later printed linens stocked by Heal's can be assessed, as well as the decline in the print business of Donald Brothers understood.
Donald Brothers’ direct involvement in this changing context is demonstrated by Donald 5243 and Donald 5476 (illus 7:55&56), stocked by Heal's in 1904 and 1907.82

![Illustration](illus-7-55)

**Illus 7:55** Donald 5243, one colour print on linen, stocked by Heal & Son, 1907.

![Illustration](illus-7-56)

**Illus 7:56** Donald 5476 Adams pattern, one colour print on linen, stocked by Heal & Son, 1907.

In the former design a simple roundel of abstracted stems and leaves was replaced in the latter, by an oval in Adams style, knowingly bought as an "Adams" design by Donald Brothers from the Silver Studio.83 In anticipation of this metamorphosis, the 'dainty' nature of the 1904 roundel itself marked an initial shift from the tense and stark use of line and space
in the 1901-1903 designs towards a delicate lightness, which subsequently enabled the use of the Adams design in Donald 5476.

Within these same years of changing taste (1904-1908), two other printed linens, Donald 5287 "Cherry Bough" (illus 7:57) and Donald 5751/9 (illus 7:58), stocked by Heal's in 1904 and 1908 respectively, demonstrate how both Donald Brothers with Heal's continued to produce and market the Arts & Crafts as a style in printed textiles, while also making the shift from the stark abstraction of c 1901-1903 to a gentler
stylised naturalism, which went towards meeting the vogue for greater all-over richness in pattern. As an Arts & Crafts style, both these linens were designed with a stencil-like simplification of form and used simple garden imagery such as cherry boughs and medlar fruit, which made them similar in conception to C A Voysey's contemporaneous Hedgerow design, printed by G. P. & J. Baker for Heal's in 1908 (illus 7:59). However in comparing one with another it is clear that Donald 5759 was markedly more naturalistic than Cherry Bough and more visually opulent than Hedgerow. Leaves attached to notched branches rhythmically undulate to express their form and display the medlar fruit ripened to bursting in a manner more characteristic of Donald Brothers' contemporaneous 'chintz' Donald 5860 of 1909 (illus 7:61). In contrast Cherry Bough was abstracted in its rendering of leaves and cherries, and Hedgerow more reserved in its depiction of imagery.

By 1909 Donald Brothers was to acknowledge the full force of tradition in their printed linens stocked by Heal's. In both Donald 5894 "Braganza" and Donald 5860 "Beja" (illus 7:60&61) exotic birds of
paradise, ruffled in feather, pluck ripe fruits from overladen branches in a manner reminiscent of the traditional chintz.

Illustrations:

Illus 7.60 Donald 5894, Braganza, three colour print on linen, stocked by Heal & Son, 1909.

Illus 7.61 Donald 5860 Beja, three colour print on linen, stocked by Heal & Son, 1909.
Donald 5862 "Willow Plate Pattern" (illus 7:62), depicts a simplified version of the ancient Chinese Willow pattern, and was designed and bought from the Silver Studio. All three designs were registered by Donald Brothers in December 1909: it is from their certificates of registration that their names and the black and white photographs of their repeating patterns have been recorded.

Traditional in overall conception, the Willow Plate Pattern print was probably stocked by Heal’s as a co-ordinating furnishing fabric for their Willow patterned toilet ware of 1906 (illus 7:63 see overleaf). The design provides understanding of the firm’s particular stylistic response to Heal’s market in tradition. This can be appreciated by comparing their Willow Plate Pattern print with another produced by Turnbull & Stockdale, Heal 5102, in 1912 (illus 7:64 see overleaf). The Turnbull & Stockdale design, printed as a reversible fabric in dark and light blue, provided both richness of drawn detail and patterning within the motifs, as well as a quality of pictorial depth rendered in perspective and tone. In contrast Donald Brothers' Willow Plate Pattern was simplified and flattened to the extreme; the three figures reduced to primitive shapes, the bridge rendered devoid
Illus 7:63 Booklet cover for Willow Pattern Toilet Ware by Heal & Son, 1906.

Illus 7:64 Willow pattern printed cotton by Turnbull & Stockdale, stocked by Heal & Son, 1912.
of patterning, the building and water depicted as two-dimensional symbolic forms and the whole design printed in one dark solid colour without the softness of intermediary tone. In this way the characteristic stark simplicity of the earlier printed linens was continued within the firm’s chosen interpretation of a traditional design into printed cloth.

Such an interpretation can also be identified in Braganza and Beja (illus 7:60&61). Although produced as richer fabrics through the choice of imagery and less restricted use of colour, the adherence to flat stencil-like shape was still simplified in conception when compared with the sophisticated layering effects evident in the detail of Thomas Wardle’s bird print (Heal 4756) (illus 7:65) and other of Heal’s "Old Fashioned Fabrics" (illus 7:66).\textsuperscript{90}

Illus 7:65 Detail of bird chintz

Five colour print by Thomas Wardle, 1909.

Illus 7:66 Bird chintz illustrated on the cover of Heal & Son’s "Old Fashioned Fabrics" booklet, 1904.
The characteristic simplification, flatness and active employment of the ground cloth as an integral part of the design, therefore, illustrates an overall continuity of design approach developed by Donald Brothers in the earlier years. Within this continuity, the decisive shift from stark abstracted design towards traditional pattern was also evident, with the result that the tense use of line, surface and space in the 1901-03 linens was replaced by a lighter use of line and space on the one hand, and a jaunty, rustic simplicity of pattern on the other. Later, in the 1920s and 30s, these different qualities were to be combined in a successful mixture of the artistic with the rustic in the **Old Glamis Printed Fabrics** by Donald Brothers. In the early period they lay awkwardly together, and undoubtedly reflected the loss of David Tullo Donald's design direction c.1905/6, as well as the firm's attempt to hold on to their dwindling print business with Heal's, by responding to contemporary fashion trends which sought diversity in design style.

The firm's dwindling print business was revealed within the Heal's records. The later more traditional prints did not sell as well as the earlier prints, and after 1909 Heal's ceased to stock any new prints that Donald Brothers may have launched at that time. Donald Brothers' own accounts chart the decline of their business with Heal's between 1906 and 1909 (5:4), and although these reflect the increased competition the firm met with their plain linens (7:2), they must also indicate the down-turn in trade experienced with the printed linens in these years. Therefore it would seem safe to suggest that Donald Brothers' print involvement was at its strongest in the 1901-1904 period when David Tullo Donald was in charge of the design direction of the firm. It probably had already peaked around c.1905, at the time when David Tullo became seriously ill and fashion had turned decisively in favour of traditional styles in printed fabric, to which Donald Brothers attempted to adapt, but without much marketing success.
As final evidence of the firm's printed linens, a document held at the Silver Studio Archive, recording twenty-seven "Printed Linen Designs" bought by Donald Brothers from the Silver Studio between 1906-1908, provides additional insight into the firm's interest in pattern design in these years. It is unknown whether these designs, excepting Donald 5476 & 5862, were put into print production in the early period. In 1927, one of them, 5 Colour Varied Wild Flower Group (32786) (illus 7:67c see overleaf) was put into production as Chandos (illus 7:68).

The varied nature of the Silver Studio designs included delicate, sinuously abstracted plant motifs (32755) (32756) (illus 7:69); Varied Conventional Group (32785); sampler motifs, "Sampler" Basket (32782) "Sampler" Trees (32783) (illus 7:67a,b); Allover Persian (32892) and Persian-inspired flowers with ogee (32898); Paisleys, Connected Pine (32917); Oriental, Willow Pattern Design (33043) and 18th century Adams, "Adams" Circular (759).
Illus 7.67 a) "Sampler" Basket; b) "Sampler" Trees;

c) Varied Wild Flower Group produced at Chandos in 1927.

Illus 7.69 (below) Two abstracted plant designs.

All five designs were bought from the Silver Studio

by Donald Brothers in 1906.
These designs underpin what has been discussed above in relation to the Heal's printed linens, namely that Donald Brothers began to draw on a diversity of design styles by c. 1906 to develop and metamorphose their characteristic flat patterns from their stark simplicity to a greater degree of delicacy and lightness of pattern.

The firm's selection of sampler designs (*illus 7:67a,b*) is particularly illuminating in two distinct ways. Firstly, the designs, displaying rigorously stylised patterns inspired by embroidery conceived in relation to the geometric structure of the woven cloth, illustrate both the vogue for "Old Fashioned" embroidery which Heal's was advocating at that time, as well as Donald Brothers' own particular choice in interpreting this vogue. Secondly the patterns designed to simulate embroidery in printed pattern demonstrate the interest for constructed pattern in textiles that had developed by this date, as well as the firm's particular interest in this trend. Turnbull & Stockdale's and Newman, Smith Newman's printed fabrics already referred to as stocked by Heal's (*illus 7:51&52*) provided visual proof of the trend to simulate weave effects and highlighted by comparison with *Pimpernel*, the response of Donald Brothers to this demand for constructed pattern. The firm, as weaving manufacturers, quite naturally provided actual woven pattern in their printed linen, thus establishing their position and approach as to how they could best meet this market demand for constructed pattern in textiles.

Indeed it was in establishing this approach that David Tullo Donald initiated the "New Decorative Materials" in 1903/04 (8:1), and these may provide part of the explanation as to why the firm’s printed linens dwindled in significance. As the fashion in textiles diverged toward period style in printed textiles on the one hand and on the other toward constructed pattern and texture, it made business sense for Donald Brothers to consolidate their position as manufacturers of decorative fabrics with
weave rather than print. It is to a study of this subject that the next chapter looks.

In conclusion to this chapter examining the fashionable taste for Art Linen and the response of Donald Brothers to this trend in their plain and printed linen production between 1898 and 1914, a number of points can be made. Firstly that the qualities of purpose, hygiene, simplicity and artistry expressed in plain weave and irregularity of texture and colour characteristic of Art Linen were shown to have been those designed and manufactured in power-woven linen by Donald Brothers. Compared to hand-woven Art Linen, the firm's linens were considered economic to meet the demands of the middle classes.

Secondly, that the textural irregularity fundamental to appearance of hand-woven linen was demonstrated as similar (if not identical) to the linen produced by Donald Brothers. The distinctive characteristic of directional construction in texture evident in hand-woven linen was consciously activated in the firm's power-woven linens, and became, with colour, an object of design.

Thirdly, the manipulative contrasts and variations in texture produced a range in the firm's linens that was ideally suited to different furnishing purposes such as wallcoverings, upholstery and curtains. That textural variation also made their linen suitable for Arts & Crafts appliqué needlework and as a ground for printed pattern. In both these forms of pattern-making it was the surface texture of the cloth that was crucial to the activation of the flat abstracted pattern. Texture became an intrinsic part of their artistic design.

Fourthly, that in relation to their use within the interior the linens of Donald Brothers offered variations in texture and colour in a range of visual temperatures for different market needs in Britain and America. In this manner it was demonstrated in relation to their proven customers Heal
& Son and Gustav Stickley, that their design aesthetic in plain and printed linen contributed significantly to the innovative trends in simple Arts & Crafts furnishings. Displaying purpose, artistry and economy, their plain weaves formed sympathetic co-ordinates with Heal's earliest simple furniture, while the printed linens were suited to this simplicity as well as to the initial stages of a richer decorative style. Only by 1906, as fashions changed distinctly to period styles, did the firm's favoured connection with Heal's diminish. By this date their plain linens (but not prints), had become inextricably linked with Stickley's Craftsman aesthetic for interior furnishings in America. Craftsman catalogues (1906-1910) and Donald Brothers' records revealed Stickley's reliance on the firm's textures and colours for his Craftsman linens.
Footnotes.

1. In Linens No. 1 (1907-1911) on page 304 an entry "For previous Nos. see other Key" suggests there was an earlier Linen Key which is now lost.


3. Held at William Halley & Sons Ltd, Wallace Craigie Works, Dundee. This counter book includes fabrics designed in 1912, and can be dated to the years leading up to World War I.

4. David Tullo Donald letters are all contained within the Barclay Lockhart Sample Book. This book was given to me by Tom Lockhart in 1989.

5. Linens Nos. 1-5 (1907-1925) and No. 8 (1925-1927) are still held by Donald Brothers of William Halley & Son, Wallace Craigie Works in Dundee. It was only after repeated visits to the works between 1989-1992 that these books were fortuitously discovered in 1992, providing the missing evidence needed for an appreciation of Donald Brothers' Linens. The second collection of Linens Nos. 6-14 (1925-1946) excluding No. 8 are held at The Scottish College of Textiles.


8. Ibid.

9. Ibid.


12. Ibid. Jonathan Harris & Sons were renowned for their Art Linens and Flax at this time (4:4). For information on the company see; Parry, L. Textiles of the Arts & Crafts Movement, p. 126. The Victorian & Albert Museum textile collection holds a number of Jonathan Harris & Sons' Art Linens sample (4:4). These samples bequeathed by Jocelyn Morton of Morton & Co. illustrate Morton & Co.'s own interest in the market for plain linen fabrics by c 1910.


15. Ibid.

16. Cretonnes and Dimities, SU 59, op.cit. Nos. 3416 & 3517

17. Ambrose Heal launched his "Plain Oak Furniture" in 1898 illustrated in their booklet entitled A note on Simplicity of Design in Furniture for Bedrooms by Gleeson White, published by Heal & Son, 1898. It was in the same year that Ambrose Heal turned to using electrically driven machinery to increase furniture production. This enabled him offer his "Decorative, Hygienic and Inexpensive... Simple Bedroom Furniture" (1899) at reduced prices to his customers. (Heal & Son Archive, SU 1, 1887-89).

18. Heal & Son, Casement Curtains, 1901, Heal & Son Archive SU 2. Heal’s code numbers for Donald T Linen found in Cretonnes and Dimities, SU 59, correspond with those given in Heal’s publicity leaflet Casement Curtains.

19. Orange and crimson were introduced in 1902.


21. Plain fabrics rarely feature in illustrations of this period; Gustav Stickley’s attempt to convey the textural qualities of woven cloth in his catalogues was an important exception.

22. In 1908 Ireland & Wishart supplied Heal’s with their first piece of Natural (3659) Casement Flax. By 1911 Donald Brothers, Ireland & Wishart and Robert Stocks & Co. were all competing to supply Heal’s with Casement Flax, the competition most probably accounting for the drop in price of dyed Casement Flax from 2s to 1/9d. By c. 1912 Alexander Morton & Co. entered the field; offering guaranteed fast colours they were able to corner the business and raise the price of the dyed linen to 1/11d. (See Cretonnes and Dimities, 1910-1918, SU 62.)

23. Ibid. and Heal & Son, Sphinx Casement Flax, 1912, Heal & Son Archive, SU 3.

25. Cretonnes and Dimities, SU 61, op. cit. No. 4688. Morton & Co. first began to secure business in plain linens with Heal’s in c. 1909; their Heal’s coded Nos. 4764 and 4824 of 1909 illustrate the irregularity of texture that this company sought in a machine-woven linen at this date. They suggest that the company were already consciously looking to and easing themselves into Donald Brothers’ own distinct line of fabric production by c. 1909.


27. Frank Donald referred obliquely to Morton & Co. as "a certain firm who were pioneers in the introduction of faster dyestuffs". Donald, F. "Furnishing Fabrics. Some Comments of a Manufacturer on his trade". Address given at the Exhibition of Art & Industry, The Royal Academy, 1935, p. 11.

28. Ibid. Another major reason for the decline in the market for subtle colour was a shift in taste in favour of bright, bold splashes of colour as influenced by Post-Impressionist painting and the Diaghilev Ballet.

29. This quality of linen is referred to in a letter of Frank Donald’s dated 1905, filed within the Barclay Lockhart Sample Book.

30. The omission of yellow from this stocked range may have been due to the problems of colour fastness for this colour; naturals provided a good substitute.

31. 50" A98 PD Linen was originally Lockhart’s 52" CX Flaxen. Entered into Linens No. 1 as "stock" in early 1908, this fabric may have been in production for some years previous to this entry.

32. Frank Donald relates that Brown & Beveridges’ stocking of eighteen colours was the largest in Britain (Private Letters No. 1, p. 37). A61 Linen was also taken up by Carson, Pirie Scott of Chicago. (Linens No. 1 p. 145).

33. Private Letters No. 1, p. 37. It is not known what year Brown and Beveridge first requested this colour. 36" Figured CC Linen was in production by 1904. (8:1)

34. Linens No. 1, p. 268. Other colours trialled for Gustav Stickley in March 1910, were 2 blues, 2 greens and a purple/brown grey; these were not taken up. In 1911 this fabric was also taken up by Stickley in blue and copper.
This fabric was named **84/20 Dyed Scrim** (Linens No. 1, p. 278) in samples taken up by P. McHugh of New York.

Quoted from Stickley's description of **Craftsman Antique Linen** in Stickley, G. *ibid.*, p. 98. See below for complete quote and my discussion of the interconnection between Donald Brothers' **A84/No.20 Dyed Linen, 36" Dyed "Linsell"** and their **Antique Linen** with Stickley's own "Linsell Casement Fabric" and **Antique Linen**. It is worth noting here that Donald Brothers' Brown and Gold in **A84/No.20 Dyed Linen** were dyed to colours "as 3A Antique" **Linen**, (Linens No. 1, p. 268).

**Linens No. 1.** pp. 196-203.

The latter "tapestry" colours would have provided range of shades in this fine linen as a co-ordinate with Donald Brothers' heavier Canvases.

In a letter of 1903 David Tullo Donald discussed designs for **Tissues** using "shot effects" and in 1906 Frank Donald refers specifically to **Bloom Tissues** as a quality of fabric for experiments in Figured **Tissues**. This suggests this quality of fabric was well established by 1906 (see also footnote 40).

**No. 2 Bloom Linen** was trialled as "guaranteed fast" in 1913 (Linens No. 2 p. 311). This suggests how the finer Bloom Linen, missing from both Linens No. 1 & 2 must have been originated before 1906/1907.

**The Craftsman** awareness for Haslemere's "Peasant Tapestry" can be dated to Jan. 1902 ("Revival of English Handiwork - The Haslemere Industry" The Craftsman, Vol. 1. No. 4. pp. 25-32.) By August 1903 The Craftsman advocated a type of appliqué and outlining, worked "according to the manner known in England as Peasant embroidery" ("Some Craftsman Designs for Door Hangings" The Craftsman, Vol. IV, No. 5, p. 389), and in June 1904 the magazine described how their designs were wrought using "imported linens", ("Floral Motifs for Curtains and Pillows" The Craftsman, Vol. VI, No. 3 June 1904, p. 312).

**Stickley, G. "Needlework from the Craftsman Workshops"**. A copy of this undated catalogue is dated to c 1903/04 by the Winterthur Library, Delaware. Some of the needlework illustrated within the catalogue however corresponds with work illustrated in an advertisement of 1907 within The Craftsman, (Vol. 12, No. 3, June 1907), indicating this catalogue was published c 1907.
43. From both Stickley, G. "Needlework from the Craftsman Workshops" (c. 1907), and "Craftsman Fabrics and Needlework from the Craftsman Workshops", reprint, Razmataz Press, N.Y. 1989. The second catalogue dated to c. 1905 by Razmataz Press, in fact most probably dates to Feb./March 1908, the year when it was advertised in The Craftsman (Vol. 13, No. 5, Feb. 1908).

44. This should not be taken as proof that Donald Brothers' and Stickley's Bloom Linen was not one and the same. It would have been unlikely that Stickley chose his colour range from Donald Brothers' own "stocked" range; more likely colours would have been woven up exclusively for him and probably trialled before 1906/07 when Linens No. 1 was begun.

45. Although Craftsman Canvas was the favoured material other "lustreless" materials such as Crash were used (9:2).

46. This bed cover was produced for Mackintosh's Hill House at a slightly later date than the original decorative work of Margaret MacDonald and Mackintosh.

47. For reference of this quote and information on Goodyer's, see, Parry, L. Textiles of the Arts & Crafts Movement, p. 125. Although no entry for Goodyer's can be found in Donald Brothers' sample books, details of their trading with the company are recorded within the turnover records (5:4).


49. For other American and Canadian customers of A98 PD Linen see Linens No. 1 & 2.

50. The Stickley Archive Coll. 60 76x101.2.


52. Ibid.

53. See footnote 36.

54. McCreery's chosen colours in 3A Antique Linen were: two pinks, two greens, straw, cream, duck blue, mid and dark blue, white, brown. Stickley's were; orange, dark blue and natural grey. (Linens No. 1. pp. 304-312).

55. Linens No. 1. p. 304.

After 1909 there are no surviving records to suggest that Donald Brothers continued to originate designs in print; not until 1923 were printed linens re-introduced into their manufacture, to be gradually built up as an important part of their overall range in furnishing fabrics.

Donald, F. Address To the Incorporated Institute of British Decorators, Dundee 1937, p. 4&5.

See my Chapter 5 for a discussion of Donald Brothers' standing in relation to the Modern Movement as described by Nikolaus Pevsner in his Enquiry into Industrial Art in England.

Cretonnes and Dimities 1898-1905, Nos. 3619-3623, Heal & Son Archive SU 59.

Heal & Son's Guest Room at the Paris Exhibition, 1900, Heal & Son Archive, SU 2.


It was noted in the Architectural Review (June 1900), that "The necessity of providing something which should be striking and attractive, amongst the mass of exhibits has led Mr Heal to depart a little from the severe simplicity which characterises most of his work." Heal & Son Archive, SU 2.

Cooper, J. op.cit. and Parry, L. op.cit. p. 50.

Cretonnes & Dimities 1898-1905, Nos 3627-9, SU 59.

The Glasgow style was popularised through Wylie & Lockhead of Glasgow. Cooper, J. op.cit.

Blue, red, turkey red, purple, light green are the colours used for the flower, set off against a leaf green for the leaves and stems.

It was stocked in 65 & 126 yard lengths per colourway, approximately six times a year in 1902.


Ibid.


74. Ibid. Nos. 3858-3861. The colourways were in blue/green, green/green, red/green and purple/green.


76. For a discussion of Donald Brothers' CC Linens see chapter 8:1; Heal's began to stock these linens in 1904.

77. Cretonnes & Dimities 1904-1908, SU 60.


79. Mew, E. Simple Bedroom Furniture in Oak, Chestnut and Colonial Mahogany designed by Ambrose Heal, 1904. pp. 6-7, Heal & Son Archive SU 2. Heal's involvement with Reproduction styles was later justified on the grounds that; "Reproductions, rightly and honestly constructed stand for beauty without the collectors' prices, which in the present inflated state of the antique market, is considerable." Thorp, J. An Aesthetic Conversion, 1909. Heal & Son Archive SU 3.


81. Mew, E. ibid. From page 84 advertising the booklet "Old Fashioned Fabrics".

82. Cretonnes & Dimities, 1904-1908. SU 60, No. 4041, 1907-1914, SU 61, No. 4467.

83. The Arthur Silver Collection. Photographic Sales Record 1919. Donald Brothers bought three "Adams" designs from the Silver Studio in May/June 1907.

84. Cretonnes & Dimities, 1904-1908 SU 60, Nos. 4085-4087, & 1907-1914, SU 61, No. 4545.

85. Ibid. SU 61.

86. Ibid. Nos. 4733, 4732 and 4734 respectively.

87. Arthur Silver Collection. Photographic Sales Record, Nos. 33043. This design was bought for £4.4s.
Bundle 8, Coll (2), William Halley & Son. These three designs are included amongst a group of six registered printed designs in the bundle.

Cretonnes & Dimities, 1907-1914, SU 61.

Ibid. and Old Fashioned Fabrics, 1905, Heal & Son Archive SU 2.

The firm continued to stock and 'sell a few printeds' up until 1913, believing that "fashions may change" (Private Letters No. 1, p. 132). This comment suggests that it was the change in fashion trends which had reduced Donald Brothers' print involvement.

Photographic Sales Record op.cit. The numbers of these designs are as follows: 32755, 32756, 32757, 32758, 32759, 32760, 32766, 32782, 32783, 32784, 32794, 32785, 32786, 32877, 32878, 32892, 32893, 32894, 32895, 32896, 32897, 32898, 32917, 32918, 32919, 33030, 33043.

Linens No. 9, p. 140. In Pevsner, N. "The Designer in Industry: Furnishing Fabrics", Architectural Review, June 1936, p. 293, Chandos was described as a "period linen ... of the best artistic quality (which retailed) at only 3s a yard." This demonstrates how a period design could be accommodated into the 1930s and also the good value Donald Brothers continues to offer with their prints.

It is not known whether Donald Brothers bought these particular designs as a means of originating patterns in Printed Linens, to accentuate the interrelationship between the printed figure and woven ground of their cloths or alternatively as a source of design inspiration to help them work up new ideas in figured weaves. In the New Decorative Marterials (8:1) Donald Brother's interest in this quality of pattern was already evident in David Tullo's designs c. 1903/04.
THE EMERGENCE OF DONALD BROTHERS AS MANUFACTURERS OF DECORATIVE FABRICS

(The feel for rugged texture)

by

Helen Douglas

Vol. II

Thesis presented for the Degree of PhD to University of Edinburgh

1997
# VOLUME II

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CHAPTER 8 THE NEW DECORATIVE MATERIALS: Figured Tissues, Linens & Canvases, 1903-1914

It was in December 1903 that David Tullo Donald wrote to Barclay Lockhart¹, to discuss the arrangement made between Donald Brothers and N Lockhart & Sons, whereby Donald Brothers would begin to experiment and "turn out great varieties and kinds of fabric" through Lockharts. The aim of this chapter is to study what evidence remains of these early experiments, initiated between 1903-1905, and to examine other of Donald Brothers' decorative materials as they were developed within the firm's manufacture in the years between 1906 and the First World War. Their design, conceived in relation to woven structure, will be understood in terms of the firm's quest to expand their range in pattern initiated in printed canvases and linens, in conjunction with their simultaneous search to develop textural effect in woven cloth.

In section 8:1 the trials in new decorative materials of 1903-1905 are studied from surviving design sketches, fabric samples and letters written by David Tullo, all held within the Barclay Lockhart Sample Book.² Some of these are understood to be related to weaves found within the Barclay Lockhart Technical College Exercise Book (c 1884), which was in David Tullo's possession by 1903.³ From both these records, evidence of the firm's even earlier involvement with figure weaving, c 1900, is also acknowledged. Related to one group of figured linens, trialled in 1903/04, are linens held within the Heal & Son Archive; these illustrate that at least one range of the new decorative fabrics initiated between 1903-1905 went into production.

In section 8:2 the firm's trials and productions with the coarser jute fibre in figured canvases 1906-1914 are studied, from samples documented within Canvases No. 1 & 2. The noted names of customers for these materials enables their identification with the American Craftsman market.
for texture. Finally in 8:3, the firm's developing breadth of work in pattern woven materials, evident in their launched range in finer figured tissues and linens between 1910-1914, is examined. Evidence of these is found in Tissues No. 1 & 2 and in Linens No. 1. The study concentrates on the figured tissues of the firms, with reference being made to the similar pattern effects in linen, initiated in the same period. In this way repetitive study of their patterns is avoided. The fabrics are understood in relation to the firm's developing response to the market for historicism in pattern, which had been initiated in their printed linens, and, most importantly, appreciated for the firm's developing ability to widen their range of textural effects in woven fabric.

8:1 The New Decorative Materials 1903-1905

In his initial letter written to Barclay Lockhart dated 2/12/03, discussing the new venture in decorative materials, David Tullo made passing reference to the firm's "present pattern woven goods (figd. lines, Broche etc.)" and of the success they had achieved with their linens woven by Lockharts. This establishes that even before the new decorative experiments were initiated in 1903 Donald Brothers had already engaged in producing pattern-woven cloths, and that their linens had met with some success.

One surviving design, Striped Figured Linen dated 1900, (illus 8:1) discussed below, provides some idea of what these "figd. lines" may have looked like. The mention of "Broche", a type of pattern weaving produced on a hand-loom with a swivel shuttle (by which the figuring was made with an extra weft yarn which did not traverse across the whole cloth), suggests that these particular, early cloths would have been manufactured in small quantities and were not particularly economic to produce or market.
To build on this initial decorative work David Tullo planned to produce, with Lockharts' assistance, "Tapestries", to broaden their range in decorative materials and provide greater variety for the decorator, within a field which he saw at that time as largely dominated by wool, cotton and silk. To succeed with tapistries, "a competitive line", David Tullo recognised Donald Brothers would have to:

"strike a 'new note' & not lose sight of the fact that many have been trying to do the same for years... It will not be easy to be original in Tapestries. With Linens it was different. We practically had the field to ourselves. Our productions were novel and occasionally original. That sold them. In Tapestries we shall require to be doubly original and we must offer value."5

Value was to be safeguarded by not going "into any lines without first being quite sure that we can turn out the stuff at a price that will command a sale". Whilst originality was to be achieved by striking a "new note":

"It is really not so much a question of 'Tapestries' as of New Decorative Materials, be they what they may."6

It was in this quest to offer value and achieve originality in decorative materials that David Tullo encouraged Lockharts to employ a pattern weaver and hand-loom (Appendix A). Their employment, as studied, was not conceived as a means of production. Rather, the pattern weaver and hand-loom were employed to aid with the working up of new design ideas into woven structures, for their subsequent manufacture on the power-loom (5:2:3 & 5:3:1).

The earliest example of David Tullo's ideas for decorative fabrics is Striped Figured Linen (1900), (illus 8:1). This design has survived folded within the Barclay Lockhart Technical College Exercise Book. It pre-dates the 1903-05 experiments in new decorative materials, pinned within the Barclay Lockhart Sample Book, and therefore, must relate to the earlier "figd. lines". Sketched onto line paper, the design illustrates David Tullo's
preference for simplified forms already established by 1900, with the abstracted and flattened flowering plant eased into the geometry of the warp stripe and weaving construction. Two pages of written notes which accompany the design demonstrate how the design was conceived as woven pattern. The pattern of pink flowers and green stems, leaves and stripes was planned to be formed in the warp. Thus, unlike the earlier Broche, in which pattern was formed with an extra weft, Striped Figured Linen suggests economy in its design for manufacture.

Employing a white weft throughout, "double warped" green or pink threads were to be "crowded" ("i.e. four threads occupying the space of two ordinary threads") and "bound in at intervals" by the white weft in satin
twill to provide "practically a solid effect" in the figured plant. In contrast, the ground was to be "made by the weft being kept on the surface of the cloth as much as possible", although David Tullo accepted that as the weft was "not so close as the warp it would not be possible to get so pure a colour (white) as would be formed by the warp yarn." The plain space between the figured lines was to be woven in plain weave with "all white yarn". Conceived in this way, the visual effect of this design was to have been more texturally intricate than would appear from the sketch. The densely rendered pink flower, green leaves and stem was set against a predominantly white ground, which itself was tinted with hints of either green or pink, and optionally peppered with a spot effect in either pink or green in the lower portion of the stripes, below the leaves of one plant and the flower of the next.

In comparison with this fine detailing in Striped Figured Linen, the first group of designs conceived for the new decorative materials were simpler and more geometric, and intended for a rougher, heavier quality of fabric. The first patterns, Design Nos. 1-4, were rendered in ink on tracing paper, initialed DB D (Donald Brothers Design), and dated 21/8/03. Design Nos. 1-3 (illus 8:2,3) were based on a single repeating motif, which, suggestive of an abstracted flower head, was made up from a small diamond flanked on either side by a triangular shape. Design No. 4 was based on a repeating in-complete diamond shape, formed by duplicated diamonds.

Sample woven with a white cotton warp and beige jute weft, Design No. 2 demonstrates how these designs were to be translated into cloth (illus 8:4). The ground was formed by the white warp and neutral/beige jute weft, and the figure by the floating white warps which returned into the ground, gave the effect of a white pattern on oatmeal ground. As a union fabric, heavier than linen on the one hand and lighter and more decorative
Illus 8:2&3 Design 1-4 by David Tullo Donald, ink on tracing paper, 1903.

Illus 8:4 Design 2, figure woven in the warp, white cotton (warp) and natural jute (weft), 1903.
than the jute canvases on the other, this figured material would have been suitable for wallcoverings, (the inclusion of a Union Tissue in the Decotex range establishes this (6:2)), as well as a sturdy upholstery fabric.

The second group of patterns, Designs Nos. I-IX (illus 8:5-9),

Illus 8:5 Design I-III by David Tullo Donald, ink on tracing paper, 1903.

Illus 8:6 Design IV, V & IX by David Tullo Donald, ink on tracing paper, 1903.
Illus 8:7 Design VI by David Tullo Donald, ink on tracing paper, 1903.

Illus 8:8 Design VII

Illus 8:9 Design VIII

by David Tullo Donald, 1903.
rendered in ink on tracing paper by David Tullo, and referred to in his letters to Barclay Lockhart dated 7/8 & 11/12/03, were conceived for sampling in Yarn Dyed Tissue. These designs were also built up from geometric shapes, with No. IV & VIII corresponding closely to David Tullo's designs drawn in August. Others, No. I, II, III, VI, VII, used similar small geometric shapes to form obviously abstracted plant forms. The latter demonstrate David Tullo's search to strike a new note. They respected the contemporary design interest for abstracted plant form as a source for pattern, evident in the firm's printed linens (7:3), and explored this interest in relation to the squared construct of the weaver's draft. In this manner, the "frank obedience to angular forms imposed by the stitch" which Gleeson White, editor of The Studio magazine, had admired so much in sampler work (illus 8:10), was strongly evident in these patterns conceived for weaving.

![Sampler by Susanna Newman, 1790](image)
The designs' enhanced angularity combined the modern sensibility for tensed, energised plant forms (VII) with a traditional handling of motifs (I, II, III), similar to those found in samplers, such as Gleeson White admired and Donald Brothers were buying as print designs from the Silver Studios (illus 7:67) by 1906.9

It was this wish to combine the modern with the old to strike a new note that encouraged David Tullo to study the traditional basket diaper weave in Barclay Lockhart's Glasgow Technical College Exercise Book, to realise his Designs Nos. I-IX in Yarn Dyed Tissue. Writing to Barclay Lockhart, David Tullo described the basket diaper weave as:

"an idea as old as the hills, probably just old enough to have been forgotten and therefore it possibly might be welcomed as new were it dished up to (?) modern ideas."10 Noting the weave gave "alternate prominence in a well balanced all over design to both warp and weft yarns" David Tullo's intention was to exploit the weave in woven tissue to realise his designs "in an entirely different style to Basket Diaper itself".11

Sampled in Yarn Dyed Tissue, Design No. I (3 1/4" repeat) and No. VI (5 1/2" repeat) (illus 8:11&12) were woven in three colour ways, on a green, red/brown or pale blue cotton warp, with natural jute weft. Both were given the "three effect treatment" which meant that in Design No. I the flower was produced by the natural weft, the spot by the green (alternatively red/brown or blue) warp, and the ground shot with coloured warp and natural weft. In Design VI the flower, stem and spot were produced by the natural weft and the side leaves with coloured warp, the ground shot with coloured warp and natural weft. In his letter of 7/8 December 1903 David Tullo also envisaged trials with a blue weft, in which case, compared to those samples illustrated a more subtle interchange between figure and ground and a greater brilliance in the shot effect would have been achieved. Other sampled designs, such as Design No. IV (2" repeat), No V (2" repeat), No. VII (3 1/4" repeat) (illus 8:13), No. VIII (2
3/4" repeat) and No. IX (2 1/2" repeat), were woven with a two-colour effect, of the weft figure and shot ground.

Illus 8:11 Design I, Yarn Dyed Tissue (detail), dyed cotton warp, natural jute weft, 1903.

Illus 8:12 Design VI, Yarn Dyed Tissue (detail), 1903.
Translated into woven cloth, all these designs look considerably more primitive than on paper. The stems of plants are sturdier, the blooms less precise and the material surface texture of both the figure and ground becomes assertive and active. This primitivism may have been a direct result of early rudimentary experimentation, or, as the use of a rough jute weft suggests, may have been an intentional element in striking a new note. Certainly its directness was in keeping with the firm’s established line in artistic plain, rough canvases, which extolled texture. It also shared something in common with the patterns woven on the Swedish hand-loom by Mr & Mrs Josephine King in Haslemere (4:1), where David Tullo was living by 1903 (5:1). The floating warps and wefts which form the figuration within the tissues appear as threads; they visually assert the weaving process just in the manner that the hand-woven pattern of the King’s was seen to be woven, by using a thick weft figuring yarn to form the simple geometric shapes (*illus 4:7*). Accordingly in both Donald
Brothers' and the King's patterns, figured design was conceived with the woven structure, not manipulated into woven structure, marking a return to the basic craft of weaving as a source for pattern and design.12

Another early decorative material, which exemplifies this interactive relationship between pattern and weaving craft to develop design in woven cloth, was *Union Tapestry*, originated in 1905. Comprising six variations on the one design, *Union Tapestry* was documented in a draft plan (dated 5/1/05), five photographs and two sketches by David Tullo's hand (dated 16/1/05), and three letters written by David Tullo to the London and Dundee office (dated 14,16,24/1/05), which were type-copied and were sent on to Barclay Lockhart.13 From David Tullo's sketches and accompanying correspondence concerning the design of *Union Tapestry*, a unique insight is gained into the care taken by David Tullo to achieve the successful interpretation and adaptation of his drawn sketch into woven fabric, as an intrinsic part of the design process.

The full sketch signed and dated by David Tullo (*illus 8:14*) clarifies

*Illus 8:14 Sketch 1, design for Union Tapestry by David Tullo Donald, pencil on paper, 1905.*
the right way up for this design, not as the photographs - entered upside down within the Lockhart sample book - indicate (illus 8:15,16).

8:15&16 Design 1,2,5&6. Lockhart's photographic records, illustrated here the correct way up.
This makes sense of the design, in which the long slender plant stems reach upwards and are crowned by blooms (*illus 8:14*). No. 6 (*illus 8:16*) with abstracted 'Mackintosh' rose(s) combined with elongated stems, illustrates David Tullo's awareness for modern trends in pattern design of that time. However it was Design Nos. 1 & 2 (*illus 8:15*), with flower blooms of a more traditional simplicity combined with elongated forms, which drew together the old with the modern, that David Tullo worked up in his sketch and chose to have trial-woven by Lockharts.

Unlike the Yarn Dyed Tissues, by which the figurative pattern was constructed with the same cotton warp and sturdy jute weft that formed the ground, Union Tapestry was to be woven with "(1) the figure warp, (2) the main warp, and (3) the weft". The extra warp, freed to weave only the fine stems, flowers and lines of the design, and not the sturdy body of the fabric itself, thus avoided that element of primitivism noted in the Yarn Dyed Tissues. To accommodate this figure warp, the design was modified in the later sketched version to include a herring-bone effect. This provided a means of tying the figure warp securely into the cloth; David Tullo assumed there was "no way of tying down the figure warp without bringing it to the surface".

On introducing this herring-bone effect within the sketch, David Tullo's essentially modern feel for elongated forms, space and subtle irregularities of pattern is evident. In his letter accompanying the sketch, David Tullo emphasised how he wished these qualities translated into woven fabric. He wrote that he did not want the herring-bone to detract from the "effectiveness of the plain spaces between the long light lines of figure warp". Accordingly, the "long upright stems (were) intended to be forms of not more than, say, four threads of figure warp. If more than four ... they would be too heavy." He noted that "the lines of the H bones (were) not equidistant, nor (were) they all parallel". This, he wrote, was
"intentional" and he asked that these subtleties of irregularity should be translated into the woven pattern.

David Tullo, therefore, wanted to translate both the feeling for elongated forms and spatial ground of his design, as well as the intended irregularities of his sketch into his Union Tapestry designed for machine production. In such sensitive design practice, Donald Brothers' originality as industrial manufacturers of artistic pattern and textural irregularity was established.

The intended quality of Union Tapestry was indicated by two samples of unidentified fabrics included with the letters (illus 8:17). They illustrate that a cotton warp, an extra cotton figure warp and a linen weft were to be used. David Tullo believed "some very subtle effects" were to be achieved with his fabric, and in comparison with the Yarn Dyed Tissues a finer, more delicate quality, in design and material, was clearly envisaged.

To achieve the right combination of colours and weight, trials on a "50 or 60 yard length" were planned. The main warp was to be in a full
green, the figure warp in a pale shade of biscuit (orange and turquoise were also suggested), with the linen weft in a variety of different colours. Although no samples of the woven Union Tapestry have survived, the material may have been put into production as the Union Tissue within the firm's range of Decotex wallcoverings by September 1905 (6:2). Relief wallpapers illustrated within the Journal of Decorative Art, similar in design, one simulating woven effects (illus 8:18), demonstrate there was a market for such patterns and woven effects in wallcoverings by this period.

![Illustration of relief wallpapers, one simulating a woven effect, by Ray & Prosser (c 1909).](image)

After the Union Tapestry, little evidence of other decorative tissues can be found. Employing the principle of basket diaper weaving to originate the Yarn Dyed Tissues in 1903, David Tullo had also envisaged developing fabrics with traditional basket diaper patterns in "shot effects and in plain in many varieties of fibre".15 No trials of these exist within the Barclay Lockhart Sample Book. However they did materialise in jute canvas in 1907 (8:2), and in linen and union tissue by 1910 (8:3).
Other decorative work initiated at the end of 1903 included figured linens, and trials in Figured Twill Canvas. For the latter, all-over designs prepared in different sizes were mentioned by David Tullo in his letter dated 11/12/03; on Barclay Lockhart's suggestion they were also to be tried on the "web made for tissues". Two samples of all-over designs woven in union tissue (held within the Barclay Lockhart Sample Book), which are identical but smaller in scale to two figured canvases of 1909 (illus 8:34-37), suggests that designs trialled in canvas may also have been tried in tissue between 1906-1910. However it is evident these trials were not considered important enough to keep as records until 1910, when Tissues No. 1 was begun by Donald Brothers, to help them in their expanding manufacture (8:3).

In addition to the experiments in decorative tissues that have survived within the Barclay Lockhart Sample Book are the firm's original trials in 36" Figured C C Linen, initiated between December 1903 and early 1904. Figured C C Linen, a coded name for Casement Cloth, was subsequently stocked by Heal & Son in March 1904 at 1s 8d per yard, just 2d more than the price of Heal's plain Casement Flax (7:2). This demonstrates that at least one group of figured experiments held within the Barclay Lockhart Sample Book did go into production, and that the firm did succeed in offering originality and good value to this important retailer.

Designs 1-5 (illus 8:19), executed in ink on tracing paper illustrate the simple, geometric figuration and open spaced nature of the half-drop repeating patterns planned for Figured C C Linen. Trials in linen, utilising these designs and others identified as A-P (illus 8:20), demonstrate how they were translated through experimentation into woven cloth.
Illus 8:19 Design 1-5 by David Tullo Donald, ink on tracing paper, 1903.

Above: Design G. Below: Design I.

Above: Design H. Below: Design J.

Design K.

Design L.

Design M.

Design N.

Illus 8:20 cont. Designs G-N in Figured CC Linen, c 1904, weft figured.
In the first set of trials, Design A (illus 8:21 see overleaf) with diamond spot pattern, and Design B (illus 8:22 see overleaf) incorporating the W motif as Design No. 5, were realised with an extra white, weft figuring yarn, against a plain woven ground of neutral. This meant that the weft figuring on the face of the cloth was accompanied by large floats, of unwanted figuring yarn, at the back of the cloth. Unlike the earlier Broche, to which these designs may relate, the figuring was woven with a continuous weft yarn. However, an examination of these first trials reveals that this method of figuring was considered unsatisfactory. Attempts made by Lockhart's to clip the floats (illus 8:22), indicates the undesired quality of the back of this fabric, for its intended use as a light, semi-transparent and reversible casement cloth.

As a result, the remainder of the trials were produced by discarding with the extra weft figuring yarn and instead, employing the basket diaper weave, weaving the pattern with the existing warp and weft yarns. Design I (illus 8:23 see overleaf) demonstrates the use of this weave to produce a spot effect similar to Design A, but without its disadvantages. With the warp in oatmeal tone and the weft in a white tone, a warp-faced oatmeal brown figure set against neutral was achieved on one side of the cloth, and a white weft-faced figure set against neutral on the reverse.
Illus 8:21 Design A Figured CC Linen, front and back showing extra weft figuring yarn, 1904.

Illus 8:22 Design B Figured CC Linen, as above, 1904.
From the study of these trials in Figured C C Linen, it becomes clear that the effectiveness of their design lay largely in the realisation of their simple all-over patterns in relation to woven cloth. Through the tonal and structural interplay between the spaced white or oatmeal figure, and the surrounding field of neutral silver grey ground, the patterns subtly activated the entire woven surface of the cloth. In this way, Donald Brothers built on their work with texture originated in the plain weaves, and established their Figured C C Linens as patterned co-ordinates, with their fashionable textures and cool shades in plain linen, marketing them as such.16

Between 1904-1912 the Heal’s sample records reveal six of the Figured C C Linens, stocked as pattern woven alternatives to the plain and printed Casement Flax (7:2&3)17 Their stock samples (illus 8:24), however, rarely correlate exactly in design or coding with Donald Brothers’ original trials of 1903/04. Heal’s Donald Fig’ CC Patt M (1904) was recorded as "private", and suggests this design may have been exclusively woven for Heal’s. Between 1904-06, quarterly (every three months), the design was stocked in a fifty three yard length.
Illus 8:24 Pattern M Figured CC Linen, stocked by Heal & Son, 1904.

Illus 8:24 cont. Pattern DD Figured CC Linen, stocked by Heal & Son, 1907.
In 1907, **Donald Fig’ CC Patt GG** (which appears the same as Donald Brothers’ **Design H** trial), and **Patt DD** were stocked by Heal’s. These demonstrate how the use of the basket diaper and geometric all-over pattern, as well as the gentle interplay between the woven white figure and neutral oatmeal ground continued to characterise designs in **Figured CC Linen**. On the other hand another sample, **Fig CC Patt BB**, stocked in the same year, reveals a more complex effect, with a figured ground of repeating ruthlessly abstracted flowers being divided into bands by narrower stripes of diagonal dashes and V shapes.

To appreciate the stark abstracted quality of **Patt BB**, it helps by inference to understand the modern nature of the geometric all-over patterns instigated by David Tullo. A comparative examination of Newman, Smith and Newman’s printed tapestry effect of 1907 (**illus 7:52**) helps to highlight this abstract approach. In the latter, an isolated spot effect has been subordinated to a larger inter-connected pattern of baskets
of flowers and bows, which, in their light, care-free rendering, provide a quality of naturalism and historicism alien to the severity of the abstracted flowers in Patt. BB. The latter, visibly woven into and part of the ground of the cloth, like other motifs in Figured C C Linen, illustrate the firm's primary preoccupation with exploring the relationship between flat pattern and the surface ground of the cloth, as well as between the abstracted motif and the woven structure.

Donald Brothers were not the only manufacturers to explore such effects in woven fabrics stocked by Heal's. Stanways' Heal 4085 of 1904 (illus 8:25) and the later more complex, Morton & Co.'s Heal 5004 of 1910 and Coldstream (Heal 1068) of 1912 (illus 8:26), reveal similar interests.
As comparative samples these fabrics illustrate something of the competition the firm was to face in this field. Ireland and Wishart, the first manufacturers to compete directly with Donald Brothers for Heal's business in Casement Flax, were also to make inroads into this decorative market with similar figured linens by 1908. It was Donald Brothers' early prominence with their Figured C C Linens within the Heal's records that establishes their own originality and success in this field.

As well as the Figured C C range, Donald Brothers also appears to have produced other figured linen qualities. Letters of Frank Donald's, written between late 1905 and early 1906, reveal that designs used for Figured C C Linen were also trialled in A 61 Linen. Reference made to a 428 Figured Linen, patterned with a stripe and diamond effect, suggests that this linen may well have resembled the later basket diaper Linwoof Tissue Design 3 of 1910 (illus 8:71). David Tullo Donald's interest in the basket diaper, which can be dated to 1903, indicates that this type of traditional design was being realised in linen sometime between 1904-1905.
One of these basket diapers may have been Figured Linen 412, recorded within the Pre-War Art Linens: Plain & Figured Counter Book (illus 8:27).

This design, with small repeating diapers woven in plain, basket and twill weave structure, is almost identical in design to one pinned into the Barclay Lockhart Glasgow Technical College Book (illus 8:28),
and must have been directly inspired by it. **Figured Linen 412** is also similar to a sample of undated hand-woven linen made by the Langdale Linen Industry (*illus 8:29*).

The latter sample, as an accepted Arts & Crafts product, therefore highlights, through comparison with Donald Brothers' linen, the firm's own original engagement with tradition in the Arts & Crafts period. The samples demonstrate how both makers sought, in using this old pattern, to integrate anew the design of pattern with the weaving process and to visibly express this in cloth. Both samples reveal pattern as constructive decoration and demonstrate in their surfaces the manner in which such pattern was made. Pattern can in this way be perceived as a bolder manifestation of surface texture. Indeed it is in this manner that such constructed pattern can be understood as no different from that produced by A S Prior in the constructed wall surfaces of *Home Place* (*illus 2:12-16*), or indeed that produced by Stickley in his Craftsman willow furniture (*illus 7.28*). All these manifestations of texture were designed through an
engagement with materials in craft, and became objects of aesthetic contemplation for the appreciative Arts & Crafts customer.

As a conclusion to this section on the new decorative fabrics, Figured Linen 412 therefore reinforces the underlying theme of this study. Namely, that David Tullo's engagement in pattern was conceived in relation to the firm's interest in purposing texture in woven cloth for the Arts & Crafts market. His patterns were all shown to have respected the geometry of the weaver's draft, the figure related in an integrated way, to the ground of the cloth. In this way the new decorative materials produced constructive decoration in woven textiles. In addition, their abstraction and elongation of plant form, feeling for irregularity and plain space all contributed to their essential modern design, and together with the traditional diaper patterns, demonstrate the originality of Donald Brothers in developing a structural simplicity which extolled texture within pattern woven textiles by the early 1900s.

8.2 Figured Jute Canvases 1906-1912

As discussed above in relation to the new decorative materials, experiments in Figured Twilled Canvases seem to have started in 1903. By late 1905/early 1906 "further trials" in canvas were mentioned in letters, and between June 1906 and January 1907, the first figured canvases were entered into the firm's Canvases No. 1. This record provides the first firm documentary evidence of their design and manufacture. Woven in jute, the figured canvases are related to both the earlier decorative fabrics and later figured weaves in tissue (8:1,3), as well as to the artistic, plain woven textures in canvas (6:1 & 9). They can be understood as part of the firm's conscious search to develop a rugged textural aesthetic in textiles, which reflected developments in America, where many of the fabrics were taken up. Originated around the time of David Tullo's death, it is probable David
Tullo had some influence on their design.\textsuperscript{20} After his death, it was Frank Donald who provided the design inspiration and direction for the figured cloths woven by Lockharts. As Frank Donald's involvement with the firm grew, and his strong passion for marketing became linked with design (5:3:2), it is evident that some of these fabrics reflected his contact with America and the needs of the American Arts & Crafts interior of that period.

A number of different designs make up the first group of 50" Figured Jute Canvas (20/6/06 & 1907). Small swatches of canvas pasted into Canvases No. 1 illustrate a number of effects, which ranged from small diapers to larger patterns based on Italian damask effects. The basket diapers in canvas (1906/07), produced in a number of versions in blue, green and red were consciously related in woven structure and design to the firm's linens. In January 1906 Frank Donald sent to Lockharts a cutting of 428 Figured Linen (with stripe and diamond pattern), and a linen sideboard cloth which he thought "may be suggestive in producing further trials of Figured Canvas."\textsuperscript{21}

For the first canvas design (illus 8:30 see overleaf), basket and twilled diamonds 5/8" wide were repeated every 1 1/8" across the breadth of the fabric. This produced a slightly raised, tightly regimented pattern on the surface of the cloth, as in Figured Linen 412 (illus 8:27). In another version taken up by Gustav Stickley in March 1907\textsuperscript{22}, larger diamonds (1 1/8") were repeated every 1 3/4", spacing the diamonds further apart (illus 8:31 see overleaf). The visual effect of the latter was to loosen up the figured pattern, with a variation of tone between the dark green warp and paler uneven green weft creating tonal interest, as well as emphasising the visible construction of pattern within the cloth. In this interpretation, Donald Brothers produced a canvas which accorded with the Craftsman structural idea (3:1). Its affinity with the expressed woven pattern found in
American Indian basketry and willow furniture favoured by The Craftsman (illus 7:28) suggests the compatibility of this material with others within the Craftsman interior.

*Illus 8:30 50" Figured Jute Canvas 909, 1906.*

*Illus 8:31 50" Figured Jute Canvas 911j, 1906. This basket diaper canvas was taken up by Gustav Stickley in 1907.*
Another Figured Jute Canvas 912 (illus 8:32), trialled in 1906 in terracotta/rose red and taken up by Stickley in 1907, provided an interesting quality of broken, textural pattern for the Craftsman home. Represented by one small sampled piece of a much larger design, weft figuring rendered uneven cross forms within a vertical braid effect in a manner that resembled rough needlework worked on canvas.

However instead of a clearly defined rendering of shape, that Donald Brothers through Lockharts was capable of weaving, this design is consciously fragmented, the edges of the figured pattern are merged as texture with its ground. In this way the pattern shares something in common with that within the border of the hand-woven Waverly rug illustrated within The Craftsman in April 1907 (illus 4:17). Such a similarity suggests the type of work Frank Donald looked to successfully, to co-ordinate their patterned weaves with their established textures in plain canvas, for the Craftsman market by this date.

Other samples that illustrate the firm's fascination with broken pattern and braid effects were Figured Jute Canvas 900 & 906, both trialled
in 1906 (*illus 8:33&34*). Figured by floated warps in twill/satin weave, the weft was employed to interact with and disrupt the floating warp, so that, as well as figured shapes, other more broken patterns, which disintegrate into textural effects, were created. 906 thus provided a broad stripe effect when viewed at a distance, which, when viewed close up, broke down into a rough surface texture. Its quality of 'rude' texture paralleled a similar development that occurred in the rough textured canvases (9:2), and can be understood as part of a conscious aesthetic, which the firm sought to create in this period.
In contrast to the designs discussed above, the final sampled design of this group, **Figured Jute Canvas 913 (illus 8:35)**

provided for a greater definition in woven pattern and appears to be based, like the earlier stencilled canvases, on traditional sixteenth-century Italian damask motifs. Woven on a hard warp with a "wooll’d" weft, literally teased out to look like wool, the interesting visual effect of this figured canvas was also that of needlework, although less 'primitive' than that of 912. This quality of needlework was suggested by the lighter toned, sometimes natural, warp dominated ground (the canvas), traversed by the bold, deeper toned, figuring weft (the wool). Trialled in a variety of
colours (four shades of green, rust, deep petrol blue, dark blue and gold) the canvas was taken up by A A Vantine & Co. of New York in 1907. Vantine's extensive stocking of this canvas demonstrates that a market clearly existed for this type of 'needleworked' canvas within the American Arts & Crafts, which favoured manorial grandeur alongside rugged simplicity.

The second group of designs for 50" Figured Jute Canvas (numbered 1-15) recorded within Canvases No. 1 & 2, were begun in September 1909 and continued into 1911. The reappearance of some of these within Canvases No. 2, indicates a prolonged working on this range, which resulted in a number of the fabrics being put into production. They form the main group of figured canvases leading up to the First World War, and, unlike the first group, can no longer be directly connected to David Tullo's design direction. Instead they seem to reflect Frank Donald's influence through his contact with the American market.

The type of designs produced varied considerably to include abstract, geometric, historical and textural patterns. All of them relied on the activation of texture for their aesthetic appeal, and were woven on a twisted warp with single thread weft. This imbalance of yarn which was highlighted by the play of light, activated the pattern and distinguished the figure from the ground in a bold textural manner. Such texture provided much richness and interest to the surface of all the canvases. Indeed texture was the unifying factor that brought cohesion to these designs in figured canvas, and forms the major theme of their study.

Design 1 (29/9/09) and Design 3 illustrate the firm's continued interest in abstracted pattern. As the only surviving designs trialled in both canvas and union tissue, they also demonstrate the variety of material effects the firm sought to obtain from one design.
Design 1 (illus 8:36&37) utilised a cobweb pattern, more clearly evident in the smaller scaled union tissue, to create an all-over abstracted repeat (6 1/2”). In the self-coloured canvas version, weave texture defined the pattern; the thicker twisted warp rendering in sateen structure the dominant cobweb motif, with the finer weft being used in combination with the warp to establish the ground. Through the interaction with light, either a light pattern against a darker ground, or a darker pattern against a light ground, depending upon which angle the cloth was viewed from, was
formed. By contrast in the union tissue, colour contrast established the pattern effect. The neutral cobweb pattern, woven with a single, neutral jute weft on paired coloured cotton warps, was optically set off by the darker-toned ground.

*Illus 8:38* 50” Figured Jute Canvas, Design 3, 1909. This canvas was confined to A A Vantine & Co., N.Y.

*Illus 8:39* Figured Union Tissue, undated, illustrating clearly the pattern of Figured Jute Canvas, Design 3, above.

**Design 3 (illus 8:38&39),** likewise sampled in both jute canvas and union tissue, provided similar patternistic effects of texture or colour
contrast. Its bold geometric abstraction of pattern appears visually related to the bursting forms of stencilled Decotex Design 2 (illus 6:50). This suggests the design's roots were in the abstraction of plant forms established by David Tullo, but it may also have been formulated in relation to the more aggressively abstracted forms developed in America, such as that illustrated in the leaded panels of 1907 designed by Frank Lloyd Wright (illus 8:40). Taken up in America, and confined to A A Vantine & Co. of New York, this boldly woven abstracted pattern was referred to by Frank Donald, in a letter of 1912, as "this interesting design". By this date it had been produced for Vantine's in twelve colours (red, gold, brown, fawn, two greens (olive and bottle), two blues (petrol and dark) all in 1910, blue (pale), tan, terra, and sage in 1911, selling at 1/8d per yard.
The importance of weave texture for the activation of the above designs was also evident in the two diaper patterns Design 6 (29/9/09) and Design 13 (1910) (illus 8:41&42). These, employed diamond shapes interlocking one with the other to form visually rich all-over patterns. In Design 6 small 1 3/4" deep repeating diamonds were woven with the twisted warp yarn to cover the complete surface of the cloth with a rough encrustation of pattern, while in Design 13, larger diamonds (possibly approximately 8" deep), filled in with smaller diamond shapes, were
arranged to absorb the openly woven textured ground actively into the pattern. In comparison with the forthright simplicity of the earlier basket diapers and union tissues, in which weaving as a structural process was emphasised and a careful balance between figure and ground maintained, these diapers were visually more intricate and no longer relied on the activation of plain space. As such, they hover between a direct quest for ornamental pattern and a search to enlarge the parameters of textural effect within the work of Donald Brothers. Viewed from close up, both the surface texture of the material and the pattern combine together within the cloth. Viewed from a distance another combination, that of pattern as a bold optical texture of diapers and pattern work was achieved in wallcoverings.26 This broad reading of pattern as texture was, as already identified, similar to that proposed and designed by the architect A S Prior at Home Place. It is with such a reading that these canvases can be understood as designed for the Arts & Crafts interior.

Donald Brothers' stripe effects in 50" Figured Jute Canvas provided similar qualities of bold optical texture to the above diapers. Taken up in America, they can be directly related to the architectural quest for textura, in which the constructive feel for horizontals and verticals developed to interweave the outside and inside of the house required such textured materials for interior furnishings (2:4). Design 2, 8, 9, 10, 12 (29/9/09 - 1910) and 50" Satin Stripe Dyed Canvas "Striped Arras" (1909) make up this group, and were woven in various proportions with differing textural contrasts. Pasted into the sample books to show both horizontal and vertical stripes, both were probably put into production. Verticals would have been suitable for wallcovering purposes, while for furnishings, such as portières, window seats and cushions, both verticals and horizontal stripes would have been used (illus 8:45).
The first trial, 50" Satin Stripe Dyed Canvas (July 1909), woven by Donald Brothers in their own factory, was not strictly part of the group of Figured Jute Canvases originated through Lockharts. However, as a precursor of the Figured Stripes it is of interest, particularly as it was stocked by Gustav Stickley. Satin Stripe Canvas was originally trialled in two woven variations. The first was woven with a stripe effect resembling basket weaving (*illus 8:43*); the second with a more solidly covered diagonal rib effect in the 1 1/2" stripes, which contrasted with an intricately woven texture between, created a two-tone stripe effect (*illus 8:44*).
Trialled in dyed shades of mid blue, fawn, gold and mauve in September, the latter was taken up by Gustav Stickley & Co., New York & Boston, in December in dark smoky blue, brown/green and brown; in January 1910 by J McCreery & Co. of New York; and in March 1910, renamed 50" Striped Arras, was stocked in a range of mellow forest colours as well as in lighter grey/mauve and mid purple colours. Craftsman illustrations of vertical wall treatments, in wood panelling (illus 8:45) and in wallcoverings showing a two-tone stripe effect used for a bedroom or woman's sitting room (illus 8:46) indicate the manner in which Striped Arras would have been used on walls.27
The 50" Figured Jute Canvas Stripes (1909/1910), probably inspired by Striped Arras, were likewise destined for the American market. Design 2 (29/9/09) (illus 8:47), woven with a bolder ribbed texture than Striped Arras, was confined to B Altman of New York (1910) in red, terra, green, grey/blue, dark blue and golden brown.

Design 8 (illus 8:48), woven with a narrow 3/8" stripe, and produced in a similar range of colours to Design 2, was also exported to America as well
as being taken up in Canada by Belding Paul Co. Ltd in 1910, and in
Australia by W H Rocke & Co. Ltd of Melbourne in 1911. In contrast to the
latter narrow stripe, Design 9 & 10 (1910) (not illustrated) were woven
with broad 5" & 2 1/2" stripes respectively; Design 10 together with
Design 8 being produced in a 36" width in the firm's registered 36"
"Rayotex" range of stiffened canvases launched in 1910, as a development
of their wallcovering Decotex.28

Within the sample books it is not recorded whether Design 9 & 10
were taken up in America. However, colour references to the American
burlap Fab-Ri-Ko-Na, placed next to swatches of Design 10 in Canvases
No. 2, demonstrate the firm's keen awareness of market trends in the
USA.29 Fab-Ri-Ko-Na was a trade name used for a range of "superior
burlaps" manufactured by W B Wiggins and Sons Co. in Bloomfield, New
Jersey.30 Marketed as suitable material for wallcoverings, portières and
window seats, Fa-Bri-Ko-Na, in rugged quality undoubtedly rivalled
Donald Brothers' canvases in America through out the Arts & Crafts period.
This competition must have been particularly acute after Gustav Stickley
began to advertise Fa-Bri-Ko-Na in The Craftsman in 190731, and a heavy
import tax placed on the jute and linen fabrics of Donald Brothers made
their materials increasingly expensive in the USA by 1910 (10:1).

The rugged textural effects explored in the stripes destined for
America were also developed in other Figured Canvases. Design 5
(29/9/09) & 50" Twilled Dyed Canvas (1909/10) (illus 8:49 see overleaf)32,
were woven with twill effects, which created bold all-over textures. These
were related to the optical patterned textures of diapers and stripes in
Figured Canvases, and extended the firm's range in the rougher plain
weaves being woven in the same period (9:2). In this manner they formed
a bridge between the two, and provided a textural richness in canvas for
the American and Canadian market by 1910.
50" Twilled Dyed Canvas was taken up in March 1910 by W A Murray & Co. Ltd of Toronto, in drab, mid blue and brown and by H Morgan & Co. of Montreal in green, gold and helio.
Illus 8:50 50" Figured Jute Canvas, Design 4, 1909, interwoven trellis effect exported to America.

Design 4 (29/9/09), which relied on an optical as well as material texture for its effect (illus 8:50), was likewise exported to America; taken up by R H Stearns & Co. of Boston in green, brown and blue (2/1910); T Easton & Co. of Winnipeg in gold, fawn, brown, green and olive (7/1910); and H B Clafflin Co. (for McCreery & Co. of Pittsburg) in green in 1911. This design demonstrates the firm's clever manipulative disruption of the all-over smoothness of satin weave to purpose texture. Weave is structured to form an impression of interlacing diagonals, which creates a trellis effect of bold optical texture for the eye when viewed at a distance. When viewed close up, this optical effect breaks down into a complicated weave.
structure of one yarn interacting with another, to provide a satisfying textural intricacy on the surface of the cloth. In such exquisite texture, a woven reference to architectural *textura*, evident in Craftsman trellis work and willow furniture (illus 8:51 & 4:15) was created by Donald Brothers for the American market.

*Published in The Craftsman, December, 1907.*

**VINE COVERED PORCH THAT IS USED AS AN OUTDOOR LIVING ROOM AND THAT SEEMS MORE A PART OF THE GARDEN THAN OF THE HOUSE.**

*Illus 8:51 Craftsman trellis effects: porch/outdoor living room (1909).*

*8:51 cont. Bungalow patio with latticed walls, willow chairs and ‘woven’ brick floor, designed by M Hunt, © 1916.*
The final design in Figured Jute Canvas Design 15 (25/9/11) (illus 8:52),

also exemplifies the conscious quest on the part of Donald Brothers for rugged textural effect in canvas. However in this canvas, which was woven with a twisted yarn in both warp and weft, weave structure was deliberately manipulated to create an awkward, rough all-over texture on the surface of the cloth. This awkwardness in texture gives the impression that the trial has been wrongly woven. Obviously this was not the case, or the sample would not have been pasted into the pattern book. The design can therefore be understood as a bold attempt, on the part of the firm, to nurture with figuring structures a crude roughness, which created an illusion of imperfection in cloth.

In recognition of this expanding work with texture, 50" Crepe Canvas Designs 1, 2, 3 (29/3/1911) (illus 8:53-55 see overleaf), initially recorded together with Figured Jute Canvas Design 15\(^3\), were re-classified, to form a distinct new quality in textured canvas. These crepes also employed weave structures to purpose all-over texture and the illusion of textural imperfection on the surface of the cloth. This desire to create textural imperfection can be understood to parallel the firm's work in the very rough weaves, which were developed with reference to hand-woven cloths and taken up by the American market (9:2&3).
Illus 8:53 50" Crepe Canvas, Design 1, 1911: designed imperfection.

Illus 8:54 50" Crepe Canvas, Design 2, 1911: a diagonal 'couched' effect.

Illus 8:55 50" Crepe Canvas, Design 3, 1911; a painterly all-over texture.

Inset: Design 2&3.
However, unlike the plain woven textures, which relied on the physical structure of the imperfect yarn and its manipulation in simple woven structures to engage the eye in actual textural imperfection and the process of its construction within the woven web (6:1, 9:1 & 9:2), the crepe weaves were more complicated texturally. In these canvases the eye becomes lost in the convoluted structure of the weaves and can no longer follow the weaving process. In this manner the eye is thrown back onto the surface of the cloth to an appreciation of the all-over texture and an illusion of textural imperfection.

In Crepe Design 1 (illus 8:53), warps and wefts were woven in combinations of plain and satin structures to create visual intricacy and an appearance of surface irregularity, similar to the broken texture of an unevenly hand-woven cloth. Design 2 (illus 8:54) provided a richly textured surface that gives optically the illusion of yarn couched boldly on the diagonal over a base fabric. This effect was modified in Design 3 (illus 8:55), by breaking up the prominence of the 'diagonals', to create a more integrated all-over rough textured surface which can be described as 'painterly' in its handling and appeal (2:1).

Sampled in neutral, Design 1, 2, 3 were produced by Lockharts for Donald Brothers at 10d (Design 1) and 12 1/2d (Design 2 & 3) per yard. By April 1911 Design 3 was stocked by the firm, in neutral, grey, mid-blue and crimson. By August 1911 Design 1 was sampled to Tobias Van Cleff of Rotterdam, in chosen colours such as green, brown, gold, wine, dark blue and bronze green, demonstrating that a market did exist for this designed irregularity and painterly texture.

The final group of canvases to be discussed, developed the all-over material irregularity, textural intricacy and painterly sparkle that Donald Brothers had begun to explore in the crepes. Trials involved five designs for Fancy Hat Canvas (11/1911) woven by a J Patersons and Co. for Donald
Brothers, as well as three for 48" Fancy Canvas. Design No. 1 & 2 Fancy Hat Canvas (illus 8:56 & 57), illustrate sufficiently in two weights their textural qualities.

The irregular and varied thicknesses of yarns were woven visibly to construct a three dimensional depth of intricate texture in fabric, which catches the light and traps the shade, to provide painterly textured surface in cloth. A similar painterly surface was created in 48" 501 Fancy Canvas trialled in 1912 (illus 8:58). The use of the word "Fancy" to categorise these
canvases, expressly woven with complicated weave structures to develop material and optical texture as an object of design, demonstrates the conscious intention of Donald Brothers to nurture texture in industrially produced textiles at the beginning of the twentieth century.34

Indeed, the whole of this section studying the figured canvases originated between 1906-1912 has shown how the firm consistently engaged with pattern to develop textural effect in fabric. It has been shown how the canvases, woven with basket, twill and sateen structures were produced as an intentionally rougher fabric than the figured tissues and linens, which suited the Arts & Crafts market for rough texture in America.

It was understood that the early diaper canvas taken up by Stickley, emphasised the visual construction of pattern as an extension of the plain woven surface, and that this accorded with the Craftsman structural idea in furnishing. Also, that the stripe effects provided bold optical texture of horizontals and verticals, as well as close up material texture, which became in itself an expression of architectural textura.

In addition to these forthright, boldly constructed textural effects in pattern, it was also shown how the firm used figuring to produce richer, texturally encrusted patterns, rough 'needleworked' effects and broken pattern effects, by which pattern, was either texturally worked over or merged with the ground. The sophisticated manipulation of figuring to disintegrate pattern and produce at times rude, rough surfaces, was understood, in the later all-over figured canvases, as a conscious attempt on the part of the firm to purpose an illusion of textural imperfection and all-over irregularity in cloth. Such illusion was understood to have been developed in relation to actual textural imperfections of the rougher weaves in canvas and linen, and with reference to hand-woven cloths.

However, unlike the thinking and shaping of the plain weaves and bold figure effects, which sought to reveal the structural plan of the woven
fabric within the material texture, the complex figuring effects produced a textural irregularity, in which the eye and mind could no longer grasp the underlying structure of the material. In this way, the latter effects in intricacy and illusion were at odds with the bold expression of yarn and weave at the heart of the firm's work, and marked a divergence of approach at this time. This divergence is well illustrated by the figured tissues, and forms the final section of this chapter.

8.3 Figured Tissues and Linens 1910-1914

Although initiated in 1903, it is not until 1910, when Tissue records were begun, that the thread of Donald Brothers' work in this quality of fabric can be re-established. The firm's use of the word 'tissue', a term used within the silk trade to denote a compound cloth employing two or more coloured wefts, indicates their intention to produce a lighter-weight, more delicately patterned fabric than the heavier canvases. On opening the firm's sample book Tissues No. 1, one is indeed struck by the fineness and delicacy of pattern and the quality of silky effect achieved in tissues. Such fabrics form a contrast to the rugged canvases on the one hand and the finer, non-effacing quality of linen on the other. Sharing many patterns in common with the figured linens, and trialled over the same period, the tissues to be discussed demonstrate the variety in cloth that the firm, with the aid of Lockharts, was intent on, and capable of producing by 1910, and illustrate further their divergence in design approach at this time.

This divergence was also evident in the lighter use of line and space, and choice of historical pattern of in their printed linens by 1907 (7:3), and in the textural intricacy and illusionism of the figure woven crepes by 1911. It can be understood as having been developed in response to the market trend towards fineness, visual lightness and period styles in interior furnishings (7:3). Building upon this trend and work, the tissues illustrate
the firm's sophisticated manipulation of cotton, jute and linen fibre, to produce, in the re-interpretation of eighteenth-century pattern, greater lightness, illusionism and variety in their fabrics. In this manner the tissues widen the study of textural effects designed by the firm before the First World War, and thereby illustrate their developing vocabulary in textiles and the particular design response to market trends in furnishings.

In contrast to the rough textures and bold figured canvases, which found their place alongside other building materials within the living/hall, dining-room, library and smoking room of the Arts & Crafts interior, the finer Tissues with ribbon, trellis and diaper effects would have been suitable for the more conservative and delicate arrangements within the drawing-room and bedroom of the later Arts & Crafts and Edwardian home. Comparative trellis effects, used for the cushion of the Craftsman willow settle (illus 7.28), on the cover of Heal's booklet Old Fashioned Fabrics (illus 7:54), and for wallcoverings within George Walton's drawing room interiors at The Philippines (c 1902-05) (illus 8:59),

*Illus 8:59 Drawing room interior with trellis patterned wallcoverings, The Philippines by G Walton, c 1902/05.*
as well as his own home at Emperor's Gate (illus 8:60), demonstrate to varying degrees how a combination of Arts & Crafts simplicity with period pattern was being fashioned by the mid 1900s. It is within this context that Donald Brothers' contribution in Tissues can be appreciated.

The initial range of tissues, 53" V B Tissue Design 1-14, were trialled between September 1910 and 1912. They employed a matt cotton warp and lustrous jute weft to gain with woven structure maximum contrast of texture between figure and ground. Mostly woven with a repp or satin weave for the background, the cotton warps tightly covered the wefts to form a matt ground, over which the thicker lustrous jute wefts in twill or satin weave formed the figure. So lustrous was the jute weft that it created an effect almost like silk. This effect is illustrated particularly well by Design 1 & 2 (illus 8:61), which were, in addition, embossed with a moiré finish to enhance their silky quality. In this way, the samples demonstrate that Donald Brothers did indeed seek such a quality of silky effect with their V B Tissues.
This silky effect distinguishes the tissues from the figured linens which were originated slightly earlier in March 1910 and trialled over the same period between 1910-13 as 50" Figured Linen. The latter quality, utilising linen yarn for both warp and weft, by contrast, achieved a much subtler textural effect in pattern and surface. Relying on the natural tonal contrast created by the warps and wefts woven in twill and satin weave, the figured linens never appear to be anything but linen (illus 8:67). This non-effacing quality was intentional; the figured linens, unlike the tissues, were never moiréd to look 'silky'. Something of this natural quality of the linens, in contrast to the silky effect of the tissues is captured in the photographic comparison made between Design 9 in Figured Linen and Design 14 in V B Tissue (illus 8:67).

The figured designs in V B Tissue were of a delicate, pretty nature, with diamond, trellis and ribbon motifs forming patterns which decorated the fabric surface in a visually light manner, enhancing further the allusion
to silk. The designs were therefore different from the sparse, angular patterns of the earlier union tissues (8:1), and reflected the general shift in public taste away from the modern and towards period style in textiles. 

Silk samples 1 & 2 (illus 8:91&92), pinned into the Barclay Lockhart Sample Book, indicate the sort of materials Donald Brothers and Lockharts looked to for design inspiration.

**Design 4** (1910) (illus 8:62) and **Design 10** (1911) (illus 8:63) are representative of this change that had taken place in Donald Brothers' tissues by 1910. Their grounds, patterned by the weft forming triangles and vertical lines of diamond shapes (Design 4),

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*Illus 8:62 53" V B Tissue, Design 4, cotton and jute, 1910.*
or minute dots (Design 10), while obviously related to the spot effect in

Design 1 Yarn Dyed Tissues (1903) (illus 8:11), are more delicate and airy. The yarns weaving the spot effect are no longer prominent as woven structure on the surface of the cloth; instead they glisten as shapes spatially detached from the woven ground. Against the grounds, instead of stark isolated plant motifs, scroll forms and tied ribbons, trail, float and fill the fabrics, creating ogee forms and a sense of eighteenth-century gaiety. In this use of yarn and pattern, these fabrics are similar in feel to a Stanway & Co.'s fabric taken up by Heal & Son in 1901 (illus 8:64), as well as Newman
Smith Newman's printed simulations of woven effects, stocked by Heal's in 1907 (illus 7:52). The evidence of these patterns and weaving effects within Heal's records indicates Donald Brothers were following a market rather than creating a market with these designs.

Historical reference was also evident within other designs. Design 2 (1910) (illus 8:65) was patterned with a neo-classical oval motif, formed by two sprigs of leaves, 2 1/2" deep. Trialled in a cool, classical duck blue colour and moiréd, the fabric has the appearance of watered silk. Design 3 (1911) (illus 8:66) employed Gothic motifs and was stocked in 1912 in two colour ways, one with a green warp and blue weft figuring, the other with green warp and brown/ purple weft. Renamed "Gothic" in 1925, the same design was trialled in rose for the Tate Gallery in London.

Design 14 (1911) (illus 8:67 see overleaf) also used the shape of a gothic arch and was ingeniously combined with the motif of a feather, woven to great effect with the glistening jute weft in twill weave. As a variant on the
aesthetic, peacock feather motif this fabric was accordingly trial woven in aesthetic colours of petrol blue, viridian green, sea green, rusty gold and dusty purple. In petrol blue and green (figure/ground), it was taken up by L. J. Fletcher of New York in 1912.

Illustration 53: V B Tissue, Design 14, 1911, in this tissue sample the lustrous jute weft creates the figuring.

Illustration 50: Figured Linen, Design 9, 1910, in this linen sample the pattern is formed by the warp.
Two last designs chosen for discussion indicate how the feel for historicism evident in the patterns of V B Tissue permeated designs which were also still related closely to the figured canvases. **Design 9** (1911) *(illus 8:68)*, figured with 1" vertical stripes, flanked on either side by a finer stripes, enlarged upon the work in canvas stripes.

![Illus 8:68 53" V B Tissue, Design 9, 1911.](image)

However, in contrast to the broad, textural effects in canvas, the tissue design evoked the Regency stripe, in its trialled shades of grey, sand and blue. In this manner the earlier constructive stripes were transformed into a period pattern for the Edwardian interior.

Likewise the diamond pattern in **Design 7** (1910) *(illus 8:69)*, repeatedly arranged to form, as one large and four small diamonds, vertical lines, provided a quality of eighteenth-century airy lightness in fabric.

![Illus 8:69 53" V B Tissue, Design 7, 1911. Two different views demonstrating the effect of light on these patterns.](image)
Compared to the basket diapers in linen and canvas (1906) (*illus 8:27,30,31*), in which the diamonds were wedded into and expressed the woven cloth, these diamonds glistened and hovered in space, optically detached from their predominantly matt ground. Such an interpretation anticipates the later pierced wood work in George Walton's music room at **32 Holland Park** of 1914 (*illus 8:70*); the latter's decorative effect illustrates just how the past was being re-interpreted and fused with the modern for the interior, by this decorator, at this date.

*Illus 8:70 Comparative decorative effect in the music room, 32 Holland Park by George Walton, 1914.*

Another group of tissues woven to maximise the visual play between matt cotton warp and lustrous linen weft was **53" Linwoof Tissue, Designs 2-28** (1910-14). The linen, rather than jute woof/warp used, provides the key to the fabric's name. Begun in the same period and closely related to the **V B Tissues, Linwoof Tissues** were lighter in weight and used smaller scaled designs than the former. They were also closely related to Donald
Brothers' range in 50" Figured Linen, which begun in March 1910 shared many of the designs, their main difference being that of textural effect, as already discussed under the V B Tissues. Designs were trialled at two different times before World War I, between 1910/11 (Group I) and in 1914 (Group II); after the war they were resumed again until 1925 (Design 28-47). Their prolific number indicates that the fabric was successful in terms of quality and design.

In design, many of the patterns combined the firm's familiar use of the traditional basket diaper with their delight in trellis effects. Two basket diapers Design 3 & 7 (12/1910) (illus 8:71&72), also trialled in 50" Figured Linen (Design 6 & 8, 1910), illustrate the continued use and popularity of this type of small constructive pattern. The latter, Figured Linen Design 8, as a 1 1/2" repeat, became a registered design in 1913.38

Illus 8:71 53" Linwood Tissue, Design 3 with enlargement, matt cotton warp, lustrous linen weft, 1910.
Illus 8:72 53" Linwoof Tissue, Design 7.

Angled views illustrating the effect of
light on texture;

a weft linen figure of dark on light (top),

a weft linen figure of light on dark (below).
Evenly woven, the fine threads of matt cotton and lustrous linen delicately formed the chequered patterns, which were either lighter or darker than the ground, depending on the angling of the linen yarn in relation to light (illus 8:72). In this manner the patterns emerged from and hovered against the ground (Design 3) or covered it with an open net-work effect (Design 7). Such a net-work pattern was related in open effect to the trellis designs in Linwoof, but in contrast to their spatial effect, Design 7 remained distinctly flat and grew out of the constructive weaving process, like the earlier basket diapers. Both designs, in tissue and linen, were produced in pale, cool shades of neutrals, greys, fawns, golds, greens, blues and rose. In quality and constructive pattern they therefore co-ordinated with the plain linens (7:2), and were particularly suited for use within the Arts & Crafts interior. Design 7 (in linen) was taken up in ten shades by Stroheim & Romann of New York in November 1910; in tissue by The T Eaton Co. of Winnipeg in 1911 and by Beard Watson of Sydney, Australia in 1913.

In contrast to the constructive diapers, other Linwoof diaper/trellises developed spatial lightness on the one hand with surface intricacy on the other. They tended to combine a quality of illustrative naturalism, similar to the trellis print used by Stickley on his willow furniture (illus 7:28), with the constructive abstraction of the diamond/trellis pattern itself. In this manner they suggested, the Craftsman settle with cushion, a sense of garden within the interior.

Within the first group, Design 2 (illus 8:73 see overleaf), which stocked in 1911 was originated in 50" Figured Linen (Design 11) in 18/8/1910, established the fruitful combination of basket diaper and trellis patterns. Figured with a 3 1/2" repeat design in lustrous satin weft, a trellis effect of abstracted leaves was visually woven in shallow space in front of the material ground. In this way the trellis framed and activated the ground as space, within which one diamond per space, built up of twelve
small diamonds, hovered. Produced in a full range of colours which included cool linen shades of cream, purply/grey, pale blue, gold as well as a dark blue, rich golden brown and green, this fabric was taken up in Britain by Pettigrew & Stevens of Glasgow and A Morrison & Co. of Harrogate, and in Canada by Imperial Rattan Co. Ltd of Ontario, and in Australia by David Jones Ltd of Sydney. Its counterpart in linen was taken up in eighteen shades by J McCreery of New York. These customers illustrate the success such pattern enjoyed with rattan work (Rattan Co. Ltd) and the Craftsman style (McCreery of New York).
Design 6 (12/12/1910) (illus 8:74), likewise used a trellis effect, but in this case was not visually interwoven. Instead it was figured with noticeably more naturalistic leaves, framing spaces spotted with glistening diamonds that were visually detached from their matt ground. Produced as a smaller, finer version of V B Tissue Design 5, this Linwoof fabric related closely to the visual lightness of V B Tissue, though indeed surpassed it in this effect through its fineness of material.

The second group of Linwoof designs were trial woven between March and August 1914, and therefore, chronologically came after the A & L qualities in union tissue, studied below. Within this second Linwoof group, small repeating diaper effects and warp and weft stripes predominated. Unlike the first group of patterns, in which the balance between figure and ground was maintained and a quality of space explored, with the later designs, pattern became intricate and pervasive, so
that it practically obliterated any sense of plain material ground, or spatial depth within this ground.

In their reassuring intricacy and economic size of repeat, these patterns demonstrate a conservatism in design. They probably reflected both Donald Brothers' and Lockharts' response to the difficult trading times before World War I, when both firms sought not "to make up anything that they (could not) turn into money right away".39

The Linwoof stripes, Design 11, 12, 15, 16, 17 were the first of the designs to be trialled in March 1914. Like the V B Tissue stripe, they can be understood as revivals of the Regency stripe in furnishings. Woven in both weft and warp satin stripes, in varying widths and proportions, the designs maximised the contrast between the matt cotton and lustrous linen for their textural effect. For instance, in Design 15 (illus 8:75), the 1" warp stripe was woven with the matt cotton yarn, raised prominently in satin structure, with the lustrous linen weft yarn filling in the ground in twill.

![Image of Linwoof stripe design](illus 8:75 53" Linwoof Tissue, Design 15, 1914.)
Wet finished, the polished linen created an underlying sheen to the ground, which set off the stripe. This provided great lightness in this pattern, in comparison with the more subdued V B Tissue stripe and the much rougher Figured Jute Canvas Stripes (8:2).

Trialled between May and August 1914, Design 1, 19, 20, 22, 24, 25, 26 continued the exploration of the trellis/diaper combine, as well as the diaper by itself. With these, both the warp and weft threads created the increasingly intricate figured patterns. Design 1 (1" repeat) (illus 8:76) was

Illus 8:76 53" Linwoof Tissue, Design 1, 1914.
Designed with a delicate irregular trellis effect
(linen weft) this pattern may date to c 1910.
woven with weft figuring in broken twill structure to create a delicately irregular glistening trellis effect that was filled in with a matt warp spot effect. As its number suggests, this design may have belonged to the earlier group, and like them retained an openness of spatial effect.

In contrast to the above design, **Design 19** (1 3/4" repeat) (*illus 8:77*) with diaper/ribbon pattern, illustrates the all-over richness of effect sought in tissues by 1914. In this design both the cotton warp and linen weft were

*Illus 8:77 53" Linwoof Tissue, Design 19, with enlargement, 1914; an all-over richness of effect.*
equally used to create the figuring, worked over the entire surface of the cloth. The lustrous weft delineated the ribbon trellis, while the matt warp filled over the ground and blocked out any sense of space. **Design 26** (3/4” repeat) (*illus 8:78*), sampled in July 1914, also used warp and weft figuring to cover the entire cloth, this time to form a strictly geometric counterbalance pattern.

The pattern alternates between, being white (made with the warp) on buff ground (made with the weft), or visa versa, buff on white. In contrast **Design 25** (1 1/4” repeat) (*illus 8:79 see overleaf*), established the figure as white. This was woven by the warp which optically 'worked' a detailed evenly distributed pattern over the blue weft faced ground. Much the same effect was achieved in the slightly larger **Design 20** (1 3/4” repeat) (*illus 8:80 see overleaf*), trialled as a pattern of white on white. In this quality of 'worked' pattern, both **Design 25 & 20** appear to simulate a quality of fine needlework worked on to cloth, and illustrate the firm's continued interest in needlework as a source of ideas for woven pattern. However, in contrast to the earlier figured canvases (*illus 8:32&35*), in which bold and/or broken needlework effects were created, with the **Linwoof** designs, fine yarns and detailed structures were used to build rich, textural intricacy and a reassuring quality of historical ornateness on the surface of the firm's materials by 1914.
Illus 8:79 53" Linwoof Tissue, Design 25, 1914.

Illus 8:80 53" Linwoof Tissue, Design 20, enlarged, 1914.
In complete defiance of the tight geometry of the above diapers, the last two designs discussed, Design 13 & Design 28 (March/August 1914) (illus 8:81), used warp and weft figuring to create all-over random textural patterns. These appear to be abstracted from natural phenomena such as water reflections (Design 13), water ripples or wood graining (Design 28).
Related to these, was another, earlier abstracted all-over texture/pattern, which, suggestive of fishing nets or water, was realised first in linen (1910) and then in L Tissue (1912) (illus 8:82).

As a group, these three distinctive designs illustrate Donald Brothers' use of figuring to purpose further variation in all-over texture, which, although out of keeping with the diaper and trellis effects, can be understood in relation to the painterly all-over surfaces of the crepes (illus 8:53-55), as well as to the quality of textural naturalism developed in the rougher weaves (9:4).

The two other qualities of tissue to be trialled in 1912, between the first and second group of Linwoof tissues, were A Quality Union Tissue and L Tissue Designs A-K. Both qualities were woven with a matt cotton warp and lustrous jute weft, to produce a finer cloth than V B Tissue. In woven design, the tissues were sometimes realised to maximise the three tone effect initiated by David Tullo Donald in the early Union Tissues (8:1). In this manner, the tissues emulated the compound weave effect of silk tissue, to build up intricately layered pattern effects on the surface of the cloth. Such pattern developed further the sense of space within fabric, which, first established in the earlier Linwoof designs of 1911, had been obliterated in the later designs of 1914.
Design A (approx. 3" repeat) (illus 8:83), illustrates the complexities of layered pattern sought in L Tissue. In this pattern repeating ovals, rendered by the cotton warp, were interlaced with leaves and small flowers to form wreaths, rendered by a slightly darker, lustrous linen weft. Within, and visually behind the wreaths, a fine lattice effect and central oval shape, rendered in weft figuring, established a further plane behind which the lighter spatial ground, dominated by the cotton warp, can be seen. In this way, figured pattern crowded out the two dimensional space of the fabric ground, whilst developing further the illusion of space within the fabric.

Slightly less intricate in design, Design B & H (illus 8:84&85) displayed a similar use of warps and wefts to build pattern on top of
Illus 8:85 53° L Tissue, Design H, 1912: pale warp, dark weft, designed to maximize the three tone weave effect. pattern and a sense of space in cloth. Building from the intermediary toned cotton warp/jute weft mixed ground, the eye is led to the darker weft figure and to the light warp figure. In this way these trials achieved a depth in pattern which distinguished them from earlier tonal renditions of the same patterns woven in one-colour arrangements in Figured Linen 1910 (illus 8:86).

Illus 8:86 50° Figured Linen, Design 10, (top) and Design 14 (below), trialled in 1910 these designs produced a subtlety of tonal contrast and depth which was enlarged upon in the later L. Tissues Design B & H (illus 8:84 & 85).
Likewise Design F (1 1/2" deep repeat) (*illus 8:87*), used the familiar combination of trellis/diaper effect initiated in *Linwoof*, to maximise the three-tone effect developed in the L Tissue range.

Thus, the mid-toned ground was woven with a mixture of warp and wefts on the face of the cloth, the darker trellis effect with the weft predominant and the smaller light diamonds with the warp. Woven in the heavier weight A Quality Union Tissue, this design was stocked by December 1912 in natural, green, dark brown, smoke blue, dark red and old gold and became a registered design in 1913.

The familiar combination of diaper and trellis patterns provides an opportunity to reflect on this recurring synthesis that occurred in Donald Brothers' figured work before the war. Through comparative study with other contemporaneous samples of diaper/trellis combines, which were pinned within the Barclay Lockhart Sample Book for design reference, the nature of the firm's subtle, individual, textural interpretation of this pattern is highlighted. In the cotton sample 1 (*illus 8:88 see overleaf*), warp figuring established a small (1" repeat) inter-woven trellis pattern on the surface of the cloth which was combined with a small square 'spot' effect, placed in the centre of each diamond space. In the second cotton/wool sample 2 (*illus 8:89 see overleaf*), a similar sized trellis and diamond 'spot' effect were combined with clusters of diamonds, placed at the intersections of the trellis. These deny the interwoven effect of sample 1 and visually
pin the trellis pattern to the cloth's surface. In scale, the designs of the samples were similar to some of the Linwoof designs, and displayed a similar combinations of motifs, but the even uniformity of the other firm's contrasts starkly with the textural sparkle and irregularity of Donald Brothers' woven patterns. For instance, the trellis effects in samples 1 & 2, are rigid and heavy in comparison with the undulating lightness and irregularity of that in Linwoof Design 1 (illus 8:76), rendered with lustrous weft and broken twill weave. Likewise, the diamond clusters placed at the trellis intersections of sample 2, are heavy in comparison with those in the Linwoof tissue, while the tight, held-in quality of the trellis in sample 2, highlights how visually activated was the trellis of abstracted, sprouting
leaves in Design F, A Quality Union Tissue (illus 8:87). Restrictions in yarn shared by all the cloths demonstrate how cleverly Donald Brothers manipulated theirs to give life and movement to their patterns. In both the Donald Brothers' fabrics, a combination of the warp and weft yarn achieved a three-tone effect, within a pattern woven with similar means to sample 2. In Linwoof Design 7 (illus 8:72), the subtle textural interplay, between the matt cotton warp and lustrous weft, produced in basket weave a chequered effect which activated visual movement on the surface of the cloth.

The individuality of interpretation manifest in the above tissues can also be discerned in a comparative study made between a union diaper, trialled by Lockharts in 1913 (illus 8:90 see overleaf), and two samples of contemporary silks, silk 1 & 2 (illus 8:91 see overleaf). All three samples are pinned together within the Barclay Lockhart Sample Book. The union diaper, being directly dependant for its design on the silk cuttings, also illustrates how Lockharts and Donald Brothers looked to and adapted eighteenth-century - inspired patterns to develop their own particular design ideas and interpretation into cloth.

In the union diaper, woven with a white cotton warp and blue linen weft all the essential elements of the delicate design in silk 1 were transposed into the heavier and more roughly figured diaper. Only the additional change in scale, for the motif within the central medallion shape, was borrowed from silk 2. However, within such a transposition, the fine detailing of pattern and distinct separation between figure and space in silk 1, became in the union diaper, blurred, and replaced by a broken less defined pattern. In this manner, greater roughness in the textural handling of intricacy was developed, and this distinguishes the union diaper fabric from its models, within the contemporary market that reflected the return to vernacular tradition and historicism in architecture and design.
Illus 8:90 Union Diaper, white cotton warp, blue linen weft, undated: a rugged interpretation of the silks below.

Illus 8:91 Silk 1 & 2, undated: design inspiration for the union diaper above.
In conclusion to this study of the Tissues it can be argued, therefore, that the firm's divergence towards illusion and intricacy in pattern, stimulated by the revival of period styles in furnishings, demonstrated their continued search to broaden their range and mastery of textural effects in fabric. It necessitated that they engaged with subtleties of fibre contrasts and complex weave structures, to develop their own distinctive textural interpretation of this trend. In this respect they used cotton as a matt-textured fibre to highlight by contrast the lustrous sheen of linen and jute fibre, and in this way developed a new textural quality of silkiness within their range, which was quite distinct from their Linen and Canvas qualities. Their use of woven structures to build patterns, which predominantly featured a combination of trellis and diaper patterns, illustrated through comparative study with other fabric samples the firm's versatile, interpretative handling of this combination. It was seen how they manipulated woven structures to design textural irregularity, textural and tonal contrast as well as rich and sometimes rough textural intricacy, as an integral part of their patterns. It was this textural handling which distinguished Donald Brothers' Tissues from other contemporary fabrics, and thus enabled them express their own individuality of making at this period.

Indeed Donald Brothers' textural handling of pattern formed the underlying theme within the whole of their work in decorative materials, and therefore this chapter. In the different ways texture was developed, it was shown to have been clearly articulated as an outgrowth of the weaver's draft in the early decorative fabrics to being more ruggedly expressed in the rough surfaces and bold patterns of the jute canvases. In divergence with this approach, texture was also demonstrated to have been developed with more intricate structures, to design optical impressions of broken surface, textural depth, illusions of imperfection as well as rich, ornately
worked surfaces. These provided for a complexity of textural effects in some of the later canvases and tissues. In this expanding range of texture, the firm's developing sophistication and distinct individuality as makers of texture was evident and appreciated. Thus Donald Brothers' simultaneous development of their very rough weaves in jute and linen fabrics can be more fully understood and assessed in the following chapter.
Footnotes.
1. This letter (dated 2/12/03), written by David Tullo from Haslemere, is held with others within the Barclay Lockhart Sample Book.

2. The Barclay Lockhart Sample Book was kept by Barclay Lockhart to file designs, fabric trials, correspondence and pattern cuttings related to the decorative materials. The book was given to me by Tom Lockhart in 1990.

3. The Barclay Lockhart Glasgow Technical College Exercise Book dated 1880 was the exercise book of fabric structures belonging to Barclay Lockhart who attended classes at the Glasgow Technical College, Weaving Branch in Well Street, Calton. The book is now in the possession of David Tullo Donald's grand-daughter, Mrs Campbell.

4. Designs in Figured Linen are recorded within Linens No. 1, pp. 160, 214, 333-367, 452-476, 494-503. To avoid repetition, in this discussion of patterned weaves, the linens have been considered together with the tissues in this section.


6. Ibid.

7. A "union" fabric is any piece of cloth consisting of two different types of yarn.

8. White, G. "The Sampler, an appreciation and a plea for its Revival." The Studio, Vol. IX Special Winter Number 1896-7 pp. 58-65. In this article White suggested the design of the sampler motifs should develop out of the woven structure; "If you want to make a pattern of daisies and do not discover any way to weave them into your design except by a painful effort to imitate a water-colour study of a flower would it not be best to forget the daisy and instead choose some of those forms which suggest flowers and foliage."

9. Two print designs with sampler patterns were bought from the Silver Studio in 1906, (7:3). Donald Brothers' interest in sampler patterns may well have begun earlier.


11. Ibid.
12. The hand-loom weaver Luther Hooper, believed that it was the introduction of the jacquard loom with its capacity for the multiplication of patterns (often originated on paper with little or no reference to the weaving process) which had been "responsible for the separation of the art of designing from the craft of weaving." Coatts, M. *A Weaver's Life: Ethel Mairet 1872-1952* Craft Council, London, 1983.

13. All these documents are held within The Barclay Lockhart Sample Book.

14. Stylistically, these fabrics do not fit in with what is known of Donald Brothers' stark, abstracted patterns originated in this period. They are closer in feel to those of Stanway & Co. (7:3), a company who commissioned manufacturers to weave designs for them. Stanways supplied similar shops to Donald Brothers' (such as Liberty's and Heal's) at the turn of the century.


16. Dyed Figured C C Linen Patt T, (c. 1908), with a small cross pattern, was stocked in bottle green, navy, crimson, fawn and ecru within the Art Linens: Plain & Figured Counter Book.

17. Figured C C Patt 0 (No. 4073), Patt M (No. 4074), Patt BB (No. 4456), Patt GG (No. 4468) and Patt DD (No. 4478), are recorded in Cretonnes & Dimities 1904-1908 & 1907-1914 Heal & Son Archive SU 60 & SU 61, National Art Library, Victoria & Albert Museum. The sixth Figured C C Linen was printed with Pimpernel (illus 7: 50).


19. The letters are dated 20/12/05 & 6/1/06. (The Barclay Lockhart Sample Book).

20. In Frank Donald's letter dated 6th January 1906 (written to Lockhart & Sons discussing trials for both Figured Linens and Canvases), an enclosed "copy of a few suggestions" for A61 Linen made by David Tullo, indicates his continuing influence on Donald Brothers' figured designs, which presumably continued up to his death in March 1906.

21. Ibid.

22. Canvases No. 1 p. 216. An "S", initialed beside an alternative sample woven in mixed fibre suggests this interpretation may have been trialled for Stickley although not taken up by him.
23. **Design 7, 11.** (1910). Both these designs were relatively large-scale patterns. The small swatches give only a fragmentary glimpse of these designs. **Design 11** included motifs such as a gothic pointed arch, combined with a palmette form. These motifs were used in the **V B Tissues**, trialled in the same time between 1910 and 1911, (7:3). **Design 11** was produced in a 36" width canvas as part of Donald Brothers' range of stiffened canvas **Rayotex** (1910). Produced in dark crimson, the design was taken up by the wallpaper manufacturers John Line & Sons Ltd.

24. **Private Letters No. 1,** p. 69. The importance Frank Donald placed on this design's abstraction was re-affirmed when he re-introduced it in 1925, woven in bright "jazz" colours as one of the first modern abstract designs in tissue.

25. **Ibid.**

26. Such diaper patterns "because of the severity of the ornament" would have been considered suitable for the dining room of the house: Menzies, A C. "Discrimination in the Choice of Wall Coverings", **The Journal of Decorative Art** 1905, p. 281. As bold optical texture they would also have been used within the hall/living room, library and smoke-room of the Arts & Crafts home.

27. Stickley, G. **Craftsman Homes, Architecture and Furnishings of the American Arts & Crafts Movement.** Dover, New York, reprint 1979, p. 146. This illustration first appeared in **The Craftsman** magazine in 1905. By 1908 Craftsman wallpapers (including stripe effects) had been introduced into the Craftsman scheme of decoration. See "Craftsman wallpapers for Craftsman rooms", **The Craftsman** Vol. 15 Nov. 1908 p.(xxxv).

28. **Rayotex** became a registered trade name in c 1911 with both **Design 8 (Narrow Stripe)** and **Design 10 (Broad Stripe)** patented in October 1911. **Bundle 8 Coll (2),** William Halley & son.

29. **Canvases No. 2** p. 304, 306.

30. Blomfield, N.J. **The House of the Honeymoon.** New Jersey, 1903. This book was written as a love story to promote **Fab-Ri-Ko-Na**, as the "latest most artistic" wallcovering. It was bound in "superior burlap" and contained an advertisement for **Fab-Ri-Ko-Na** at the back. A copy of this book is held in the Winterthur Library, Delaware.

31. **The Craftsman**, Vol. 12, April 1907, p.(xxv)
32. Twilled Dyed Canvas was not strictly part of the Figured Jute Canvas range. It may even have been originated in 1903 as one of the all-over designs prepared in Figured Twill Canvas mentioned in David Tullo's letter of 11/12/03 (7:1).

33. As Figured Canvases the design numbers were scored out and replaced by Crepe design numbers. Canvases No. 1 p. 418. The Crepe designs may have been originated by Lockharts. The samples were individually entered within Canvases No. 1 with the accompanying information, A84's 53" 83/1, 83/2, 83/3 respectively. Crepe samples also featured in Barclay Lockhart's Glasgow Technical College Exercise Book.

34. The word "Fancy" was used in the nineteenth century Scotch tweed industry to describe both yarns and cloths offering unusual textural and tonal qualities developed through the structural manipulation of materials. By the 1930s "Fancy" was closely associated with the products of the craft revival in hand-spinning and weaving, as well as with products, manufactured by firms which sought to incorporate craft practice and qualities associated with such practice within the process of designing for factory production. Donald Brothers' use of the word in the 1900s is important as it pre-figures these subsequent developments.


36. 50" Figured Linen Design 1-18, Linens No. 1. The Linens were initiated slightly earlier than the V B Tissues, in March 1910 and were trialled over the same period in between 1910-1912.

37. After 1925 Tissue designs tended to be individually named; particularly after Donald Brothers' quality range "Old Glamis Fabrics" was established in 1926.

38. As 50" Figured Linen Design 8, Linens No. 1 p. 452.

39. Letter dated 12/6/1914 Private Letters No. 1 p. 211. In a previous letter dated 4/6/14 (p 209), Frank Donald noted to his brother that the London yardage output was "much down on the first six months of the year (1914). I do not suppose we are alone in this respect, in fact I am sure we are not, and we must just look for better times".

40. Bundle 8, Coll (2), William Halley & Son.
CHAPTER 9 THE VERY ROUGH TEXTURES IN LINEN AND JUTE c 1906 - 1914

During the same period that Donald Brothers diversified into pattern woven materials, their work in plain woven canvas and linen was continually developed, to expand their range in rough textures. These textures, while directly related in forthright design to the plain textures in canvas and linen already studied (6:1 & 7:2), became increasingly rugged in effect. As "the very rough weaves in linen and jute" they formed a distinct line of development, which has been singled out for separate study within this chapter. With an understanding of the early plain textures in canvas and linen, and a knowledge of the sophisticated textural effects in figured tissue, it is shown that the very rough textures, while rugged and primitive in effect, were by no means primitive in their making, but consciously designed to express individuality and naturalism in cloth.

The study begins in 9:1 with further examination of Frank Donald's reminisces of the early work of Donald Brothers, to discern the firm's intentions in manufacturing the rough textures. This establishes just how important hand-woven cloth and the Craftsman context was for encouraging the firm's rugged aesthetic in textiles. It also identifies the importance of this aesthetic for laying the foundations of the later, 1930's rustic-modern style in furnishings. In section 9:2-4 the study proceeds to an examination of very rough textures. Picking up the threads of discussion developed in plain canvases (6:1) and linens (7:2), it is demonstrated in section 9:2, through comparative study between samples of hand-weaving and Donald Brothers' canvases, how the firm sought to reveal the beauty of weaving as construction, and express in ruggedly primitive texture, character and their own individuality as makers. A study of linen crash reveals the inspiration of the Craftsman context for this expression.
In section 9:3 the firm's individuality of expression in developing texture through craft-based manufacture is further identified within an examination of their work in designed irregularity, directional construction and stripes. Comparative study of this work, with examples of hand-woven cloths dating to 1900-1930 and their own later textures dating to between the 1920s-1960s, highlights the originality of the firm's early craft-based design and manufacture and their long-term commitment to it. In continuation of this study, in section 9:4, the firm's experimental work with twisted yarns is considered. Their fabrics are studied within the wider context of Scotch tweed and their own later work, to identify how the firm captured a quality of the Scottish landscape and character in their early fabrics to express naturalism in cloth.

In conclusion to the chapter it is understood that Donald Brothers, inspired by hand-craft and the Craftsman feeling for rugged texture, developed their craft-based manufacture to convey in the very rough textures the qualities of individuality and naturalism in industrially woven textiles in the Arts & Crafts period.

9:1 A Consciously Designed Aesthetic

In his account of the firm's early work, Frank Donald suggested their very rough textures were a direct result of the firm having to "content" themselves with the "comparatively rough yarns" that came to hand, an outcome of Dundee's indigenous coarse manufacture (1:2). This was indeed partly true, but it was not the whole truth. In the study of the plain canvases and linens (6:2 & 7:2) it was also shown how texture in conjunction with colour was being developed within the factory, through the skilful manipulation of materials and with an appreciation for hand-woven cloth. In 1937 Frank Donald revealed this more complicated truth
about their early approach and work, carried out at a time when the firm, he recalled rather nostalgically,

"had some glimmerings of what constituted art in the production of (their) fabrics .... For one thing, we were always experimenting with different fibres, different yarns, different dye stuffs, and different ways of treating the cloth, so that we might obtain as much textural effect as possible. I am not ashamed to admit we tried every means, within our power, to give our fabrics the appearance of having been produced on hand looms, rather than power looms, and although our dyes were aniline, we often got inspiration for our colours from the woods and hills around us. In America, they were called "forest shades", - rather a nice name."1

From the above, a number of important points can be made which highlight aspects of Donald Brothers' approach to making and helps shape the ensuing study of their rough textures. Firstly it confirms what has been studied so far, that texture and colour were considered by Donald Brothers as the two important qualities that constituted 'art' in their fabrics. Secondly, that the Donald Brothers team "we" were experimenting with their materials to achieve "as much textural effect as possible", that the very rough textures produced were a conscious aesthetic and not just the outcome of circumstance. Thirdly it establishes that the firm "tried every means, within (their) power" to emulate the appearance of hand-woven fabrics on the power-loom, to produce this aesthetic. Fourthly, it reveals that colour inspired by nature, was secured in the firm's cloths with synthetic, aniline dyes, and not (by implication) with natural dyes as revived by crafts persons (4:4). This was another important means of achieving a quality of naturalness in fabric, which associated with hand-crafted cloth, co-ordinated sympathetically with Donald Brothers' textures to produce a quality of rugged naturalism in factory manufacture. Finally, it confirms, through linking the discussion of texture and colour freely with the American market for "forest shades", as elsewhere texture and colour
were with the "rage" for Craftsman furniture (3:2), that the American Craftsman interior was a major context for the use of the textiles manufactured by Donald Brothers. Indeed, the "great vogue" Antique Canvas enjoyed as Craftsman Canvas and the reliance of Stickley and other American customers on many of the firm's canvases and linens (6:1 & 7:2 & 8:2), proven by Stickley's business records (10:1) and the record of substantial American market for their 'Art' business by £ 1906/07 (5:4), suggests that the Craftsman market was crucial to Donald Brothers' development in purposing very rough textures in the early period. Frank Donald's creative approach to marketing and design, and the firm's commitment to industrial methods of production (5:3), meant that the firm were ideally suited to respond to and interpret Gustav Stickley's rugged aesthetic and search for individuality of craftsmanship in machine-made artefacts at the heart of the Craftsman ideal (3:1).

The points made above clarify Donald Brothers' intention and approach in purposing rugged naturalism in textiles for the American Arts & Crafts. They illustrate how the "rustic influence", identified by the 1930s as important to the modern style², was in the early work of Donald Brothers by no means rustic in its conception or making, but instead the result of a cultivated aesthetic. Designed to convey a quality of individualism and naturalism in power-woven cloth, this cultivated rusticity helped Donald Brothers lay the foundations of a new and influential genre in industrially woven furnishing fabrics. Romantically described by the 1930s as absorbing "the soul of the weaver", breathing "fresh air, the hills and open countryside" and representing "all that nature (had) to offer"³, this studied individualism and naturalism was later identified with the craft-based humanism of Swedish design.
9:2 Rugged Canvas & Linen Crash: A Hand-woven Look

In the comparative study of canvases (6:2) it was evident that Donald Brothers were using a variety of qualities of jute fibre and manipulating it in different ways to achieve differing textural effects. Thus the soft and tonal "wooll'd" texture of Antique Canvas was completely different to the harsh reflective surface of "cropped and mangled" AMS Dyed Canvas. The bold woven texture of No. 14 Art Canvas differed from the finer, closer woven DC Art Canvases, with the relatively even spun yarn of the latter providing a regularity of surface that contrasted markedly with that of A90/JX Dyed Canvas woven with an irregular spun yarn.

Similarly in the finer plain linens irregular yarn was used. This was shown to have expressed individuality and human character that provided psychological warmth, which enhanced by warm colour inspired by nature, offset the essential cool characteristic of Art Linen (7:1,2). Thus a range in temperature and a breadth of textural contrasts was manufactured in jute and linen materials by Donald Brothers, and these appealed within the American Arts & Crafts market, as defined by Stickley's own company and other customers working in the Craftsman idiom.

This market for the texture by Donald Brothers was readily identified at the time with the Art market for hand-crafted cloth. Examination of Gustav Stickley's appreciation for Craftsman Canvas established this (4:3), as did the study of Donald Brothers' linens, against the background of Frank Donald's later appreciation of the artistic appeal of linen (7:1,2). By comparing the firm's linens with hand-woven cloths the nature of the hand-crafted look achieved by the firm was understood (illus 7:21-24). Similarly comparing their A90/JX Dyed Canvas (illus 6:24) with two hand spun and hand woven cloths, the one produced by The Spinnery and used by Annie Garnett to cover her own copy of Notes on Hand...
Spinning (1896) (illus 7:21)\(^4\), the other used as a demonstration sample by Luther Hooper in his manual *Hand Loom Weaving* (1910)\(^5\), the nature of this look can be further explored. In both the Spinnery and Donald Brothers' fabric, whether using hand-spun or machine-spun yarn and woven on the hand or power-loom, yarns individually oscillated between differing degrees of fineness and thickness, with the result that fine yarns were juxtaposed at random against thicker ones within the web to create textural intricacy and an awareness for horizontal and vertical construction on the surface of the cloth. In both, the individuality of the irregular yarn, its random juxtaposition and the resultant textural variation achieved in the cloths was enhanced by plain loosely woven structures which highlighted the yarns in their structural purpose in weaving.

This direct expression of yarn in construction common to both fabrics, was fundamental to the craft revival in hand weaving of the late 19th and 20th century. As influenced by Ruskin's championing of the Homespun, as well as his conception of woven textiles as 'palace masonry', weavers were encouraged to articulate the beauty of weaving as a material art of construction, and to express their own individuality in this art by revealing through bold texture the process of making in the finished web (4:1,2). Luther Hooper in his seminal book *Hand Loom Weaving*, therefore chose to demonstrate the technical process of weaving by illustrating the most evocative of ruggedly woven textures, to forcefully express with fibre, yarn and weave, woven construction at its simplest and most primitive. He thereby encouraged an empathetic identification with the weaving process, to promote individual involvement by his readers.

Hooper's demonstration piece (illus 9:1 see overleaf), the second comparative sample of hand-weaving, is rough in comparison with The Spinnery fabric, but the choice of rough yarn and bold scale shares much in common with the texture of Donald Brothers' A90/JX Dyed Canvas, and
suggests how the latter machine-woven fabric would equally have expressed the beauty of weaving as construction, have suggested through its roughness of fibre, yarn and weave a quality of primitive simplicity, and signified through the revealed process the individuality of the maker rather than the machine. For Stickley, "individuality" in a hand-woven fabric did not rely on throwing "the shuttle by hand instead of machinery", but rather in the "care, interest and knowledge .... devoted to the preparation of raw material .... the way the thread (was) spun and dyed and the quality of each preserved in the weaving" (4:3). Such individuality was precisely what Donald Brothers achieved and expressed in the making of A90/JX Dyed Canvas.
A group of canvases which exemplify Donald Brothers’ constructive primitivism in factory-woven cloth and the market for it in America at the time were 36" & 50" XOP and WOP Dyed Canvas (c 1907-1909). Essentially artistic scrims, much heavier than the casement scrim A84/No. 20 Dyed Linen (1909) (illus 7:11), the main feature of these canvases was the loose set of the weave which trapped space within the cloth and used it to accentuate the rough thick yarn and its involution in the act of weaving as also seen in the Hooper demonstration sample. Four original samples in XOP Dyed Canvas, woven on twisted warp yarns (eight per inch), with different qualities of weft yarn and weave, illustrate the firm’s trials to achieve the desired textural effect. XOP Dyed Canvas (illus 9:2), woven eight picks per inch, provided all over constructional evenness in contrast to the more open and unstable weave of 3XOP (illus 9:3 see overleaf), which was woven with a less uniformly spaced weft, seven picks per inch. By contrast 2XOP (illus 9:4 see overleaf), also woven seven picks per inch, was made with one extremely thick weft yarn which practically filled the open spaces, an effect partially repeated in 4XOP (illus 9:5 see overleaf), using a marginally thicker weft yarn to achieve a more stable and denser cloth than 3XOP. 50" 4XOP Dyed Canvas was reserved for B. Altmann & Co. of New York in July 1910 and produced to shades of colour "as 4W" (Antique Canvas) in terra, two greens, bluey green, gold/brown and buff.
Illus 9:3 36" 3XOP Dyed Canvas, jute, c 1907/09.

Illus 9:4 36" 2XOP Dyed Canvas, jute, c 1907/09.

Illus 9:5 36" 4XOP Dyed Canvas, jute, c 1907/09, reserved for B Altman & Co. of New York in 1910.
Illus 96 50" 6XOP Dyed Canvas, jutelinen, c 1910. This canvas was also reserved for B Altman & Co, N.Y.
50" 6XOP Dyed Canvas (*illus 9:6*), trialled later in c 1910 was likewise reserved for B Altmann & Co. in "4W" shades, and as Antique Canvas employed yarns made from a mixture of jute and linen fibre, which twisted together produced a canvas related to Cord Antique Canvas (*illus 6:4*). The increased boldness of 6XOP compared to the earlier Cord Antique Canvas illustrates the greater ruggedness in texture and construction that Donald Brothers was encouraged to produce, in co-ordination with their Antique Canvases, for this New York customer by 1910.

In Chicago, where a rigorous, although less primitively rugged, feel for textura had developed in domestic architecture (2:4)⁶, a finer version of scrim, 50" WOP Dyed Canvas (*illus 9:7*), woven at eleven warps and wefts per inch, was taken up by Marshall Field & Co. in the same year.

![Illus 9:7 50" WOP Dyed Canvas, jute, c 1909/10, taken up by Marshall Field & Co, Chicago in 1910.](image)

Whether the differences between these canvases and their destinations indicated a subtle distinction between the American East and Mid-West taste for texture at that time is hard to verify. What is clear is that their underlying similarity illustrates the consensus of taste in both centres for
textiles which vigorously displayed fibre and yarn as material and its manipulation within the process of constructing *textura*, the woven web. In 6XOP Dyed Canvas crude jute and linen fibre, uneven ply, twisted yarns, open weave structure and interactive colour inspired by nature were all used to purpose texture and colour which looked irregular, 'natural' and ruggedly primitive. In WOP Dyed Canvas a crisper, more defined woven texture than 6XOP was made. The involution of vertical and horizontal yarns displayed in real space (which they defined within the fabric), emphasised the process of weaving as constructive and created a unity of parts within the whole. Thus in both canvases, the individual character of the material was revealed in surface texture and colour as ruggedly natural or constructively direct. Through such surfaces, the firm's own individuality as makers was revealed in the "interest and knowledge" in purposing such texture and colour for the American Arts & Crafts market.

An example of Donald Brothers' conscious search to purpose rugged texture in linen for the Craftsman market is found in their trials and stocked samples of linen crashes, realised between 1908-1914. Their first trials, recorded as 36"/40" Nos. 1-6 Russian Crash (*illus 9:8 see overleaf*) in February 1908, demonstrate that Russian crash, a quality of texturally rough linen, traditionally woven in Russia with a poor irregular quality of thick flax yarn, was an important model for these first crashes. Woven with uneven yarn made from a mixture of light brown and white tow fibre, Nos. 1-6 Russian Crash looked like lighter-weight versions of 4W Antique Canvas of 1906. This was particularly so when the crash was dyed to the Antique range of mellow colour in blue, peacock blue, gold and terra.

What prompted Donald Brothers to launch into their linen crashes through Lockharts, a firm better equipped to weave fine linen, must have been a conscious decision to go "rugged" in linen, to parallel in a more
Illus 9:8  38"/40" Russian Crash, 1908.

38"/40" Nos 2-5 Russian Crash, 1908.

38"/40" Nos 6 Russian Crash, 1908.

38"/40" Nos 4 Dyed Russian Crash, 1908.

Illus 9:8: Nos 2, 3, 4 & 6 were taken up by Gustav Stickley & Co., J P McHugh & Co., and A A Vantine Co.
acceptable furnishing material the rugged naturalism they were already designing and weaving in canvas. The importance of the Craftsman context for encouraging this rugged aesthetic in linen was evidently crucial. The first Russian Crashes demonstrate this. Out of the six trialled samples, four were taken up by Gustav Stickley & Co., J P McHugh & Co. and A A Vantine Co. in February 1908, at precisely the time when Arts & Crafts and Craftsman interest in hand-woven Russian crash was established. Therefore, although it is not known whether Donald Brothers were directly asked by Stickley to originate their Linen Crashes, what is certain is that they were originated at the moment when Stickley became interested in hand-woven Russian crash and turned to Donald Brothers for machine-woven versions. This illustrates the firm's keen awareness of the Craftsman aesthetic in textiles as well as the encouragement the Craftsman market must have given Donald Brothers through sales, to develop their consciously rugged Linen Crash.

After the 1908 productions, the next group of crashes were to be recorded by Donald Brothers in 1910. Entered under the title "Various" in Linens No. 1, these crashes grouped amongst other linens, catalogue a range of textural and tonal effects produced in linen material. For example 36" No. 1231 Crash of 9/1910 (illus 9:9 see overleaf) illustrates the fineness and evenness of yarn and weave that Donald Brothers was prepared to market as a crash, while 36" No. 63 Russian Crash and 36" JCB Linen Crash woven with an 181b flax tow warp and weft - "stout enough and strong enough to hang a good sized man" (7:1) illustrate the exact reverse (illus 9:10&11 see overleaf). As extremes in roughness the latter re-affirm the firm's search for rough texture in linen, which in boldness paralleled the constructive primitivism of XOP & WOP Canvases.

Between these two extremes in crash a variety of other qualities ranging from medium to heavy weights in linen material were sampled in
Illus 9:9 36" No. 1231 Crash, c 1909/10: a fineness and evenness in crash.

Illus 9:10 36" No 63 Russian Crash, c 1910: a soft tonal roughness in crash.

Illus 9:11 36" JCB Linen Crash, 1911: an extreme in roughness woven an 18lb flax tow warp and weft.
tones of white, neutral and grey. 36" FC Crash (*illus 9:12*), taken up by Brown & Beveridge of Glasgow in 1911, provided an absorbent, tonal texture in a heavier crash than Russian Crash. In contrast 38" CCC Crash (1910) (*illus 9:13*) displayed a white lustrous surface texture in a more loosely woven crash.

*Illus 9:12 36" FC Crash, 1911: an absorbent tonal texture.*

Such lustre became a feature of a number of the firm's crashes by c.1913, as sampled within their pre-war Art Linens: Plain & Figured Counter Book. Linens such as 50" No. 65 Linen Crash and No. 61 Linen Crash (*illus 9:14 see overleaf*) respectively show how lustre was developed evenly on the
surface, by using an equally lustrous weft and warp yarn, or alternatively developed to produce a lustrous sparkle within soft absorbency, through contrasting a lustrous weft with a matt warp yarn. Common to these and
almost all of the crashes - whether of lustrous or absorbent surface - was the boldly expressed irregular flax tow yarn which provided the "individual, almost human character", crucial to the appeal of an artistic linen. The inclusion of such crashes as No. 61 & 65 Linen Crash within the Art Linens: Plain & Figured Counter Book demonstrates that Donald Brothers considered the textural roughness they were manufacturing in crash as a further development of their artistic linens by c 1910.

One crash that exemplifies the firm's manipulation of yarn to purpose rough, irregular texture in Art linen was 36" No. 2910 Crash originated in 1910 (illus 9:15 see overleaf). In comparison with the deceptively 'natural' appearance of the rough crashes discussed above, No. 2910 Crash does look designed. Woven with an extraordinarily irregular slubbed weft yarn, spun to look like Homespun, and a very fine warp, the crash maximised the textural contrast of yarns. A slightly earlier trial, No. 2706 Crash (illus 9:16 see overleaf), illustrates that No. 2910 was a refinement of an idea. In No. 2706 the warp was thicker and the weave tighter, thus hindering the visual impact of the thick irregular weft as it traversed the cloth. In No. 2910 the finer warp and looser weave emphasised more clearly the weft yarn. Thus the irregularity of the 'Homespun' yarn was more fully expressed in the weave, with the eye being drawn to the irregular lines of the wefts, to follow the textural vacillations of thick and thin yarn as it wove through the fine warp and eased itself pick by pick within construction. In its studied irregularity, the yarn was a forcefully designed expression of the "individual, almost human character" that Frank Donald so admired in flax yarn. In its articulation within the weave, No. 2910 Crash provides a key example of how Donald Brothers designed texture with yarn and weave to express individuality and human warmth of character in machine-woven cloth at this early period.
Illus 9:15 Stocked Art Linen: 36" No 2910 Crash, white and natural, 1910: a Homespun look in factory production.

Illus 9:16 53" No 2706 Crash, 1910: the initial trial with a thicker warp that obscures the 'homespun' weft.
Such a careful handling of yarn to develop expression of individuality and character highlights once more the inspiration Donald Brothers drew from hand-spun and -woven cloth, as well as the probable influence that *The Craftsman*, which encouraged delight in such cloth, may have exerted on them at this time. For in the same year (1908) that Donald Brothers produced their first crash and Gustav Stickley began to import hand-woven and Donald Brothers' Russian Crash, Stickley also published his article discussing the "vital importance" of yarn to "the charm" he found in "hand-woven fabrics made by peasants in foreign countries" (4:3). While no specific hand-woven materials were illustrated in this article, allowing for comparison with Donald Brothers' crashes to establish direct influence, Stickley's own analysis of the superior interest of a hand-woven fabric resting on the preparation of fibre and yarn and the preservation of both of these in the weave can be seen to be the same ingredients which formed the interest and individuality of the firm's crash.

That such individuality of material and making expressed in No. 2910 Crash was developed by men within the factory with the aid of machines rather than purely by hand within the workshop demonstrates how the distinction made between hand-work and machine-work for the appreciation of craft work and a definition of craftsmanship in the Arts & Crafts period broke down in Donald Brothers' work as it had done in Stickley's own Craftsman manufacture (3:1). Through the ability of Donald Brothers to harness the machine as an expressive tool in the hands of man, craft industrial manufacture was created.

"After all" - Frank Donald claimed in the 1930s - "the power loom is fundamentally the same as the hand loom, except that it is not entirely worked by hand. What goes into it, what it weaves, still requires thought and planning. Indeed the power loom is but the modern tool of a modern craftsman."12

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Craftsmanship within the factory; Irregularity, Directional Construction and Stripes

In his 1930's discussion of the power-loom as a tool in the hands of the craftsman, Frank Donald remarked that to avoid "the terrible efficiency of machinery" the industrial artist was compelled "to adopt all kinds of unorthodox methods, if he (was) not to become the slave to his tools." Within the early period such thought and use of unorthodox methods in purposing texture was already manifested in the work of Donald Brothers. This can be illustrated by A 192 Linen (illus 9:17 see overleaf), which possibly originated as a utility sheeting, was marketed as an Art Linen within the Art Linens: Plain & Figured Counter Book. This establishes that the roughness inherent in the cloth, whatever its origins was intentional and considered artistic by the firm at the time. On examining A 192 Linen the construction and meaning of its rough aesthetic is revealed. Woven with a relatively even oatmeal-coloured warp crossed by a white unevenly spun weft, the eye discerns through textural and tonal contrasts the yarns interweaving in directional construction, in a manner already discussed. Moreover because the constructive process is revealed through the yarn, irregularities in the weaving itself become apparent. The uneven weft, pick by pick, visibly forces irregular meandering construction in the weave. It creates patches of blemish, and at times appears to precipitate 'mistakes'. Plain weave becomes broken, warp yarns leap three wefts in one place and two in another, while separate wefts become channelled together into single wefts to then subsequently diverge into two once more. Such 'mistakes' do not repeat within the sample and were not built into the cloth by designed weave structure. Instead they appear to have been created on the loom, which, having to contend with crude yarn, was challenged to faltering point. Mechanical efficiency was interrupted as a result and a faulted fabric constructed.
By design choice, imperfect roughness replaced the perfect smoothness identified by Ruskin with the efficiency and inhumanity of machine production (2:1). Thus A 192 Linen, in its unorthodox method of
seemingly 'careless' weaving, evoked through its manufactured flaws and texture a paradoxical thought and care in its planning and execution and/or selection, that identified with hand-woven texture, signified that the cloth though woven on the machine had still been made by man.

If the probable utility origins of A 192 Linen throws a shadow of ambiguity over Donald Brothers' part in the design origination, though not selection, of the above flawed texture, another linen 50" C Striped Linen (illus 9:18) leaves no room for doubt.

Like No. 2910 Linen, C Striped Linen was evidently designed, and through its skilful arrangement of warp yarn this linen provides another key example of how Donald Brothers explored unorthodox methods in manufacturing to defy the 'terrible efficiency' of machine production. Originated in September 1911, C Striped Linen was trialled in the same months that Donald Brothers was experimenting with Jaspé and Stripe weaves in both linen and canvas, and should be understood as part of this group of fabrics. Here, texture and colour in yarn were explored to
produce stripe effects which ranged between a clarity of the stripe on the one hand to its disintegration into stripy texture on the other. It is within the latter category that C Striped Linen excelled.

Woven with white warps of two different weights, the thick yarn with some fine yarn was warped closely together to form 'heavy' vertical stripes approximately 3/4" wide, interspersed by 'lighter' 1" stripes made with the predominantly finer yarn, warped more loosely. Cross-woven with either a neutral or pale coloured weft of approximately the same weight as the finer warp, a remarkable subtle stripe effect was achieved. In the coloured version, the predominant white of the heavier warp stripes visually emerges out of and recedes back into the evenly shot ground of the lighter stripe, while in the neutral version a more integrated all-over textural surface becomes the focus of attention. In the latter, the eye is drawn by the subtle textural irregularity to examine and follow the differing qualities of the (predominant) warp and weft yarns as they weave areas of density or greater evenness. Weaving as a process of constructing
irregularity is immediately apparent; the stripe is not. Only when back-lit does the constructed stripe effect emerge (illus 9:19).

Thus once more Donald Brothers eschewed the smoothness associated with the deadening efficiency of machine manufacture, and instead constructed texture to express individuality and life in cloth.

The thoughtful manipulation of materials to articulate weaving as an active process, constructing textura through the inter-play between horizontal and vertical yarns, as highlighted in the directional verticality of C Striped Linen and horizontality of No. 2910 Crash, formed a constant theme of exploration in the work of Donald Brothers. Because their understanding of weaving had its roots in a 'hands on' experience with materials and processes similar to hand spinners and weavers, this enabled them to appreciate and consciously parallel with factory craft the new feel for directional construction being developed by hand workers.

Implicit in this demonstration of active construction was the expression of the individual at work, marking the shift of emphasis from
the product to the producer as a focus of aesthetic response (2:1). Donald Brothers' directional textures as explored in No. 2910 and C Striped Linen illustrate this subtle shift and in so doing encourage us to contemplate and discern the nature of the firm's individual expression as craft-manufacturers in the Arts & Crafts period.

Of importance in support of the claim that the work of Donald Brothers was the result of genuine craft within the factory, and not just in imitation of craft, is their original and long term commitment to experimentation with materials as the means to developing texture and colour as objects of design. This can be appreciated by further study of the early canvases and linens in relation to hand-crafted texture and with reference to their own later work.

The range of Stripes and Jaspés in canvas and linen referred to above in discussion of C Striped Linen were originated between May 1911 and 1912. They demonstrate the firm's work with mixtures of fibre, yarn and colour to produce subtle warp stripe effects that expanded their range in texture and inter-related colour. Developing the textural interplay between horizontal and vertical yarns they relate to both the plain textured canvases and shot linens, and the bolder Figured Stripes which had been launched in 1909 (8:2). They also foreshadowed later developments in stripes. Mostly sold in America, the designs also demonstrate Donald Brothers' developed response for directional texture in the Arts & Crafts period, when the architectural emphasis on materials articulated in horizontal and vertical construction dominated both furniture and interior design (2:4, 3:1, 8:2, 10:2).

In the first striped canvases, yarns made with dark or light jute fibre or with a mixture of jute and linen fibre were arranged in the warp to form stripes which were then modified or enhanced by piece dyeing the
canvases after weaving. Thus the fine random stripes in 44" J.B. Canvas, made with one or two yarns in the warp, could be distinct as sample No. 12002 in green (*illus 9:20*) taken up by Kemp, Lindberg & Beatley of New York, or disintegrate into texture as No. 12005 (*illus 9:21*), depending how the yarns took the dye colour.

*Illus 9:20 44" J.B. Canvas, No. 12002, jute, 1911.*

*Illus 9:21 44" J.B. Canvas, No. 12005, jute, 1911.*
Similar effects were achieved in the heavier and bolder quality 44" J.B.W. Canvas, woven with a 1 1/2" to 1/2" repeating stripe or finer random stripe effect (illus 9:22), made from variations of one to three warp yarns.

The former stripe in J.B.W. Canvas was taken up in green by Lord & Taylor of New York in February 1912, whilst the random stripe effect was taken up in the same year by Gustav Stickley, who ordered it in four shades of green (ranging from bottle to brown/grey green) two blues (dark and petrol), and six browns (ranging from brown to red brown to golden brown) (illus 9:23 see overleaf). Harmonising as colour within the "Craftsman colour schemes (for decoration and furnishing) based upon nature colours of brown and green" (10:2), J.B.W. Canvas's stripy texture provided an alternative wall covering or co-ordinated furnishing fabric to Stickley's range in Craftsman wall-papers, launched in 1908 and "found in stripes that (were) hardly definite enough to be called two-toned".16
Trials in striped effects were thoroughly explored in other qualities of canvas between 1911 and 1912. 44" J.E. Canvas, exhibited various effects which included tonal stripes (No. 12314) (illus 9:24), stripy texture (No. 12328) (illus 9:25), colour stripes (No. 12327) (illus 9:26), or stripy textural colour (No. 12340) (illus 9:27) see overleaf. Stripy textures were manufactured as stocked canvas and taken up in 1912, by Edwin Foss of Boston and Buettner & Co. of Chicago. By this year, the canvas produced in tonal stripes of blues, turquoise, sea greens and gold was starch-backed as J.E. Canvas (Jaspé) confirming its use as a wall covering material. In 1920 it re-emerged in brightly coloured textural stripes as 54" Cellini Canvas (illus 9:28 see overleaf), and was taken up by Gordon Russell & Son of Broadway, in orange and green warp stripes shot with purple, blue or pink weft. Such a transformation of texture and colour in canvas between 1911 and 1920 illustrates both the division between the Arts & Crafts period and the 1920s, as well as the continuity that Donald Brothers (with others,
Illus 9:24 44" J.E. Canvas, No 12314, jute, 1911: tonal stripe.

Illus 9:25 44" J.E. Canvas, No 12328, jute, 1911: stripy texture.

Illus 9:26 44" J.E. Canvas, No 12327, jute, 1911: colour stripe.

Illus 9:27 44" J.E. Canvas, No 12340, jute, 1911: stripy textural colour.
such as their customer Gordon Russell), sustained and developed in their work from the Arts & Crafts period into the 1920s and Modern period. Other 1911/12 stripes demonstrated much the same achievement. 50'' Striped Antique Canvas was designed in 1912 with fine stripe effects bunched into bands approximately 2'' wide (illus 9:29). It provided a variation on J.B.W. Canvas and was also taken up in America, this time by R.H. Stearns of Boston and Proctor & Co. of New York.

Illus 9:28 54'' Cellini Canvas, 1920 (formerly J.E. Canvas) taken up by Gordon Russell & Son of Broadway.

Illus 9:29 50'' Striped Antique Canvas, jute and linen, 1911.
While 36" No. 1 Antique, Stripe Canvas (1911) (illus 9:30), woven with 1 1/2" stripes in Antique quality,
and 50" B Jaspé Striped Linen (1911/12) (illus 9:31) with 2" stripes in shot Bloom quality, both anticipated the later successful Cawdor Antique Linen stripes originated in 1927 (illus 9:32 see overleaf).18
The Cawdor range in stripes and checks, subsequently developed over forty years in a wide range of soft and bold colours and in a variety of increasingly broad stripes, finally won design recognition with a Design Centre Award for Donald Brothers in 1962. At the time of this award the "recognisable style and character" of Donald Brothers' work expressed in "the northern simplicity" and "feeling of craft-based manufacture" embodied in Cawdor was acknowledged, as well as cited as the possible reason for their market success in Scandinavia. Thus, with poignant reference to Charles Robertson's early days of "experiment with boiling and treatment of flax and mixtures of flax and jute", the Design Centre with the hindsight of Modernism, an appreciation for constructed textiles and a recognition of the field of contract furnishings, gave the seal of design approval to the firm's feeling for craft-based manufacture. This, as shown originated not in the late 1920s but in the craft "experimentation" with materials and the architectural feel for constructive texture and pattern of the early period.
Another early stripe effect that demonstrated Donald Brothers' constructive approach to materials and pattern, that was developed into the 1920s was 48" No. 2412 Canvas (1912) (illus 9:33).

Warped with colourful single dyed yarns in gold, blue, pink, red, cream, green and grey, spaced 14 per inch and woven with a neutral weft, the warp yarns combined or contrasted with each other to form fine stripes that built the cloth. Compared to the stripes discussed above, in which stripe effects were enmeshed within the weave of the fabrics, in No. 2412 Canvas the physicality of the coloured stripe was asserted by the prominent use of thick individual coloured yarns. Whether the "trial samples sent to L/0" resulted in sales in the early period for such a constructive yarn stripe, by the 1920s a market had developed for them; similar stripes woven by Donald Brothers were stocked by Heal's (Heal's No. 8225 and No. 8731) in 1924 and 1927 (illus 9:34 see overleaf). Entered within the Heal's Guard Books alongside German and Austrian woven fabrics and British hand-woven fabrics, all these stripes reflected the growing demand for constructed textiles by the mid-1920s. By then developments in European architecture and design had stimulated once more a context and market in Britain for texture, colour and constructive pattern, within which the work of Donald Brothers could thrive.
Illus 9:34 Donald Brothers' warp stripes stocked by Heal & Son: No 8225 (top), 1924, No 8731 (below), 1927.
The similarity of Donald Brothers' 50" Melrose Linen (1928) stocked by Heal's in 1929 (Heal's No. 9108) (illus 9:35) to the German hand-woven linen produced by the Vereinigte Werkstatten and stocked by Heal's in 1930 (Heal's No. 9451) (illus 9:36), illustrates this context and highlights through comparison with No. 2412 Canvas the significance of the firm's early work with stripes. In both of the 1920's fabrics and the No. 2412 Canvas of 1912, coloured yarns individually assert the physicality of the coloured stripes on the surface of the cloth with irregularities within the yarns themselves supporting this visual texture, in a manner which has been shown to be characteristic of both hand-woven cloths and Donald Brothers' early fabrics.

Other canvases which use the physicality of yarn to construct stripe effects in colour and texture were 36'/50" No. 2444 Canvas (1911) (illus 9:37) (woven with a thick twisted warp yarn in different striped variations of blues and greens and in an all over stone/grey), the warp ribbed 38" 242 Dyed Canvas (1911) (illus 9:38), and the weft ribbed/warp streaked No. 142 Canvas (1911) (illus 9:39) see overleaf. In the latter, thick wefts appear visually pushed through the warps, to set off through contrast the fine loosely tensioned warps which streak in random verticality up the fabric.
Illus 9:37 36”/50” No 2444 Canvas, jute, 1911: two sampled colourways in bluegreen and stonelight.

Illus 9:38 38”/50” 242 Dyed Canvas, jute, 1911.
Likewise in another related canvas 36" K.I.B. Canvas (1911) (illus 9:40) black warps are contrasted against thicker, coloured wefts to provide subtleties of streaky verticality to an all-over texture.
All of these canvases in their constructive verticality or horizontality, illustrate the underlying connection between the stripes and ribbed effects at the time, as well as the influence the market for directional stripes and hand woven texture had in stimulating Donald Brothers to manipulate their yarns and their tools to express themselves in directional construction.

The relationship of Donald Brothers' textura to hand-woven cloths was, as Frank Donald suggested, expressly sought. Through comparative study it was seen how irregularities in the yarns of both hand-woven and Donald Brothers' power-woven fabrics gave an awareness for horizontal and vertical construction on the surface of the cloth, which became more fully explored and articulated within the firm's stripe effects of 1911-12. By this date stripes woven on the hand-loom had also been produced by craft weavers for some time, and those stocked by Heal & Son alongside Donald Brothers' in the 1920s, although of slightly later date, demonstrate the essential relationship and difference between hand woven stripes and those produced by Donald Brothers on the power-loom in the early period.

Elizabeth Peacock's weft stripe effect stocked by Heal's in 1922 (Heal's No. 382) (illus 9:41) was hand woven loosely so that the rough
character of the wool yarn was revealed to "speak" on the surface of the cloth. Caught by the physical irregularities of the hand-spun yarn, highlighted within the fabric by distinctive contrasts in colour, the eye is compelled to follow the involution of the weft through the warp and appreciate the rough stripe as an outcome of the construction and process. In Donald Brothers' self-coloured XOP Canvases (illus 9:2-6) and the ribbed canvases such as 242 Dyed Canvas (illus 9:38), irregularity and boldness of yarn are likewise revealed, highlighted by space rather than colour, while in striped J.E. Canvas (No. 12327) (illus 9:25) and No. 2412 Canvas (illus 9:33) tone and colour contrasts of yarn are used, as in the hand woven fabric, to form the stripe and assert the direction and constructive nature of such pattern.

A similar, constructive use of coloured yarn can be found in the hand-woven wool stripe made by the Deutsche Edelkulture which Heal & Son stocked as Heal No. 8818 in 1927 (illus 9:42)25, and in this fabric, as in

*Illus 9:42 Comparative hand-woven weft stripe in wool by Deutsche Edelkulture stocked by Heal & Son in 1927.*
Donald Brothers' J.E Canvas, a more regular spun yarn was used. This provides a greater evenness to the surface of the cloth which enables the subtleties of tonal variation in the stripes to be appreciated. Irregularity in the actual weaving of the Deutsche Edelkulture fabric, particularly noticeable in the wavering path of the black weft thread, affirms the hand-woven nature of this fabric as well as a sense of direction to the construction of the stripe. In much the same way, although achieved by different means, the pronounced meandering effect in the firm's No 142 Canvas (illus 9:39) created through the irregular 'handling' of warp yarn on the power-loom, gives a similar sense of irregularity and direction to construction. However such handling, designed consistently in the warp, as were all Donald Brothers' stripe effects26, was thus essentially different to that in the hand-woven stripes, where greater freedom in the handling of yarns enabled the stripes to be made with the weft during weaving. Therefore, No. 142 Canvas illustrates the firm's sense of economy and practicality in handling yarn and their thought and care in the planning of these weaves. In this manner, they revealed once again how they manipulated their materials and tools in directional construction, to parallel hand-craft production in defying the terrible efficiency of the machine and express their own individuality as makers within the factory.

9:4 Scottish Character in Twist

In the same years that Donald Brothers were experimenting with irregular yarns to produce stripe and streaked effects in canvas, other developments explored the potential of twisted yarns in designing all-over texture. From documentary records it is evident that Donald Brothers had twisting frames for twisting yarns (5:2:2). This meant, that not only the choice of yarn but the actual designing of it, was thoroughly under their control as an important means of designing texture. As seen in the earlier
18T/YD Art Canvas (1896) (*illus* 6:15) and Cord Antique Canvas (1907) (*illus* 6:4), twisted yarns increased the visual intricacy and all over tonal variation in the surface of a plain woven fabric. Effects such as these provided the starting point for the new experiments in twisted yarns begun in 1912, and resulted in a group of interesting flecked and Mottled Canvases being produced between 1912-1914. One canvas, Titian, remained in production for over fifty years and became an established classic in the firm's range, influencing the development of other recognised design classics well into the 1960s. Therefore, with the hindsight of later work Donald Brothers' originality and commitment in working with their materials to design texture and colour in the early period can once more be more fully appreciated.

The first of the canvases to be originated in 1912 was 36" M Canvas (*illus* 9:43), which, closely woven at 18 picks per inch, was made with a twisted yarn of light and dark jute ply.
Unlike the yarn used in Antique Canvas, made from an almost imperceptible mixture of jute and linen fibre spun together into yarn, the twisted light and dark yarn of M Canvas enabled each fibre to remain distinct and twist diagonally across each other within the yarn. When woven this produced an intricacy of tonal variation within the canvas' texture, which, wet finished after weaving to a slight lustre, was enhanced to provide added sparkle on its surface.

The textural variation a twisted yarn produced in canvas can be seen particularly well in 18" N.O. Canvas (illus 9:44 & 45). In this canvas a
neutral jute ply was twisted with a coloured jute to make yarns which, were either used for both warp and weft as in No. 15012 or just for the weft as No. 15002. The former neutral/grey version - produced in 72" for Edwin Foss of Boston in 1913 - accentuated the all over intricacy of tonal variation evident in M Canvas, while the latter No. 15012 in dark blue, highlighted the diagonal fleck that the twisted yarn naturally made in a woven cloth. Reserved to the weft and not counteracted by a twist of colour in the warp, the fleck was particularly prominent. This gave a subtle random diagonal emphasis to the surface, which in direction was at odds to the woven yarn and simulated in colour a painterly effect of broken twill construction.

Originated in July 1913 as J.C. Canvas, 50" Titian (illus 9:46) was put through further trials as "Titian cloth" between December 1913 and March 1914. The canvas marked an important development in Donald Brothers' rugged cloths. It introduced cotton, formerly explored as a matt texture in tissues (8:1,3) into canvas27, and used it to develop a new texture, which, combined the controlled tonal variation of M Canvas with the boldness of
scale and roughness of the plain woven canvases. In recognition of its distinctive texture, Donald Brothers dropped their coding and gave the canvas its individual name, in line with other important textures such as their Antique and Bloom qualities.28

The particular textural nature of Titian was created by the yarn, made from twisting a dark jute ply with a white slubbed cotton yarn. Combined together, the lustrousness of jute and the matt absorbency of the slubbed cotton made a texturally broken and physically thick yarn. This yarn formed both the warp and weft of the cloth as in M Canvas, but unlike the latter, because of the uneven slubs of the cotton and the loose handling of the weave, Titian achieved a more random all-over texture. Therefore, highlighted by flecks of the twisted cotton, the surface of the cloth was activated in a painterly way, which may well have suggested its name Titian.29 Woven in neutral, the canvas was backed for wall covering purposes and proposed as a ground for stencilling. Alternatively, piece dyed (illus 9:47), Titian was produced in a variety of colours which ranged

Illustration 9:47 36" Titian cloth, cotton and jute, 1913, in stocked colourways of brown, green and blue(enlarged).
from the rich tapestry colour in the early period, to pastel shades in the 1920s and 30s, and clear yellow and turquoise in the 1950s. The effect of dying the fabric to the richer shades, was to suppress the textural roughness of the light cotton flecked surface and instead provide subtle tonal and textural variation within all-over colour, between the dominant lighter matt cotton and darker lustrous jute.

This tonal variation in colour, achieved by the different take up of the dye by the fibres, produced a canvas which was related directly to the original work in mixing jute and linen fibre together. It also anticipated later fabrics such as Glendale (1958) (illus 9:48 & 0:2).
Glendale, designed with a vertical and horizontal stripe effect reminiscent of the c 1911/12 stripes, was woven with a twisted yarn made from linen, viscose rayon and cotton, and also left plain or piece-dyed. This fabric became a great marketing success for Donald Brothers and won a Design Centre Award in 1964. Described at the time of the award as "a classic woven upholstery cloth" dyed to a "splendid range of colours"; it was "the blending of the different textures of the threads" that the Design Centre singled out as giving "the cloth its special character".\textsuperscript{30} In this prize winning combination of different textured fibres, piece-dyed to express "character", Glendale highlights once more the originality of the early work of Donald Brothers, in blending cotton and jute threads to design texture and tonal colour in Titian.

Other canvases related closely to Titian, woven with twisted yarns made from cotton and jute ply, were 50" C.C. Canvas, J.J. Canvas and Mottled Canvas. All three canvases were trialled on the same day in September 1913. However, unlike Titian, these canvases were not piece-dyed after weaving but woven with twisted yarns made from combinations of pre-dyed ply. In this way C.C. Canvas (illus 9:49) was woven with

\textit{Illus 9:49 50" C.C. Canvas, cotton and jute, 1913, taken up by Lord & Taylor of New York in 1913.}
combined twisted jute and cotton ply in colours such as, turquoise with pale green/brown, tan with buff, rich yellow/brown with buff, dark blue with pale green/brown, and soft emerald with pale green/brown. Woven in a loose set, with identical or contrasting coloured yarns for the warp and weft, trials in C.C. Canvas produced a new rough quality of mottled texture which relied on colour as well as tonal variation for its effect. In the last three colourways the canvas was taken up by Lord & Taylor of New York.

Produced as 50" Mottled Canvas (illus 9:50), in a weave that gave more prominence to the warp than the weft to establish even greater ruggedness of texture, this method of mixing colour in the yarn and weave shared much in common with Scottish Tweed, and may have been influenced by it.31

Similar to tweed, these canvases produced a textural effect of camouflage with the Scottish countryside. They were either designed by Donald Brothers for use out of doors32, or for interior furnishings, to extend the quality of natural rugged texture from the outside into the interior of the
house (3:2). Whichever were the intended purposes, the textural effect of camouflage highlights an interesting characteristic of "Scottishness", as defined by the Scottish landscape, that was germinating in the early period and later became identified with Donald Brothers' rugged naturalism in canvas. By the mid-1920s this Scottishness was consciously recognised by the firm when they gave Scottish names to their fabrics and began to use wool, a fibre associated with Scotland and traditionally used in tweed.

In the 1930s Frank Donald spoke of the influence the Scottish landscape, which he chose to describe in terms of the ruggedly picturesque and romantic, had on the colour, texture and design of Donald Brothers' materials.

"I would like to think something of the austere, rugged nature of our country is ingrained in what we make. Our mountains and our glens, our broken coast-line, and "misty isles", our rocks and trees and bonnie burns, with their ever changing play of sun and shadow - I say I should like to think have had some influence on our work - some influence on the colour, texture and design of our fabrics."33

With the hindsight of Donald Brothers' later work it is possible to identify this Scottishness as it emerged in the early canvases. The "northern simplicity", of the prize winning Cawdor was shown to have had its roots in the textural handling of fibre and colour that originated in Antique quality. Similarly the textural handling of fibre in neutral tones characteristic of many of Donald Brothers' later classics such as Leven of 1936 (illus 9:51 see overleaf)34, Glendale of 1958 and the Hebridean range of 1970 (illus 9:52 see overleaf) - quintessentially identified with the Scottish landscape as "reflecting a very particular mood of Scottish tones and textures"35 - was also originated in the early period with the design of different qualities in écru canvas (illus 6:25-27), linens and crash (illus 9:8-16), and Titian canvas.
Illus 9:51 Leven Figured Cloth, linen, wool, cotton and jute, 1936.

With all the above fabrics, fibre texture, the textural structure of yarns and the textures of the weaves themselves were boldly articulated, physically emphasised by the pale, natural undyed tones of the yarns. In the early period, such texture was consciously developed in relation to hand-woven cloth, to express material individuality and the individuality of its making, thus demonstrating Donald Brothers' own individuality in developing craft-based manufacture within the factory. In the later cloths such texture expressed all of this and in addition conveyed a particular mood of Scotland as a further expression of its distinctive individuality. In this way it suggested both the natural rustic quality of Homespun as well as reflecting a natural, timeless - classic - quality of the ancient Scottish landscape untouched by man.36

When piece-dyed, as many of these textures came to be fused with colour inspired by the "woods and hills" around Donald Brothers, a more specific expression of rugged landscape was explored in cloth. This was identified in Frank Donald text of the 1930s, as in the rough and broken textures, colour and light of the Scottish mountains, glens, rocks, trees, coast-line and burns. In this way the early mottled textures in canvas (illus 9:50) and intricately figured textures in tissue (illus 8:81&82), trialled in the years just before the war can be understood with the hindsight of Donald Brothers' figured Epping and Birch (1952) (illus 9:53 see overleaf)37, to have evoked both the intricate textured detail of the Scottish fauna and the shimmering play of light over the textures and ripples of the sea shore. Thus such motifs, in addition to the textures and colours of Scotland probably directly influenced Donald Brothers in their search to expand their range in texture and colour before World War I.

In addition to the influence the Scottish landscape had on originating Scottishness in their early work, Donald Brothers own individual
achievement in purposing texture and colour in canvas became in itself a further development and expression of this characteristic Scottishness.

Illus 9:53 Epping, linen and cotton (above), Birch (below), linen and cotton and wool, 1952. These two designs shared the same pattern but Birch was woven with a texturally rougher snarled spun cotton/wool weft yarn.
True to the picturesque aesthetic in which the individuality of the artist/craftsman was expressed through textural handling (3:1,2), so the individuality of Donald Brothers' own Scottish character, born out of the indigenous circumstances of manufacturing in Dundee and shaped by Scotsmen in response to the Arts & Crafts market for individuality of expression, was expressed in their rough textures and forthright weaves.

In the 1930s Frank Donald spoke with pride of this individuality. He emphasised the firm's Scottish manufacturing base, the unique influence that Dundee's coarse staple, as opposed to the "finer silk and cotton yarns - the product of more civilised countries" - had on their work, and recalled that in the early period Donald Brothers had been "rather proud of a 'certain uniqueness'" in their fabrics. In contrast to modernists of the period who argued for standardisation, Frank Donald, true to his own formative experience in the Arts & Crafts period and in sympathy with the Scandinavian approach to design, argued against it. He described how his firm sought to maintain their individuality of expression by following

"an individualistic course... to make (their) fabrics different from those of other manufacturers...... It has been, perhaps, a fetish of ours, but we have always hated the idea of simply doing what others could do. We have always wanted to go along a quiet road of our own - not a great thoroughfare - and when we have found others coming along our road, we have tried to turn off it."

In this way, the "quiet road" Donald Brothers had embarked upon in the Arts & Crafts period became through circumstance and wilful design increasingly Scottish in identity. Rooted in the tradition of Dundee and inspired by the landscape of Scotland, it absorbed influences from hand weaving to develop craft-based manufacture within the factory as the means of expressing individualism and naturalism in textiles.
In summary of this chapter studying the very rough textures designed between 1906 and the First World War, a number of points can be made conclusively concerning Donald Brothers' manufacture of the early period. Firstly, it was established beyond doubt, that the firm did consciously look to hand-craft and identify their work with the Craftsman market in America to develop their rugged aesthetic in cloth.

Secondly, by comparing Donald Brothers' rough canvases with hand-woven fabrics, it was demonstrated that the firm were by c 1907 purposefully expressing woven construction at its simplest and most primitive, in order to reveal in the constructive process their own individuality as makers.

Thirdly it was shown from the study of the linen crashes that the firm's decision to go expressively rugged in linen by 1908 was considered artistic and met the Craftsman aesthetic for such rough woven texture. An examination of the textures revealed that the firm designed a naturalness and individuality of character in cloth, similar to hand-craft.

Fourthly, within the study of the firm's textures in designed irregularity, directional construction and stripes (c 1910 - 1912) it was evident that Donald Brothers fully engaged in factory-craft as the means to originate designs for the American market. It was seen how they manipulated their materials, woven structures and the power-loom through process, to intentionally eschew the uniformity of machine production, and instead, express themselves as craftsmen in the planning and making of cloth. With the hindsight of later work, it was possible to identify the originality of this commitment to craft-based manufacture and individuality of expression evident within the design of these early textures.

Fifthly, within the study of canvases employing twisted yarns (1913-14), it was demonstrated that the firm widened their range in textural
expression, to capture with texture and colour a quality of the Scottish landscape and character in their cloth. Such quality was demonstrated as contributing a further ingredient to their characteristic style, expressing individuality and naturalism in industrially woven textiles within the Arts & Crafts period.

Thus it can be concluded from this study, that the textures and colours of Donald Brothers were original manifestations of factory-craft and genuine expressions of individuality, character and naturalism in fabric within the Arts & Crafts period. Indeed, as essays in constructive decoration and as signifiers of individuality and rugged naturalism in fabric, Donald Brothers' textures can be demonstrated to have been quintessential Arts & Crafts fabrics of the later period, when the architectural search for textura required such fabrics to effect with other materials a textural harmony of the whole house - inside and out - with its natural surroundings (2:34). It is in relation to this use that the final chapter of this thesis on the early work of Donald Brothers addresses itself.
Footnotes.
1. Donald, F. *Address To the Incorporated Institute of British Decorators*, Dundee 1937, p. 4.


7. The entry date of 2/1908 in *Linens No. 1* may not be the date of their origination but could refer to when these fabrics were taken up by their American customers.

8. The implications of this decision for the subsequent development of Donald Brothers' manufacture cannot be overestimated. By the 1930s jute was no longer acceptable as a furnishing fabric because of its unreliability in dyeing, and was to be superseded by Linen Crash as Donald Brothers' essential rugged fabric.

9. These were Nos. 2, 3, 4 & 6. No. 5, dyed to grey, terra, greeny blue, green and brown was taken up by Edwin Foss of Boston in the following year, 1910 (*Linens No. 1*, p. 248).

10. This is demonstrated by a curtain made from narrow strips of hand-woven Russian Crash - worked in embroidery and stencil by Lora Hencke - exhibited at the Annual Arts & Crafts exhibition in New York and featured by *The Craftsman*, Vol. 13, No. 4, February 1908. opp. p. 476. Stickley's direct interest in the curtain was born out by its inclusion, as a Craftsman curtain within his catalogue *Craftsman Fabrics and Needlework from the Craftsman Workshops*, c February 1908, reprint Razmataz Press 1989. February 1908 is when the first advertisement for this catalogue appeared within *The Craftsman*, (Vol. 13, No. 5, Feb. 1908). The catalogue reprint by Razmataz Press in 1989 bearing the date c 1905 is therefore wrong.
11. Many of these samples do not have a trial date, this suggests most of them were already in production by 1910 (Linens No. 1, p. 412-443).


13. Ibid.

14. In Linens No. 1, p. 432 a similar cloth A 193 Linen was bought in by Donald Brothers, from the firm Stevenson & Son, Dungannon.

15. "Heavy" was the description used in recording this stripe in Linens No. 2, p. 70.


17. Gordon Russell Ltd. used Donald Brothers' fabrics extensively in the 1920s and 30s. Their showroom at 28 Wigmore Street, London became an important showcase for modern design in the 30s, with the fabric department - run by Nikolaus Pevsner - stocking Donald Brothers' fabrics.


19. Ian Ross who worked with Donald Brothers in the late 1960s/70s said it was the bold width of the 6" Cawdor stripe that made the fabric so striking and new. A wide 9" and alternating 6" stripe trialled as 50" No. 1621 Striped Canvas in 1911 Canvases 3 p. 58, illustrates Donald Brothers also worked in this scale within the early period.

20. The Design Centre Awards 1962.


22. Ibid. 1929-1934, SU 68.

23. As well as the sampled vertical warp effects, trials in No. 142 Canvas were pasted into Canvases No. 2, p. 498 as weft effects. These give the idea of streaked horizontals and how they could be used as such.


26. See 23.

27. Donald Brothers need to diversify from linen into cotton, was stimulated by the high prices for flax by 1914. In August 1914 Frank Donald wrote to his brother suggesting he should try "to get firms to accept goods made from Jute or Jute and Cotton, in place of Linen, or Linen and Cotton" (Donald, F. Private Letters No. 1 p. 220).

28. This practice of naming cloths had almost exclusively been reserved for printed and figured cloths up to this date. After Titian, other textures were frequently named.

29. Titian also suggests Art Galleries, where the fabric may have been used as a wallcovering.


32. Developed just before the war, these trials may well have been originated as camouflage material in an attempt to procure "Non Art" work. By March 1914 Frank Donald wrote that "Titian Cloth Range" had not been completed because they had "Non Art" work for the twisting frame (Donald, F. Private Letters No. 1, p. 195).

33. Donald F. Furnishing Fabrics. Some Comments of a Manufacturer on his trade. op. cit. p. 6.

34. Linens No. 13, p. 226 Leven was woven with a cross stripe effect in linen, wool, cotton and jute. The fabric was illustrated in Architectural Review; Pevsner, N. "Furnishing Fabrics", June 1936, p. 293.

35. Donald Brothers' Hebridean range card. There were six cloths in the "natural" range.

36. No landscape is in fact untouched because it has been aesthetically framed.

37. Epping and Birch shared the same pattern, but were interpreted differently with cloth using different qualities of yarn. Both were designed by William Robertson and inspired directly from his own photographs of tree bark. William Robertson with Peter Simpson also designed Glendale. It was his father Charles Robertson who with Peter Simpson designed Cawdor.
Donald, F. op.cit. p. 8.

Donald, F. Ibid. p. 8. "I confess to being puzzled and perplexed. In the past we were rather proud of a certain uniqueness in our fabrics. Along comes Herbert Read and tells us, 'uniqueness must obviously be sacrificed in the machine age'. Beautifully as he writes.... I am still, for a little, going to follow an individualistic course...."

In the same address Frank Donald remarked on the high standard of taste in Norway, Sweden and Denmark and commented by contrast, that in industrial Europe there was "little to be proud of from a humanistic point of view" (p. 4). Donald travelled to Sweden on numerous occasions and in the summer of 1936 employed Astrid Sampe the Swedish designer, then studying at the Royal College, to design on a hand-loom at Donald Brothers. Sampe returned to Sweden to head Nordiska Kompaniet's design studio from 1937-1971 and this created further ties for Donald Brothers in Sweden.

Ibid.
CHAPTER 10. Donald Brothers Materials within the Craftsman Home

The relationship of Donald Brothers' fabrics to the Craftsman aesthetic in textiles has formed an ongoing point of discussion in helping to analyse and determine the main characteristics and stylistic nature of the firm's materials manufactured before World War I. It has been shown how Stickley's sought aesthetic, manifest within the "structural idea" and picturesque appreciation for texture and interdependent colour (3:1&2), accorded with the firm's own aesthetic in textiles. Fabrics produced by the firm were taken up by Stickley, and this in turn inspired them as craftsmen to develop their own original work in texture and colour as expressions of individuality and naturalism (6-9).

The subject of this chapter is a further exploration of the connections between the Donald Brothers' business and that of Gustav Stickley. The Craftsman home promoted by Stickley in his publications, locates as physical place, a point where Stickley's and Donald Brothers' shared aesthetic in textiles came alive in use. As an inspiring place to position the firm's textiles, it provides an additional and conclusive means of gaining understanding of their meaning within the context of the Art & Crafts.

Sources for the study of this interactive use of Donald Brothers' fabrics within the Craftsman interior include The Craftsman magazine, Craftsman Homes (1909) and the catalogue publication Craftsman Fabrics and Needlework from the Craftsman Workshops (c. 1908).

Underlying the study throughout this thesis is the recognised ability of Donald Brothers to forge business links and sell their materials to Stickley. Factual evidence exists in surviving records of both the Donald Brothers and Gustav Stickley companies, clarifying the business links between the two firms. The records build up a picture of Stickley's reliance on Donald Brothers' fabrics in the years between 1906-1914. They establish that the firm's Antique Canvas was Stickley's Craftsman Canvas and
provide further understanding of the types of fabrics Stickley was purchasing from Donald Brothers. An examination of these records forms the most appropriate basis for the subsequent investigation of the interaction between the fabrics produced by Donald Brothers and the American Craftsman home.

Evidence of the business connection can be taken from two sources, firstly from the sample book records of Donald Brothers and Frank Donald's Private Letters No. 1 (1910-1914), and secondly from the business papers of Gustav Stickley's Craftsman Workshops at Syracuse, held in the Winterthur Library, Delaware. Relevant papers in the Stickley archive documenting Stickley's business with Donald Brothers include records of Checks & Deposits (July 1906-1909, 1912-1915); Purchases, Returns & Allowances (Feb. 1908 - March 1914); and Inventories 1909-1914. Records for the years 1901-1906 in the above papers do not exist. Other records which span the 1901-1906 period, such as an Invoice Register (1901-1907), Ledger (1901-1905) would not be expected to - and do not - make mention of Donald Brothers. This means there are no records for 1901-1906 to analyse the start of the early business between Donald Brothers and Stickley, which began in c 1903, when Stickley introduced Craftsman Canvas into his interiors.

10:1 The Business Connection

In Donald Brothers' Canvases and Linens sample books which span the years 1896-1914, business with Stickley was identified as "Gustav Stickley, New York", "Boston" or "Syracuse" and "The Craftsman". This suggests that the firm supplied both retail outlets in New York and Boston as well as The Craftsman Workshops in Syracuse. Entries made for the Gustav Stickley Co. and The Craftsman can be found fifteen times, against fifteen distinct qualities of fabric. The first entries, dated 18/3/07, are against two samples of Figured Jute Canvas (illus 8:31 & 8:32). In 1908
entries were made against **No. 1 Antique Canvas**, introduced in a new shade of green, three qualities of **Russian Crash** (*illus 9:8*) and a pattern woven **36" A 84/BH Linen** (*illus 10:1*). In 1909 and 1910 entries were made against **Striped Canvas** (*illus 8:45*) and five plain, embroidery and open scrim linens (*illus 7:11*) (7:2), and in 1912 against **J.B.W. Canvas** (*illus 9:23*) and **3A Antique Linen** (7:2). After 1912 no entries relating to Stickley's company appear in the sample books kept by Donald Brothers. Only from Frank Donald's letter dated 9/3/1914 does a reference made to Stickley confirm that sales to the firm continued to this date.⁴ One year later Stickley's business empire collapsed.⁵ Frank Donald's letter discussing his firm's American business, refers to a remittance of "roughly" £425 being owed by Stickley for goods he received in January 1914.⁶ It would appear that, Stickley, like Donald Brothers, was already in trading difficulties by 1914. His business with Donald Brothers and the sum of £425 was evidently considered important enough to be singled out by Frank Donald. Indeed £425 was sizeable business for the firm when considered both in relation to their factory wages, which totalled £804 for 1914⁷, and the "quiet", difficult trading conditions that they encountered by March of that year.⁸

*Illus 10:1 36" A 84/BH Linen, 1908 supplied to Gustav Stickley & Co.*
From the Stickley papers related to the Craftsman Workshops at Syracuse more details emerge of Donald Brothers' business with regard to the manufacturing end of Stickley's enterprise. These papers suggest, as discussed above, that Stickley's business was in trouble by 1914 and that the inspiring connection between the two firms ended in that year. The first citation of the firm's name within Stickley's records can be found in the earliest of the surviving records of Checks & Deposits, dated July - Dec. 1906, entered in October 1906 with the sum of $2,451 recorded as payment to "Donald Bros. - Stmt to Sept. 1". As a statement to September 1, this entry indicates Donald Brothers must have had cloth ordered from them in around February/March 1906, proving that Stickley was buying from Donald Brothers at least twelve months before their own records indicate. The size of the payment, much larger than any other individual payment made by Stickley's company (except those paid for the pay role - $2334 - to the Merchants National bank) demonstrates the substantial commitment Stickley was making to the firm's cloth by 1906.

Within the records of Checks & Deposits, payments made to Donald Brothers between July 1906 - August 1909 and 1912 - 1914 were recorded as tabulated below:

<table>
<thead>
<tr>
<th>Date</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct. 10th 1906</td>
<td>$2,451</td>
</tr>
<tr>
<td>March 11th 1907</td>
<td>$1,314</td>
</tr>
<tr>
<td>Jan. 15th 1908</td>
<td>$1,94</td>
</tr>
<tr>
<td>April 29th 1908</td>
<td>$1,301</td>
</tr>
<tr>
<td>July 1912</td>
<td>$1,393</td>
</tr>
<tr>
<td>March 15th 1913</td>
<td>$1,483</td>
</tr>
<tr>
<td>Nov. 19th 1913</td>
<td>$193.10</td>
</tr>
</tbody>
</table>

From the table it will be noted that between 1906-1908 regular payments were made, while in 1909 (up until August, when records cease) none were recorded. Only in the later records do payments reappear for 1912 and 1913, with the 1914/15 records making no entry for Donald
Brothers. This suggests that the firm's business with Stickley had practically ended by 1914, with the outstanding payment of £475 due Donald Brothers.

For more information on the firm's business with Stickley between the years 1908 and 1914, Stickley's papers documenting Purchases, Returns and Allowances provide insights. These surviving records, although starting later than those discussed above, span the missing years 1909 to 1912, and therefore give evidence of the continuous though fluctuating nature of the firm's business with Stickley. Also, organised under thematic headings entitled "Furniture", "Fabrics", "Metals", "Rugs" and "Stained Leather", the purchases for fabrics reveal the extent to which Stickley relied on those manufactured by Donald Brothers. This reliance is revealed within the tabulation of recorded purchases for 1908, the first year on record.

<table>
<thead>
<tr>
<th>Total Purchases for 1908</th>
<th>Purchases from Donald Brothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>$2,223</td>
</tr>
<tr>
<td></td>
<td>$1,429</td>
</tr>
<tr>
<td>March</td>
<td>$ 190</td>
</tr>
<tr>
<td>April</td>
<td>$ 72</td>
</tr>
<tr>
<td>May</td>
<td>$ 187</td>
</tr>
<tr>
<td>June</td>
<td>$ 86</td>
</tr>
<tr>
<td>July</td>
<td>$ 592</td>
</tr>
<tr>
<td>August</td>
<td>$ 68</td>
</tr>
<tr>
<td>September</td>
<td>$1,367</td>
</tr>
<tr>
<td>October</td>
<td>$ 357</td>
</tr>
<tr>
<td>November</td>
<td>$ 82</td>
</tr>
<tr>
<td>December</td>
<td>$1,693</td>
</tr>
<tr>
<td></td>
<td>$1,436</td>
</tr>
</tbody>
</table>

As shown in the above table for 1908, with total purchases of fabrics in February amounting to $2,223, those made from Donald Brothers amounted to $1,429. This meant that over half the total purchases were from the firm, with the remainder spread between a number of companies, in smaller amounts that never exceeded over $400 with any one company.11 In the following months of 1908 Stickley's fabric purchases remained low; only in the autumn/winter months of September and December were
larger purchases recorded. These total $1,367 for September and $1,693 for December, with purchases made from Donald Brothers worth $1,336 (September) and $1,435 (December). It is therefore clear that the fabrics of Donald Brothers completely dominated Stickley's selection and purchase of materials in 1908.

In the following years, a slightly more complex pattern of Stickley's purchasing of fabrics emerges. In the 1909 records, the firm's name appears against the relatively small purchases of $277 in January and $244 in April, and it was another firm, Bassett McNab & Co. who featured more prominently in this year. By 1910 however, purchases were once more weighted in favour of Donald Brothers. In the early part of the year, a purchase of $325 from Donald Brothers in January and another of $327 from Bassett McNab in February illustrate Stickley's purchasing from both firms. By April, record of two larger purchases from Donald Brothers of $623 and $672, re-confirm Stickley's long term commitment to their fabrics.

Further proof of Stickley's commitment to the firm's fabrics is found in the fact that he also began to pay substantial duty on imports of their canvases and linens in this month. Immediately above the April entry for the two purchases, are amounts of $327 and $305 recorded as being paid on "Donald Bros. Duty on Canvas Linen". In the May and June records two smaller purchases of $155 and $160 are likewise preceded by duty payments on "Canvas" $75 and "Lin" $75. From these accounts it is clear that Stickley was prepared to pay a 50% duty on Donald Brothers materials, over and above their original price, thus demonstrating his reliance on their fabrics for his Craftsman range.

Records for 1911-1914 illustrate much the same commitment. In 1911, Stickley's overall purchases of fabric in January, February, March, June, July, September and November remained low at around $100 to $200,
at times even lower. In the April records however, a purchase from Donald Brothers dated to March 4th of $977 with duty of $472, was followed by a smaller purchase in the May records (dated April 13th) of $215 with a "Duty on Linen" of $105. Later in the year other records of purchases from the firm were made; in October $133 and $133; in December $775 with a duty of $373. Apart from August, purchases from Donald Brothers therefore completely dominated Stickley's purchasing accounts in 1911.

In the following year 1912, with overall purchases of fabrics from January to May and July to December 1912 remaining even lower than 1911, mostly at around $20 - $30, Stickley's June record, of a large scale purchase from Donald Brothers of $1,391 with a duty of $609, assumes even greater prominence within Stickley's accounts. Much the same picture emerges for 1913; January accounts record duty paid on the firm's linen of $646 (dated Jan. 27th) followed in February with the purchase worth $1,480, which is dated back to December 24th. In April a purchase of $1242 with a duty of $620, and in May and October, smaller purchases of $93 and $196, with respective duties of $47 and $58 are recorded. Finally in 1914 from January to March, the last months covered by existing records, Donald Brothers still retained their prominence within the Stickley accounts. In January a purchase made from the firm worth $1,574, dated back to December 17th and preceded by a duty of $526, was followed by negligible purchases of fabric for the months of February and March.

In summary of the above analysis of Stickley's Purchase Records, it can be concluded that Donald Brothers materials dominated Stickley's purchasing selection of fabrics in the years between 1908 - 1914. Indeed, when considered in conjunction with the previous analysis of Stickley's Records of Checks for the years 1906-1908, which revealed similar levels of expenditure on the firm's materials, these records demonstrate that Stickley's commitment to the materials manufactured by Donald Brothers
was well established by 1906, and must certainly date to c. 1903 when Stickley introduced **Craftsman Canvas** to his customers.

The documentary proof, in addition to the strong visual and circumstantial evidence cited, which establishes that the firm's **Antique Canvas** was Stickley's **Craftsman Canvas**, is found in Stickley's **Records of Inventories**. This final group of records to be examined clinches the **Antique Canvas/Craftsman Canvas** connection, and therefore posits the date of Stickley's business link with Donald Brothers to c. 1903. The records also provide some insight into the different types, pricing and quantities of materials that Stickley was stocking at the Craftsman workshops. Many of these, as proven by Stickley's **Purchase Records** which detailed his reliance on the firm's fabrics, must now be identified as made by Donald Brothers.

The most prominent fabric stocked at the Craftsman workshops was **Craftsman Canvas**. Entries for this fabric demonstrate its prominence in terms of quantity and value, which by 1910 outweighed approximately 4 to 1 other stocked fabrics. In January 1909 **"Craftsman Canvas"** was entered with its accompanying code numbers for 21 different colours. Valued at $0.65 per yard, the canvas was held in a quantity of 2756 yards at a total stock value of $1791. By January 1910 and 1911 **Craftsman Canvas**, now entered in the inventory in the abbreviated form as "Canvas", and thereafter entered as such in the records with identical code numbers to the 1909 inventory, was again valued at $0.65 per yard. In these years and those recorded up until 1914, it was held in quantities and at a stock value as tabulated below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1909</td>
<td>2756 yards</td>
<td>$1,791</td>
</tr>
<tr>
<td>1910</td>
<td>2874 yards</td>
<td>$1,868</td>
</tr>
<tr>
<td>1911</td>
<td>3346 yards</td>
<td>$2,174</td>
</tr>
<tr>
<td>1912</td>
<td>7690 yards</td>
<td>$3,920</td>
</tr>
<tr>
<td>1913</td>
<td>4654 yards</td>
<td>$2,513</td>
</tr>
<tr>
<td>1914</td>
<td>55201 yards</td>
<td>$29,809</td>
</tr>
</tbody>
</table>
By July 1912, "Canvas" was costed at the lower price of $0.54 per yard (with 516 yards at $0.57), and stocked in the much larger quantity of 7690 yards. This 1912 "Canvas", identified from the previous inventories as Craftsman Canvas, establishes the crucial documentary proof of Donald Brothers' authorship. Recorded on the first page above its entry is a calculation note which refers to the canvas as "Donald Canvas" (illus 10:2).24

It is this coupling of "Donald Canvas" with "Canvas" (Craftsman Canvas) that proves Donald Brothers was the supplier of Stickley's Craftsman Canvas. It therefore follows, as identified in 3:1 and 6:1, that Antique Canvas was that fabric.

Returning to the remainder of the inventories for 1913/14, which deteriorate rapidly in the presentation and quality of their information, it is evident from the final inventory dated April 1914 that a huge stock of Craftsman Canvas entered as "Canvas South side" had been amassed at the Craftsman Workshops by 1914. Amounting in value to $29,809, this can be calculated to be approximately 55201 yards.25 While the reason for this huge stock-piling is unclear26, what is evident from the above is that large quantities of Craftsman Canvas were bought from Donald Brothers over the years. The final inventory suggests something of the scale of this business for Donald Brothers, before Craftsman furniture went out of fashion in America c 1914/15.
In addition to the inventory stock of *Craftsman Canvas*, other canvases recorded within the inventories were:

**Wall Canvas** (1909 - 1914) @ $0.48 per yard  
**Lustre Canvas** (1909 - 1913) @ $0.60 per yard  
**Dyed Canvas** (1910) @ $0.65 per yard  
**Flax Canvas** (1909 - 1913) @ $1.65 per yard  
**J B W Canvas** (1914) @ $0.54 per yard

**J.B.W. Canvas** (*illus* 9:23), a Donald Brothers' jute canvas recorded by the firm as supplied to Stickley in 1912 (9:3), was featured in Stickley's 1914 inventory as stocked in 1,027 yards. This, and the discrepancy in price between **Flax Canvas** and the other canvases, which were costed at a third of the price, suggests that the remainder of the canvases were also made from the cheaper jute fibre, within the same price range as Stickley's **Jute** (1909-1913) @ $.45 and **Craftsman Canvas** @ $.65. All of them, including **Flax Canvas**, can therefore be understood as possible materials by Donald Brothers.

It is from the Stickley's inventory recordings for linens, which listed over 24 different linens between 1909-1914, stocked in quantities ranging from anything between as little as 6 yards to large quantities of 800 yards, that a more secure case for attributing the firm's authorship can be made.28 50" **Donald** was obviously one of their linens, possibly one of the plain linens, such as **A 98/PD** or 50" **222** documented as taken up by Stickley in the records of Donald Brothers (7:2). First listed in the 1910 inventory valued at $.86 per yard, this linen was stocked in quantities that ranged from anything between 263 yards in 1910 to 542 yards in 1912. **Bloom Linen**, valued at $.75 per yard, is another linen that has been attributed to Donald Brothers (7:2). Like **Donald** linen, **Bloom Linen** was held in quite large amounts; 276 yards in 1909, 575 yards in 1910 and 407 yards in 1912.

Other linens listed within the inventories as **Antique Linen**, **Casement Linen**, **Linsall**29 and **Unilin**30 all bear identical names to
recognised linens of Donald Brothers. These can be accepted as made by Donald Brothers (7:2), and were stocked in varying yardage, which, at any one time never exceeded 245 yards in Antique Linen and Casement Linen, 110 yards in Unilin and 20 yards in Linsell. Another 50" Plain Linen, costed at the same price as Donald linen and entered in the 1913 inventory directly next to Donald linen, may also have been manufactured by Donald Brothers. This fabric was stocked in 140 yards in 1909 and in the larger quantity of 412 yards by 1911.

Other linens held in sizeable amounts, but not included in the above group because they are not readily documented as being made by Donald Brothers, were Flemish Linen, Blue and White Farm\textsuperscript{31} and 15" Hand Woven Linen. Of these linens, Flemish Linen was by far the most prominent, being continuously stocked in large quantities: 874 yards in 1909, 622 yards in 1912 and 634 yards in 1913.\textsuperscript{32} Apart from this linen, those identified with Donald Brothers constituted the largest proportion of Stickley's stock in linens as recorded within the inventories. The proof of the Purchase Records, which established Stickley's strong reliance on the firm's fabrics, therefore supports the argument that Donald Brothers were a, if not the, major supplier of linens as well as of canvas, to the Craftsman Workshops in these years.

In addition to the linens and canvases, one other class of fabric featured in the inventories is readily connected with the firm's own productions. 15" & 18" Donald Brothers' Linen Crash, recorded within the inventories of 1913 and 1914, in overall stocks of 457 and 298 yards for 1913 and 1914, was obviously their crash, and possibly similar in quality, although different in width to the Art Linen Crashes such as No. 61 or No. 65 (9:2). Stickley's 17" & 44" Cossack cloth heavy crash, first recorded as stocked in 35 yards in 1912 and 80 yards by 1913, may also have been made by the firm. It could have been their rugged
Russian Crash, first documented as taken up by Stickley in 1910 (9:2). Other unidentified stocked crashes were: 32 yards of 36" Crash, 14 yards of 27" Crash, 33 yards of 18" Crash and 33 yards of American Crash, all of which were recorded as stocked in 1914. The name "American Crash" suggests the other crashes were not American in origin and may, or may not, have been made by Donald Brothers. The identified Donald Brothers' Linen Crash considered on its own or in conjunction with the Cossack cloth heavy crash, arguably the firm's Russian Crash, thus formed the major part of Stickley's stock in crash. This demonstrates that in crash, in addition to the linens and canvases, Stickley relied on Donald Brothers to realise his Craftsman range in fabric.

The canvases, linens and crashes recorded within the inventories and readily identified with the manufacture of Donald Brothers, were accompanied by other fabrics which cannot be so. The latter included velours @ $1.50 per yard, raw silk @ $2.50 per yard, denim @ $.16 per yard and brocade @ $1.25 per yard. All these fabrics, stocked in small quantities of approximately 20 yards, were of qualities that Donald Brothers would not have produced. Other qualities, of which by far the most important was 50" Repp stocked @ $1.20 per yard in quantities of between 350 to 380 yards in the years between 1909 to 1913, may conceivably have been a repp canvas or linen produced by Donald Brothers. However its price, in the range of the silk and wool velours, suggests it was not. All of these fabrics, although not of direct concern to this study concentrating on the connection of Donald Brothers with the Craftsman Workshops, illustrate, in their variety and small stocked quantities, the broader range in Stickley's selection of fabric, within which the firm's canvases, linens and crashes can be placed and understood as playing the dominant part.
In conclusion to this study of Stickley’s Inventories, considered in conjunction with the records of Checks & Deposits and Purchases, Returns and Allowances, the prominence of the manufacture of Donald Brothers has thus been identified within the business records of Stickley for the recorded years of 1906-1914. In identity and in quantity the firm’s Antique Canvas has revealed its significance as Craftsman Canvas in comparison with other Craftsman Fabrics. In other qualities of canvas, linen and crash, the firm’s productions have been shown to be dominant, and to predominate in quantity over other fabrics. The business records therefore prove without doubt that the rugged materials of Donald Brothers were essential to Stickley in realising his Craftsman aesthetic in fabric in the early years of the twentieth century between 1903 and the First World War.

10:2 An Exploration in Mutual Dependency; Materials and Home

Underlying Stickley’s selection of Craftsman fabrics was his desire to extend the "structural idea" manifest within his purposeful, boldly constructed furniture, to the interior schemes of his Craftsman homes. In this way he aimed to develop a textural unity within the inside of the house, in harmony with the outside of the home and the exterior landscape (2:4, 3:1). In chapter 2:4 it has been shown how Stickley, embracing the architectural preoccupation for textura, incorporated plain woven fabrics as an essential constructive texture in the interweaving of the interior with the exterior within his Craftsman homes. Chapter 3:2 outlined how in search of textural harmony of effect between the interior and the exterior, Stickley conceived of his interiors as a picturesque landscape, reliant on preserving the relationship between the natural background of walls and floors and the more prominent furnishings in the room. Crucial to this relationship was his understanding of the significance of texture in achieving the quality of soft radiance in background that gave "the atmosphere of colour to the
entire room”. This led to Stickley's choice of the firm's Antique Canvas as a background for his furniture. In relation to such background effect it was described how other decorative features such as appliqué work, now also recognised as worked in linens made by Donald Brothers (7:2), were introduced as "highlights in the picture .... to accent the whole scheme" within the interior. To study this aesthetic of the picturesque landscape interior in greater detail from the viewpoint of fabric, therefore illustrates the richness in meaning of the firm's materials as conveyors of harmony and naturalism within the Craftsman home. In this way it is shown how in the developed quest for textura within the Craftsman plan for the interior, the firm's woven texture came to signify picturesque fusion between the inside and outside of the house as expression of the Arts & Crafts desire for simple living close to rugged nature. It can thus be concluded that the materials manufactured by Donald Brothers were quintessential textiles of the American Arts & Crafts in their purposeful and expressive use within the Craftsman home.

Within Stickley's pictured interior, the essential material used to establish background effect was wood. Used for beams, wainscots and built-in furnishings (bookcases, cupboards, window/fireside seats) (illus 10:3 see overleaf) woodwork provided structural emphasis as well as the "key note for the color harmony to be developed in wall coverings, hangings and furnishings."33 To achieve the painterly quality of textural colour, wood was plain-sawn to reveal its "markings" and "openness" of texture, and finished to be "pleasantly smooth without sacrificing the woody quality that comes from frankly revealing its natural texture".34 In this way the "little sparkling irregularities of grain" allowed for a play of light over the surface to achieve the textural soft broken quality of soft

Radiant colour Stickley required. Once prepared as texture, wood was then developed for colour. Sturdy American white oak, Stickley's favoured wood, was fumed with ammonia to ripen it to a "mellow brown tone". Chestnut, appreciated for its greater degree of mellow radiance, was treated for its luminosity of colour. This filled "the whole room with a soft glow like that of the misty colour that is radiated from trees in autumn."³⁶

Working alongside the woodwork, wall surfaces were treated with rough sand-finished plaster with colour put on "lightly enough to be a trifle uneven".³⁷ Alternatively, as "next best treatment", walls were covered with canvas or burlap.³⁸ The use of canvas and burlap, considered by 1908 as rather "unsanitary", was recommended "purely in the light of a background", because it gave such "an admirably soft deep atmosphere of color" to the room.³⁹ It is in this way that Craftsman Canvas and J.B.W. Canvas, both made by Donald Brothers, and other unidentified canvas/burlaps, working alongside wood, took form as picturesque background effect. Indeed canvas appeared within early issues of The...
Craftsman as the favoured wall treatment for the Craftsman interior, at times chosen in preference to plaster because of their "richer appearance".40

First introduced to the Craftsman public in the "soft dull shades found in the old French Tapestries" in 1903 (6:1)41, Craftsman Canvas was "tapestried" to the library and dining room walls of a Craftsman House in 1904.42 This initial link with tapestry illustrates the canvas's origins in this form of wallcovering and stresses its mellow "antique" ambience as background. Chiefly admired for its quality of texture and dependent soft textural colour, the canvas also became poetically described in the colours of nature (4:2). This fostered allusions to nature in its employment as background effect within the interior.

Such allusions to nature are manifest in The Craftsman's description of Craftsman Canvas within a suburban villa of 1908. There the main requirement in decorating the villa interior was to "bring the charm of the outside surroundings of the house inside" in true picturesque style. Accordingly, Craftsman Canvas, applied to the hall walls in rich deep cadmium yellow, furnished "the keynote of a delightfully sunny effect" within this area and harmonised through contrast with glimpses of the green background of trees seen through the window".42 In such documented use, the part Antique Canvas played in providing both picturesque background effect and linkage from the interior to the outside landscape is clearly established.

Within The Craftsman other unidentified canvases and burlaps described in Nature's colours were also used, or suggested for walls, to achieve much the same effect. For the purposes of this study these are taken to be canvases by Donald Brothers. Such references illustrate how canvas such as they made was used in conjunction with other materials, such as wood and stone, to develop background effect within the interior and picturesque fusion between the interior and exterior, signifying
through such fusion the desire for harmonious living close to nature. Three examples dated to 1903, the year Antique Canvas was introduced to the Craftsman public, illustrate three stages in this developing aesthetic as it unfolded within the pages of The Craftsman. In May, the journal reported on a dining room furnished by Gustav Stickley at a "recent Arts & Crafts exhibition" held at the Craftsman building at Syracuse (illus 10:4).

It described how the textiles, used for rugs and wallcoverings, "were in that deep dull green which Nature loves", and provided an "unassertive background, refreshing, familiar and suggestive". Against this textile background, visibly structured by wood battens, was placed Stickley's furniture in "simple structural style", made from oak fumed to a "rich, deep-toned brown (of) weathered wood". In this interior the relationship between the wall-covering as background and Stickley's furniture, was thus established through the canvas material in articulated structure and the theme of Nature's "deep" colours.

In the second example, also taken from the same May issue of The Craftsman, the theme of "variegated" textural colour in wallcoverings and rugs became the connecting factor, which now brought the whole interior
of a planned Craftsman House into direct picturesque relationship with its exterior. Within this house a "hempen textile of peculiar weave which (gave) a variegated effect to the dyed fabric" was suggested for the interior walls. Dyed to a variegated green/yellow ("certain of the threads approaching yellow, and certain others showing a decided green"), this wallcovering was co-ordinated with Donegal rugs in soft deep velvety tones of greens, olives and yellows, to form "an admirable base and background" within the interior. These were descriptively linked to the exterior walls of the house built with field stones, whose untouched surfaces were carefully preserved with "weather stains and moss accretions", by the variegated textural colour.

From December 1903 comes the final fully developed example of this picturesque aesthetic involving woven texture, within a planned Craftsman bungalow "intended for more or less primitive living". For this bungalow, burlap at its most picturesquely rugged was chosen in dull olive yellow to "sheath" the living room walls of an interior specifically designed "to harmonise with the dull but rich tones of autumnal oak leaves" and "to be in touch with Nature" (illus 10:5 see overleaf). Such aspirations in the use of material within the inside of the bungalow, were also manifest on the outside. The exterior was also "sheathed", in this case with shingles of burnt sienna colour "to look like an autumn oak leaf", and was designed in combination with the "rough stone" chimney to tie "the building to its surroundings and to give it the seeming of growth rather than creation" (illus 10:6 see overleaf). As with American picturesque dwellings (2:4), this bungalow was planned inside and out with a combination of material textures and colours to be in touch with nature. With this example the bungalow was explicitly connected through "autumnal oak leaf" colour and textural sheathing of shingles to rough stone on the outside, and the sheathing of the rugged burlap to the fire place on the inside.
Illus 10:5 Craftsman Bungalow, two views of the living room interior with walls "sheathed" in burlap, 1903.

Illus 10:6 Craftsman Bungalow exterior "sheathed" in shingles with "rough stone" veranda and chimney, 1903.
In this manner the picturesque vision of this bungalow as an actual part ("growth") of the landscape was established. In keeping with this vision, the plans for a "large general living room" and "large and spacious veranda" contributed in their openness of plan to linking the interior to the exterior, and thus enabled the picturesque expression of this burlap-sheathed bungalow as a dwelling for "more or less primitive living" close to nature.\textsuperscript{47}

The predominance of rough-textured canvas/burlap in shades of green to greeny yellow for the wallcoverings cited within The Craftsman of 1903 - although an over-simplification of the wider range in textures and colour described for walls over the years by the journal\textsuperscript{48} - reflects accurately Stickley's early search for rugged texture and a quality of textural green, which literally suggested itself as the basis of a colour scheme, "since it is the background of Nature".\textsuperscript{49} Within Donald Brothers' records of canvas supplied to Stickley, greens of dull brown/green, variegated yellowy green, and streaked leafy green, pale brown and grey greens can all be found.\textsuperscript{50} These, supplied alongside other documented canvases in shades of brown (illus 9:23), can now be understood together with those greens and browns specifically described in Craftsman Canvas (4:2), as illustrating something of the artistic range in "forest shades" that Donald Brothers produced for the American Craftsman market at this period. As such they provided fitting co-ordinates within the Craftsman interior for the "mellow brown" oak furniture and autumnal "glow" of the chestnut woodwork as well as nature itself. In this way the firm's rugged canvases demonstrate uniquely the particular type of materiality in texture and inter-related textural colour that Stickley believed made such a good textile background for his Craftsman furniture and indeed the Craftsman interior as a whole in its communing with nature.

In addition to the importance of the firm's canvas for achieving background effect as wallcoverings, the control of light by semi-translucent
casement fabrics, to achieve background effect and fusion between the inside and outside of the Craftsman house was to engage Stickley once more in the use of materials manufactured by Donald Brothers. Stickley believed the choice of material for window curtains was "a matter of as much importance to the quality of the room as a whole as the coloring of the walls". Fabric was to be "of sufficiently loose weave to allow the light to come through with a translucent effect" (illus 7:12 & 10:7).


Three linens produced by Donald Brothers, 36" Dyed Linsell (illus 7:30&31), A84/No. 20 Dyed Linen (illus 7:11&31) and 36" 3A Antique Linen (illus 7:32), and probably 36" Dyed Unilin as a fourth (illus 7:29), provided for Stickley's requirements and formed part of his Craftsman Fabric range (7:2). The former two weights, like Linsell Casement Fabric admitted light "freely" through their open weaves, while the latter, heavier more densely woven Antique Linen tempered the light more distinctly with a tint made of its own material and colour. Variation in translucency was thus considered in conjunction with colour, and since each room
already had its own "prevailing color", established by the woodwork, wallcoverings etc., the choice in curtain weave, weight and colour was ultimately determined by the quality of light that Stickley desired to "enhance the whole effect" within the room.

In terms of textural translucency this choice of light can be visually understood from an examination of Craftsman interiors. The mellow tonal nature of the Bungalow living room (illus 2:33) appears to be lit subtlety by the slightly dense translucency of the casement curtains compared the overall brighter ambience and lighter translucency of curtains in the living room interior of 1906 (illus 10:7 see above). In terms of colour, according to Stickley's recommendation,

"a room done in a quiet key and in mellow subdued tones, say of green or brown, may be made fairly radiant with color if the window curtains should be in any of the warm, sunny tones of straw, ivory or corn color, while a cold light coming through green, blue or dead white curtains would change the whole feeling of the room to one of chill and gloom".53 (illus 10:8).

Illus 10:8 Craftsman living room decorated in mellow forest shades with curtains in a sunny tone of straw. 1909.
From the records of Donald Brothers, Stickley's taste for neutral, straw gold and wood brown in Linsell is apparent (illus 7:11) (7:2). These shades can now be understood as providing Stickley with the crucial "effect of sunlight" within his Craftsman interior of forest shades (illus 10:8 see above). In addition to the straw/brown colours, blue and green were also taken up by Stickley. Such colours were used within Craftsman rooms of southern exposure, where it was necessary to soften the bright light entering the room. In this way the firm's textures and colours in linens were instrumental in achieving the right quality of light to enhance the whole effect within Craftsman interiors.

This emphasis on light entering from the outside into the inside of the house through the window, focuses attention on the mediating, filtering quality of the casement linens produced by Donald Brothers as an important expression of the picturesque open plan. The beauty of the casement window itself was, according to Stickley, the "ease and grace" with which they could be opened, there being no sense of "barrier" between the outside and inside: "at a touch the trees, the skies and the out-of-doors become part of the actual room. The walls seem no longer to oppress or to confine".

Conceived in this way as a part of the wall that opened (illus 10:9 see overleaf), rather than as a break in the wall, the windows also lent "interest to some actual architectural feature of the room". Windows became a part of the structural woodwork and window seat, and framed the out-of-doors as if it was part of the "actual" indoors (illus 2:33). In consequence, the semi-translucent casement curtains, "hung in straight folds to repeat and accent the form of the window" and the "prevailing lines of the interior" became a yielding extension of the architectural materiality of the window-wall, and captured through filtering, the outdoor sunlight as a focused, actual tangible part of the indoor interior landscape.
Another yielding extension of the wall and expression of the picturesque open plan involving fabric produced by Donald Brothers was the portière. Positioned strategically at a point of opening and closing between one room and another, the portière became a focus which combined both elements of background (as wall) and decorative highlight (as appliquéd pattern) within its made up form. Within the illustrated living and dining room interiors of the Craftsman Farmhouse (1909) (*illus 2:35, 10:10*) this focused combination is apparent.
The portière therefore provides the ideal subject to study, with greater visual precision, the interactive connection between the firm's material textures as background and highlight within the Craftsman interior as a whole.

Stickley's general requirement for the portière was that it be made of some "soft, rough fabric, quiet in tone and without lustre so that it became part of "the whole". Both the firm's crash (9:2) and Craftsman Canvas met this requirement. The latter, favoured by Stickley "for any use where a rugged effect (was) desired", was considered "excellent" because it had "sufficient body to hang in soft folds". Within the Farmhouse interiors these qualities are evident in the Craftsman portière made from Craftsman Canvas. Illustrated as hanging in broad soft folds within a strong rigid framework of wood, the yielding nature of this material as a part of the
whole wall connects as background, through texture and tone, to the woodwork and wall surfaces. Likewise, in the photographically illustrated portière (illus 10:11), both the quality of soft folds and the textural, tonal aspects of Craftsman Canvas have been studiously caught. Indeed, as a photographed point of focus, the quality of the canvas as background was, for once, clearly documented visually, and can be further explored in its relation to appliqué highlight.

It was the smaller decorative features, such as the appliqué and metal work, set against the background of the walls, woodwork, rugs, portières and larger pieces of furniture that Stickley intended as the "highlights" to "accent the whole scheme" within the interior (3:2). Appliqué work, such as that of the pine cone border design on the portière,
was in this way conceived to avoid "any feeling of monotony", to bring out the effect of the "unobtrusive fabric" Craftsman Canvas on the one hand, as well as on the other hand to "stand out against the background afforded by the fabric" and "bring it into closer relation with the other colours and decorative forms used within the room".60

Through an examination of the photographed portière with appliquéd pine cone design, and its accompanying catalogue description, these relationships are apparent.61 The unobtrusive subtlety of Craftsman Canvas' gray-green texture as background is brought out firstly by the broad appliquéd band of "oak brown" plain canvas, secondly the finer "dull brown" linen pine cones and thirdly the outlined needles in floss. At the same time, the rough texture also sets off the flat bold design, to give distinct highlight to the portière. Within the wider context of both the living and dining room interiors of the Farmhouse (illus 2:35 & 10:10), it is seen how such appliquéd highlight visually brings the portière into closer relationship with its surroundings. Rendered in darker materials than the photographed portière, the broad appliquéd band - now placed at the bottom of the portière - continues the bold structuring line of the wood skirting and pattern stripes of the carpet, while the pine cones and needles in their finer detailing connect with the textural intricacy of the wood grain surround and other decorative highlights, such as the flower arrangements, crockery and pictures within the rooms.

This relationship of parts to the whole, illustrated by the textural handling of materials and pattern in the portière within its setting, was enhanced by Stickley's evocative choice of "forest tones" for it. These, he described, were suggested "naturally" by nature; gray-green for the background, and "oak brown", "dull brown ... very like the real cones" and a "darker shade" (needles) for the appliquéd highlight.62 In addition to its texture and pattern, the portière's "forest" colour therefore suggests how
Stickley perceived his fabrics as belonging to his "oaken furniture as naturally as the leaves on a tree belong to the trunk", within his landscape interior. The softly hung portiere, supported by the strong wood framework surround, can be seen as metaphorically extending as leaves from its trunk. In this way it provided, in softness of texture and colour, background effect and support for the decorative highlights, focusing this open area as an other expression of the picturesque open plan and sense of landscape within the interior.

By means of the focus given to Craftsman needlework, it is possible to examine further the interactive use of the fabrics produced by Donald Brothers as highlight and background within the Craftsman interior. One particular identified linen from Donald Brothers, *Bloom Linen*, which has already been discussed in relation to appliqué (7:2), illustrates the meaning of this material, when in use as appliqué within the landscape interior. Woven as a two-tone shot effect in delicate and rich shades of colour, the essential textural quality of *Bloom Linen*, singled out by Stickley, was its "shimmer" (7:2). As a definition of its name suggests, "bloom" can also be identified with a flower, and as a texture/colour with a healthy glowing surface. It was precisely in this manner, to shimmer and glow as a flower against a ground cover of rough lustreless canvas, that *Bloom Linen* and other plain linens came to be used as an appliquéd highlight onto a background of Craftsman Canvas. Worked into Craftsman pillows (illus 7:26) (illus 10:12) and portières (as well as couch covers, wallhangings (illus 10:7&13), and table scarfs (illus 10:14) etc.), these needleworked furnishings were then strategically placed within the interior. Hung as portières, and placed on tables (illus 10:8&15) scattered as pillows on window seats (illus 10:7) and settles (illus 10:16&17), they extend Stickley's sense of the picturesque landscape. As highlight to background they
background they appeared "as much in place as a flower on a grass plot"; everything within the interior falling "into place as if it had grown there".

Illus 10:12 Two Craftsman pillows with Poppy and Rose appliquéd designs worked in Donald Brothers' fabrics, 

_Craftsman Furnishings for the Home_, 1912.

Illus 10:13 Library and dining room, showing wallcovering of gray-green Craftsman Canvas with appliquéd Rose design in old rose and green linen, _The Craftsman_, 1904.

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Copper coloured Craftsman Canvas with appliqué design in russet bloom linen, *Craftsman Furnishings*, 1912.

Illus 10:15 Dining room interior with Craftsman arrangement of tablescarfs, *Craftsman Homes*, 1909.
Illus 10:16 Craftsman living room interior: Craftsman canvas portières and pillow, with Poppy design in appliqué, 

Craftsman Homes, 1909.

Illus 10:17 Corner of a living room: built-in settle and pillow appliquéd with Seed pod design, C.Homes., 1909.
From the documented examples cited there emerges a strong sense of the interactive use of the firm's rough absorbent textures as wall-coverings, portières and cushions, in conjunction with other finer, glistening materials in appliqué. Analysis of the soft, highly textured pencilled illustrations within The Craftsman Home (1909) reveals, in their suggestive rendering, the visual richness of these material relationships within the Craftsman interior. In the Farmhouse living room the rendering of walls below the frieze in criss-cross hatching can be seen to evoke woven wall-coverings, as distinct from the more random shading, suggestive of plaster, above (illus 10:15). This reading enriches our understanding of the textural interplay between the wall area and other recognisable, documented areas of canvas and linens in portières and pillows. Much the same effect can be seen in the dining room interior of 1906 (illus 10:15) or indeed within the corner of the Bungalow living room of 1907 (illus 2:33&10:18), where a rough textured...
rendering, similar to that of the fabric cushion, appears on the walls. This visually suggests the wall area as canvas, harmonising as a wonderfully rugged background with other rugged textured materials such as the open-grained wood panelling and split stone fire place (illus 2:33).

Within such a harmony of rough textural relationships, "decided" highlight effects and lighter materials were also rendered within illustrations for Craftsman Homes. Appliquéd cushions visually appear to glow from their ground cover within an inglenook recess (illus 10:17), or to glisten within the soft woody sheen of a window seat (illus 10:7). Table scarfs in soft natural linens, chosen to be not "too finished in texture", similarly accent the smooth mellow sparkle of wood surfaces, while at the same time also remaining as a "part of the background afforded by the table itself", as a ground for appliqué and other highlighted objects (illus 10:15&19); while finally light itself, as the activating illuminator of all

*Illus 10:19 Craftsman Log Cabin: interior view showing rich textural relationships between the woven rugs and floor, echoed by the woven tablesarf and wood grain of the table top. The Craftsman, 1907.*

these material textures and tones, is seen to filter into the room, via the mediating influence of the yielding semi-translucent casement fabrics (illus 10:20 see overleaf). It is in these rich textural relationships involving the
use of fabrics by Donald Brothers, that it is possible to understand the fine tuning of Stickley's schemes of decoration for the interior.

![Craftsman living room with hall beyond illustrating the Craftsman open plan and textural quality of light filtering into the interior via the casement curtains, Craftsman Homes, 1909.](image)

Fundamental to these rich textural relationships was the underlying bold expressive handling of constructive texture. This was developed by the woodwork and furniture in horizontal and vertical construction (illus 10:15&16) and continued in fabric form by the bold constructive textures of Donald Brothers (2:4). Their fabrics, displayed flat as wall-coverings, draped in vertical emphasis as casement curtains and portières (illus 10:20&16), or alternatively laid flat, crossed in horizontal emphasis as table scarfs (illus 10:15), developed in finer detail the structural emphasis at the heart of the Craftsman plan. In this manner the materials of Donald Brothers contributed to the overall unity of the Craftsman interior interwoven with the exterior of the house (2:4). As the fine tuning of this overall textural unity, Stickley's scheme for the picturesque landscape interior also incorporated the significant use of the fabrics made by Donald Brothers to develop background and highlight effect and express in their textural...
relationships with other materials individuality, harmony and naturalism within the Craftsman interior.

Thus, to conclude this discussion concerning the use of the firm's fabrics within Stickley's picturesque aesthetic of the landscape interior, it has been shown how critical their texture and colour was to developing, as background and highlight effect, the qualities of harmony and naturalism within the interior. Their rough absorbent canvas used as wall-coverings, established, with the woodwork, the crucial soft radiance of background effect. This background effect was enhanced by the semi-translucent nature of the firm's linens, used for casement curtains. The casement curtains, in their yielding translucency, and the canvas portières in their yielding soft absorbency as background, both became focused expressions of the picturesque open plan in commune with nature. The appliquéd portière, extended as a "hanging" of foliage from its wood support and soft atmospheric background of the walls in wood and canvas, was linked by its appliqué highlight to the glowing blooms of the appliquéd pillows and other flowerings of needleworked linen; to all become refined expressions of nature in doors, in touch, through texture, colour and pattern with nature out of doors.

It is therefore concluded that the woven textures and inter-related colours manufactured by Donald Brothers became integral to the harmonious textural plan of the Craftsman home. As background and highlight effect they helped to develop the quality of picturesque landscape essential to Stickley's interior. As rugged woven texture, revealed in horizontal and vertical construction, they continued the Craftsman textural interweaving of materials from the outside to the inside of the house. Combined together, both as textura and picturesque landscape effect, they contributed to the development of the unified interior of Stickley's Craftsman Home as an American Arts & Crafts expression of simple living.
close to rugged nature. Thus the materials of Donald Brothers, in addition to being Arts & Crafts in design and manufacture were also quintessential Arts & Crafts fabrics for use within the American Craftsman home.
Footnotes.

1. The Business Records of Gustav Stickley, Coll. 60. 76x101, Winterthur Library, Delaware.

2. Ibid. Coll. 60. 76x101 16-19 Checks and Deposits. Winterthur dates these as starting from December 1907 but in fact the first record begins July 1906. Coll. 60, 76x101 43-53 & 4577 Purchases, Returns & Allowances. 4577 spans the period Dec. 1908 - Dec. 1909 missing from the 43-53 records. Coll. 60. 76x101 1-7, Inventories. Winterthur dates these from 1910-1914 but in fact Book 1 is an inventory for 1901 and Book 2 begins in Jan. 1909.

3. Other entries detail different colours in identical qualities of fabric.


5. Freeman, J. The Forgotten Rebel, Gustav Stickley and his Craftsman Mission Furniture. Century House, N.Y. 1965, p. 9. Freeman describes how Stickley's business empire was at the height of its glory in 1913 - when the twelve storey Craftsman building was formally opened. A petition for bankruptcy was filed against The Craftsman Inc. in March 1915.

6. Orders for the U.S. - resulting from Frank Donald's sales trip to the U.S. in October/early November 1913 - were all "just about completed by January 1914". Private Letters No. 1. p. 182.


9. Coll. 60. 76x101 16. Section 5. Entry 81. All figures quoted are rounded to the dollar - they do not include the cents.

10. Ibid. 16; Section 5, 14. Ibid. 17 Section pre 1, 5. Ibid. 18; Section 4, 17, 30.

11. Coll. 60. 76x101. 48 (Feb. 1908 - Dec. 1908) p. 5-8. For instance the English company Geo. P & J Baker were recorded with a payment of $392, and Nitcombe & McGeachin Co. with a payment of $303.

12. Ibid. p. 45 & 68.
13. Ibid. 4577 (Dec. 1908 - Dec. 1909) p. 3 & 24: Donald Brothers purchases. Purchases made from Bassett McNab & Co. in 1909 were as follows; January $445; May $931; June $1031; October $1748 and December $193.

14. Ibid. 49 (Dec. 1909 - Dec. 1910) p. 5, 11. There was one other large purchase made from Basset McNab in August of $532.


16. Ibid. 50 (Dec. 1910 - Dec. 1911) p. 27.

17. This month features a purchase from Bassett McNab & Co. of $802 (which was offset by $753 in the "Returns" column the following month of September). Ibid. p. 49.


21. Except for 1909 as discussed.

22. Ibid. p. 40. In 1910, the stock value of Craftsman Canvas outweighed approximately 4:1 other prominent fabrics; Bloom Linen valued @ .75 per yard was stocked in 575 yards at total value of $431; Flemish Linen was valued at $459 and 50" Repp valued at $418.

23. Coll. 60. 76x101 2. p. 1 & 2. In this year Flemish Linen, valued @ .60 per yard was stocked at 980 yards and 50" Repp valued @ $1.20 per yard was stocked at 354 yards.

24. Coll. 60. 75x101 5. p. 1. 1799 yards refers to precisely the amount of stocked Craftsman Canvas recorded on page one of the inventory.

25. The stocked amount does seem enormous; it was calculated out @ .54 cents per yard.

26. The Craftsman building in New York had opened in March 1913 and at that date Stickley had 50 sales franchised outlets across the U.S. (see The Forgotten Rebel op. cit. p. 9). Either the stock piling was made by Stickley to secure supplies of Craftsman Canvas before the impending war. Or, as the deteriorating quality of records indicate, the gigantic increase reveals that Stickley's business was by this date overstretched and out of control. And that no longer in tune with
fashionable taste, as trading became quiet in this year, Craftsman products were being returned to the workshop as sales outlets failed.

27. Coll. 60 75x101 1-7.

28. Ibid. In my discussion of the linens many of the smaller holdings have not been discussed because they cannot be proved to be by Donald Brothers. Typical of these were; 6 yards 36" Printed Linen (1910), 11 yards Old Linen (1912), 40 yards 72" Bedspread Linen (1912) and 41 yards Weiner Linen (1912) Figured Linen held in larger stock quantities of 70 yards and 124 yards in 1909 and 1910 can likewise not be readily identified with Donald Brothers. In the Craftsman Workshop catalogue Needlework (c. 1907) p. 6, Figured Linens were described as patterned "with quaint poppy motif". No surviving figured linen of Donald Brothers fits this description.

29. "Linsall" was spelt in the 1912 July inventory with an "e" "Linsell", as Donald Brothers' own spelling and that of Stickley's Craftsman catalogues.

30. Unilin was recorded as "Ulinin" with the 1912 July inventory.

31. In the Craftsman Workshop catalogue Needlework c. 1907 held in the Winterthur Library, 50" Blue and White Farm was described (p. 10) as furnishing a "quaintness" and "old fashioned air" with its pattern made up of an "arrangement of curious little water scenes enclosed in squares". This pattern does not correspond with any surviving Donald Brothers' linen.

32. It is possible Donald Brothers - producing through another manufacturer - could have produced this "Flemish Linen", just as they produced "Russian Crash" and a fine woven "Holland Cloth". However there is no documentary evidence to suggest they did, and it would be wrong to link such a fabric with Donald Brothers.


35. Ibid. American white oak was chosen for its "strength of fiber and beauty of color and markings" as well as for its "durability... sturdiness and the hardness of its texture" which enabled it withstand almost any amount of wear.
36. Ibid. p. 188.

37. Stickley, G. *Craftsman Fabrics and Needlework* p. 3.

38. Ibid. p. 4.

39. Ibid. Canvas was considered unsanitary because it could not be thoroughly cleaned. Recommended substitutes such as Fabrikona were prepared burlaps which could be "freshened up with ..a coat of wax."


42. Ibid. Vol. VI No. 4, July 1904 p. 318.


44. Ibid. Vol. IV, No. 2, May 1903 p. 72.

45. Ibid. p. 84. This was probably the first sighting of a Donald Brothers' material within *The Craftsman*.

46. "How to Build a Bungalow", *ibid*. Vol. V, No. 3 Dec. 1903 p. 253. The use of burlap as a visual expression of primitive living close to nature is discussed in relation to the picturesque handling of texture and colour within the bungalow in my text. However the choice of burlap as a material of rudimentary weave structure, appropriated from utilitarian use should also be appreciated as a desire similar expression within the interior. This was in keeping with the "economic construction" of the bungalow itself. Which designed according to the structural idea (3:3), proposed using "easily obtainable" local materials "put together" in a manner that "any man having the slightest knowledge of masonry and carpentry" could manage.


47. Ibid.

48. Other colours used were browns, pomegranate, Byzantine Gold, Blue.


52. Ibid.

53. Ibid.


56. Ibid.


58. Stickley, G. Craftsman Fabrics and Needlework p. 6. By contrast "rich-coloured velvet, silk or brocade" was not suitable because it would not become "part of the background" instead "drawing the eye to itself as a distinct thing".


60. Ibid. p. 6-7.

61. Ibid. p. 32-33.

62. Ibid. Stickley's use of the descriptive term "forest tones" can be read as Donald Brothers' "forest shades".


65. Stickley, G. Craftsman Fabrics and Needlework p. 5.


CONCLUSION

This thesis, concentrating on the emergence of Donald Brothers as manufacturers of decorative fabrics between 1896 to 1914, has demonstrated the substantial contribution which the firm made to the development of furnishing textiles in the Arts & Crafts period. It revealed that the firm's work in plain textures, printed and figured canvases and linens constituted an important group of Arts & Crafts textiles that gained in significance through their use within the Arts & Crafts interior.

The canvases of Donald Brothers were originated out of the coarse jute and linen manufacture of Dundee and became consciously designed, manufactured and marketed as 'Art' by 1896. They were developed in response to the architectural requirement for picturesque texture and colour and constructive decoration within the British and American Arts & Crafts interior. Their subtle qualities of texture and colour were used by Arts & Crafts decorators for wallcoverings and portières, as a background "foil" and as a ground for stencilling and appliqué needlework. The firm's block-printed and stencilled patterns were conceived in relation to material texture and contributed to their range in wallcoverings.

The firm's linens, were likewise designed and marketed as 'Art'. They contributed in a finer material to the range in plain simple textile furnishings produced by Donald Brothers for the Arts & Crafts furnishers. Their plain textures, stark abstracted prints and simple, constructive figured weaves produced for Heal & Son exemplify their originality in the field. Their linens were used for wallcoverings, upholstery, and casement curtains by this important furnisher, as well as for other decorative purposes such as tablesarfs and appliqué needlework within the Craftsman home in America.

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The figure woven materials in jute, linen and union tissue extended further the varieties of fabric that the firm offered in furnishing textiles between 1904 and 1914. As woven pattern they mostly developed the solid qualities of surface and feel for constructive decoration evident in the firm's plain textures and printed canvases and linens. They ranged between simplified, abstracted patterns that respected the geometry of the weaver's draft, to bold, textural patterns in canvas, to lighter, delicate patterns in linen and union tissue. The latter, which reflected the trend towards historicism and included more complicated pattern and textural effects, bordered on a contradiction within the firm's constructive approach to their design of textiles.

Fundamental to this constructive approach was the firm's commitment to the design of rugged texture and interrelated colour as objects of aesthetic intent in furnishing textiles. Inspired by the expressive handling of materials in architectural craft and hand-woven textiles of the Arts & Crafts, the designs of Donald Brothers were carefully developed through factory-craft to express similar qualities of handling in power-woven textiles. It is the firm's recognised ability to design textural irregularity in material, colour and pattern and bold directional construction in weave as expressions of individuality and naturalism in fabric that made the textiles of Donald Brothers essential Arts & Crafts textiles within the period between 1896-1914.

Woven on the power-loom, the firm's canvases and linens were produced in a quantity and at a price that was attractive to the Arts & Crafts middle-class buying public in Britain and America. This enabled leading furnishers and craftsmen/manufacturers such as Heal & Son and Gustav Stickley to extensively utilise the textiles of Donald Brothers in order to develop their aesthetic in Arts & Crafts furnishings. Heal & Son
chose the firm’s plain and printed linens to accompany their simple bedroom furniture and more decorative style of 1900, while Stickley relied heavily on their rugged canvases and linens to develop his Craftsman scheme for the interior.

In their use within the Craftsman interior, the textured materials of Donald Brothers became quintessential furnishing fabrics of the American Arts & Crafts. The firm’s rugged textures, woven in horizontal and vertical construction, developed the structural emphasis at the heart of the Craftsman plan, contributing as textura to the structural unity of the interior interwoven with the exterior of the house. In addition, their material textures and colours developed crucial background and highlight effect within Stickley’s picturesque scheme for the landscape interior, signifying the American Craftsman home as an expression of simple living close to rugged nature.

This thesis therefore concludes that the early textiles of Donald Brothers constituted, in design, manufacture and use an important group of Arts & Crafts textiles within the period 1896 to 1914. In establishing this classification, it can also be concluded that this thesis has made a significant contribution in the field of design history, by providing new insight into textiles of the Arts & Crafts and of their importance as architectural material to the unity of the Arts & Crafts interior.
APPENDIX A

Extract of Letter from David Tullo to Barclay Lockhart - 11/12/1903, p. 6 - 9

Re. A Pattern Weaver

"I may now add the following, subject of course to approval and confirmation from head quarters.

I am quite with you in the idea of securing the services of a well trained or technically educated man, provided the difficulties you suggest can be overcome.

I take it by 'employ the weaver during spare time in the production for sale etc.' you mean, employ him as a weaver on a power-loom adapted to the production of one or other of our (to be) more intricate descriptions of fabric whenever he is not employed on pattern making on the handloom, or in preparing work for the same.

That appears to me all right, but I'm thinking that if things develop as you and we intend they shall, the man would shortly not have much time to spare for weaving pieces, but that he would find his hands and time fully occupied in the preparation and production of patterns and in superintending the production by power-loom of his and our latest creation. Perhaps I am endowing him with too high powers, but you will tell me if that is so.

The hand loom ought not I think to be employed in the production of pieces. Firstly because of the costing production, secondly because of the slowness of the same, thirdly because of the difficulty of disposing of even a small output (if not just because of its smallness) and fourthly because that hand-loom would always be wanted at the most inconvenient moment.

Later, I see from my father's letter of 1st sent to me it was intended that the first few pieces of any new fabric of an expensive nature (or of a nature which would entail expense in machinery) should be woven on the handloom.

Well I am still for keeping at least one handloom ready for use even at a moment's notice. If it is deemed necessary (so as to feel our way) to first make a few pieces by handloom then I would suggest another handloom and when necessary another weaver. You can of course rely on our earnest endeavour to keep a good man profitably employed."
APPENDIX B


"Messrs Donald Brothers made an interesting display in 'Decotex', a wall-covering which they are introducing, and which is admirably adapted to meet the present day taste for texture and quiet, reposeful feeling on the wall.

The stand of Messrs Donald Brothers showed three schemes of panelling with plain and printed 'Decotex' and well illustrated the uses to which this decorative material can be put.

Decotex (which by the way is a registered word) is the name given to an Art Canvas backed with paper, the object being to enable the paper hanger to apply the paper in the same way as he would an ordinary wall-paper.

Messrs Donald Brothers have been known for many years in the furnishing and decorative trades, for the beauty of their productions in textiles of all kinds, and Decotex is the development of some of their very artistic canvases. Its great appeal to decorators lies in the soft colour effects obtained, and the quiet play of colour which is obtained by the fall of light upon it. Decotex is made in a large range of colours, some of which are also plain, so that the materials may be had either plain or patterned. Our readers will be able to gather from the small blocks shown herein, some idea of the patterns, and the nice quality and feeling which is to be obtained in this particular material. The material fits in with the taste of the present day for actual texture, and when panelled with woodwork, either natural wood or painted, it makes a charming decoration.

Messrs Donald Bros. will send samples of their materials to decorators in the trade on application either to Meadow Place Buildings, Dundee or 27 King Street Regent Street, London. We heartily commend the material as possessing many points which make a strong appeal to good taste and decorating quality."

"Messrs. Donald Bros. as is well known, are the makers of a large number of textiles and fabrics, specially designed for the use of decorators. Their material Decotex (patented) is a canvas backed paper suitable for the adornment of walls, and has found a large response in the trade for its artistic appearance and the facility with which it can be hung, as well as the solid qualities of the surface, and the great permanence of colours to light and atmosphere. The stand exhibited a number of these materials, which showed to great advantage. 'Decotex' was to be seen both plain and printed, as well as treated in other ways. Perhaps the most attractive feature was the display on screens of stencilled Decotex for friezes and fillings. Two examples of these are seen in the above illustration. The plain can be worked upon by the decorator himself if he desires it, the texture lending itself admirably to stencilling and colouring. The firm was also showing in 'Decotex' some broader textures, which will be appreciated by those desiring bolder effects. The next novelty to which our attention might be drawn is what is termed 'Embossed Decotex', which, while it preserves the texture of the fabric, and in no way impairs the breadth and quiet appearance, enriches it with a raised pattern, just sufficient to give additional interest and attraction to the wall. Still another new feature which Messrs. Donald Bros. introduced was a fancy woven fabric known as Union Tissue backed in the same way as Decotex. The trade is appreciative of the efforts of this firm, and is responding in a way that is gratifying. Mr Donald attended the Convention assisted by Mr J Archer.
APPENDIX C
Conversion of inches into centimetres (multiply by 2.54).

1" = 2.54cm
2" = 5.08cm
6" = 15.24cm
12" = 30.48cm
18" = 45.72cm
24" = 60.96cm
36" = 91.44cm
54" = 137.16cm
72" = 182.88cm
GLOSSARY

**basic weave** A specific system of yarn interlacement not derived from any other system. The basic weaves are usually considered to be plain weave, twill and satin.

**basket weave** A derivative of plain weave created by consistently interlacing two or more warp yarns with two or more weft yarns.

**batch** The process of softening jute.

**block** printing using carved wooden blocks that retain raised pattern areas which can also incorporate raised wood-edged areas of felt, or metal insertions, can be detected by the presence of pin marks (small dots which guide the printer) at regular intervals.

**broché** A French term for pattern produced by swivel and lappet weaving.

**chintz** A printed floral cotton furnishing fabric on a white natural ground. Derived from the Hindu word 'chint' meaning coloured and variegated.

**colourway** A rendering of a design or printed fabric in a set of colours differing from the original. Fabrics are usually printed in a set of at least four colourways.

**counter-book** A book of sampled fabrics used by the retail trade to show stocked ranges to their customers.

**crash** A linen fabric with an irregular appearance due to the use of thick uneven yarns.

**crepe** A fabric with an irregular or broken surface appearance produced by weave structure.

**cretonne** An unglazed cotton cloth with pattern printed on one or both sides.

**dimity** Cotton fabric woven with stripes or fancy figures used for bedroom hangings.

**dobby loom** A drawloom on which small figures can be woven mechanically.

**damask** A reversible patterned fabric created from a combination of satin and sateen weaves.
discharge An agent which removes the colour from previously dyed cloth. Hence the discharge style of printing fabric.

draft A graphic representation of the appearance and/or mechanics of a particular weave.

embossing A calender process which produces a raised design or pattern in relief.

ends Individual warp threads.

flax A slender annual plant, *Linum usitatissimum*, the bast fibre of which is called linen. The soft fibre is obtained from the stalks by retting, scrutching and hackling.

float Any portion of the warp or weft yarn that extends without intersection over two or more units of the opposing set of yarns.

hackling A combing process by which short fibres, nepses and foreign matter are removed and remaining fibre is straightened and separated.

jacquard A loom with a punch card mechanism used to make complicated patterns.

jute A bast fibre obtained from the round/or long pod jute, *corchorus capsularis/corchorus olitorius*. Mainly grown in Bengal the plant is 5 to 18 feet tall; the fibre is creamy white to brown in colour, and when extracted is soft, fine and lustrous. On exposure to moisture it turns brown and becomes weak and brittle.

line (flax) A hackled flax fibre more than ten inches long.

linen Linen is one of the oldest textile fibres known; linen cloth was woven over 4,000 years ago in Egypt. Commonly known as linen, it is flax, the bast fibre of the plant *Linum usitatissimum*.

moire A generic term applied to 'watered' fabrics which have a distinctive wavy appearance due to the varied reflection of light from different parts of the surface of the cloth.

pick One line of weft put through the warp. Also called a shot.

piece-dye To dye a fabric after weaving.

pins Fine metal pins driven into the corners of a printing block for the purposes of establishing the correct repeat.
pirn Wooden bobbin that holds the weft yarn.

plain weave A basic weave created by consistently interlacing one warp yarn with one weft yarn.

ply yarn A yarn in which two or more single strands are twisted together.

portière A curtain hung over a door, or instead of a door, between one room space and another
rep weave A derivative of plain weave in which the pattern of interlacement is extended either vertically or horizontally.

sateen A weave similar to satin but with floats in the weft direction.

satin weave A basic weave characterised by long floats on the surface of the fabric.

scrim A plain open weave.

set The density of a fabric; the number of warp yarns per inch.

shed The space between separated warp yarns through which the weft yarn is passed.

shot weave A plain weave using different coloured warps to wefts.

shuttle A tool on which the weft yarn is wrapped so it can be passed through a shed in the warp.

slub yarn A novelty yarn that is left untwisted at intervals to produce bulky areas.

spinning The process of drawing out and twisting loose fibres to form a continuos strand of yarn.

stencil printing A form of printing through a perforated stencil which presents a barrier to the dye or pigment.

tapestry A weft-faced plain weave fabric in which the weft yarns are discontinuous; usually decorative or expressive.

tissue A general term for woven fabric, usually applied to thin, sheer fabrics. Also applied to a cloth woven with an extra colouring weft.

tow (flax) A short or tangled flax fibre combed out in hackling.

twill A basic weave characterised by diagonal lines.
**twist** The direction in which a yarn is twisted in spinning or plying.

**union fabric** A fabric made from two or more different fibres, as cotton, wool or linen.

**warp** The lengthwise yarns in a woven construction.

**web** The fabric created by interlacing warp and weft; the product of the loom.

**weft** The crosswise yarns in a woven construction.

**yarn** A continuous strand of thread spun from drawnout and twisted fibres.
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**Sample Books**

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Old Glamis Fabrics: Woven fabrics (undated).
No. 1. c 1933.
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No. 10.
No. 11.
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