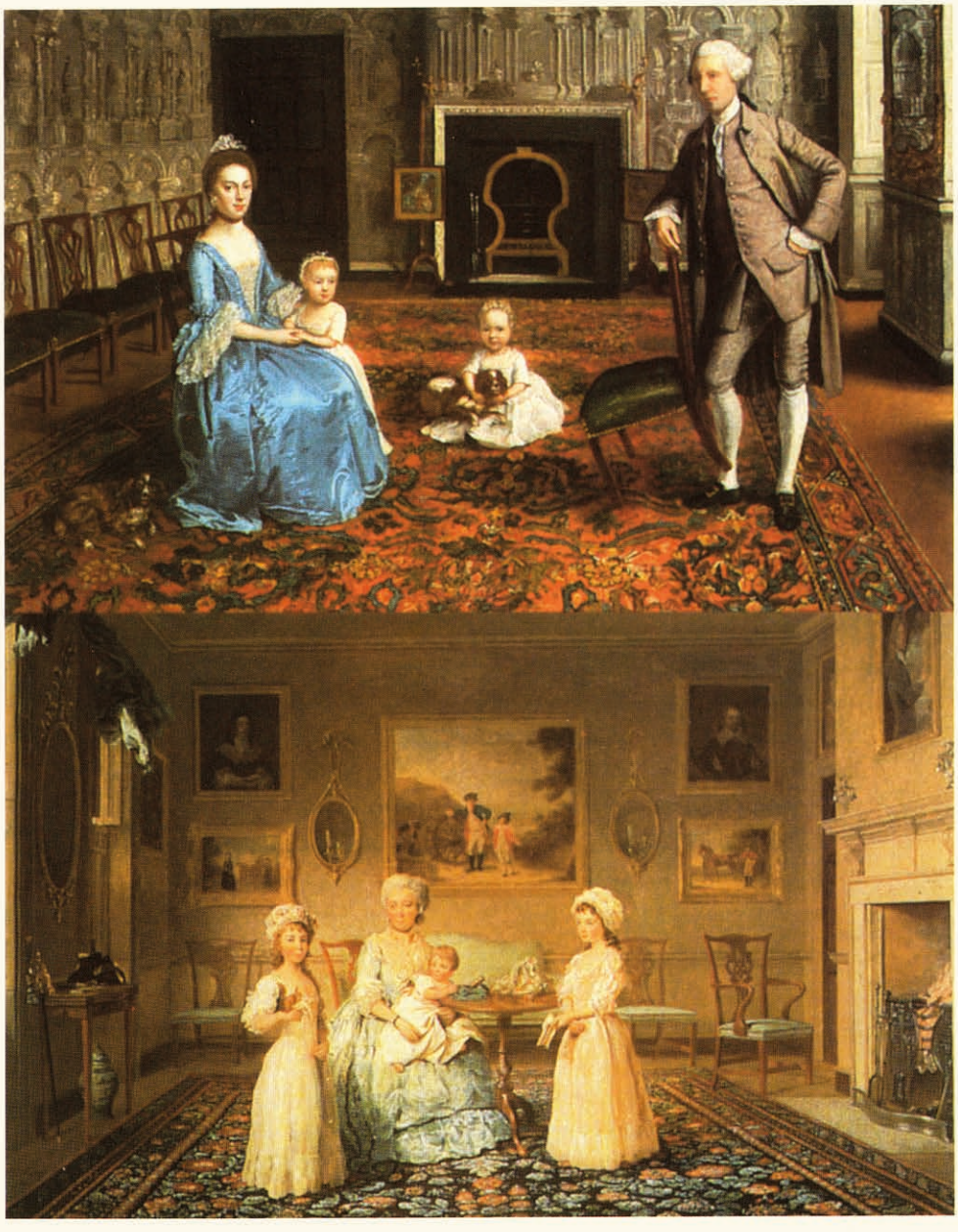
The Georgian Group Guides

No 11

FLOORS



A Brief Guide to Georgian Floors,
their Coverings and their Treatment

COVER ILLUSTRATIONS: ABOVE, A FINE TURKEY CARPET SHOWN IN PHILIP HUSSEY'S 1750S INTERIOR; BELOW, PHILIP REINAGLE'S *MRS CONGREVE WITH HER CHILDREN* OF 1782 SHOWS THE FAMILY STANDING ON AN ATTRACTIVE AXMINSTER *(THE NATIONAL GALLERY OF IRELAND)*

INTRODUCTION

This short guide is intended as a general outline of the development and treatment of the Georgian floor — not only the floor structure itself but also the whole family of carpets and floor coverings.

Before you begin any repairs or restoration always consult a commercially disinterested expert. Your local District or Borough Council Conservation Officer, or a national organisation such as English Heritage, the Society for the Protection of Ancient Buildings or The Georgian Group should be able to help in choosing reliable and experienced craftsmen and suppliers.

HISTORICAL DEVELOPMENT

WOODEN FLOORS

Throughout the Georgian period oak was the most desirable material for good timber floorboards. However, in practice most households had to make do with inferior woods, which were usually partly or wholly covered to hide their raw, knotty surfaces. Deal — squared boards of pine or fir, imported from the Baltic or, later, from North America — was particularly prevalent from the early 18th century onwards.

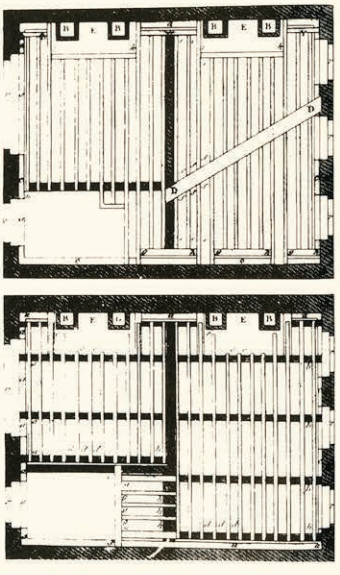
Until the end of the Georgian era there were no specific rules as to the dimensions of floorboards; nor were the boards necessarily of a consistent size within a single floor. Patent machines to plane timber uniformly were introduced during the 1790s, but it was not until the 1830s that identical boards were produced by steam-powered, mechanical saws. The popularity of fitted carpets made the elaborately-designed wooden floor less of a necessity — a development noted by Sheraton, who remarked that 'since the introduction of carpets, fitted all over the floor of a room, the nicety of flooring anciently practised in the best houses, is now laid aside'.

Floorboards were often nailed at their edges, at an angle of 45 degrees, and the joint subsequently concealed by the next board. In 1803 Sheraton summarised the most common methods for laying wooden floors:

> *'There are three methods by which floors are laid. First, with plain jointed edges, and nailed down. Second, jointing and ploughing the edges to receive a wainscot tongue about an inch broad, and a bare quarter thick . . . Third, when they are laid with douwells of oak-board into the edge.'*

Not long after this account appeared, metal plates rather than dowel began to be inserted into the grooving in adjacent boards, so as to ensure an even firmer joint. By 1833 Loudon was recommending thicker boards — 'sometimes . . . three inches thick' — to give added strength and 'to lessen the risk of their being burnt through by fire'.

Throughout the 18th century single-joisted floors (with the joists all running in the same direction), supported by large structural timbers, were still very much the rule for the average house. In terrace housing of the period the joists ran from front to back or from side to side, bearing on the external and (if they existed) party walls, and possibly on the central, structural spine wall too. This simple method of construction allowed the large, structural beams to spread the weight of the spine wall, with its doors, doorcases and stairs, to the outer shell. If there were greater loading requirements, or the house was larger and the floor necessarily more complex, then additional, transverse joists and beams could be added. This was not always done, though, with any precise knowledge of the effect this would have; it was only in 1840 that the first guide to gauging joist



TIMBER FLOOR CONSTRUCTION, FROM PETER NICHOLSON'S *MECHANICAL EXERCISES* OF 1812. ABOVE, A 'FLOOR WHERE THE JOISTS WOULD HAVE TOO GREAT A BEARING WITHOUT A GIRDER'; BELOW, A 'DOUBLE FLOOR' WITH BINDING JOISTS (FROM CRUICKSHANK AND BURTON, *LIFE IN THE GEORGIAN CITY*, VIKING PENGUIN 1990)

thicknesses for specific spans was published. However, the upper floors of most later Georgian houses did not need to bear enormous weights, as most entertaining was done on the ground floor and not the first, as had often been the case earlier in the Georgian era. The concept of the 'rustic' ground floor of services and servant accommodation, with incoming guests proceeding directly to the principal rooms on the floor above, was by 1800 somewhat outdated in all but the most conservative great houses.

Timber and stone floors were sometimes limewashed. (This valuable protective coating is still widely available, and allows floors and walls to 'breathe' — permitting moisture to pass in and out of the underlying material rather than causing it to be trapped inside, causing damp problems.) Limewashed wooden boards had an attractive silvery sheen, of the type modern 'limed' furniture tries (but sadly often fails) to recapture. In 1772 an American visitor noted that English deal floors 'are washed and rubbed almost daily' with lime water, resulting in 'a whitish appearance, and an air of freshness and cleanliness'. A similar white patina was achieved through the widespread practice of cleaning wooden floors by scrubbing them with dry sand, sometimes mixed with fresh herbs. Alternatively, aromatic herbs such as mint or tansy could be rubbed into the grain to give the boards both a fresh odour and a slightly darker stain.

If the floorboards were not made of seasoned oak or other expensive wood, they were always covered in some fashion. As with clay or plaster floors, a common practice was to paint them to resemble marble blocks. At the same time, a terracotta paint — often superimposed with a yellow glaze or with limewash — was also widely used, a finish which interestingly recalled the traditional, modest clay floor. By the 1800s the stencilling of floorboards, long popular in the United States but previously never very fashionable in Britain, was also enjoying a vogue, while parquetry was back in fashion for the first time since the early 18th century — being used not for whole floors, but merely for the newly-fashionable borders (of between one foot and three feet in width) which were now being left around the carpet edges. This in turn prompted a wholesale reveival of parquetry — at least in the larger homes — by the end of the period. In 1837, the year that Victoria ascended the throne, Peter Nicholson was writing that 'the fashion for laying floors with various coloured woods, disposed in patterns, seems now to become more general in this country'.

OAK FLOORBOARDING OF C.1712 IN THE STUDY AT PALLANT HOUSE, CHICHESTER *(BY KIND PERMISSION OF THE CURATOR AND TRUSTEES OF PALLANT HOUSE)*

STONE AND CLAY FLOORS

Floors varied in direct proportion to the household's wealth and pretention. More basic homes, especially in rural areas, were generally provided with 'stuccoed' or clay floors. The 'stucco' floors of cottages and outbuildings were made from a basic plaster recipe, which usually included a natural pigment — most often pig's blood — to give the dried 'stucco' a brown colour. In common with so many surfaces of the Georgian era, these floors were often disguised as something else: painted to resemble black and white marble squares, or simply covered with a layer of whitewash or limewash. In 1814 P F Tingry's *Painter's and Varnisher's Guide* noted that 'Some floors have been executed of plaster, on which the lemon yellow colour destined for parquets of oak produces a very good effect'.

Alas, clay or stucco floors rarely survive: either the surfaces broke up through constant wear, or social aspirations prompted their replacement by more sophisticated wood or stone alternatives. It is interesting to note that, at the other end of the social scale, floors made of scagliola, a plaster compound cast and polished to look like marble, were also denoted by the name 'stucco'. The vast

amounts of money laid out on these rare and colourful objects, however, were usually wasted: ironically, scagliola floors proved as fragile as their distant, humbler clay cousins.

For those who could afford it — or for those who lived near a suitable quarry — solid floors represented the height of Georgian taste. The classic solid floor comprised large slabs of Portland or similarly pale-coloured stone, interset with tiny diamonds of dark grey slate or marble, or perhaps some variation on the theme of black and white marble squares. This type of heavy flooring was most prevalent in ground floor hallways, both to impress visitors and to bear the constant weight of social assemblies.

For the poorer households, random flags or tessellated brick paviours, reddened with pigments based on animal blood, had to suffice. Loudon's Encyclopaedia of 1833 featured 13 different designs for paving in coloured bricks.

TESSELLATED BLACK-AND-WHITE MARBLE FLOOR IN THE HALL AT MARBLE HILL HOUSE, MIDDLESEX *(ENGLISH HERITAGE)*

CARPETS

Fitted carpets are by no means a 20th century invention. By the mid-18th century the new fashion for fitted carpets — carpet strips cut to accommodate the shape of the floor — had made fancy floor parquetry or surface decoration quite redundant. In 1756 Isaac Ware noted that 'the use of carpeting at this time has set aside the ornamenting of floors in a great measure; it is the custom almost universallly to cover a room entirely; so that there is no necessity of any beauty or workmanship underneath'. Fifty years later Sheraton observed that 'since the introduction of carpets, fitted all over the floor of a room, the nicety of flooring anciently practised in the best houses, is now laid aside'.

Oriental luxury carpets first appeared in Britain, it is believed, during the Crusades. By 1600 Turkish imports were being augmented by carpets from Persia; at the same time, the first attempts were being made to copy Middle Eastern carpets here in Britain. Yet throughout the 17th century carpets remained rare items, gracing only the homes of the very rich. Because of their expense, they were more usually used to cover tables than floors. With the expansion of Britain's trading empire after 1713, however, this situation improved markedly: luxury carpets were now more widely available in Britain, and becoming increasingly less expensive. In 1749 the architect John Wood remarked that, during the past two decades, 'as the new Building advanced, Carpets were introduced to cover the floors'.

During the latter half of the century the technological impetus of the Industrial Revolution provided a further boost for the British carpet manufacturers and a great increase in carpet ownership. By 1820 even the notoriously extravagant George IV was buying mostly British carpets for his new Royal Pavilion at Brighton. And by 1840 British knotted or pile carpets, made by machines able to copy the intricate geometric patterning of the traditional oriental products, were to be found in countless households. No longer were the great country houses the sole preserve of textile floor coverings.

The first truly commercial carpet workshop appeared in Britain in 1735, in Kidderminster, Worcestershire, where both pile and flat carpets were made. Five years later a workshop was set up in Wilton, Wiltshire, at the instigation of the 'Architect Earl', the 9th Earl of Pembroke; this was designed to manufacture pile carpets alone. By the mid-1750s factories making Turkish-style knotted

THE BOLDLY-COLOURED KNOTTED CARPET IN THE RED DRAWING ROOM AT SYON HOUSE, MIDDLESEX, WAS DESIGNED BY ROBERT ADAM AND MADE BY THOMAS MOORE OF MOORFIELDS IN 1768-9 *(SYON HOUSE)*

carpets were established at Moorfields in London, at Exeter and, in 1755, at Axminster in Dorset. Axminster knotted carpets were soon known for the quality of their design, which relied on both Turkish and Persian influences as well as fashionable Neoclassical motifs. Such carpets were substantially cheaper than their Levantine models; nevertheless, they were still beyond the reach of most households. Far more affordable were the woven carpets of Wilton and Kidderminster. These were woven on looms, the worsted warp being brought to the surface to form a looped pile (a so-called 'Brussels' carpet), which was often subsequently cut to give a velvet-like texture (creating a 'Wilton' carpet). Brussels and Wiltons were not only cheaper than knotted carpets; they were also more versatile. Initially woven in strips up to three feet wide, they were usually provided with frequently recurring patterns which allowed them to be cut to be adapted to all manner of room dimensions.

BRUSSELS CARPET DESIGN FROM THE EXETER FACTORY OF 1757 *(BY COURTESY OF THE BOARD OF TRUSTEES OF THE VICTORIA AND ALBERT MUSEUM)*

UTILITARIAN FLOOR COVERINGS

Harder wearing than the pile carpets was the family of reversable 'ingrain' carpets. These were popularly known as 'Kidderminster' or 'Scotch' carpets; a factory opened in Kilmarnock in 1760, and by 1800 their manufacture was based at a number of Lowland towns. Made by intersecting two webs of cloth, using the same basic principle as that used in the weaving of damask cloth, the back had exactly the same pattern as the front, only with the colours reversed. In 1822 the Kilmarnock factory began experimenting with three-ply ingrains. These were more complex and colourful, with backs and fronts that were wholly different.

Ingrain carpets (whose production ceased at the beginning of the 20th century) were popularly regarded as coarse and cheap; yet they served very well as utilitarian coverings for hallways, servants' rooms and stairs. Even more basic and more common than ingrains, however, were druggets, and the whole family of related floor and carpet covers. Usually in green or brown, druggets could be made of baize (a heavy woollen cloth), serge (a twilled worsted fabric), haircloth (spun animal hair combined with a linen, cotton or wool warp), or similar heavy-duty materials. Their principal function was to protect fine luxury carpets from dirt or wear, and they were often attached to floor studs to prevent them becoming wrinkled. Druggets were also used to catch crumbs, falling soot or hair powder. In poorer households, of course, they were used as substitutes — not as covers — for good carpets.

The alternative to the drugget was the simple painted floorcloth or oilcloth. Very popular throughout the 18th and 19th centuries, very few floorcloths, alas, survive today. Floorcloths were made by wetting canvas or a similar cloth, applying a number of coats of paint, and then usually stamping on a pattern with wood blocks. Floorcloths could imitate black and white marble floors, inlaid stone floors, 'tessellated pavement' (a fragment of this type still survives at Calke Abbey, Derbyshire) or oak boards. As Dr Bristow has noted (see Further Reading, below), floorcloths did not generally last very long; by 1800 many floorcloth suppliers operated a profitable sideline in 'Old Cloths new Painted and Repair'd'.

ABOVE: PAINTING THE RE-CREATED FLOORCLOTH IN THE ANTE ROOM AT PALLANT HOUSE, CHICHESTER *(BY KIND PERMISSION OF THE CURATOR AND TRUSTEES OF PALLANT HOUSE)*; BELOW: THE BLACK-AND-WHITE MARBLED FLOORCLOTH AT THE CHAPEL OF 1768-72 AT AUDLEY END, ESSEX, IS A RECENT RE-CREATION BY JANE TAYLOR; THE ORIGINAL WAS, ACCORDING TO THE BILL OF 28 NOVEMBER 1772, DESIGNED TO IMITATE 'PORTLAND AND BREMEN STONE' *(ENGLISH HERITAGE)*

MAINTENANCE AND REPAIR

Floor surfaces have often been disregarded when buildings are being refurbished. PPG 15 (1994) emphasises the importance of all types of paving, such as cobbles, old brick floors and those made of plaster, as well as old boarded floors. All such features should be repaired and reused whenever possible.

DETAIL OF THE SALOON AT FAIRFAX HOUSE, YORK, SHOWING THE HIGHLY-FASHIONABLE NARROW FLOORBOARD BORDER BETWEEN THE CARPET'S EDGE AND THE SKIRTING. THIS PARTICULAR CARPET WAS RE-CREATED BY HUGH MACKAY IN 1984. (*BY KIND PERMISSION OF YORK CIVIC TRUST AND THE TRUSTEES OF FAIRFAX HOUSE*)

Old timber floors rarely have to be replaced completely - whatever your builder may say. Repairs that are both structurally sound as well as visually satisfactory are easy to achieve with a little care and attention. Replacement floorboards should be of the same timber, width and thickness. Repairs to floorboards, and to timber floor construction in general, are expertly and clearly dealt with in the SPAB's concise Technical Pamphlets. (See Further Reading, below).

CLEANING FLOORS

Exposed wooden floors were often waxed and polished during the Georgian period; they were also occasionally stained brown to imitate finer woods. Wooden floors were cleaned using fresh flowers and herbs, or with dry- or wet-rubbed sand or fuller's earth. Today, when cleaning boards ensure that as little water as possible is used, otherwise damp or warping problems may result.

Stains can be removed from wooden or solid floors in a variety of ways. What follows is a quick summary of some of the most common — and the most sympathetic. When tackling stains, always chose the gentlest method first; this way you will avoid unduly disfiguring the flooring material.

GREASE. Traditionally removed from wooden floors using poultices of clay or fuller's earth. Today repeated poulticing is still the best way of removing unsightly stains from wooden floors, although acetone, white spirit or even lemon juice will remove simple stains from stone floors. Poultices, which draw the moisture — and the stain with it — from the stone or wood as they dry out, can be made from fuller's earth, talc, powdered chalk or even shredded paper towels. It is important to wet the floor before applying them. Gentle poultices can be applied using a simple solution of starch and hot water.

SALT. Stone or marble floors, if over-soaked, can be damaged through salt migrating to the surface. Avoid excess washing in removing these salt stains: a damp mop will do, or if this fails, a general purpose chemical cleaner such as Bells.

ORGANIC STAINS. Use household ammonia or a 2% solution of hydrogen peroxide. As with all such treatments, always rinse the area with clean water afterwards.

RUBBER MARKS. Apply sparingly a solution of equal parts of water and white spirit, with a drop of washing-up liquid.

CHEWING GUM. Freeze the offending mess using ice cubes, then chip away when it has become sufficiently brittle. Proprietary aerosol products which freeze their targets rapidly are available commercially.

OLD PAINT. Water-based paints can be treated with simple cold water — used with restraint. Emulsions can be removed with white or methylated spirits, although old gloss paint may require the use of a chemical solvent.

CEMENT. Use a very weak solution of hydrochloric acid, or a proprietary cleaner.

GENERAL STAINS: WOOD FLOORS. A solution of glycerine and water may help to loosen the stain. Steel wool can be used for more stubborn timber floor stains; if this fails, try using a specialised wood bleach — although this may have the effect of discolouring the wood too.

GENERAL STAINS: SOLID FLOORS. Cleaning marble floors with a very weak solution of ammonia will remove all but the most stubborn stains — which may need poulticing. Never use abrasive cleaners, or sanders or grinders, on good quality solid floors. And never use ammonia with bleach; the result will be a toxic gas.

Modern Floor Finishes

Old floorboards should never be sanded. As Philip Hughes has pointed out, 'If a board has suffered at all from beetle attack, sanding will remove the smooth surface of the board and leave a ragged mess of worm-ridden timber beneath' (*Patching Old Floorboards*, 1988).

Sealants are all too often both unsightly and inappropriate. Polyurethane and epoxy resin coatings, for example, are very difficult to remove, tend to yellow, and can scratch and chip easily. Other chemical sealants may need constant maintenance and replacement — causing damage to the floor itself in the process — while most sealants tend to 'track' (the condition where a distinct path is worn down in the floor surface) with constant use.

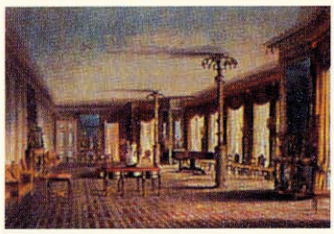
Proprietary floor sealers are always to be preferred to polyurethane varnishes. Often the most suitable sealant, however, is the one which is the most natural. Boiled linseed oil, for example, is considered by many to be the most appropriate sealant for ceramic floors, while conservators' waxes are probably the best material to use on wooden floors. Whatever the flooring material, before you attempt to seal always seek independent advice, and, having received this, always experiment first on a small, inconspicuous area.

If you do decide to insulate your timber floor, make sure, too, that there is proper ventilation below the boards. Without a free passage of air moisture can become trapped in the timber, causing severe damp problems.

Most modern varnishes and 'enhancing' wood finishes produce an unsympathetic result if used on old timber floors. Linseed oil should also be avoided, as it tends to attract the dirt and to darken with age. In general, if you have an oak floor, it is best to leave the material to speak for itself. If, on the other hand, your timber floor is of deal (cut fir planks) or pine, remember that the Georgians rarely left such floors uncovered, using carpets, floorcloths or painted decoration to hide the inferior and often unsightly grain.

However you decide to cover your floor, consider it in the context of the rest of the room; so often todays floors effectively dominate, rather than complement, old interiors.

Maintaining Floor Coverings



Repeating-pattern Brussels Carpet in the North Drawing Room of George IV's Brighton Pavilion (*Royal Pavilion, Art Gallery and Museum, Brighton*)

It is useful to remember that nearly every item of importance in the middle- or upper-class Georgian interior was, from the mid-18th century onwards, provided with a protective cover. As we have seen, druggets were often used to save expensive carpets from daily wear and tear; at the same time, servants were well-briefed to keep direct light away from valuable floor coverings and furniture by closing the shutters or the muslin sub-curtains. In 1851 Elizabeth Gaskell even noted the practice of 'cutting out and stitching together pieces of newspaper so as to form little paths to every chair set for the expected visitors, lest their shoes might dirty or defile the purity of the carpet'. The removal of carpet and furniture covers was a good indication of how exalted the visitor was.

Clearly such elaborate protective measures are not very practicable today. However, if you have an expensive carpet, it is sensible to at least try to keep it away from sources of direct light for much of the day. If your old carpet is in need of repair, it is best to approach a recognised conservation expert (see Sources of Information, below).

Useful Addresses: Floors

The Society for the Protection of Ancient Buildings, 37 Spital Square, London E1 6DY, tel. 020 7377 1644. Sound advice on building history and structural repairs, including an invaluable range of advice sheets.

Temple Newsam House, Temple Newsam Park, Leeds LS15 0AE, tel. 01132 647321. Expert advice on all aspects of the Georgian Floor; their publication *Country House Floors* (see below) is by far the best book on the subject.

Textile Conservation

Bristol City Museum and Art Gallery (Applied Art Department), Queen's Road, Bristol BS8 1RL, tel. 01179 223571
Manchester City Council Conservation Studios, Queen's Park, Harpurhey, Manchester M23 0AB, tel. 0161 205 2645

Victoria and Albert Museum, South Kensington, London SW7 2RI, tel. 020 7942 2126

Examples of original floors and floor coverings can be found in many houses open to the public.

Further Reading

James Ayres, 'Simple Floors and Floor Coverings' in ***Traditional Homes***, June - August 1985

Ian Bristow, 'Painted Floorcloths in the 18th Century' in ***SPAB News***, vol.11, no.2, 1990

Davey, Heath etc., ***The Care and Conservation of Georgian Houses***, (Edinburgh New Town Conservation Committee/Butterworths, 4th ed. 1995)

Dan Cruickshank and Neil Burton, ***Life in the Georgian City*** (Viking Penguin, 1990)

Jane Fawcett, ***Historic Floors: Their History and Conservation*** (Butterworth-Heinemann, 1998)

John Fidler, 'Dirty Business' (Floor Cleaning) in ***Traditional Homes***, June 1986

Christopher Gilbert, James Lomax and Anthony Wells-Cole, ***Country House Floors*** (Leeds City Art Galleries, 1987)

Phillip Hughes, ***Patching Old Floorboards***, (SPAB Information Sheet 10, 1998)

John Macgregor, ***Strengthening Timber Floors*** (SPAB Technical Pamphlet 2, 1985)
The National Trust Manual of Housekeeping (The National Trust, 2nd ed. 1990

Steve Parissien, ***Regency Style*** (Phaidon Press, 1992)

Rosalind Pilling, 'Wooden Floors in Evolution' in ***Traditional Homes***, February 1987

PPG 15: Planning and the Historic Environment (1994)

Ann Robey, 'Floorcloth Manufacture in Knightsbridge' in ***The Georgian Group Journal***, vol. VII, 1997.

The Georgian Group exists to save Georgian buildings, townscapes, monuments, parks and gardens from destruction or disfigurement, and to stimulate public knowledge of Georgian architecture and Georgian taste. The Group offers a yearly programme of visits and educational events; applications for membership can be obtained from the Groups office at 6 Fitzroy Square, London W1T 5DX, tel. 020 7529 8920. The Group is a registered charity (no. 209934) and benefits from donations.

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