

# *Conservation in Tendring*



## Painting

For more information write to:

### Planning Services

Tendring District Council  
Council Offices  
Weeley  
Clacton-On-Sea  
Essex CO16 9AJ

Listed Buildings & Conservation Areas

# Technical Advice on Painting

**Tendring**  
District Council





This advice is provided to guide the owners of Listed Buildings and buildings in Conservation Areas when considering painting their properties. Further advice is available on Listed Buildings & Conservation Areas in the other booklets in this series.

## 1 Introduction

When considering the external decoration of an historic building the following should be considered:

**Should the building/surfaces be painted at all?**

**Which type of product should be used?  
Should it be oil paint, a limewash or distemper?**

**What colour is the most appropriate?**

**Is permission needed?**

Historic buildings, whether formally listed or not, were constructed with very different materials and technology to modern buildings and therefore they need a completely different approach to their maintenance.

Solid wall construction works by using the mass of the walls to control the movement of moisture, in the form of water and water vapour, into and away from the building to maintain a comfortable living environment. Traditional, solid walled buildings were constructed with porous materials which absorb moisture during damp conditions and release it by evaporation on dry days, allowing the building to breathe.

Since the 1950's, owners acting on the advice of builders, architects and paint manufacturers well versed in modern construction but with little understanding of historic buildings have tried to keep out the weather by using branded synthetic alkyd masonry paints, cement paints and hard gloss paints. Sealing a porous fabric in an attempt to repel water does not take into account how much moisture is also generated inside a building. This moisture needs to be able to escape. Preventing the building from breathing increases the build up of moisture in the walls and is one of the main causes of damp found in older houses, particularly timber framed houses, today.

**It cannot be stressed too much that the most important quality of traditional or natural decorative finishes is that they breathe whilst at the same time protecting the outside surface from rain.**



Manningtree High Street



Electric Palace Cinema, Harwich



The Old House, St. Osyth

***Paint manufacture in the past was not an exact science, and the mixture of ingredients - oil, binders and waxes - changed little through the centuries. These generally provide flexibility and let the building 'breathe', while natural pigments produce rich, yet subtle, colours.***



Manningtree



Victoria Street, Dovercourt



Ardleigh village



High Street, Manningtree

## 2 Painting - General Considerations

Paints and how they were made have changed significantly over time and some of the modern paints and dyes now use chemicals to produce colours which would not have been available historically. Even if a product is labelled as "Heritage Paint" this does not guarantee its acceptability as an exterior paint, indeed many of the colours in these ranges have been copied from internal walls.

The traditional way of colouring the exterior of the house was by mixing natural dyes, such as bulls blood, with lime wash or lime render, this tended to produce a slightly more muted colour rather than the brighter more strident colours available today. **See further details - What colour should I use?**

The painting of any previously unpainted exterior surfaces, brick or stone work for example, is not normally encouraged. Not only could this result in an inappropriate visual change it could also lead to damage to walling materials.

The type of paint used on external surfaces is also important to consider. Most modern external paints provide a water tight barrier which can have the same effect as using concrete render trapping water in walls which rely upon evaporation to prevent long term damp problems occurring. Traditionally lime wash was used for external painting and is still the best option when repainting historic lime render and other historic materials. This can be coloured by the addition of pigment to the top few layers, but it is important to be beware that limewash lightens as it dries leaving a much more subtle colour than originally mixed. There are modern "breathable" paints available but check carefully with the suppliers regarding their suitability for your particular building. **See also the booklet in this series on Plaster work and Renders. (Section 10)**

## 3 To Paint or Not Paint

Historic surfaces which do not look like they have been painted before, whether brick, plaster or wood, should be left unpainted. Sometimes experts who know where to look can find fragments of paint which can be analysed. Serious consideration can be given to reinstating colour washes with the appropriate materials. Otherwise, you should not paint

the surface. Apart from damage which can be caused by non-breathable masonry paint, the character and appearance of the building will be completely changed, often irreversibly.

Sometimes exposed external timber frames of medieval town houses were limewashed when the walls were decorated at a later date possibly to look more like a plastered surface. There is, however, no conclusive evidence that this was a widespread traditional practice. It is better not to limewash over frames which have not been previously limewashed. If a wall has limited areas of limewash this is of historic interest, and if practical, should be left alone.

When repainting a building with flying freeholds or areas of overlapping ownership, you may be tempted to follow the line of the boundary in the paintwork. However, this can be detrimental to the appearance of both the building and the wider area. It is essential to co-ordinate with other owners; making every effort to repaint the building as a whole.

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## Which Product should I use?

### Limewash

Pure limewash is the simplest and cheapest paint available. It is also the most "Breathable".

It is made by mixing mature lime putty with water. Basic limewash is white, but a beautiful range of colours can be made by adding pigments such as ochre and raw sienna.

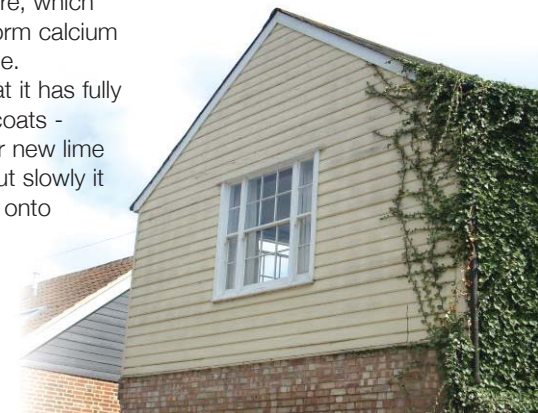
Before applying limewash the wall should be sprayed with water so that it is damp when the paint is applied. Limewash hardens in the same way as lime mortar - by absorption of carbon dioxide from the atmosphere, which combines with the lime ( calcium hydroxide) to form calcium carbonate, binding the lime wash to the substrate. Limewash must dry out very slowly to ensure that it has fully carbonated. It should be applied in several thin coats - usually 3 or 4 coats are needed on bare stone or new lime plaster. If it is applied thinly and allowed to dry out slowly it will form a durable paint, which will not come off onto clothing unless it is excessively rubbed.



Kings Head Street, Harwich



High Street, Manningtree





Castlegate Street, Harwich

Coloured limewash can be affected by variations in the substrate resulting in subtle variations in tone that is part of its charm. It is most suitable for the interior of barn conversions, where it can be painted directly onto stonework or for decorating lime plaster in cottage interiors. It is highly permeable, copes well with condensation, inhibits mould growth and is suitable for walls subject to low levels of rising damp as it can allow water to evaporate harmlessly. Lime washed surfaces have a soft chalky appearance that refracts light and gives a real depth of colour not found in other paint types.

### Distemper

Traditional red and yellow ochre only had size as a binder and did not include chalk. Black, used in the 17th century, could be mixed with chalk to give shades of grey. Chalk and size used together made whitening suitable for use on the panels between the timber frame and ceilings.



Eastgate Street, Harwich

Again, you should make enough for a whole wall or room to get a matching colour. If the distemper is made to the correct strength it will not come off onto your clothes or hands.

There are a variety of commercial distempers available for internal use, based on products derived from starch and cellulose or natural oils and resins. These is also at least one, traditionally called 'walop', which is suitable for exterior use. Distemper has a very similar appearance to limewash when it is used on external walls and will also stick to cement renders.



### Lead Paints

Lead Paints were historically used for decorating windows, doors and other timber features. The use of lead paints was banned in 1992 except for use on Grade I and II\* listed buildings, when they can still only be used under licence. Lead paints are very durable and should be painted over rather than removed, for both historical and health reasons.

### Linseed Oil Paint

Linseed Oil Paint is an excellent and safe natural alternative to lead paints. It is a high quality environmentally-friendly product which has unbeatable wood caring properties when used directly on bare wood. It also adheres well to most synthetic paints. When it is applied correctly, linseed oil paint has a longer life than modern synthetic alkyd paints. It also has the advantage of a one-pot system for primer, undercoat and topcoat.

### Lime Paint

Lime Paint is made from pure, high calcium, hydrated lime with 5% acrylic. Mineral or earth oxides added for colour. Lime paint is only suitable for external walls, with the exception of churches. It is supplied as a powder in tubs and can be mixed with water on site.

### Pozilime

Pozilime is made from a hydrated lime with PVA and linseed oil. It is suitable for use on cement renders and previously painted surfaces.

### Modern Natural Paints

A range of modern natural paints is now available. These paints have been produced as much for the benefit of the environment and health of the painter as for historic buildings. They are based on various ingredients, such as citrus oils, plant extracts, natural clays and casein, which are mixed in various combinations. These paints are easy to use, allow surfaces to breathe and can provide an alternative to limewash and distemper.

### Synthetic Alkyd Resins and Cement Paint

These are the paints which are usually available at the local store. They give a flat, bright colour lacking in the variation and subtlety of traditional colourwashes and are unsuitable for traditional historic fabrics which need a breathable finish. They do not adhere successfully to natural decorative finishes, which can prompt some manufacturers to recommend all



High Street, Manningtree



Church Street, Harwich



Old Harwich



Range of traditional colours used in Manningtree



Old Swan House, Harwich. White painted plastered façade



Church Street, Harwich



Range of colours used on unlisted historic buildings in Dovercourt

previous coatings are removed. Synthetic paints have the added disadvantage that they are not biodegradable.

### Sealers

Sealers should never be used on historic surfaces. They are designed to stop moisture entering the walls by providing a non-permeable coating. They provide a dry, sound, surface for new work if they are used before decorating and are only effective in modern buildings with cavity walls which are designed to block out moisture. However, the fabric of historic buildings works completely differently. It does so by managing the movement of moisture, including the escape of any moisture generated within the building. This is done through the use of permeable materials which allow the fabric to 'breathe' (holding water vapour on damp and wet days and drying out through evaporation on dry days). Sealers prevent the fabric from breathing and will trap any moisture already present in the walls. This will make the walls damp, causing the structure to decay. The moisture may be drawn to the surface in warm conditions, causing the finished surfaces to bubble or peel off. The fundamental principle when caring for an historic building is to maintain the breathability of the fabric at all times by using vapour-permeable products.

## 5 Colour History & Colour Choice

The earliest colours were ones which did not need elaborate processing. Bullocks' blood, also used for making mud floors dust-proof, was still being used in the latter half of the 19th century and the other colours, soot, charcoal and the earth colours, including ochres are still some of the best and most permanent pigments known today. As a group, these colours have a disadvantage since they are all dull red, brown or yellow.

Weavers were able to use much brighter colours made from boiling plants with wool in water but this method was hardly suitable for house decoration.

A second generation of cheap pigments was evolved by applying heat to various common substances to make burnt umber and sienna. More complicated and expensive chemical processes gave the Middle Ages red, white and yellow from lead, green from copper, vermilion from sulphur and quicksilver, blue from cobalt, and many others.

The Medieval colour range was short of good bright yellows and blues cheap enough to use in quantity. Prussian blue when discovered became the most popular blue during the 18th century until a cheap method of making azure or ultramarine became available in 1800. During the 19th century the various colours based on chrome became available: chrome yellow and Brunswick green replacing orpiment and verdigris; the coal tar colours, such as alizarin, were cheaper alternatives to traditional colours like madder. During the 20th century many new colours have been developed.

The development of colours was paralleled by a similar development in paint manufacture. All paints consist basically of a base material mixed with a binder. To this can be added a pigment for colour, a solvent to make the paint spread easily and a drier to make it dry quickly. Until the 20th century painters ground and mixed their paints, changing formula to suit different conditions. For instance, the south side of a house would be given more oil to stop the paint drying out too much in the sun, while the north side would have more body to protect it against frosts.

Colours popular at the end of the 18th century were grey, lead, ash, stone, buff, sage green, pea green, light willow green, grass green, apricot, peach, orange, fine yellow, fawn, olive green, light timber and brick. The increasing use of coal during the early 19th century polluted the atmosphere so much that it was impractical to use white outside. At first it was tinted with ochre or black, and later towards the middle of the century, windows were painted a practical chocolate brown and front doors a dark Brunswick green, blue or black.

Stucco Roman Cement was originally either integrally coloured or lime washed to imitate stone, but the increasingly, dirty atmosphere led to a change to oil paint. When the much stronger stucco cements were invented around 1800 colour was introduced. Cement based paints have been used since 1830, when they were first introduced by Parker for painting timber to prevent dry rot. They have gradually replaced lime washes, since they last much longer, and the more sophisticated versions are used as alternatives



Church Street, Harwich



Church Street, Harwich





Recently repainted house, Harwich



Non-traditional colours, Harwich



Use of traditional colours.  
The Green, Mistley



Manningtree High Street.  
Recently repainted restaurant

to oil paint for walls. Fine textured resin-based masonry paints, unlike cement paints, can be made in strong bright colours and are now used widely for first class work.

In the past the colours applied to painted surfaces were limited by the availability of pigments and by cost. The development of synthetic paint colours and the increased availability of paints over the last hundred years have allowed an unrestrained use of colour to develop which does not always relate to the intrinsic character of its location.

The use of colour on a single building, particularly in an urban setting as indeed in a village conservation area can be discordant if it is not considered in relation to its neighbours and the street scene as a whole.

Within Tendring District there is no “preferred colour range” for the external painting of historic buildings. However, when considering the choice of colours the owners of such properties need to bear in mind the general advice given in this booklet and may also wish to refer to the more specialist guidance documents mentioned at the end of this publication.

Some Planning Authorities can be very prescriptive in the choice of colours on the exterior of historic buildings in their area. Indeed some councils set out the exact British Standard colours which must be adhered to. Within Tendring the Council wishes to see owners make informed choices on colours based on the age and type of the property and the overall colour range of buildings evident within the District and especially where they are located in a group of historic buildings and specifically in a Conservation Area.

The “Conservation in Tendring” series of booklets all contain photographs of various individual buildings and groups of historic buildings which give a guide to the traditional and historic colours chosen in this area. Of particular note are the classic Essex weather boarded properties, some listed, some unlisted which can be painted or stained in white as referred to in the Essex Design Guide.

## 6 Painting Joinery

Paint is the traditional finish to external joinery. In terms of the colour joinery does not necessarily need to be white,

sometimes blues, greys or black will be just as suitable if not better than white providing a more harmonious colour. If you wish to repaint external joinery in a different colour to the existing, listed building consent may be required.

European hardwoods such as oak and elm have also been used historically for doors and for early mullioned windows, normally left unfinished to weather naturally to a silver grey. Timber stains and varnishes along with tropical hardwoods such as mahogany and teak are a modern introduction, they should be avoided in listed buildings except in very particular circumstances.

## 7 Historic Painted Brickwork

There are examples, many of which are just traced, of painting brickwork dating from the 16th and 17th centuries. Uneven red bricks were laid in a thick lime mortar bed and covered with a liberal coat of ruddle, a mixture of red ochre pigment and binder, usually size (a thin, gluey substance). A thin white (or occasionally black) line was often, but not always, carefully painted along an indented line between the bricks to give an appearance similar to the use of expensive rubbed brickwork. You should always seek expert advice before restoring this type of brickwork.

## 8 Decoration or Paint on Internal Woodwork

During the 16th and 17th centuries, farmhouses and small townhouses belonging to aspiring gentry often has a panelled chamber, typically in oak (usually the parlour). In bigger houses, more than one room is treated in this way. Many of these rooms were never painted, but others were. Sometimes a simple yellow ochre background was picked out with imitation graining or in a ‘stone’ colour. Panelled doors were also treated this way, or they might have a geometric pattern which match a paint scheme on the adjacent walls.

Panelling and doors from the late 17th century onwards were often made with softwood. These should be painted with a flat colour but not with gloss paint.



An historic painted façade.  
Grapevine Cottages, Mistley



Bold but traditional colour scheme used  
in Walton Conservation Area

Attractive historic colour scheme used at the  
Pier Hotel, Harwich





29 The Parade, Walton (before and after restoration)



Building currently undergoing paint removal

## Wall Paintings

It is rare to find a wall painting dated from before 1560. The rare examples from the first half of the 16th century come from houses with a priestly connection or those which belonged to people very high up the social scale. Both fragments and complete schemes of wall paintings from the late 16th and early 17th centuries are frequently found. If you do find any, it is best to consult a specialist conservator through your conservation officer. You will not be forced to spend vast sums of money but you will be advised on the best way to proceed without destroying the historic painting.

## 9 Shop Fronts

Shop fronts dating from before 1950 were traditionally a single dark colour with lettering on the window or a hand painted sign above. Standard corporate shop front colour schemes are often not appropriate for an historic shop front. A well maintained shop front with traditional choice of colour and a hand painted sign makes a distinctive statement which is very different to the corporate branding in many shopping centres. A commercial building provides an opportunity to relate the external decoration to the function and style of the historic building.

The Council has already published specific guidance on traditional shop fronts in the Frinton and Walton Conservation Areas and plans to produce similar guidance for other shopping centres located within or adjoining Conservation Areas.

## 10 Removing Paint from Historic Buildings

You should always be cautious if you are planning to remove any paint. In many buildings, later layers of paint work may be hiding painted scenes, text or patterns from the post-medieval period through to 19th stencils. If these are visible, they should be conserved. Otherwise, unless there are good reasons, old paint work on the interior of buildings is best left undisturbed and simply painted over. If multiple layers of paint are stopping windows from functioning properly, or are obscuring architectural details or, alternatively if an inappropriate paint has been used, you should always test a small trial area in an inconspicuous place before carrying out widespread removal.

There are several ways of removing paint. The most appropriate method will depend upon the type of product you are removing and the surface you are stripping it from.

Steam stripping, sandpaper and washing with water are the safest methods.

### Poultices

Poultices are applied to painted surfaces and left for a period of time. When they are removed they draw the paint away or loosen it sufficiently so it can be easily taken off. Poultices are useful for removing paint from decorative work, such as cornices, as well as plain timbers. They are also useful for removing 19th and 20th century stains and varnishes from timber beams. You will need to use a poultice if you are reintroducing a traditional distemper scheme. This is because distemper, which is a water-bound glue paint, will not adhere to the timber surface if there is a barrier of stain or varnish left.

### Chemical Solvents

Chemical Solvents can be very effective in removing oil based paints but over zealous scraping and repeated washing down can cause damage. Most paint removers are very toxic.

### Burning Off

Burning off with a blowtorch should be avoided. It is extremely dangerous in an old building and poses a serious risk of fire. Hot air strippers do not carry the same risk but have been known to ignite flammable materials in sash boxes and thatch.

### Pressure Blasting

Pressure Blasting will remove paint but can also damage the surface of the material being cleaned. There are lots of variations blasting available which use various abrasives, but they can all potentially cause irreversible damage to the surface of fabric if too much pressure is used. If you think this method is appropriate for your building, always make sure that you employ a qualified and experience contractor and carry out a test patch on a small, inconspicuous area. The test patch results must be approved by the District Councils conservation officer before a large area is cleaned. On listed buildings, you may need listed building consent to carry out such work.



Former Barclays Bank (now Walton Community Project) before and after paint was removed



Traditional shop front at Frinton



Traditional shop front, Harwich



Painted flank wall, Manningtree High Street



Plasterwork detail from the Electric Palace, Harwich



Royal Hotel, Clacton seafront

## 11 Paint Faults and Cures

Fault	Cause	Remedy
<b>Failure of adhesion blistering or flaking</b>	- Water behind paint film - Alkaline attack - Efflorescence - Repeated condensation causing swelling and shrinking of binder in distemper.	Strip, dry and redecorate.
<b>Cracking</b>	- Ultimate normal failure of old paint - Recoating too many times - Substrate 'cubing' due to fungal attack.	As above
<b>Crazing</b>	- Ageing due to excessive hardness - Distemper over oil paint.	As above
<b>Wrinkling</b>	- Top film dry before undercoat cured - Inadequate brushing-out.	As above
<b>Chalking</b>	- Ultimate failure of lead paint - Ultraviolet light attack on plastic paint.	As above
<b>Soft sticky film, oily runs and blisters</b>	Alkaline attack on oil paints (eg, from fresh lime plaster or from residue of caustic soda cleaning).	Strip, dry and apply alkali-proof primer before repainting.
<b>Exfoliation or 'onion peeling'</b>	Moisture migration and efflorescence in masonry or plaster substrate.	Not readily solved, unless source of water (eg, rising damp) removed. Thereafter prime with aluminium primer and repaint.
<b>Coloured spots</b>	Mould	Investigate high surface moisture content and treat with biocide.

## 12 Is Permission needed?

### Listed Buildings

You will need consent if you are painting the external walls of a listed building for the first time. This is unlikely to be granted if the surface is of historic significance. You will also need consent to change the colour by redecorating if it affects the character of the building. You should always check whether you need to make an application with the District Council. As it can take several weeks to grant consent, you should check well in advance of starting work.

If you use cement-based or other waterproof or hard gloss paints on a traditional lime or clay plaster you may be left open to enforcement action which would require you to remove the paint. This is especially the case if it is the first time such a finish has been used. Unauthorised painting of

a listed building can leave the owner and person carrying out the work liable to prosecution.

### Article 4 Directions

Some unlisted properties in conservation areas are covered by Article 4 Directions, which help to prevent unsympathetic alterations to traditional buildings in order to protect the character and appearance of the area. You will need permission to paint surfaces for the first time or to significantly change the colour of painted surfaces. Permission is not required where unlisted buildings are not covered by Article 4 Directions. Again, you should check if permission is needed in plenty of time as it can take 6-8 weeks to be granted.

Applications for Listed Building Consent do not attract a fee which is a recognition that there is a cost incurred in preparing the necessary quality of plans required to accompany such applications. The Council strongly advises the owners of Listed Buildings to employ properly qualified and experienced professionals to prepare such applications.

Such professionals can also provide advice on methods of decoration, maintenance and repair. Wherever possible the Council expects owners of Listed Buildings to explore repair of historic fabric rather than seek to replace it with modern materials.

The advice in this series of booklets draws on a variety of specialist publications prepared by other organisations including Essex County Council, English Heritage, S.P.A.B. Links to these publications and/or the organisations' websites are given at the end of each booklet.

## 13 Further information

- PPS 5 Planning For The Historic Environment - March 2010
- Historic Environment Planning Practice Guide - March 2010
- The Georgian Group Guides No. 4 Paint Colour
- The Georgian Group Book of the Georgian House - Steven Parissien 1995
- SPAB - Removing Paint from Old Buildings 1994
- Holkham Linseed Paints - [www.holkhamlinseedpaints.co.uk](http://www.holkhamlinseedpaints.co.uk)
- SPAB - Technical Q & A - 18 Limewash
- Strippers Paint Removers - [enquiries@stripperspaintremovers.com](mailto:enquiries@stripperspaintremovers.com)
- [www.naturalpaintsonline.co.uk/historicpaint.html](http://www.naturalpaintsonline.co.uk/historicpaint.html)
- [www.traditionalpaintforum.org.uk](http://www.traditionalpaintforum.org.uk)
- Earth and Reed Ltd - Sustainable Building and Eco-Decorating Materials [www.earth-and-reed.co.uk](http://www.earth-and-reed.co.uk)

## Other useful sources of information?

There are various national organisations providing design advice and guidance in relation to Painting and Surfaces Details. These include the following:

**English Heritage**  
[www.english-heritage.org.uk](http://www.english-heritage.org.uk)

**Historic Environment Local Management - HELM**  
[www.helm.org.uk](http://www.helm.org.uk)

**Society for the Protection of Ancient Buildings - SPAB**  
[www.spab.org.uk](http://www.spab.org.uk)

**The Victorian Society**  
[www.victorian-society.org.uk](http://www.victorian-society.org.uk)

**The Georgian Group**  
[www.georgiangroup.org.uk](http://www.georgiangroup.org.uk)

**The Twentieth Century Society**  
[www.c20society.demon.co.uk](http://www.c20society.demon.co.uk)

**Institute of Historic Building Conservation**  
[www.ihbc.org.uk](http://www.ihbc.org.uk)

**Historic Towns Forum**  
[www.historictownsforum.org.uk](http://www.historictownsforum.org.uk)

**Essex County Council**  
[www.essex.gov.uk](http://www.essex.gov.uk)

**Communities and Local Government**  
[www.communities.gov.uk](http://www.communities.gov.uk)

Note; Tendring District Council is not responsible for the content of any external websites.