Colour Schemes for Historic Buildings and Conservation Areas

Byron School of Arts c 1930s

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For Byron Shire Council.

1.   INTRODUCTION

This report has been prepared to provide information and guidance to Council on colour schemes for heritage items and in heritage conservation areas. The report is intended to assist Council with assessing proposals for repainting under the provisions of the Byron Local Environmental Plan (LEP) 2014 which relate to statutory heritage items and all properties in Heritage Conservation Areas and the additional provisions of Byron Shire Development Control Plan Chapter C1. The information is also useful in relation to historic properties in the shire which are not formally identified as having heritage status.

Byron LEP 2014 includes contains 187 statutory Heritage Items and 7 statutory Heritage Conservation Areas, as well as many a range of non listed historic building stock representing residential, civic, commercial, rural and industrial examples.

Heritage items and historic streetscapes in Byron Shire are valuable heritage assets, which provide a strong sense of identity to the area. These heritage assets are closely linked to a local sense of place and contribute to a tourism industry which rests firmly upon the natural and built heritage attractions of this region.

An informed approach is required to ensure that these heritage values are maintained and enhanced through appropriate conservation, and sympathetic new work. An understanding of the properties of traditional building materials and the use of traditional colours and finishes is important to ensure that the significance of historic buildings is not diminished, and to ensure that new infill development is also sympathetic to the heritage context.

Technology now exists to produce paint in any shade and texture, some with lifetime guarantees for outdoor durability, including vivid, bold, dark and intense colours. This was not the case 100 -150 years ago when paints were made by hand with the pigments that could be readily obtained.

Colour palette fashions constantly change and paint companies will continue to promote new brochures and colour schemes. For example, fashions have transitioned from the heritage revival in the late 1980s, to 'Mediterranean' yellow ochres and blues, to neutrals and greys, and in more recent decades to include a monochrome palette of black, grey and white. Like all fashions, certain colour schemes will eventually pass, but the use of dark surfaces will leave a legacy of damage to heritage buildings.

Whilst some may argue that, painting is a 'reversible alteration', this in itself is not a singular measure of acceptability. In aesthetic terms, it could be argued that neon pink, lime green, or a bold red paint scheme, or other works such as replacing original timber windows with aluminium, are also 'reversible', but it does not make it sympathetic to the heritage significance of the item or the precinct.

Fashions for 'reverse' colour schemes of dark or black buildings have serious implications in terms of potential impact on heritage significance and setting of the Conservation Areas. Historically, such colour schemes were not used as the technology did not exist to produce such paint, nor the vivid whites that are also in wide use. Technically, the use of dark colours on the surface body of buildings creates considerable potential for damage to heritage buildings. The intensity of a dark surface absorbs more heat, and transfers more heat into the masonry or timber. Heat causes more thermal expansion of the masonry and can lead to joints opening up and the introduction of moisture. This in turn can lead to more salts being transferred from the masonry, and trapped moisture in timber which will lead to deterioration. The use of dark colours is therefore not sympathetic to the conservation of traditional masonry or timber.

Painting in dark body colour schemes will also require extensive coverage initially and will also be difficult to reverse in the future. The accumulation of paint layers over the surface of masonry buildings which were not designed to be encased in impermeable paints will exacerbate potential issues of trapped moisture which will be expensive to address in the future. Decisions made under the heritage provisions in relation to colour schemes should also be considered with regard to future precedent.

2.   LEGAL CONSENT REQUIREMENTS

The Environmental Planning and Assessment Act 1979 No 203 sets out requirements for the assessment of development which requires consent, regardless of heritage statutory status. Part 4.15 Evaluation requires consideration of various matters including;

- the provisions of Byron LEP 2014 and DCP 2014,
- the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,
- the suitability of the site for the development,
- Any submissions made, and
- the public interest.

Clause 5.10(2) of the Byron LEP 2014, which is a statutory legal instrument, requires prior approval from the Consent Authority , to make any changes to the exterior of a heritage item, or building, or place in a Heritage Conservation Area, 'by alteration to fabric, finish and appearance'. This includes repainting schemes.

In determining proposals, Council must consider whether the work would adversely affect the heritage significance or setting of the items or Heritage Conservation Areas. Buildings which are not individually listed as a heritage item still have the potential to contribute positively or negatively to a historic precinct as outlined later in this report.

3.   A BACKGROUND AND OVERVIEW OF TRADITIONAL PAINTS

The traditional heritage colour palette includes the range of colours which were typically in use from the early 1800s until the 1930s, extending in many instances to the 1960s.

This colour palette was derived from pigments which were available at that time. The palette included a predominance of stone and earth colours with trims in dark reds, greens, creams and browns. Lime white was the traditional white, rather than brilliant white.

Traditional colours are included within Australian Standards AS2700-2011 Colour Standards for General Purposes. This is a colour reference system for colours which are commonly specified for industrial, architectural and decorative areas. However, it should be noted that AS2700 is not restricted to heritage buildings and also includes many other colours. For example, G54 Citronella is a lime colour and P11 Magenta a purple which are not heritage colours and would never be used for a building.

Paint companies adopt individual names for colours such as Y35 Off White. For example, this may be similar to Dulux '*Lime White*', Solver '*Broken White*' or Pascol '*Bone*'.

Up until the 1960s, traditional paints were used on most Australian buildings. Up until WW1, paints were made by hand, and often on site. Oil paints were generally applied on timber, metal and plaster, while water base washes and distempers were generally used on plasters and masonry surfaces.

Examples from the Solver Heritage Colour Scheme range.
Colours can be replicated and mixed on different brand bases. Most paint shops have access to these formulae.

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Traditional oil paints are made up of white lead, and linseed oil. Pigments were added to provide a range of tints and were derived from natural earth colours including ochres, siennas, umber, Vandyke Brown, and natural red oxides.

The most basic form of paint was Limewash, made from hydrated lime with water. Lime washes coloured with inexpensive pigments, such as sienna, red and yellow ochres were used for painting rendered masonry. A thin wash was sometimes applied over bricks to even out the colour and uneven size bricks.

Figure 2

A traditional sandstock red brick with a thin wash of tinted limewash used to 'even out' the appearance of bricks.

Gloss finishes were based on natural oils such as linseed and fish oil. These paints were used to repel water from wood surfaces as well as protecting structural and decorative cast and wrought iron from corrosion.

During the 1920s, ready-mixed, industrially-made paints started to emerge when petroleum products and synthetic resins became available. Many painters however, continued to mix their own paint until the late 1960s.

From the late 1940s after WW2, emerging technology brought acrylic/emulsion/latex paints which were water based, easier to use and became very popular. This led to a decline in the use of traditional paints.

In recent years there has been a growth in the use of paints such as Porters Limewash which are based on traditional mixes and include the heritage colour palette, and which are more suited to historic buildings in aesthetic finishes.

Technology now exists however, to make paint in any colour and texture, which has led to the ability to substantially change the character of buildings and streetscapes by the use of vivid, bold, primary and intense dark colours and textures which could not have been produced over 100 years ago.

4. THE USE OF COLOURS FOR ARCHITECTURAL ELEMENTS

Certain colours were used for particular building elements. Stone earthy based colours were generally used for the main body area, often resembling brick and stone, with light or dark joinery, and dark colours for gutter lines, sills and mouldings. Light colours were often used for trims especially where walls were naturally darker i.e., with a red brick finish joinery would often be cream.

Byron Railway Station A late Victorian building Walls X52 Coffee, Architectural trims R64 Indian Red, Window Sashes Mullions eaves Manilla Y45. Chimney Moulding Deep Stone Y55. Verandah Soffit and exposed purlins, Palm Green G54

4.1   WALL OR 'BODY' COLOURS

The main 'body 'colours of buildings include:

- Face brick or stone which should remain unpainted;
- Stucco or cement renders which were either untreated or finished with pigmented lime wash to emulate a stone colours, especially facades with a classical design;
- Timber weatherboards which were generally painted in various shades of stone colours, creams, yellows and occasionally a red oxide or venetian red to emulate brick.

4.2   JOINERY/TRIM COLOURS

- A wide range of colours were available for highlighting architectural details such as Indian Red, Venetian Red, Brunswick and Carriage Green, Tobacco, and Chocolate Brown.
- Off White and Creams were also used to contrast against brick and stone.
- A range of light to mid greys is represented within the heritage palette, however the grey and white 'Hamptons' schemes are not typical for historic buildings.
- Black is not a colour, or represented on the heritage palette although black pigments were added to create colours.
- Dark green or red was generally used for cast iron balustrade to make it look robust although some historic photographs show evidence of light colours with dark handrails and other trims.

4.3   ROOF COLOURS

- Unpainted galvanised roofs are characteristic of many heritage buildings on the North Coast and should remain unpainted or replaced like for like when necessary.
- In the late 1890s, metal roofs were often painted with red oxide to resemble terracotta tiled roofs which were becoming fashionable. The paint also had the effect of further preserving the metal. Where already painted they may be repainted to match the original.
- Terracotta roofs are less common in Byron Shire than city areas but they should be retained where they are original or appropriate to the era of the building, e.g. Greys House Bangalow.
- Infill roofing should be compatible with the overall surrounding context of development which is predominantly uncoloured metal roofing, not colorbond.

4.4   FENCE COLOURS

- Light stone colours are historically found on early timber picket fences. Off white is also traditionally used. Bright and dark colours should be avoided for timber fencing.
- Side fences were often left to weather or were protected with oil.
- Cast iron balustrades were usually painted in dark colours.

4.5   SIGNWRITING

- Sign writing can include a range of colours, including modest areas of corporate signage, providing that it is sympathetic, does not dominate the façade, located in acceptable locations within the original fascia depth, and not above awning level.

5.   HOW 'REVERSIBLE' IS PAINT?

Whilst it is argued by some that paint is reversible as this may be the case visually, the following points demonstrate otherwise.

- Modern paints are not easily removed. As more layers build up on traditional masonry and timber, it creates potential for problems of trapped moisture, increased salts and rising damp
- Many current products such as membrane paints and silicone are promoted for complete weather sealing as opposed to a decorative and sacrificial surface. Solution based paint technology is not generally based on an understanding of the properties of historic masonry or timber.
- Economically, painting also comes at a substantial cost including meeting WHS scaffolding requirements for taller structures etc and pavement closures, and protection from overhead electricity wires in some cases. This underpins the need to use a colour scheme which is appropriate to the significance of the building, rather than a current passing fashion. The cost of repainting an inappropriate colour scheme and any associated issues caused by this could be prohibitive to future owners.
- The cumulative potential impact of layers of non permeable paint makes it desirable to minimise the number of times that painting is carried out.

6.   THE ICOMOS BURRA CHARTER AND CONSERVATION PRINCIPLES

The key issue is about protecting the heritage values of a place. This is reflected in the NSW standard heritage clauses 5.10 in the Byron LEP 2014 which require Council to consider the impact that any works will have on the heritage significance and setting of the item or Conservation Area

As outlined above, although paint is technically capable of being overpainted in the future, this is not a justification for the use of non sympathetic colour schemes to the heritage significance of a place.

The adopted conservation principles in Australia are set out in the 'ICOMOS Burra Charter' 2013* (Ref 1). This Charter must to be read as a whole as many articles are interdependent.

It states that conservation should be based upon an understanding of the significance of the item, and that any new works or changes that could affect that significance are not appropriate. There are no conservation articles which just state that if work is reversible that it is acceptable.

The following section provides examples of paint schemes which are positive and negative to the significance and setting of the heritage item or Conservation Area. Several of these examples were in existence prior to the introduction of heritage provisions which relate to fabric, finish and appearance.

7. EXAMPLES OF COLOUR SCHEMES ON HISTORIC BUILDINGS	
	Figure 2

A traditional painted façade in Bangalow of Light Stone, with Cream pilasters and Brunswick Green trims. |
| | Figure 4

Early concrete block residence 'Jelbon Leigh', Bangalow built 1900-1916 with rendered sections.

Brickwork, stone or block work where original should remain unpainted. |
| | The heritage listing includes all interior finishes. The cedar and rosewood joinery to interior should remain unpainted |

	Greys House, Bangalow Early photos are very useful to guide reinstatement of a traditional colour scheme. This one of Greys House at Bangalow shows a terracotta roof, dark barge rolls, medium and light bargeboards, light walls, dark window joinery, and sills lines.
	Bangalow A & I Hall 1911 Federation era. Pressed metal cladding painted in Indian Red with contrasting pilasters in Cream to highlight the architectural detail.
	Massinger Street, Byron Bay. One of the 4 former Norco Managers residences c.1920. This one has with traditional rich cream walls, and dark red highlights. Non original colorbond *Manor Red* roof which would have originally been a plain galvanised finish.

	Group of the 4 Norco Houses
	Appropriate wall colours and architectural highlights enhance this deco facade. Corporate advertising is minimised to fascia panel only.
	Eureka Uniting Church (former) retains a traditional colour scheme.

Sympathetic heritage colours on Santos, Mullumbimby. Former Bank of NSW.

Roughcast rendered base course with pillars, balustrade and decorative cornice mouldings picked up in contrast trims.

Early layers also showing Palm Green and Salmon and colour charts of similar heritage palette.

Soffit to verandah in warm colours.

A high percentage of requests for colour schemes reflect the current fashion for 'Hamptons' grey and white, and dark grey walls often Colorbond Monument and Vivid White trims such as Dulux Lexicon.

These colour schemes are not represented in the traditional heritage palette.

Example of a more sympathetic colour scheme of medium toned Warm Grey walls with traditional Lime White joinery
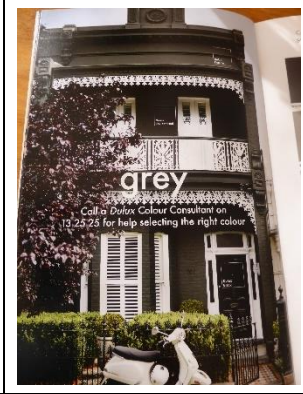

Sympathetic warm neutral walls with off white trims and dark gutter line.

	Early 20th century heritage listed dwelling with original brick frontage, and single skin brick with render to the sides.
	Unauthorised painting of the same heritage item inspired by paint brochures such as this.
	Approved repainting due to irreversible painting of brickwork.

Inappropriate bold colours. The colour of this cladding on this facade may technically be 'reversible', but has an adverse impact upon:

1. the significance of the building,
2. views and vistas of the historic streetscape, and
3. on the setting of other major heritage items in the vicinity of the site

Colour schemes for non listed buildings also have the potential to impact upon the significance and setting of the Heritage Conservation Area. The scale and stepped parapet design of this post war building, is harmonious with the streetscape, but the impact of the colour has an adverse impact upon the heritage precinct and the adjoining Federation classical facade.

Another example of a facade which disrupts a streetscape. This was repainted afterwards and the signage was reduced.

	Hotel prior to repainting. Unsympathetic enclosed verandahs but maintained a non assertive colour scheme.
	Unauthorised painting of a historic building. Former Argyle Hotel.
	Recently returned to original details by removal of unsympathetic addition to front façade, opening of verandah and restoration of stone and brick façade together with an appropriate era colour scheme.

8. RANGE OF HERITAGE COLOURS

Contrary to some perception that heritage colours are restricted to three colours of cream, red and green, there is a wide range of traditional colours available. Many paint companies produced excellent heritage colour brochures around the late 1990s-early 2000s.

Byron DCP Appendix C1.3 outlines a range of traditional heritage colours for walls and trims and special uses which are linked to Australian Standards. This provides appropriate maintenance colour schemes which would be applicable to many historic items. The colour scheme for a particular building should include some research of early photos where available and investigation of early paint layers.

Other sources of information include publications such as 'Colour Schemes for Old Australian Houses' by Ian Evans; Tenterfield Shire Council has a Main Street Study which is available on Councils website, and includes 6 detailed colour schemes for each of the three main eras of development in the town: Victorian (1837-1901) , Federation (1901-1914) and Interwar - Post War (1914-1950) based on original paint scrapes; and Glen Innes town centre also illustrates the use of many authentic heritage colour schemes in its main street. During the late 1980s, with State Government, Council and community support, these colour schemes were carefully researched by paint scrapes and analysis then repainted to original details. Councils Heritage Advisor also has a portfolio of heritage colour palettes from leading paint manufacturers which are available for discussion and use at site meetings.

8.1 VICTORIAN (1838-1901)

Buildings of the Victorian era include vernacular workers cottages and homesteads to the more ornate buildings reflecting the prosperity of the period, some boasting intricate decoration using a great variety of colours. Stone and buff coloured walls and 'drabs' such as olive greens and earth colours were firmly representative of the period and architectural trims were picked out in contrasts plus subtle shades and tones to highlight mouldings. Paint effects of marbling, stencilling and wood graining were also popular for interiors

8.2 FEDERATION (1901-1914)

Federation Era buildings were often characterised by the development of red brick with roughcast decoration such as Mullumbimby Court House and Police Station by WL Vernon of 1908. Timber was still readily available and there are many substantial residences from this period within the township such as R. Mallett's house at 93 Station Street. Decoration was less ornate than the previous period, but contained quality joinery work.

8.3   INTER WAR AND POST WAR

The period from 1914-1945, covered a range of architectural styles including a continuation of Federation styles, to the art deco designs of the 1920s and 1930s and the Californian bungalow designs for residential development such as Magnolia House at Mullumbimby. Colours saw some shift from the Federation and Victorian Palettes to include more variety with the development of ready made paint and more choices after the 1930s.

9.   FREE HERITAGE ADVISORY SERVICE

Council provides a free Heritage Advisory Service to owners, purchasers and occupiers of heritage items and buildings included in the Heritage Conservation Area or elsewhere in the Shire. Council's heritage strategy encourages the early discussion of proposals prior to lodging an application. Council is also working to keep property owners updated on the consent requirements since the introduction of the standard clause in the Byron LEP 2014 with fact sheets on Council's website. Council's heritage advisor has provided extensive advice to several owners.

10.   CONCLUSION

Council makes regular assessments of proposals under the legal provisions of Byron LEP 2014. Depending on the scope of works, approval can be given through

      i.   Clause 5.10(3) for maintenance and works of minor nature that would not adversely affect the heritage significance of the item or Conservation Area based on the Maintenance Colours as set out in the Byron DCP Appendix C1.3 or a proposed colour scheme which is appropriate to the significance, historic era, setting and context of the site, or

     ii.   a formal development application,

The policies of the Byron DCP 2014 provide the detail to achieve the objectives of Clause 5.10 of the Byron LEP 2014, and

a)   assist in everyday management of the issue,

b)   provide consistency and efficiency in decision making,

c)   provide efficiency in the use of staff time and resources, and

d)   provide a level of certainty to the local community about Council's expectations and likely decisions for the conservation of heritage items and Conservation Areas in Byron Shire.

11.   RECOMMENDATIONS

That the following wording alterations are included to the Byron DCP 2014 Chapter C1.

C1.4.5 Colours
Objectives
1. To ensure that the selection of colours for Heritage items and components of a Heritage Conservation Area is based on an understanding of the original finishes.
2. To ensure that colours employed in new development are compatible with the significance and character of the Heritage item they adjoin or of development in the street or Heritage Conservation Area.
3. To avoid the use of colours that are inappropriate or incompatible with the heritage character of Heritage items or Heritage Conservation Areas.

Performance Criteria

1.Heritage items ~~may~~ should be painted in traditional colour schemes based on photographic, physical or documentary evidence. Where this is not available a colour scheme appropriate to the particular style of the building may be used. Advice on this subject is available from Council, paint companies and numerous books. The information in Appendix C1.3 may also assist with colour selection. In cases where weather protection is not critical, the cleaning and conservation of original finishes is a conservation option which will retain a historic patina which cannot be achieved through modern paint finishes.

2. Colour schemes must respect and enhance the individual architectural details of the building.

3. Use traditional colour schemes and contrasting tones for alterations and additions to a historic building. Subtle variations to traditional colour schemes may be appropriate for ~~new development~~ new additions provided the scheme maintains light-mid colours for walls and roof with dark and light colours for trims and remains harmonious in the heritage landscape of the locality.

4. Face brickwork, stone, tiles or shingles must not be painted or rendered, as this will compromise the original character of the building. It will also create an ongoing maintenance requirement. Existing unpainted brickwork must remain unpainted except if part of an unsympathetic infill or addition.

5. Variations to traditional colours that will be harmonious in the streetscape may be used for new development. Warm neutrals for walls, with contrasting sympathetic light and dark trim colours should be used to ensure that the infill development fits sympathetically in a heritage precinct or setting. Passing fashions of monochrome colour schemes of black, white and grey are not appropriate.

6. Bold primary colours, black, grey, white or textured paint finishes must not be used on external surfaces.

7. ~~Where possible additions and alterations must reinstate traditional colour schemes.~~ Duplication of no 3.

12. REFERENCES

1. Australia ICOMOS *The Burra Charter - Charter for the Conservation of Places of Cultural Significance 2013.*

2. Byron Local Environmental Plan 2014

3. Byron Development Control Plan 2014

4. Fact Sheet Byron Shire Council   Website
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