

Colors
Lantern
Room

Ken Hinshaw

From: "Thomas Tag" <tatagyah@yahoo.com>
To: "Ken Hinshaw" <KenL@redshift.com>
Sent: Wednesday, January 04, 2012 5:38 AM
Subject: Re: Pt. Pinos: further thoughts on colors

Ken,

The lantern roof should be painted. The light lists suggest that the entire lantern was black. Some lanterns had red roofs. If there are indications of red paint then either way - black or red would work.

Tom

--- On Tue, 1/3/12, Ken Hinshaw <KenL@redshift.com> wrote:

From: Ken Hinshaw <KenL@redshift.com>
Subject: Pt. Pinos: further thoughts on colors
To: "Tom Tag" <tatagyah@yahoo.com>
Cc: "Dennis Tarmina" <dennistarmina@gmail.com>, "Lowell Northrop" <LowellNor@aol.com>
Date: Tuesday, January 3, 2012, 11:12 PM

Tom: We intend to return the building's roof to its correct red color when the it needs replacement. The outside walls of the lantern room are black, so no problem there. You did not mention the roof of the lantern room. There is evidence of red paint, and I have assumed that the raw copper now exposed over 98% of the roof should be properly painted red down to the decorative cornice. What do you think?

Thanks for your help.

Ken Hinshaw

Coordinator of preservation

Pt. Pinos Lighthouse

Ken Hinshaw

From: "Northrop Lowell" <LowellNor@aol.com>
To: "Hinshaw Ken" <kenl@redshift.com>; "Tarmina Dennis" <dennistarmina@gmail.com>
Sent: Tuesday, January 03, 2012 12:00 PM
Subject: Fwd: Lighthouse Lantern Room Questions

Begin forwarded message:

From: Thomas Tag <tatagyah@yahoo.com>
Date: January 3, 2012 8:11:25 AM PST
To: Lowell Northrop <LowellNor@aol.com>
Subject: Re: Lighthouse Lantern Room Questions

Lowell,

The day mark for Point Pinos was - a white dwelling with a red roof with a white tower and a black lantern. W ALLS ? ?

Normally all of the intake vents would be partially open. The idea was to allow air to flow in and up the inside of each pane of glass and out the lantern ball vent. This kept the windows in the lantern free of condensation. The keeper regulated the vent openings to maintain the air flow.

You are right, the screens should only be covering the vent holes not wadded into the base of the vent ball.

Tom Tag

--- On **Mon, 1/2/12**, Lowell Northrop <LowellNor@aol.com> wrote:

From: Lowell Northrop <LowellNor@aol.com>
Subject: Lighthouse Lantern Room Questions
To: tatagyah@yahoo.com
Date: Monday, January 2, 2012, 9:27 PM

Hi, Tom,

I am one of the people working on the lantern room of the Pt. Pinos lighthouse. I have been told by Dennis Tarmina that you would be willing to assist us with our questions about lighthouse lantern rooms.

First, Dennis wants me to let you know that the delay in our response is his fault, not yours.

He then asked me to see if you have any way of finding out what the daymark colors for the Pt. Pinos lantern room roof, tower and lighthouse roof are or were in the 1930's.

My question is this:

At some unknown time someone stuffed some wadded plastic or metal screen material into the vent at the top of the lantern room. Over time it has become soiled, so that it I think it restricts the vent. My guess is the it was put there to keep out birds and insects. I am considering replacing the wadded screen with a custom made cylindrical screen covering just the holes. We are going to replace the corroded screens in the intake vents. The

question may be only how many of them should we leave open. What are your recommendations for air circulation in a lantern room that has been converted to an electric bulb?

Lowell Northrop

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Contact us

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Links

- [Arbogast Mortar Analysis](#), a sister site shows another line of architectural conservation service that David Arbogast specializes in.

- [Decorative Artistic Finishes and Historic Restoration from Touches of Illusion](#). We specialize in artistic and historic restoration, faux finishes, goldleaf gilding, and other decorative finishes.

- Renaissance Restoration, Inc (<http://rrincorporated.com/>), a Galena based company that provides professional services to institutional, private and public clients.

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Paint Analysis
Point Pinos Lighthouse
Pacific Grove, California
July 15, 2011

On Thursday, July 14, 2011 David Arbogast, architectural conservator, of Davenport, Iowa, received a set of nine paint samples from William Peake of Pacific Grove, California. The samples were collected from the Point Pinos Lighthouse in Pacific Grove by him on July 8, 2011 and were submitted for analysis to determine their historic colors.

Analysis of the paint samples was completed on Friday, July 15. Analysis was conducted using an optical Olympus microscope with magnification between 14 and 80 power. Each layer observed was color matched to the Munsell System of Color using natural north light. Only opaque, pigmented layers (i.e. paint layers) were matched. It is impossible to determine colors for finishes such as metallic paints and leafs and shellacs and varnishes because their color varies according to their translucency and reflectance.

The Munsell System of Color is a scientific system in which colors have been ranged into a color fan based upon three attributes: hue or color, the chroma or color saturation, and the value or neutral lightness or darkness. Unlike color systems developed by paint manufacturers, the Munsell system provides an unchanging standard of reference which is unaffected by the marketplace and changing tastes in colors.

The hue notation, the color, indicates the relation of the sample to a visually equally spaced scale of 100 hues. There are 10 major hues, five principal and five intermediate within this scale. The hues are identified by initials indicating the central member of the group: red R, yellow-red YR, yellow Y, yellow-green YG, green G, blue-green BG, blue B, purple-blue PB, purple P, and red-purple R. The hues in each group are identified by the numbers 1 to 10. The most purplish of the red hues, 1 on the scale of 100, is designated as 1R, the most yellowish as 10R, and the central hue as 5R. The hue 10R can also be expressed as 10, 5Y as 25, and so forth if a notation of the hue as a number is desired.

Chroma indicates the degree of departure of a given hue from the neutral gray axis of the same value. It is the strength of saturation of color from neutral gray, written /0 to /14 or further for maximum color saturation.

Value, or lightness, makes up the neutral gray axis of the color wheel, ranging from black, number 1, to white at the top of the axis, number 10. A visual value can be approximated by the help of the neutral gray chips of the Rock or Soil Color chart with ten intervals. The color parameters can be expressed with figures semi-quantitatively as: hue, value/chroma (H, V/C). The color "medium red" should serve as an example for presentation with the three color attributes, 5R 5.5/6. This means that 5R is located in the middle of the red hue, 5.5 is the lightness of Munsell value near the middle between light and dark, and 6 is the degree of the Munsell chroma, or the color saturation, which is about in the middle of the saturation scale.

The samples were collected in manila coin envelopes with pertinent identification information written on the faces of the envelopes. Although they were unusually small in size, the samples ranged from good to excellent in condition. Their discussion lists the layers from the most recent at the top to the oldest at the bottom of the list. The results obtained, are as follow:

Sample 1	Munsell
White	N 9.5/

The first sample was collected from the watch room window frame. It revealed a set of extremely thin layers of white paint. Although the precise number of layers could not be determined because of their similarity, there were at least eight layers observed.

Sample 2	Munsell
White	N 9.5/

The second sample was removed from the watch room sash. It proved to be identical to its counterpart, the first sample.

Sample 3	Munsell
Gray	N 6.0/
Light gray	N 7.5/
Dark gray	N 3.5/
Gray	N 5.0/
Dark gray	N 3.5/
Light gray	N 7.5/
White	N 9.5/
White	N 9.5/
White	N 9.5/
→ White	N 9.5/

The third sample came from the sill of the watch room. Beneath a collection of gray paint layers of varying shades was a set of at least four very thin layers of white paint.

Sample 4	Munsell
Gray	N 6.0/
Light gray	N 7.5/
Dark gray	N 3.5/
Gray	N 5.0/
<u>Tan</u>	2.5Y 7/4

The fourth sample was taken from the baseboard of the watch room. Its top four layers matched those of the third sample. Beneath these four layers was a tan layer. Given the location of the sample, it is quite possible that earlier paint may have worn off or may have been otherwise removed from the wood substrate.

Sample 5	Munsell
White	N 9.5/
Off-white	2.5Y 8.5/1
White	N 9.5/
Blue-gray	10BG 6/1
Off-white	2.5Y 8.5/1
<u>Rose</u>	7.5R 6/4
White	N 9.5/

The fifth sample was obtained from the wall of the watch room. It revealed a great variety of colors. The oldest white layer was relatively thick and distinct. It was probably not a prime coat for the rose-colored layer.

Sample 6	Munsell
Very dark brown	5YR 2/2
Very dark brown	5YR 2.5/4
Very dark brown	5YR 3/1
Very dark brown	5YR 3/1
Very dark brown	5YR 3/1
Very dark brown	5YR 2/2
Light gray	N 7.5/

The sixth sample was from the banister of the lower stairwell. It retained a collection of six very dark brown layers, which varied slightly in tone. At the base was a distinct layer of light gray paint which is the apparent original color.

Sample 7	Munsell
White	N 9.5/

The seventh sample was found below the banister on the lower stairwell. It retained only a single layer of white latex paint.

Sample 8	Munsell
Charcoal	N 1.0/
Dark gray	N 4.5/
Charcoal	N 1.0/
Dark gray	N 4.5/
Dark gray	5Y 4/1

The eighth sample was collected from a riser of the stair in the lower stairwell. It had a series of pairs of dark gray and charcoal gray layers above an oil-based coat of dark gray which had shifted to the yellow end of the spectrum over time because of its oil content.

Sample 9	Munsell
White	N 9.5/
Off-white	2.5Y 8.5/1
Off-white	2.5Y 8.5/1
Blue-gray	5B 5/1
Blue-gray	5B 5/1
White	N 9.5/
Khaki	5Y 6/4

The ninth sample was removed from the wall of the lower stairwell. It revealed a set of ten paint layers of which the oldest was a relatively thick and distinct yellowish-green color similar to khaki.