

Haidinger's brushes

1 In paragraph 1. Which one of the following does the writer regard as a weakness in other accounts of this phenomenon.

- A – The appearance of the brushes is reported to vary between individuals.
- B – Only some people can “see” the brushes in the sky.
- C – The accounts are not well illustrated.
- D – No clear reasons are given for the differences.

2 Haidinger described the coloured patches as brushes because:

- A – They were narrow in the middle.
- B – They had fat ends.
- C – They were different shapes in different situations.
- D – They had the shape of his shaving brush.

3 There is no illustration with example 2: *Polaroid with a yellow filter*. The most likely reason for the omission is:

- A – There was no room on the page.
- B – An illustration would not show anything of interest.
- C – The writer did not have a yellow filter.
- D – No reason is given.

4 In examples 3 and 4 the blue brush is seen as being slightly magenta. The writer believes the colour change from a clear blue to magenta may be due to:

- A – filters leaking in the red.
- B – proximity illusions.
- C – low light levels.
- D – variations between computer monitors.

5 Read carefully the comments below figure 2 and this statement found on the web ... "The blue parts of the brushes are thought to be generated by the brain in response to the unexpected presence of yellow." The writer:

A – agrees with the web statement.

B – disagrees with the web statement because the blue brush is in most situations brighter and more extensive than a proximity illusion.

C – disagrees with the web statement because the blue brush is seen with all filters (2-5).

D – disagrees with the web statement because the effect is confined to the blue region of the spectrum.

6 According to the writer which one of the following is a factor that affects his ability to correctly report the colour of the brushes he sees?

A – Proximity illusion.

B – Variation in monitors.

C – The appearance of the blue brush changes over time.

D – The brushes are faint.

7 The writer believes that he failed for many years to see a blue brush in the sky without a Polaroid filter because:

A – his brain eliminated the brush.

B – the blue brush is a proximity illusion.

C – he never looked for it carefully enough.

D – the faint blue brush is obscured by the blue background.

8 The writer describes the faint yellow brush he saw in the sky after he was 50 (without using a polaroid) as being 'reliable'. By this he means:

A – was always seen.

B – was always yellow.

C – was always pointing towards the sun.

D – All of the above.

9 Which of the following does the writer **not** mention as a source of uncertainty when readers are looking at the colours of the simulations?

- A – colour reproduction varies on different monitors.
- B – the colour he sees cannot be exactly matched in Photoshop.
- C – different people see colours differently.
- D – colour perception is influenced by the colour of the surroundings.

10 The author believes that the ability to detect the polarization of light from the sky with the naked eye:

- A – was important for sailors in the days before GPS.
- B – is common to all primates.
- C – appears to serve no useful function.
- D – shows that we are related to Cephlopods and Mantis shrimps that have this ability.