#### Context:

Gabriola

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# **Mirages**

by Kit Szanto

Until recently, I had not heard of mirages around here—except of course for the "water on the road" kind. But, apparently, according to some residents, more interesting mirages are to be seen.

Mirages are often grouped into two categories, *superior mirages*—the appearance of an image higher than the real object, and *inferior mirages*—where the image is lower down. The appearance of a pool of water on a dry road is an inferior mirage. The "water" is actually an image of the sky. Superior images can be right-side-up or upside down, depending on the distance of the true object and the temperature gradient in the atmosphere.

Russ Beattie, who has been coming to his family's property, now his and his wife's home, on Decourcy Drive since 1945, has seen right-side-up superior mirages about once a week for over sixty years. He always sees them in the north-west, looking from his home toward Snake Island and beyond, up toward Texada—see the *front cover*. The best conditions for seeing them, he says, is when the weather is warm and clear, windfree, and close to sunset. But cold, clear days can also be good. The images he sees are always near the horizon, but appear larger than they would be in reality, and sometimes seem to float just above the horizon. He has seen mirages of the Winchelsea Islands, Five Finger Island, the Hudson Rocks, and other islets. He sees sailboats and ships—all larger than they should be and higher than they would be under normal conditions.

The most dramatic images are of freighters and cruise ships, which when magnified

three or four times their actual size are impressive to see. As they approach closer to Gabriola they gradually resume their normal size. It is easier to be aware of these mirages if one is familiar with the appearance of the seascape under normal conditions. The images are not of buildings, icebergs, or anything else foreign to the area, although superior images in the arctic, where they are most common, have produced images of objects in excess of 300 kilometres away.<sup>1</sup>

Wikipedia has some information on mirages,<sup>2</sup> and the conditions that cause the sun's rays to bend so as to form an inferior or a superior mirage. Superior mirages are formed when the air above is warmer than the air below, what we know as a temperature inversion. Temperature inversions are particularly common in the polar regions where ice and snow keeps the temperatures near the earth colder than the air above. As sunlight passes through the warm air to the denser cold air, the light bends, similar to the way that a straw or a spoon in a glass of water appears to bend as it enters the water, because light travels more slowly through the relative dense water than it does through the air.

This bending or refraction of the sun's rays can create an image of an object beyond the horizon, appearing to the viewer closer than it really is. So Russ, or anyone, can stand on the beach on Gabriola and see, when the conditions are right, a sailboat or a freighter coming over the horizon, when in fact it is

<sup>&</sup>lt;sup>1</sup> Keith C. Heidorn, The Weather Doctor, *The Arctic Mirage: Aid To Discovery*, WWW, July 1, 1999.

Wikipedia, *Mirage*, WWW, April 13, 2009.

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too far below the earth's curve to be seen under normal conditions. In theory, when the temperature of the atmosphere increases with altitude at a rate of 11.2 °C per 100 metres, the refraction is great enough to cause the light to bend in an arc equal to the curvature of the Earth and one can, in principle, see forever. Only absorption of light by the atmosphere provides a limit.

Other people too have seen superior mirages on Gabriola. Some, like Russ, have seen mirages like the ones he has seen, and from roughly the same area. And some have seen them from the south-east of Gabriola, in Silva Bay. Vera Wayman, when visiting Kitty Silva in the 1970s, saw the image of a house in the middle of Silva Bay, its windows glinting gold in the afternoon sun. At first, she and Kitty thought it might be one of the Richmond houses barged over from the mainland, but they realized there was no barge, just a house, full size, floating in the Bay. They assumed it was a mirage of one of the houses on Point Grey, which they could see from Kitty's house. It lasted about an hour, and then faded. Vera remembered Kitty phoning her a few times after that telling her to come over to see another of the "house mirages" floating in Silva Bay, and she went to see this odd phenomenon again.

Earlier, in the 1960s, Vera remembered seeing from the beach near where the Haven is now, a mirage of a large ship tied up at a wharf in the water just beyond Taylor Bay, looking toward Departure Bay. Many onlookers had gathered, and all agreed it was lucky they were all seeing the same thing, since no one who had not seen it would believe their story. The mirage disappeared after about an hour, and everyone went home.

I first heard about such mirages when Barrie Humphrey was in contact with Mary Warko

who had requested information from the History Committee at the Museum. She told a story about a mirage of the Entrance Island lighthouse appearing one summer evening in the mid-1950s to people on the Sunshine Coast. She was a child then, and her family was holidaying near Whitaker Beach, which is just around the coast from Gibsons.

One evening, her parents looked out the cabin window toward Nanaimo "...and suddenly saw a lighthouse close up. It was the one on Gabriola Island. They could see the lighthouse keeper and his wife (I suppose it was his wife) walking down towards a wharf. Then they saw them walking towards the lighthouse and enter it. Finally they saw them in the 'light' room. They could see them through the glass. This whole scene lasted about an hour. Then it disappeared. After that they could only see the blinking of the lighthouse light, something we saw every night. I remember seeing a car, with its headlights on, going onto the wharf and some people got out.<sup>3</sup> Several others came to the wharf that evening. It was really weird. ...I've often wondered if the people on the wharf were looking at us through our cabin windows."

She goes on to say that all the cabin dwellers talked about it the next day, and that it was this talk that has helped her remember, since at the time she was in bed and doesn't remember much about the actual event itself. If it was reported in any of the local papers, no one at the Museum or the Sunshine Coast Museum (thanks to them for looking) has been able to locate an account of this peripatetic lighthouse.

So, if any reader has more stories or pictures of mirages, please send them on to me and we'll add them to our collection. ◊

<sup>&</sup>lt;sup>3</sup> A mysterious observation since there is no wharf on Entrance Island and there are certainly no cars.