



## VDI Spectral Art Image Analysis

**Case #** 051218

**Analyst:** Kenn Raymond ([madgendat@gmail.com](mailto:madgendat@gmail.com))

### Image Information:

This image was obtained from a article posted on the social media site “ONSTELLAR” and is referenced to <http://www.theblackvault.com>. This study is offered as a supplement to an analysis conducted by **TBV Investigations (case # 613074)**, and **Jeremy Enfinger**.

### Uploaded Image:



## Image Properties:

Image Type	jpeg (The JPEG image format)
Width	4608 pixels
Height	3456 pixels
Camera Brand	SAMSUNG
Camera Model	DV300 / DV300F / DV305F
Date Taken	2012:02:15 14:36:28
Exposure Time	1/8 sec.
Aperture Value	2.64 EV (f/2.5)
ISO Speed Rating	400
Flash Fired	Flash fired, auto mode
Metering Mode	Pattern
Exposure Program	Normal program
Focal Length	4.5 mm
Software	1207034
Copyright	COPYRIGHT, 2010

## Image Manipulation Upload:



*Zoomed capture of photo anomaly*

## Light Study

**Software:** Linux GNU Image Manipulation Program

Layers - 1

Pixel Count - 15925248

The first step is a uniformity check of the entire image. This utilizes a tool that inverts the brightness of each individual pixel. This image is then studied in an attempt to identify any “out of the ordinary” pixel anomaly that can indicate hidden layers or “super imposition” of one image combined to another.



This image is a 50% zoom of the photo anomaly....We are looking at inverted light so the brighter areas are in essence shadow. Some areas of concern....first is the uniformity of the image transparency...it seems to be abrupt as if partially erased. Second is what appears to be a motion blur that appears to be a left to right stroke from the more “solid”, or, less transparent edge of the image. My question with this is.... if this is a motion blur then the anomaly would appear to be moving backward. I will admit no expertise in the mechanical movement or the dissolving ability of ghosts. This step targets areas of concern and directs the next steps in the study.

The next step in the process returns to the original image. From there I utilize a tool that performs an automatic contrast enhancement providing this image....



There are a couple of areas of interest that I will point out.



First is the silhouette in the lower left corner of the image. This appears to be someone seated at a table behind the semi transparent apparition. Closer examination of this area of the photo shows additional unidentifiable anomalies in the image possibly indicating an exposure error.

Another thing that really jumps out at me here is the hard edge along the chin and neck area of the apparition. This is heavy with shadow and almost appears to be a seam in the image.

Also, just under the light fixture in the area that would be a sleeve on the shirt of the apparition, is a very sharp edge color change from the pale bluish tone to the translucent "white" foggy anomaly shown below.

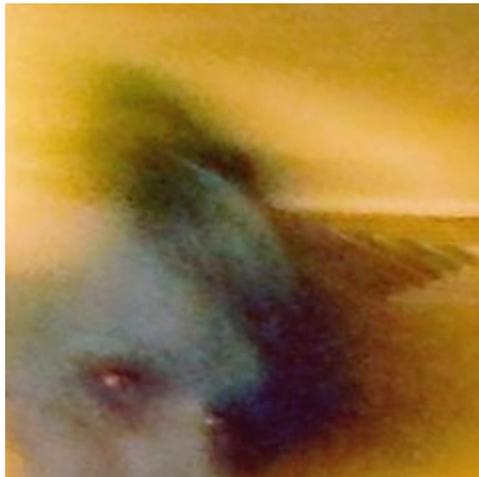


Finally, where the head and shoulder of the apparition interact with the light fixture there is a distinct difference in the way that the image blends with the light.



Here we see a defined edge at the shoulder, and a blended edge at the face. What concerns me here is the light fixture blends onto the face of the apparition, however the blend abruptly ends at the hard shadowed edge of the neck.

The final study of this method focuses on the top of the head of the apparition.

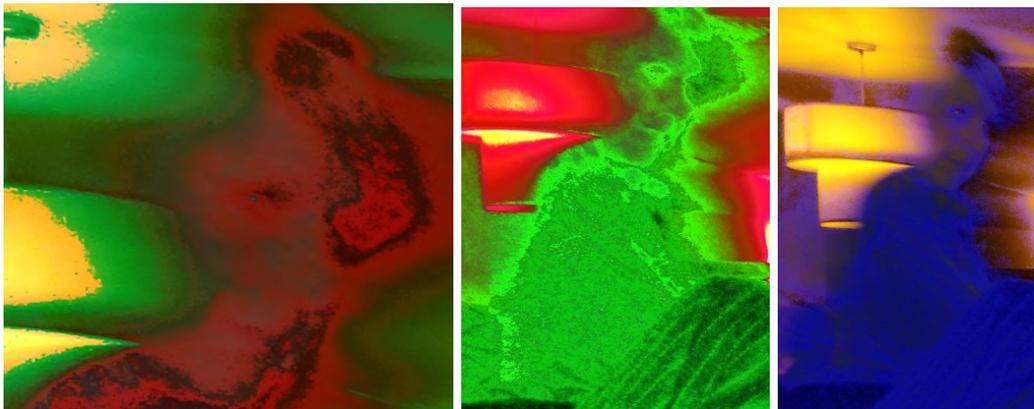


The nature of light is to spread out from the source and it continues to spread until it is interrupted by objects or distance. Light is composed of both particles and waves so when it encounters a solid object the light is spread in different directions from the point of impact. Beyond the object a shadow is cast. This is nature, light cannot alter its physics.



If an image is translucent it does not alter the natural physics of light. Light encountering a semi transparent or translucent image will still divert from the point of impact and cast a shadow. The light in this image is curious. Although ghostly patrons are not “natural” the natural physics of light are a constant and do not change. It is highly unlikely that light would “blend” with an object except in the case of an exposure discrepancy.

The following images utilize proprietary methods that have been developed to study an isolated image in different areas of the RGB color profile. The purpose is to enhance the isolated image and the surrounding environment in order to identify additional photo anomalies not normally visible otherwise.



All three images appear to have blending evidence around the edge of the face of the apparition that raises questions in its appearance. In addition there is a lack of detail to the “body” of the apparition that is curious. In all three images the light appears to blend rather than reflect which also causes me concern.

For comparison I have isolated an area of the photo that shows the difference in interaction of objects in the blue spectrum.

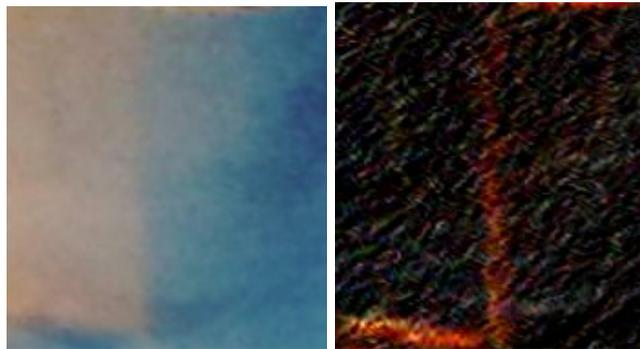


Assuming that the three gentleman were all alive and well at the time this photo was taken we can see that the area surrounding their heads is clear of any brightened edges or what I would describe as blur. The apparition however stands out in the environment with a high amount of "blur" and a bright edge around the face. I would still be hesitant to draw any conclusions as I have no information on the natural properties of disembodied spirits.

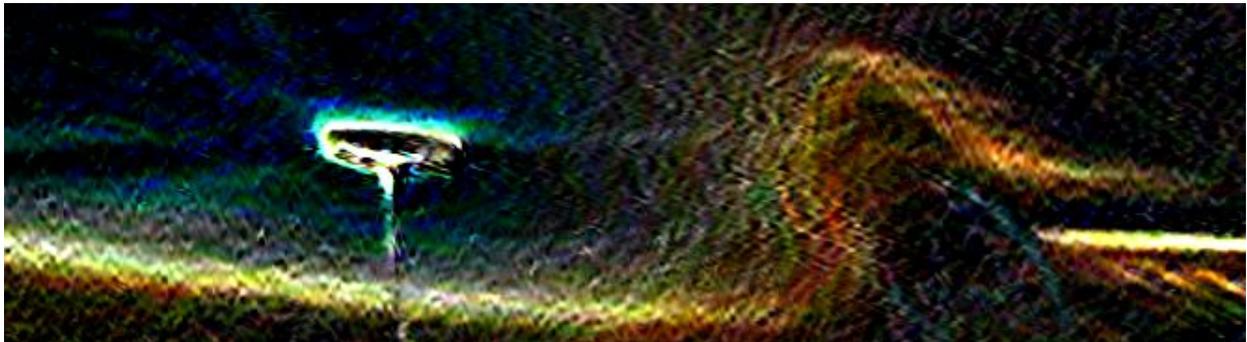
The next and final step in the analysis artificially removes all of the light from the image. It then reproduces the image with only the edges of the objects in the photo visible.



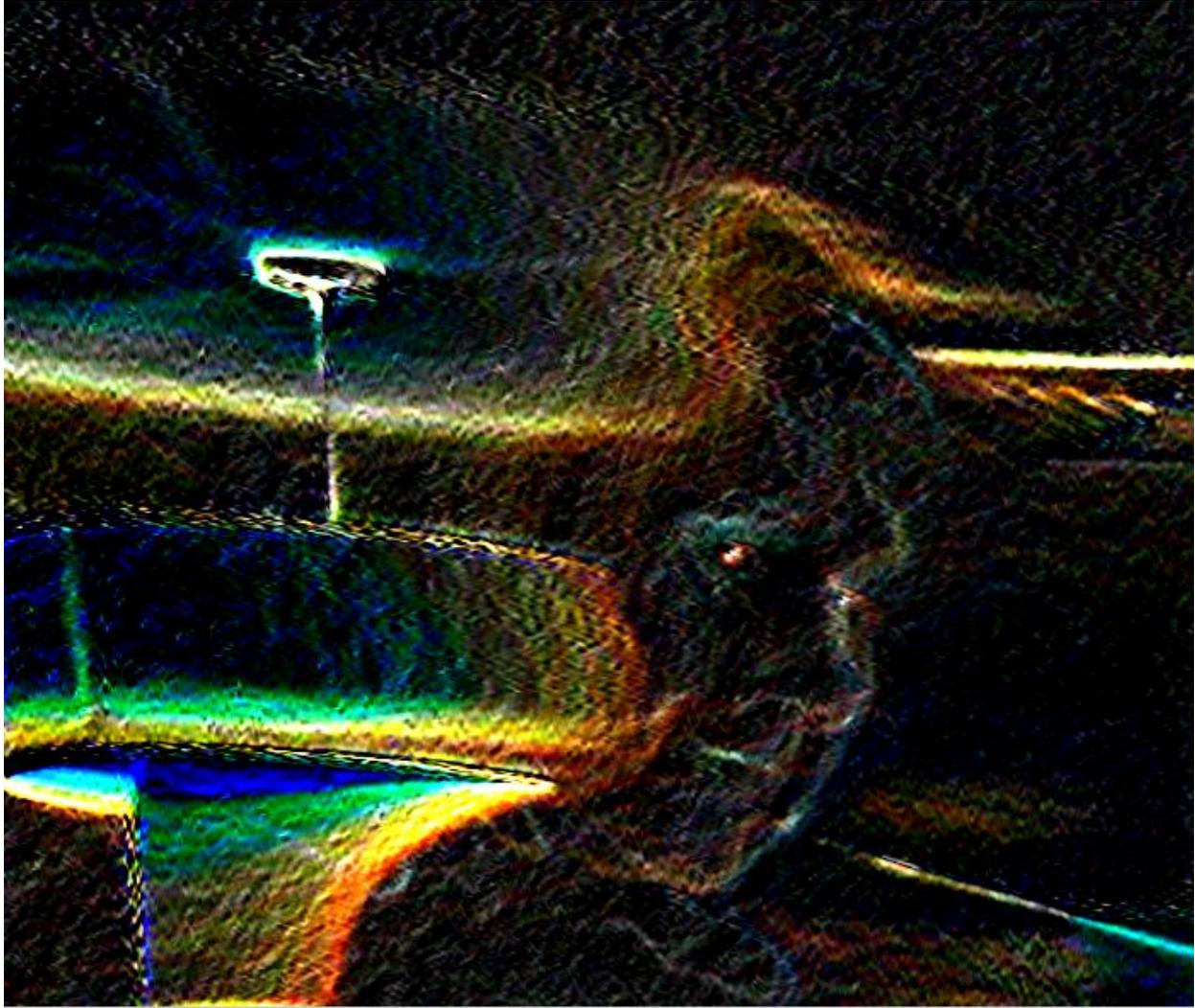
As I begin to study this image the first thing that catches my eye is the sharp edge that was highlighted previously in the study.



This confirms a distinct sharp edge visible in the environment of the original image. This raises the question to me of....Why is there a sharp edge floating in the midst of this apparition?



Here we are looking at the light reflection on the ceiling....notice the uniform bright line along the edge of the lights reflection and then the abrupt scattering as that reflection meets the top of the apparitions head. This is actually a very compelling image as it shows the natural physics of light encountering an object. Much like water in a stream that meets a rock, the water is diverted around the rock and then gathers itself together on the opposite side. Light is made up of particles and waves and behaves much in the same way. This image shows the light encountering a solid object and diverting itself around that object.



There is no doubt that the reflection of light in this image is meeting a solid object, scattering at the point of impact, diverting around the object and gathering itself back to its natural form on the opposite side. Although there are anomalies in the image that appear to be signs of some manipulation...this image is irrefutable...there is no way to duplicate the natural physics of light. Whatever is captured here has solid properties and is present in the environment of the image.

### **Findings:**

Although in a perfect world it would be nice to be able to provide conclusive evidence of authenticity not everything is black and white. There are some variables here that cannot be considered. There is no conclusive evidence that ghosts are real. This is not to say they are not. As an analyst I have to be objective and base my conclusions on known evidence and be able to prove those findings. I have no reliable information regarding the natural properties of ghosts and how they interact with environmental norms.

That being said, these are the conclusions that can be drawn from this study.

- The image presents as a single layer and although the study of inverted pixels raises some questions regarding the appearance of “blending”, there is uniformity throughout the image which suggests either no manipulation or manipulation that is very discreet and done at the individual pixel level.
- Utilizing an automatic contrast enhancement tool reveals additional anomalies in the image that present as “digital artifacts”. This includes a “sharp edge” un naturally visible within the environment of the image. Although this is not conclusive in determining manipulation it raises the question of exposure errors as being the possible explanation of this image.
- An RGB enhancement reveals what appears to be blending and motion blur manipulation around the face of the apparition. I say that it appears to be blending and motion blur as that is the description that best fits what the enhancement reveals. What is odd is the pattern of this blending as it is unlike any manipulation that I have encountered in over 20 years of image study. Therefore I cannot say definitively that this is human intervention in the process of this jpeg image.
- Finally, what I would consider the best evidence of the authenticity of the apparition image is the reflected edge detection. This is the best example of the natural physics of light I have seen in an image anomaly. There is no doubt that the travel of light from the source is interrupted by a solid object that is naturally occurring in the photo. The light meets the head of the apparition....scatters naturally....diverts and regroups on the opposite side. There is no way of duplicating this natural activity of light. The top of the apparitions head is a solid object occurring within the environment of the image.

I always try to summarize an analysis by presenting what I would be willing to testify to in court. This comes from a law enforcement background and years of report writing. In this case my testimony would be.....

I have not yet had the opportunity to study the RAW image data from the image sensor of the camera. However, the jpeg image is the common conversion made by the digital camera, therefore conducting a study of the physics of light is appropriate with this image format.

There is evidence present within the jpeg image of “digital artifacts”. These digital artifacts are a common anomaly found in digital imaging. A visual examination of the individual pixel makeup of the image presents uniformity....meaning that there are no apparent image overlays commonly known as superimposed images. This does not rule out errors in the exposure of the image that can combine separate images without a pixelated distinction.

Findings in an image using a particular technique determines the evolution of the study. In simpler terms...what I see in the beginning stages of an examination determine which tools I will use in the next study that best leads to a conclusion.

In this case the final study used in the analysis determines the natural effects of light interacting with objects naturally occurring within the environment of the image. As stated in this report I found this study compelling.

Light is, in its basic form, electromagnetic radiation made up of particles known as photons that travel in a wave pattern. The photons move through an environment very similar to water flowing. Like water....if light encounters a solid object it interrupts the wave. The light gathers at the point of impact....scatters into a particulate form...diverts itself around the object and gathers itself back into a waveform on the opposite side. This image shows this natural process nearly perfectly.

If asked to determine the authenticity of this photo I would label it as **UNEXPLAINED**.

The methods I use present facts that are visible and apparent within the image. I do not manipulate the image in any way. I simply study the interaction of light in the image and offer those facts with a visible example. These methods can be reproduced by anyone with the proper instruction and software resources. The light wave study of the visible light spectrum is a combination of tools and algorithms that are proprietary in their application and developed by me.

### **METADATA Review:**

	<b>MPF</b>
MPF Version	0100
<b>Number Of Images</b>	<b>2</b>
MP Image Flags	Dependent child image
MP Image Format	JPEG
MP Image Type	Large Thumbnail (VGA equivalent)
MP Image Length	52767
MP Image Start	3541159
Dependent Image 1 Entry Number	0
Dependent Image 2 Entry Number	0
Image UID List	(Binary data 66 bytes)
Total Frames	1
Preview Image	(Binary data 52767 bytes)

### **Supplemental:**

The following information is extracted from the original image "metadata". The information shown here is designated **MPF** or **Multi Picture Format**. This specification is meant to make jpg files display better on TVs and computer screens and to.... ***allow more than one picture in a single file.***

The concern here is that according to the metadata related to this image there are **2 images** combined in one jpeg file.

I would be more likely to designate this as an exposure error based on the data presented here and the evidence of "digital artifacts" present in the image. I stand by the light wave analysis that shows light diverting around a solid object, but with further study of the object there is a vent in the ceiling that could have produced the diversion of light and the appearance of the scattered light around the head of the apparition is coincidental. Based on this I would describe my conclusion as....**QUESTIONABLE**....possible exposure error.

Thank you for the opportunity to offer this analysis of your image. Although the results of this study are inconclusive there is some compelling evidence that suggests authenticity, however, officially I offer the conclusion of unexplained.

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VDI Spectral Art

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