Holography and Art – Using rainbow hologram in my works

Duck Hee Cho
3434 Spectrum, Irvine, CA, 92618, US
sailhologramart@gmail.com

Abstract. Holography can be understood as one of the more sophisticated subjects within the realm of modern art. Even after several years of study and application, understanding holography simply does not get any easier. For that reason, instead of trying to discuss both the technical and the artistic aspects of holography, the emphasis will strictly be on the latter. Just like any other paradigm or medium capable of fascinating the human hearts, holography has changed the way I encounter the world. Changed perception of the world brought me feelings of child-like delight. Among the various subdivisions of holography, I hold Rainbow Hologram exceptionally close to my heart. Not only is it related to my previous works but its bright, crisp and various color movements are also depicted wonderfully in 3-dimension. I would like to share my fascination with rainbow hologram with you.

Motivation
A new chapter of my life opened up upon moving to New Zealand in 1995, I have been a Chemistry teacher in South Korea, but I always had a passion for studying art. Moving to a new country and being exposed to a drastically different environment encouraged me to pursue what I secretly cherished.

After entering Wellington Institute of Technology, I was asked to research what fascinated me the most. I didn’t know how to go about this assignment at first, but luckily I stumbled on several hologram images and my eyes were set. The hologram images were completely mind blowing and refreshing, unlike the ones I saw previously which only made me feel eerie.

However, holograms by Rudie Berkhout struck me totally in different ways. The blend of rich and refined colors he used in his works was comparable to the beauty of fine arts, especially paintings. Such strong impressions led me to write an essay on Holography and I have been captivated by holography ever since.
After my first essay on Holography, I was determined to study this fascinating genre if I get a proper opportunity.

However, it took me some time before I actually started to study Holography. Although I produced various holograms such as transmission holograms, reflection holograms, stereo holograms, and color holograms, my passion was and still is for rainbow holograms.

Using rainbow in my works
It can be said that rainbow represent the very essence of my art works if not the most valuable subject. In Wellington, where I used to live, rainbows were easily spotted. Looking at the rainbows back then was like being promised of a better life in New Zealand.

The fact that rainbows are special symbols as well as religious events became my motivation and passion for dedicating myself in producing rainbow holograms.

Rainbow holograms can express various subjects very clearly.

Gorgeous colors of the world with their rich depths can be reorganized and interpreted to form diverse range of patterns and color combinations.
My rainbow holograms works

![Fig2. Crystal cup](image)

Personally, I like some crystal cups. Being transparent, these crystal cups allows us to look at both inside and outside at once.

It is interesting to both look inside from outside and vice versa. This cup is a representation of me holding my soul inside. I sometimes try to hide what I am feeling but to no avail.

The reason to such futile disguise is because of the transparency at my core. It is because I dream of cleansing and purifying my soul without hypocrisy and affectation.
The beauty of being transparent is connected to how I want to live my life. Being transparent is to show everything without any filter distorting the essence. For any artists, his masterpiece is bound to be the life he yields. The white forks in the bottle can be seen as my will, the road I chose, goals I want to achieve and also the hope I hold dear to my heart. Parts of the forks showing outside the bottle represent what have been done, while the ones inside the bottle are what have yet to come.

I believe artists should be like a chameleon, continuously searching for what cannot be seen from the box by transforming the self into a triangle and to get out from the square, all the while painting the
self with various patterns and colors. What I want is to have a desire to acquire something new endlessly.

![Floating abc](image1)

**Fig 5. Floating abc**

Various letters are floating around only to suggest the hardship of choosing the right word for the proper moment.

![Big Bang](image2)

**Fig 6. Big Bang**

The stage where the unknown is coagulated and the desire to pinch/activate it coexists.
Fig 7. Reminiscence

Reminiscing on my childhood, where the most mundane become fascinating through the lens of kaleidoscope.

Fig 8. Wonderland

The world of few beads seen through the kaleidoscope.
Windy Wellington

Wellington, where I used to live is very winy city. I may shiver at a chill gust of wind against my face, but the wind does bring along a sense of freshness and bliss.

**For fellow and future enthusiasts**

One of the biggest obstacles people will face when wanting to become a hologram artist is to find someone from whom one can learn about holography. It is extremely hard to produce the images you want, but the chance to produce does not come by easily. In short, it is harder than you imagine to find a studio or institution where you can either learn or produce holography.

Even if you equip yourself with the proper tools, lack of knowledge for utilizing the tools in producing holograms will prevent you from creating the image you want.

Holographic art peaked during the 1990s but has been on a downward trend ever since.

What helped me promote my work was my blog where I posted various works of holographic artists. Unfortunately, due to the lack of popularity or awareness of holograms, the postings were limited to introducing various international hologram artists to Korea.

Recently, collaboration between artists utilizing different mediums to share their knowledge and insights is becoming more and more common.

I believe that it is important to accommodate artists and technicians from various backgrounds. That way, the Holography as a discipline may flourish once more.

I only started studying holography very recently. However, if I fail to find someone to whom I can offer a hand or encouragement, my interest in holograph might fade. At the same time, it is up to me to pave my own way while keeping myself motivated and passionate.

I wish there were more educational opportunities for the people wanting to learn Holography. Most hologram artists have at least two separate major areas, because holography is rather complex.
I sincerely hope that those with more knowledge and experience would be kind enough to share what they know with the novices trying their best to make a first step into the field.