

Abstract Painting Practice: Expanding in a Virtual World

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Abstract

This paper sets out to describe, through a demo for the TVX Conference, how virtual reality (VR) painting software is beginning to open up as a new medium for visual artists working in the field of abstract painting. The demo achieves this by describing how an artist who usually makes abstract paintings with paint and canvas in a studio, that is those existing as physical objects in the world, encounters and negotiates the process of making abstract paintings in VR using Tilt Brush software and Head-Mounted Displays (HMD). This paper also indicates potential future avenues for content creation in this emerging field and what this might mean for artists, viewers, and art institutions to experiment with effective methods of exhibiting innovative content.

Author Keywords

Virtual Reality; immersive experience; VR painting; content creation

ACM Classification Keywords

H.5.1 Multimedia Information Systems; I.3.4 Graphic Utilities Paint Systems; J.5 Arts and Humanities

Introduction

My physical painting practice (see Figure 1), which includes applying paint on canvas, wouldn't necessarily be described or understood as a traditional process. This is because in the making of these paintings I use digital images of paint palettes printed onto silk. This silk is then re-stretched over the painted canvases and followed with further layers of paint. This process works as a kind of *meta painting* in that it documents the content creation process within successive making processes, and as a consequence becomes self-referential. This way of working developed through a need to document my painting practice for my PhD research, which led me to use paper palettes as they allowed me to collect and thus document the use of colour and decision making within practice.

Prior to this visual artist practice, I worked as a graphic designer for 14 years, which meant that working with digital tools was familiar territory. Therefore, when Google's VR painting software 'Tilt Brush' emerged, working with it seemed like the next logical step. Adding to this my research interest of examining aesthetic absorption in painting practice drawing on and



Figure 1: 'Egreoyalaisy' (2018), Acrylic, ink and oil paint on silk over canvas, H81 X W65 x D2cm

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Figure 2: 'Untitled' (2019),
Tilt Brush Painting,
Experimental work-in-
progress

testing the theories of Denis Diderot and Michael Fried [4], I was always going to be intrigued by, and drawn to, the development of immersive image spaces and the tools with which to make them.

Through this demonstration, I will share my practice and experience of making abstract paintings in VR. I will show how the technology has been used to develop interactive and explorable paintings as immersive environments, which were not possible prior to the development of VR painting software, and the processes I use to adapt to this new medium in an attempt at mastering it. This paper will also discuss future technological advancements that could enable artists to deliver further innovative works for exhibitors.

Virtual Ways of Working

I found that my first encounter with Tilt Brush was incredibly exciting. I began by figuring out the basics; setting up an environment, selecting different brushes and choosing colours from the palette. Reflecting on this process I realize my appetite was instantly whetted, and I recognized that I needed to explore this emerging medium as a feasible accompaniment to my existing practice. Through the lens of my own visual arts practice, I suggest that there are three key approaches to making paintings in VR that indicates it as a viable option for art practice.

The first approach involves the possibility of scaling every element created. The first time I encountered this tool I laughed out loud (I have seen a similar reaction in other users). I scaled-up my first VR sketch, which was originally approximately 20 x 20 x 20 cm, to what felt like the size of the Eiffel Tower. This tool has great potential to make working at both the macro and

the micro scale very easy. It feels incredibly liberating in that you are no longer (immediately) tied to one size of working because of limits to the physical properties of materials or any financial constraints incur.

The second approach is the ability to duplicate the individual elements you produce. This combined with the scale tool can make light work of creating texture or pattern, and very quickly you can find yourself making work that in itself becomes a new environment.

The third approach is the facility to import photographic images as visual resources. My physical painting process is palimpsestic in process, meaning a build-up of many layers interacting with each other. So being able to import photographs of my palettes allows these palimpsests to continue, to feed my VR and physical paintings in and out of each other, to connect the physical and virtual, and for the element of self-referencing to be pursued further through VR.

A VR-Abstract Painting Practice

My VR paintings begin by first considering images of my physical painting palettes. I tend to choose the images of paint that has dynamic forms emerging that cannot yet be matched in VR. This might be a blurry, smeary quality or a granulation of the pigment. I then import this image and use it as a resource to work from. I also play with scale, where the palette marks are exploded compared to very small marks that work into the photograph. What results is a chronicling of process within process that I describe as combining the mindless with the mindful, the digital with physical, production with reproduction, and what might be considered as the 'authentic' with 'inauthentic'.

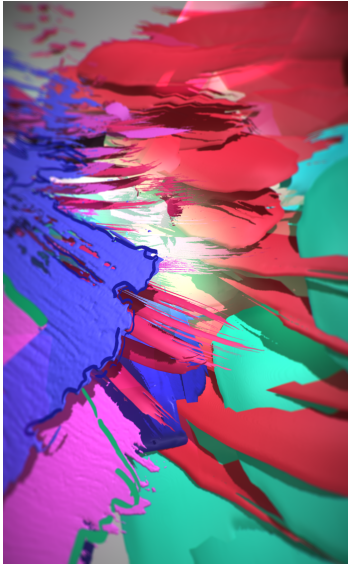


Figure 3: 'Untitled' (2019),
Tilt Brush Painting,
Experimental work-in-
progress

Currently the painting brushes I focus on within Tilt Brush are those closer to reproducing physical paint (Figures 2-4). I have toyed with the animated or less paint-like brushes, however for now my aim is to examine where physical and digital paintings meet. It is in testing these similar but different processes that I am developing a merged aesthetic, a phygital painting aesthetic (physical and digital).

Like any medium or tool, it takes hours to become proficient, to be able to use in a way that allows us to make the artwork work. To accommodate users who are intent on using Tilt Brush for artistic process, there are a few points of advice for developers.

1. You need to spend many hours to get to know new hardware and software. The best way is to play, to doodle, and revel in what is possible, without letting any particular aesthetic or concept interrupt you. Developers can assist by designing a playful introduction that encourages experimentation.
2. It is a good idea to build up the time you spend in VR incrementally. It can be physically demanding in its own unique way. Side-effects I intermittently experience include; head, neck and back ache. And others report nausea and dizziness. It is very easy to physically over-stretch yourself if you don't understand how to manipulate your work within the VR environment. Developers can help a smoother introduction through introductory games/exercises that develop these strengths?
3. We can think of the Tilt Brush VR environment as a studio space and come to it with the same frame of mind, by which I mean, having intent of

purpose, a particular strategy of making that will enable the development critically engaged work beyond your initial 'playing' time. It would be helpful if developers can support this by enabling more documenting facilities such as recording multiple palettes, recording specific steps, note taking, and more facilities with the camera tool.

4. I would suggest the strongest work will be made if as artists we first develop a way to bring our own aesthetic/concept to the medium, rather than having the medium dictate a way of working. Importing photos as resources helps with this process. Perhaps having more possibilities of manipulating photographs and other resources can help develop these processes?

I would encourage you to find ways to make the tools/medium your own, it is here the possibilities lie. At this stage in its development, Tilt Brush is still very young, not much beyond its first baby steps, therefore community feedback is very valuable to this evolving technology. If tools are developed such as those suggested here, it will help VR painting software such as Tilt Brush to be considered beyond the entertainment realm as more as an important artistic tool and medium.

The Art world and VR

At present, the options for exhibiting work for an artist working with VR are limited, with many technological barriers to be traversed. In a gallery setting extra invigilators or assistants are often required to enable the public to don necessary apparatus, or to keep the technology and applications in check. During which long queues can build up, especially where demand is great,



Figure 4: Experimental Tilt Brush Painting in progress by the artist (2019)

acting as another deterrent. All of these issues can be very demanding for such institutes (financial/technical), and as a result impede the smooth delivery of the content to an audience. However, the rapid development of stand-alone HMD's and backpacks is slowly reducing the awkward and clumsy elements of these methods of delivery, suggesting easier solutions evolving for future programme provision.

From the perspective of an artist, I am more intrigued with technology that allows the content to be experienced and viewed outside of a VR environment governed by wearing or viewing through technology. Currently, I am experimenting with projecting VR paintings onto physical paintings. Emerging systems suggest exciting alternatives, such as water projection screens as used by the artist Joanie Lemercier [2] or LED holographic display systems. All of these technologies have been around for some time, but as the adoption of VR and AR across society is fast taken up, so too is the development of technology and the possibilities for novel methods to deliver innovative work to new audiences.

We are also starting to see the emergence of platforms that provide VR artwork for an audience to purchase, some in the way of a Netflix subscriptions model [1], or others more focused on the collector, based on a limited run of editions. This approach is starting to be supported by bit currencies and blockchain technology as a way of authenticating and limiting editions [3]. As such, it remains to be seen how well these platforms develop compared to traditional markets.

Discussions and Conclusions

Having worked within the creative industries, fine art and academia I can see key developments to Tilt Brush that would be beneficial to all these communities. Brushes could be developed to include liquidity, smearing, airbrushing, opacity/translucency, and impasto options. And developing ways of working that include group working, layers, user brush development, and live interaction could also be positive contributions.

Strong links can also be observed between VR creative processes and other areas of interest in TVX such as social VR, audience understanding, and cultural studies, which will be part of our future work.

Ultimately, I look forward to seeing a laboratory provision that allows users to apply their own laws of physics to Tilt Brush brushes. This may sound fantastical, but I suggest this is where VR is starting to take us, that is somewhere beyond our existing corporeal, embodied understanding, and perhaps by reconsidering how our materials behave, can allow us to test those limits, or at least our perception of them.

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