

# The Creation of the Artwork “Dementia Absorbs the Future”.

by Anthony van Bick

This artwork comes from the art genre “The Renaissance Moors” in which key mathematical concepts are illustrated using art.

Many members of the general public never encounter vector operators when used purely in a mathematical context but blending these concepts into art at least gives an opportunity for people to see these concepts in action.

It is impossible to thoroughly understand particle interactions without understanding Maxwell’s equations. To fully understand Maxwell’s equations requires an understanding of mathematical curl and to understand curl requires a thorough understanding of the vector product.

In general, the vector product is taught in A-level Mathematics courses. Sadly, even at this stage, the majority of the public will not even get to study this elementary yet crucial concept. Consequently, the theme “Shoals” was developed to illustrate the concept of mathematical curl. For artwork within this theme, the famous windmills of Consuegra in Spain are shown as vectors.

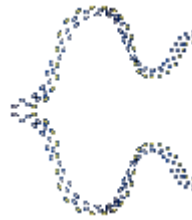
The artwork “All Alone Against the Jet Stream” shows a single imaginary Moors’ windmill standing up against a jet stream formed by the white windmills of Consuegra. This artwork demonstrates a mathematician’s stand against the arts bias of the British education system. With senior staff in schools and colleges overwhelmingly from backgrounds in the arts it puts into perspective any initiative to enhance the standing of mathematics in Britain.



“All Alone Against the Jet Stream”

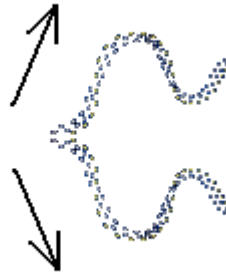
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Of course there are also jet streams operating in the southern hemisphere so this gave the idea of creating a more elaborate design. The intention was to create a form of tree diagram.



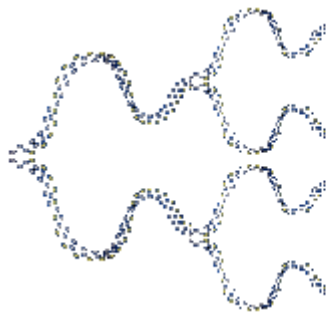
From this simple design, along with having produced artwork depicting dementia, came the idea of the splitting of the perception of time.

Living in the present



Living in the past

As time progresses, further splitting arises.



Your present self living in the present.

A version of yourself from the past living in the present.

Your present self transposed to the past.

A version of yourself from the past living in the past.

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The artwork progressed to “Days Become Dementia”.



Here, the splitting of the perception of time degenerates into a state of dementia illustrated using abstract ripples on a pool.

As dementia takes hold, the days become compressed and the mind feels suffocated due to isolation.

## How Does the Future Fit In?

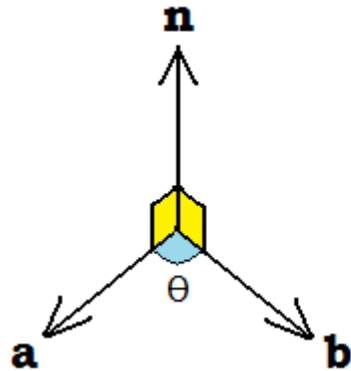
One approach would be to use three branches instead of two but this would be two-dimensional thinking.

It is at this stage that the vector product is introduced to great effect because it shows the future acting in a different dimension.

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## The Vector Product

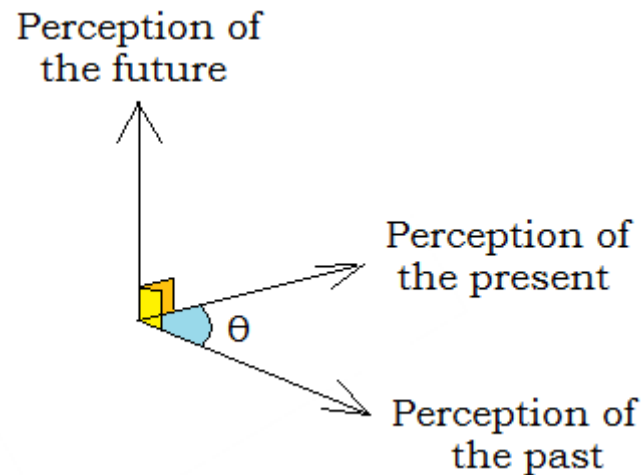
When two vectors are multiplied together two products are produced. One is a scalar quantity (just a number) and the other one is a vector which acts at right-angles to the plane which contains the first two vectors.



$$\mathbf{n} = \mathbf{a} \times \mathbf{b} = |\mathbf{a}| |\mathbf{b}| \sin \theta \hat{\mathbf{n}}$$

The vector  $\mathbf{n}$ , which is the vector product of the vectors  $\mathbf{a}$  and  $\mathbf{b}$ , acts in a direction which is perpendicular to the plane which contains the vectors  $\mathbf{a}$  and  $\mathbf{b}$ .

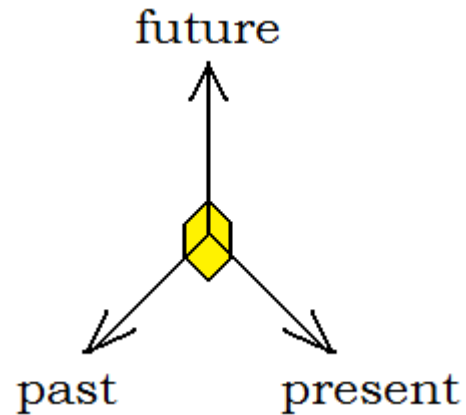
From an artistic point of view, take the perception of the future as the vector product of the perception of the past and the perception of the present.



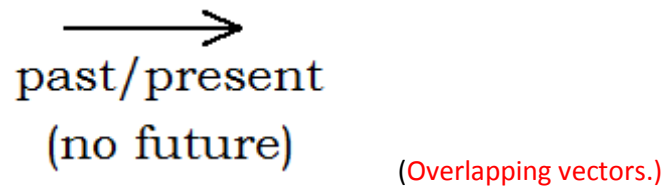
So the future comes out of the artwork!

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An interesting consequence of using the vector product for the inclusion of the future is that it implies that the future is strongest when the present is independent of the past. This fits in with the ideas of Krishnamurti and Bohm described in their book “The Ending of Time”. Simply become.



A further consequence is that when the present is completely consumed by the past then the future ceases to exist.



[ Note that as the days become compressed the magnitude of the vectors decreases which again reduces the perception of the future.]

So as dementia takes hold, the observer is dragged into the artwork!  
The observer gets sucked into the abyss as well.

It is now a matter of how to illustrate the future on the artwork which has been produced so far.

As it needs to come out of the surface of the pool at right-angles the obvious way is to use a fountain.  
This fountain arcs its way into the state of dementia demonstrating how the future eventually ceases to exist.

Another approach would be to use a lot of fountains of diminishing height.

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## The Fountain of the Future

Begin with a picture of the fountain in the main square of Carranque in Spain.  
Use picture editing facilities to match this with the style of the artwork produced so far.



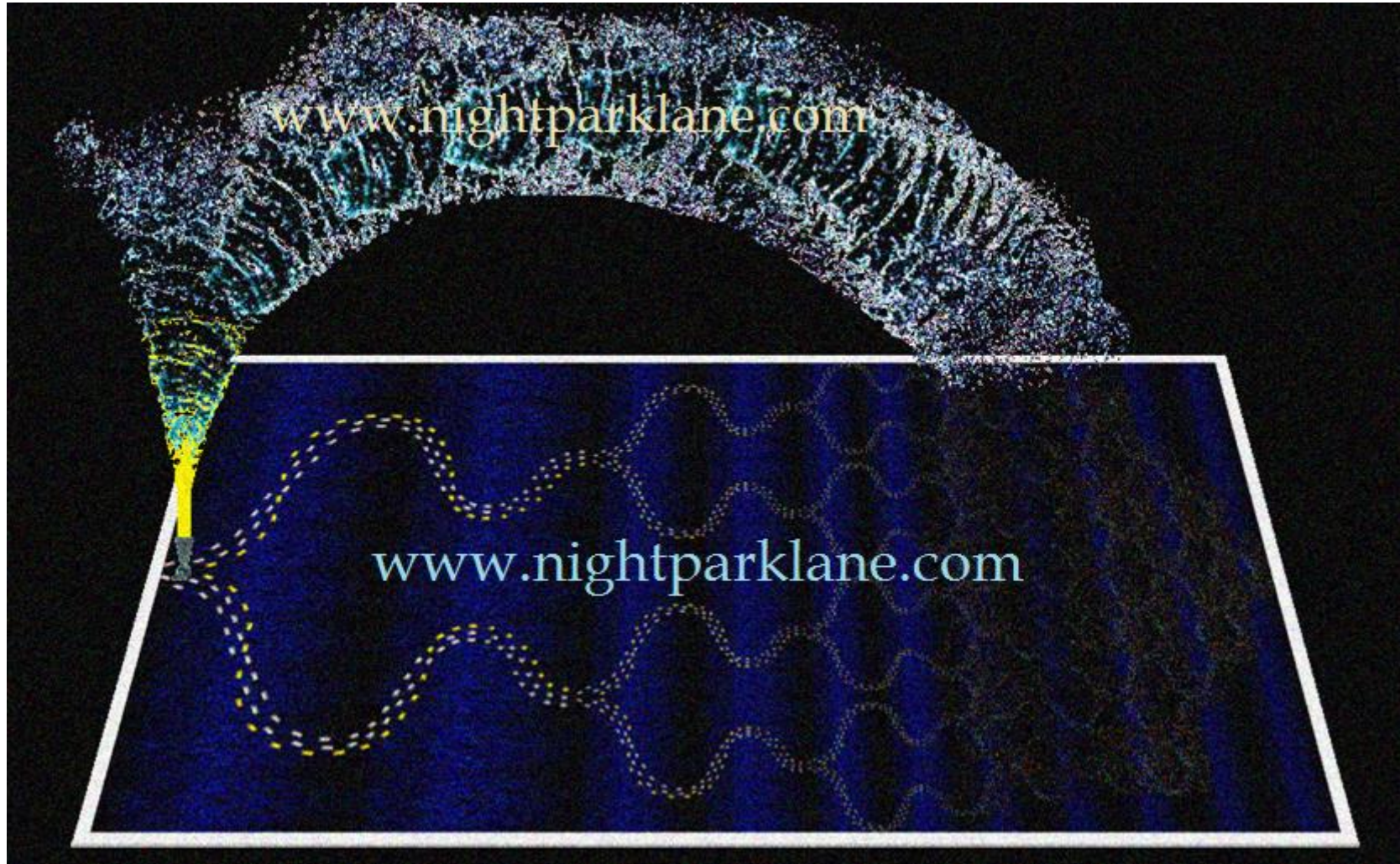
Use the rotation tool to help develop the arc of the fountain.





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The artwork progresses as the arc of the fountain is produced. [State of play at the end of September 1<sup>st</sup> 2017.]



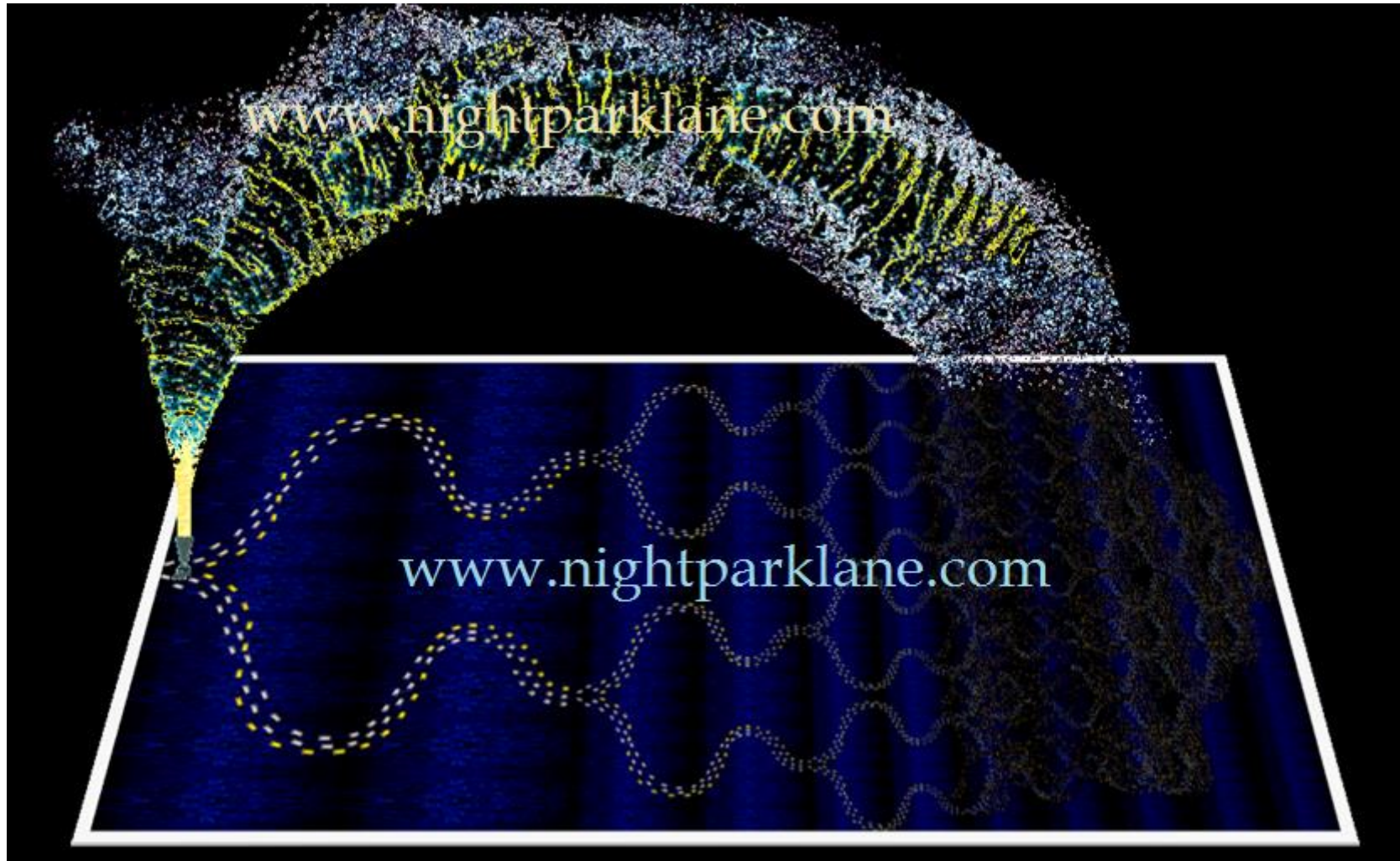
The fountain is coloured in using colour samples from La Copa “El Dorado”.

So the fountain is a representation of **ethereal gold**.



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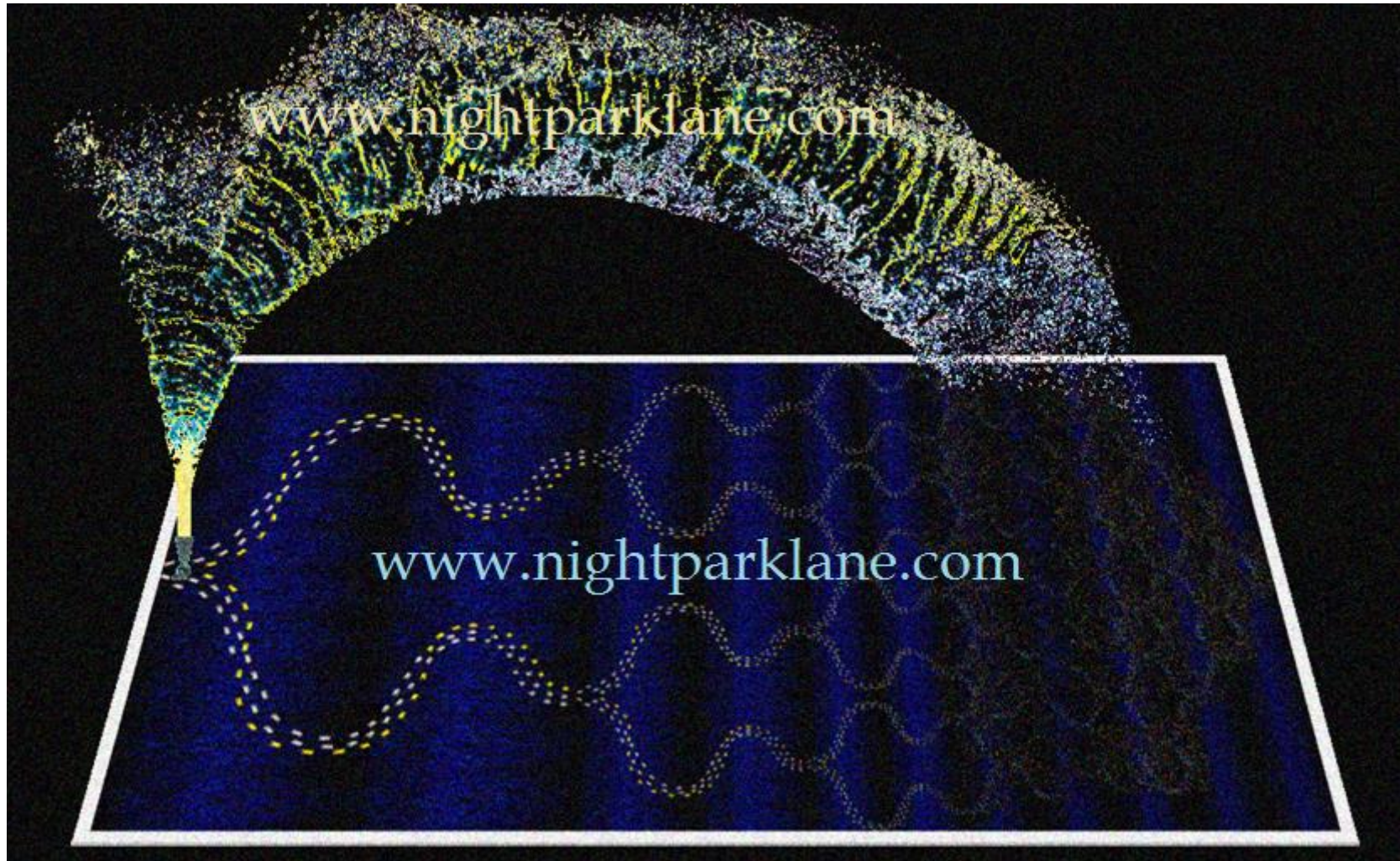
It took a further day's work to colour in the centre part of the fountain. [State of play at the end of September 2<sup>nd</sup> 2017.]





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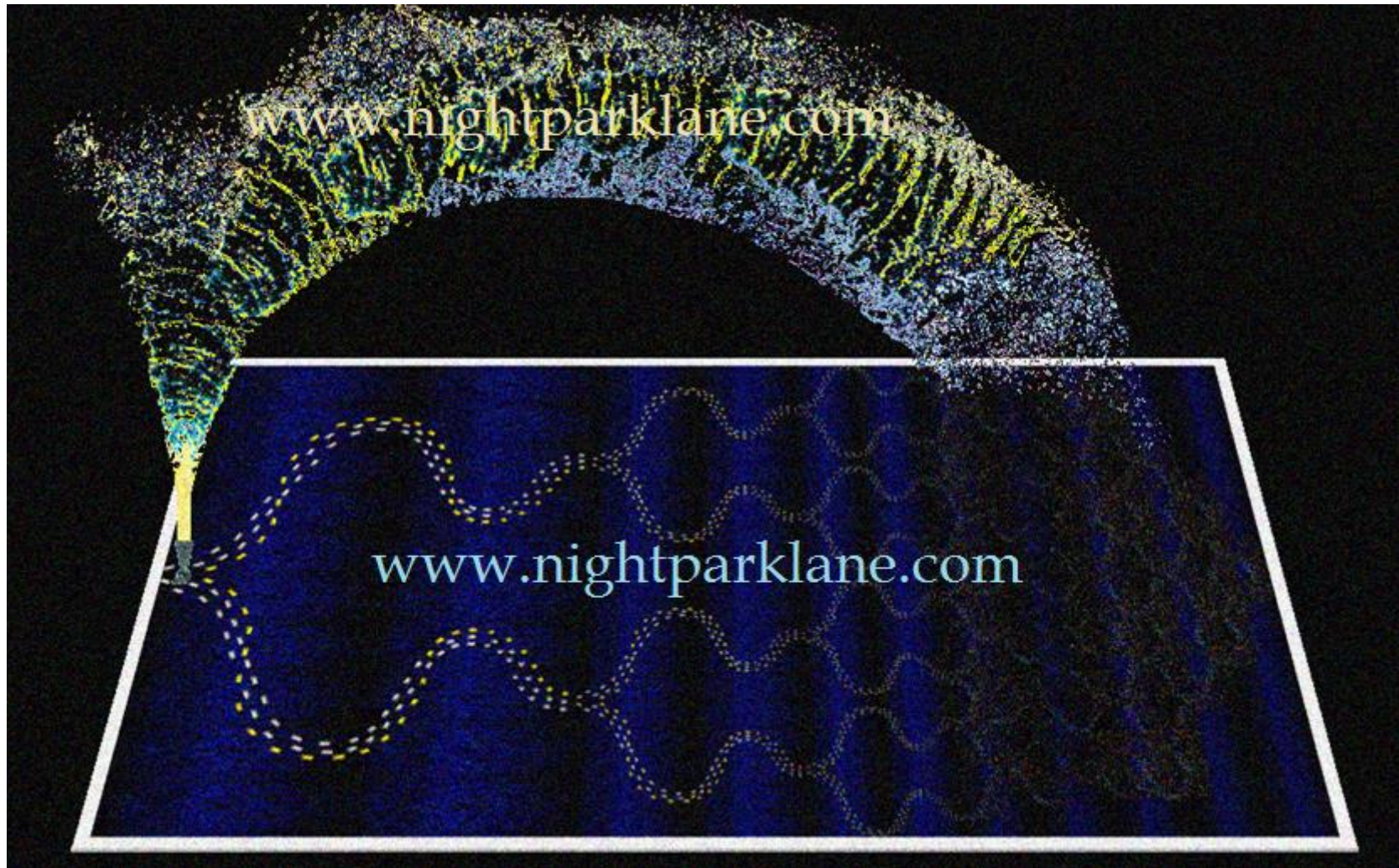
The top of the fountain is now coloured in. [State of play at the end of September 3<sup>rd</sup> 2017.]





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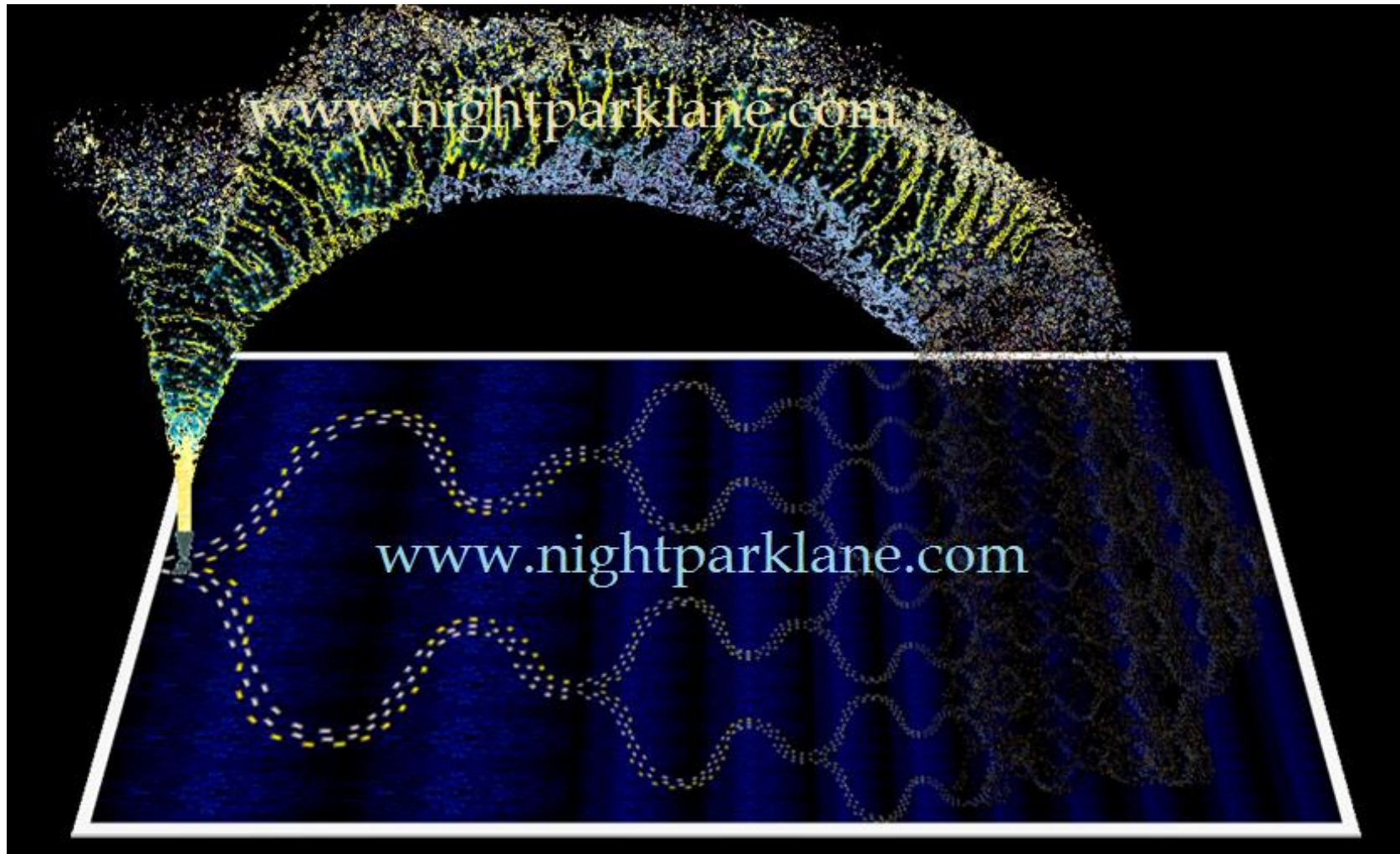
The lower part of the fountain arc is coloured in.





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Next, work was performed on the re-entry of the fountain into the pool.

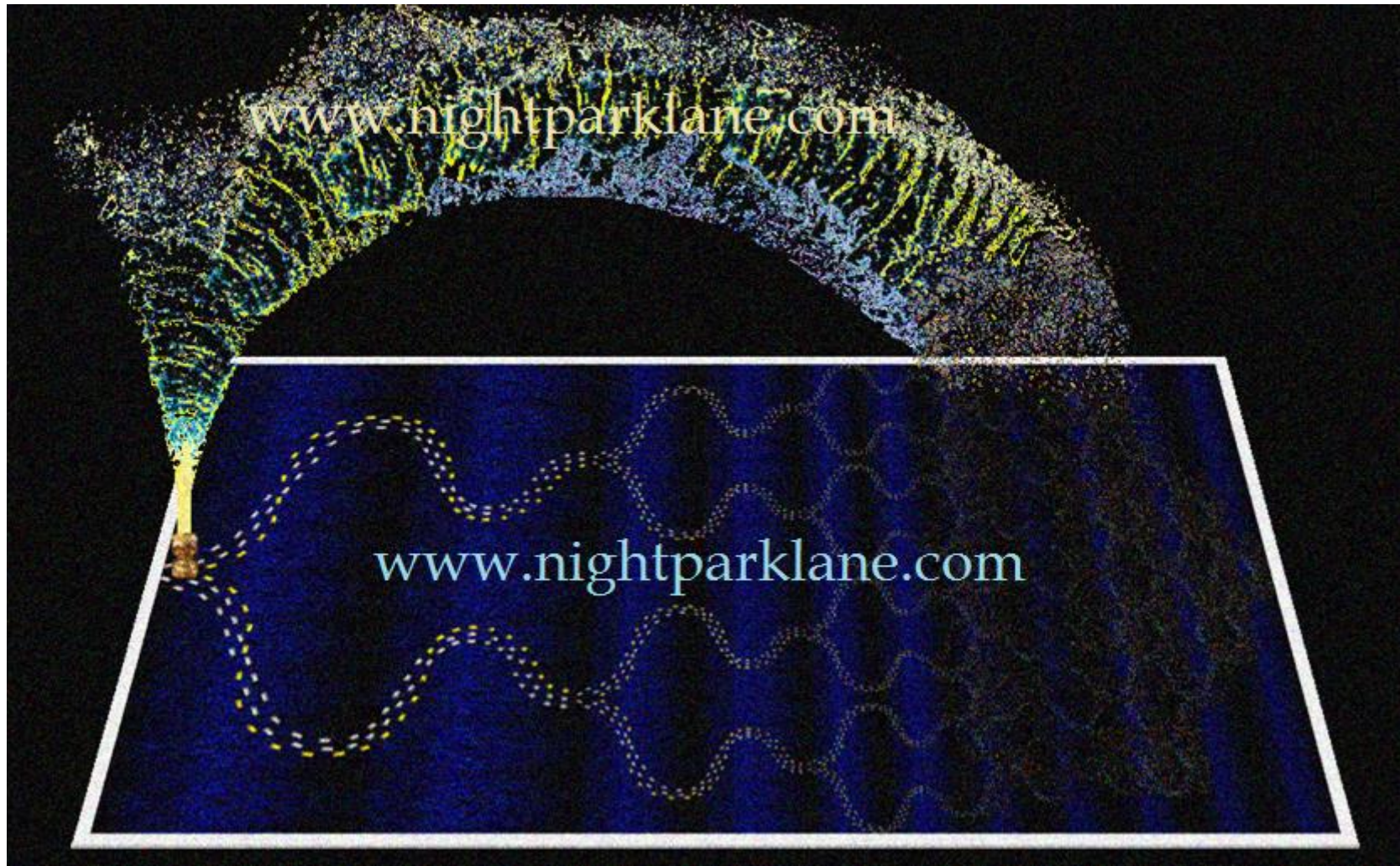


Artistic license is applied at this stage so that the ripples in the pool remain visible.



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Finally, gold splashes were added to the fountain spray and a gold fountain tap is included. [Final version: September 4<sup>th</sup> 2017.]



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## The Message

A person could face degenerating into a state of dementia within a two-dimensional world governed by the present and the past.

So there is nothing to lose by jettisoning the mind into another dimension to follow ventures in order to create an exciting future. The outcome of such ventures is not the key issue, since the end game of the future is inevitable, the mere fact that they are being pursued is success in itself.

The crucial thing is for people to take the initiative to follow their dreams, and to enjoy all the benefits and the beauty that can result, before it is too late.

Those people in society who prevent or oppose such ventures are responsible for exacerbating the detrimental effects of isolation.