

Johannes Vermeer : A generative artist ? So What ?

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Johannes Vermeer was a Dutch artist born in Delft (the Netherlands) on October 31st 1632, and died on December 16th 1675 at the age of 43 years old. Over the course of his life he was a successful painter locally around Delft and The Hague, but this modest celebrity was soon forgotten after his death.

He painted only few paintings of which only 36 are known to date. His paintings are often thought to be small but in reality are of varying sizes from 160 cm to 20 cm in greatest dimension. What is interesting is that they are sometimes at the same (or almost) dimensions. Especially in the series of interiors with the light coming through a window on the left, it is possible that the size's choice is not only linked to the fact that Vermeer use standard sizes.

It is not until 1866 that Vermeer becomes familiar with global fame. Thanks to Theophile Thore-Burger, a French journalist, whose art critic column propelled Vermeer onto the international scene. In 1842 when he saw the View of Delft in the Mauritshuis of The Hague and became an instant fan of the duct painter. He helped Vermeer's notoriety by publishing an essay attributing 66 works to the painter although 34 are universally attributed to him.

This notoriety coincides with the advent of photography. This parallel will lead many critics to blame Vermeer for his "photographic" style.

"It has been suggested more than once that the renaissance in the reputation of Vermeer in the second half of the 19th century may not have been unconnected with the invention and spread of photography." Will say Arthur K. Wheelock Jr., the author of Vermeer and the art of painting.

The likeness of Vermeer's paintings to photographs comes from the perfect illusion of space and depth, perspective, geometry and the importance of details. For example in the Music lesson, the front flap of the virginal can be compared to the original paper type and we can see that all the details of the pattern are present even if they are quite small. Also, in the Lacemaker, the threads of the lace she is shown working on are represented with an extreme delicacy, while the threads on the side are blurred with color spots.

An extreme truth of tonal value and respect of dark and light in the subject make his paintings close to some photographic work.

In 2001 David Hockney, the English painter, wrote a book called “Secret Knowledge: Rediscovering the Lost Techniques of the Old Masters”, besides the well known fact that linear perspective appears around the time of the Renaissance, Hockney affirms that the history of the renaissance parallels the history of optics. He will create what he called “the Wall” in his studio with images of great realistic art from 1400 until 1900. Observing a sudden rise in precision and realism around 1420, to which he associates with the birth of optics around this time.

With Charles Falco, professor of Optical Sciences at the University of Arizona, he postulates that concave mirrors could have been used in that period to project images.

For Hockney there are three parts to the story of art: the pre-optics period (awkwardness), the optics period (disappearance of awkwardness), and the post-optics (the return of awkwardness).

In 2002, an architect, Philip Steadman, wrote “Vermeer's Camera: Uncovering the Truth behind the Masterpieces” where he brings up the possibility that Vermeer was in fact using a camera obscura.

The camera obscura, precursor to the modern photographic camera, works similarly to the human eye. This device was well known for centuries and documented by Ibn al-Haitham in his Book of Optics in 1011–1021. Gemma Frisius in 1544, during a solar eclipse, drew the first representation of a camera obscura.

The theory that Vermeer used such technique can be founded in several ways:

Reflection: there are reflections on the lion's head motifs that adorn his chairs in several paintings that cannot be seen by naked eye.

In the “Officer and Laughing Girl”, there is a distortion in the perspective, “a photographic perspective”. The officer's head is about twice as wide as that of the smiling girl, while there are quite close.

There are no lines drawn beneath the painting. Vermeer do not make any drawing underneath his painting.

Philip Steadman finds common features in several paintings about the same size: the windows, the ceiling, the back wall and the floor. For example there is the same ceiling in the “The Music lesson”, the “Allegory of Faith”, the “The Art of Painting”; the same floor in “The Music lesson”, the “Allegory of Faith”, “The concert”, the “The Art of Painting”, the “Lady Writing a Letter with her Maid” and “The love letter”; We find the same type of window in height paintings.

Using reconstruction for the rooms in 3D and 2D, Philip Steadman, found the viewpoint, where Vermeer put his lenses if he uses the camera obscura. He will reproduce a model of Vermeer's studio, with dolls and furniture, and took pictures with photographic plate camera.

Tim Jenison, NewTek Founder and inventor, will bring light to two questions left by Philip Steadman. Using a classic camera obscura, how come the image is not mirrored? And inside a booth in semi darkness, how can Vermeer paint in color? "The problem with the camera obscura as Hockney described it, is that it could really only be used for drawing, tracing the projected image. You can't paint under a projection because the light being projected affects the color and value of the paint being applied. It is only accurate over a white surface."

Tim Jenison will perfect the classic Camera obscura by adding a concave mirror that will resolve the two problems left by Philip Steadman.

In his documentary Tim's Vermeer, Tim Jenson builds a room with the same dimensions as the one showed in "The Music Lesson". He will be able to repaint « the music lesson ». Jenison's project took more than four years. His painstaking results are impressive for an amateur.

So what?

Well, this discussion brings up the eternal question asked about art. Does technique matter more than content?

Clearly, we will never know for sure whether Vermeer did or did not use the technology of his time to achieve the best possible result. What is clear however is that Vermeer's technique does not affect the content of his work. It provides a glimpse into a time period that is remote to ours and establishes a connection between our ancestors and us that only art can achieve.

Whether our Homo sapiens ancestors used stencils to paint the walls of the Lascaux cave does not seem to affect our perception of their works.

The only question, or blame, that could be brought up to Vermeer's door is whether or not he was forefront with his use of techniques such as a camera obscura to achieve the results he wanted.

In conclusion, it is fascinating to think of Johannes Vermeer as a geek who was at the cutting edge of technology in 17th century Holland. It seems unlikely that Vermeer's possible use of optics to achieve a high level of details will impact how the public views his work. It reemphasizes, however, Vermeer's commitment to the essence and the emotions of a scene rather more than anything else.

- (1) Secret Knowledge: Rediscovering the Lost Techniques of the Old Masters. David Hockney
- (2) Vermeer's Camera: Uncovering the Truth behind the Masterpieces. Philip Steadman
- (3) Tim's Vermeer - Film (2013)