

*Christie's has announced that it will auction on November 15 the only painting by Leonardo da Vinci in private hands, Salvator Mundi. Here is an excerpt on that painting from Walter Isaacson's new biography, Leonardo da Vinci, published in October.*

## ***SALVATOR MUNDI***

In 2011 a newly rediscovered work by Leonardo surprised the art world. It was a painting known as *Salvator Mundi* (Savior of the World), which showed Jesus gesturing in blessing with his right hand while holding a solid crystal orb in his left.

The *Salvator Mundi* motif, which features Christ with an orb topped by a cross, known as a *globus cruciger*, had become very popular by the early 1500s, especially among northern European painters. Leonardo's version contains some of his distinctive features: a figure that manages to be at once both reassuring and unsettling, a mysterious straight-on stare, an elusive smile, cascading curls, and sfumato softness.

Before the painting was authenticated, there was historic evidence that one like it existed. In the inventory of Salai's estate was a painting of "Christ in the Manner of God the Father." Such a piece was catalogued in the collections of the English king Charles I, who was beheaded in 1649, and also Charles II, who restored the monarchy



*Salvator Mundi.*

in 1660. The historical trail of Leonardo's version was lost after the painting passed from Charles II to the Duke of Buckingham, whose son sold it in 1763. But a historic reference remained: the widow of Charles I had commissioned Wenceslaus Hollar to make an etching of the painting. There were also at least twenty copies painted by some of Leonardo's followers.

The trail of the painting reappeared in 1900, when it was acquired by a British collector who did not suspect that it was by Leonardo. It had been damaged, overpainted, and so heavily varnished that it was unrecognizable, and it was attributed to Leonardo's student Boltraffio. The work was later catalogued as a copy of Boltraffio's copy. When the collector's estate sold it at auction in 1958, it fetched less than one hundred dollars.

The painting was sold again in 2005, to a consortium of art dealers and collectors who believed that it might be more than just a copy of a copy of a Leonardo painting. The subsequent authentication process reveals a lot about Leonardo's work. The consortium brought it to a Manhattan art historian and dealer named Robert Simon, who oversaw a five-year process of cleaning it carefully and quietly showing it to experts.

Among those consulted were Nicholas Penny, then director of London's National Gallery, and Carmen Bambach of New York's Metropolitan Museum. It was brought to London in 2008 so that it could be directly compared with the National Gallery's version of *Virgin of the Rocks* by other experts, including Luke Syson, who was then curator of Italian paintings at the gallery, David Alan Brown of Washington's National Gallery of Art, and Pietro Marani, professor of art history at the Politecnico di Milano. And a call went out to the dean of Leonardo scholars, Martin Kemp, a professor at Oxford known for his scrupulous scholarship. "We've got something I think you would want to look at," Penny told Kemp.

When Kemp saw it, he was struck by the orb and hair. "It had that kind of presence that Leonardos have," he recalled. But it was not merely gut, intuition, and connoisseurship that authenticated *Salvator Mundi*. The painting duplicated almost precisely the 1650 Wenceslaus Hollar engraving that had been made from the original; it had the same snaking and lustrous curls, the same Leonar-

desque knot pattern on the sashes, and the irregular pleats on Christ's blue cloak that are also in Leonardo's preparatory drawings.

These similarities, however, were not dispositive. There were many copies made by Leonardo's followers; was it possible that this newly rediscovered painting was also a copy? Technical analysis helped to answer that. After the picture was cleaned, high-resolution photos and X-rays helped reveal a pentimento showing that the thumb of Jesus' right hand had originally been placed differently. That is not something a copyist would need to do. In addition, shining an infra-red light that reflected off the white priming of the panel showed that the painter had pressed his palm against the wet paint above Christ's left eye to achieve a sfumato blurring, which was a distinctive Leonardo technique. The work had been painted on walnut, just like other Leonardos of the period, in many very thin layers of almost translucent paint. By that point most of the experts agreed that it was an authentic Leonardo. As a result, the art consortium was able to sell it for close to \$80 million in 2013 to a Swiss art dealer, who then resold it to a Russian fertilizer billionaire for \$127 million.

Unlike other *Salvator Mundi* paintings, Leonardo's offers the viewer shifting emotional interactions, similar to those found in the *Mona Lisa*. The misty aura and blurred sfumato lines, especially of the lips, produces a psychological mystery and an ambiguous smile that seems to change slightly with each new look. Is there a hint of a smile? Look again. Is Jesus staring at us or into the distance? Move from side to side and ask again.

The curling hair, coiled with energy, seems to spring into motion as it reaches the shoulders, as if Leonardo were painting the eddies of a flowing stream. They become more distinct and less soft as they reach the chest. This stems from his studies of acuity perspective: objects that are closer to a viewer are less blurred.

Around the time he was working on *Salvator Mundi*, Leonardo was doing his optics studies that explored how the eyes focus. He knew that he could create the illusion of three-dimensional depth in a painting by making the objects in the foreground sharper. The two fingers on Christ's right hand that are closest to us are drawn with a

crisper delineation. It makes the hand pop out toward us, as if it's in motion and giving us a blessing. Leonardo would reuse this technique a few years later with the pointing hands in two depictions of Saint John the Baptist.

There is, however, a puzzling anomaly in the painting, one that seems to be an unusual lapse or unwillingness by Leonardo to link art and science. It involves the clear crystal orb that Jesus is holding. In one respect, it is rendered with beautiful scientific precision. There are three jagged bubbles in it that have the irregular shape of the tiny gaps in crystal called inclusions. Around that time, Leonardo had evaluated rock crystals as a favor for Isabella d'Este, who was planning to purchase some, and he captured accurately the twinkle of inclusions. In addition, he included a deft and scientifically accurate touch, showing he had tried to get the image correct: the part of Jesus' palm pressing into the bottom of the orb is flattened and lighter, as it would indeed appear in reality.

But Leonardo failed to paint the distortion that would occur when looking through a solid clear orb at objects that are not touching the orb. Solid glass or crystal, whether shaped like an orb or a lens, produces magnified, inverted, and reversed images. Instead, Leonardo painted the orb as if it were a hollow glass bubble that does not refract or distort the light passing through it. At first glance it seems as if the heel of Christ's palm displays a hint of refraction, but a closer look shows the slight double image occurs even in the part of the hand not behind the orb; it is merely a *pentimento* that occurred when Leonardo decided to shift slightly the hand's position.

Christ's body and the folds of his robe are not inverted or distorted when seen through the orb. At issue is a complex optical phenomenon. Try it with a solid glass ball. A hand touching the orb will not appear to be distorted. But things viewed through the orb that are an inch or so away, such as Christ's robes, will be seen as inverted and reversed. The distortion varies depending on the distance of the objects from the orb. If Leonardo had accurately depicted the distortions, the palm touching the orb would have remained the way he painted it, but hovering inside the orb would be a reduced and inverted mirror image of Christ's robes and arm.



Image through a crystal orb.

Why did Leonardo not do this? It is possible that he had not noticed or surmised how light is refracted in a solid sphere. But I find that hard to believe. He was, at the time, deep into his optics studies, and how light reflects and refracts was an obsession. Scores of notebook pages are filled with diagrams of light bouncing around at different angles. I suspect that he knew full well how an object seen through a crystal orb would appear distorted, but he chose not to paint it that way, either because he thought it would be a distraction (it would indeed have looked very weird), or because he was subtly trying to impart a miraculous quality to Christ and his orb.