

THE **Making** OF:

TMRW GALLERY

(The Mixed Reality Workshop)



TMRW (The Mixed Reality Workshop) is a not-for-profit company, born out of a collaboration between contemporary artists and creative technologists at William Kentridge's Centre for the Less Good Idea, an interdisciplinary incubator space for arts based in Maboneng, Johannesburg.

COMPANY

The aim of TMRW is to create and exhibit works embracing new technologies by emerging and established contemporary visual artists.

TMRW collaborates with the creative technologists at The Digital Foundry who use various technologies around industry 4.0, the likes of Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR) and 3D Printing and soon hopes to introduce the Internet of Things (IoT), Robotics and Artificial Intelligence (AI) in the mix.

Using a variety of software tools, TMRW is researching and utilizing a range of disruptive technologies and new emerging tech and introducing these into the art space as a form of creative exploration. TMRW focuses on the emergence of these technologies and uses art as the vehicle to drive awareness and education on the topic.

ABOUT THE PROJECT

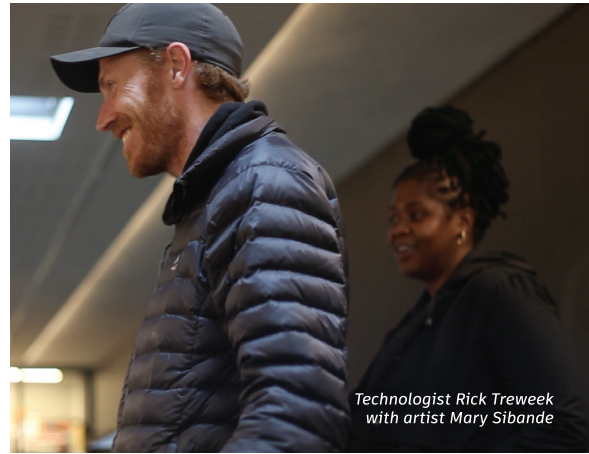


Client: **TMRW**

Software Used: **Autodesk Recap, Meshmixer, Fusion 360 & TinkerCad**

In the creative workflow, the journey is as much part of the process as the end result. Thus, exploring different technologies and pushing the boundaries of what they are capable of, is an integral part of the progress according to Rick Treweek, technologist and digital artist at The Digital Foundry. *"Pushing the tech does not always have an end goal; it's a process of continual evolution and the journey becomes an equally important component of the art."* One of TMRW's main objectives is to make the technology accessible to artists while keeping new media and contemporary visual art accessible to the public.

For Ann Roberts, Director at TMRW, it's also about educating audiences. *"Part of the role of the workshop is to find, educate, inform and grow the audience for this kind of artwork. The more people come to the gallery, the more people will become familiar and comfortable*



Technologist Rick Treweek
with artist Mary Sibande

with the technology." TMRW also gives artists access to the technology so that they can become comfortable with these new digital tools. *"VR drawing tools work almost like the real tools they mimic, but artists still need to wrap their heads around this new medium,"* says Roberts.

"The technology should not distract from the content of a work of art exhibited in AR or VR, it should be the vehicle and enhance the content idea" Ann Roberts, Director TMRW Gallery

PROJECT PICTURES



Viewer watching an
African Artfilm in 360° VR



Rick Treweek talks about working
with artist William Kentridge
and VR drawing



Technologist Gareth Steele working with a 3D Scan

WORKFLOW



As with most creative processes, creating art in a virtual world requires an array of tools and technologies. This is partly because there are no standards or universal technologies available for this new medium.

More importantly, the creative process in itself is not something that can be bound or constrained. Putting it succinctly, Treweek says there are no mistakes in the journey to creating art, throughout the process you are continually experimenting. It is for this reason that Treweek tinkers with various software and hardware tools on his creative journey. As 3D printing is a big part of his digital art, Treweek says Autodesk Recap is an invaluable tool to scan large objects while Meshmixer is used for 3D printing.

He has found particular value in Fusion 360 to create low polygon objects for print. He also uses it to assist him with creating nuts and bolts for 3D print, something that is not easy to do with other CAD packages. Even the free app, Autodesk TinkerCad, has found a use in the digital art world, by experimenting and testing on virtual Arduino boards. ***“There is no more risk in burning the circuitry when tinkering goes wrong,”*** says Treweek. This not only saves money for cash-strapped artists but also improves the learning curve significantly.



Digital Scan of a sculpture by artist Mary Sibande

A CRESCENDO OF ECSTASY

For TMRW's most recent artistic showcase, the gallery, worked with renowned South African artist Mary Sibande. This new exhibition epitomizes the goals TMRW sought out to achieve by working closely with artists to not only extend their creative practice but also bridge the divide between technology and art.

Over the course of a few months, TMRW and The Digital Foundry created the perfect incubation space for Sibande to play, explore, experiment and create with various technologies, spending time developing new modes of storytelling, image making and installation experiences. Out of this exploratory nature came about a fantastical energy that saw all parties involved utilize a range of tools to create a VR portrait of Sibande's latest work. Titled A Crescendo of Ecstasy, the artwork uses 3D modelling, photogrammetry, 3D animation and a mixture of other technologies to transport the viewer into an immersive one on one encounter with tech, art, and fantasy.

CHALLENGES / BENEFITS



CHALLENGES

When an artist creates art in an AR or VR environment, the device used to view the art is almost always a part of the art itself.

This means that the hardware and the art are locked together. Should the hardware fail, the art could be lost forever. The TMRW is invested in solving the problem of hardware and software decay in this ever-evolving technology-driven world.

"There is a global conversation around buying digital artwork and the longevity and accessibility thereof," says Roberts. This is a problem that is not particularly new, but the virtual elements of digital art are making this a lot trickier to manage.

BENEFITS

By building the technology foundations and making it available to artists, the gallery is in a unique position to continually evolve and adapt to the creative needs of artists.

The more people visit the gallery and experience the tech, the more people will become familiar with it and hopefully immerse themselves in the experience.

Treweek also sees this as a great opportunity for 3D printing, giving visitors and art fans the opportunity to buy trinkets and souvenirs based on the digital artwork they viewed.

EDUCATION



More than showing off the technology, for TMRW and The Digital Foundry, it's about showing people another world of art and creativity that can be experienced.

By transforming audiences who experience VR and AR art for the first time, TMRW hopes that the focus will shift away from the technology, and purely be on the art.

Once the technology becomes invisible, the art will again become the true focal point. Similarly, giving artists the space to play and experiment, means they don't have to spend money they often don't have, on early or untested technologies to adopt.



Rick Treweek holding up a 3D printed miniature sculpture