



# Patrons in the virtual picture

*Advances in computer and 3D technology can offer more interactive experiences for gallery-goers, sometimes without even visiting the gallery, writes **Rosemary Sorensen***

**W**HAT will happen when the world's most popular art museums become just too overcrowded for a viewer to get a decent look at an artwork, let alone enjoy the luxury of slow, uninterrupted contemplation?

With the rapidly improving quality of 3D virtual reality modelling, it may be that the experience of going online to a gallery website will become more appealing — and less frustrating — than the real thing.

“I can imagine a lot of people saying I want my art the way it is, thank you,” says Joanne Tompkins, one of the people behind a new interactive 3D modelling tool for art galleries and theatres.

“But museums have to look at other ways of engaging, particularly with younger viewers and users, and interactivity really is the way of the future.”

Tompkins is head of the University of Queensland's School of English, Media Studies and History. She and three colleagues (Laz Kastanis, Sean Ivermee and Darren Pack) have joined with UniQuest, a company within the university that assists in commercialising innovation enterprises, to market Ortelia Interactive Spaces.

Ortelia, named after a 16th-century Flemish geographer credited with putting together the first modern world atlas, was originally developed as a tool for research on how theatre spaces are used. It has blossomed into a program that offers cultural sites a way to extend both the life and the reach of exhibitions.

“The idea isn't to replace the real,” Tompkins says, “but to make the experience as close to the real as possible.”

Ortelia maps spaces, creating a virtual environment on your computer screen that is something like the imaginary worlds you see on video games; only these spaces are exact replicas of real spaces, down to the lightbulbs and power points. A viewer can approach the gallery and enter the building, where an exhibition will be displayed exactly as it is on site. It is possible to create an avatar — a figure within the 3D program — and walk your avatar around the exhibition, pausing to click on dialogue boxes for further information and to hear commentaries on the exhibits. A feature being developed will take the virtual experience one step further, allowing viewers to enter the work of art; into the room, say, that is depicted in a painting.

The program has already been trialled with the Our Way exhibition of Lockhart River artists, which was launched at the University

of Queensland Art Museum in 2007 before touring to Singapore and a couple of venues in the US. While one of the ways it can be used is on site — so that a visitor to the exhibition may refer to a computer terminal within the gallery for information about what they're seeing — both Tompkins and UQ art museum director Nick Mitzevich think Ortelia's most useful capacity is to provide preview and post-view educational material.

“I love the fact it's a really engaging teaching tool,” Mitzevich says. “It will never replace the visit, but it's an excellent way to supplement it, and you can also build in educational elements that work for the gaming generation.

“Anyone who uses it will find it quite comfortable because it uses the language of gaming, but it isn't a game.”

The websites of most major galleries are already very sophisticated, with a plethora of images and information about exhibitions and collections. The Prado Museum in Madrid has developed a project where it takes 8000 images of a painting, using Google Earth technology, allowing the viewer to focus on close detail. It also has 3D images of the gallery's interior spaces.

Ortelia goes a step further, actually putting the detailed interactive images of the artworks on the walls of the 3D model, as they appear in reality.

Tompkins says Ortelia gives small and regional galleries the capacity to capture and showcase significant exhibitions.

One of the enthusiastic users of Ortelia during its development period is Caloundra Regional Gallery. Not only have it used it to showcase its Sunshine Coast Art Prize, promoting artists beyond the boundaries of the shire, but it has also used Ortelia in a way that, Tompkins says, has the potential to revolutionise exhibition curating.

“The model curators use will become obsolete. At the moment, many designers are not comfortable with computer design, and hence the cardboard boxes,” she says, referring to the tiny scale models gallery designers build in preparation for the hanging of a new show. “But this is so easy to use, all the curator has to be familiar with is how to use a mouse.”

Colour design, which is becoming increasingly important in exhibition hangs, will be made enticingly simple: a curator can move into a virtual room, with paintings positioned on a wall to exact measurements, then try various wall colours. You can even change the angle of walls, allowing more risky decisions about the way a space is used. This means



**Australian**  
Monday 13/4/2009  
Page: 26  
Section: Arts & Entertainment  
Region: Australia Circulation: 137,000  
Type: National  
Size: 778.19 sq.cms.  
Published: MTWTF

Brief: UNIQUEST  
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more experimentation is possible, without the curators encountering some of the problems associated with placing fragile and expensive artworks. They will know exactly what looks best before work begins in the gallery space.

Mitzevich says it will free up curators to “avail themselves of many more options, trialling various things, encouraging them to break new ground”.

It also goes beyond what curators and designers can do at present. The Ortelia team has been working with Caloundra Gallery on a long-term project involving the oldest remaining homestead on Queensland’s Sunshine Coast, Bankfoot House, which is earmarked for heritage development.

By going through the process of careful on-site measurement and photography, coupled with computer modelling based on existing historical photographs, Ortelia has been able to provide information about the building that was not previously available.

“Creating a model for the whole homestead,” Tompkins says, “the modellers were able to provide the heritage officer with information about what it was likely to have looked like, and then worked with him on how to make it into a museum. By putting Bankfoot House into a virtual context, and an interactive environment, it’s providing them with ideas about how to develop exhibitions.”

Tompkins began working on the 3D modelling project about eight years ago, following her own research interests, which are in the uses of space in theatres. She says theatre people were relatively slow to pick up on the potential of the program, possibly restrained by the cost, even though, she says, the project turns out to be cost efficient.

“The more intricate and complicated the building, the more expensive the initial work is,” she says. “It’s the outlay for the model (the measurement and photography) that is the most expensive. But after that, the process is much cheaper.”

The Ortelia team have also been working on generating a model of a London theatre from the time of Shakespeare, reconstructing

it from sketches and descriptions. They have been able to show that some of the drawings of the Rose Theatre, which scholars have been relying on, were clearly incorrect: the modellers discovered that, if it had been built as the sketches suggested, it would have fallen down.

They are also now collaborating with a British researcher who has been working on an actor-training method that uses motion-capture imagery to track how actors move in space. By combining simulated spaces with the computer-generated images of people, Tompkins believes they have come up with a powerful analytical tool for onstage performance.

It’s taken almost a decade, but Tompkins now sees all kinds of uses of Ortelia for cultural sites.

“It wasn’t so much resistance,” she says of the initial bemused reaction to her 3D modelling project, “it was that people could not really engage. I would never say it was before its time, but we hit on the idea before other people were doing it, and it just took a while for theatres, and then galleries, to see what it could do.”

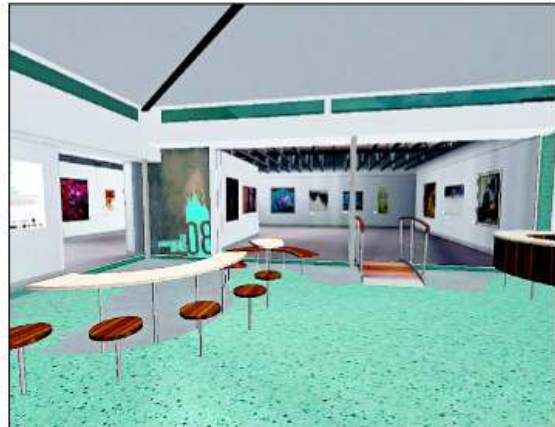


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**Cultural spaces on screens:** Areas of a gallery as rendered by Ortelia imaging, a technology in part developed by Queensland academics