**Μάθημα 1ο : Ψηφιακά εκθέματα**

1.

Διάλεξη της **Sarah Kenderdine**

<https://www.youtube.com/watch?v=VXhtwFCA_Kc>

**Η Sarah Kenderdine** είναι αρχαιολόγος και εργάζεται ως επιμελήτρια σε μουσειακές εκθέσεις. Ειδικεύεται στις νέες τεχνολογίες απεικόνισης, οι οποίες συνδέουν το ενδιαφέρον για την προβολή της πολιτισμικής κληρονομιάς με νέες τεχνολογίες και καλλιτεχνικές πρακτικές.

 Απομαγνητοφώνηση της διάλεξης:

We often hear that to discover something new we must study the old.  To invent the future we must understand the past.  The poet TS Eliot helps us reframe these ideas.  He reminds us that tradition cannot be possessed it must be reinvented and rediscovered by each generation.  My passion is rediscovering and reinventing tangible and intangible heritage as sensory experiences.  I do this through a combination of art and new technologies. I'm fortunate to work with a team of very talented people and in collaboration with diverse cultural communities. Together we bring heritage to life in museums across the world.

This work is propelled by a sense of urgency - the cultural landscapes that inspire me are under increasing threat.  Politically motivated destruction of heritage has been with us for 1000s years; the climate change catastrophes are increasing at alarming rates. Looting and theft are equally destructive of our cultural fabric and natural disasters reek havoc, and mass tourism is threatening to engulf those places that we hold most dear.  In these confronting times we must find strategics not only to preserve our heritage, but to let its stories to be rediscovered and reinvented.  This both an artistic and technical challenge and at the centre of the work that I create new imaging technologies allow us to capture the world at unprecedented resolutions.

Laser scanning for example collects billions of points to represent places such as these heads at Mount Rushmore.  We can create precious objects in 3D and peer inside to see what we could not see before; and we can scan artworks at such high resolution that when we zoom in [and we are still zooming, and still zooming] when we zoom in, we can see more than the naked eye can see.  But these new imaging technologies alone are not enough to bring heritage to life in ways that are profound and unforgettable.

And it's about creating new narratives of engagement that's at the heart of the journey I want to take you on today.  We begin in the Dunhuang caves of the Gobi desert of northernmost China.  At the nexus of the Silk Road this world heritage site contains 492 caves and 45,000 square metres of mural paintings and over 2,400 statues they were crafted by Buddhist monks over a period of a thousand years.  It's a sublime art treasury that's like nothing else in the Chinese Buddhist world.  These caves are under serious threat from tourism and climate change.  There is a massive preservation effort underway there; sixty fulltime photographers are working.  It takes three months to image a single cave.  Pure Land inside the Mogao grottos at Dunhuang is staged in a 360 degree 3D interactive enclosure.  It's ten metres across and four metres high and it allows over 30 people a one to one scale experience of being inside the caves.

This work starts with a browser of significant caves.  We enter cave 220 and simulate what it's like to be there now.  If you're with a guide he will be using a LED torch and revealing only fragments of the murals to you. The virtual world however is very powerful and we can navigate it.  We created a very high resolution magnifying glass that allows you to examine these murals in great detail.  Here you are looking at the sutra of the medicine buddhas on the north wall of the cave.  Using pigment studies, at Dunhuang Academy, we recoloured the buddhas to give an impression of what they would have originally been like.  And we modelled many of the elements in the painting including the instruments of thirty two (32) musicians that appear there.  [This is obviously a harp, coming from Central Asia] And we filmed dancers in 3D in a blue screen studio and inserted their video into the scene as well.  –

[5:20](http://www.youtube.com/watch?v=VXhtwFCA_Kc&t=5m20s) Cave 220 is closed to public permanently.  Of the 492 caves at Dunhuang there are only 30 open to the public.  This virtual representation of the cave (no. 220) has allowed hundreds of thousands of people to experience it worldwide.  Taking the laser scan, the augmented reality version of this work, prints this laser scan on the walls of an exhibition booth at exactly the same dimensions as the real cave.  This allows people to navigate inside the virtual model at one to one scale and examine all the details in extremely high resolution.  It's like a window on the world.

This work [Pure Land] is particularly appealing for two phenomenon.  The first is the way that it creates a social dynamic around a single screen and this is at the core of the museum experience.  The second is the way in which it becomes a place for virtual tourism.  It's an interface for all ages.  Young children, middle aged ladies, grandmother and grandchild (grandmother abandons grandchild and takes off with the screen).   When I was a child I was dyslexic and I lived in a world of images and sound, rather than the world of words.  So it's particularly important to me that the future of interpretation is not constrained to a multitude of text, but it's necessarily more democratic, and open to multiple readings.

Moving from ancient China to historic India, Place-Hampi is an artwork that was commissioned for France India Year in 2006 and then toured the world since then.  Hampi is both a monumental world heritage precinct and a vibrant centre for contemporary pilgrimage.  And this artwork recombines 26 square kilometres of this extraordinary terrain in a 3D panoramic imaginary.  It uses a very rare camera, there are only four cameras like this in the world.  It creates a left and right eye image which are drum scanned to create 3D panoramic worlds.  It's staged in a 360 degree screen which has a motorised platform at the centre.  This allows visitors to rotate their field of view in 360 degrees.  It's a work for about 25 or 30 people where one person leads a journey of discovery through the many wonderful locations at Hampi.   There is a microphone on the platform, and visitors, if they speak into it, release a Sanskrit text in the world, coming from chapter 13 and 37 of the Ramayana, to do with the gathering of the monkeys at Kishkinda.  When they discover a location of interest they go inside.  Some of these are augmented with computer graphics, by Indian artists and animators.  And the music is contributed by Dr L Subramaniam, the Carnatic violin superstar [that you can hear faint traces of].  This work has finally returned to India.  And, it's now located at Kaladham, in a vibrant cultural precinct that has been built there.  This is both a celebration of Hampi and of Carnatic culture.  So on your next visit, it's just 25 kilometres from the site itself.  –

[9:30](http://www.youtube.com/watch?v=VXhtwFCA_Kc&t=9m30s) So the last two examples talked about ways in which cultural landscapes can be brought to life, but an important aspect of my work is related to objects.  And here you are looking at a small portion of the 18 metre scroll painting Pacifying the South Sea China Pirates.  It's an icon item in the Hong Kong Maritime Museum.  And it tells of the bloody encounters between government forces and pirates in the late 1800s in the south China seas. It's again staged in a 360 degree screen.  This time the scroll is enlarged over 20 times.  55 animated events play out over the 360 degree screen.  These unfold the scrolls narrative in a series of vignettes as the sea mists open and close.  The ability to use animation and magnification are what allow us to change the scrolls narrative into a compelling action drama.  So moving from a single object to many objects - we know at most museums in the world there is only a fraction of the collection on display.  At the British Museums it's only 0.4 percent.  Most of the treasures are hidden from view so we need new strategies to be able to access our cultural collective of our memory.

The video I'm about to show you has never been seen in public before and I believe it's something that could change the nature of museum visitation, museum experiences.  It is a massive data browser for Museum Victoria, in Australia, and it recombines over 100,000 objects from the collection.  It links them together, you can examine them, at one to one scale.  And you can make connections between indigenous material, social history and the natural sciences.  It's staged again in a 360 degree 3D environment.  It will be installed in the middle of next year on permanent display.

Mumbai completes our journey today and there is a new artwork under development for the Prince of Wales Museum.  The 20 metre dome of the Prince of Wales Museum.  In this artwork, spherical fish-eye images of the many wonderful ceilings found in buildings throughout Mumbai will be projected up into the dome [actually this ceiling here is awfully good too].  And, they are reflected in a mirror which is located three floors below.  So linking time and space, past and present, domes over Mumbai will invite you to rediscover the city with fresh eyes.  But this is a work that will grow over time and students throughout Mumbai will be invited to contribute images and ceilings that they've found.  That means that looking up will become a pass time for those with strong neck muscles and a sharp lens.  If we treat the past as a dynamic entity, it's future is vital.  And I believe that sensory, social and democratic experiences of heritage allow us to imagine the future better.  Thank you.    ﻿

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«The World That Was», ψηφιακό έκθεμα που προβάλλεται σε διαδραστικό τραπέζι, Μουσείο Ολοκαυτώματος, Λος Άντζελες

<https://www.youtube.com/watch?v=opFXmTnOViE>