

Adventures with the LadyBug-3 camera.

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Update from 2009: The LadyBug-3 camera

- Reported at the APS in 2009 on projects at the Rio Tinto iron ore ship loader at Karratha and the ARC Centre of Excellence for Electromaterials Science at Wollongong University.
- These were using the LadyBug-2 camera.
- Both of these have now been repeated with the higher resolution LadyBug-3 camera.
- Full resolution of the camera is a spherical projection of 5400x2700 pixels @ 16fps.
- Upscaled to 30fps by Kronos tools in FinalCutPro.

ARC Centre of Excellence for Electromaterials Science



[See example in the dome]

Rio Tinto Iron ship loader: Remote operations interface



2010: LadyBug-3 footage from Turkey

- Footage captured for YER-Turkiye (Place Turkey)

Concept, Design, Production: Sarah Kenderdine, Jeffrey Shaw

Videography and image processing: Paul Bourke

Audio: Cedric Maridet

[City University, Hong Kong]

- 12 LadyBug-3 sequences captured in total.
- 200+ high quality stereoscopic panoramic images captured.
These are omnidirectional stereo pairs, a technique that allows for viewing across a wide range of view directions. Something stereo fisheye producers should also be using.
- Each panoramic and LadyBug image/movie has an associated ambisonic recording.
- Final intended viewing environment is a large 10m cylinder with stereoscopic projection system.
- The LadyBug-3 footage can be repurposed for domes, indeed it captures the equivalent to a 360 x 280 degree fisheye. That is, longitude 0 to 360, latitude 90 degrees (north pole) to -50.

Whirling dervishes: Orient Express Train Station



Semazenler (Istanbul Sirkeci Train Station)
Mevlâna Semazenler (The Whirling Dervishes)

[See example in the dome]

Sample frame from the LadyBug-3



Can create a fisheye projection at any angle



Cylindrical panorama projections



Vertical FOV: 37 degrees



Vertical FOV: 67 degrees

Use of full spherical projection for interaction in the iDome



Quick tour of the LadyBug-3 in Turkey



Bosphorus river

Borusan Philharmonic Orchestra





Feeding pigeons in front of the Yeni (New) Mosque





Hashbecktashi Dancers



Kardeslik Semahi & Aliyar Semahi (Hacibektas Veli Museum)
Bektasi Semahi (Hacibektas Veli Museum performers)

[See example in the dome]

The heat comes from the fire, not from the sac
The grace comes from the cloak, not from the crown
Whatever you seek, seek within yourself
Not in Mecca, Jerusalem, or Damaseus

Sample frame as a spherical projection



Hashbeckashi dancers in the iDome



Seek and find
Educate women
Do not hurt even if you are hurt
Whatever you seek seek within yourself
Be master of your hand (actions), tongue (words), and passions
Wise men are both pure and purifying
The first stage to spiritual wisdom is right conduct
Human perfection is the beauty of his/her words
Do not do to others what comes hard to yourself
Do not blame any human or nation
A path not guided by science goes to darkness
How happy is he who eliminated the darkness of thoughts
Do not forget that even your enemy is human
The prophets and saints are God's gift to mankind

Highest resolution (non-digital) dome in the world



Panorama 1453: Capture of Istanbul by the Turks

Sample frame from the LadyBug-3 camera



Scale model of the installation



Questions?

