

Charles Church and 360° filming



Karol Kwiatek

University of Plymouth

karol.kwiatek@plymouth.ac.uk

www.charles3d.info

Narrative and Built Heritage, 22nd March 2011, Plymouth

Overview

1. Charles Church in Plymouth
2. Wedding: 22nd March 1941
3. 360° filming
4. Interactive storytelling
5. Conclusion

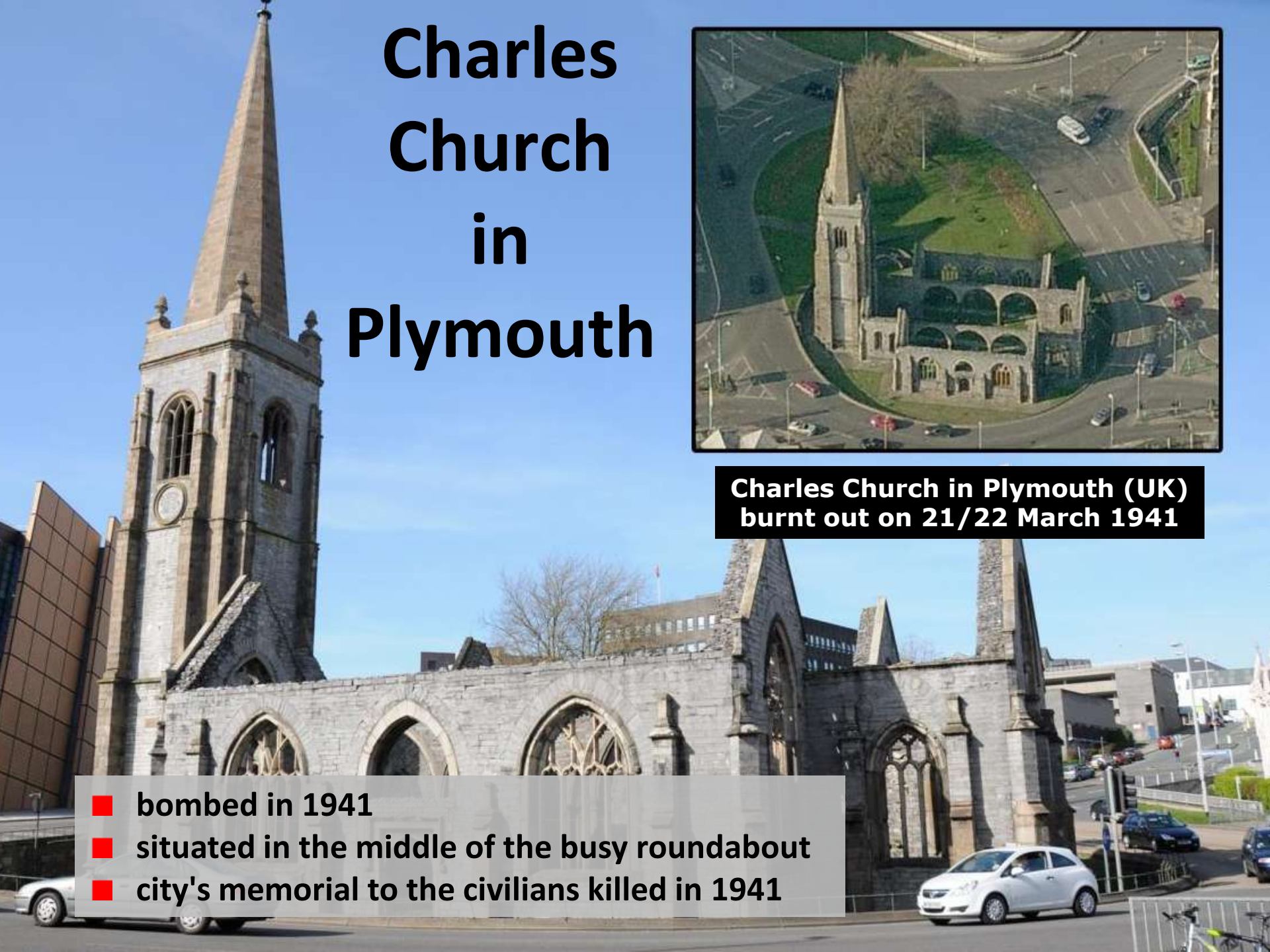
1. Charles Church in Plymouth

Charles Church in Plymouth



**Charles Church in Plymouth (UK)
burnt out on 21/22 March 1941**

- bombed in 1941
- situated in the middle of the busy roundabout
- city's memorial to the civilians killed in 1941





CHARLES CHURCH

PLYMOUTH, UK

PHD RESEARCH PROJECT

Computer reconstruction of Charles Church



Historical images





CHARLES CHURCH
PLYMOUTH, UK
PHD RESEARCH PROJECT

Computer reconstruction of Charles Church



Front

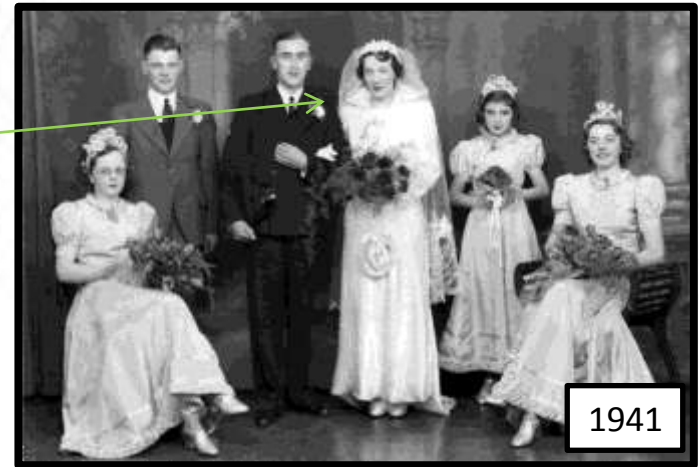
Back

360°

2. Wedding: 22nd March 1941

Reconstruction of the wedding

- Linear ➡ non-linear narrative
- Ken and Phyllis Beer
- Recording actors in green screen studio



- Ken is 98
- Phyllis is 92
- **TODAY** they are celebrating 70th wedding anniversary

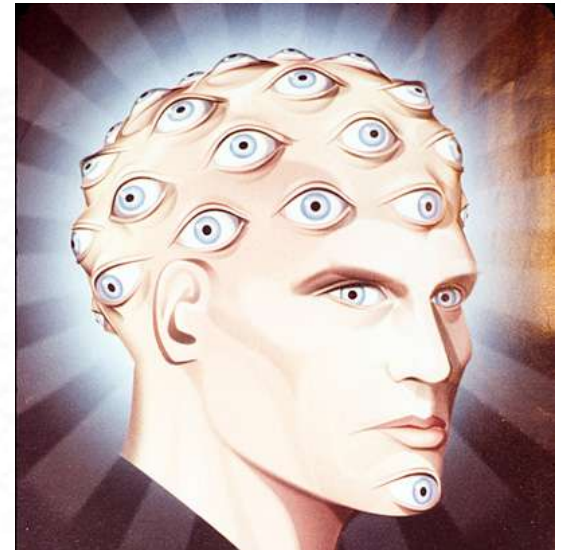
Reconstruction of the wedding in a computer reconstructed Charles Church



360° filming



3. 360° filming



Ladybug 2

spherical video camera



- Framerate: 29.97fps
- 6 lenses
- 1.19 kg



LADYBUG 2
Spherical video camera

<http://www.ptgrey.com/products/ladybug2/index.asp>

Ladybug 3

spherical video camera



■ Framerate: 16 fps

■ 6 lenses

■ 2.41 kg



LADYBUG 3
Spherical video camera

<http://www.ptgrey.com/products/ladybug3/index.asp>

Presentation of the panoramic interactive narrative



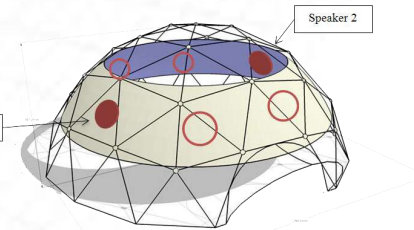
Spherical video



Cylindrical video



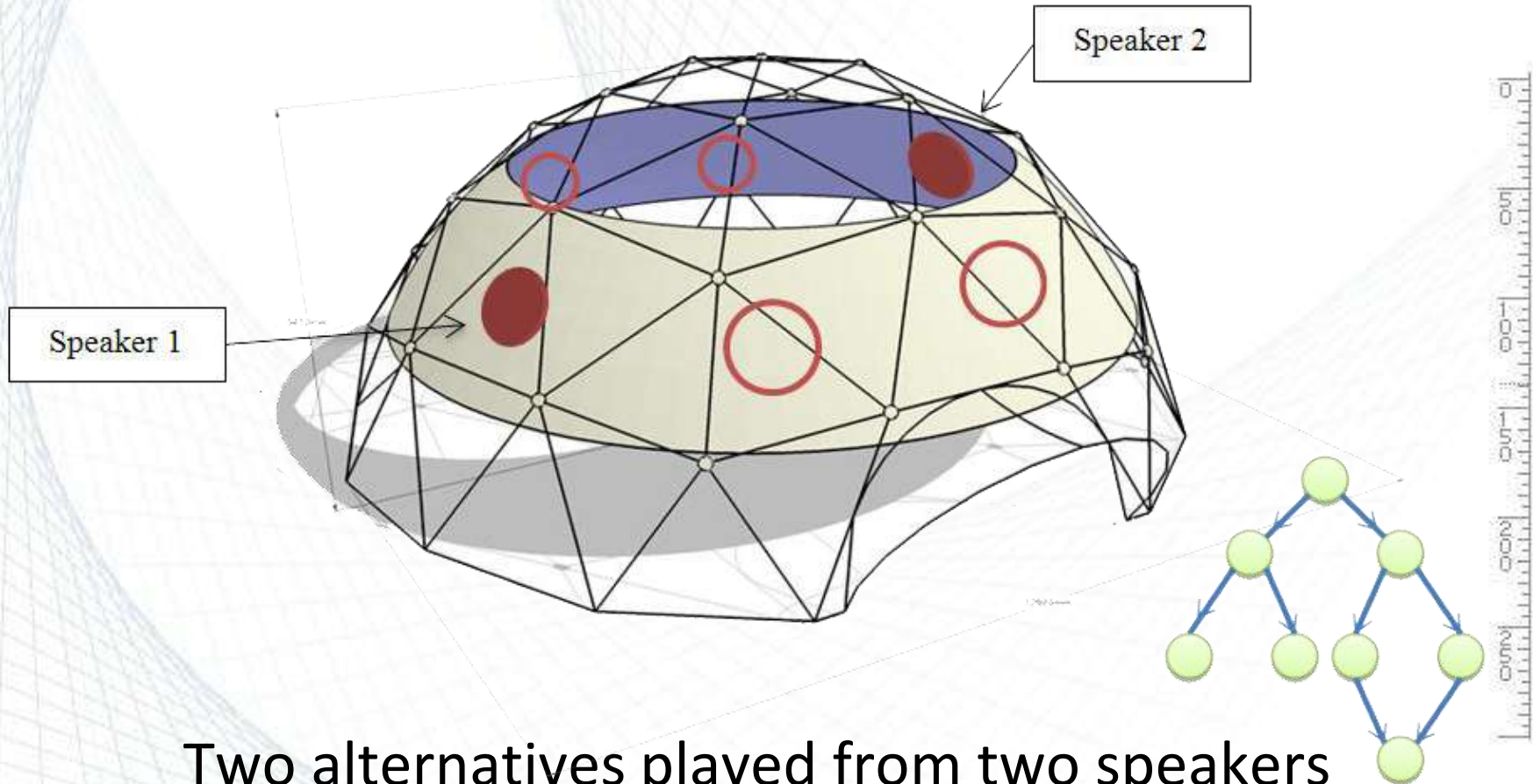
Spherical viewer



Cylindrical screen



Interactive narrative and 360° screen



Robert Barker (1739-1806) patented the invention of panorama in 1787

360° screen and 360° painting



360° screen and 360° video

4. Interactive storytelling

Interactive storytelling

Form of art, research and entertainment which links interactivity, visual art and traditional narratives.

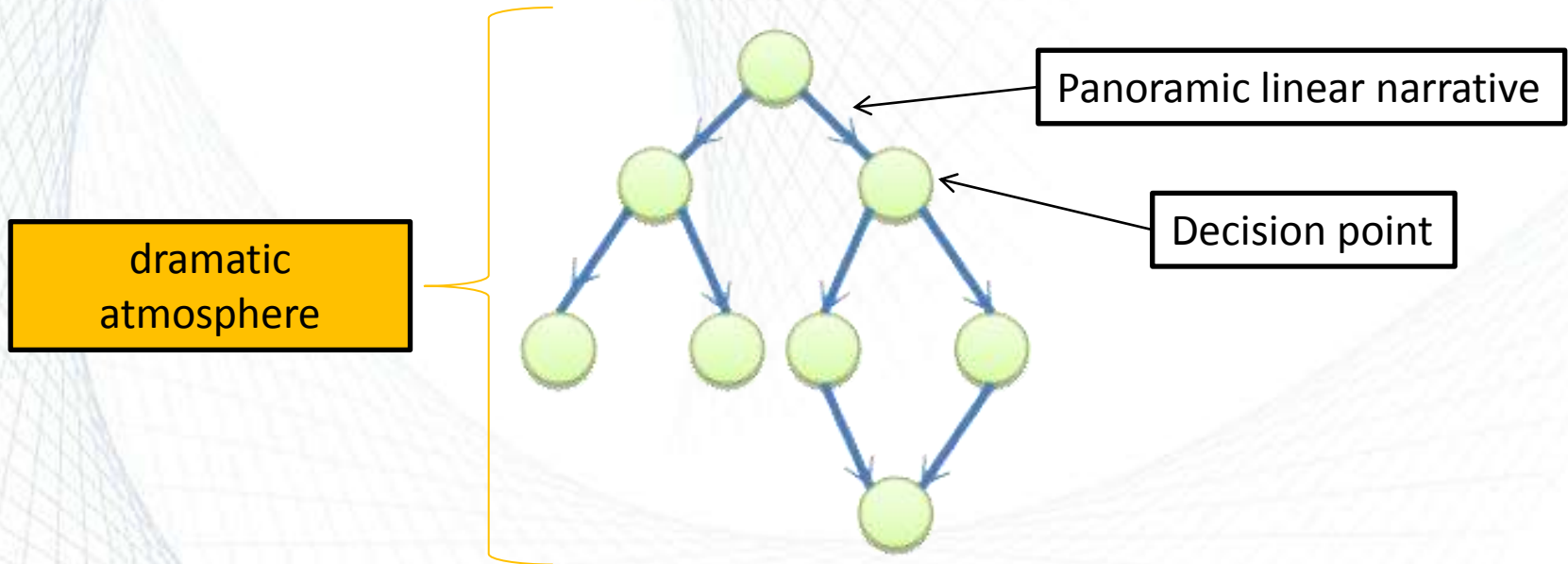
Traditional storytelling

- preconstructed
- linear plot
- author/writer is sole creator
- experienced passively
- usually one unchangable ending

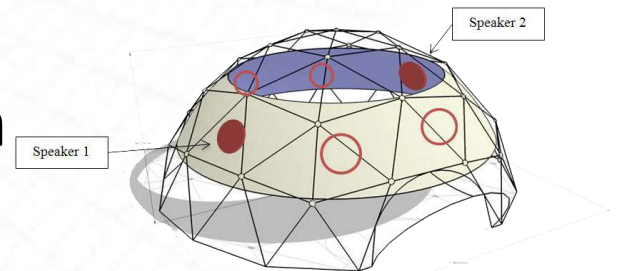
Interactive storytelling

- not fixed in advance
- non-linear
- the user creates the story
- experienced actively
- different outcomes are possible

Story graph



The audience has the power to change the 360° narrative in decision points



Charles Church on 360° screen



5. Conclusion

- **360° filming** and 3D computer reconstruction of a heritage site empowers the visitor to imagine the building before it was destroyed
- **360° screens** with multiple speakers as a method of transporting the viewer into the 360° interactive narrative
- **360° interactive narratives** based on heritage sites may become not only a scientific and technological innovation but also a new art form presented in 'digital rotundas'

Thank you

karol.kwiatek@plymouth.ac.uk

www.charles3d.info

www.360stories.net

Twitter: www.twitter.com/uop360

