

10.00am Arrival & welcome Housekeeping & an overview of the day Projection Basics a DIY Approach 11.00am What we have to work with: DAMS & Spaces (Museum Tour) dams.birminghammuseums.org.uk/ 11.30am 11.45pm Time to build your first projection Animation + Projection Mapping 2.30pm Adding Interactivity BREAK 3.30pm Show & Tell 4.00pm CLOSE

Linda Spurdle

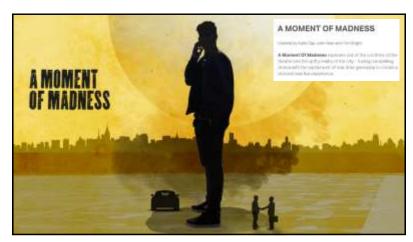
Digital Development Manager @ Birmingham Museums Trust

John Sear

Real-world Game Designer

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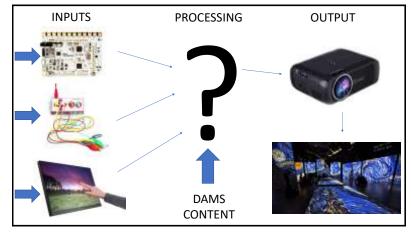






Plan for Today

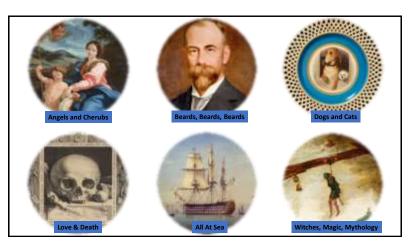
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Digital Asset Management System dams.birminghammuseums.org.uk

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Our Locations within BMAG

- Power
- Table (or at least somewhere you can take a projector)
- Not too bright!
- Projection onto both:
 - · Walls, doors, blinds
 - Museum Objects (not watercolours)



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What could we build?

- Informative pieces
- Interactive slideshow e.g. Slide Projector
- Animations
- Highlight areas of the images
- Projection mapping multiple surfaces
- Choose your own adventure
- Video interactive (aka Bandersnatch)
- Digital Poetry
- Involve people
 - High-five to progress use two people to choose directions?
 - Make a connections between to places

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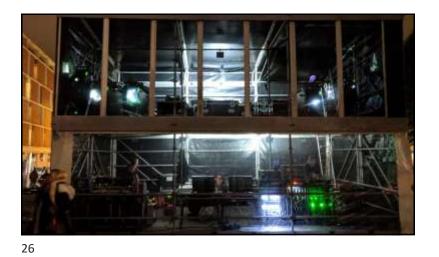






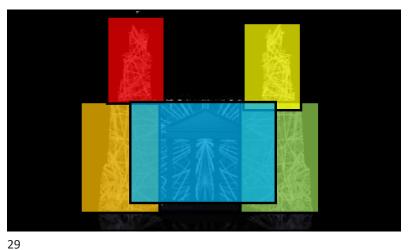
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Barco UDX 4K40 4K **UHD 37,500 Lumens DLP Laser Flex Projector (Body Only)**

£120K+

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Ballpark Costs

- Projectors Rental £5K per day
- 3 days of shows + set-up + break down = 5 days
- Numerous Projectors to cover large buildings 6 (often higher)
- Animation £5K+ per minute. 10 minutes
- Extras:
 - Media server hardware
 - Round the clock Security
 - Onsite Technical support
 - Event running costs



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Projection Mapping for 'Les Miserables', Hale Center Theater Orem





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PROJECTORS

34 Christie Digital Boxer 4K30 30,000 lumen projectors for a total of over one million lumens projected on the building facade.

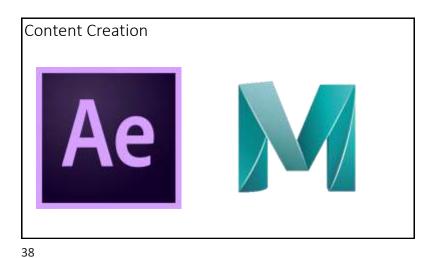
PROJECTION SURFACE
The building façade is 556'x165' or 91,740 ft² (over 2 acres), and the projection resolution will be 6000 x 2620.

PROJECTION TECHNIQUE
3 channel 3D architectural mapping. The main channels have 16 projectors each, stacked together to increase brightness, and the center channel, covering the center tower, has 2 projectors stacked; the channels are blended together to create one seamless image.

High-end Software

35 36







Projection on a Budget

DIY: Projection on the cheap

- Projection is great as we can put the equipment out of the way
- Get away with using older projectors
 - · Lower resolution is fine
- Run it on cheap hardware & software
- Single Projector (we can still do projection mapping!)

Total cost of: Laptop, Projector & Physical Interface

~£300

Software that we're using today is...

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PowerPoint is a presentation tool & ...

- Photo editing tool
- Video editing tool
- Motion Graphics package
- Basic audio editing
- Creation of Interactives
- 3D modelling positioning

There is a programming language underneath (VBA) so it can be a games engine

POWERPOINT DEMOS

MUSEUM TOUR TIME