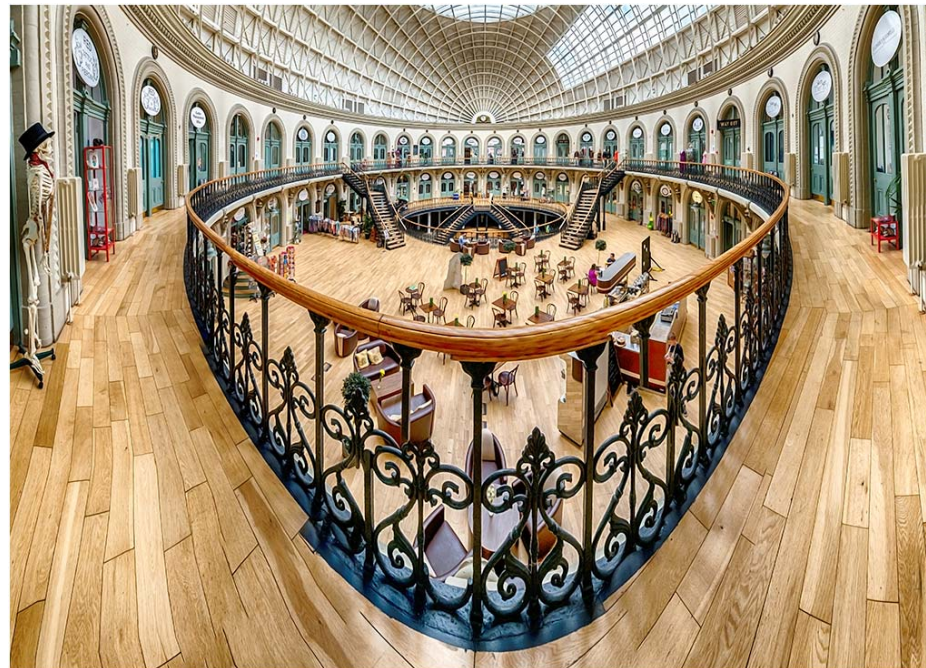


# TWPC

Tettenhall Wood  
Photographic Club

## Panoramic Images



Glynn Thomas  
rev NC

# Contents

- Section of Images
- Nodal Point
- Basic Pano processing
- Have a go!

# The Corn Exchange



# The Corn Exchange

- Location - Leeds
- Tripod mount x8 (ish) portrait images
- Rotation about camera mount (not nodal point)
- 10-20mm sigma lens (DX)
- Minimal fiddlin' to remove clutter

# The Corn Exchange Vertorama

- Location - Leeds
- Hand held
- x10 (ish) landscape images
- 10-20mm sigma lens (FX)
- Puppet warp to square up
- Clone out my feet!



# 360° Garden



- Location - Portmeirion
- Tripod mount x6 portrait images
- Rotation about nodal point
- 16-35mm Nikon lens (FX)
- Each image first reduced to 50% (memory size!)
- Couldn't get bottom of flower beds in – bummer!

# Upstairs Downstairs Vertorama

- Location – Inveraray Castle
- Hand held
- x12 landscape images
- 10-20mm sigma lens (FX)
- Puppet warp and skew to square up
- Clone out some highlights



# Hotel Bar



- Location - Shanghai
- Tripod mount x6 portrait images
- Rotation about nodal point
- 16-35mm Nikon lens (FX)
- Each image first reduced to 50% (memory size!)
- HDR pre-processing (story for another day!)

# Oasis in the city



# Oasis in the city

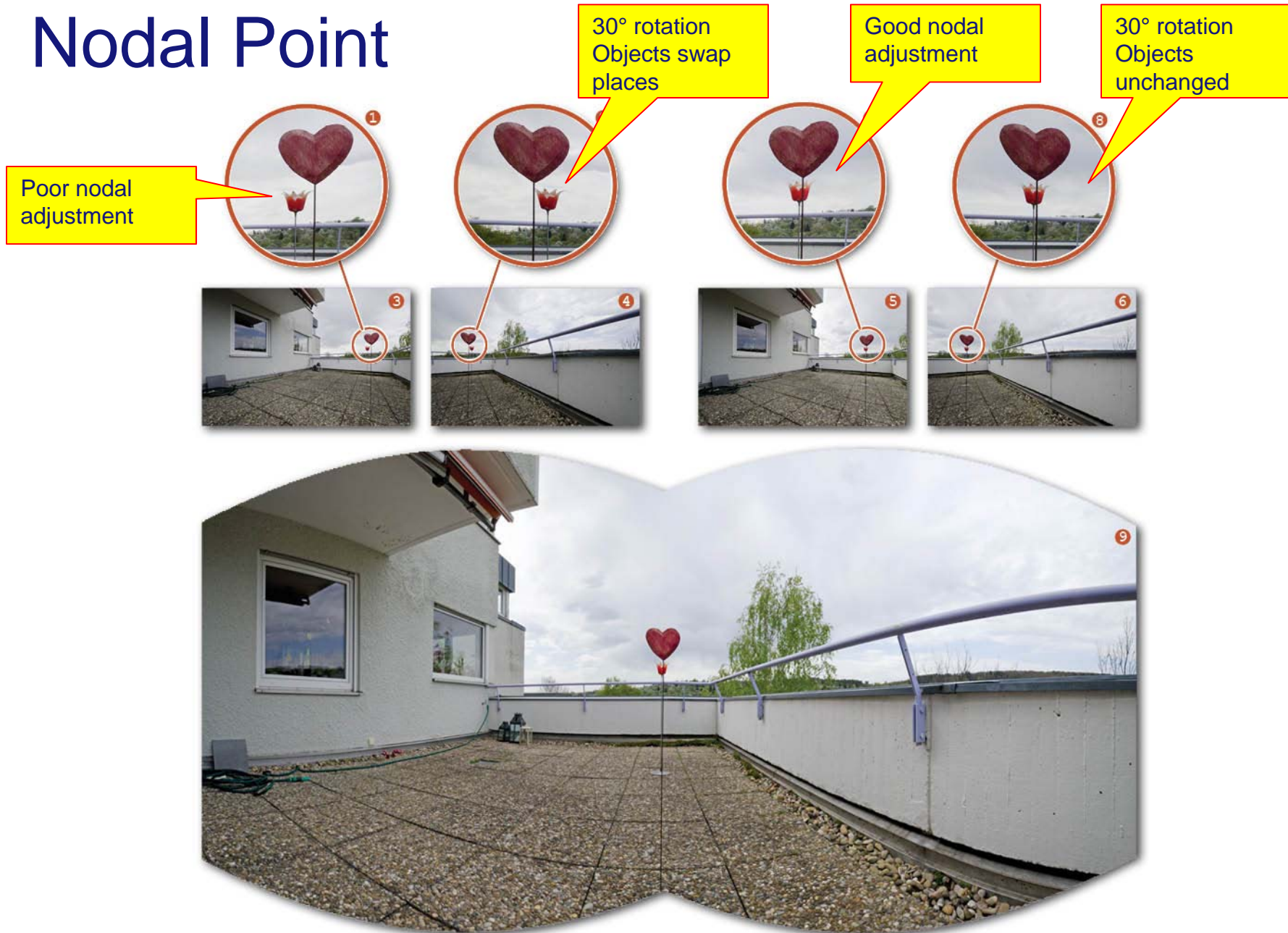


- Location - Shanghai
- Tripod mount x6 portrait images
- Rotation about nodal point
- 16-35mm Nikon lens (FX)
- Each image first reduced to 50% (memory size!)
- Clone to create tops of buildings (ahh!)
- Globe processing
  - Create 360
  - Stretch to square format
  - Turn upside down
  - Filter > Distort > Polar Coordinates (Rectangular to Polar)

# Nodal Point

- What is the nodal point?
- Rotational centre of lens is not the rotation axis of camera mount
- This can produce parallax errors
- Produces errors in photoshop stitching
- Try this
  - Hold up one finger vertically on each hand
  - Hold one arm outstretched one close to your face, fingers aligned
  - Rotate your head, do your fingers stay in line?

# Nodal Point



# Nodal Point

- Arrange two vertical objects
- Rotate camera
- Observe objects
- Moves slider in-out
- All lenses are different
- All focal lengths of zoom are different
- Write down the scale markings



# Basic Pano processing

- Taking stage
  - Plan your full shot
  - Careful with levels (use spirit level)
  - Meter for brightest part of image
  - Switch to manual
  - Careful with polarisers
  - Take outdoor images fairly quickly (avoid light changes)
- Pre-process RAW images
  - Apply identical develop settings (lightroom)
- Photoshop
  - File>automate>photomerge
    - > Auto or cylindrical / tick blend, vignette, distortion
    - > Order of images can be a problem
  - Crop and/or fill in missing corners

# Basic Pano processing

- The order I wanted



- The order photoshop wanted



- Solution
  - Crop side of one of the 'end' images so it doesn't match up

# End