MODEL PHOTOGRAPHY
GSAPP Award-winning student portfolios
Using photographs of models to highlight concepts of a project - not only to archive model.

KaDeWe Renovation
OMA
Mixed Use No. 2
MOS Architects
House for All Seasons
Rural Urban Framework
Swing Time
Höweler + Yoon Architecture
ADR MODEL - Kanagawa Institute of Technology
Kimberlee Boonbanjerdsri
AV OFFICE

HOW TO

Log into E2OFFICE to activate your account and reserve equipment.

MAKE SURE TO CLICK "Login Using Columbia UNI ID" DO NOT type
your Columbia email and password into the normal email login.

Refer to the E2Office PDF for a step-by-step instruction guide on using the
equipment request site.

GUIDELINES

- A reservation confirmation is required to check out any equipment.
- Sequential reservations are not permitted. This ensures equipment
availability for all students. You must return your equipment according
to your approved reservation.
- Requests must be:
  - Submitted 1 business day before your reservation
  - Submitted weekdays by 5pm
- Requests made after 5PM will not be processed until the next business
day.
- Requests are not processed over the weekend.
- Your reservation is not confirmed until you receive an email from
GSAPP AV.
- Your Columbia UNI account will be disabled if equipment is not
returned on time.
- Reservation Periods:
  - 48hr: Cameras, tripods, audio recorders, lighting kits, and GPS
devices. If checked out on a Thursday or Friday, equipment will
be due the following Monday.
  - 24hrs: If checked out on a Friday, equipment is due the following
Monday.
  - Same day: Laptops, projectors.
  - No reservation necessary: USB remotes, laser pointers, & laptop
adapters.

REMINDERS

Equipment pick-up from GSAPP AV Office. If you do not receive an email
confirmation within 24 hours, please email us directly.

The following rooms have built-in computers. Please do not request
laptops for these rooms: - Fayerweather 209 HED Classroom, 202 UP Lab
- Avery 113, 114, 115, 800 Ware Lounge.

The following rooms have projectors installed in them. You may use your
own laptop or request one from GSAPP AV. Please do not request a
projector for these rooms: - Fayerweather 209, 202 UP Lab, 301 - Avery
113, 114, 115, 800 Ware Lounge
- Buell 200W

For more information on classroom specs and capability refer to this page.

https://www.arch.columbia.edu/audio-video-office/equipment-request
AVAILABLE AT THE AV OFFICE

Tripods

DSL Camera
Canon t5i
w/ 18-55mm lens

Lighting equipment
WORKFLOW

i. SET-UP

LIGHTING
TRIPOD
BACKDROP

ii. PHOTOGRAPHY

MANUAL SHOOTING
1. Image quality
2. White balance
3. Aperture
4. Shutter speed
5. ISO

iii. EDITING

ADOBE BRIDGE
- Batch editing via CAMERA RAW
- Image processing via PHOTOSHOP

DEMONSTRATION
i. SET-UP
LIGHTING
i. SET-UP

NATURAL LIGHTING

• More realistic
• Depends on time/weather
• Requires specific context
LIGHTING

i. SET-UP

NATURAL LIGHTING

• More realistic
• Depends on time/weather
• Requires specific context

ARTIFICIAL LIGHTING

• More control and flexibility
1. Turn off overhead lighting
2. Fill light (indirect source)
3. Main light (direct source)

*DO NOT use more than one main light - it will cast multiple shadows*
LIGHTING

i. SET-UP

ARTIFICIAL LIGHTING

Model light study
TRIPOD

i. SET-UP

- Consistent images
- Stabilizes camera
- Better for shooting macro
- Flexibility to move around
- Easier to use ‘live view’
BACKDROP

i. SET-UP

- Minimizes editing and post-processing time
- Cleaner images
- Photo uniformity and consistency
- Light models on dark background, and vice versa.
ii. PHOTOGRAPHY

MANUAL SHOOTING
MANUAL SHOOTING

ii. PHOTOGRAPHY

Automatic mode

Manual mode
MANUAL SHOOTING

ii. PHOTOGRAPHY

1. IMAGE QUALITY
2. WHITE BALANCE
3. APERTURE
4. SHUTTER SPEED
5. ISO

Canon t5i
1. IMAGE QUALITY

- **JPEG** are processed within the camera. These files are finished and can be viewed and printed immediately after shot.

- **RAW** files are uncompressed and unprocessed with all of details available to the camera sensor.
MANUAL SHOOTING

ii. PHOTOGRAPHY

1. IMAGE QUALITY

- Press “Menu” button
MANUAL SHOOTING

ii. PHOTOGRAPHY

1. IMAGE QUALITY

• Select “Image quality”
MANUAL SHOOTING

ii. PHOTOGRAPHY

1. IMAGE QUALITY

   • Select “RAW”
2. WHITE BALANCE

- White balance (WB) is the process of removing unrealistic colour casts.

- Proper camera white balance has to take into account the “colour temperature” of a light source, which refers to the relative warmth or coolness of white light.

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<th>LIGHT SOURCES</th>
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MANUAL SHOOTING

ii. PHOTOGRAPHY

Cool tint

White balanced

Warm tint
MANUAL SHOOTING

ii. PHOTOGRAPHY
2. WHITE BALANCE

• Press “WB” button to open white balance menu
2. **WHITE BALANCE**

- Set to the type of light source to correct photograph’s image ‘warmth’
• White balance when shooting warm wood models can be very helpful to create a neutral image
3. APERTURE

- Small set of blades that form an octagonal hole
- Size of aperture is measured in F-STOPS
- Controls (i) brightness and (ii) depth-of-field
MANUAL SHOOTING

ii. PHOTOGRAPHY

APERTURE

i. Brightness

High F-STOP = Smaller aperture = Darker

\textbf{f/7.1}
1/30 sec
ISO 400

Low F-STOP = Wider aperture = Brighter

\textbf{f/2.5}
1/30 sec
ISO 400
MANUAL SHOOTING

ii. PHOTOGRAPHY

APERTURE

ii. Depth-of-field

High F-STOP = Smaller aperture = Fuller depth-of-field

\[ f/7.1 \]
1/6 sec
ISO 400

Low F-STOP = Wider aperture = Deeper depth-of-field

\[ f/2.5 \]
1/30 sec
ISO 400
A high f-stop setting can give more detail (fuller depth of field) when shooting large site models.
Lower f-stop = deeper depth of field can blur out background and focus in on details of a model.
3. APERTURE

- Press Q button then navigate to aperture control icon
- Should already have current f-stop setting displayed
3. APERTURE

- Select desired aperture setting with front dial
4. SHUTTER SPEED

- The shutter controls how long light is allowed to hit the camera’s image sensor.

- The duration of time light hits the image sensor - to ‘record’ - the photo - is called the shutter speed.

- Shutter speed is typically measured in fractions of a second (ex. 1/30 sec).

- Determines **brightness** and **blur**.
Faster shutter speed = Darker

f/4.0
1/50 sec
ISO 400

Slower shutter speed = Brighter

f/4.0
1/20 sec
ISO 400
4. SHUTTER SPEED

- Scroll front dial to control shutter speed in Manual mode
5. ISO

- Originated from film speed, the measure of photographic film’s sensitivity to light

- DSLR: Controls exposure by using a software in the camera to make it extra sensitive to light

- A higher ISO delivers a brighter image, but photo will be noisier/“grainier”

- Controls (i) brightness and (ii) noise
MANUAL SHOOTING

ii. PHOTOGRAPHY

ISO

i. Brightness

Low ISO = Darker

f/7.1
1/25 sec
ISO 500

High ISO = Brighter

f/7.1
1/25 sec
ISO 2000
MANUAL SHOOTING

ii. PHOTOGRAPHY

ISO

ii. Noise

Low ISO = Less noise

\[ f/2.5 \]
\[ 1/8 \text{ sec} \]
\[ \text{ISO 100} \]

High ISO = More noise

\[ f/2.5 \]
\[ 1/800 \text{ sec} \]
\[ \text{ISO 6400} \]
5. ISO

• Press ISO button on the top of camera then select desired ISO on the screen
MANUAL SHOOTING

ii. PHOTOGRAPHY

• LIVE VIEW

Real time preview of what photograph will look like with settings before image is recorded
MANUAL SHOOTING

ii. PHOTOGRAPHY

Suggested setting order:

1. ISO - Generally setting a low ISO will give the least noisy images

2. Aperture - then adjusting this setting based on desired depth of field

3. Shutter speed - to compensate for brightness based on previous two settings
MANUAL SHOOTING

Typical archival shots

Typical angles for photographing models for archiving purposes can imitate views of projects in drawings - these are in addition to more experiential views specific to each model.
AXON PERSPECTIVE
AXON PERSPECTIVE
ELEVATION
ELEVATION
ELEVATION
ELEVATION
ELEVATION
The two images were probably shot with artificial lighting on a white backdrop with a tripod to create consistent images and flexibility to manipulate models with hands.
Shot with a high aperture (to get details in the back) and slow shutter speed with a tripod to keep camera steady. Probably low ISO to achieve variations of lighting effect.
Multiple photographs compiled together. Shot with one tripod setting for plan images + another tripod setting for perspective shots.
Slow shutter speed to get motion blur and with a tripod. High aperture setting to include details in the background (ex. apartment building).
Slow shutter speed to give motion blur effect and high f-stop to include details of small furniture in the entire model.
ii. EDITING

ADOBE BRIDGE DEMONSTRATION
• Open Adobe Bridge and, in Bridge, navigate to image files (as you would in Windows Explorer so the files could be on the desktop’s hard drive or in an external hard drive).

• Highlight images to edit and click the Camera Raw icon to open up the program.
• Select image(s) on the left thumbnail column to apply edits

• Tabs and toggles with values on the right side column to edit files

• Only highlighted image(s) will have edits applied meaning you can edit just one or simultaneous apply edits to multiple files at once.
• Once you are done applying edits to images, click **Done**.
  
  *Don’t click “Open Image,” it will open the highlighted files in Photoshop.*
• You can also select files with edit setting you want to apply to others and apply/paste them to other files.

• Right click > Develop Settings > Copy Settings/Paste Settings

If images were shot with same settings on Manual Mode, the edit settings should have the same effect on those other files.
• Once edit to images are done, they can be processed out through Photoshop to permanently apply edits to files.

• **Tools tab > Photoshop > Image Processor**

• *Note: all edits applied in Adobe Bridge through Camera Raw are non-destructive so original image files are still there - edits are actually created as temporary files in the same folder.*
• Photoshop will process images files with edits into a new folder without altering original image files.

• Options to process images files out as JPEG, PSD, and/or TIFF files.

• When settings are done, press **Run** and Photoshop will process out new images files.
Once Photoshop is finished, the new images will be placed into new folders either in the same folder or in a new destination chosen in the dialog box in Photoshop in previous step.

Notice the new .xmp files next to the original image files, they are the edits applied to the image files in the form of temporary files meaning the original files are untouched.