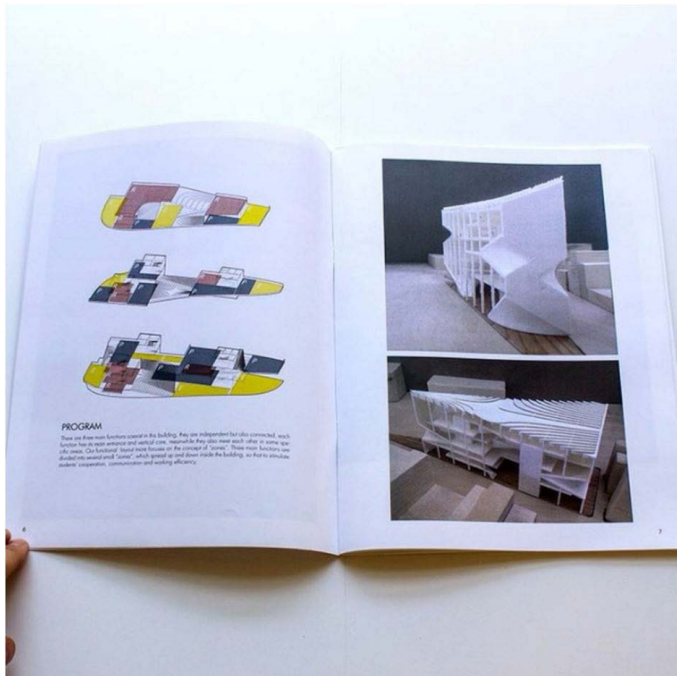
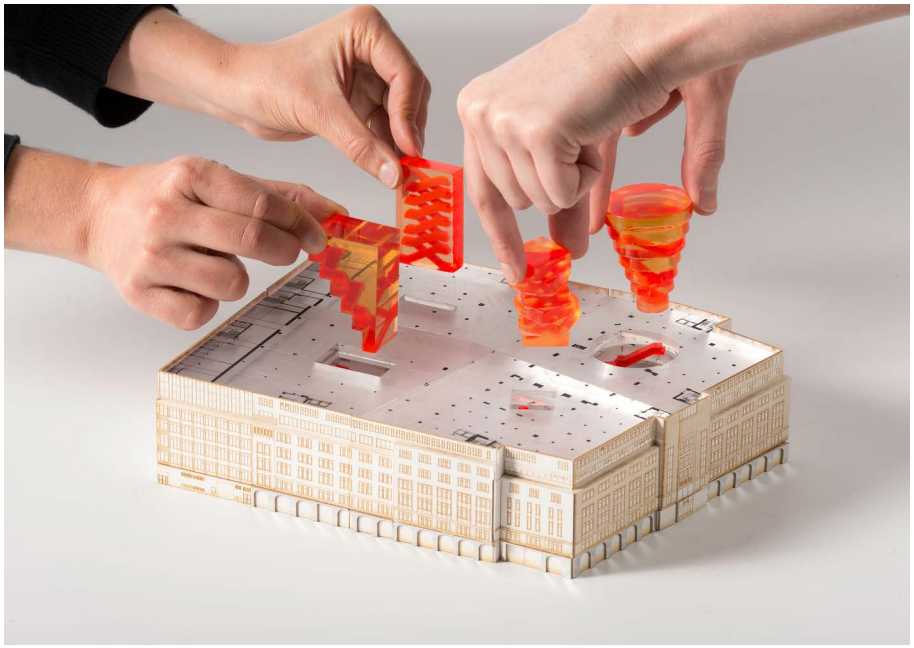
MODEL PHOTOGRAPHY

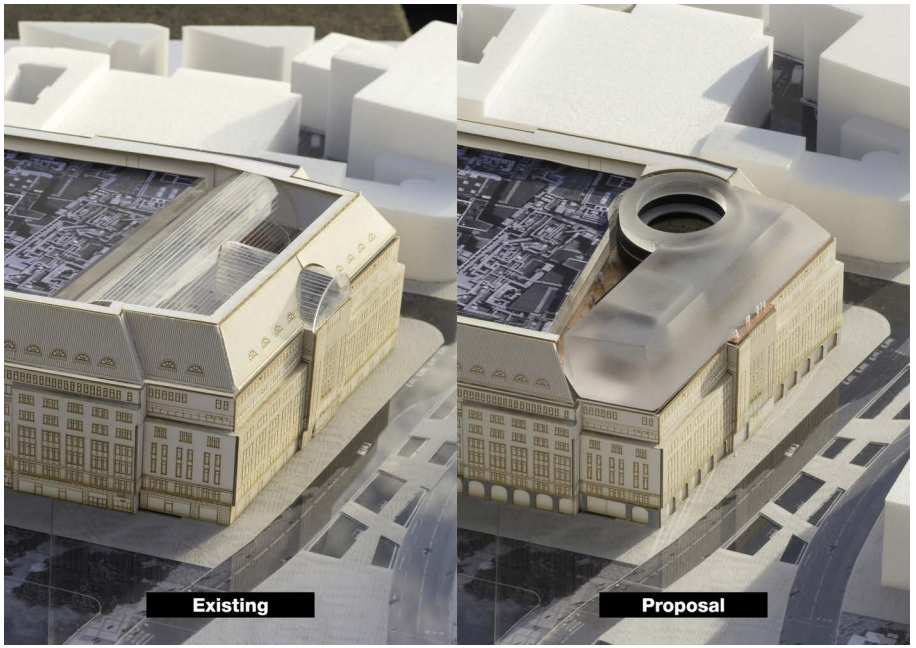
Produced by Ronald Yeung M.Arch '18



GSAPP Award-winning student portfolios

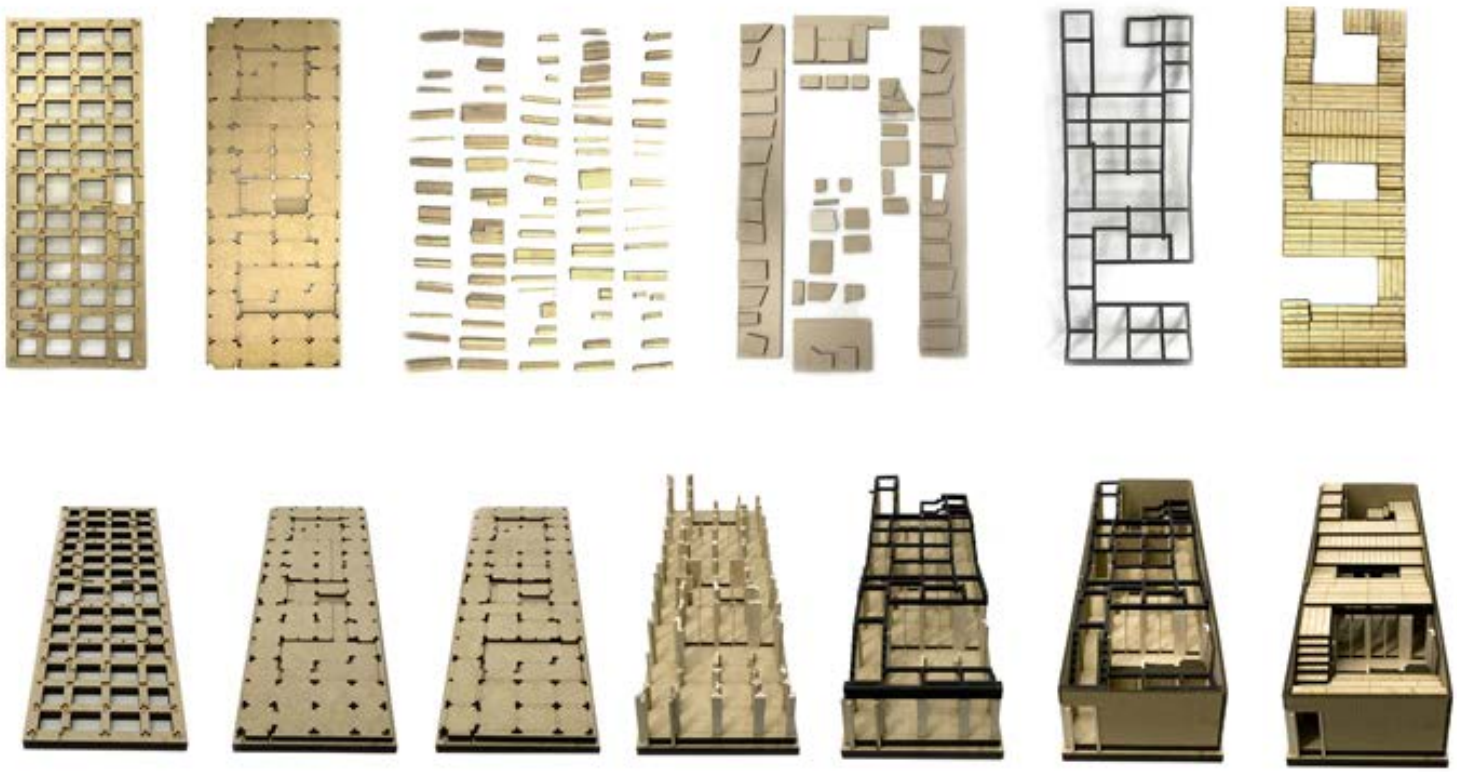
Using photogrpahs of models to highlight concepts of a project - not only to archive model.





KaDeWe Renovation
OMA

Mixed Use No. 2
MOS Architects

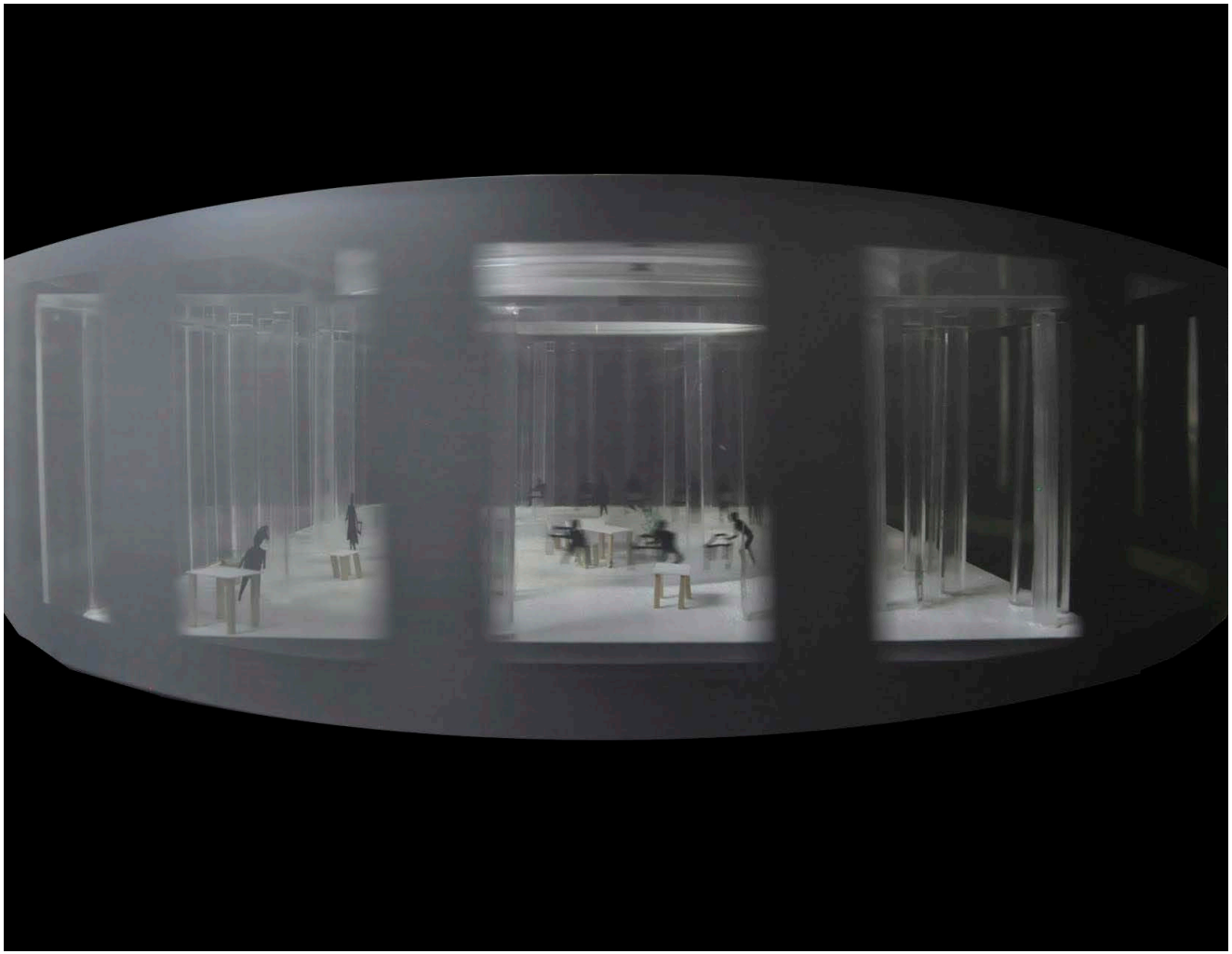


House for All Seasons

Rural Urban Framework

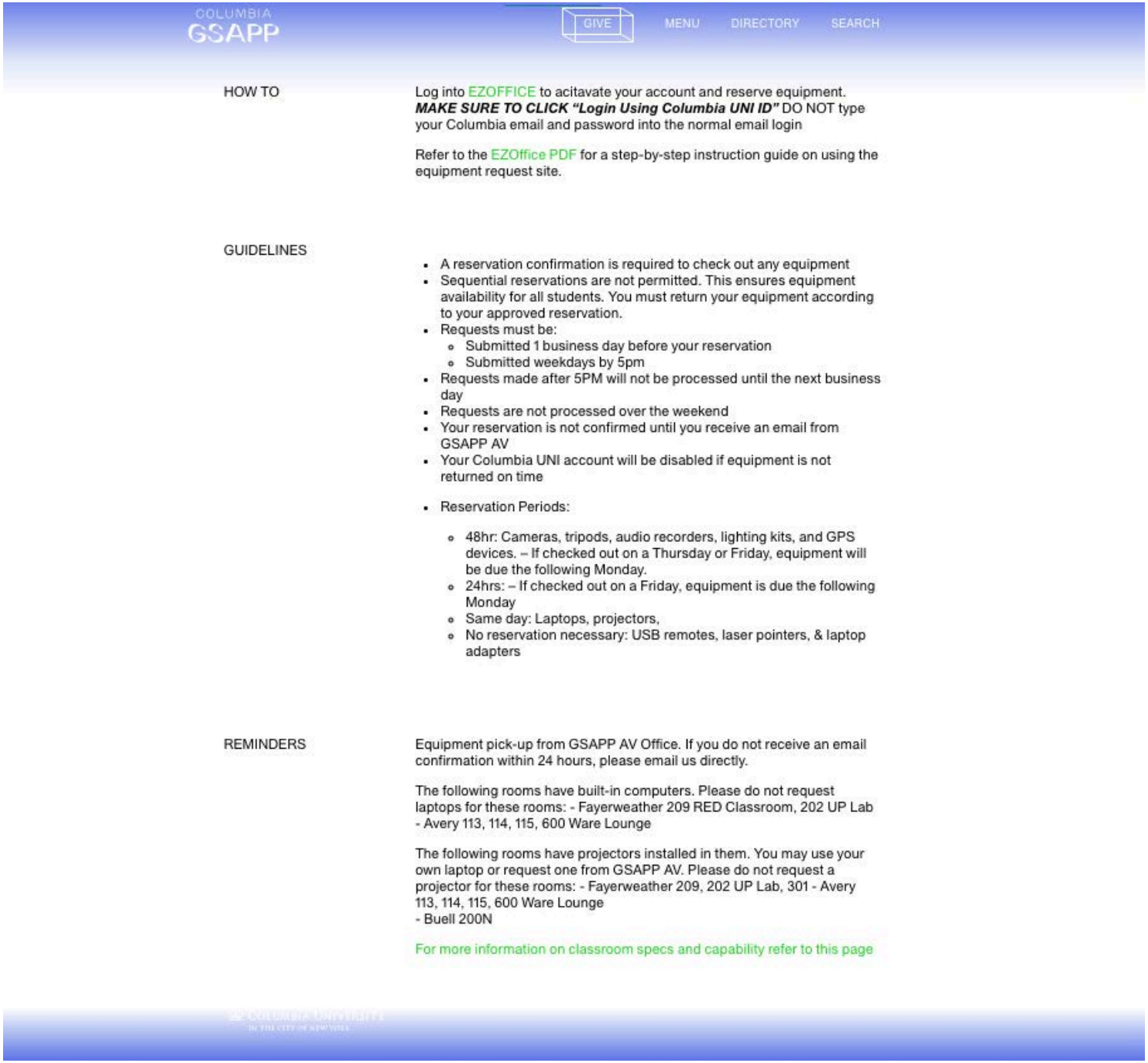
Swing Time

Höweler + Yoon Architecture



ADR MODEL - Kanagawa Institute of Technology
Kimberlee Boonbanjerdsri

AV OFFICE



https://www.arch.columbia.edu/audio-video-office/equipment-request

AVAILABLE AT THE AV OFFICE

Tripods

DSLR 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

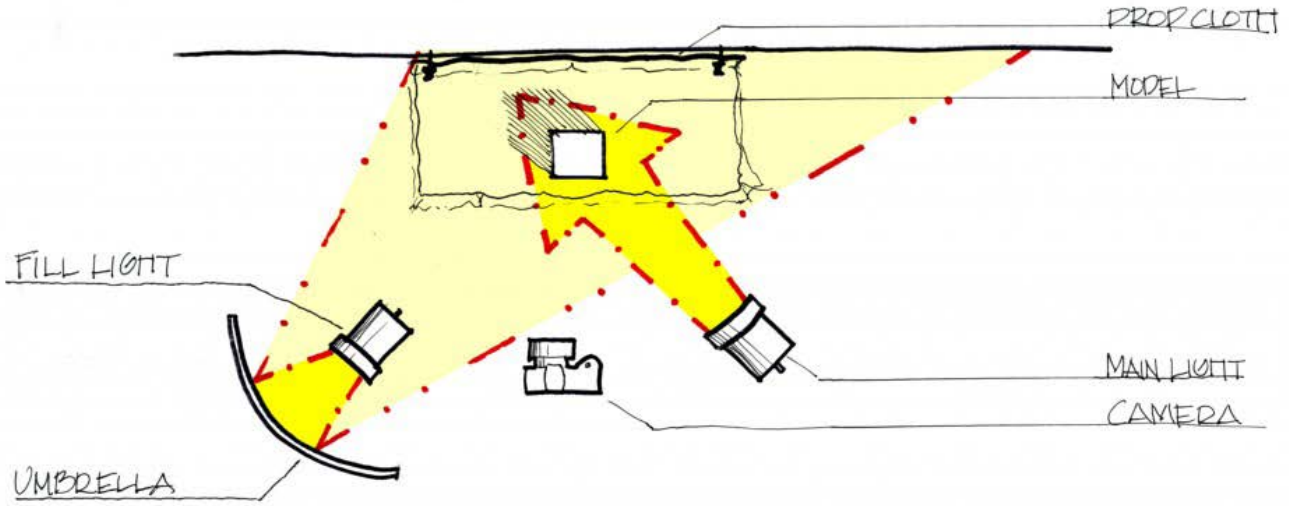
- More realistic
- Depends on time/weather
- Requires specific context

ARTIFICIAL LIGHTING

- More control and flexibility

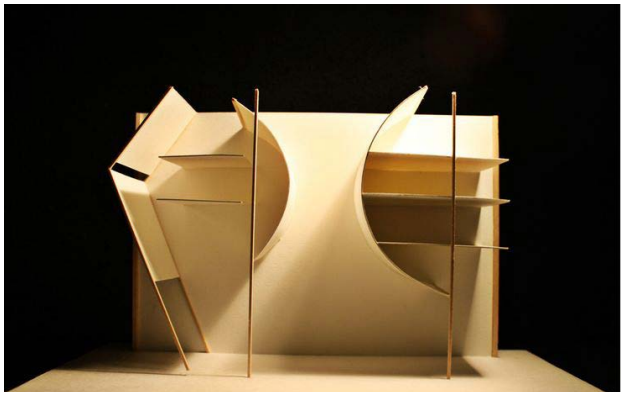
1. Turn off overhead lighting
2. Fill light (indirect source)
3. Main light (direct source)

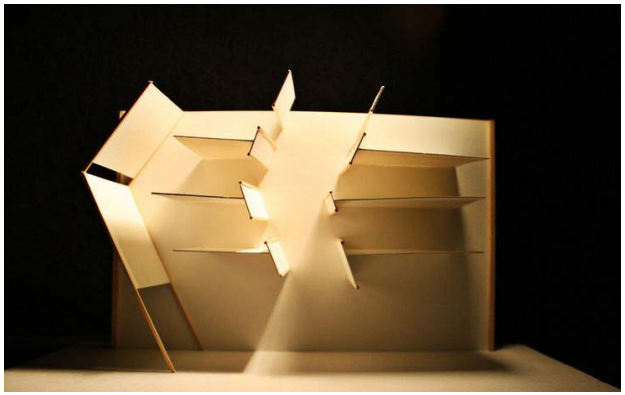
   DO NOT use more than one main light - it will cast multiple shadows



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.

Avery 506

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

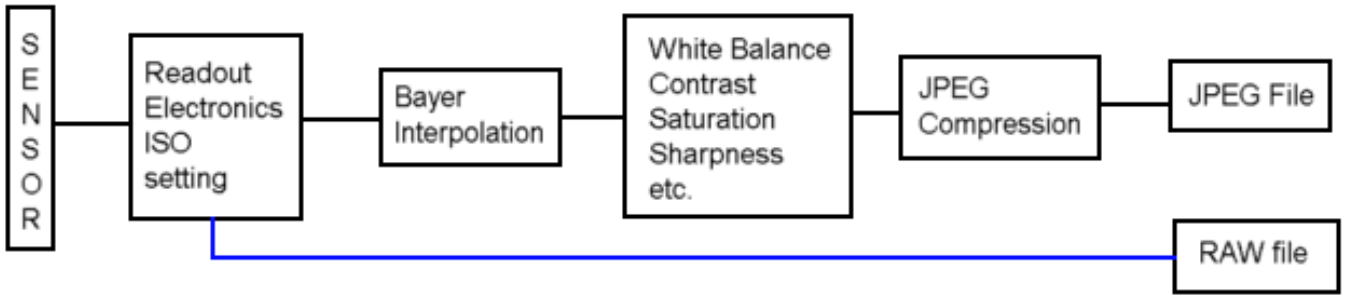
MANUAL SHOOTING

ii. PHOTOGRAPHY

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”

MANUAL SHOOTING

ii. PHOTOGRAPHY

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.

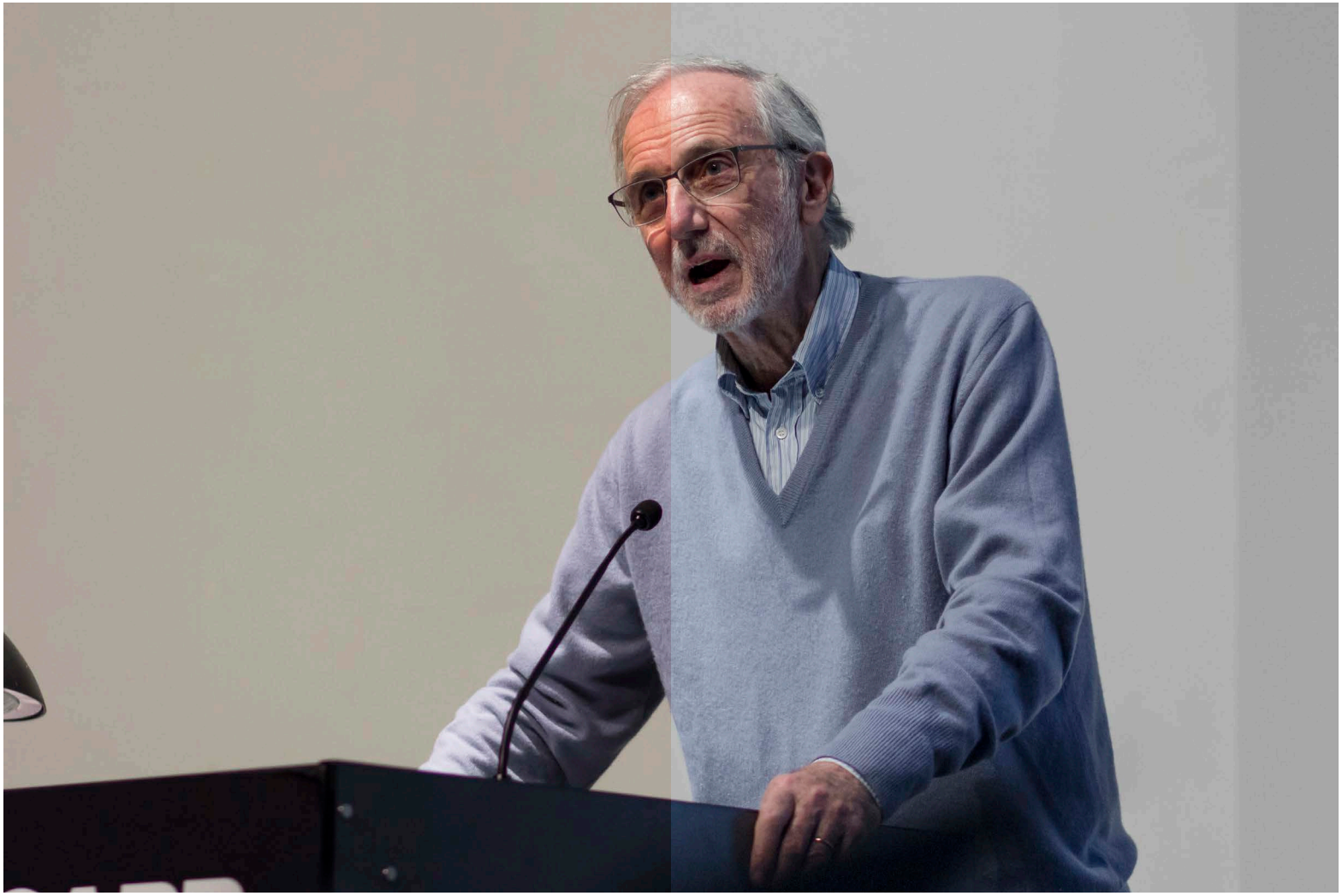
WB SETTINGS	COLOR TEMPERATURE	LIGHT SOURCES
	10000 - 15000 K	Clear Blue Sky
	6500 - 8000 K	Cloudy Sky / Shade
	6000 - 7000 K	Noon Sunlight
	5500 - 6500 K	Average Daylight
	5000 - 5500 K	Electronic Flash
	4000 - 5000 K	Fluorescent Light
	3000 - 4000 K	Early AM / Late PM
	2500 - 3000 K	Domestic Lightning
	1000 - 2000 K	Candle Flame

MANUAL SHOOTING

ii. PHOTOGRAPHY

MANUAL SHOOTING

ii. PHOTOGRAPHY



MANUAL SHOOTING

ii. PHOTOGRAPHY

2. WHITE BALANCE

- Press “WB” button to open white balance menu

MANUAL SHOOTING

ii. PHOTOGRAPHY

2. WHITE BALANCE

- Set to the type of light source to correct photograph's image 'warmth'

MANUAL SHOOTING

ii. PHOTOGRAPHY

- White balance when shooting warm wood models can be very helpful to create a neutral image

MANUAL SHOOTING

ii. PHOTOGRAPHY

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**

APERTURE

i. *Brightness*

High F-STOP = Smaller aperture = Darker

f/7.1

1/30 sec

ISO 400

Low F-STOP = Wider aperture = Brighter

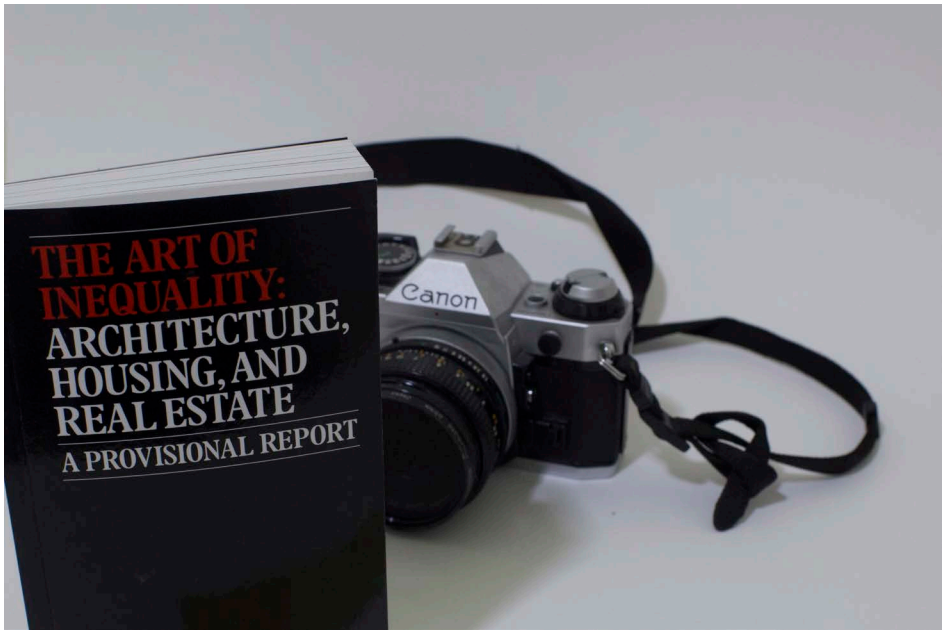
f/2.5

1/30 sec

ISO 400

APERTURE

ii. *Depth-of-field*

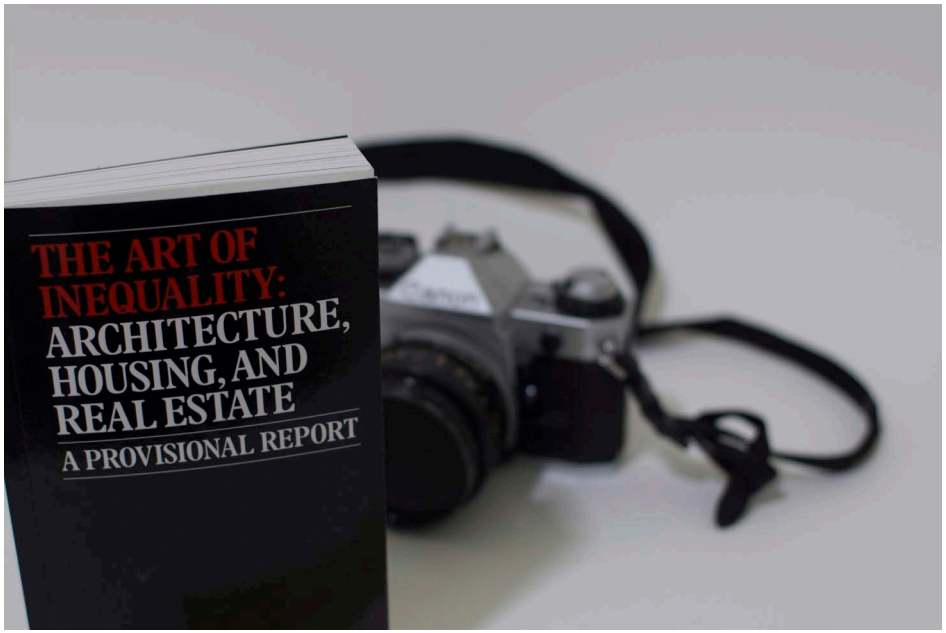


High F-STOP = Smaller aperture = Fuller depth-of-field

f/7.1

1/6 sec

ISO 400



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

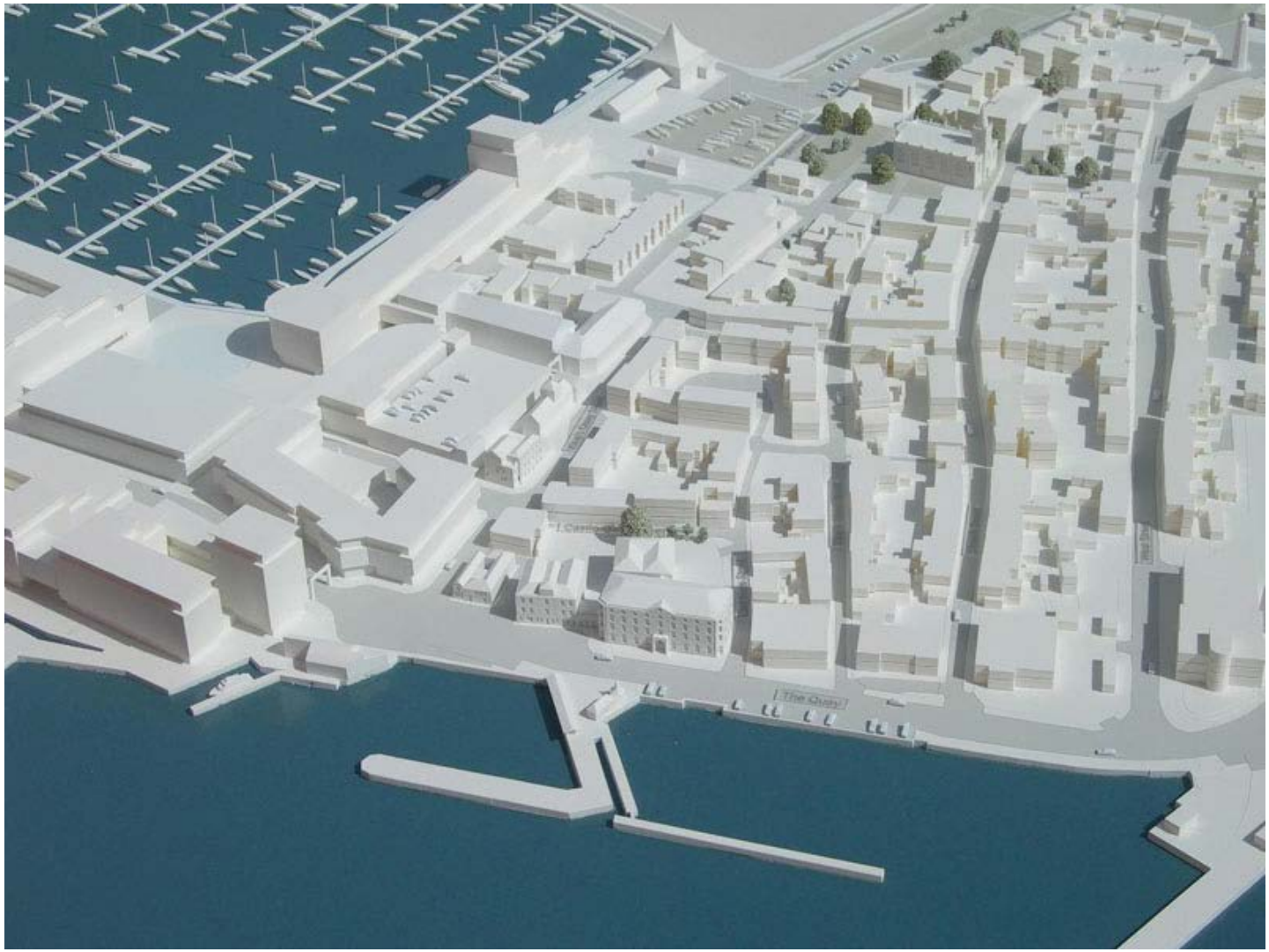
f/2.5

1/30 sec

ISO 400

MANUAL SHOOTING

ii. PHOTOGRAPHY



- A high f-stop setting can give more detail (fuller depth of field) when shooting large site models

MANUAL SHOOTING

ii. PHOTOGRAPHY

- Lower f-stop = deeper depth of field can blur out background and focus in on details of a model

MANUAL SHOOTING

ii. PHOTOGRAPHY

3. APERTURE

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

MANUAL SHOOTING

ii. PHOTOGRAPHY

3. APERTURE

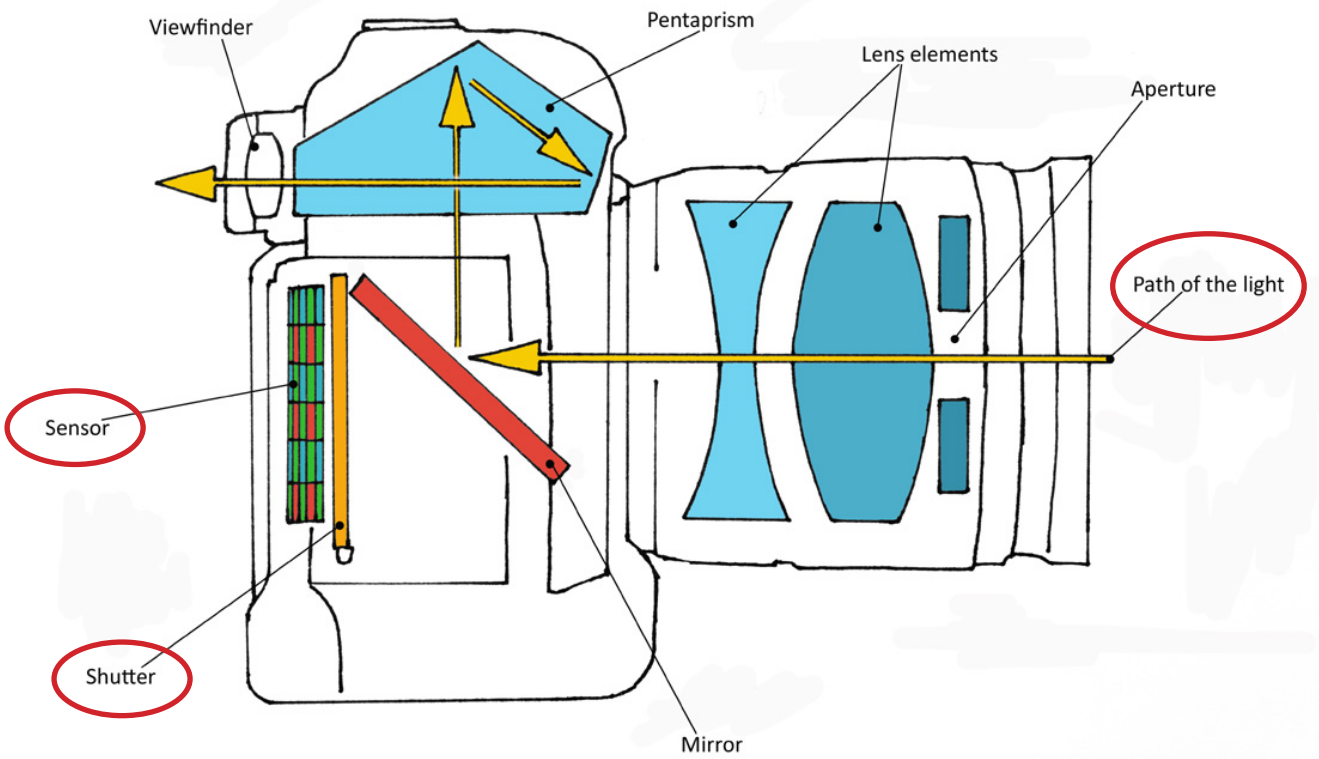
- Select desired aperture setting with front dial

MANUAL SHOOTING

ii. PHOTOGRAPHY

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**



SHUTTER SPEED

Brightness

Faster shutter speed = Darker

f/4.0
1/50 sec
ISO 400

Slower shutter speed = Brighter

f/4.0
1/20 sec
ISO 400

MANUAL SHOOTING

ii. PHOTOGRAPHY

4. SHUTTER SPEED

- Scroll front dial to control shutter speed in Manual mode

MANUAL SHOOTING

ii. PHOTOGRAPHY

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 noiser/"grainier"
- Controls **(i) brightness** and **(ii) noise**

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

ISO

ii. Noise

Low ISO = Less noise

f/2.5
1/8 sec
ISO 100

High ISO = More noise

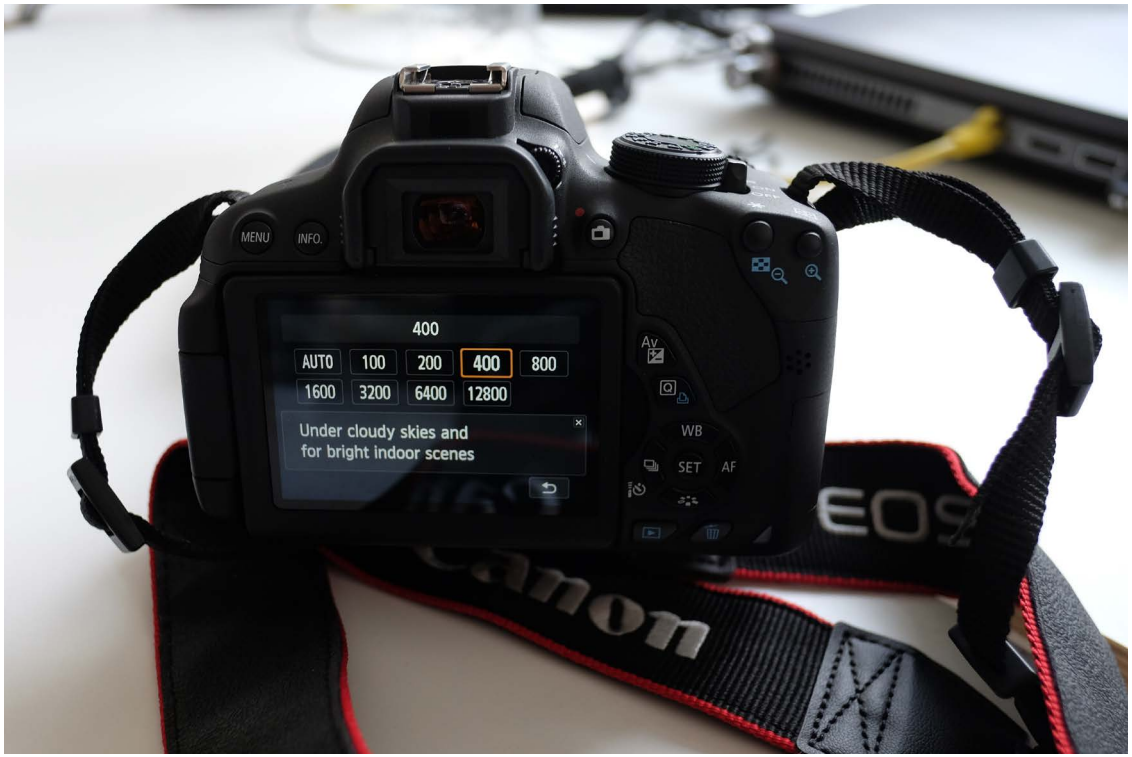
f/2.5
1/800 sec
ISO 6400

MANUAL SHOOTING

ii. PHOTOGRAPHY

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

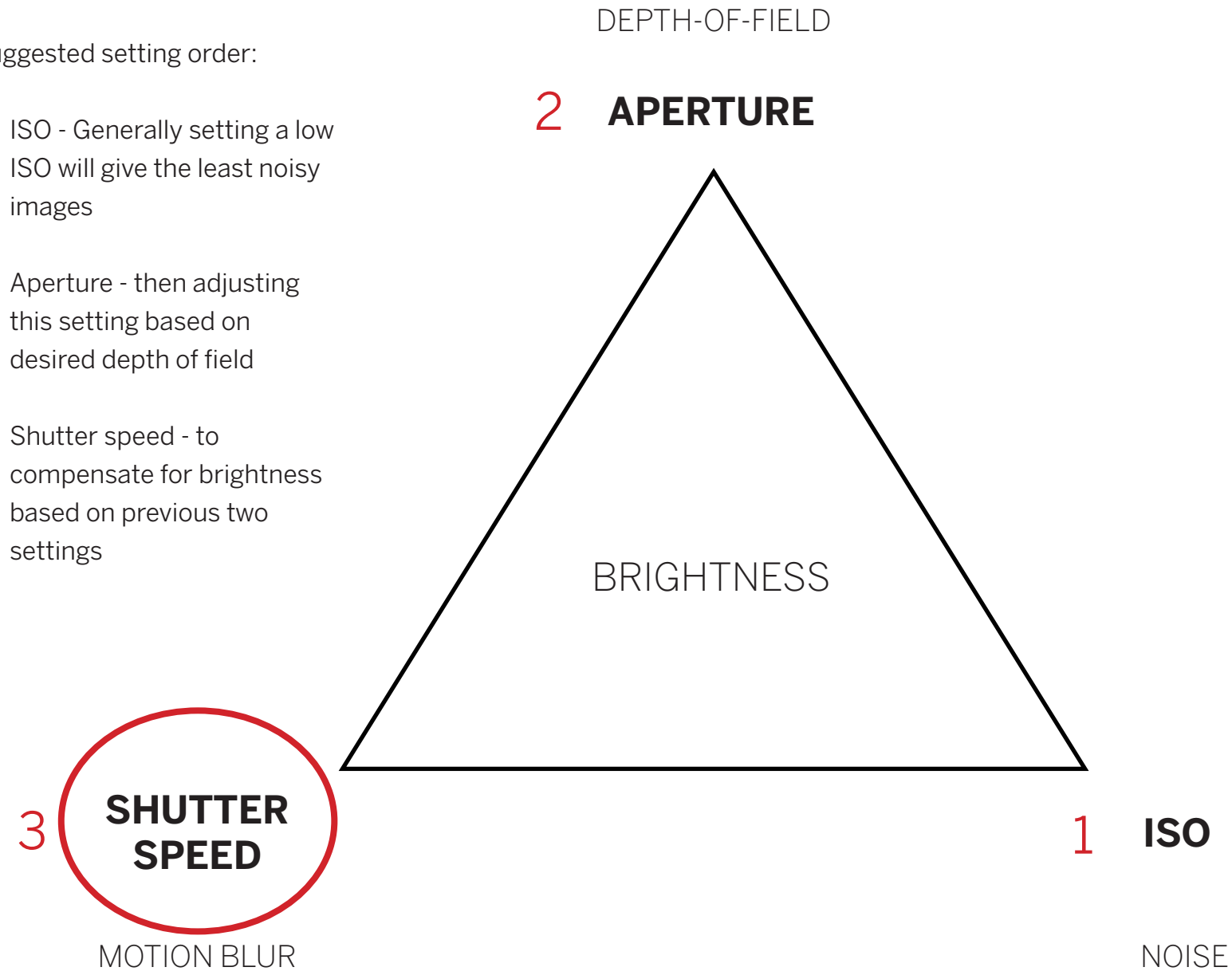
ii. PHOTOGRAPHY

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

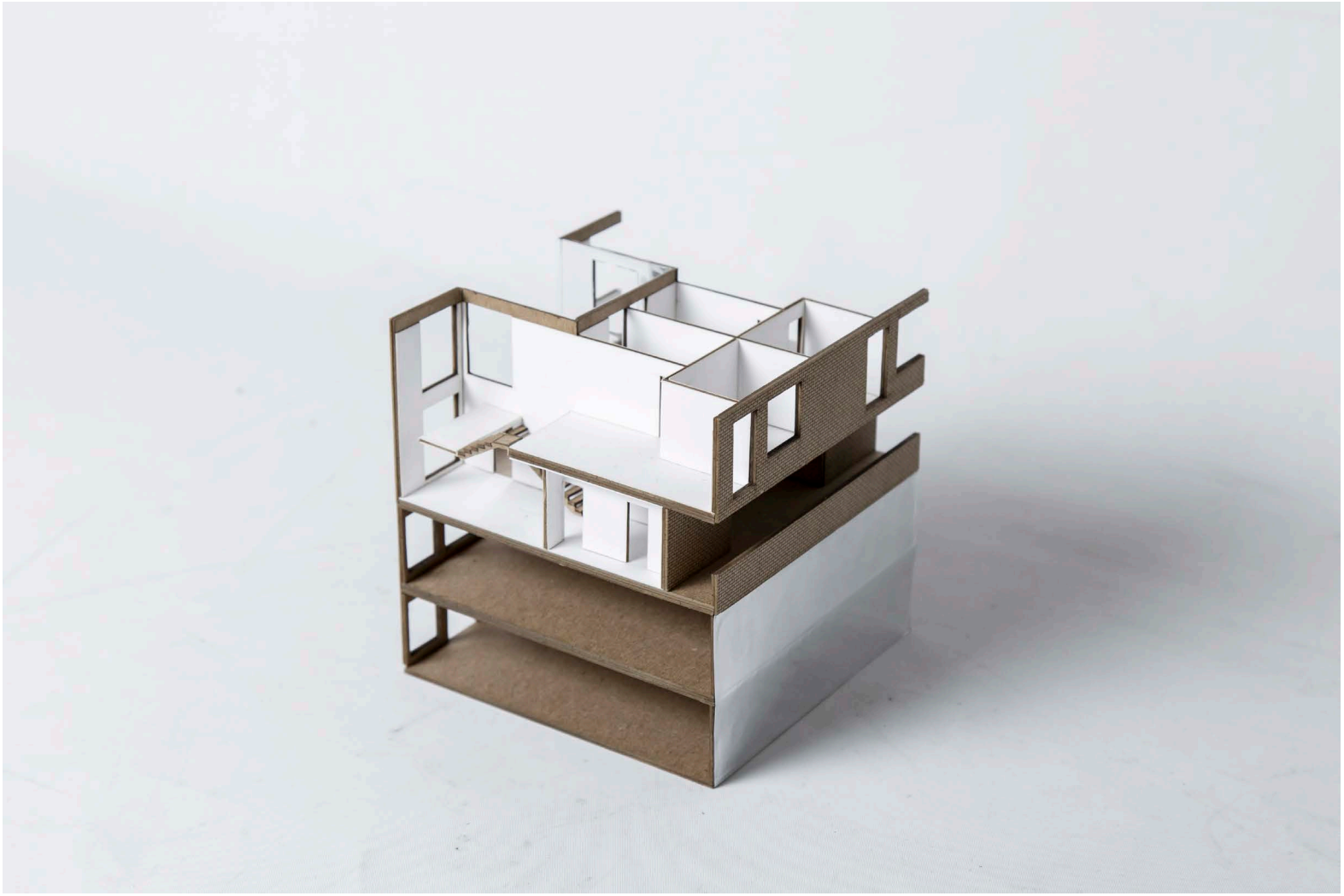


MANUAL SHOOTING

Typical archival shots

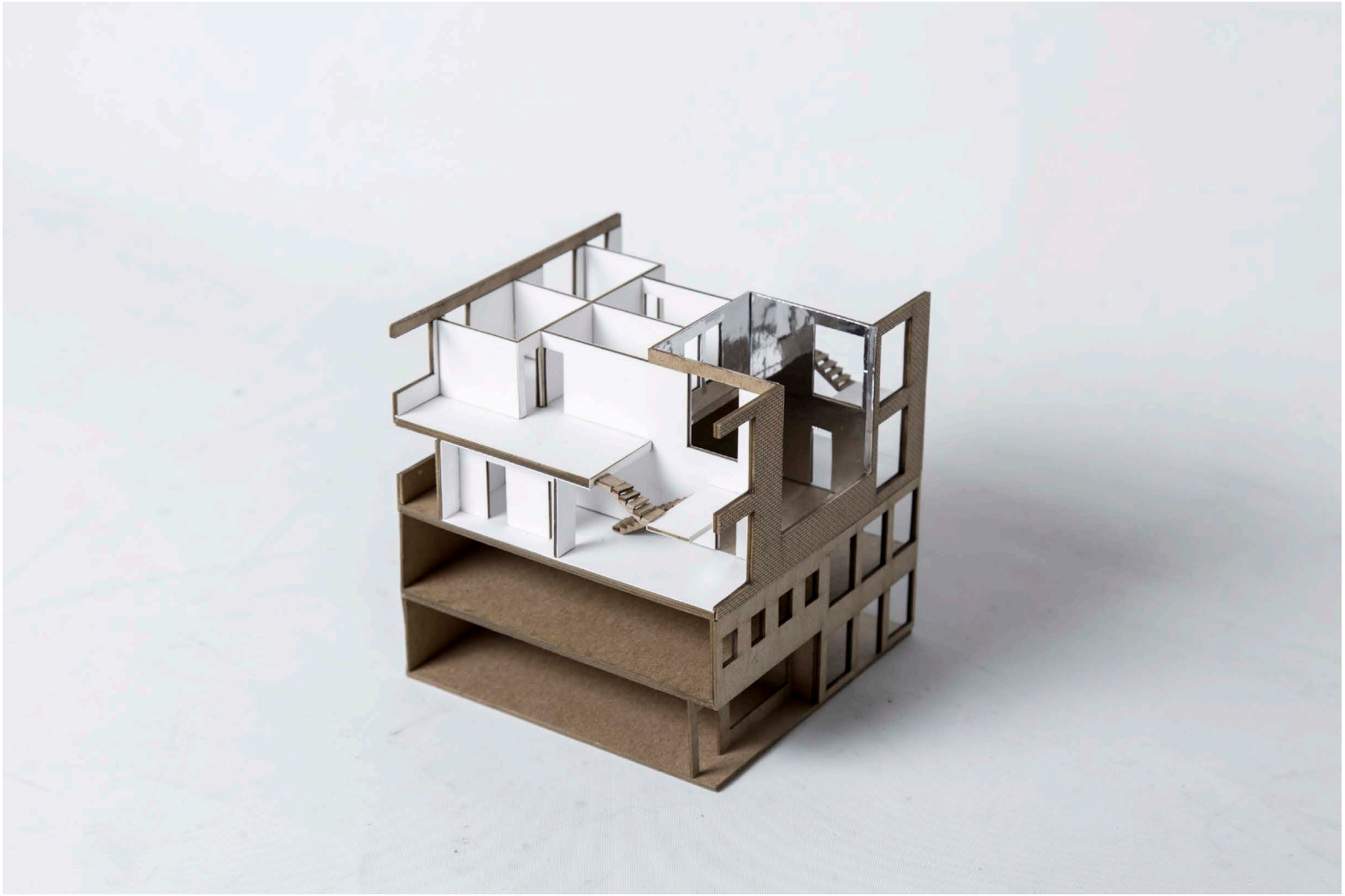
Typical angles for photographing models for archiving purposes can imitate views of projects in drawings - these are in addition to more experiential views specific to each model.

AXON PERSPECTIVE



AXON PERSPECTIVE

AXON PERSPECTIVE



AXON PERSPECTIVE

ELEVATION

ELEVATION

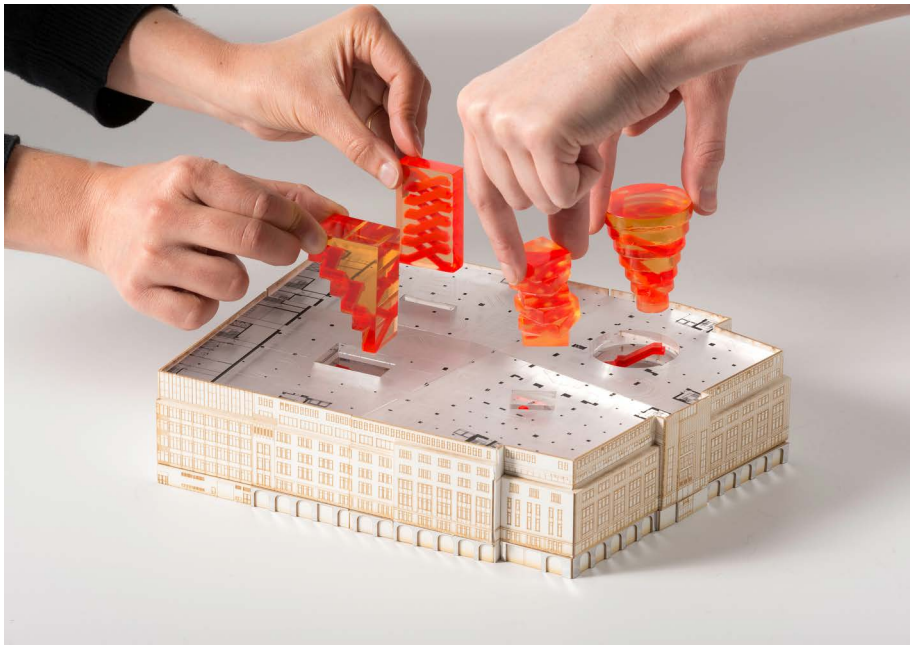
ELEVATION

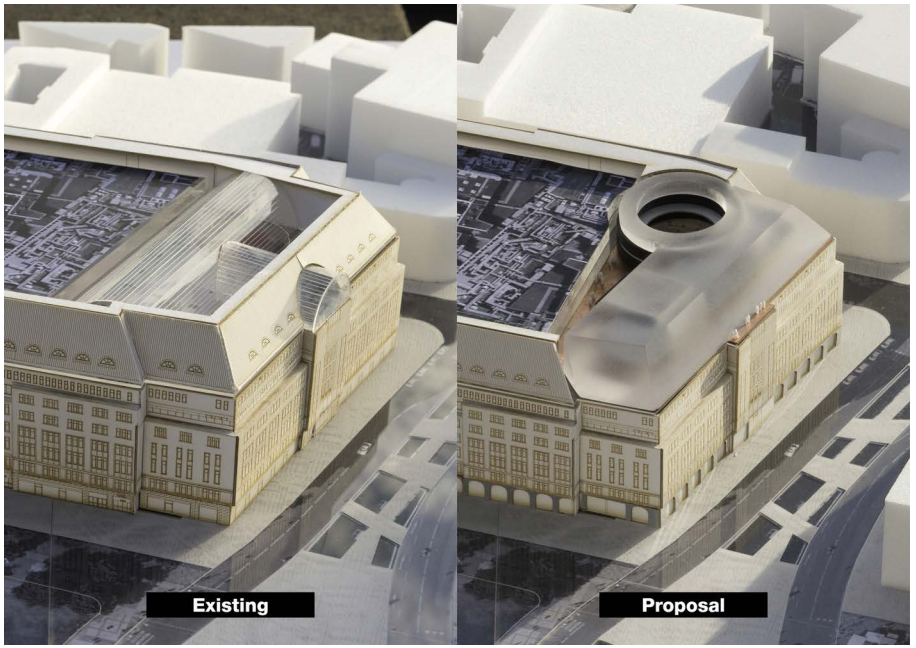
ELEVATION

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



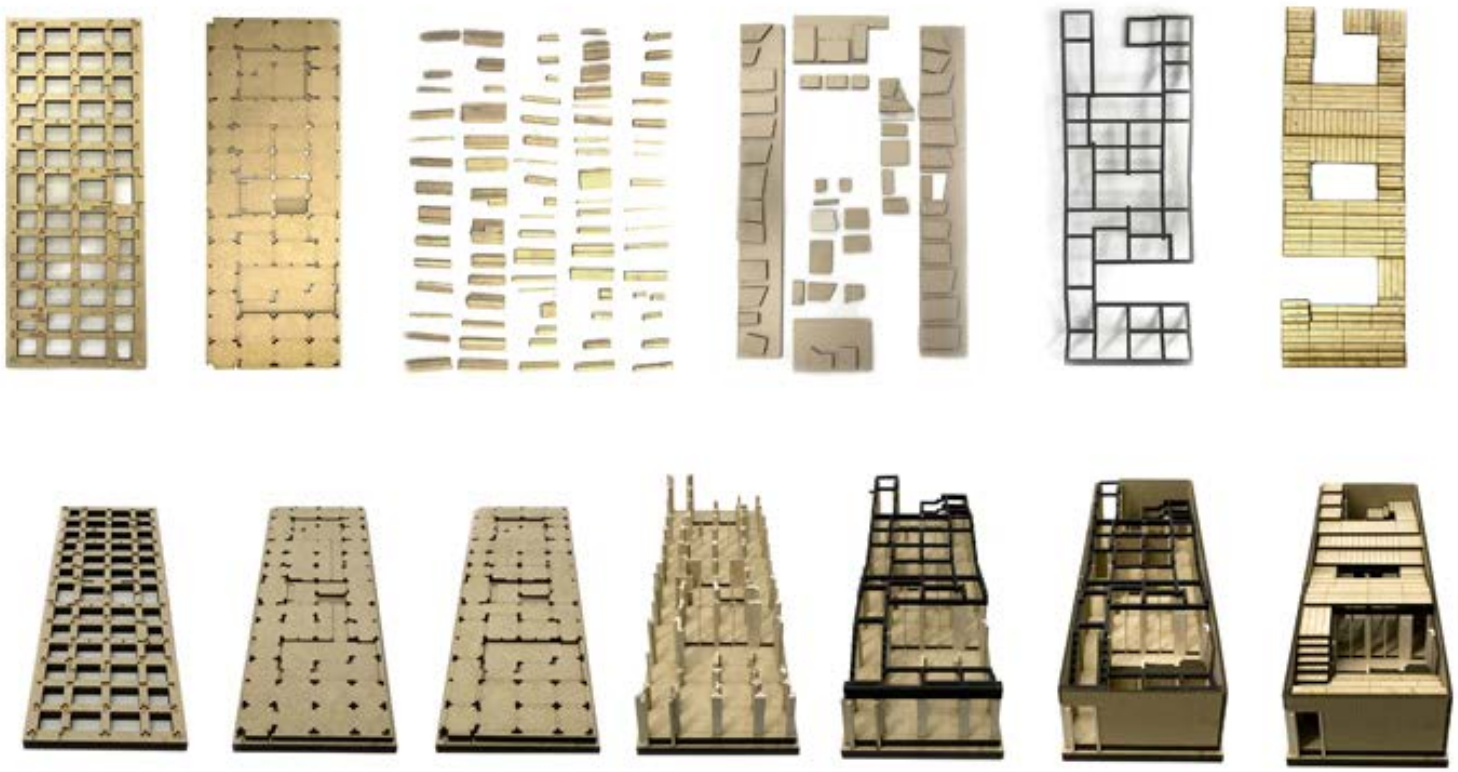


KaDeWe Renovation
OMA

Shot with a high aperture (to get details in the back) and slow shutter speed with a tripod to keep camera stead. Probably low ISO to achieve variations of lighting effect.

Mixed Use No. 2
MOS Architects

Multiple photographs compiled together. Shot with one tripod setting for plan images + another tripod setting for perspecgtive shots.

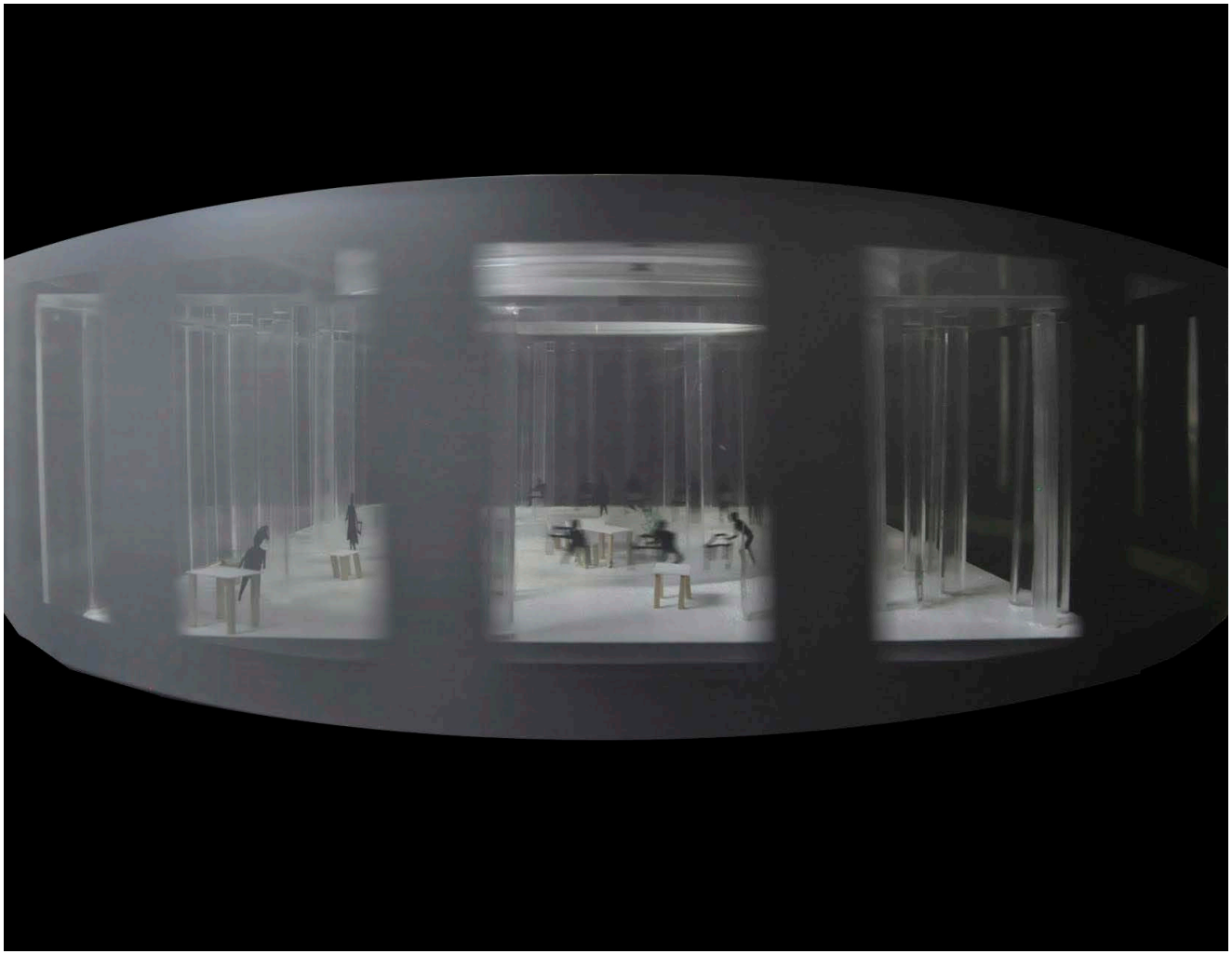


House for All Seasons
Rural Urban Framework

Slow shutter speed to get motion blur and with a tripod. High aperture setting to include details in the background (ex. apartment building).

Swing Time
Höweler + Yoon Architecture

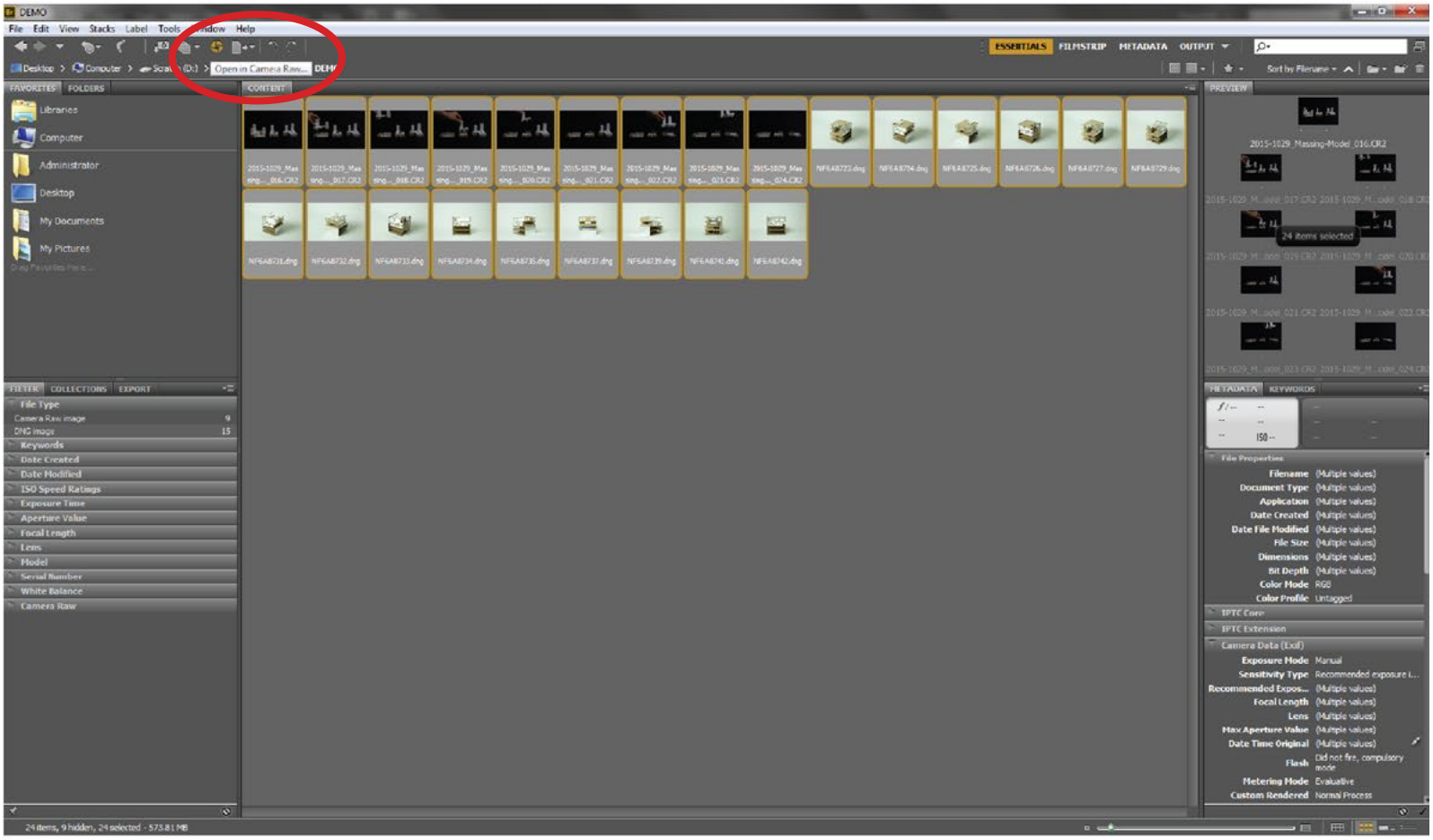
Slow shutter speed to give motion blur effect and high f-stop to include dtails of small furniture in the entire model.



ADR MODEL - Kanagawa Institute of Technology
Kimberlee Boonbanjerdsri

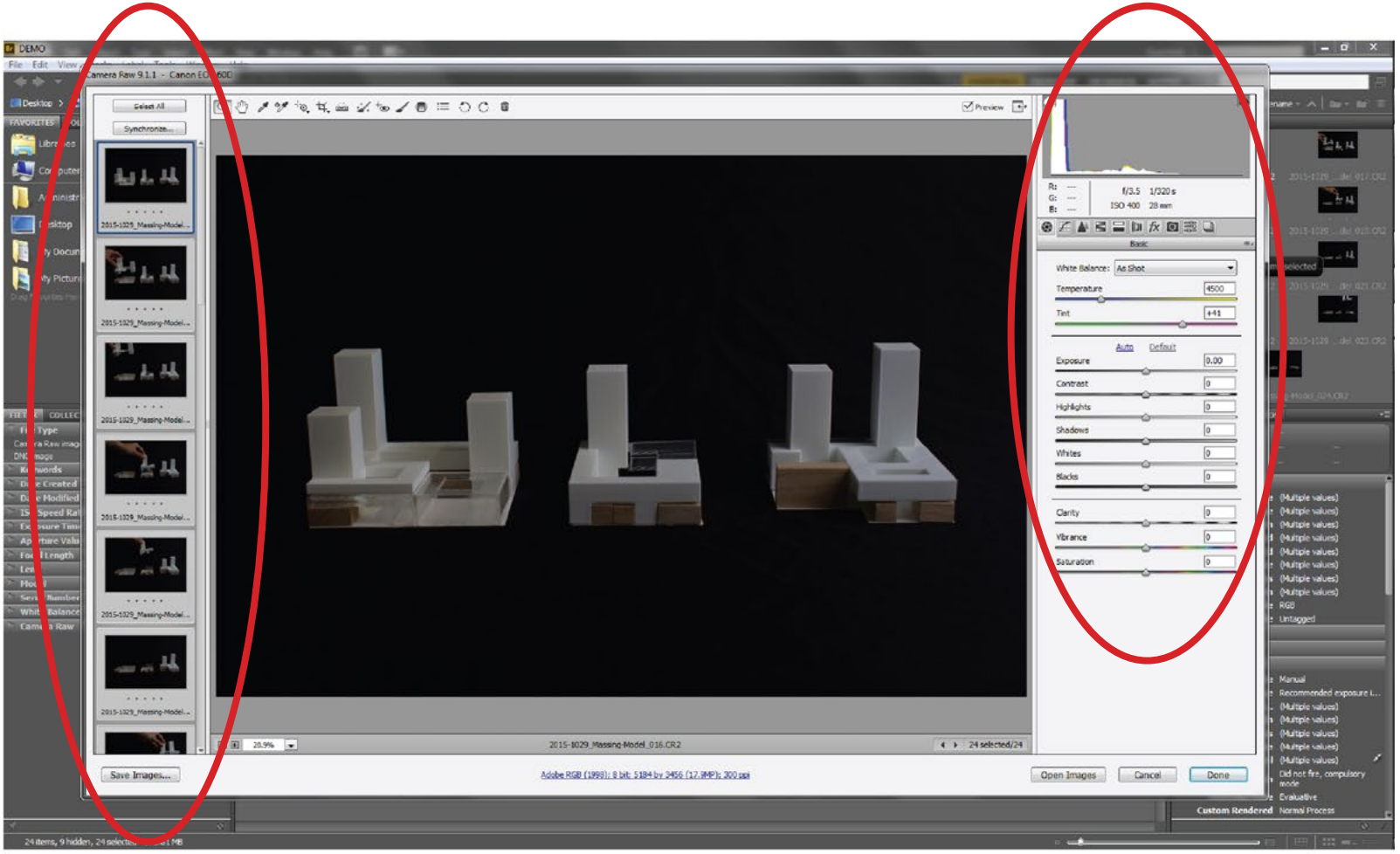
ii. EDITING

ADOBE BRIDGE DEMONSTRATION

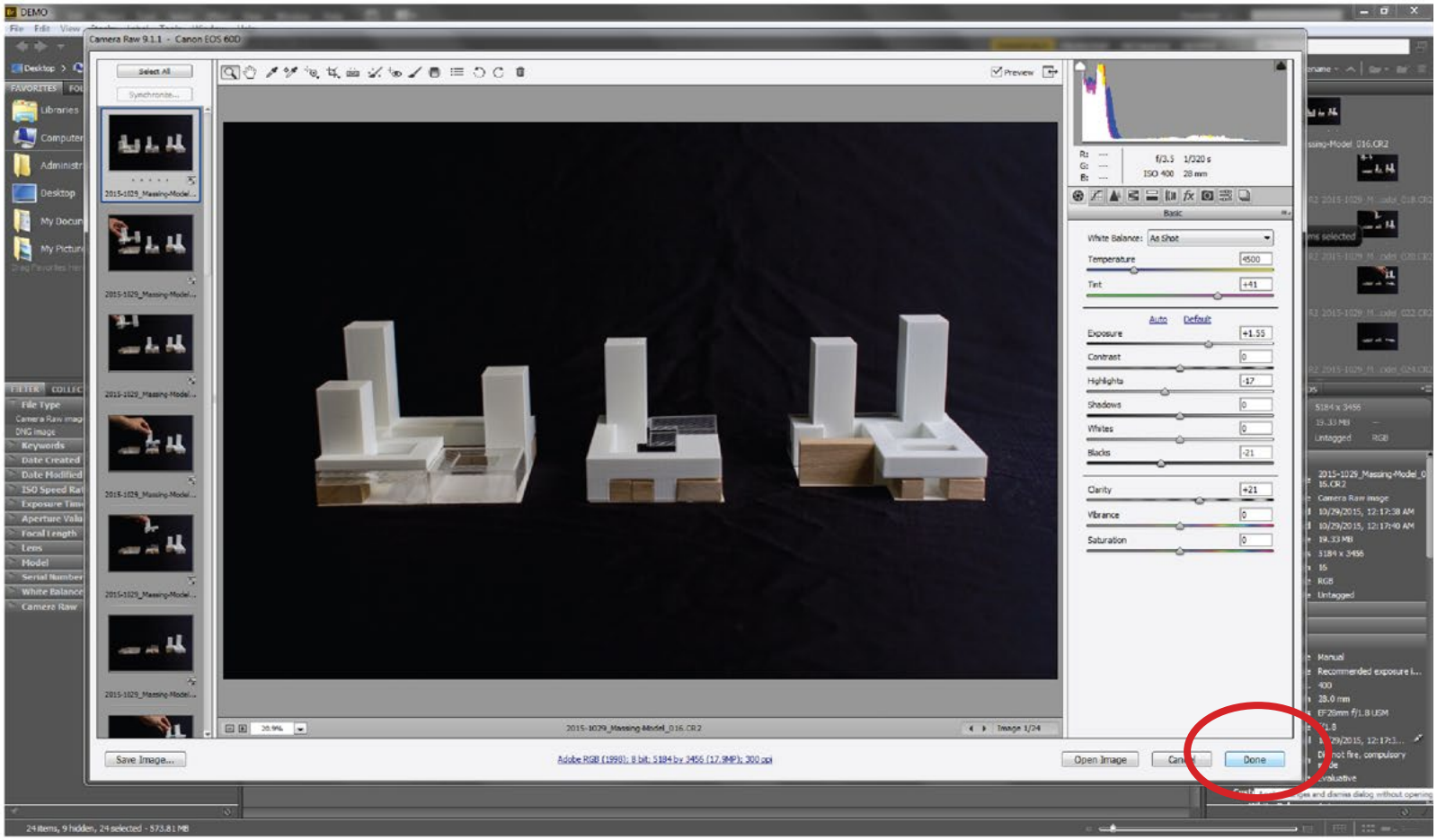


- Open **Adobe Bridge** and, in Bridge, navigate to image files *(as you would in Windows Explorer so the files could be on the desktop's hard drive or in an external hard drive).*

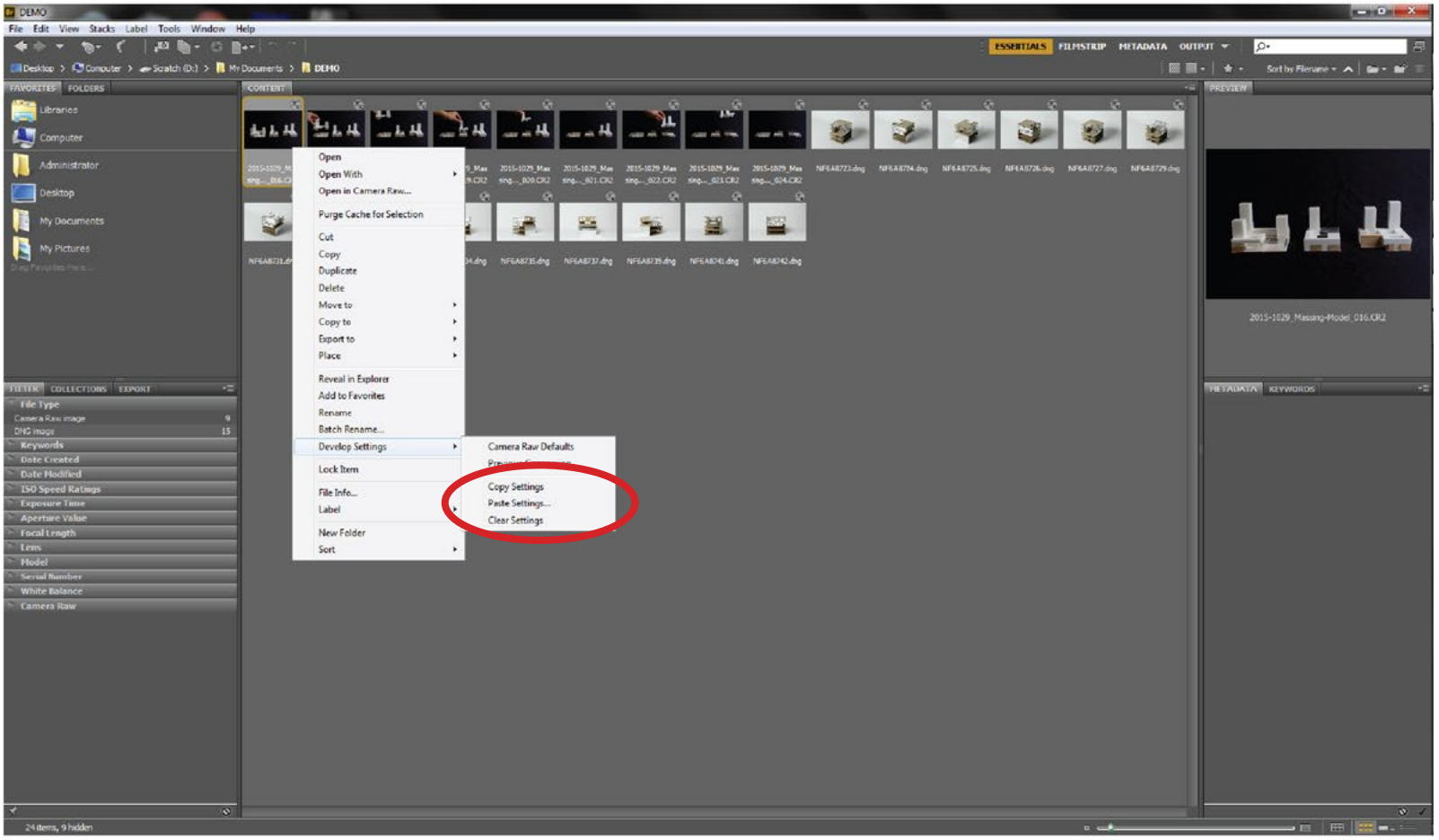
- Highlight images to edit and click the **Camera Raw** icon to open up the program.



- Select image(s) on the left thumbtail 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.



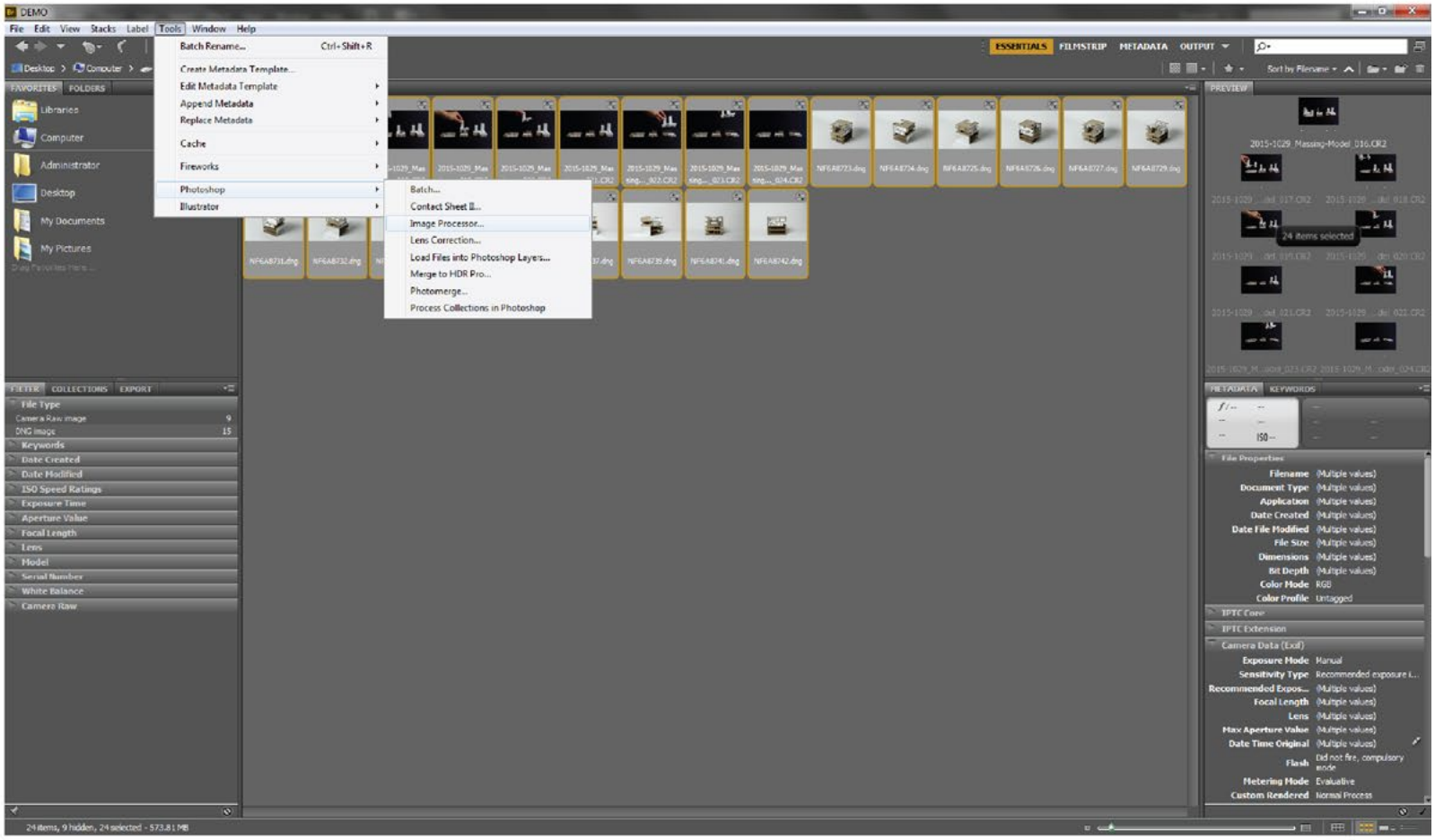
- Once you are done applying edits to images, click **Done**.
  Don't click "Open Image," it will open the highlighted files in Photoshop.



- 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**

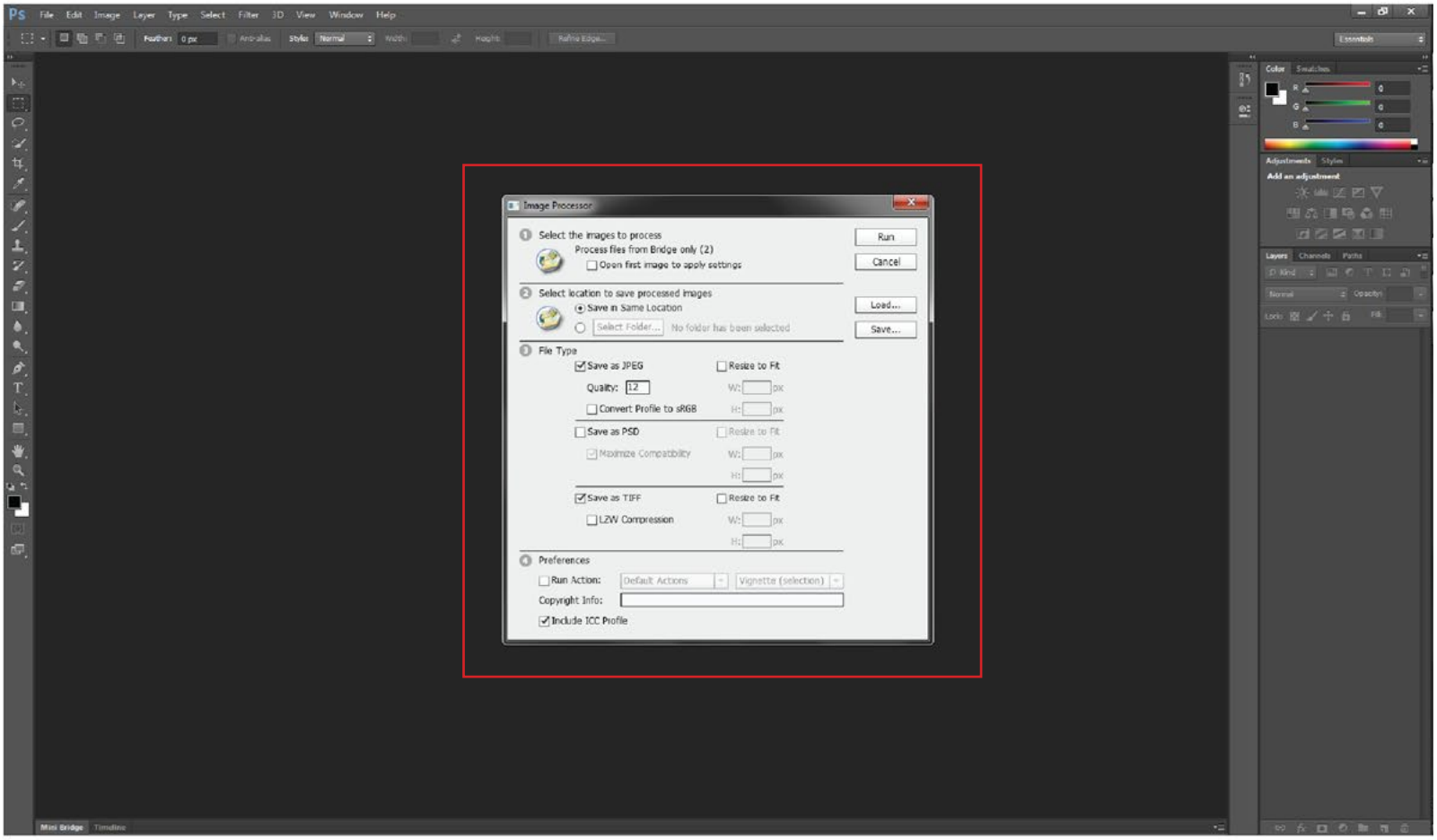
  If images were shot with same settings on Manual Mode, the edit settings should have the same effect on those other files.



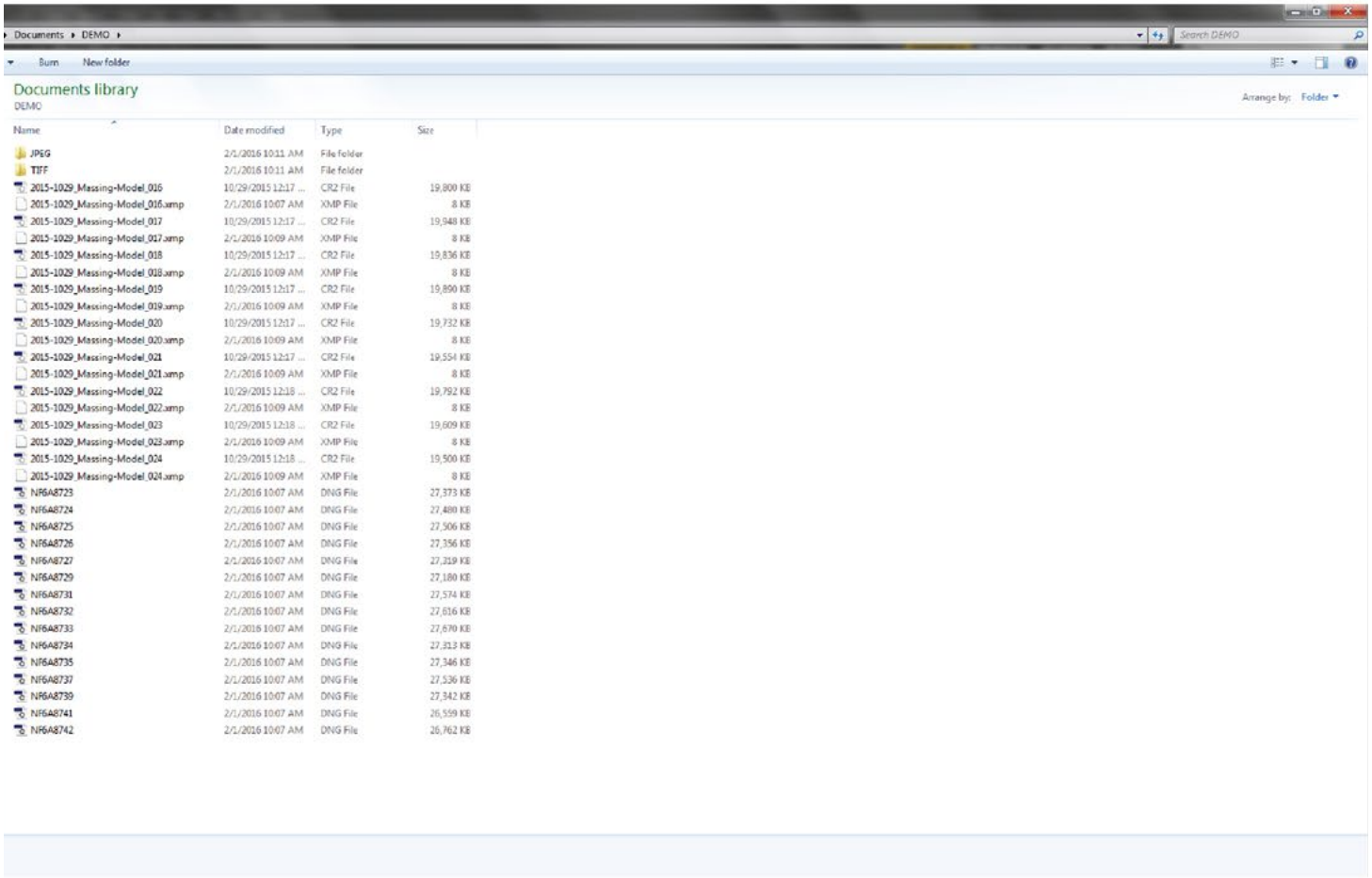
- Once edit to images are done, they can be processed out through Photoshop to permanently apply edits to files.

- **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.