

Photo 101

Making the moon look bigger



<https://www.peteralessandriaphotography.com>


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PHOTOGRAPHY

Photo 101: January 2023

Is focal length compression real?

- Compression:
 - making distant objects appear larger compared to close objects
- Caused by moving camera further back
- Just changing to long focal length lens
 - narrows the angle of view
 - does **not** affect the size relationship between near & distant objects
 - **does** help retain quality of image
 - don't throw away (as many) pixels when cropping in to frame foreground subject



Use compression effect to make moon look big

Camera **200 metres** from building & tree



Same focal length lens

Camera **1 Km** from building & tree



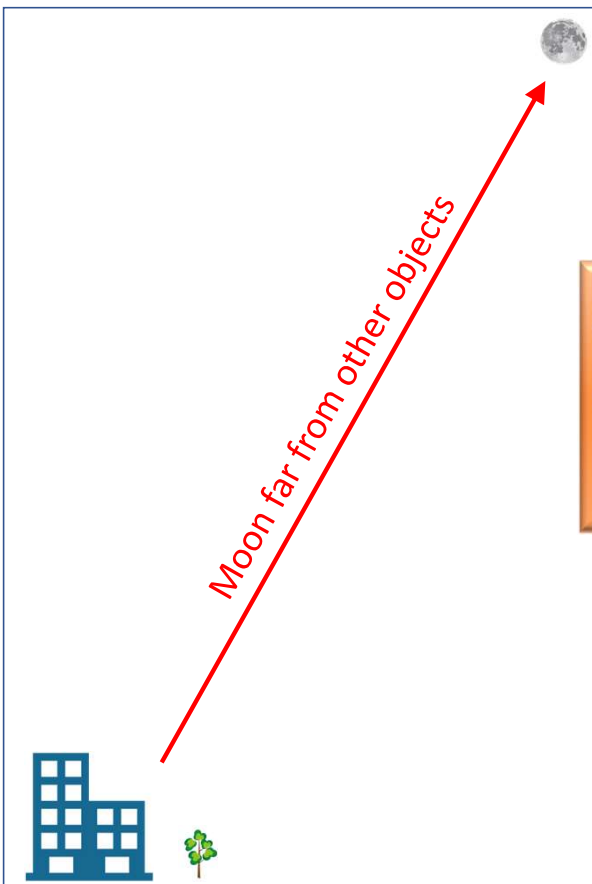
- building & tree appear $\frac{1}{5}^{\text{th}}$ the size
 - difference between **200 metres** and **1 Km**
- moon appears **same size**
 - insignificant difference between **384,400 Km** and **384,401 Km**

Zoom in or crop
(change the angle of view)

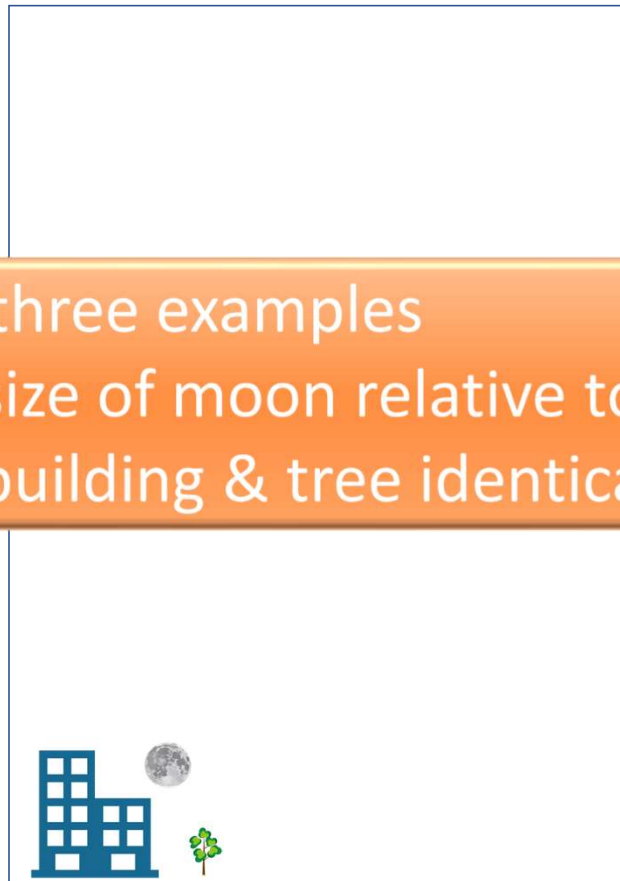


When you want a distant object to appear larger compared to a foreground object, increase the distance to the foreground object

Moon closer to foreground objects



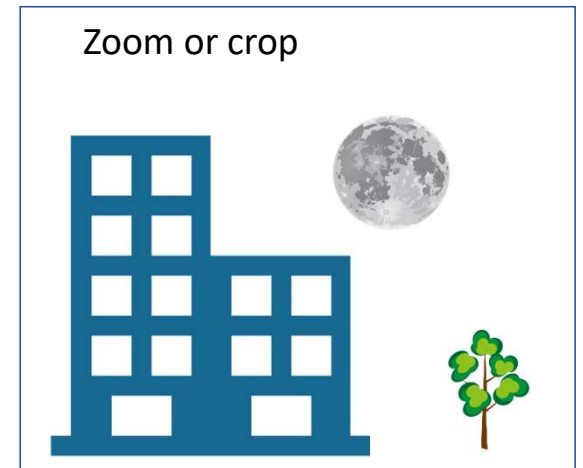
Moon looks tiny



Moon close to foreground objects or horizon

All three examples

- size of moon relative to building & tree identical



Moon looks larger because it's placed close to other objects of familiar sizes

Harvest moon appears large

- moon is full
- moonrise soon after sunset
 - closer to horizon

Super Moon?



*The average size of the
Full Moon is to a **15" pizza** what the
Super Moon is to a **16" pizza***

- Neil deGrasse Tyson

Peter Alessandria famous for using distance to create stunning images



<https://www.peteralessandriaphotography.com>



9 miles from Empire State Building

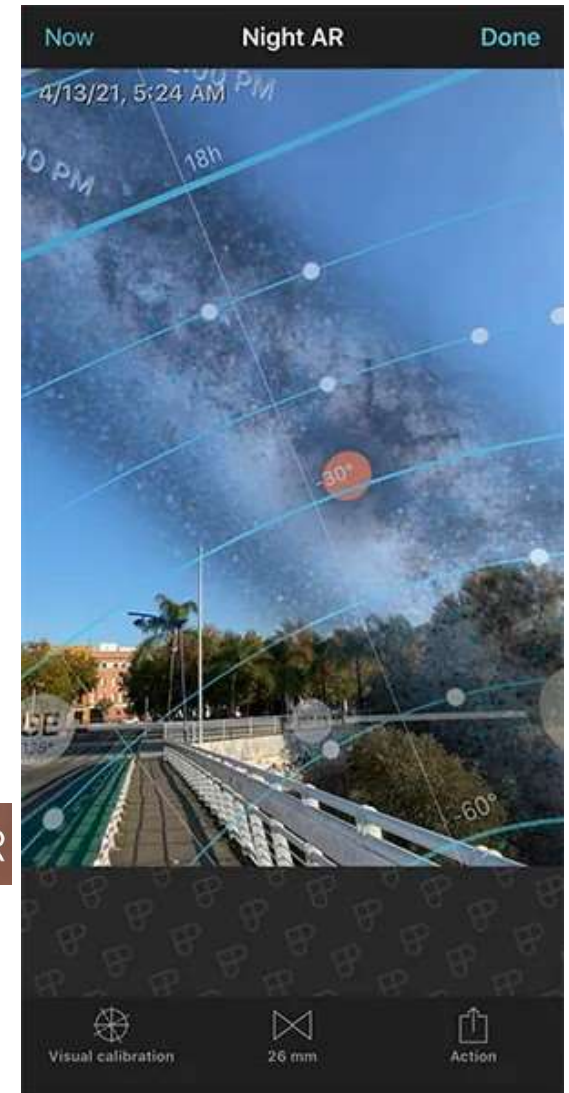
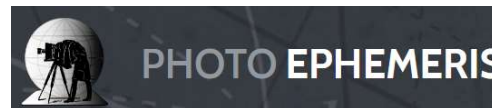
Peter Alessandria
PHOTOGRAPHER
biggertoday.com



23 miles from World Trade Center

Planning your photos to position celestial objects

- Use an app or website to plan
 - PhotoPills (Android and iOS)
 - <https://www.photopills.com>
 - Photo Ephemeris (web and iOS)
 - <https://photoephemeris.com>
 - Sun Surveyor (Android and iOS)
 - <https://www.sunsurveyor.com>
- there are others



How is an image like this possible?

...without Photoshopping the sun



PhotoPills can help you plan it

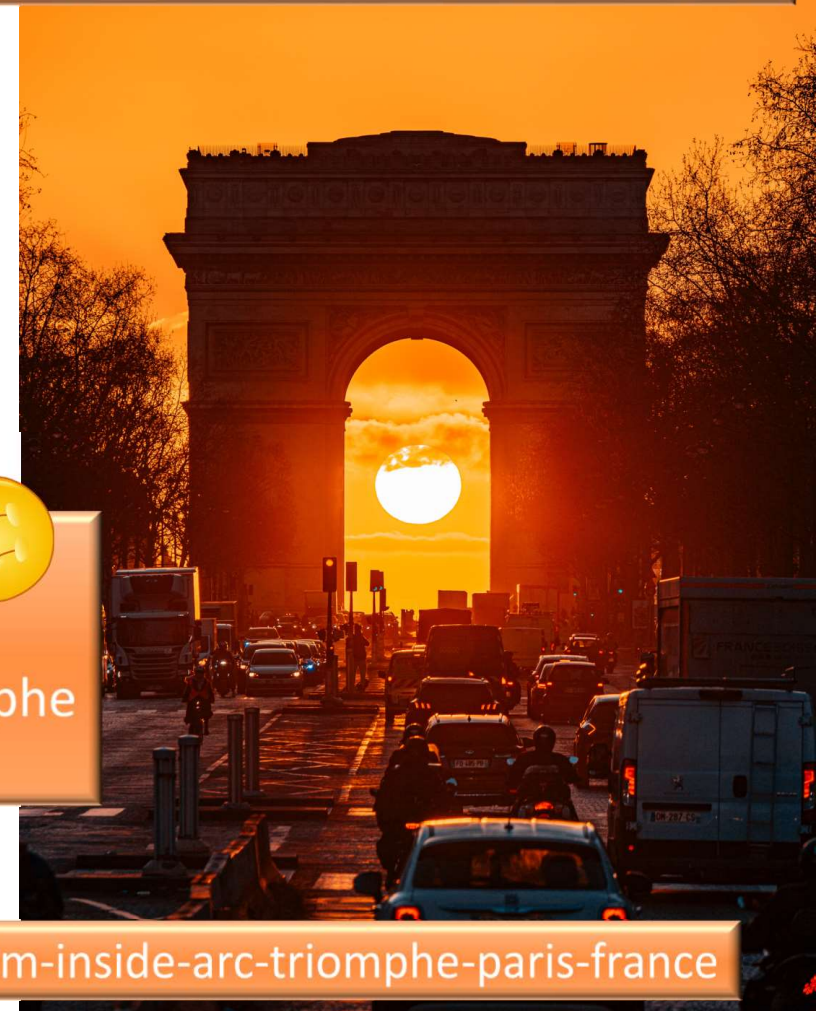
- **date & time** to get the angle right
- **distance** you must be from the Arc de Triomphe
 - to get the sun the right size to fit in the arch



Victor @vuitor

Capture of Paris Henge under the Arc de Triomphe, in sunrise
Part of Photopills Awards 2022 Legacy

<https://static.photopills.com/awards/2022-photopiller-of-the-year.pdf>



<https://www.photopills.com/videos/plan-9-sun-and-moon-10m-inside-arc-triomphe-paris-france>