

Photography Planning: The Definitive Guide



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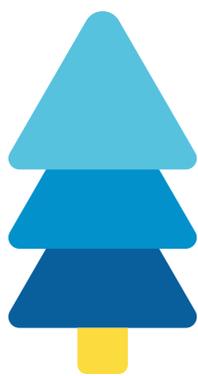
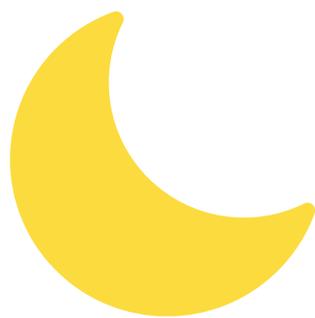


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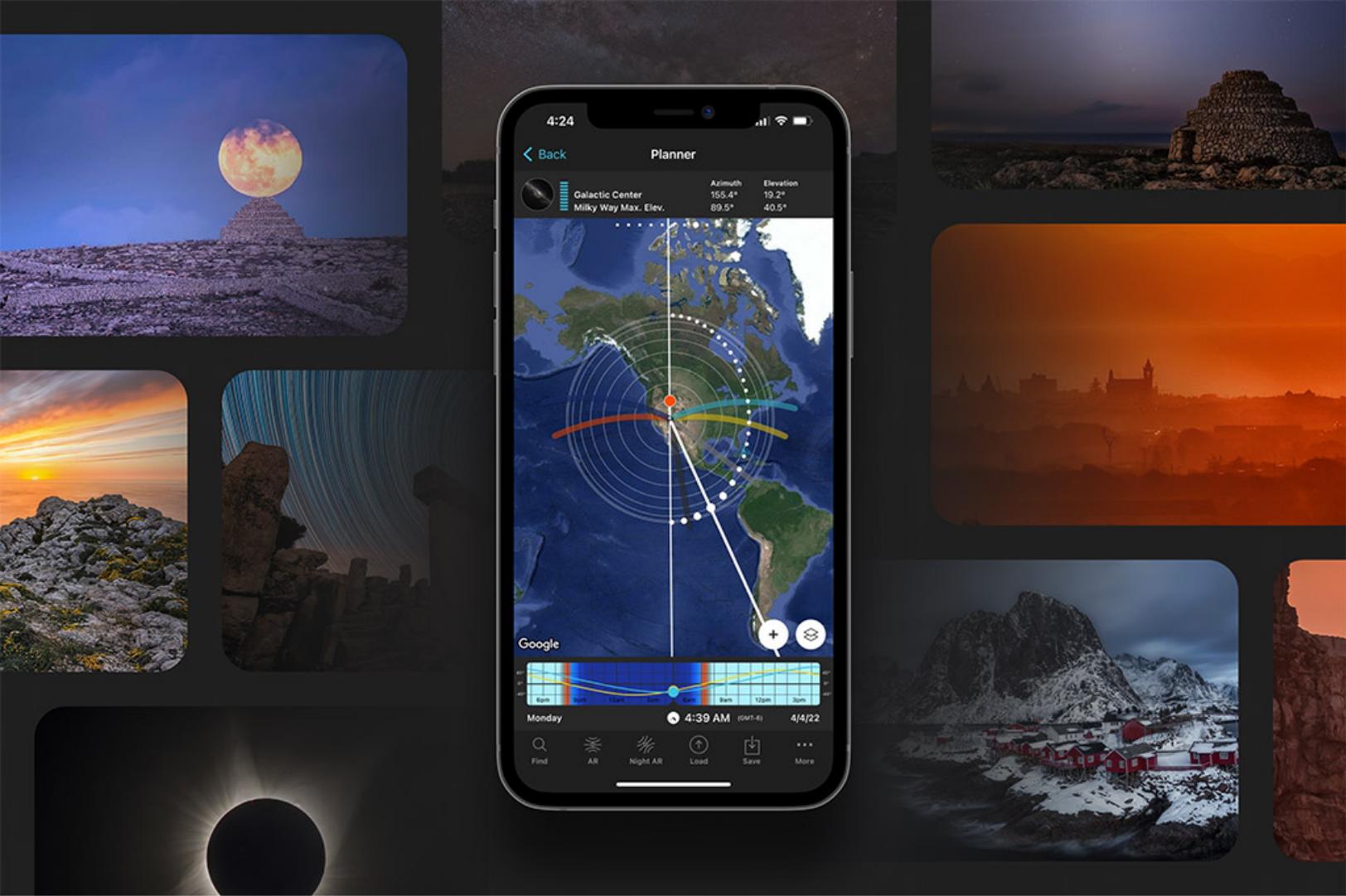
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It all begins with the same question:

"What story do you want to tell?"

And this, of course, translates into:

"What do you want to photograph... to tell that story?"

This question is crucial because many photography genres are not spontaneous or candid. Think of **landscape** photography, for instance. Or **astrophotography**, architecture, travel, real estate, wedding, **drone**, **Moon**... Just to mention a few.

You can't expect to arrive at a location at any time of the day (or night), put your tripod anywhere, work a bit on your composition and settings and get a jaw-dropping picture.

That's not how it works.

The harsh truth is that you'll return home empty-handed.

No terrific shots.

No amazing experience.

Nothing.

Except for a deep sense of frustration.

Fortunately, there's a solution for this. An easy one to implement.

Plan your photos.

Devote as much time as you can to find and scout the perfect location, to check the weather forecast, to prepare your gear and to plan your photo down to the very last detail.

Thanks to photography planning you'll avoid surprises and have (almost) everything under control. You'll always be at the right place at the right time to capture the photo you want to capture.

You will know where to go and when to go to get the photo you want. You will know exactly what to do. And you will take certain pictures that would have been impossible to shoot without planning.

And there's no better tool than **PhotoPills** to find out if your idea is possible and the three basic pieces of information – the shooting spot, the shooting date and the shooting time.

So, it all starts with an idea and finding out if it really happens. If it does, figure out when it happens. Then, pack your equipment, go to your dream location and get the shot of your life.

It will be an experience you'll never forget!

Our motto is "Imagine. Plan. Shoot!"... Didn't you know it?

*"A goal without a plan is just a wish." - **Antoine de Saint-Exupéry***

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Section 1:

Find creative
inspiration with these
20 planned photos

A great photo always starts with a great idea.

Something you have imagined, something that you think it would be possible and that you want to capture with your camera.

It's a very simple creative process but it's very, very powerful.

As PhotoPillers (crazy photographers and **PhotoPills** users) we usually sum it up in three words:

"Imagine. Plan. Shoot!"

It's our motto, our battle cry.

But don't worry, we still haven't forced any PhotoPiller to tattoo it onto his arm, wearing **our t-shirt** is enough :D

The important thing here is that you should definitely learn how to plan your shots. You can achieve some incredible results regardless of your photography level and skills!

Learning how to plan your picture will have a huge impact on your photography, whether you are an enthusiast or a professional photographer.

You'll capture the picture of your dreams. You'll know exactly what to do: where and when to go, where to frame and when to shoot.

And you'll avoid the frustration of being in the field clueless and returning home empty handed...

That's why I thought that these 20 ideas could help you to learn photography planning. As you can imagine, all of them have been planned with PhotoPills! ;)

Natural landscape (1)



Nikon Z6 II | 18mm | f/16 | 2s | ISO 100 | 6000K | ND 0.9 (3 stops), soft GND 0.9 (3 stops) and polarizer filters

Lofoten is a group of islands scattered in the wild waters of the European North Sea, above the Arctic Circle. And if you are a landscape photographer like me, it's just paradise!

Despite the changing weather conditions, I tried to make the most of my time out there. I planned tons of shots and I could capture some amazing scenery.

That's how I ended up with the picture above: planning everything to the last detail, getting ready for any unexpected event and waiting for the best **natural light!**

Urban landscape (2)



Nikon D7100 | 52mm | f/9 | 2s | ISO 100
Photo by [Denis Poltoradnev](#)

This picture was taken by fellow PhotoPiller [Denis Poltoradnev](#) during a cold winter morning.

Charles Bridge is probably one of the most magical places in Prague, the Czech capital. And while most people complain that such an empty bridge is a Photoshop trick because there are usually a lot of tourists, well...

I'm afraid I have to disappoint these people!

Prague in the early morning, like almost all cities I have visited in Europe, is almost empty. So, you plan your shot carefully, find out the Sunrise time and direction and get up early!

Avoid being lazy and you'll enjoy in silence stunning Sunrises and beautiful pictures in the heart of the Czech capital like this unique, magical moment!

Sunrise (3)



Nikon Z6 II | 18mm | f/8 | 30s | ISO 100 | 5950K | ND 1.8 (6 stops), soft GND 0.9 (3 stops) and polarizer filters

There is absolutely no obligation to include the Sun in your frame. Look at the photo above: the Sun is not in the composition. But it's projecting a beautiful warm light onto the landscape.

The combination of the warmth of the Sun along with the cool tones of the rocks and the water creates a beautiful contrast.

Add to this the silk effect in the water, plus a human figure to convey a sense of scale, and you have a magical image.

Sunset (4)



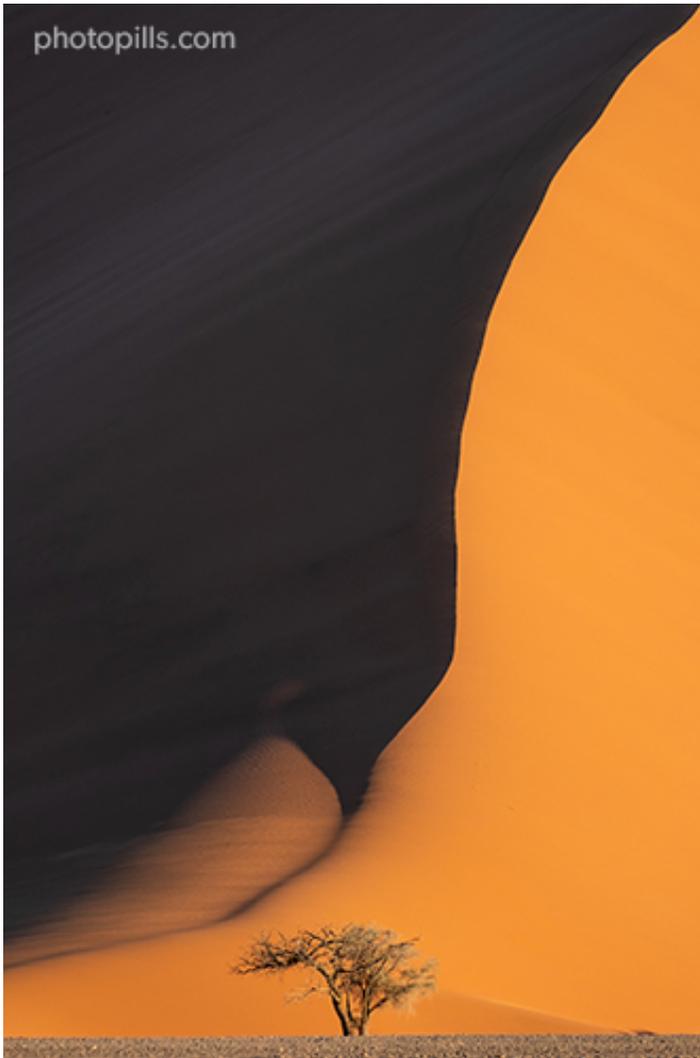
Nikon Z6 | 210mm | f/5.6 | 0.8s | ISO 200 | 5950K | Soft GND 0.9 (3 stops) filter

As you know, capturing a a huge Sun or **Moon** depends on your shooting distance, not on the focal length.

So in order to capture a big Sun setting behind the Sa Farola lighthouse I had to know exactly how far away I needed to shoot from.

I nailed the planning in the morning and then I took advantage of the only clear sky window of the afternoon to transform an idea I had years ago into an epic picture.

Golden hour (5)



Fujifilm X-T2 | 200mm | f/4.8 | ISO 200 | 5500K

This photo was taken during the [expedition to Namibia](#), where the desert landscapes are immense and the red rusty iron dunes of the Namib are unmistakable.

It was taken during the [golden hour](#), when the light is perfect to capture the colors of the sand of this very particular desert.

I wanted to show the huge size of the dunes so I added an acacia to the composition at the bottom of the frame. And I thought it would be interesting to put the line of the dune in the upper right corner.

Blue hour (6)



Nikon Z6 | 18mm | f/16 | 8s | ISO 100 | 7800K | Soft GND 0.9 (3 stops) filter

Thanks to [PhotoPills](#) I knew that on that morning the Sun would be rising behind the Favàritx Lighthouse from Cala Presili. This small beach of Menorca is an ideal location for [Sunrises](#), Moonrises and also for [Sunsets](#) and Moonsets.

I also knew where I need to put my camera and tripod so the [natural light](#) would be where I wanted it to be...

What I wasn't expecting at all was to witness and photograph one of the most powerful Sunrises I have ever seen.

So yes, planning is essential. But sometimes nature holds a little surprise for us to enjoy!

Moonrise (7)



Nikon Z6 | 500mm | f/5.6 | 1/50s | ISO 1600 | 6500K

The Favàritx lighthouse is an iconic subject. I've photographed countless times and I love to return to this location over and over... I just can't help it. Every time is different.

It has also become a **Moon** magnet. Aligning a big **Moon** with the lighthouse is a successful recipe to produce a jaw-dropping image.

And in order to know where and when I need to go, I always rely on **PhotoPills**. Big **Moon** shots require a bit of planning, but once you get the hang of it, it's so fun!

Moonset (8)



Nikon D4s | 340mm | f/5.6 | 1/320s | ISO 3200 | 6000K

As time goes by, rocks mute into some very weird shapes because of the effect of erosion.

A very good example is the one that you can see in the picture above, known by the Minorcans as "Sa punta de s'Elefant". You'd call it "The Elephant Rock" in English.

With such a gift from nature, I was obsessed with finding a composition with The Elephant Rock and the **Moon** setting behind it. But I also wanted to add a human element, to convey a sense of scale and tell a legendary story.

Once I knew that I could count on Rafa to model for me, I started planning the shot like crazy. Fortunately, I found a date in which the scene would actually happen.

Now I just had to grab my camera and wait for the perfect moment...

Milky Way (9)



Nikon Z6 | 14mm | f/2.8 | 30s | ISO 6400 | 4000K | Optolong clear sky 77mm (for the light pollution) and Kase Starglow (for the stars) filters

In this picture I wanted to create a connection between the stars and one of those rare buildings that our ancestors left for us to enjoy... and photograph!

The photo shows the **Milky Way** together with an amazing construction: the **Naveta d'es Tudons**, – a remarkable megalithic chamber tomb that you can find in Menorca (Spain). And this building served as a collective ossuary between 1200 and 750 BC. Isn't it amazing?

Thanks to **PhotoPills** I was able to plan the exact moment in which the Milky Way would be drawing a nice diagonal behind the main subject.

Star Trails (10)



Nikon Z6 | 18mm | f/2.8 | 25s | ISO 3200 | 3800K | 196 photos edited in [Lightroom](#) and stacked with [Star Trails for Mac](#)

Most people love Star Trails images. And it's easy to understand why: you simply can't stop staring at them.

Depending on the direction you aim your camera, you'll get a different Star Trails pattern: verticals, diagonals and circles. What's your favorite?

In this occasion I found a gorgeous seascape in Menorca and thanks to [PhotoPills](#) I knew:

- Where I needed to point my camera to.
- When I should start shooting.
- When I should stop shooting.

- The shutter speed of each frame.

All I had to do was follow the plan and then merge all the frames once I got back home.

Meteor Showers (11)



Nikon Z6 | 18mm | f/2.8 | 25s | ISO 3200 | 3800K | 1 base shot and 2 meteor shots

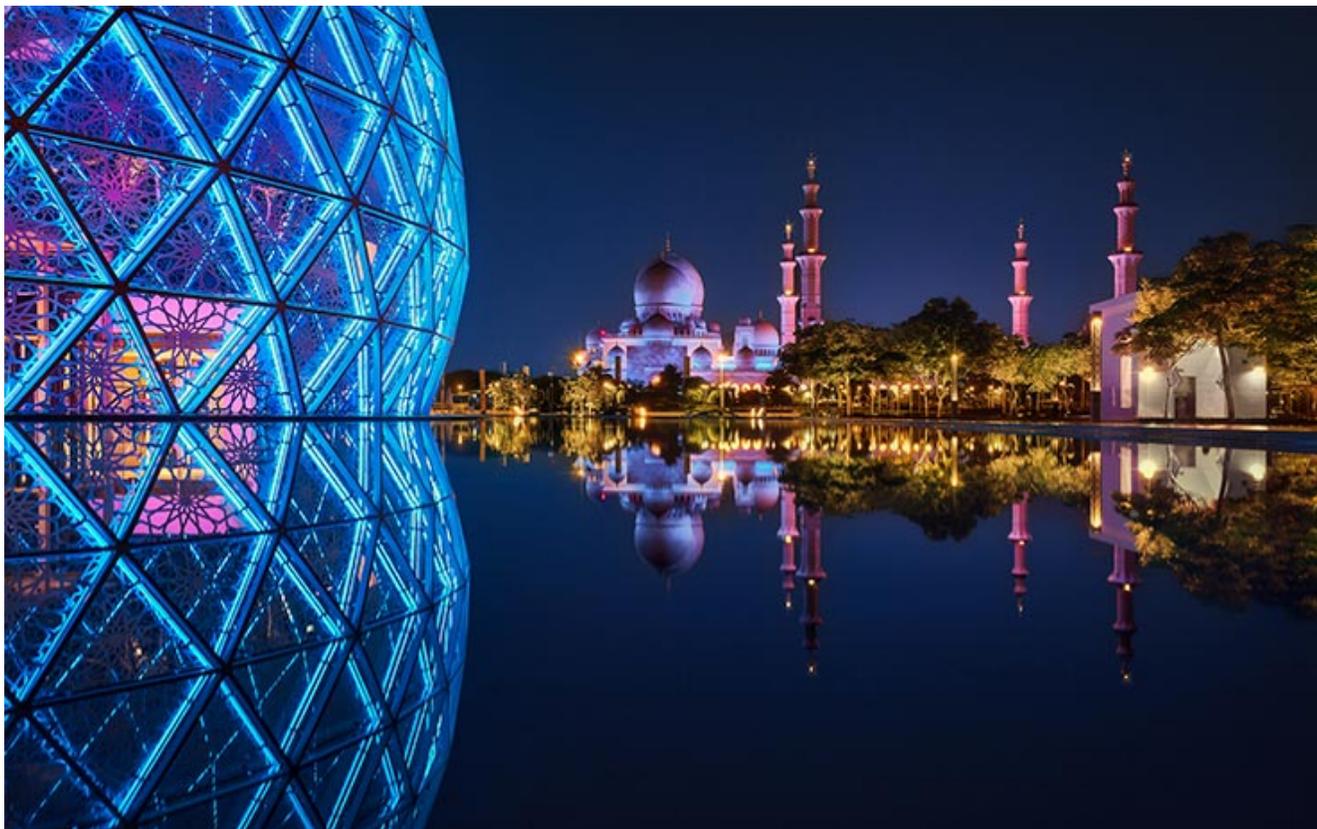
Menorca's seascapes are perfect for astrophotography. They offer beautiful locations with interesting subjects and they don't depend on tides... ;)

As you saw in the previous photo, this shooting spot was great because I could capture some Star Trails while taking some frames of the always amazing [Perseids Meteor Shower](#).

You can use [PhotoPills](#) in two different ways to plan your Meteor Shower shots:

- In the field, with the Meteor Shower pill.
- From home, with the Meteor Shower features included on the Planner.

Architecture (12)



Sony A1 | 24mm | f/10 | 3.2s | ISO 100 | 8399K
Photo by [Jesús García](#)

Photographing Dubai's Sheikh Zayed Grand Mosque can prove incredibly challenging. It's a building that has been captured on countless occasions, and finding a new point of view and composition is quite difficult.

However, my friend [Jesús García](#) managed to get a unique perspective including new architectural elements, a mysterious reflection and the power of the **blue hour** natural light.

These types of shots are almost impossible to capture without a detailed plan.

Portrait (13)



Nikon D4s | 85mm | f/1.4 | 1/800s | ISO 100 | 3800K

This is not one of my best portraits, but I feel very attached to it. I took it during the 2017 **PhotoPills Camp** in a magical location called s'Hostal Quarries (also known as Líthica), not far away from Ciutadella in Menorca (Spain). These are quarries of marés limestone, the stone traditionally used in the island for building. I just love the red, ocre and golden colors of the rocks there: they make a fantastic background.

I waited for the **golden hour** while the Sun was setting to the left of the models so it would illuminate them from the side, while casting a fabulous golden light on them.

And **PhotoPills** proved very helpful to help me position the models according to the **Sunset** direction and the time of the day the **golden hour** would occur.

Wedding (14)



Photo by [Joan Mercadal](#)

This photo was taken by [Joan Mercadal](#) in [Alcaufar Vell](#), a rural hotel located in Menorca (Spain), a fantastic venue for a wedding.

The idea was to have the Sun setting along the main building creating beautiful red and golden colors in the background, behind the newly weds.

And then, use a flash to light the adorable couple.

How did Joan figure out the right shooting spot and time on the wedding day?

You've guessed it right... He used [PhotoPills](#)... :)

Drone (15)



DJI Air 2S | 22mm | f/2.8 | 1/4000 | ISO 110

Photo by [Javier de la Torre](#)

This shot was taken by my friend [Javier de la Torre](#), an amazing travel and landscape photographer, in the Dubai desert.

Dubai has a jaw-dropping architecture. But on this occasion Javier wanted to showcase the power of the desert and how it inevitably gobbles up all signs of civilization as time goes by.

Javier used [PhotoPills](#) to plan the composition of this shot and take advantage of the Drone and Field of View tools.

Lunar eclipse (16)



Apple iPhone 7 Plus | 31mm | f/1.8 | 1/33s | ISO 20

When there's a will, there's a way!

This picture is a great example of why gear is not important to capture cool images.

I took a shot of the July 16, 2019 partial lunar eclipse with my iPhone... ;)

And I was able to do so thanks to a thorough planning: I needed to find a location from which the eclipse would be visible, and I also needed to find out when to shoot it.

Solar eclipse (17)



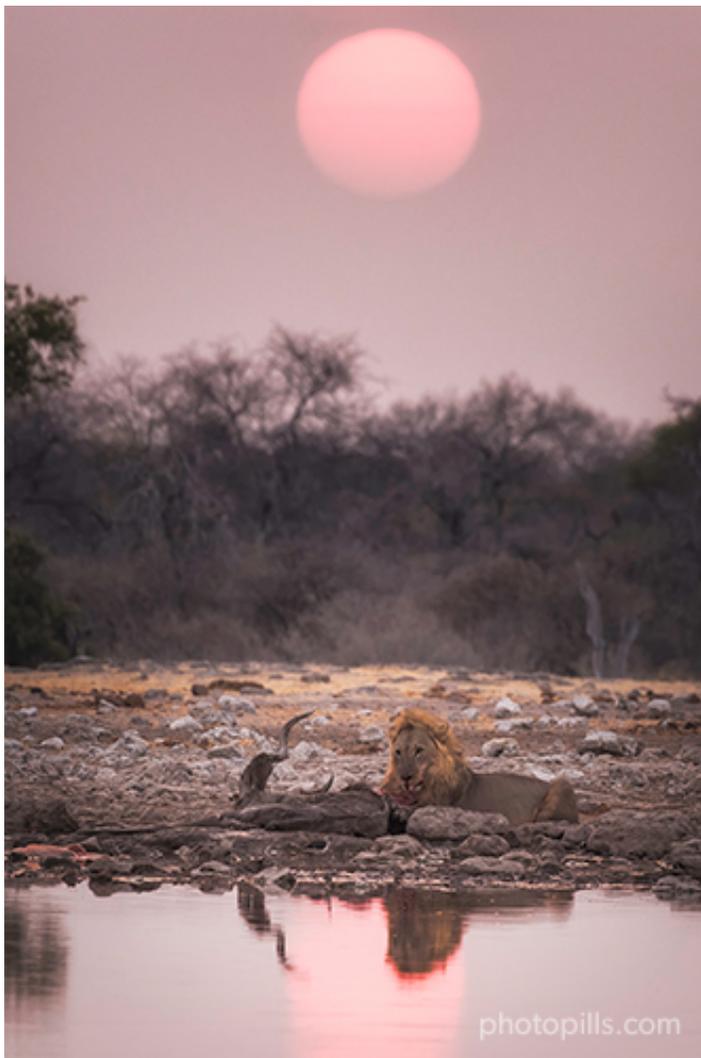
Nikon Z7 | 500mm | f/8 | 1/100s | ISO 200 | 5170K | ND 3.0 (10 stops) filter
Photo by [Josh Cripps](#)

This incredible image was planned and shot by my friend [Joshua Cripps](#) at the end of 2019.

As soon as he found out that an annular solar eclipse was going to occur in the Middle East, he started imagining and planning a shot until he found a potential location in the Dubai desert. He used the [PhotoPills](#) app to plan the location aspects of the shot including the shooting position he would be in as well as the position of the man and camel.

As you can see, the result is amazing and it shows you the endless power of planning. Josh was designated the [PhotoPiller of the Year 2019](#), and we invited him to our YouTube channel to [explain everything about this picture](#).

Wildlife (18)



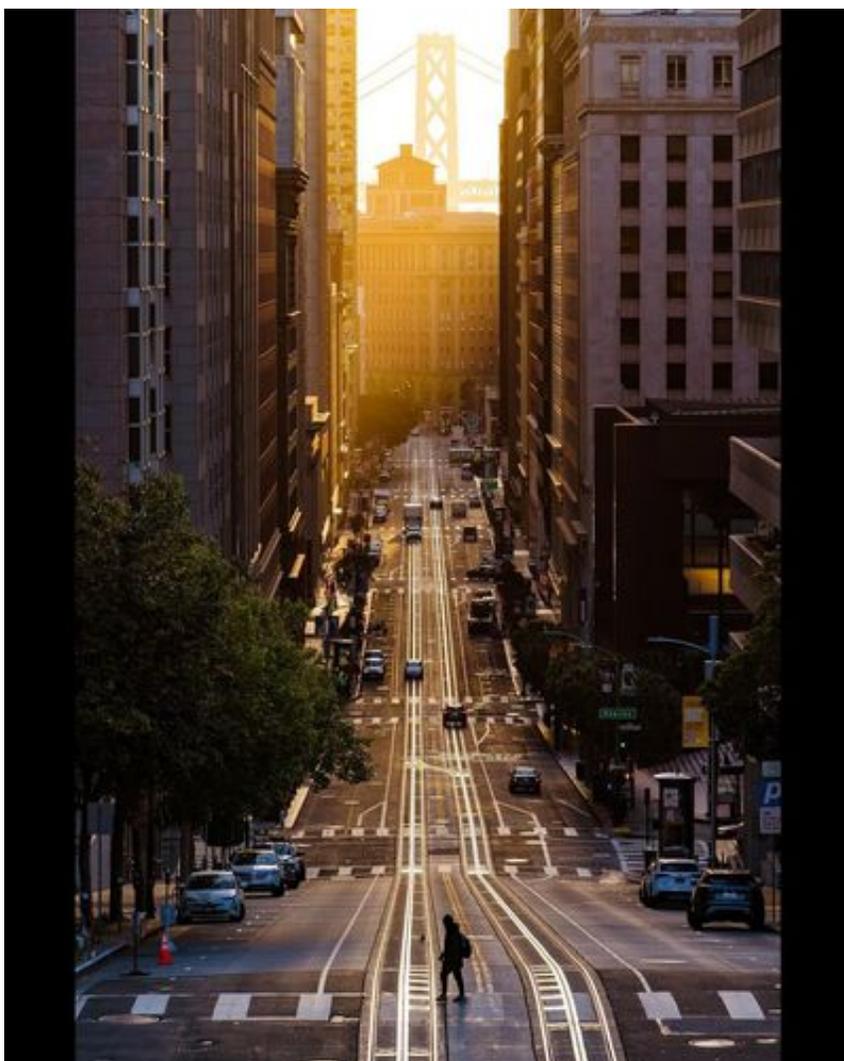
Nikon D500 | 390mm | f/5.6 | 1/250s | ISO 100 | 6500K

This was one of the most surprising moments we had the opportunity to experience during the [PhotoPills expedition to Namibia](#), when a couple of lions were feeding (although there is only one in the picture).

They were next to the Klein Namutoni waterhole, and the light during the [golden hour](#) was perfect.

So I used [PhotoPills](#) to know the Sun's path thanks to the Augmented Reality view. Once I established the shooting spot, I quickly picked up my camera with the telezoom lens and started shooting almost from the ground so that I could capture a nice reflection of the animals as well.

Street (19)



Sony a7 III | 143mm | f/7.1 | 1/125s | ISO 100
Photo by [Ruya Gong](#)

This picture is the perfect example of a silhouette created thanks to the light illuminating the scene from the back.

It was taken in San Francisco, more precisely on California Street from where you can see part of the Oakland Bay Bridge. The slope and the tram rails create some nice leading lines.

But, as you can imagine, the Sun creates this light only a few days every year. So here [PhotoPills](#) comes in handy to know exactly when to expect this beautiful golden backlight.

Macro (20)



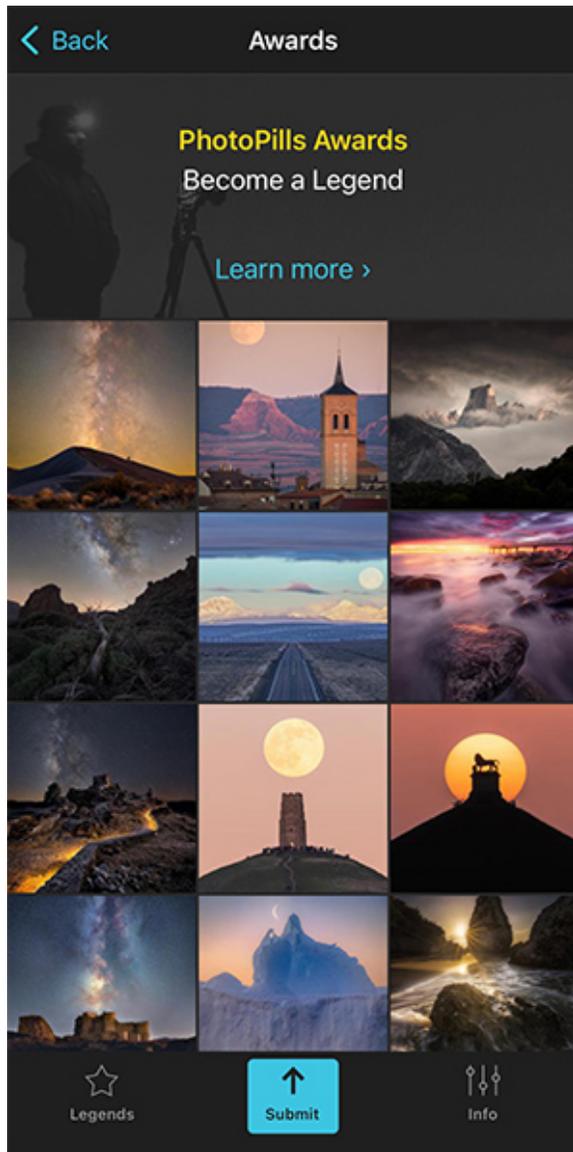
Nikon Z6 | 200mm macro | f/4.2 | 1/40s | ISO 100 | 5600K

The slender and majestic sawfly orchid (*ophrys tenthredinifera*) is perfect for portraits.

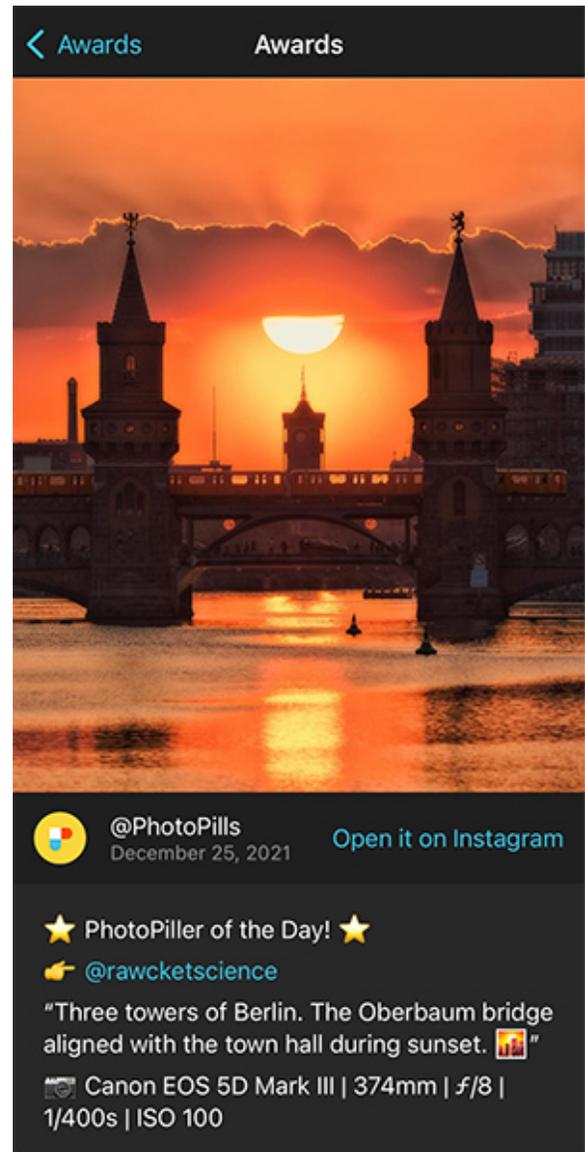
It's not a very tall orchid (15-30 cm) but its large pink sepals and yellow labellum margins make it a tremendously original species.

Photographing orchids is one of my most secret passions and I love planning a macro shooting session to the last detail. Using the **natural light** to enhance the flower's shape and colors is essential.

Photos by PhotoPillers (21) [bonus track]



PhotoPills Awards - Have a quick glance at our Instagram feed to see all the featured images.



PhotoPills Awards - If you're interested in a particular photo, tap it to see all the details.

My goal with this section was to inspire you.

To show you a lot of examples that you can use as a photography idea.

Hopefully I did.

And if not, it's fine.

I have another suggestion: to inspire you by looking at the thousands of photos other PhotoPillers have imagined, planned and captured across the globe.

You'll see pictures of all types of landscapes. And also of [Sunrise](#), [golden hour](#), [blue hour](#), [Sunset](#), [Moon](#), [Milky Way](#), [Star Trails](#), [Meteor Showers](#), [drone](#), [lunar eclipses](#), [solar eclipses](#) and other [astronomical events](#)...

You could spend hours and hours looking at mind-blowing images!

Would you like that?

Well, they are compiled in our [Instagram](#) account (follow us!) and in the PhotoPills application (Menu *My stuff* > [Awards](#)).

And if you want to inspire other PhotoPillers while participating in our contest, the [PhotoPills Awards](#), send us your photo and you may win some cool prizes!

Section 2:

How to come out with
amazing photography
ideas



Nikon Z6 | 14mm | f/2.8 | 15s | ISO 6400 | 3150K | 6-photo panorama

Before you can start planning, you need to come up with a great photo idea to plan. You need to get inspired.

And finding creative inspiration can be incredibly challenging. We live in a time when there's nothing that is not created in the context of other stuff.

You need to sculpt your own voice adapting locations, subjects and techniques that others have used before you, not adopting them. That would be pretty much imitating, not using something as an inspiration.

Now that you saw some planned photos that may have inspired you ([section 1](#)), here's a list of ideas – actually, sources, that you can revisit over and over when you can't think of anything on your own.

This is something that you can do days, months, years before the actual shooting. So once you find anything interesting, store somewhere (ie. take notes, make a screenshot) so you can use it later on during a shooting session or a trip to a remote location.

Browse the work of others on social media

As you may have guessed, the first and easiest option to find inspiration is to browse the work of others on social media.

Social media platforms such as Instagram, Twitter or even Tik Tok are full of talented and incredible photographers. Whether they're professional or hobbyists, they're putting their art and images online for the world to see for free. That's literally millions of people with different ideas and locations! :)

Spending hours on Instagram is not mandatory, of course. But it's definitely a good place to start.

What I like about social media is that it's very easy to jump from one profile to another either following the algorithm suggestions, looking for certain hashtags or having a look at who your favorite photographers are following.

Here are a few tips so you don't get lost...

- Look for inspiration intentionally. What is it that draws you to follow a particular profile and why do you like her images?
- Search for hashtags that are relevant to you. It can be a location, a subject, a moment in time (e.g. **Sunrise**, **Sunset**).
- When exploring images of a location,
 - Observe what angles people are using and which look the best.
 - Look how the light reacts and falls at a certain time of the day.
 - Find hidden gems!
- Have a look at the suggested profiles and who your favorite photographer is following. It's a quick and easy way to find similar accounts to the one you're looking at and finding other creators that can inspire you.

Look at your favorite photographers' websites

Whether you're into **landscape**, portrait, or street photography, looking through the lenses of other professional photographers can help you get some amazing ideas.

The idea, of course, is not to mimic their photographs, but rather to discover new locations, explore different compositions or learn new techniques.

Take your time to observe and analyze every photograph that you like. Have a look at different elements (ie. **natural light**, composition, color, etc.) and ask yourself why you find them

appealing. You'll often discover that the creator has had a good reason to showcase what she considers her best work.

Another interesting issue is that you won't be bothered with advertisements or any social media proof. Who cares about the number of likes and comments? They are just a distraction.

If you enjoy the work of a photographer, go to her website and try to learn as much as possible from her.

Explore photography websites regularly

One of the things that I love about photography is that I never stop learning.

And that's something you should do too.

You might think you know everything, like the technical side, but there will always be something else out there for you to learn.

The more you learn, the more inspired you become.

However, if you're just starting out it can seem like the mountain of information is never ending. The web is an amazing resource, but sometimes too much choice can be confusing.

That's why I thought that I could share with you some cool photography websites that you can use as a reference and visit them often.

- Every day, the **Explore** page is updated with the most popular photos on Flickr.
- **1x.com** is the world's biggest curated photo gallery online.
- **Exposure** is a great platform to combine text and images together into a narrative structure, where you can find terrific stories.
- **Viewbug**, offers photography challenges and contests to help people grow their craft and connect with other creative individuals.
- **Unsplash** is basically a free stock photography site with hundreds of thousands contributing photographers.
- **Pexels**, is an online photo and video management application allowing users to upload, organize, edit and share photos.
- **Youpic** is a photography online community, with the primary purpose of photo sharing.

Read our photography guides

PhotoPills is your photography planning app. It helps you plan your photos ahead of time... So you're always at the right place at the right time to capture the best photo possible and turn your photography ideas into reality.

But you already knew that, right?

And to turn an idea into a reality you need to imagine something first...

You need inspiration.

That's why all our **photography guides** included in the **PhotoPills Academy** start with tons of photos, visual examples, that you can use as inspiration.

As a matter of fact, this article begins in a similar fashion... ;)

So I suggest you have a look at our photography guides, particularly the first sections in which you'll find dozens of examples that will help find the photography idea you're looking for:

- **[Milky Way Photography: The Definitive Guide](#)**
- **[Mastering Natural Light Photography](#)**
- **[Landscape Photography: The Definitive Guide](#)**
- **[Sunrise Photography: The Definitive Guide](#)**
- **[Golden Hour Photography: The Definitive Guide](#)**
- **[Blue Hour Photography: The Definitive Guide](#)**
- **[Sunset Photography: The Definitive Guide](#)**
- **[Moon Photography: The Definitive Guide](#)**
- **[Long Exposure Photography: The Definitive Guide](#)**
- **[Lens Filters: The Definitive Guide](#)**
- **[Star Trails Photography: The Definitive Guide](#)**
- **[Meteor Showers: The Definitive Photography Guide](#)**
- **[Zodiacal Light: The Definitive Photography Guide](#)**
- **[Lunar Eclipses: The Definitive Photography Guide](#)**

- [Solar Eclipses: The Definitive Photography Guide](#)
- [Exposure in Photography: The Definitive Guide](#)
- [Depth of Field: The Definitive Photography Guide](#)
- [Drone Photography: The Definitive Guide](#)

Have a look at photography contest winners

Photography contests feature powerful and inspiring images of animals, cultures, and places from around the world.

They are an endless source of inspiration in 2 ways.

The most obvious one is for you to compete in a photography contest. The competitive spirit will surely ignite your creativity.

The other one is to go to the website of a photo contest once the winners have been announced. You'll have the chance to analyze some amazing work which, according to a jury of experts, deserved an award. In other words, you'll be looking at the best single images from around the world.

There are dozens of photo contests organized every year depending on the genre, technique, and other reasons.

Here are a few examples that you can regularly use as a source of inspiration:

- [World Press Photo.](#)
- [Sony World Photography Awards.](#)
- [National Geographic Traveller Photography Competition.](#)
- [Travel Photographer of the Year \(TPOTY\).](#)
- [Astronomy Photographer of the Year.](#)
- [EPSON International Pano Awards.](#)
- [Fine Art Photography Awards.](#)
- [Annual Smithsonian Photo Contest.](#)
- [Neutral Density Photography Awards.](#)
- [Chromatic Awards.](#)

- [Monochrome Photography Awards](#).
- [International Photography Grant](#).
- [Monovisions Photography Awards](#).
- [iPhone Photography Awards](#).
- [The Nature Conservancy Global Photo Contest](#).
- [LensCulture Street Photography Awards](#).
- [International Landscape Photographer of the Year](#).
- and, of course, the [PhotoPills Awards](#).

Work your way through photography books

Most photographers underestimate the power of a good book.

While scouring Instagram and other social media can sometimes lead to inspiration, it's a very different thing to hold in your hands a book of quality prints that are meant to be viewed as a whole.

Looking at photography books will often provide valuable insight into the author's ideas, process and techniques, allowing you to build a library of concepts, compositions and styles to inform your own work.

A great photography book generally includes a combination of three important elements: well-curated images, interesting and informative text and a valuable message. It's the way they all come together that makes for a truly spectacular ensemble you'll want to read again and again.

A great place to find inspiration is in your neighborhood bookstore or library.

However, you can also find great books online either on [Amazon](#) or other big bookstores ([Barnes & Noble](#), [Books A Million](#), [Waterstones](#), [Book Outlet](#), [Booktopia](#)).

Another good option is to look for self published authors (you'll get to know their projects through their website and social media) or specialized photography publishers.

Read magazines (art, travel, fashion, etc.)

Yes, you should definitely read photography magazines.

Each image that you look at in a photography magazine is an important component of a photographer's visual experience. So make it a habit to look through them once in a while for inspiration for any magazine you like.

But don't focus solely on them.

There are other types of magazines that you can get tons of inspiration from.

- Art is a very broad concept that includes other genres apart from visual arts. So try to look for magazines featuring both the oldest and newest talent in the fine art world.
- Travel magazines are an amazing source of inspiration because of the effort editors put into the photo selection. They want to make you dream with new adventures and destinations and they need to do so using the power of images...
- Fashion is all about perception and perfection. If you're into shooting people, fashion magazines can give you tons of ideas on poses, portraits and looks.
- Photographing buildings can prove challenging, but architecture magazines are a good way to learn how to avoid shadows, find the best angle and play with **natural light**.
- Wildlife photography is a beautiful and difficult genre – you rely completely on the animal's behavior and environment. However, you can learn to anticipate some of their reactions by looking at specialized magazines.
- History magazines can be a great way to find new and special locations...

So whether it's online or on paper, don't underestimate the power of a magazine. Their visual content can prove a gold mine ;)

Watch movies and TV series

One of the best ways to get inspiration in photography is to watch movies and TV series.

Nowadays the quality of the visual content is remarkable compared to what we used to watch when we were kids. And part of this quality comes not only from the script, but also from the impressive work of the photography directors.

Little by little their weight in the final product has dramatically increased and right now you won't find a good movie or TV series that hasn't taken care of its aesthetics.

When watching appealing movies and shows, a smart idea is to take notes of your thoughts and inspiration. Note the names of directors and observe their style.

You can implement many of the tricks and techniques used in movies to your own photography. It might be the lighting, the color contrast, the depth of field or the camera angle that gets your attention.

Let me give you some examples...

Blade Runner, with its strong shafts of light and use of backlighting, immediately evokes images from classic black-and-white movies.

Out of Africa was the film that made us fall in love with Kenya with a lush, soft quality that matched its romantic mood.

The Last Emperor is a recreation of Ching dynasty China with astonishing detail and unparalleled craftsmanship.

Watch your favorite movies and see what you can learn, but also consider watching movies and TV series you wouldn't normally watch. Forget about the story, pay attention to the atmosphere instead.

Revisit old locations

As you grow as a photographer and as your personal perceptions change, a location can develop a new meaning or open new opportunities.

First of all, conditions are never the same. Whether it's the **natural light**, the weather or the season, you'll always find that something has changed from your previous time there.

Then, you may learn a new technique... The best way to see if you can improve on your old shots is revisiting the location.

Finally, something special could be happening at the location (e.g. a cultural event, a festival, a celebration). These events create unique opportunities to capture a location under peculiar circumstances.

On top of this, planning can help you find new perspectives and compositions, whether it's because you're looking for a specific **natural light** or because you want to align the Sun or the **Moon** with an interesting subject.

In the end, it's all about learning – incorporating new elements into your images to see what works and what doesn't. And the only way to know this is to go back to old locations and use them as a testbed for new ideas.

You never know...

The location you thought done and used up may just offer you a new chance of becoming your greatest picture.

Join a photowalk

Don't walk on your own – invite friends or others who share your passion for photography to walk with you. Turn it into a social event!

We tend to do what we know, so photowalks give you an opportunity to see how other photographers approach a subject and how their vision differs from yours.

You can spend part of the time learning new techniques and sharing your own knowledge and ideas with other like-minded people.

And, of course, it can be a source of inspiration if you feel like you're in a photography rut. That's true not only for a specific technique. You can learn a lot about composition and you can discover new locations you've never heard of.

Challenge yourself while networking with other photographers!

Go to a photography exhibition

Surely in a world where everything can be found at your fingertips, there's no need to visit exhibitions?

Think twice.

An exhibition invites you to slow down and to experience work as the photographer and/or curator intended.

(A side note: a curator is a person who selects and organizes work for an exhibition. She might do it alongside the photographer, but that's not always the case).

So start analyzing...

Is there a clear beginning and end and directions of where to start and finish? What's the logic behind this decision?

Is the exhibition curated chronologically, organized by dates of creation; or thematically, grouped by topics, styles, potential meanings?

As you can see, it's not mandatory to know everything (or even anything) about the work on

show. While it's true that prior knowledge can certainly help, your first impressions (e.g. your instinctive reactions, personal taste and opinion) are also valuable.

Visit an art museum

For a jolt of creativity, spend an afternoon in an art museum. Surrounding yourself in the creative work of others will lead to a flood of new ideas.

You'll find centuries of photography inspiration ideas hanging on the walls of galleries and museums.

And please, don't do as other people do, don't walk past paintings as you were walking. Take the time to be with the artwork in front of you and spend as long as you need to capture every detail – feel it as a whole.

You'll discover that paintings speak and provoke thoughts and emotions! ;)

If there are audio guides, get them and use them.

As much as I thought I knew **Joaquín Sorolla** during the exhibition I visited at the Museo del Prado in Madrid, the audio guide provided me with a number of additional information and anecdotes I knew.

Anything you can know more about an artist is an additional tool to understand his work and his virtues.

Then, when you're back home, get more information and you'll better understand what you have seen and experienced. And if you have the opportunity, go to the museum again. You'll have fresh eyes and see many things you didn't the first time.

Finally, take the time over days, weeks and months to learn more about what you saw. Surf the web and read everything that may give you the opportunity to deepen your experience.

Study the old masters

But who are the old masters?

Painters that worked in Europe prior to the 19th century. More specifically, it refers to the ones who were working at the top of their game. That's why they are considered masters.

Photography and painting have much in common. Both artists (the painter and photographer) are concerned about composition, lighting, color, and story.

- **Composition.** Painters knew exactly where each element of the painting should appear to make the piece aesthetically. They used shape, form, and objects to create leading lines that all lead the viewer to the center subjects. Have a look at the works of [Velázquez](#) or [Jan van Eyck](#).
- **Lighting.** Painting has had a significant impact on the way that photographers use [natural light](#) as painters are constantly paying attention to it. Just look at the masterpieces of [Rembrandt](#), [Vermeer](#) or [Caravaggio](#).
- **Color.** Because painters had everything in focus in their images, they had to use different ways of guiding the viewer where they wanted her to look and they did this with color. Great examples of mastering color are [Fra Angelico](#), [El Greco](#) and [Raphael](#).
- **Story.** They deeply cared about visual storytelling. In fact, you can consider many of them the predecessors to documentary and street photographers. Check how [Goya](#) and [Canaletto](#) depicted living scenes as accurately as possible.

Oh, and don't focus solely on painters. Have a look at photographers, sculptors and architects as well.

Section 3:

How to find the
perfect location to
plan your shots



Nikon Z6 | 18mm | f/5.6 | 1/13s | ISO 400 | 4600K

Location is key.

Without a good location, it will be more difficult to get a photo that has an impact, tell a story, convey an emotion...

Nevertheless, you have to understand that there is no such thing as a perfect location. What does exist is the best location to photograph something in particular. Like, for example, the Sun setting through the Arc du Triomphe in Paris (France).

The location is the place where the scene you want to capture will take place. In other words, where the story you want to tell takes place.

That's why it's crucial that you carefully and meticulously select the setting of your story and its main characters.

This is something that you can do days, months, years before the actual shooting.

And in order to do this, I suggest you follow the methodology that I myself apply.

However, that doesn't mean it's the only way or the best way. But it works for me and I want to share it with you in case it helps you or you want to use it as a starting point ;)

Choose the type of landscape (scene) you want to photograph

As you'll see below, when looking for a location you should consider several elements. All depends on the idea you have in mind – the story you want to tell, and how you plan to tell it.

In other words, it depends on the photo you want to produce.

So always take into account what's going to be in your frame. It's the setting in which your story will take place.

That's why the location is so important, because it establishes the grounds to give context to your story.

Be thorough when picking it and don't forget to use the most powerful tool you have: the imagination of the person who experiences your pictures.

What type of landscape?

You can choose between two large groups of landscapes:

- Nature (mountain, seascape, river, lake, waterfall, forest, rainforest, scrubland, grassland, desert, volcanic).
- Artificial or urban (megacity, city, suburb, crop field, breeding field, mine).

Once you have determined the type of location, you should check that you'll have enough room in your frame to:

- Include the Sun, the light that comes from it, the **Moon**, the **Milky Way**, **Star Trails**...
- Show where that particular moment takes place. Is it a view of the Corcovado over Rio de Janeiro? Have you gone to Moscow to photograph the Red Square or have you freaked out while capturing a view of the Highlands of Iceland?
- Include a powerful subject. I'll give you more details about this in the next section.

Check its orientation

Remember, it's important to include in the frame all the elements you have imagined.

It can be the Sun setting between two skyscrapers, the Moon rising from behind a mountain or the Milky Way aligned with a windmill in a deserted landscape...

And if you want that what you imagined happens exactly the way you want so you can photograph it, take into account:

- The position of some of these elements (the Sun, the skyscrapers, the Moon, the mountain, the Milky Way, the windmill).
- Your own position with respect to them. In other words, where you have to position yourself and where you have to point the camera to.

Try to make sure there's plenty of room to move around

As I just told you, it's important that you can freely move around the location.

Why is that?

Well, first of all because the more space you have, the more compositions you can get. And that's essential in terms of creativity. You can't imagine how many times I had an image in mind and once on the field I found out a new composition that was way better than my initial thought.

Moreover, when moving around you can look for different points of view, check that you are in the position that you like the most and make sure that everything is under control (the tripod is stable, you don't risk falling or slipping, etc.).

Finally, it may occur to you that the photo you imagined has only one possible composition. It's not frequent, but it can happen.

When you have some freedom to move around the shooting spot, you can make small corrections so that all the elements are in the frame exactly where you want.

Decide the point of interest (subject)

Look for a location that has one or more points of interest. That point of interest is the subject of your image, the main character of your story and the magnet to attract the viewer's eye.

And the more interaction there is between the location, the subject, the natural light (or the lack of it if you are doing astrophotography) and the rest of the elements of the frame, the greater visual impact the image will have.

Everything will depend on what you want to convey, the story you want to tell and how you want to surprise the viewer.

The point of interest is the main character of your story

With the constant influx of images that we get every day, it's becoming harder and harder to attract the viewer's eye. And holding their attention has become (almost) mission impossible.

If you want someone to notice your photography, you'll have to go the extra mile to make your image stand out among hundreds, thousands, millions of photos!

You need to choose a character for your story that captivates at first sight and that conveys an irresistible strength.

The point of interest is the most important element of your composition.

What can you use as a point of interest?

Avoid elements that aren't original, that aren't strong, that don't convey anything.

Instead, look for items that stand out like an abandoned temple in the middle of the jungle, the top of a mountain lit by the Sun at Sunrise, or the silhouette of a person under the Milky Way.

Look for the extraordinary in the ordinary.

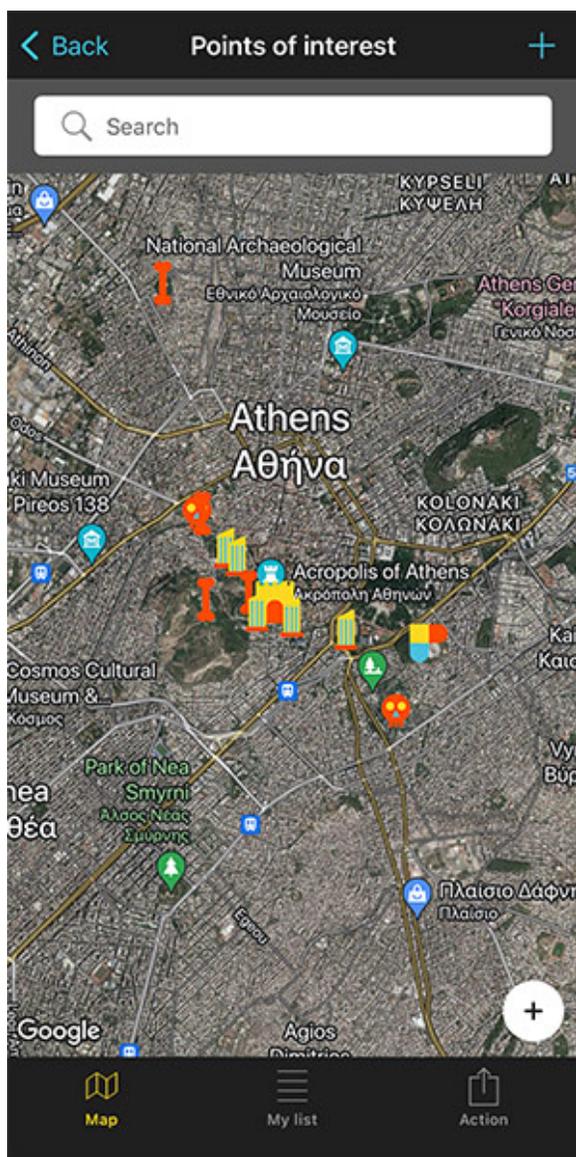
"And how can I find cool points of interest Toni?"

If you're short on ideas, take a look at the PhotoPills Points of Interest (POI) database :)

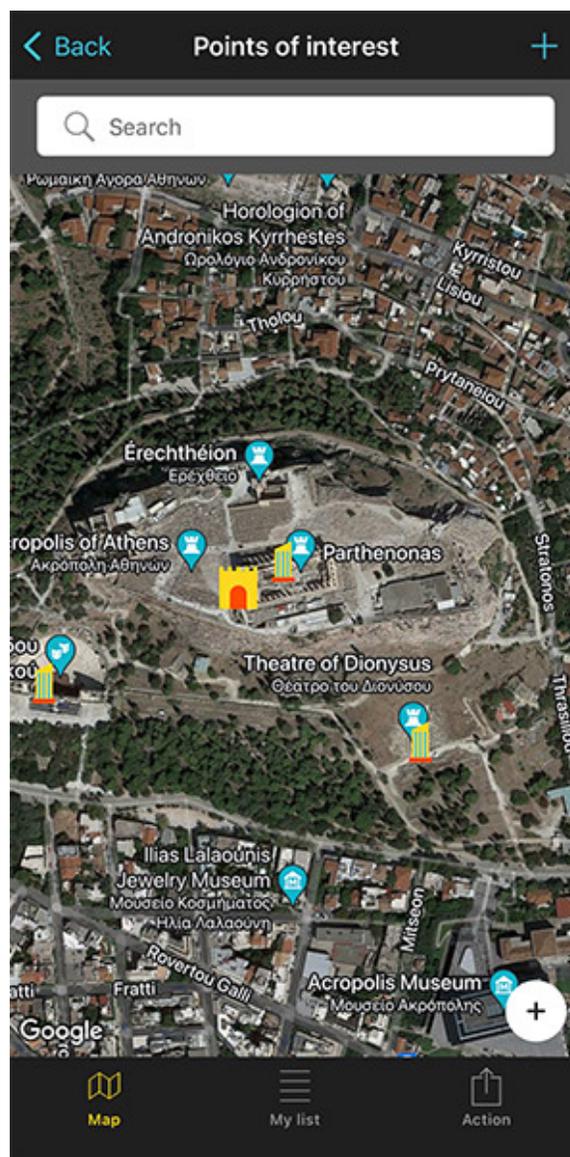
To find it, open **PhotoPills** and tap **Points of interest** (My Stuff Menu).

Tap *Map* (at the bottom of the screen) and move your fingers across the screen to navigate

around the world. Thanks to the 10,000+ POIs included in our database, you'll be able to discover a lot of new locations.



PhotoPills POIs - General view of the Points of interest (POIs) in Athens (Greece).



PhotoPills POIs - Detail of the Acropolis, a Point of interest (POI) in Athens (Greece).

Apart from PhotoPills Points of Interest (POI) database you can explore other sources of inspiration ([section 2](#)).

Keep reading for more ideas below on how to investigate on the internet and in real life.

Don't neglect the foreground

All areas of the composition are important, but the foreground is critical in photography.

To begin with, for a technical reason.

Although some photographers take pictures with a telephoto lens, the vast majority use a wide angle lens for almost all of their photos.

The optical effect that this type of lens produces when looking at the photo, is that all the elements of the composition seem to be very far away. If you don't include an attractive foreground in your photo, the image will be flat and boring.

And also for an artistic reason.

The foreground is the entrance gate of the image. It's usually the first element the viewer looks at. From there, if the image she's just seen has caught her attention, she'll scan the image with her eyes to discover the story you want to tell.

A good foreground produces a deep photo. And if you can get the viewer to identify with what is happening, she may have the impression of actually being there.

Here are some ideas to capture interesting foregrounds:

- In order to accentuate the foreground, get down low. It allows you to focus on interesting elements, such as wildflowers, a group of rocks, or patterns in the ground.
- Look for leading lines (vertical, diagonal or curved) to guide the viewer's eye on a path around your shot.
- Raise the horizon by pointing your camera at an angle slightly downwards so your foreground occupies more space in your frame.

Investigate from far away (on the internet and in real life)

When I write "from far away" I mean far away from the location.

Because an essential step when planning a shot ([section 4](#)) is to conduct a thorough research before actually being in the field.

You need to gather as much information as possible about the location so you can anticipate all the potential scenarios, including that something may go wrong... ([section 26](#)).

Check tons of information sources

Once you decide where and at what time of year you're going to take photos, check all the sources of information that you can think of.

Here are some ideas that can help you:

- Look at tons of photos that other photographers have taken at this particular location or area. You can find them on [Instagram](#), [Flickr](#), [500px](#), [Unsplash](#), [Getty Images](#), [1x.com](#), [Viewbug](#), [Pexels](#), [Youpic](#), [Shutterstock](#), [Adobe Stock](#) and [Google Images](#).
- Learn from other photographers' discoveries and check if they have previously explored the location. Certain communities, such as [Locationscout](#) and [ShotHotspot](#), offer this information.
- Analyze publications like travel magazines ([National Geographic](#), [Condé Nast Traveler](#) and [Travel + Leisure](#)), travel curated content ([Exposure](#)), travel guides ([Lonely Planet](#)) and the photography section of newspapers such as [The Atlantic](#), [The Guardian](#) and [The New York Times](#).
- Revisit your favorite photographers' websites and pay attention to their galleries to see if they have been there. Have you checked the PhotoPills Masters' websites participating in the [PhotoPills Camp](#)?
- Again, check the Points of interest (POIs) included in [PhotoPills](#).
- How long since your last visit to a library or a bookstore? Yes, books will tell you more about the local history and natural biodiversity of an area or town.
- Try to visit the nearest Town Hall or tourist office and look for first hand information.
- A reliable and full of surprises source of information are the locals. No one knows the area better and provides greater advice.

Take advantage of the potential of geolocated Instagram Location Tags

[Instagram](#) has a very powerful tool: geolocated tags called "location tags".

The process is very simple.

When you see a photo on Instagram that you like, skim the tags to see if the author has included one with the location name. Tap the tag and Instagram will show you all the photos that have that same tag. That is, pictures taken in the same place.

Also, many users are likely to post their photos shortly after taking them. So you can see exactly the weather conditions of that spot and other inconveniences that may arise (a scaffold covering a building, for example).

It helps you find a location very precisely once you've selected a destination or a more generic area.

Instagram is not the only service that offers photos with geolocated tags. Others like [Flickr](#), [500px](#), [Unsplash](#), [Getty Images](#), [Viewbug](#), [Youpic](#), [Shutterstock](#), [Adobe Stock](#), [Location-scout](#) or [ShotHotspot](#) also offer this tool.

Find out all the practical information about the location

Before leaving home, you should know the following information about the location:

- The address or GPS coordinates of the location. Is the location real or did someone take multiple composite shots?
- How to get to the location.
 - How far it is from your house or accommodation and the exact route you need to follow (using your own vehicle or public transportation).
 - If it's a place that you're going to reach on foot after a walk, get information about the path, including the duration, the difficulty and any other information that can help you (where to park, for example).
 - Is it within a private property?
- When it's a natural landscape, find out everything about its geography: mountains height, tides schedule, amount of water on a river, lake or waterfall depending on the season, type of terrain, potential hazards (e.g. strong winds, cliffs, wildlife).
- When it's an urban landscape, find out everything about its surroundings: high buildings, ongoing works (e.g. scaffoldings), crowds, traffic, limited or forbidden access.
- What is the best time of year and day to take photos.

Go on an adventure

A good way to find new places to take pictures near you is to just get out there and start exploring.

Simply going to an unfamiliar location can spark your creativity.

Here are a few of examples on how you do it:

- Open Google Maps, choose an area and comb it to find and identify potentially interesting photographic locations. Then, get there and put yourself into an unknown area with all sorts of new things to see.
- Take roads that you don't normally drive on. Get on back roads through the county, or pick a random exit on the highway.
- Try leaving the car at home and walking (when possible). Explore a neighborhood you've never been to or small side streets in the city.
- Change your routine by taking a different route than usual. Straying from your normal path may lead you to find nearby photography locations you never knew were there.

Of course it's not a fool proof plan.

While it's certainly possible that you'll find a location you might otherwise have overlooked, it's nearly just as likely that you'll spend your day driving or walking around with no reward.

Nevertheless, it's time well spent.

If you find a great location, it's time to start planning! ;)

If not, you spent time outdoors, enjoying nature or the city, and you can now discard this area.

Section 4:

8 things you must
know before start
planning your photos



Nikon Z6 | 550mm | f/11 | 1/500s | ISO 100 | 5600K | 2x teleconverter | Soft GND 0.9 (3 stops) filter

This is a key section.

Because here you'll find all the concepts you need to know and master in order to quickly plan your photos.

You'll learn:

- What the azimuth and the elevation are. Both help you understand the position of the Sun and the Moon in the sky so you can choose the shooting spot, shooting date and shooting time the Sun and the Moon will be where you want them to be.
- The different types of natural light, and when do they occur so you can choose the right time to get the type of natural light you want.
- How shooting distance affects the size of the Sun and the Moon relative to your sub-

ject. Here you'll learn how to calculate the shooting distance you need from your subject to get the size of the Sun/Moon you want.

- How to figure out how high the Sun or Moon will be above the terrain or a subject. This is key to find the right shooting time the Sun or the Moon will be at the right place in the frame relative to your subject (or the terrain).
- How focal length affects the size of the Sun and the Moon relative to the frame (your photo). Depending on the focal length you use, the Sun/Moon will appear bigger or smaller in the photo.
- The 4 key Milky Way points that will help you understand the position of the galaxy in the sky.
- The Star Trails pattern you'll get depending on the shooting direction so you can choose the shooting spot to get the photo you want.
- What a lunar eclipse is, its different types and different phases.
- What a solar eclipse is, its different types and different phases.

Thus, I strongly recommend you to spend some time carefully reading this section. You'll save a ton of time and avoid any hassle when planning your photos.

Ready?

Let's dive into it!

What are the azimuth and the elevation

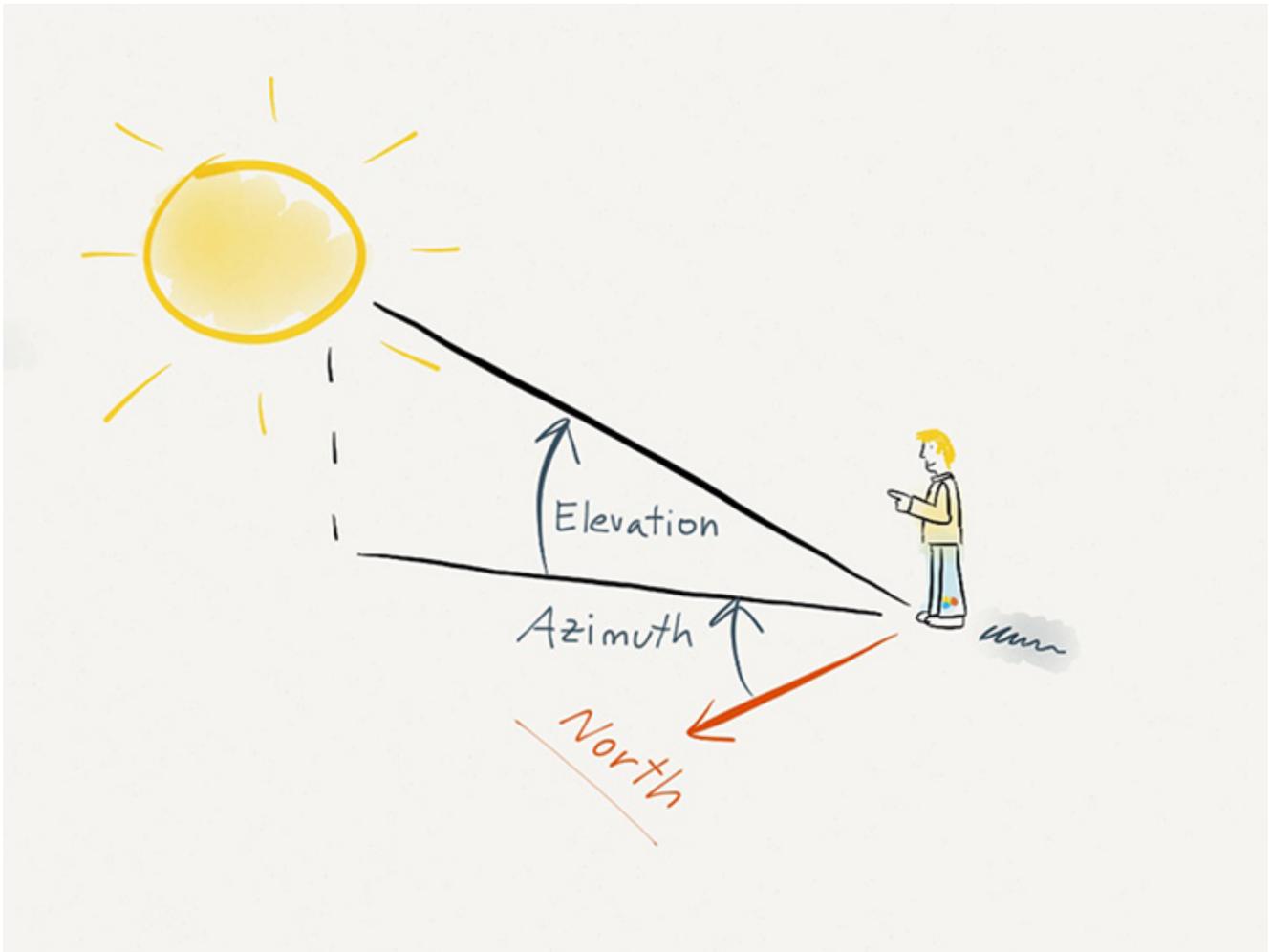
Both the azimuth and the elevation are key concepts when planning your **natural light**, Sun and **Moon** photos.

They are the coordinates that help define the position of the Sun or the Moon in the sky. Therefore, they are key when deciding the shooting post, shooting date and shooting time depending on the photo you have in mind.

They will prove helpful when planning:

- A **Sunrise** or a **Sunset**, including those with the Sun in certain position (**section 6**).
- A big Sun aligned with a subject (**section 7**).
- A Moonrise or a Moonset, including those with the Moon in certain position (**section 8**).
- A big Moon aligned with a subject (**section 9**).

What is the azimuth



The azimuth basically tells you the direction where a celestial body (e.g. the Sun or the Moon) is.

It's the angle between the center of a celestial body, measured clockwise around the observer's local horizon, and the North.

The observer's local horizon is your current position. That is the current position of your camera or the **Red Pin** in the **PhotoPills** planner.

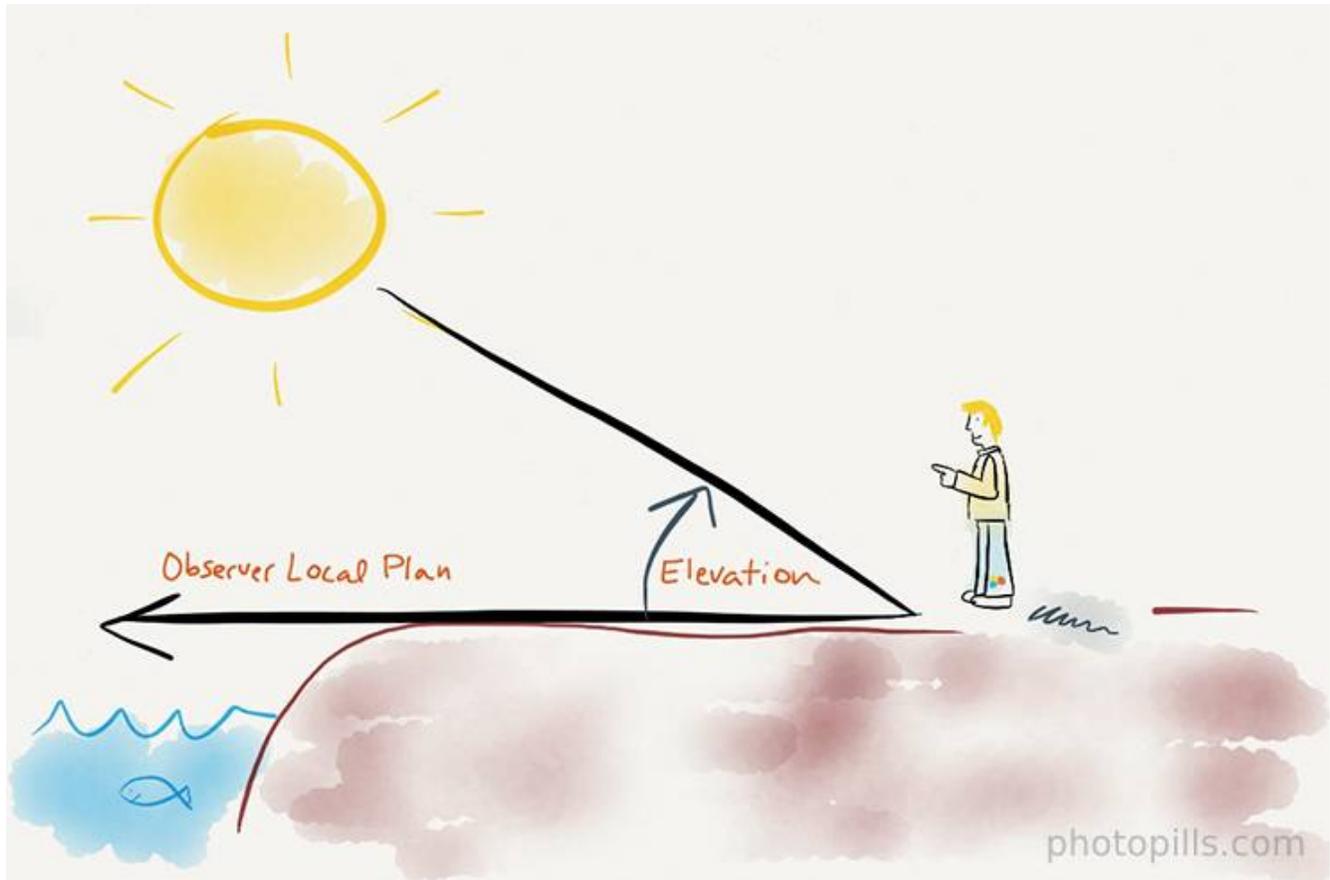
The azimuth is measured in degrees and it can be between 0° and 360° .

For example, the Moon due

- North has an azimuth of 0° .
- East has an azimuth of 90° .
- South has an azimuth of 180° .

- West has an azimuth of 270° .

What is the elevation



The elevation tells you how high a celestial body (e.g. the Sun or the Moon) is above the horizon.

It's the vertical angular distance between the center of a celestial body and the observer's local horizon, or observer's local plane.

Again, the observer's local horizon is your current position. That is the current position of your camera or the **Red Pin** in the **PhotoPills** planner.

The elevation is measured in degrees and it can be between 0° and 90° when the celestial body is visible. Negative elevations imply that the center of the celestial body is below the horizon.

For example,

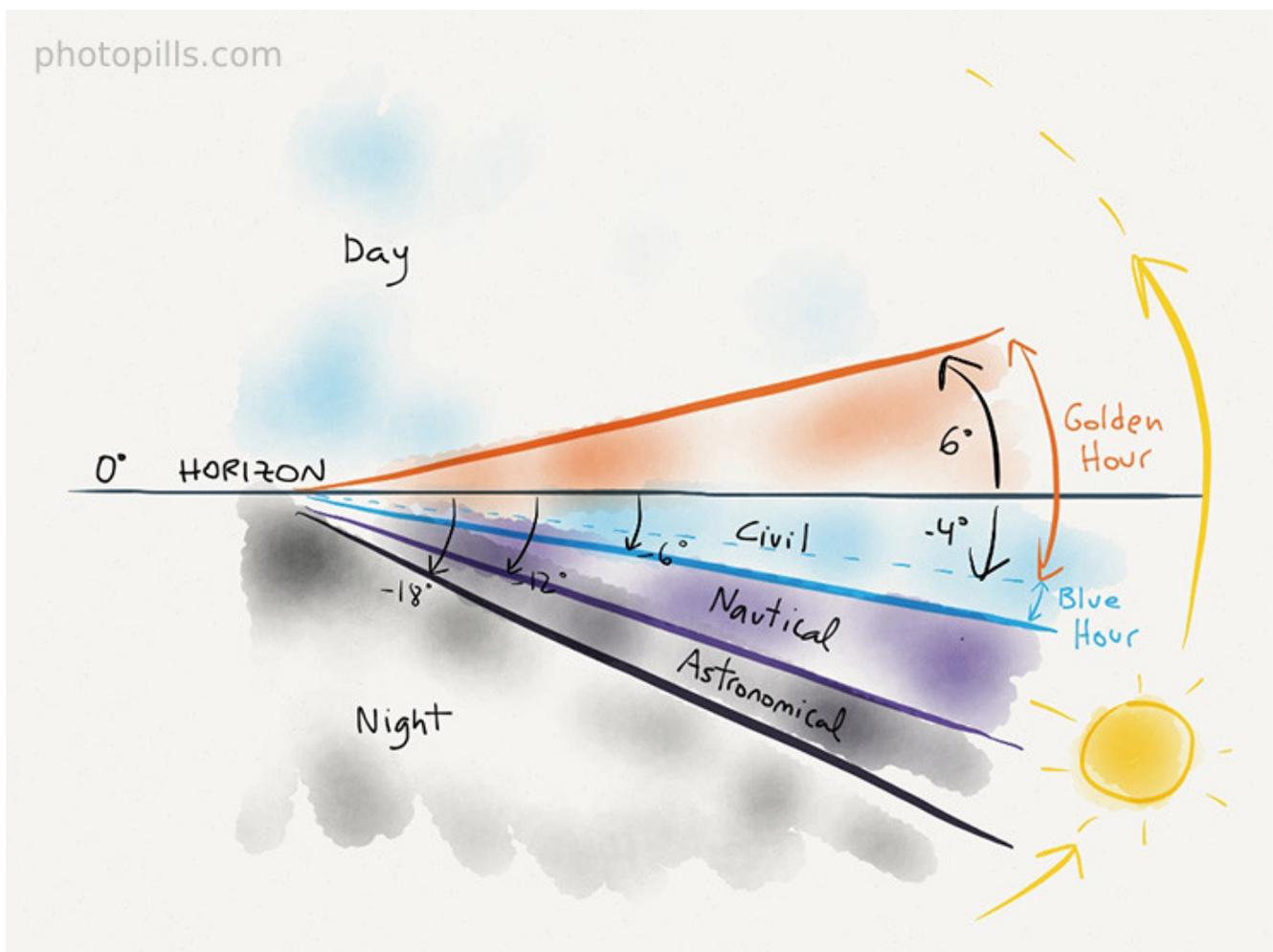
- At **Sunrise**, the Sun has an elevation of 0° .
- At midday, the Sun has its highest elevation. In the extreme case of an elevation of 90° ,

it would mean that the Sun is right above your head.

This is a brief summary. For a full explanation on both concepts and how to use **PhotoPills** to find out both according to the Red Pin position and a certain date and time:

- Have a look at [this video](#) where Rafa explains it in depth.
- Or read our article '[Understanding Azimuth and Elevation](#)'.

Understanding natural light



Natural light is, of course, a crucial element in photography.

You'll see how to plan natural light in [section 5](#)...

But what exactly is natural light?

What is natural light?

Natural light is any available light that you can find in the scene, such as that produced by the Sun or the Moon :)

In other words, it's the opposite of artificial light – any human-made light source such as electric lamps (e.g. a torch, a headlamp, a flash, a strobe, etc.), fire, candlelight, gaslight, for example.

What are the different types of natural light

As you know, the light from the Sun varies throughout the day.

You'll notice that the Sun doesn't illuminate a scene in the same way at midday than right before dusk.

Actually, we can establish that light varies according to the time of the day it is, don't you agree? To be more precise, it changes over several periods of time.

Now...

How can we determine when these periods of time start and end?

Easy peasy!

We have the perfect factor: the Sun elevation. If you don't know what it is, check the first part of this section.

OK, just in case, here's a quick reminder:

It's the vertical angular distance between a celestial body (Sun, Moon, ...) and the observer's local horizon (ie. the horizon from your position!). This angle is measured in degrees that go from 0° to 90° when the celestial body is visible.

Back to the different periods of natural light...

As I mentioned before, you can establish them depending on the Sun elevation.

Pay attention to the diagram above. There you can see the different types of natural light depending on the Sun elevation:

- **Day.** Elevation higher than 6° .
- **Golden hour.** Elevation between 6° and -4° .
- **Blue hour.** Elevation between -4° and -6° .

- **Civil twilight.** Elevation between 0° and -6°.
- **Nautical twilight.** Elevation between -6° and -12°.
- **Astronomical twilight.** Elevation between -12° and -18°.
- **Night.** Elevation lower than -18°.

There you have it: you have 7 types of **natural light** throughout a 24-hour day.

Having said that, not all types are the same, right?

So can you take great pictures no matter the time of the day it is? Or should you wait for the "perfect light"?

And... What exactly is this "perfect light"?

Let me answer all these questions.

What is the "perfect light"

Some photographers, especially landscape photographers, believe that the best (and only) time of the day to shoot is during **golden hour** and **blue hour**. No wonder why they call them the magic hours.

However, I believe that as a photographer you should be flexible and skilled enough to shoot in every situation, no matter the **natural light** conditions. And this regardless of the genre you're into.

As **Jay Maisel** said once:

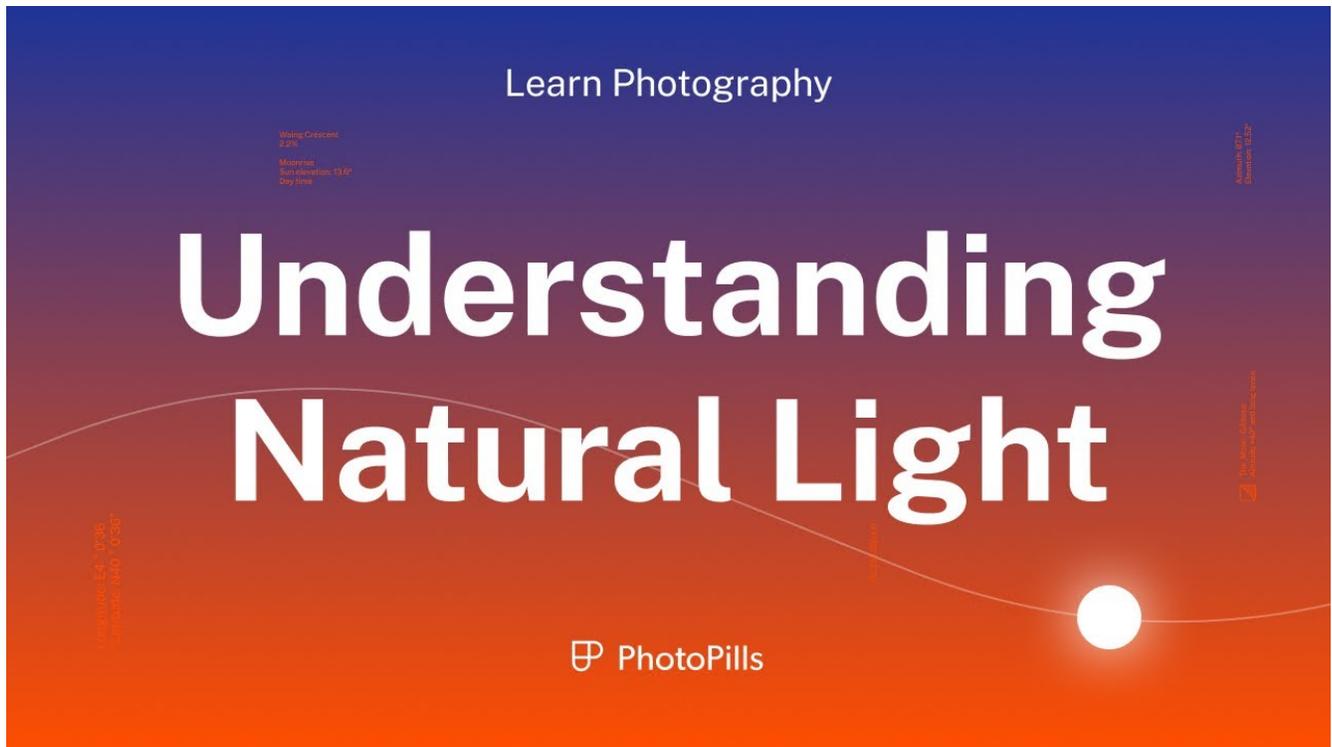
"There is no bad light. There is spectacular light and difficult light. It's up to you to use the light you have."

So no, there is no "perfect light".

Instead, master each type of natural light and you'll improve your storytelling. By using the available light from the Sun creatively you'll communicate your emotions and evoke emotions in others.

How? Understanding how it behaves and the factors that influence it.

In the following video Rafa (aka the PhotoPills Bard) explains in depth how natural light behaves and the type of photos you can take at each moment of the day:



You can delve into this matter by reading our [superguide on natural light](#).

How you can take advantage of each type of natural light

Understanding natural light, how it changes during the day, and how you can best use the light to your advantage are all critical aspects to become a successful outdoor photographer.

So let's analyze each type of light to see how to make the most out of them.

Harsh daylight

Harsh daylight is the light produced outdoors, on bright sunny days.

It happens between morning and evening golden hours, when the center of the Sun is above 6° of elevation.

This light works very well when you want textures to look rough. So it's perfect to convey authenticity, the sense that something or someone is real and original.

Golden hour light

The **golden hour** occurs twice during the day (**section 3**):

- In the **morning**, it begins when the Sun is at -4° of elevation and it ends when the Sun is at 6° above the horizon. It matches the end of the civil twilight, just after the **blue hour**.
- In the **evening**, it begins when the Sun is at 6° of elevation and it ends when the Sun is at -4° above the horizon. It matches the beginning of the civil twilight, right before the **blue hour**.

Golden hour light is a powerful way to convey emotion. The warmth of the Sun translates to the emotional warmth of a moment.

Use this light to make details and textures pop out of the frame. You'll create a sense of volume and an intense atmosphere.

Twilights (including blue hour)

Twilight is that magical time between daylight and darkness. It occurs twice during the day.

Actually, there are 3 twilights:

- **Civil twilight.** It happens when the Sun's elevation is between 0° and -6° . It includes the **blue hour** which occurs when the Sun has an elevation between -4° and -6° . It's great for photography in general, and it's my favorite time to photograph the Moon.
- **Nautical twilight.** It happens when the Sun's elevation is between -6° and -12° .
- **Astronomical twilight.** It happens when the Sun's elevation is between -12° and -18° .

Twilight light is generally associated with a mystical and magical atmosphere.

Ideally, a sky with scattered clouds is the perfect scenario to combine with the effect of the twilight light. Once the clouds lose their amazing tint, use the cool colors present in the scene to transmit calmness and tranquility.

When you're outdoors in the wild, this light is particularly beautiful if you're by the sea or a lake as the water reflects the colors in the sky.

When you're shooting an urban landscape, take advantage of the combination between natural and artificial light.

Light diffused by clouds

It's the light resulting from the sunrays entirely blocked by clouds.

A cloudy day offers many photo opportunities...

First of all, use the clouds themselves to add sky definition and create unique compositions. Clouds add texture, shape, and form. Capture them with a **long exposure** to add movement to your scene.

Then, you can create a serious, melancholic, or somber mood, using a combination of the natural light in the scene and other details in the scene such as cloudy skies or stormy seas. The mood is strengthened even more if the subject is mysterious, gloomy or melancholic.

Window and dappled light

Natural light can be diffused:

- Indoors when natural light indirectly penetrates the interior (e.g. through a window, a door, a skylight). It can also be called window light.
- Outdoors when you're shooting in the shade cast by any element in the scene (e.g. a tree canopy, a building). It's also known as dappled light.

Let's start talking about window light.

You can create intense, dramatic, dynamic, or even mysterious atmospheres if you direct window light intentionally:

- Accentuate textures, details and colors.
- Transform mediocre subjects into fascinating ones.
- Make interesting subjects look particularly dramatic.

And now, let's talk about dappled light.

Dappled light can be particularly effective when details are important to your story.

Thanks to the spread and the softness of the light, everything is illuminated evenly. So the viewer can easily spot those details and easily understand the story.

Light in fog

There are 2 main types of lighting scenarios involving fog. They usually occur in the morning although not exclusively:

- A foggy day with heavy clouds and a total absence of direct rays from the Sun.
- A day when the fog is close to the ground and not very thick, while above the fog the sky is free of clouds. Here the Sun rays can interact with the fog creating a spectacular effect.

Fog can be a powerful and valuable tool for emphasizing the depth, lighting, and shape of your subject. These traits can even make scenes feel mysterious and uniquely moody.

Moonlight

You can use the **Moon** as your primary source of light for your night photos, just like you do with the **Sun** during the day.

Photographing under a Full Moon can produce dramatically different results than shooting under no Moon:

- When shooting under a Full Moon, the **Moon** illuminates the foreground and brings out the color and detail in the scene.
- When shooting with no **Moon**, your camera can capture more stars.

Understanding how shooting distance affects the size of the Sun and the Moon vs your subject

OK, let's get straight to the point.

No, to get a big Sun or Moon compared with your subject you don't need a long focal length. You need to be far away from your subject.

In other words, the size of the Sun/Moon relative to the subject size is determined by the distance between the shooting spot and the subject.

So the shooting distance is crucial when planning:

- A big Sun aligned with a subject ([section 7](#)).
- A big Moon aligned with a subject ([section 9](#)).

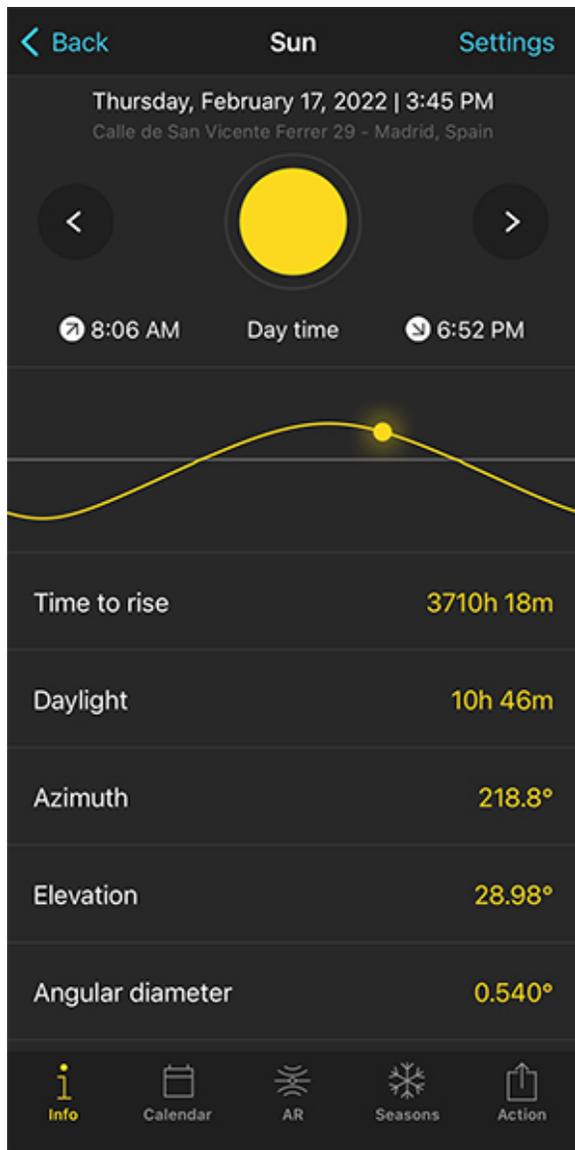
But why is that?

Because of the angular diameter of the Sun/Moon.

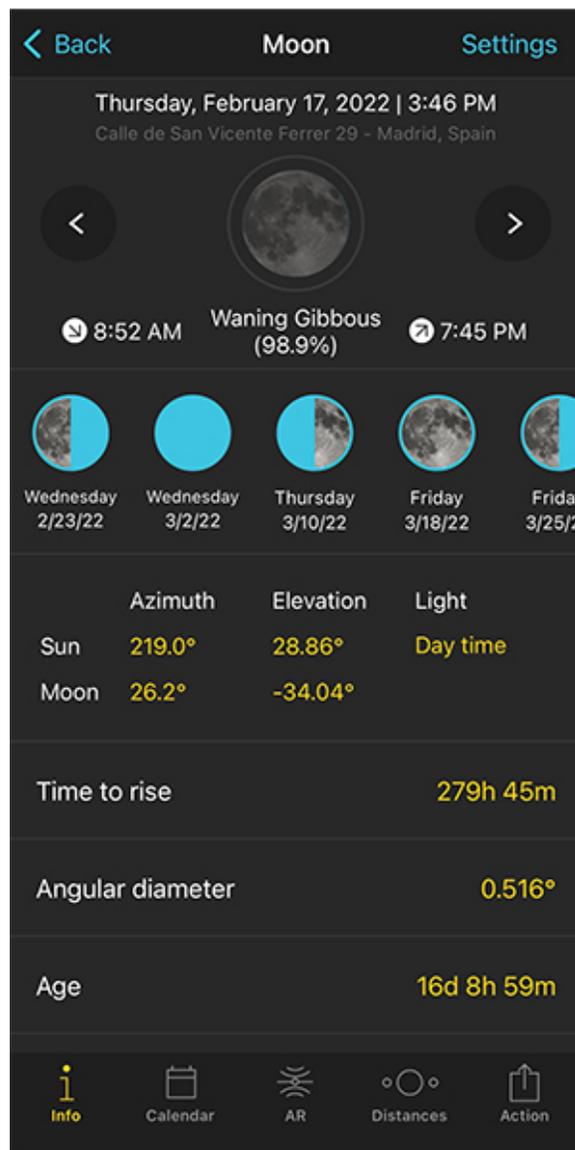
What is the angular diameter of the Sun/Moon

The angular diameter of the Sun/Moon is the diameter of the Sun/Moon measured in angle.

You can use [PhotoPills](#) to find it out.



PhotoPills Sun Pill - Scroll down the screen to find out the angular diameter of the Sun.



PhotoPills Moon Pill - Scroll down the screen to find out the angular diameter of the Moon.

Open [PhotoPills](#) and tap **Sun** (*Pills Menu*). By default, the information that appears corresponds to your current location (according to your mobile GPS) and the current date and

time.

If you scroll down, you'll see that the angular diameter of the Sun is almost at the end.

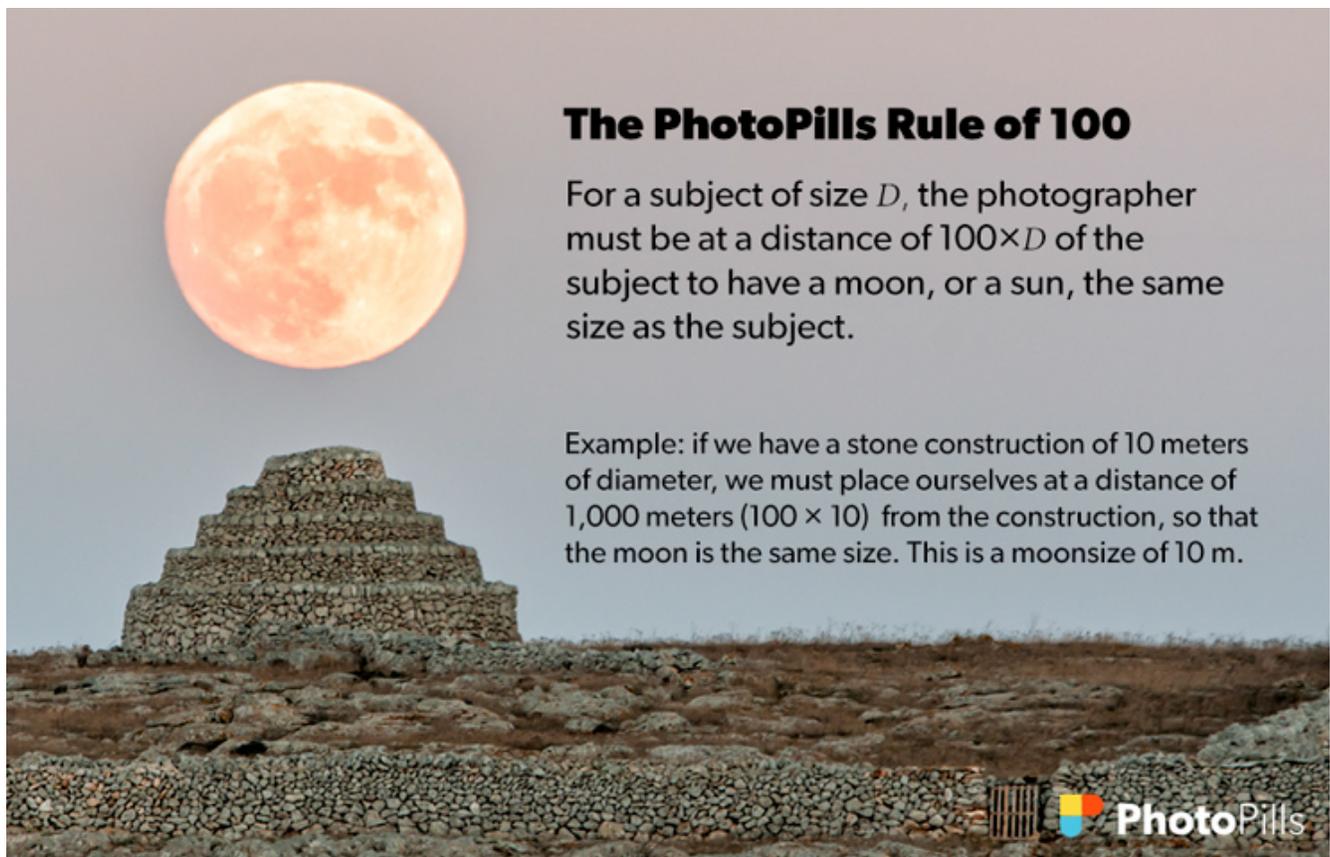
If you want to find out the angular diameter of the Moon, tap **Moon** (Pills Menu) and follow the same steps as above.

How to determine the distance between the shooting spot and the subject to get a Sun/Moon of a certain size

You can basically do 2 things:

- Apply the PhotoPills Rule of 100.
- Use PhotoPills to determine the shooting distance and Sun/Moon size.

What is the PhotoPills Rule of 100



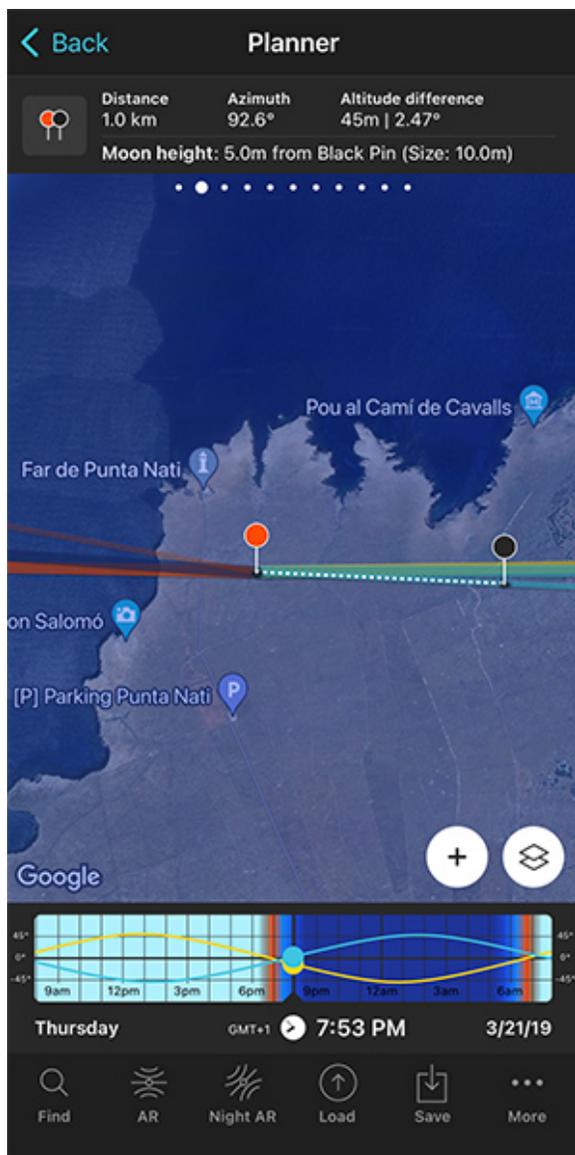
The image above sums it up pretty well :)

All you have to do is multiply by 100 the diameter of the Sun/Moon you're looking for to get the shooting distance.

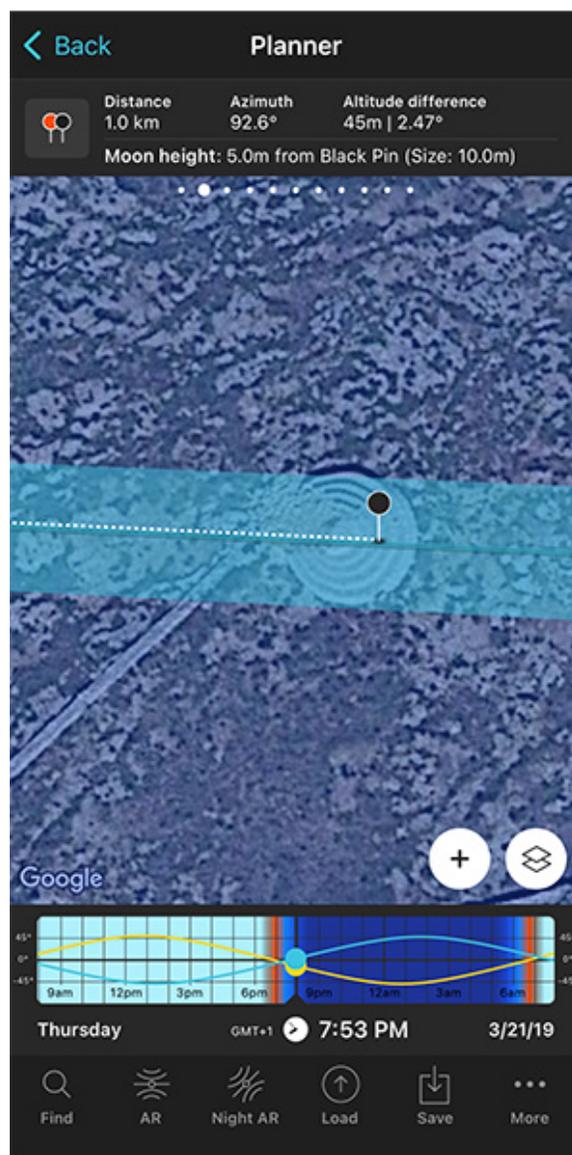
Use PhotoPills to determine the shooting distance and Sun/Moon size

The PhotoPills Rule of 100 is very useful but less accurate than using [PhotoPills](#).

I prefer to use the app and let it do all the math for me. I trust it with all my heart! ;)



PhotoPills Planner - Panel 2 indicates the size of the Moon (10 m) you'll get for the shooting distance (1 km).



PhotoPills Planner - The Planner now shows the size of the Moon on the map. It also allows you to quickly visualize the size of the Moon relative to the width of the subject.

Go to the Planner and place the **Red Pin** in the shooting spot.

Swipe the panels above the map to the right until you find the **Black Pin** information panel (**Panel 2**). Tap the icon on the panel that's showing the Red Pin and the Black Pin to activate the Black Pin on the map.

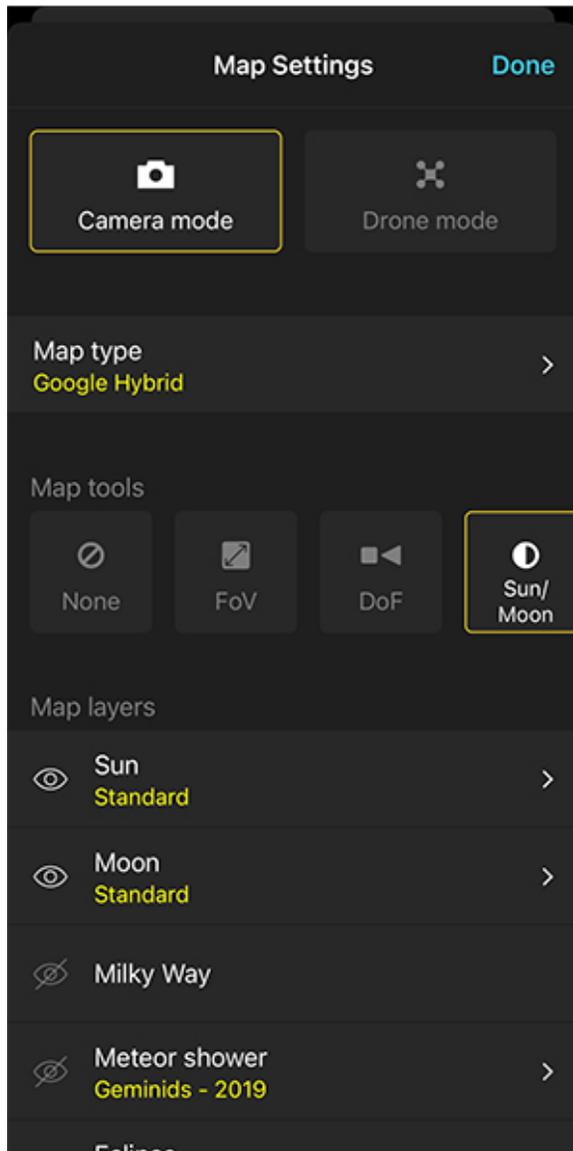
Then, place the Black Pin over your subject, where you want the Sun/Moon to be. **Panel 2** indicates the shooting distance, that is, the distance between the Red Pin and the Black Pin.

Now, move time by sliding your finger over the Time Bar to align the Sun/Moon with the Black Pin. When doing so, you'll see that the size of the Sun/Moon appears in parentheses in **Panel 2** above the map.

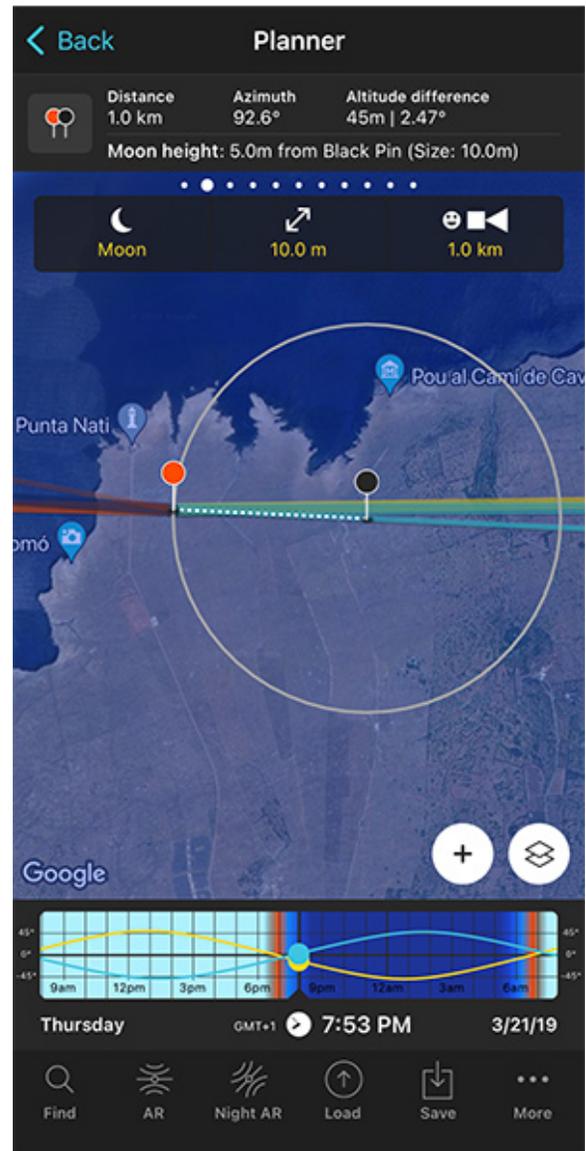
And the cool thing is that you can also see the size of the Sun/Moon on the map.

Simply tap the **Map Settings** button next to the **(+) button** on the map (lower right corner). Then tap the **Sun layer** (or the **Moon layer**) and activate the **Show Sun size** (or **Show Moon size**) option.

Go back to the map and zoom in on the Black Pin. You'll now see that the light yellow/blue line (the one showing the Sun/Moon azimuth) shows you the size of the Sun/Moon. So it's very easy to know how big the Sun/Moon is going to be compared to the width of your subject.



PhotoPills Planner - On the Map Settings screen, tap the Sun/Moon map button to activate the Sun/Moon map tool.



PhotoPills Planner - The Sun/Moon map tool allows you to decide the size of the Sun/Moon you want and view the required shooting distance on the map.

But my favorite tool is the **Sun/Moon map tool**.

You can use it to calculate the shooting distance you need to get the Sun/Moon the size you want. Activate it by tapping the **Map Settings** button (you'll find it next to the **(+) button** on the map). Then, in the map tools section select **Sun/Moon**.

In the top box that just appeared, type the Moon size you want (10 m, for example). You'll see that the diameter of the grey circle changes according to the size you type.

Now all you have to do is place the Red Pin on the grey circle.

You can read more on how the shooting spot determines the size of the Moon relative to the subject size in our [super guide on Moon photography](#).

Understanding Sun or Moon height above the terrain or a subject (Black Pin)

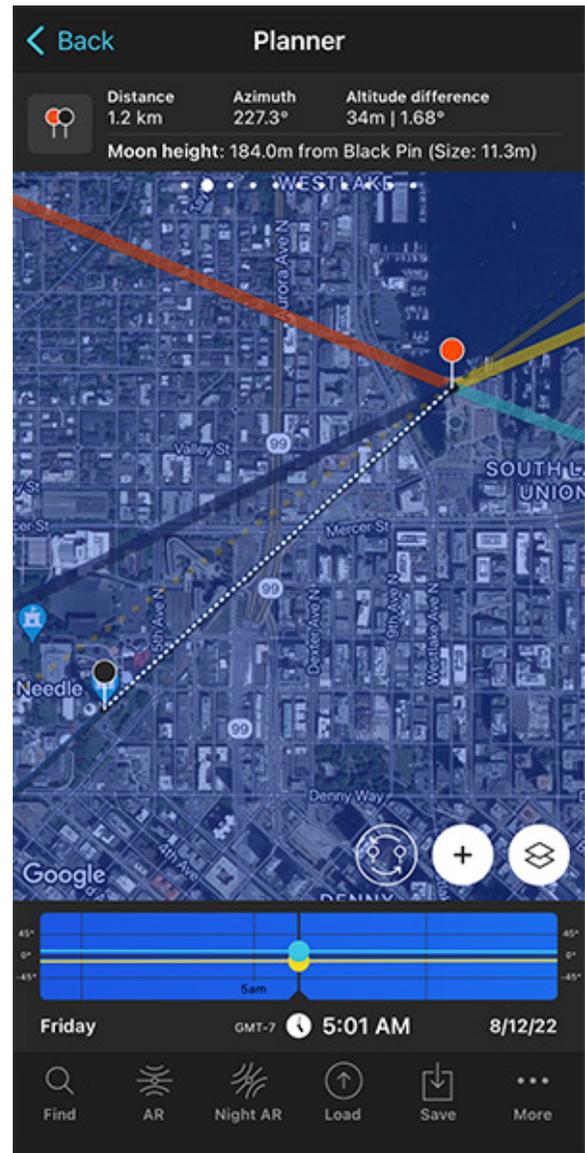
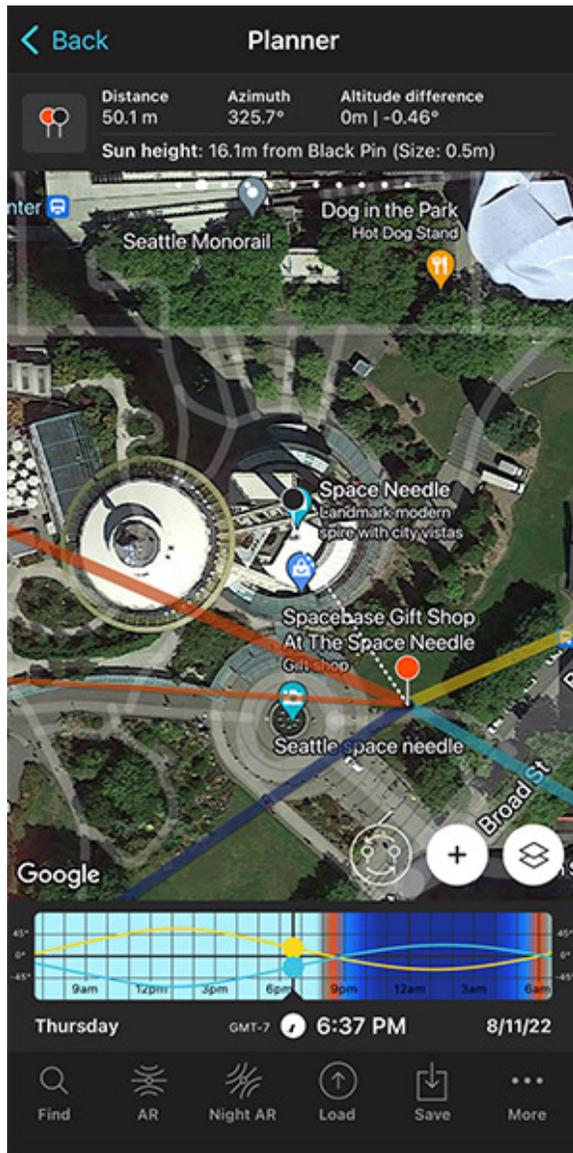
There's a key piece of information that you need when planning a big Sun ([section 7](#)) or a big Moon ([section 9](#)) aligned with a subject.

The importance of finding out the Sun or Moon height above the terrain or a subject

You need to figure out how high the Sun or Moon will be above the terrain or a subject.

It's crucial to find the right shooting time the Sun or the Moon will be at the right place in the frame relative to your subject (or the terrain).

How to use PhotoPills to find how high the Sun/Moon will be above the terrain or a subject



PhotoPills Planner - The Black Pin is placed at the base of the subject (Seattle's Sky Tower), so that the Moon is aligned with the top observation deck.

PhotoPills Planner - The Black Pin is over the subject. The Red Pin, Black Pin and Moon are aligned. Panel 2 indicates the center of the Moon altitude above the ground level of the Black Pin, as well as the Moon diameter.

Thankfully, **PhotoPills** is the perfect tool to find it out.

Open PhotoPills and tap *Planner* (*Pills Menu*).

Then swipe the top panels to **Panel 2**. Tap the button on the panel and the **Black Pin** will appear on the map.

Now place the Black Pin over your subject. If you move the time to align the Sun/Moon with the Black Pin, you'll see that **Panel 2** tells you everything you need:

- The Sun/Moon height above the Black Pin. More specifically, it's the center of the Sun/Moon height above ground level where you have placed the Black Pin.
- The Sun/Moon size or apparent diameter. Therefore, you know how big it's going to be compared to the subject.

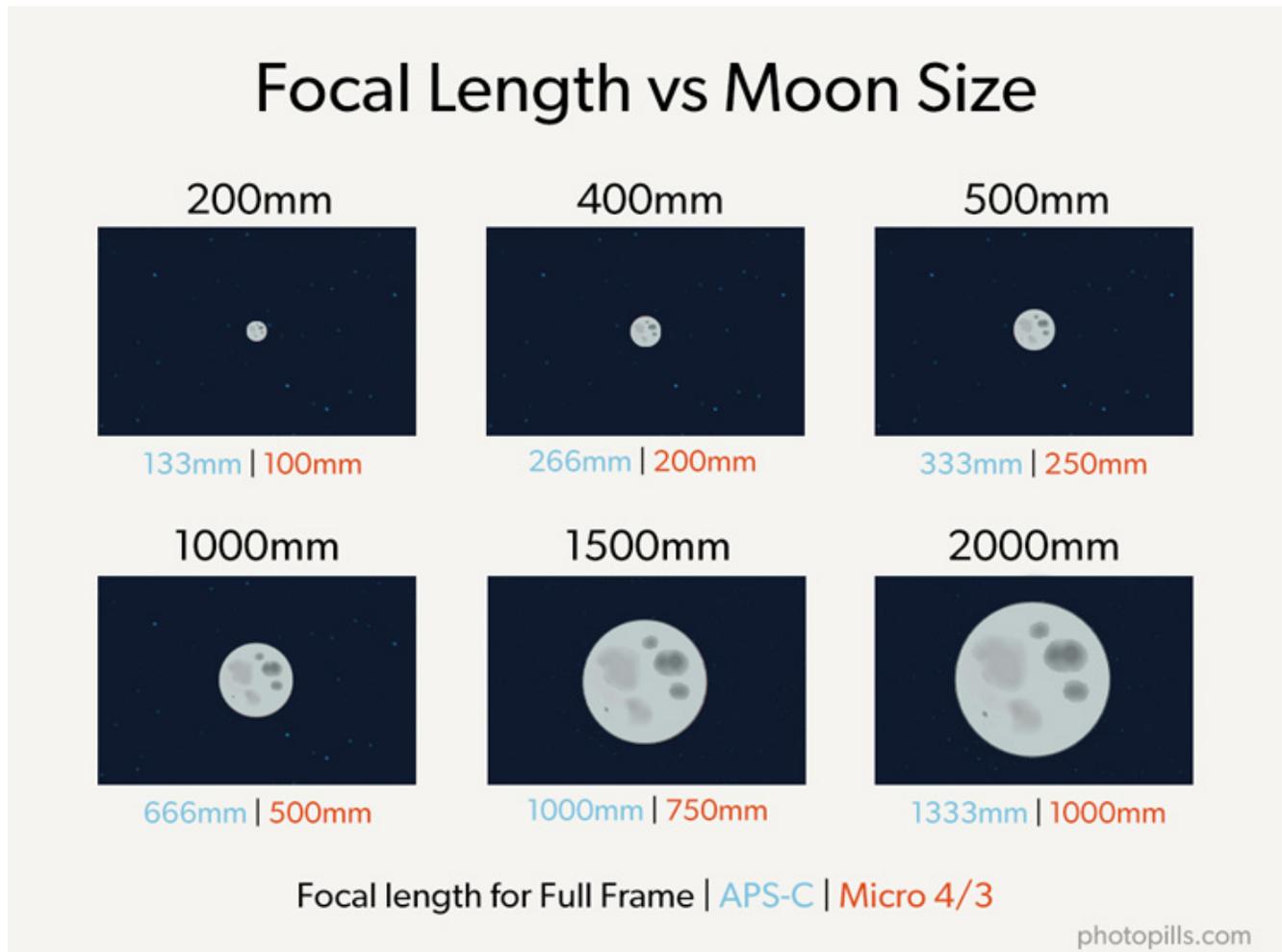
Both will help you better understand how the elements you want to capture are positioned and get the composition you've imagined.

However, keep in mind that if you place the black pin on a building, **Panel 2** still gives you the height above the ground. It doesn't take into account the height of the building, as PhotoPills cannot calculate it.

If you need to dive deeper into the topic, check out these 2 step by step examples:

- Big Sun aligned with a subject on **section 7**.
- Big Moon aligned with a subject on **section 9**.

Understanding how the focal length affects the size of the Sun/Moon in the frame



Depending how big you want the Sun/Moon to be in the picture (that is, in the frame) you'll need to use one focal length or another.

If you want a:

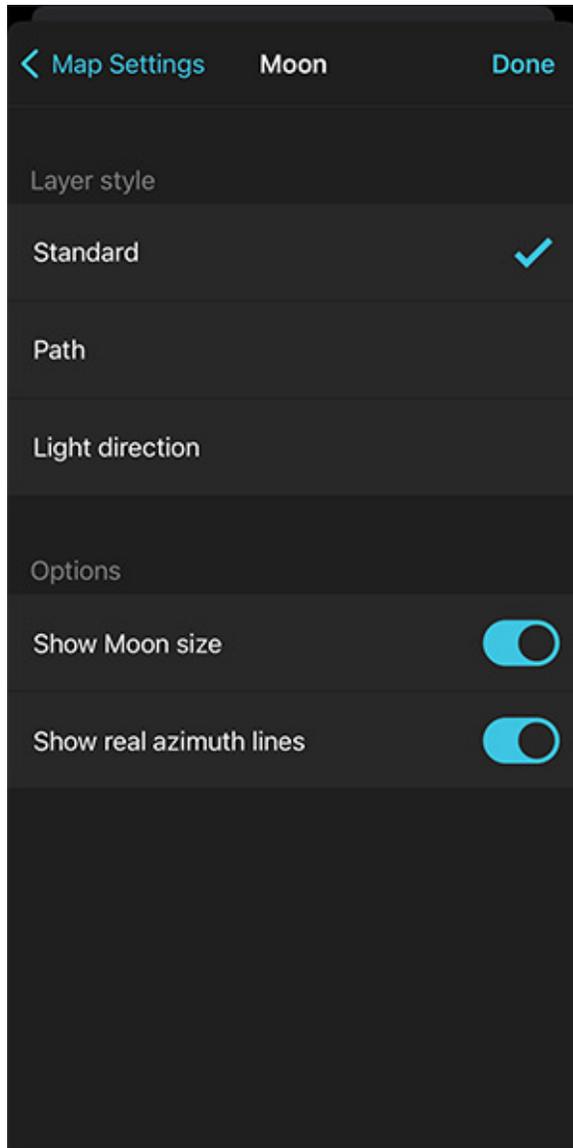
- **Sun/Moon as a dot**, use a wide angle lens (10-35mm).
- **Small Sun/Moon**, use a short to medium focal length (35-200mm).
- **Big Sun/Moon (or huge!)**, use long focal lengths (>200mm). If you don't have a very long lens, consider using a teleconverter.

Use **PhotoPills** to determine which focal length you should use to have a Sun/Moon of a certain size in the frame.

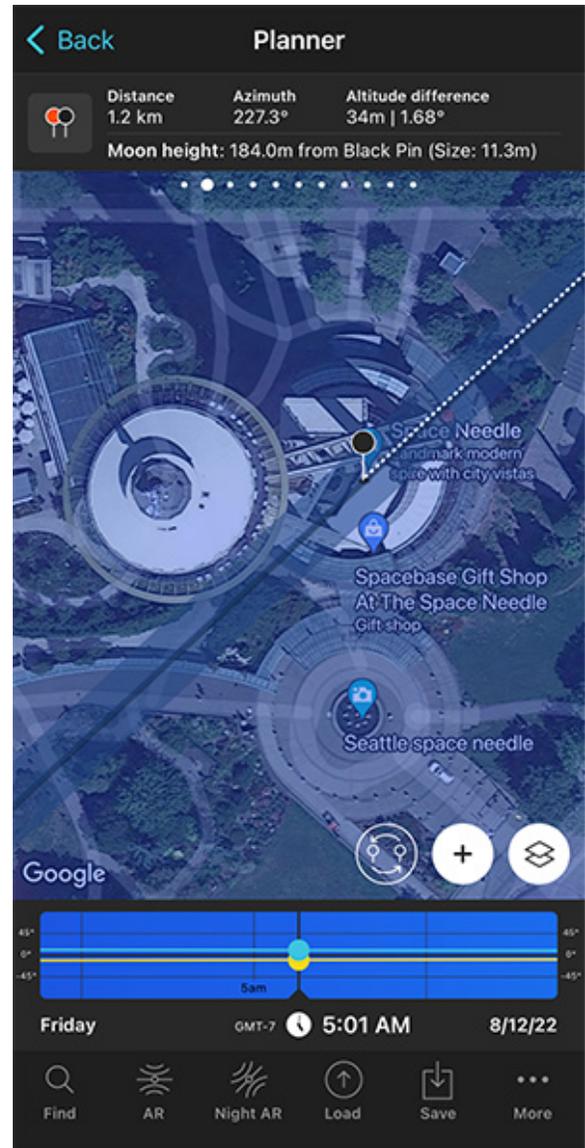
On the Planner's map you can see:

- The Sun/Moon size, depending on the shooting distance.
- The field of view, depending on the focal length, the camera, etc.

How to use PhotoPills to see the Sun/Moon size



PhotoPills Planner - Activate the Show moon size option on the Layer style screen.



PhotoPills Planner - The size of the Moon (11.3 m) is represented on the map.

Open **PhotoPills** and tap *Planner (Pills Menu)*.

Swipe the top panels until you get to **Panel 2**. Tap the icon showing the Red Pin and the Black Pin to activate the Black Pin on the map. Drag the Black Pin to the center of the ground floor of your subject, right where you want the Moon to be aligned.

Let's use the screenshots above as an example.

As you can see on [Panel 2](#), the Moon's size is 11.3 m (diameter).

But if you want to see it on the map, tap the [Map Settings](#) button. You'll find it at the bottom right corner of the map, right next to the [\(+\)](#) button.

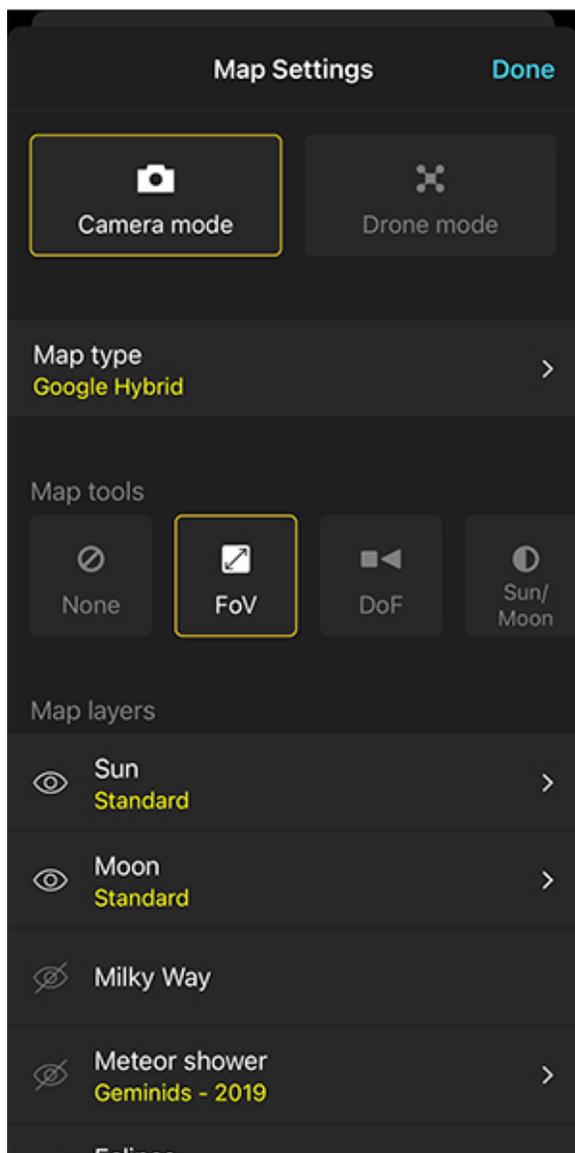
On the Map Settings screen, tap the [Moon layer](#) and activate the [Show Moon size](#) option. Finally, tap *OK* (top right corner) in iOS or the back arrow in Android.

Zoom in on the map over the Black Pin to see that the width of the thin blue line shows you the Moon diameter at that date and time. This allows you to compare its size to your subject.

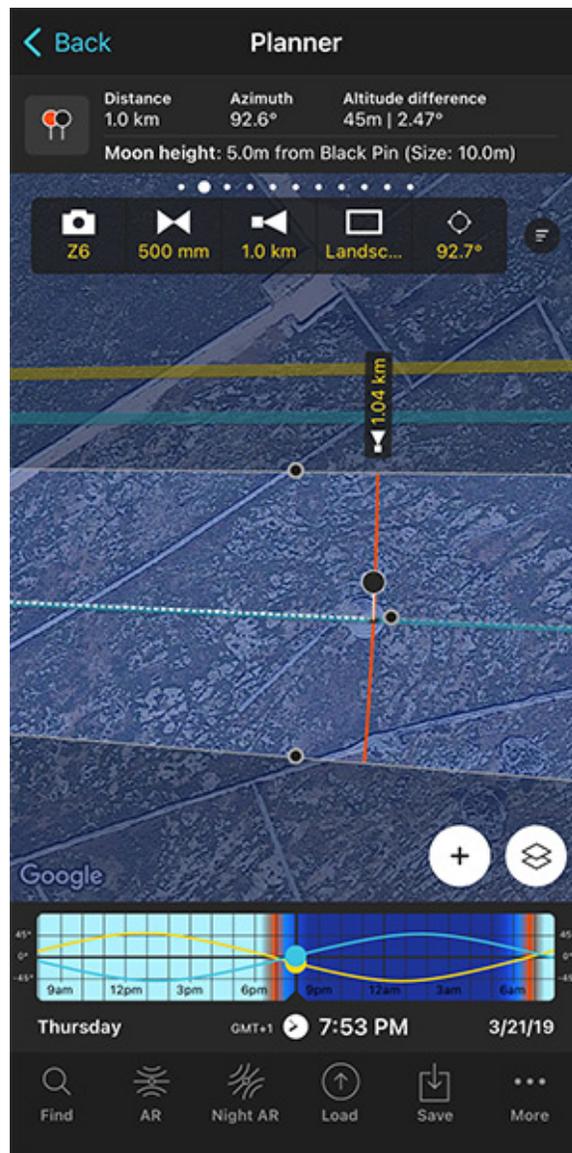
On the screenshots above, you can see an example for a Moon shot. Follow the same procedure on the Sun layer style screen for a Sun shot.

As you'll learn in [section 7](#) and in [section 9](#), you can plan all types of shot with a big Sun or a big Moon with [PhotoPills](#). And this tool will prove priceless... ;)

How to use PhotoPills to see the field of view



PhotoPills Planner - On the Map Settings screen, tap the FoV button to activate the Field of View tool.



PhotoPills Planner - To view the field of view on the map type the camera, focal length, shooting distance, shooting mode (horizontal/vertical) and shooting direction.

Open **PhotoPills** and tap *Planner* (*Pills* Menu).

Tap the **Map Settings** button. You have it on the map, next to the **(+)** button.

On the Map Settings screen, in the Map Tools section, tap the *FoV* (Field of View) button. Tap *Done* (top right corner) in iOS or the back arrow in Android.

You'll see that a new panel has appeared on the map.

Imagine you're using a Nikon Z6 with a 500mm at f/8 and you're focusing right at the distance to the Black Pin.

The framing is in landscape mode (horizontal) and you want to frame in the direction in which the Black Pin is located. Tap the *Azimuth framing* button (the last button). And on the Azimuth screen, tap the *Align with Black Pin* option. The field of view is now aligned with the Black Pin.

Finally, zoom in on the map around the Black Pin to see

- What part of the landscape fits into the frame.
- How big the Moon will be compared with the frame.

You can learn how to plan the field of view in [section 20](#).

Understanding the Milky Way key points

As you'll see in [section 10](#), the Milky Way has a number of key points that you should understand to successfully plan your Milky Way shots.

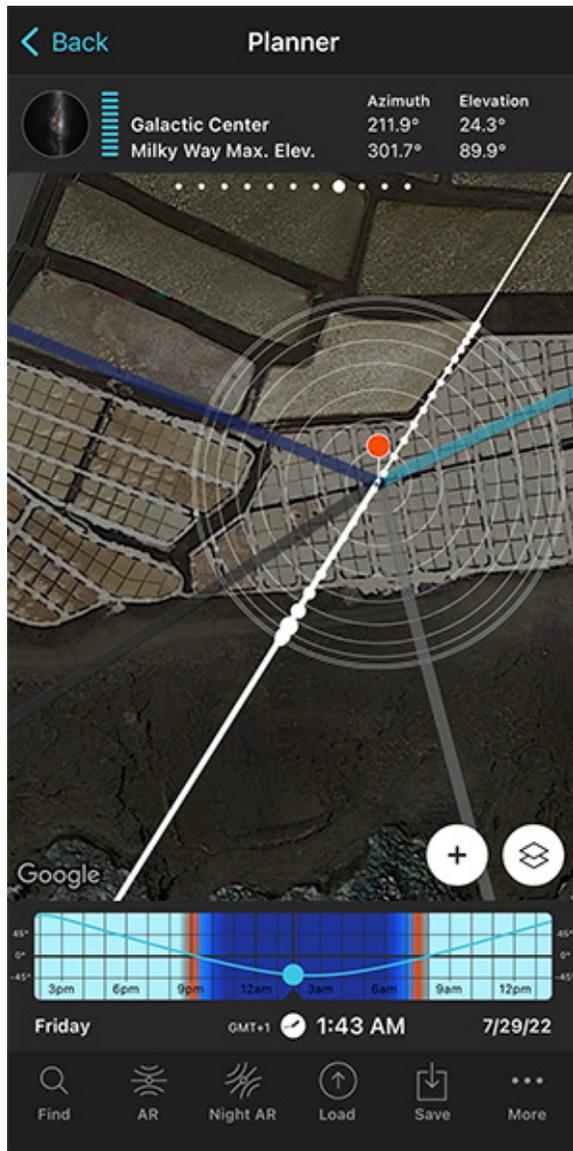
What are the Milky Way key points?

These are the Milky Way key points:

- **Galactic center.** It's the point right at the center of the core of the Milky Way, which is the brightest part of our galaxy. Therefore, you should include it in your image.
- **Highest point.** This is the middle point of the Milky Way arch. Use it to understand whether the Milky Way is low in the sky (great for a pano!), or when it's high so you can photograph the Milky Way creating a diagonal or even a vertical in the frame.
- **Crossing point(s).** These are the directions in which the Milky Way meets the horizon. Both are key points when planning a panoramic image of the Milky Way.

Let's see how you can find these 4 key points with [PhotoPills](#).

How the Milky Way key points are represented in PhotoPills



PhotoPills Planner - Position of the Milky Way on July 29, 2022 at 01:40 am.



PhotoPills Night Augmented Reality view - Position of the Milky Way on July 29, 2022 at 01:40 am.

Have a look at the two screenshots above.

The first one shows a view of the Planner map with the **Milky Way layer** activated.

This is the Milky Way information you can see on the map:

•••○••• Milky Way Arch. The larger dot represents the Galactic Center.

=====
=====
=====
Contour circumferences from 0 degrees (outer) to 90 degrees (center) in steps of 10 degrees of elevation.

■ Direction where the Galactic Center becomes visible for the selected

■ Direction where the Galactic Center becomes not visible for the selected date

=====
=====
Thick white line: Direction where the Galactic Center is for the selected date and time

=====
=====
Thin white line: Directions where the arch of the Milky Way crosses the horizon

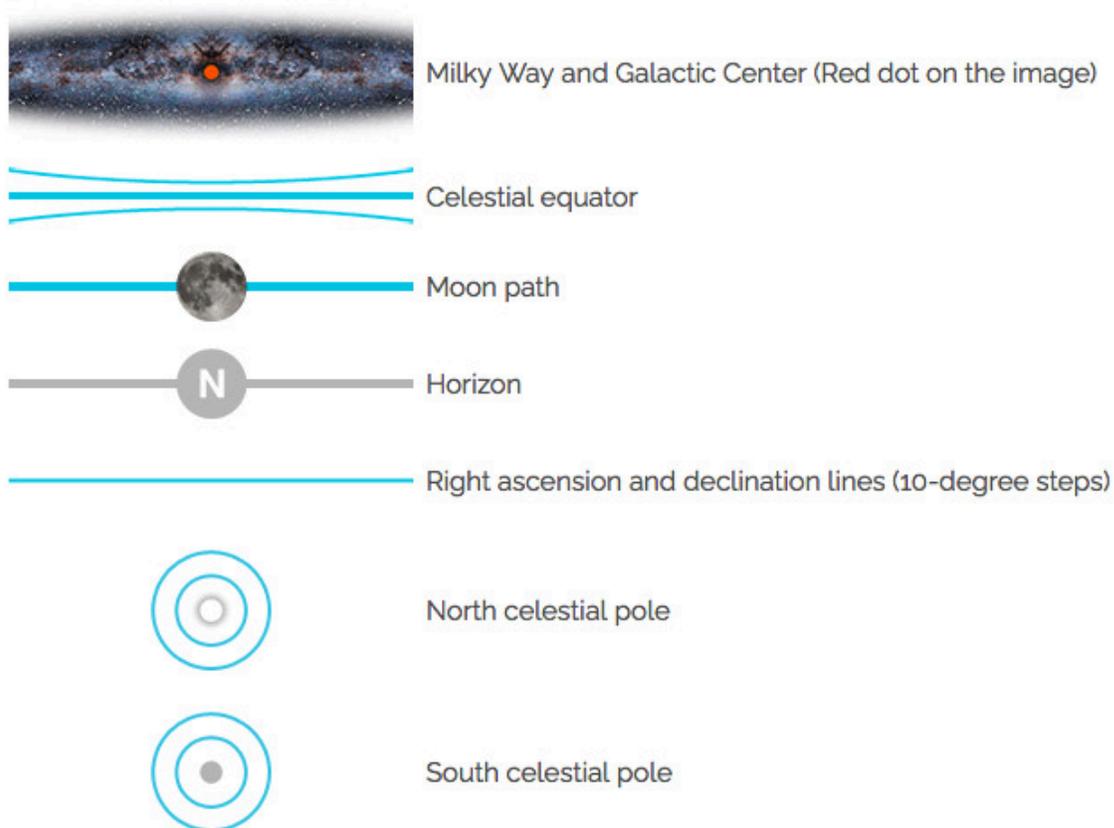
The second one shows the Night Augmented Reality (AR) view of the previous exact same plan.

With this tool you can check the position of the Milky Way, the Galactic Center (red dot), the highest point (middle point of the arch) and the two crossing points with the horizon (represented by a thin white line on the Planner's map).

The blue curved lines you see on the Night Augmented Reality (AR) view represent the Star Trails pattern you'll get when framing in that direction.

And the white moving dots are the stars. Their movement indicates the sense of rotation around the celestial poles.

This is the Milky Way information you can see on the Night AR:



Our article '[How To Plan The Milky Way Using The 2D Map-Centric Planner](#)' is a bit outdated but there you'll find a detailed explanation on how the Milky Way is displayed on the PhotoPills Planner map.

Great!

Now you have all you need to start planning the Milky Way :)

Understanding the different Star Trails patterns

It's very simple.

You'll get a different Star Trails pattern depending on the direction you point your camera to.

So, determine the shooting spot and shooting direction according to the Star Trails shape you need to tell the story you want

Northern Hemisphere

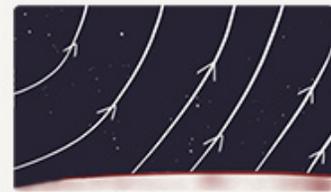
Star Trails - Northern Hemisphere

Depending on the direction you're aiming your camera, you'll get all these different star trails patterns.

photopills.com



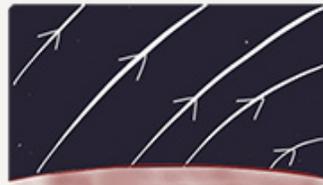
North



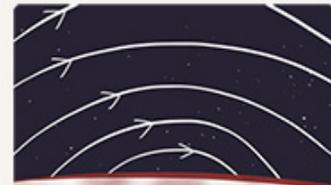
Northeast



East



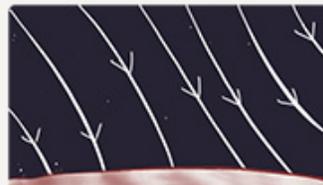
Southeast



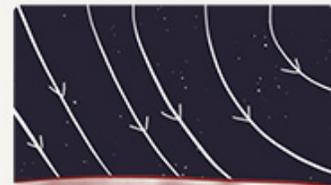
South



Southwest



West



Northwest

In the Northern Hemisphere, you'll get all the Star Trails patterns you can see in the image above. Again, it will depend on the direction you're pointing your camera to.

For spectacular results make sure to:

- Include the Polaris to create a circumpolar Star Trails.
- Aim east or west to include the celestial equator and capture stars moving in three different directions.
- Aim south and the Star Trails will arch above your subject.

Southern Hemisphere

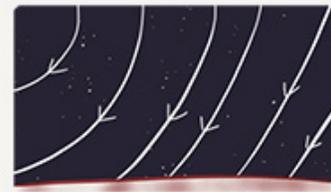
Star Trails - Southern Hemisphere

Depending on the direction you're aiming your camera, you'll get all these different star trails patterns.

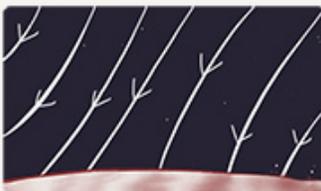
photopills.com



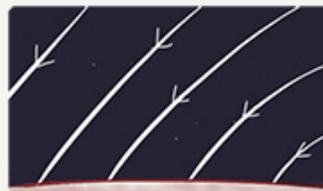
South



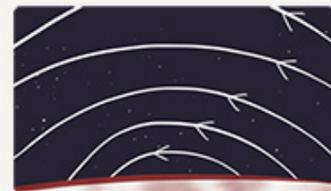
Southwest



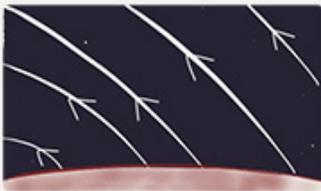
West



Northwest



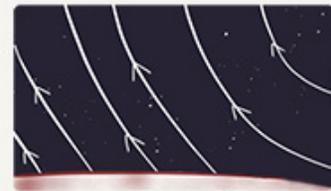
North



Northeast



East



Southeast

As you can see above, these are the Star Trails patterns you can get in the Southern Hemisphere.

You can decide to:

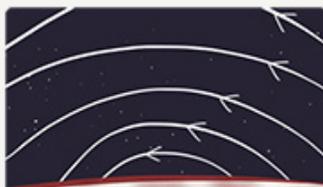
- Include the south celestial pole to create a circumpolar Star Trails.
- Aim east or west to include the celestial equator and capture stars moving in three different directions.
- Aim north and the Star Trails will arch above your subject.

Equator

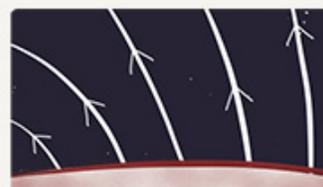
Star Trails - Equator

Depending on the direction you're aiming your camera, you'll get all these different star trails patterns.

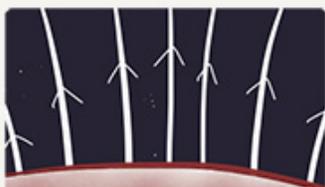
photopills.com



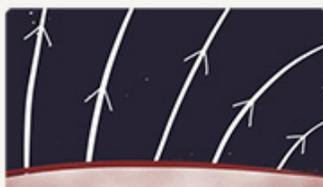
North



Northeast



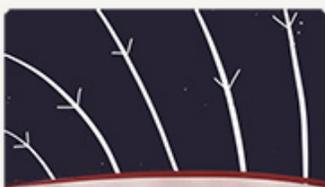
East



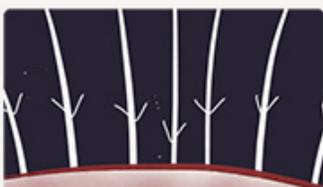
Southeast



South



Southwest



West



Northwest

As you approach the Equator, the north and south celestial poles seem to be very close to the horizon.

So, if you're shooting in a location close to the Earth's equator, you can create stunning images capturing half of the circles described by the stars.

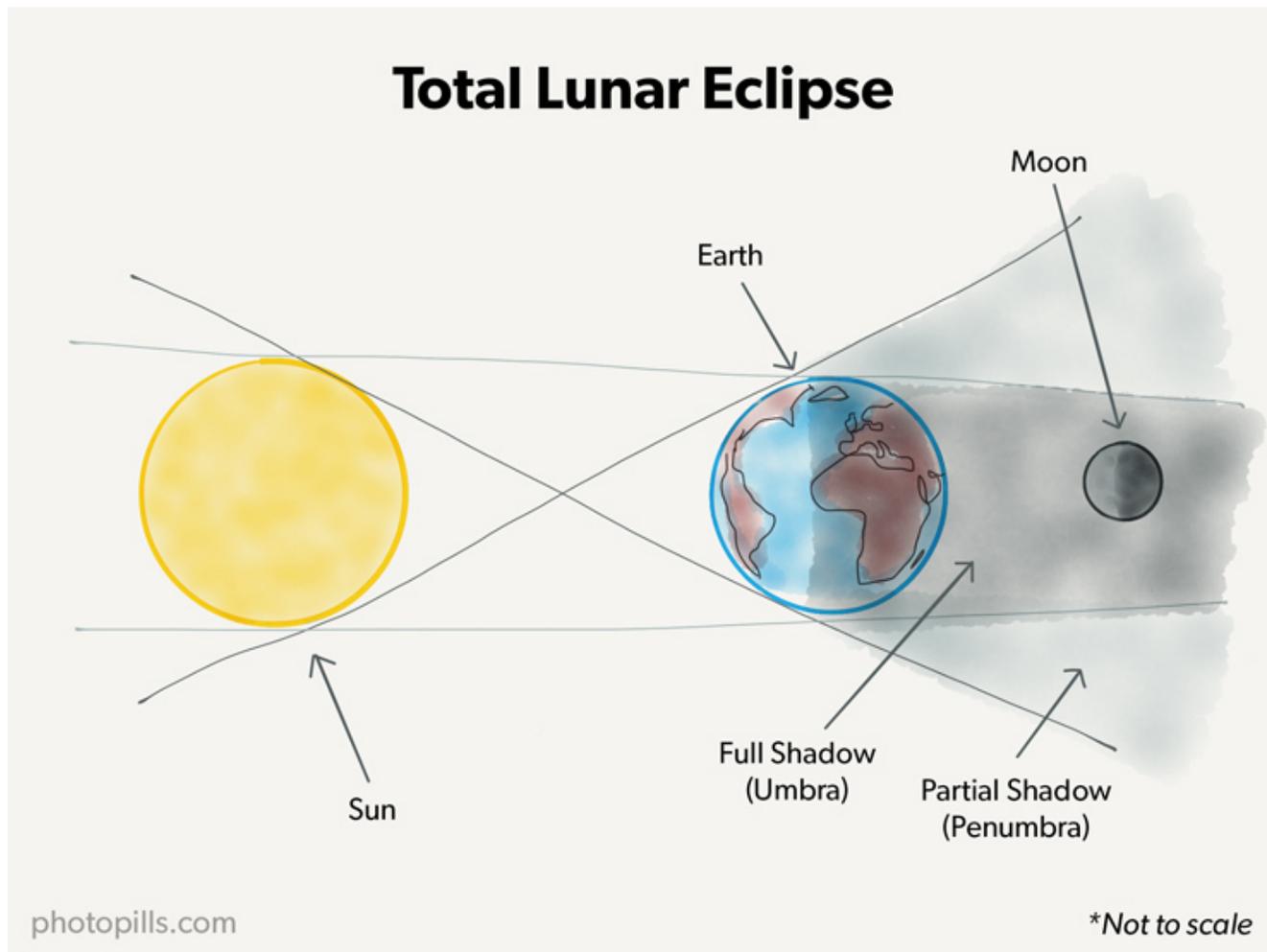
For example, when shooting to the west or east, the celestial equator appears as a vertical line, creating a striking effect.

Learn everything you need to know with our [ultimate guide on Star Trails photography](#).

Understanding lunar eclipses

Before you start planning lunar eclipse photos as if there were no tomorrow, you should understand its basics...

What is a lunar eclipse?



The shadow projected by the Earth has 2 parts:

- **Umbra.** The darkest part of the shadow cast by the Earth over the Moon.
- **Penumbra.** The lightest part of the shadow cast by the Earth over the space.

Each shadow causes different types of eclipses:

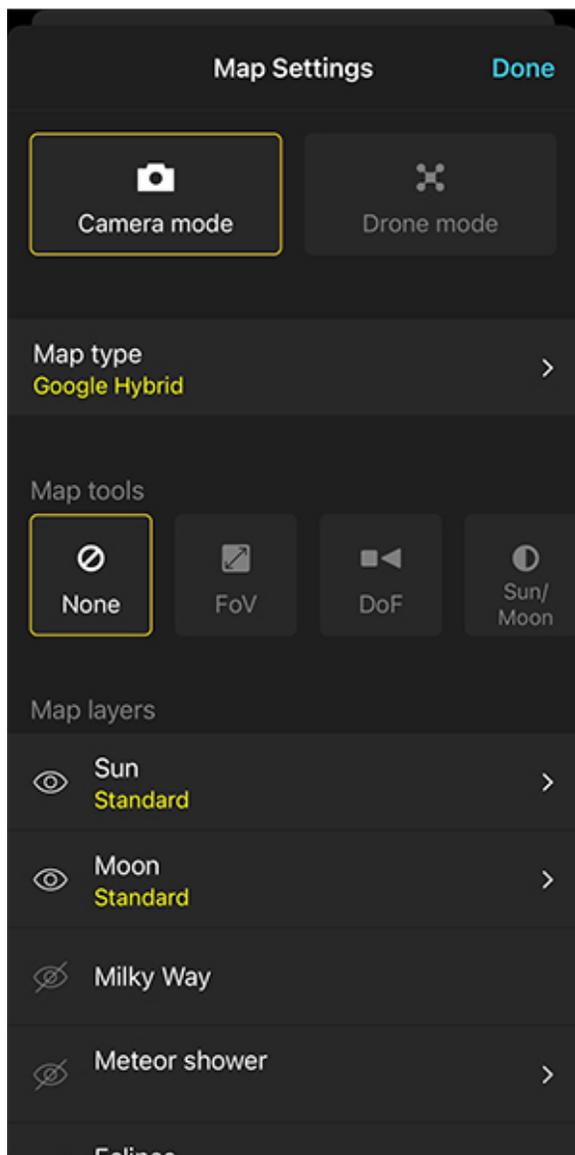
- When the totality of the Moon enters the Earth's umbra, a total lunar eclipse occurs. At this point the Moon might catch an amazing red color (the Blood Moon).

- When only a part of the Moon enters the Earth's umbra, a partial lunar eclipse occurs.
- When the Moon enters the Earth's penumbra, a penumbral lunar eclipse occurs.

When does a lunar eclipse occur?

Lunar eclipses happen during the Full Moon only. But not every single one!

To find out when a lunar eclipse happens, use [PhotoPills](#).



PhotoPills Planner - Map Settings. Tap Eclipse to see the full calendar of eclipses.

Date ^	Body	Type	Red pin
11/8/22	Moon	Total	Not visible
4/20/23	Sun	Hybrid	Not visible
5/5/23	Moon	Penumbral	Penumbral
10/14/23	Sun	Annular	Not visible
10/28/23	Moon	Partial	Partial
3/25/24	Moon	Penumbral	Penumbral
4/8/24	Sun	Total	Not visible
9/18/24	Moon	Partial	Partial
10/2/24	Sun	Annular	Not visible
3/14/25	Moon	Total	Partial

PhotoPills Planner - PhotoPills solar and lunar eclipse calendar. Swipe the Calendar up to see more eclipses.

Open [PhotoPills](#), and tap *Planner (Pills Menu)*.

First, place the Red Pin in your shooting location. If you don't know how to do it, [this video will teach you how to move the Red Pin](#).

Then, you can access the calendar of eclipses using 2 workflows.

1. The Map Settings option

Tap the **Map Settings** button. You have it on the map, next to the **(+)** button.

On the Map Settings screen, tap the *Eclipse layer* to see the calendar of eclipses.

2. Panel 9

Swipe the top panels above the map to the left to **Panel 9**.

Can you see the switch button? Tap it and you'll access the calendar of eclipses.

The calendar displays all the solar and lunar eclipses, showing:

- Date
- Object (Sun or Moon)
- Type (total, partial, annular or hybrid)
- Red Pin, if it's visible or not from the Red Pin position. And when visible, if it's total, partial or penumbral.

Note: Tap *Date*, *Object*, *Type* or *Red Pin* at the top to sort the table according to the criteria you prefer.

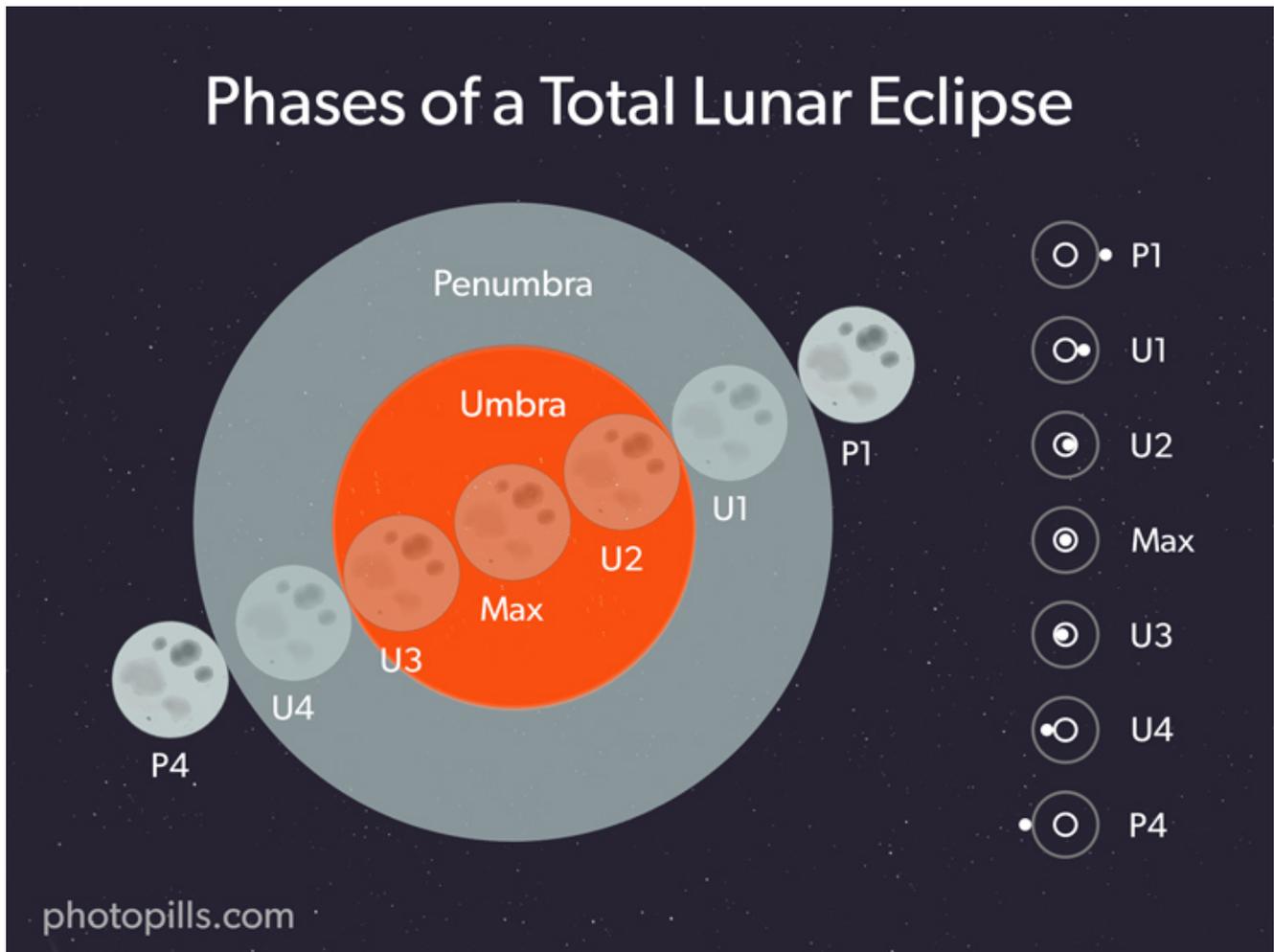
What is the magnitude of a lunar eclipse?

Lunar eclipses have 2 magnitudes:

- The **umbral magnitude** represents the fraction of the lunar diameter covered by the Earth's umbra.
 - In a partial lunar eclipse it always has a value greater than 0 and less than 1, where 1 means total eclipse.
 - A total lunar eclipse always has an umbral magnitude higher than 1.
 - Finally, a penumbral lunar eclipse always has an umbral magnitude of less than 0.
- The **penumbral magnitude** is the fraction of the diameter of the Moon that is covered by the Earth's penumbra.

- In a total lunar eclipse, the penumbral magnitude is usually greater than 2.
- In a partial lunar eclipse it's always greater than 1 and, as a rule, less than 2.
- In a penumbral lunar eclipse, the magnitude is less than 1.

What are the different lunar eclipse phases



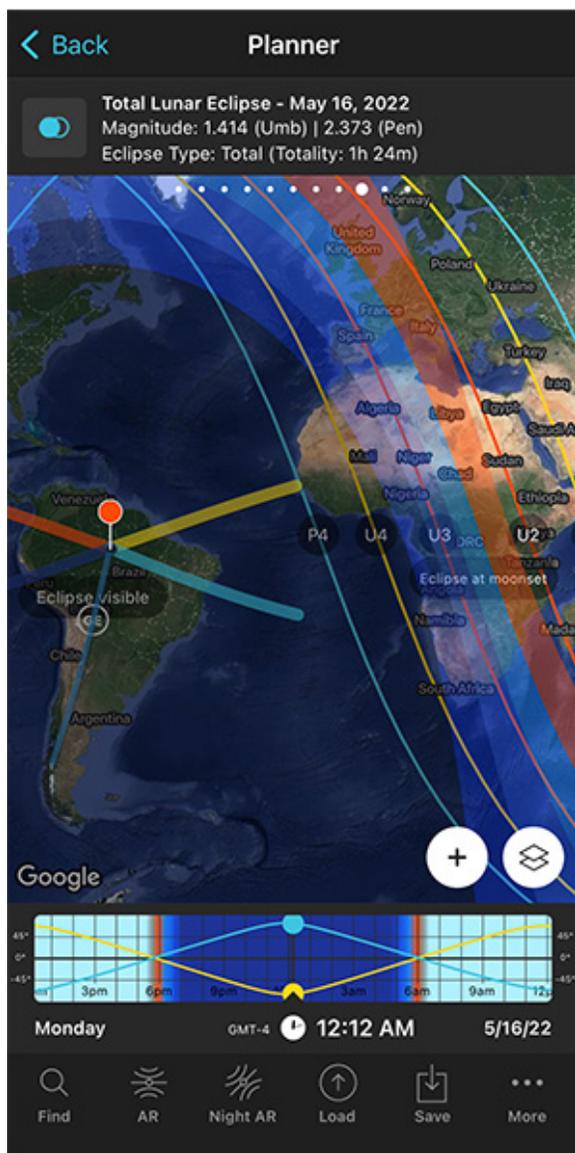
These are all the phases you can enjoy (weather permitting!) if you happen to be in a location from which you can see a total lunar eclipse:

- **Penumbral eclipse begins (P1):** The penumbral part of Earth's shadow starts moving over the Moon. This phase is very difficult to observe with the naked eye.
- **Partial eclipse begins (U1):** The Earth's umbra starts covering the Moon, and the eclipse becomes more and more perceptible.
- **Total eclipse begins (U2):** The Earth's umbra completely covers the Moon. **The Moon turns into red, brown or yellow.**
- **Greatest eclipse (Max):** This is the central moment of the total eclipse.

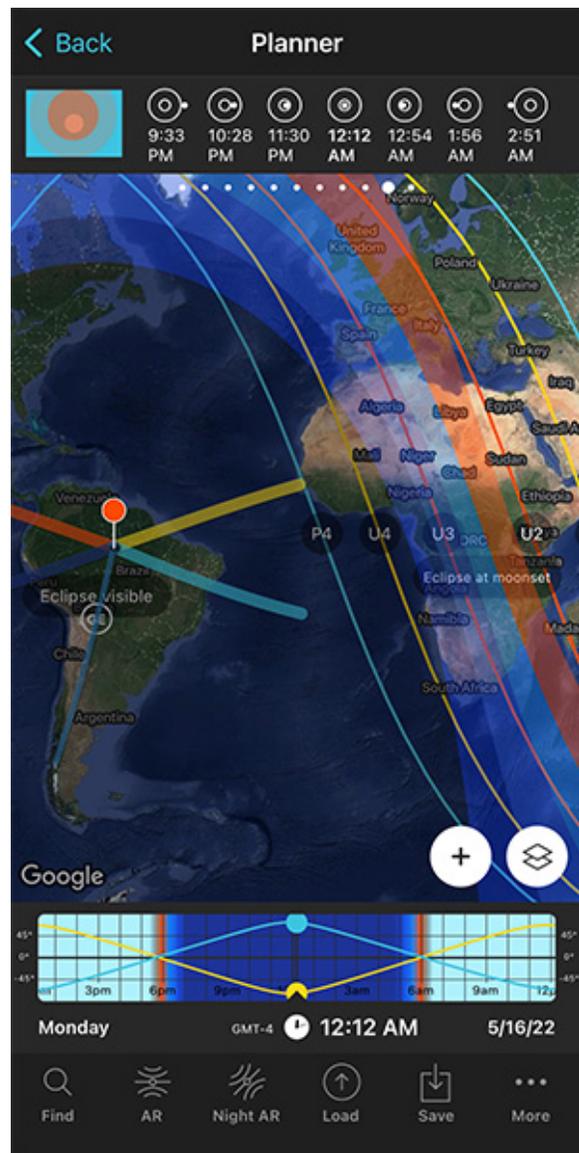
- **Total eclipse ends (U3):** The Earth's umbra starts moving away from the Moon so it's visible again.
- **Partial eclipse ends (U4):** The Earth's umbra completely leaves the Moon allowing the lunar surface to be visible again.
- **Penumbral eclipse ends (P4):** The Earth's penumbral shadow moves away from the Moon. It's the end of the eclipse.

During a partial lunar eclipse, you can see the P1, U1, Max, U4 and P4 phases only.

How the lunar eclipse phases are displayed on PhotoPills



PhotoPills Planner - Zoom out to see all the lunar eclipse phases on the map. Panel 9 shows the eclipse information (date, magnitude, type and duration) according to the Red Pin position.



PhotoPills Planner - Zoom out to see all the lunar eclipse phases on the map. Panel 10 shows the time and image of the different phases of the eclipse according to the Red Pin position.

Considering the **different phases of the lunar eclipse**, this is the information you will find on the map:

- **Eclipse visible area:** The map label Eclipse visible shows you the map area where all phases of the Moon eclipse are visible (P1, U1, U2, Total, U3, U4, P4). This is the area between the blue lines (P1 and P4).
- **Eclipse visible at Moonrise area:** The map label Eclipse visible at Moonrise shows you the map area where at least one of the eclipse phases is visible during Moonrise. This

is the area between the two blue lines (P4 and P1) which also contains the yellow and red lines.

- **Eclipse visible at Moonset area:** The map label Eclipse visible at Moonset shows you the map area where at least one of the eclipse phases is visible during Moonset. This is the area between the two blue lines (P4 and P1) which also contains the yellow and red lines.
- **Eclipse not visible area:** The map label Eclipse not visible shows you the map area where the eclipse is not visible (because the eclipse happens when the Moon is under the horizon). This is the area between the blue lines (P1 and P4).
- **Map Greatest Eclipse Point (GE or o Greatest Eclipse Point):** It's the moment when the Moon passes closest to the axis of Earth's shadow.

For the eclipse Moonrise area:

- **Area between the blue and yellow lines (P4 and U4):** It represents the locations where the Moon rises during the penumbral eclipse, after the end of the total eclipse. It's visible until the end of the penumbral eclipse (P4).
- **Area between the yellow and red lines (U4 and U3):** It represents the locations where the Moon rises during the partial eclipse, after the end of the total eclipse. The end of partial eclipse (U4) and end of penumbral eclipse (P4) phases are visible.
- **Area between the two red lines (U3 and U2):** It represents the locations where the Moon rises during the total eclipse, and the end of total eclipse (U3), end of partial eclipse (U4) and end of penumbral eclipse (P4) phases are visible. Depending on the location within this area, the maximum eclipse phase may or may not be visible.
- **Area between the red and yellow lines (U2 and U1):** It represents the locations where the Moon rises during the partial eclipse. All phases are visible except for the penumbral eclipse (P1) and the beginning of the partial eclipse (U1).
- **Area between the yellow and blue lines (U1 and P1):** It represents the locations where the Moon rises during the penumbral eclipse. All phases are visible except for the beginning of the penumbral eclipse (P1).

For the eclipse Moonset area:

- **Area between the blue and yellow lines (P4 and U4):** It represents the locations where all the Moon eclipse phases are visible except for the final of the penumbral eclipse (P4).

- **Area between the yellow and red lines (U4 and U3):** It represents the locations where all the Moon eclipse phases are visible except for the end of the partial eclipse (U4) and the end of the penumbral eclipse (P4). When the Moon sets, the eclipse is partial.
- **Area between the two red lines (U3 and U2):** It represents the locations where the beginning of the penumbral eclipse (P1), the beginning of the partial eclipse (U1) and the beginning of the total eclipse (U2) phases are visible. When the Moon sets, the eclipse is total. Depending on the location within this area, the maximum eclipse phase may or may not be visible.
- **Area between the red and yellow lines (U2 and U1):** It represents the locations where only the beginning of the penumbral eclipse (P1) and the beginning of the partial eclipse (U1) phases are visible. When the Moon sets, the eclipse is partial.
- **Area between the yellow and blue lines (U1 and P1):** It represents the locations where only the beginning of the penumbral eclipse (P1) phase is visible. When the Moon sets, the eclipse is penumbral.

This is just a summary of the key points, but if you want to learn more, have a look at our [guide on lunar eclipses](#).

Understanding solar eclipses

It's important to have a full understanding of the different types of solar eclipses before you start planning one.

So let's start from the beginning...

What is a solar eclipse?

A solar eclipse happens when the **Moon** moves between the Sun and Earth, blocking out the Sun's rays and casting a shadow on parts of Earth.

Because the Moon is 400 times smaller than the Sun, but it is also 400 times closer, the two celestial bodies appear nearly the same size!

There are 3 types of solar eclipses:

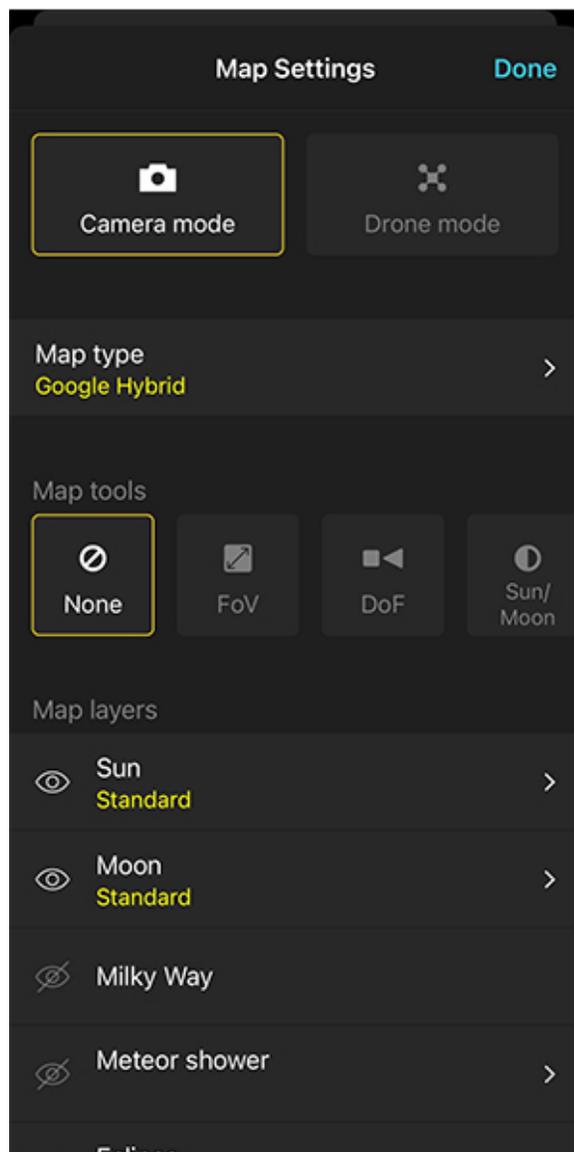
- A **total solar eclipse** happens when the Moon completely covers the Sun. But because the full shadow of the Moon (also called umbra) is not big enough to cover the Earth completely, it only covers a portion. This area or path is called "the path of totality". In other words, it's the area from which the total solar eclipse can be seen.

- A **partial solar eclipse** occurs when the Moon partially covers the Sun and casts only its penumbra shadow onto Earth.
- An **annular solar eclipse** takes place when the Moon is not big enough to cover the Sun completely.

When does a solar eclipse occur?

Solar eclipses happen during the New Moon only. But not every single one!

To find out when a solar eclipse happens, use [PhotoPills](#).



PhotoPills Planner - Map Settings. Tap Eclipse to see the full calendar of eclipses.

Date ^	Body	Type	Red pin
11/8/22	Moon	Total	Not visible
4/20/23	Sun	Hybrid	Not visible
5/5/23	Moon	Penumbral	Penumbral
10/14/23	Sun	Annular	Not visible
10/28/23	Moon	Partial	Partial
3/25/24	Moon	Penumbral	Penumbral
4/8/24	Sun	Total	Not visible
9/18/24	Moon	Partial	Partial
10/2/24	Sun	Annular	Not visible
3/14/25	Moon	Total	Partial

PhotoPills Planner - PhotoPills solar and lunar eclipse calendar. Swipe the Calendar up to see more eclipses.

Open **PhotoPills**, and tap *Planner (Pills Menu)*.

First, place the Red Pin in your shooting location. If you don't know how to do it, **this video will teach you how to move the Red Pin**.

Then, you can access the calendar of eclipses using 2 workflows.

1. The Map Settings option

Tap the **Map Settings** button. You'll see it on the map, in the lower right corner, right next to the **(+) button** on the map.

Once on the Map Settings screen, tap the *Eclipse layer* to see the calendar of eclipses.

2. Panel 9

Swipe the top panels above the map to the left to **Panel 9**.

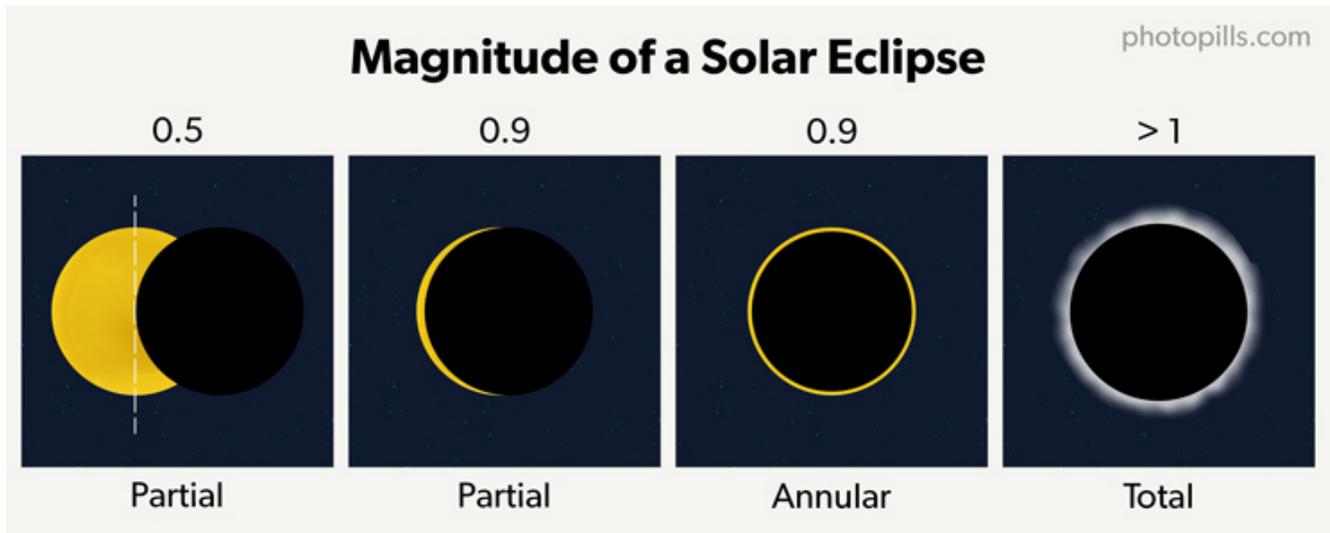
Can you see the switch button? Tap it and you'll access the calendar of eclipses.

The calendar displays all the solar and lunar eclipses, showing:

- Date
- Object (Sun or Moon)
- Type (total, partial, annular or hybrid)
- Red Pin, if it's visible or not from the Red Pin position. And when visible, if it's total, or partial or penumbral.

Note: Tap *Date*, *Object*, *Type* or *Red Pin* at the top to sort the table according to the criteria you prefer.

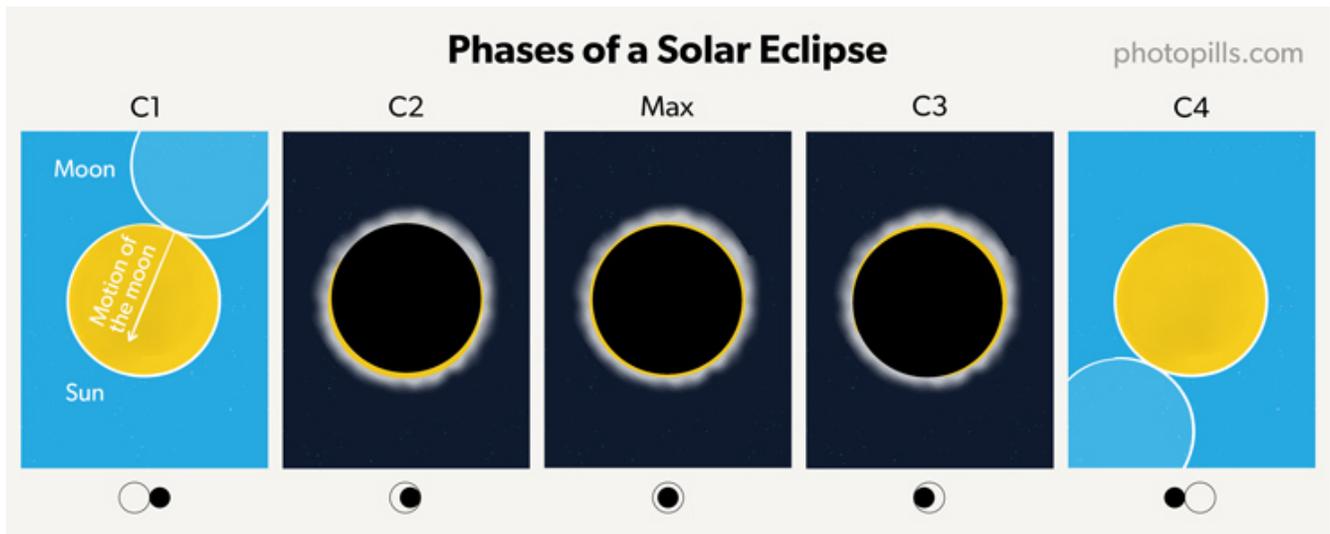
What is the magnitude of a solar eclipse?



The magnitude represents the fraction of the solar diameter that is covered by the Moon. It has a value between 0 and 1 inclusive, where 1 is totally eclipsed.

Sometimes, the eclipse magnitude can have a value greater than 1. This happens when the apparent size of the Moon is larger than the diameter of the Sun.

What are the different solar eclipse phases



These are all the phases you can enjoy (weather permitting!) if you happen to be in a location from which you can see a total solar eclipse:

- **Partial eclipse begins (1st contact - C1):** The Moon starts to cover the Sun little by little. The Sun looks as if the Cookie Monster has bitten it.

- **Total eclipse begins (2nd contact - C2):** The Sun is almost entirely covered by the Moon. If you happen to be in the path of the Moon's umbra (its full shadow projected on Earth) you might see Baily's beads and the diamond ring effect, just before totality.
- **Totality and maximum eclipse (Max.):** The Moon covers the Sun completely. Only the Sun's corona (the outer atmosphere of the Sun) is visible. Aren't you excited? The sky is now dark! You also experience a fall in the temperatures and notice how animals go quiet. Again, if you happen to be in the path of the Moon's umbra you may be able to see Baily's beads and the diamond ring effect, just after totality ends.
- **Total eclipse ends (3rd contact - C3):** The Moon starts to move away from the Sun, allowing it to reappear.
- **Partial eclipse ends (4th contact - C4):** The Moon stops overlapping the Sun. The eclipse ends at this stage in this specific location.

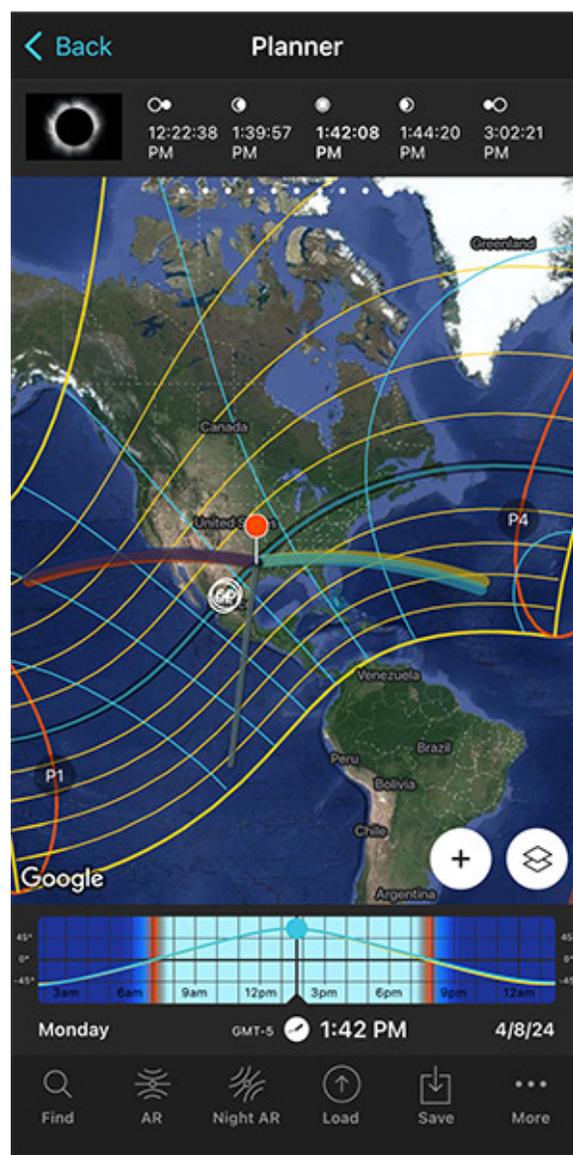
During a partial solar eclipse, you can see the C1, Max and C4 phases only.

During an annular solar eclipse, you can see the C1, C2, Max, C3 and C4 phases only. However, during totality (Max) the Sun's outer edges remain visible to form a ring of fire in the sky.

How the solar eclipse phases are displayed on PhotoPills



PhotoPills Planner - Zoom out to see all the solar eclipse phases on the map. Panel 9 shows the eclipse information (date, magnitude, type and duration) according to the Red Pin position.



PhotoPills Planner - Zoom out to see all the solar eclipse phases on the map. Panel 10 shows the time and image of the different phases of the eclipse according to the Red Pin position.

Considering the **different phases of the solar eclipse**, this is the information you will find on the map:

- **Map central dark area:** It's the path of totality (the area of total darkness). In other words, the area where you can observe how the Moon will completely cover the Sun.
- **Map blue line within the path of totality:** It's the centerline. The further away from the centerline you are (while being in the path), the shorter amount of time the Sun will be covered by the Moon. In other words, you will see a shorter totality duration.

- **Map yellow lines:** Outside the path of totality you'll be able to see a partial eclipse. The first yellow line on both sides of the path represents the locations where the Moon will cover 80% of the Sun. The next yellow line represents 60% and so on. The furthest from the path of totality, the more partial the eclipse will be.
- **Map Greatest Duration Point (GD):** The location where totality lasts longer, where the phase of total eclipse lasts longer. For the August 21 eclipse, the GD is located near Carbondale, IL where the duration of totality is 2 minutes and 41.6 seconds.
- **Map Greatest Eclipse Point (GE):** Don't confuse it with the Greatest Duration Point. The Greatest Eclipse Point is not where the total eclipse lasts longer. It is just a geometric point. GE wasn't a good name choice at all. It is actually the location where the shadow of the Moon is nearest to the center of the Earth. Sometimes, it falls very close to the GD point, but it's not always the case.

If you want to photograph a total eclipse, I strongly recommend you to plan to be in the path of totality.

Here are the different phenomena that you can photograph before, during and after the totality phase:

- **Diamond ring.** About 10 to 15 seconds before and after totality, the solar corona (the outer atmosphere of the Sun) becomes visible. As the last bits of Sunlight pass through the valleys on the Moon's surface, it looks like a ring with glittering diamonds on it.
- **Baily's beads.** Approximately 5 seconds before totality, you can see an ensemble of brilliant beads of Sunlight caused by the Sun shining through valleys and depressions on the Moon's surface.
- **Sun's corona.** As the diamond ring fades away, you are now able to spot the faint rays that surround the silhouette of the Moon.
- **Chromosphere.** Just a few seconds after totality ends, you can notice a reddish glow – the chromosphere.

For more information, check out our [solar eclipse photography guide](#).

OK!

If you've reached this point, you're ready to start planning your photos.

So, welcome to the wonderful world of photography planning!

Keep reading!

Section 5:

How to plan a specific
natural light



Nikon Z6 | 18mm | f/8 | 247s | ISO 100 | 6500K | ND 1.8 (6 stops) and soft GND 0.9 (3 stops) filters

No matter the photography genre you're into: landscape, portrait, wedding, astrophotography, architecture, Moon, real estate...

When photographing outdoors, you need to understand and predict the **natural light** you'll have in the scene.

This gives you the power to decide the best location and the best time to take the photo you want.

When planning a photo with a certain natural light, the questions you need to answer are:

- What type of natural light do you want in the photo? Daytime? Golden hour? Blue hour?
- At what time the type of light you want actually occurs in a desired location?
- In what direction will light hit your subject and scene?

Answering these 3 questions will help you decide the shooting spot, the shooting date and the shooting time you need to take the photo you have in mind.

Decide the type of natural light you want in the photo

Natural light is a crucial element in photography.

If you use it creatively, it will help you communicate your emotions and evoke emotions in others.

That's why you need to understand the different types of natural light and how you can use them in your storytelling ([section 4](#)).

Once you know them, you can decide which one is best for your purpose.

Alternatively, you can [watch this video](#) to easily learn the different types of natural light, when they occur and the type of photos you can take in each natural light type.

How to know when a certain natural light happens

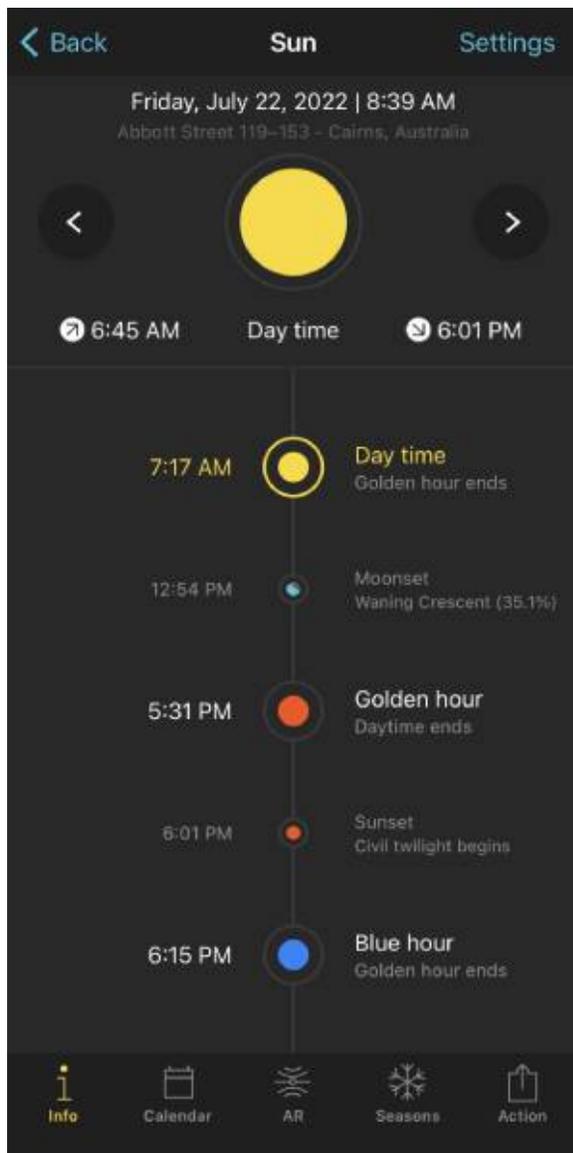
Depending on the type of picture you have in mind, you'll need to know when you may find a certain type of natural light at the location.

Weather permits, of course. But that's another story... ([section 21](#)).

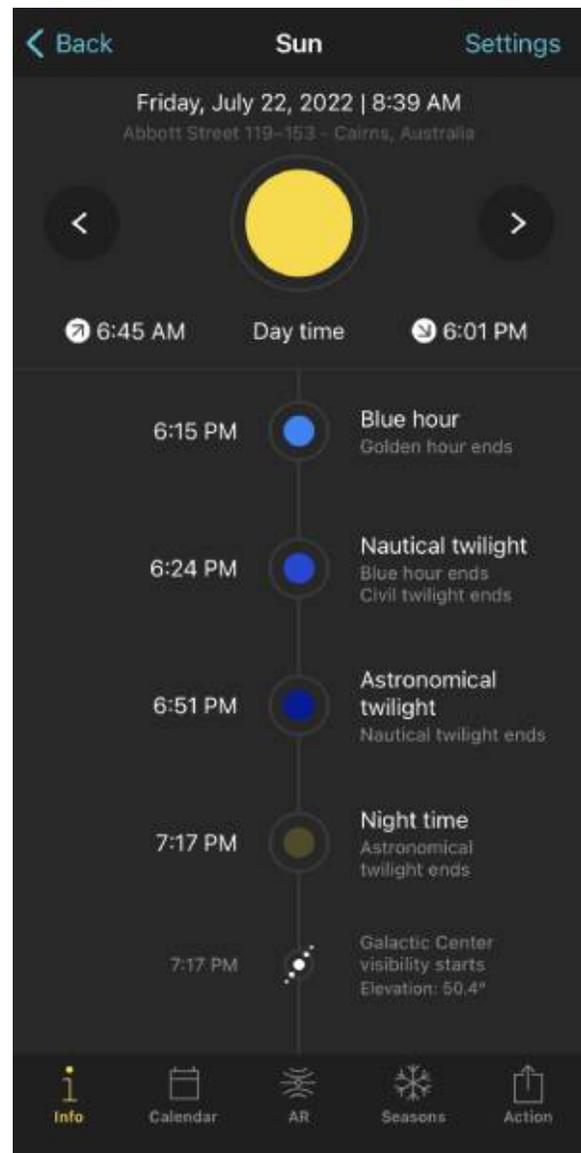
[PhotoPills](#) tells you very precisely the exact time of a certain event for a given date and according to the Red Pin position.

Here's how to find it out.

Check in the location when a certain natural light happens



PhotoPills Sun Pill - It displays all key Light, Sun, Moon and Milky Way events for the selected date and location.



PhotoPills Sun Pill - Scroll down the screen to see the start time of all the natural light phases on a specific date from midnight until 11:59 pm.

The **Sun Pill** is the tool that you should use when you are at the location. By default, the information displayed corresponds to your current location (according to the GPS on your smartphone) and the current date and time.

To use it, all you have to do is open **PhotoPills**, and tap *Sun (Pills Menu)*.

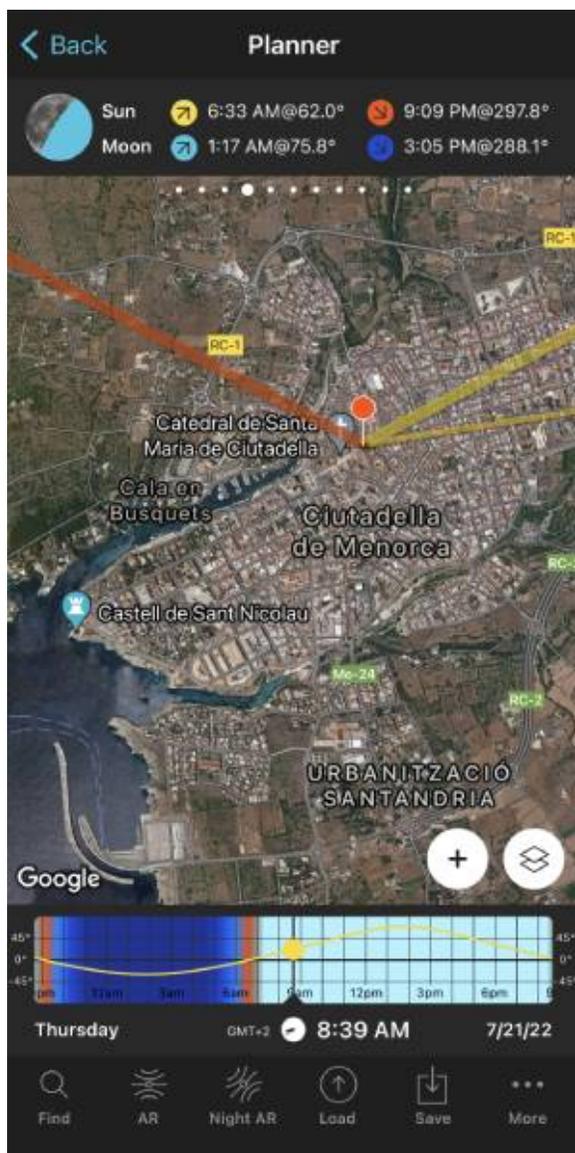
If you scroll the screen up and down, you'll see the start time of all the natural light phases on a specific date from midnight until 11:59 pm.

Tip!

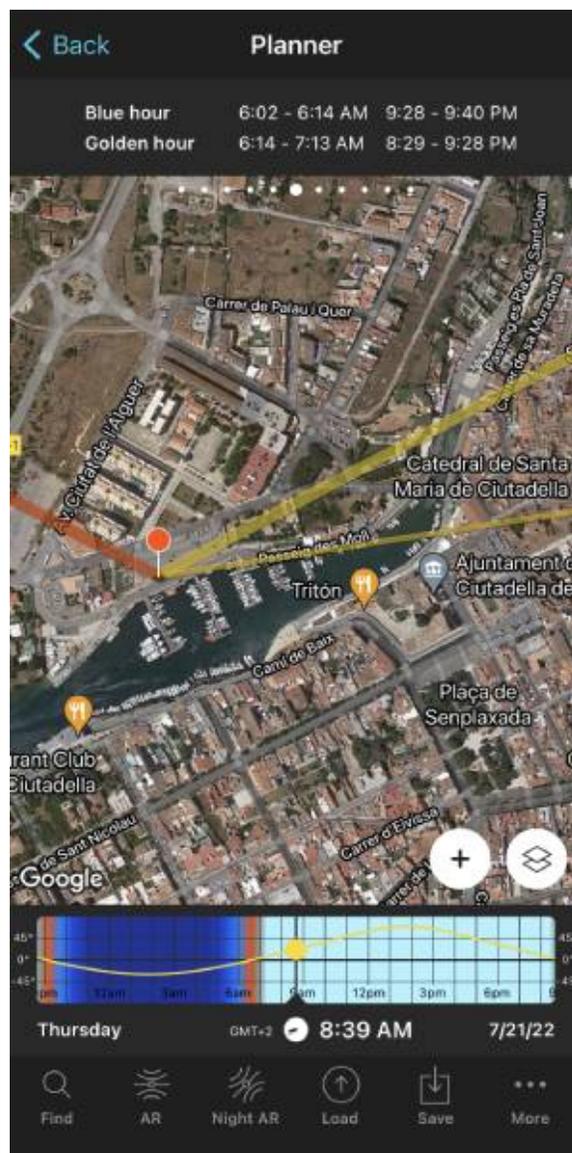
If you want to change the location and/or date and/or time, tap Settings (top right corner). On the new screen, you can change:

- The location by tapping on *Position*. Slide the *Autoupdate* button to unlock the rest of the screen. You can use
 - The search box if you want to type an address.
 - The coordinates option if you know the latitude and longitude.
- The date by tapping on *Date*. Slide the *Current date and time* button to unlock the rest of the screen. Tap
 - *Date* to change the date.
 - *Hour* to change the hour.
- You can also determine whether you want PhotoPills to automatically detect the time zone or not.

Check from home when a certain natural light happens



PhotoPills Planner - Panel 4 indicates the Sunrise, Sunset, Moonrise and Moonset times for the selected date, time and Red Pin position.



PhotoPills Sun Pill - The Red Pin is on the shooting spot. Panel 6 indicates the start and end times of the blue hour and the golden hour for the selected date, time and Red Pin position.

When you are at home, the quickest way to figure out when a certain type of light is by using the Planner.

Open **PhotoPills** and tap *Planner (Pills Menu)*.

Then, place the **Red Pin** somewhere on the planet.

In this example I have placed it in Menorca, one of the most beautiful islands in Spain. More specifically, I have placed it right in a spot from where you can photograph the spectacular

city walls and old town of Ciutadella during the **blue hour**.

If you don't know how to move the Red Pin, **this video shows you how to do it**.

Now, select the date you want to shoot the blue hour.

Double tap the center of the **Time bar** to set the current date and time. Then swipe it to the left to change the date and time until you set the date you want to take the picture, say July 21, 2022.

Alternatively, you can set the date using the Calendar. To do this, tap the center of the Time bar. In the Date & Time screen, tap *Date* to change the shooting date manually.

Finally, swipe the top panels until you reach **Panel 6**. This panel shows you the exact start and end times of the **golden hour and the blue hour** for the selected date and Red Pin position.

If you need to know the exact start and end times of the **twilights (civil, nautical, astronomical)** for the selected date and Red Pin position, swipe the top panels until you reach **Panel 5**.

How to know the exact natural light direction

One of the **natural light attributes** is direction.

Light direction has a dramatic influence on the scene in general and particularly on the subject. It has some control over the subject's shape and also over the length of shadows, and thus in creating depth.

In the case of natural light, the light direction depends on the time of the day as the Sun's position in the sky changes.

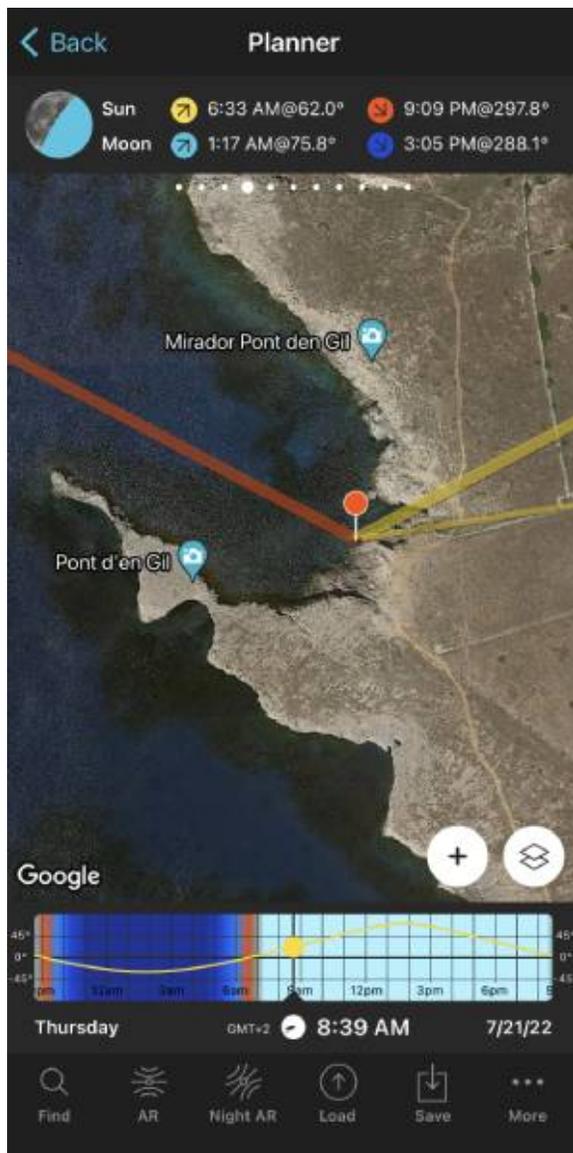
And if you plan to shoot at night, you should also be aware of the **Moon**'s position in the sky.

But how can you know where the Sun (or the **Moon**) is going to be in the sky?

You know the answer...

With **PhotoPills**!

Check in the location the exact natural light direction



PhotoPills Planner - The Sun Standard layer shows the Sunrise and Sunset directions, and the Sun direction for the selected date, time and Red Pin position. The same goes for the Moon Standard layer.



PhotoPills Planner Augmented Reality view - It gives you the position and path of the Sun for the selected location (by default where you are), date and time (by default the current ones).

When you are at the location, you should always use the **Sun Pill**. By default, the information displayed corresponds to your current location (according to the GPS on your smartphone) and the current date and time.

So open **PhotoPills**, and tap *Sun* (Pills Menu).

If you scroll the screen up and down, you'll see the start time of all the natural light phases on a specific date from midnight until 11:59 pm.

Tip!

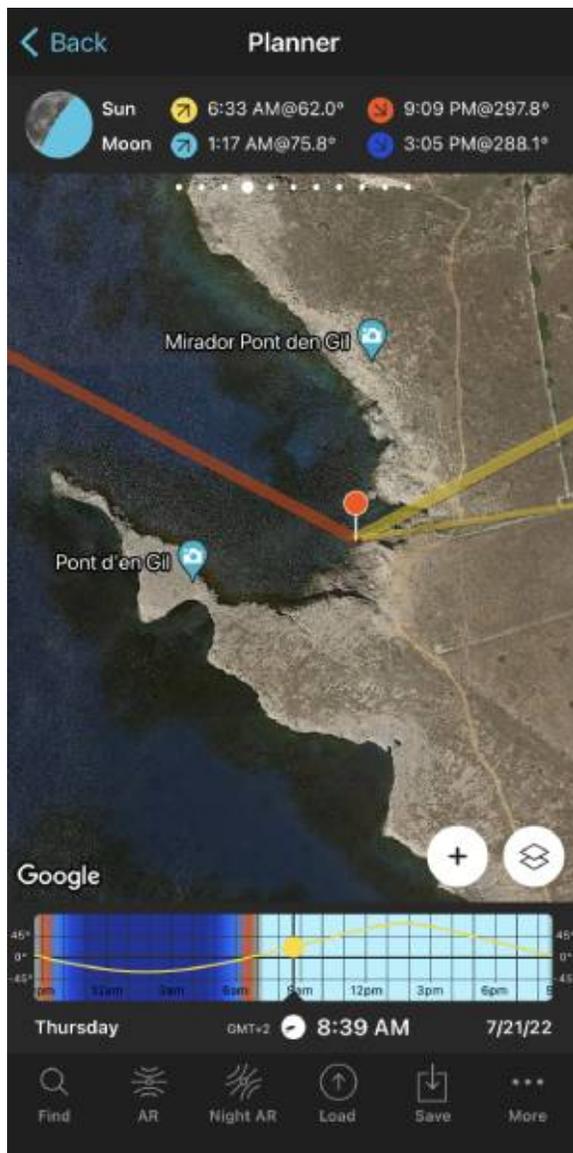
If you want to change the location and/or date and/or time, tap Settings (top right corner). On the new screen, you can change:

- The location by tapping on *Position*. Slide the *Autoupdate* button to unlock the rest of the screen. You can use
 - The search box if you want to type an address.
 - The coordinates option if you know the latitude and longitude.
- The date by tapping on *Date*. Slide the *Current date and time* button to unlock the rest of the screen. Tap
 - *Date* to change the date.
 - *Hour* to change the hour.
- You can also determine whether you want PhotoPills to automatically detect the time zone or not.

In addition to this, use the Augmented Reality view that you can find inside the Sun Pill. It gives you the position and path of the Sun for the selected location (by default where you are), date and time (by default the current ones).

It's the perfect tool to adjust your frame and shooting spot for the best composition before you shoot.

Check from home the exact natural light direction



PhotoPills Planner - The Sun Standard layer shows the Sunrise and Sunset directions, and the Sun direction for the selected date, time and Red Pin position. The same goes for the Moon Standard layer.



PhotoPills Planner Augmented Reality view - It gives you the position and path of the Sun for the selected location (by default where you are), date and time (by default the current ones).

When you are at home, the quickest way to figure out the direction of a certain type of light is by using the Planner.

Open **PhotoPills** and tap *Planner* (*Pills Menu*).

Then, place the **Red Pin** somewhere on the planet.

In this example I have placed it in Rota, a nice coastal town in the south of Spain. More

specifically, I have placed it right in a spot from where you can photograph the old town during the **Sunrise**.

If you don't know how to move the Red Pin, [this video shows you how to do it](#).

Then, make sure that either the Sun layer or the Moon layer are turned on.

To do so, tap the **Map Settings** button (bottom right-hand corner, next to the **(+) button**):

And now, tap either

- The **Sun layer**.
- The **Moon layer**.

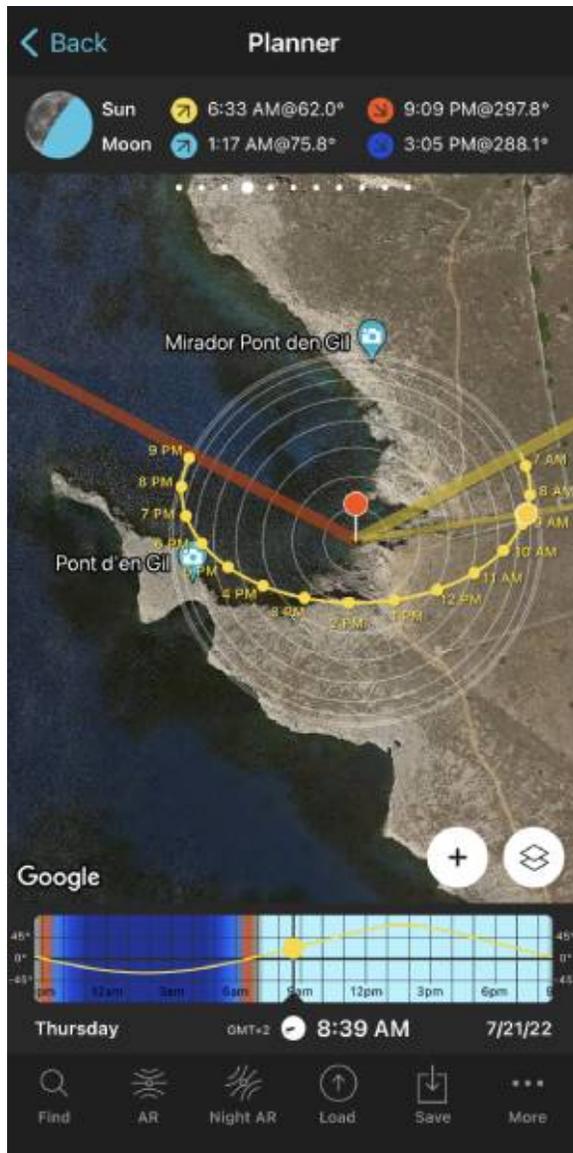
Finally, on the new screen, select the Layer style. In this case, tap *Standard*.

As you can see on the Planner, there are several lines on the map:

- The thin orange line tells you the position of the Sun for the selected date and time.
- The thin blue line tells you the position of the Moon for the selected date and time.
- The thick lines show the Sunrise (yellow), Sunset (orange), Moonrise (light blue) and Moonset (dark blue) directions for the selected date.

All these directions are, obviously, according to the Red Pin position.

Moreover, you should use the Augmented Reality view that you can find inside the Planner. It gives you the position and path of the Sun for the selected location (by default where you are), date and time (by default the current ones).



PhotoPills Planner - The Sun Path layer shows the Sun path, Sunrise and Sunset directions, and the Sun direction for the selected date, time and Red Pin position.



PhotoPills Planner - The Sun Light direction layer shows the Sun light direction for the selected date, time and Red Pin position.

Alternatively, you can use the Sun and Moon Path layers.

On the Planner, tap the *Map Settings* button (bottom right-hand corner, next to the **(+) button**):

And now, tap either

- The **Sun layer**.
- The **Moon layer**.

Finally, on the new screen, select the Layer style. In this case, tap *Path*.

This layer shows the same info as the Standard layer plus the Sun/Moon path for the selected date.

So working together with the Sun/Moon Path and the contour circumferences you can quickly assess the position of the Sun/Moon in the sky (azimuth and elevation).

Or you can use the Sun and Moon Light direction layers.

When selecting the layer style, tap *Light direction*.

The Sun/Moon Light direction layer shows the direction of light throughout the selected date.

Notice that:

- The thin yellow lines showing the direction of light will only appear during daytime. Sunlight matters only throughout the day.
- The thin blue lines showing the direction of light will only appear during nighttime. That's because Moonlight is only important at night.

This is the perfect tool to figure out how Sunlight/Moonlight will hit your subject on a given date.

Section 6:

How to plan Sunrises
(and Sunsets)



Nikon Z6 II | 18mm | f/8 | 30s | ISO 100 | 5950K | ND 1.8 (6 stops), soft GND 0.9 (3 stops) and polarizer filters

The goal, when you plan a **Sunrise** or **Sunset** photo is to come up with:

- A shooting spot, from where to take the picture,
- A shooting direction (framing) and
- A date and time of shooting.

This is all you need to capture the photo you want to capture.

The good news is that planning a Sunrise or Sunset picture is much simpler and faster than it seems. With the **PhotoPills** app it's a matter of minutes.

And to prove it, here's a detailed explanation of the two most common cases:

- A Sunrise/Sunset plan for a certain date.
- A Sunrise/Sunset plan with the Sun in a certain position. In this case, you know the shooting spot and the photo you want, and you want to find out when it happens.

In both scenarios the Sun will be relatively small because you will be shooting somehow close to the subject. So take into account that you'll need to imagine the Sun as a dot in the composition.

If you envision a composition including a big Sun with a subject you like, go to [section 7](#).

Now take your smartphone and, if you haven't already done so, install the app.

Let's dive into it!

How to plan a Sunrise (or Sunset) on a certain date (1)

Planning your Sunrise and Sunset photos happening on a certain date is pretty simple.

To make things even easier, here's a video in which Rafa explains how to do it step by step:



But if you prefer to read, here's a full explanation of all the steps you need to follow to plan your [Sunrise](#) and [Sunset](#) photos on a given date.

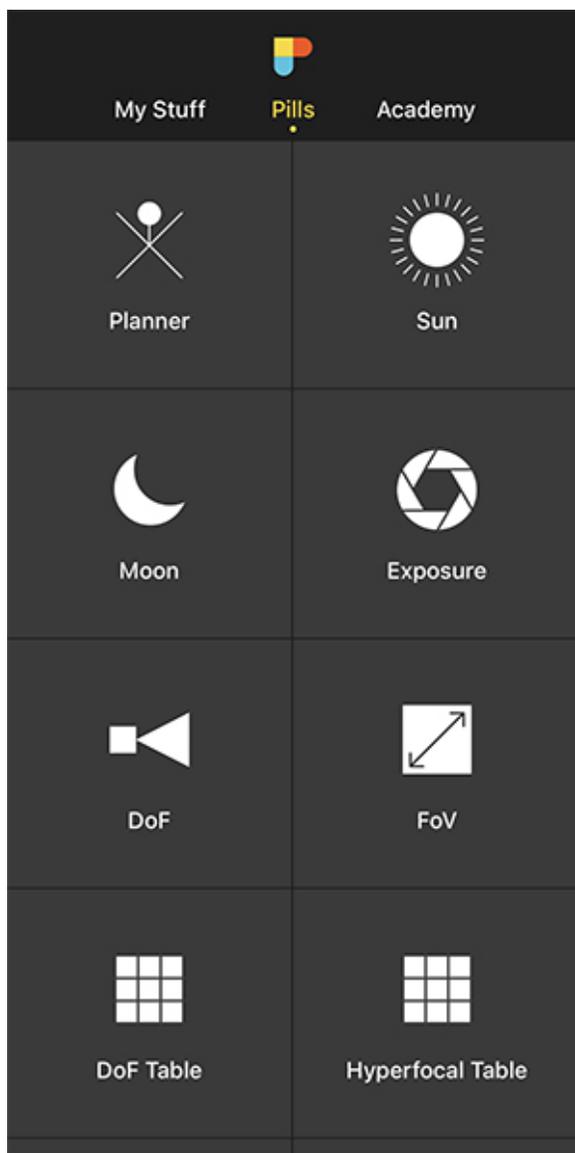
In this case, you're going to plan a photo of an iconic lighthouse at **Sunrise** – the beautiful Portland Head Light, located in Cape Elizabeth near Portland, Maine (USA).



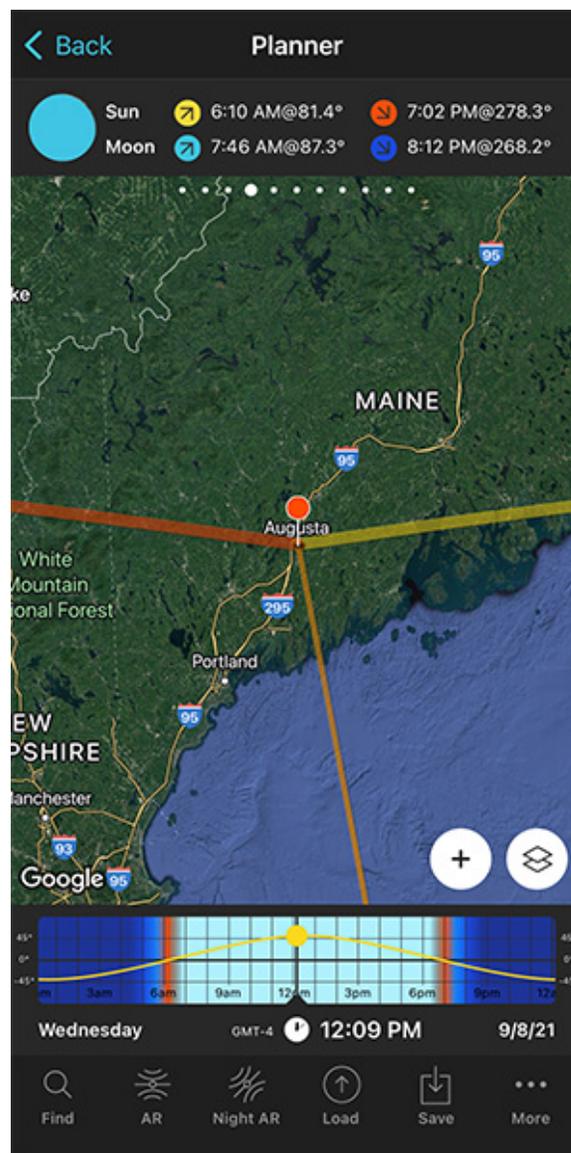
The idea is to shoot a **long exposure** to create the silky water effect, and use the rocks as leading lines to the lighthouse. Let's hope that the sky has enough clouds to capture a red flame **Sunrise**. It would be a great bonus!

OK, let's start planning.

Place the Red Pin in a potential location



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is in Augusta, Maine (USA).

Open [PhotoPills](#), tap *Planner* (*Pills* Menu).

Usually, when you plan a photo, the first thing you need to do is to place the Red Pin in a potential location that is photographically attractive during the Sunrise. It can be a beach, a town... You choose.

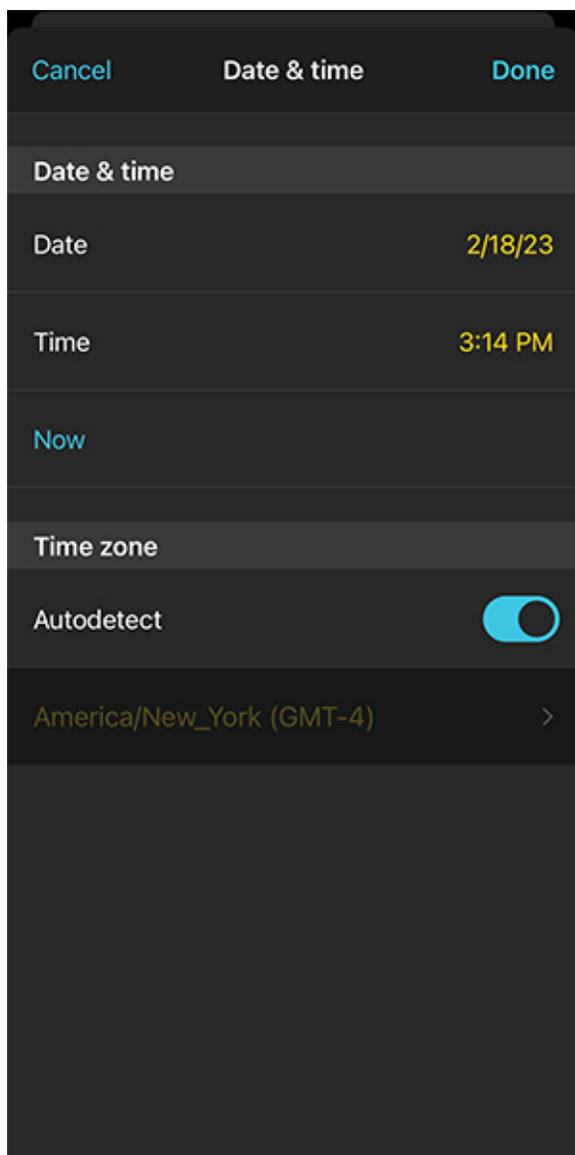
At this stage, don't be obsessed with precision. Pick an area you like. You'll have time later to determine the exact shooting spot.

For example, place the Red Pin in Maine (USA), where the coast faces east, a perfect place

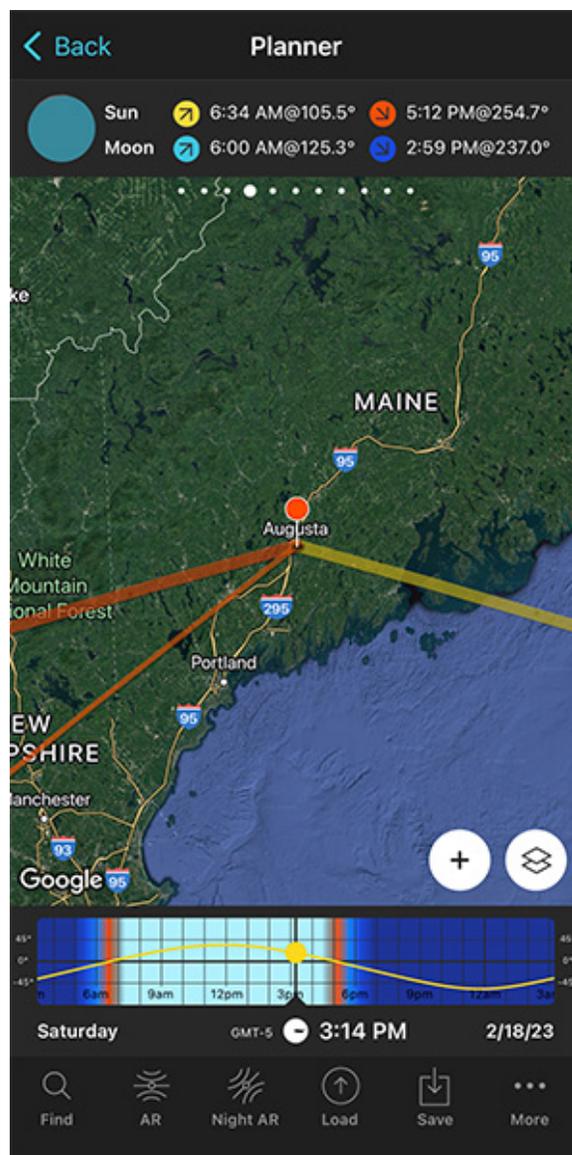
for Sunrises. If you don't know how to do it, [this video shows you how to move the Red Pin](#).

Now that you have the Red Pin in the location you want, it's time to set the date you would like to go shooting.

Set the date you're planning to photograph the Sunrise (or Sunset)



PhotoPills Planner - On the Date & time screen you can manually set the date and time.



PhotoPills Planner - On the Time bar, the date is set to 02/18/2023 and the time to 03:14 pm.

There are several ways to set the date in [PhotoPills](#).

If it's a date close in time, let's say next Saturday, then double tap the [Time bar](#) below the

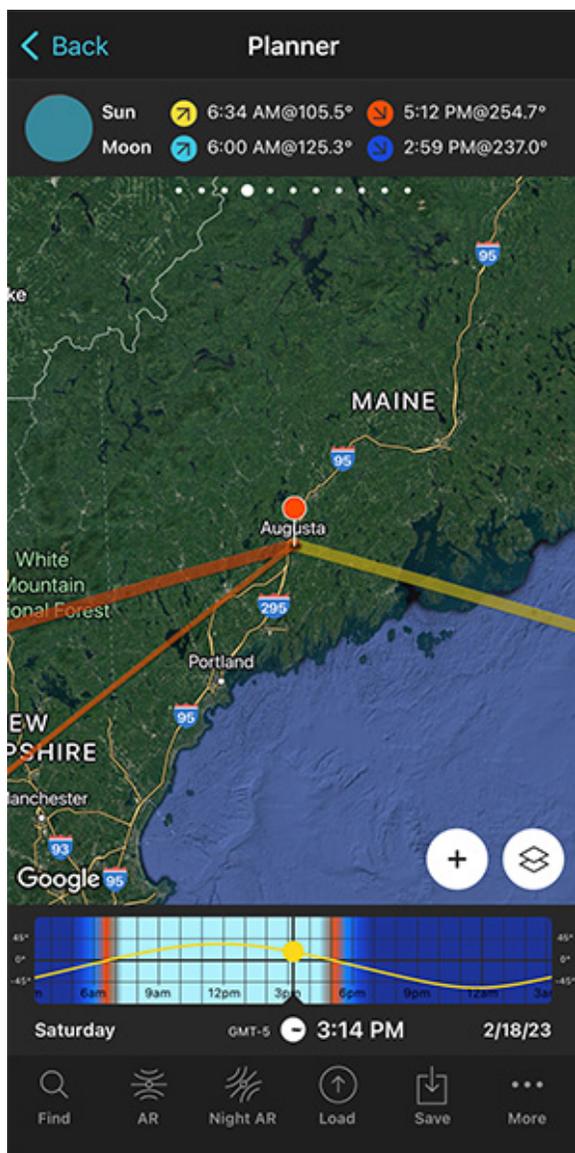
map. Then, move time forward by swiping the Time bar to the left until you get to the date you want to take the photo.

You can also set any date using the calendar. Tap the center of the Time bar and the calendar will pop up. Finally, on the Date & time screen, tap *Date* to manually change the shooting date.

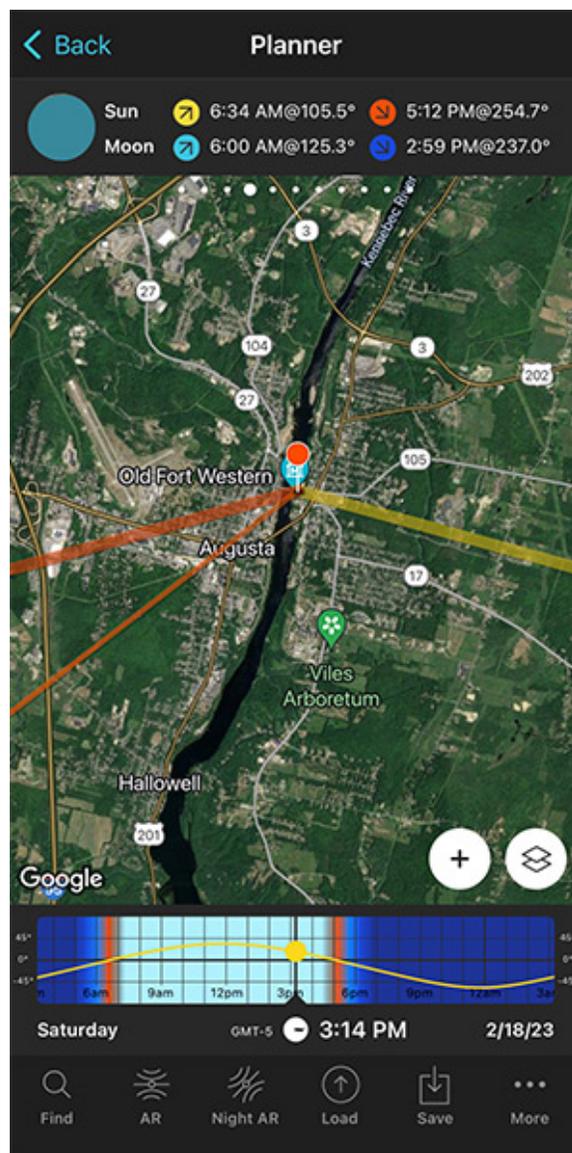
Now, suppose you want to take the Sunrise photo on February 18, 2023.

Set it in the Planner using the Time bar.

Find out the Sunrise (or Sunset) direction and time



PhotoPills Planner - According to Panel 4, on 02/18/2023 the Sun rises at 06:34 am.



PhotoPills Planner - Detail of the map where you can see the current Sun direction at 03:14 pm and the Sunrise direction at 06:34 am (105.5°).

Now that you've set the shooting date, use the information on the panels above the map and the lines on the map to plan your shot.

Make sure that you have **Panel 4** selected above the map. If not, swipe the top panels until you get to it.

Have a look at the screenshots above.

Panel 4 is telling you that on February 18, 2023 the Sun rises at 06:34 am according to the Red Pin position. So you know the time you should be ready to press the shutter.

On the map, you have the Sun, the Sunrise and the Sunset directions for the selected date (02/18/2023):

- The Sun direction at the selected time (03:14 pm) is represented by the thin orange line.
- The Sunrise direction is represented by the thick yellow line.
- The Sunset direction is represented by the thick orange line.

Note: If you don't see these lines, activate the **Sun layer**. You can do this by tapping the **Map Settings** button. You will find it next to the **(+) button** on the map.

The Sunrise direction line is crucial to determine the perfect shooting spot.

Great! Let's move on.

Check different locations until you find a photo you like

Now that you know where the Sun will rise and the time it will rise, it's time to **move the Red Pin** to several cool locations you know. Do it one by one until you find the one where your Sunrise photo fits your idea.

Obviously, even if it takes longer, the more locations you can think of that might work, the better.

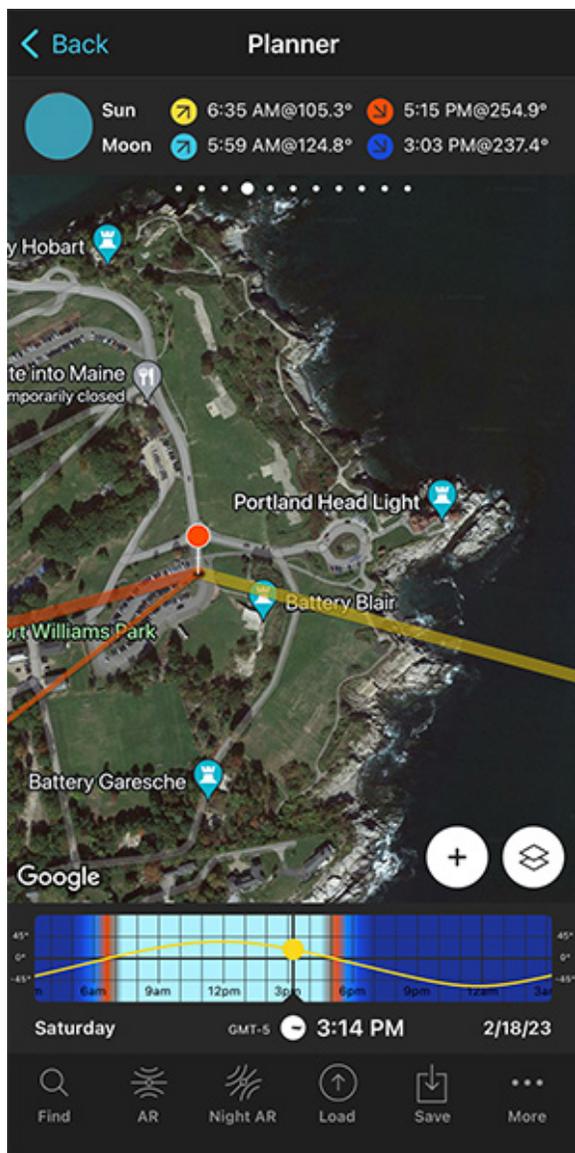
If you don't have any location in mind, find them, follow the methodology I explained in **section 2**.

For this example, I found a fantastic area called Cape Elizabeth, located near Portland, Maine (US). There, you can find an incredibly iconic lighthouse – Portland Head Light.

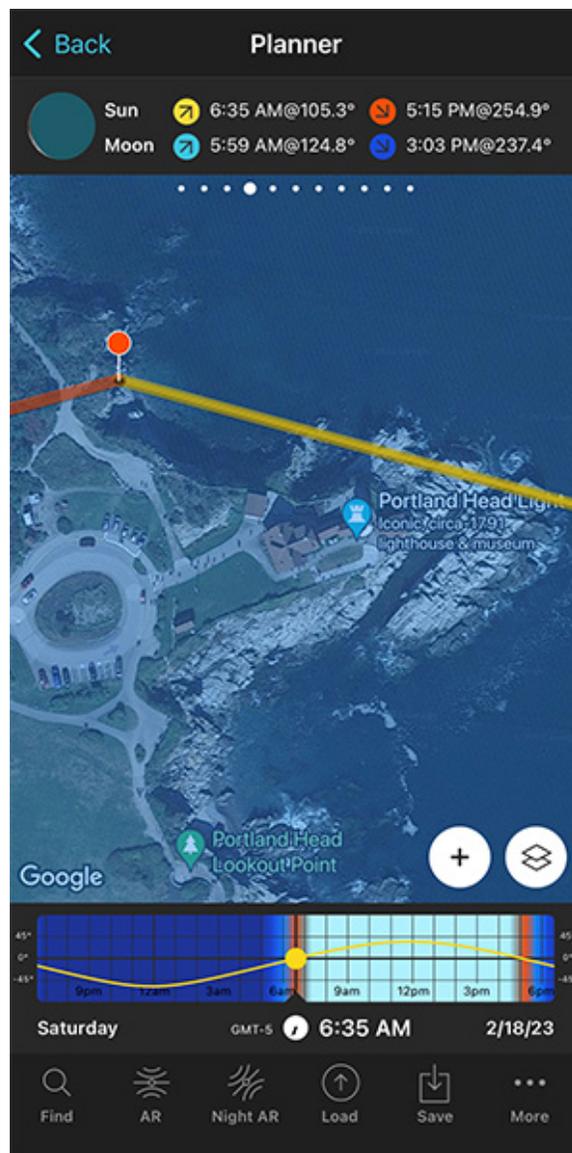
Cape Elizabeth has three characteristics that make it a perfect location for taking photos at dawn:

- There's a long coastline where you can move freely and play with several shooting directions.
- The coastline and the lighthouse can be photographed by shooting to the east, in the Sunrise direction.
- The rocks are the main element in the foreground and are the viewer's entrance gate to the image, although the main subject and real visual anchor point is Portland Head Light located in the background.

It's a great location. So let's go back to PhotoPills and complete the plan...



PhotoPills Planner - Red Pin placed in Cape Elizabeth, the area where the Portland Head Light is.



PhotoPills Planner - Change the Red Pin position to align the Sunrise direction (thick yellow line) with the rocks and Portland Head Light.

Place the Red Pin in a spot near your subject, next to Portland Head Light.

Tap the *Load* button (at the bottom) and type "Portland Head Light" in the search bar. Then, select it and the Red Pin will be placed next to it.

Now zoom in on the map and move the Red Pin to a place that works great as a shooting spot based on the Sunrise direction (thick yellow line), and the composition you want.

For example, move it to the small cove located to the left hand side of Portland Head Light. From this shooting spot the Sun will rise next to the lighthouse creating a beautiful scene.

Besides, the coastline will act as a guiding line, luring the viewer's attention towards the lighthouse and the Sun.

In addition to this, when you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize through your phone where the Sun will rise.

You could also follow the steps I show you in **section 20** to plan the photo to the very last detail. This includes planning the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).

And that's it!

This is how you can easily plan your Sunrise and Sunset shots when you know the date.

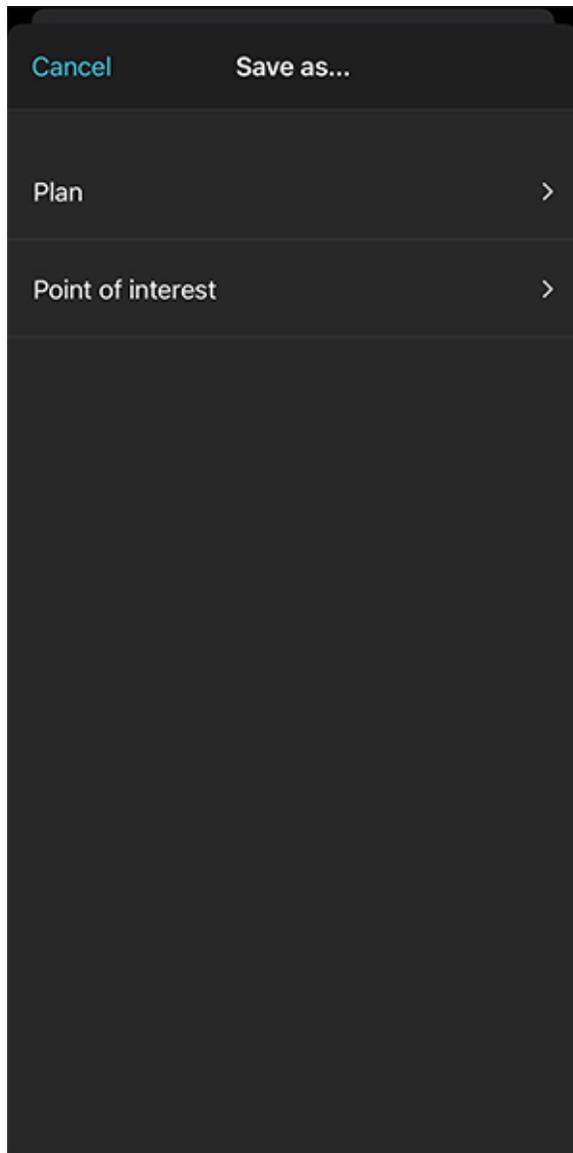
What do you think? Easy, isn't it?

Save the Plan

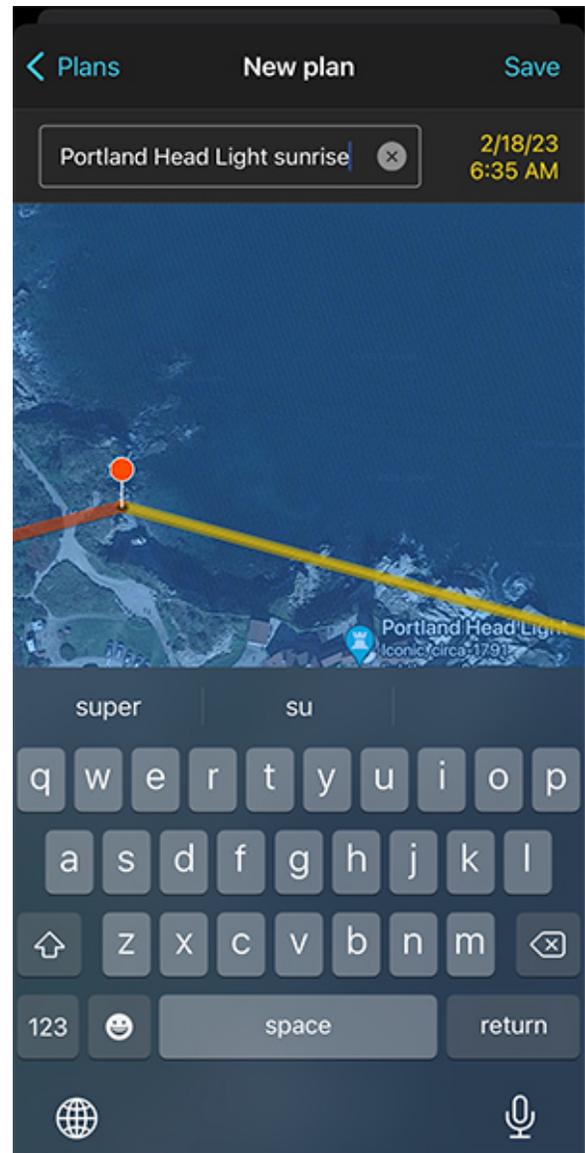
This is a key step.

The last thing you want is to plan a cool photo, and then forget about it.

So save your Sunrise plan to your to-do list!



PhotoPills Planner - You can save your plan (or a Point of interest) with the Save button.



PhotoPills Planner - Type the name of the new plan and save it so you can come back to it anytime you want.

On the Planner, tap *Save* (at the bottom). Then tap *Plan*.

On the Plans screen, tap *New plan*. Type a name in the Plan name box, and tap *Save*.

Now, every time you want to review the plan, you can do so by tapping the *Load* button (next to *Save*). Then, tap *Plan* and scroll down through the list of plans until you find it.

If you tap the plan, **PhotoPills** automatically loads it to the Planner.

How to plan a Sunrise (or Sunset) with the Sun in a certain position (2)

To sum it up quickly...

You have a great shooting spot, you love the view in front of you. And you want the Sun to rise in a certain position in the frame but you don't know when it happens. You don't know the shooting date or shooting time ;)

You need to find out:

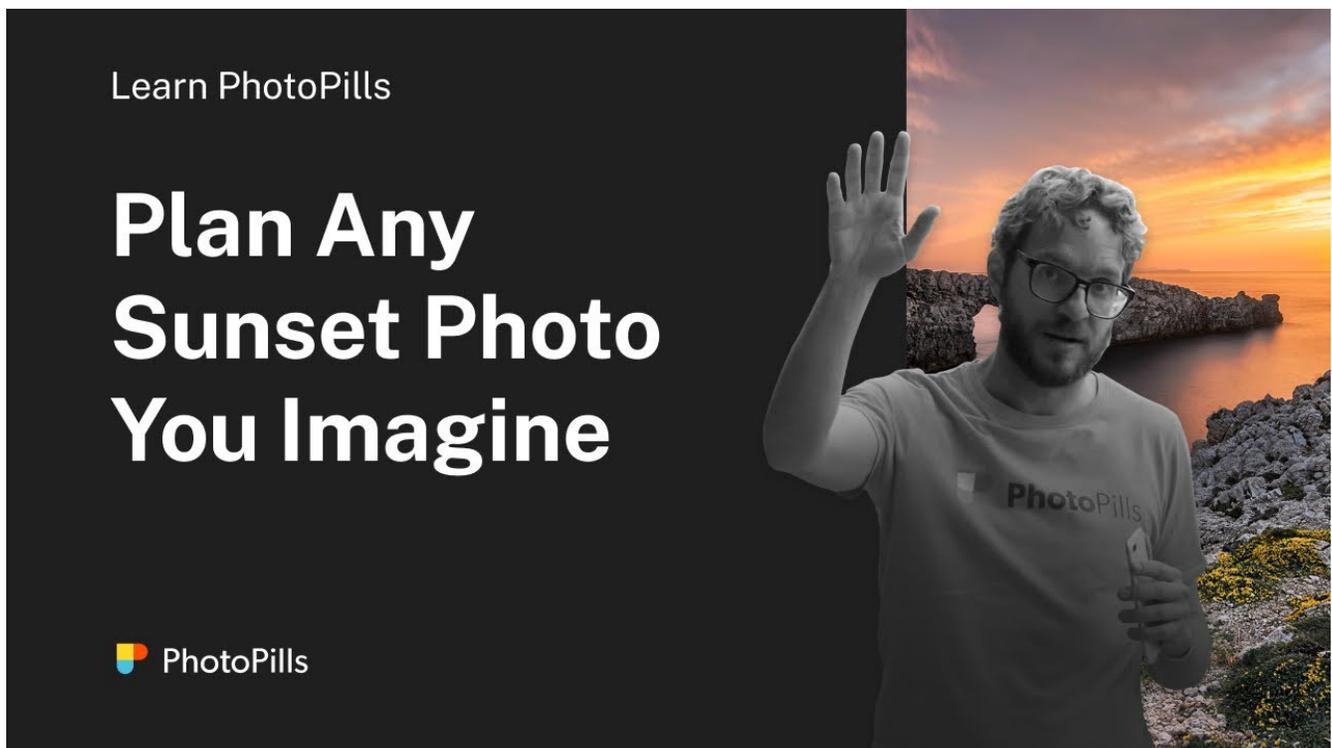
- If that particular photo is possible.
- And if so, when exactly.

How do you do it?

Easy!

Use the *Find* tool in the **PhotoPills** Planner.

Follow the very same steps Rafa uses to plan a photo of the Sun rising above Punta Nati lighthouse and two stone constructions located next to the cliffs.



Do you want more?

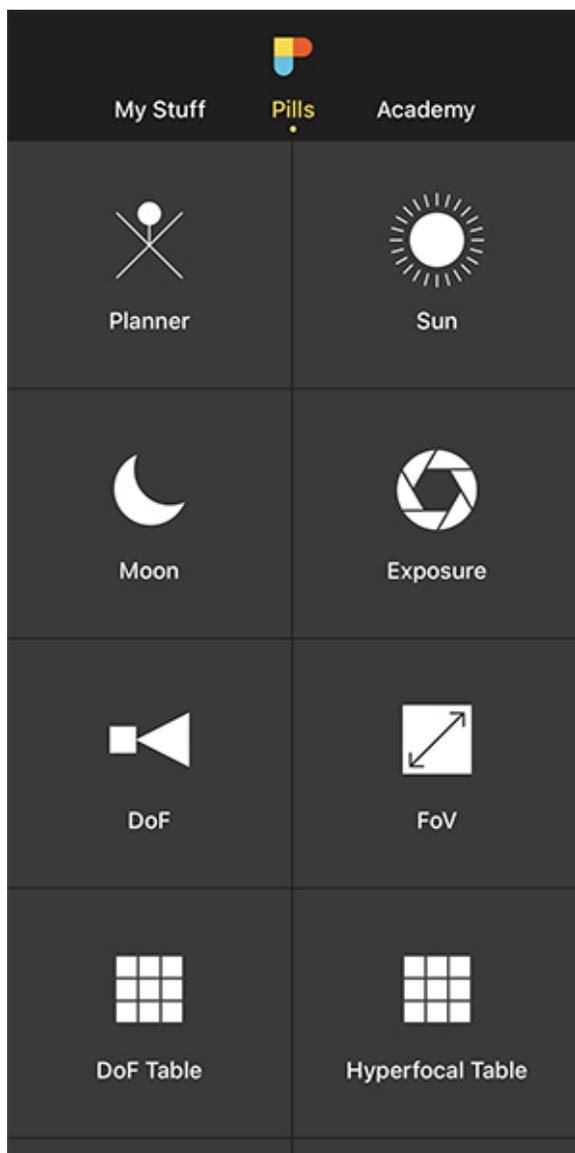
Let's have a look at another example.

Imagine that you want to photograph the Sun rising behind the beautiful and elegant Vasco da Gama bridge in Lisbon (Portugal).

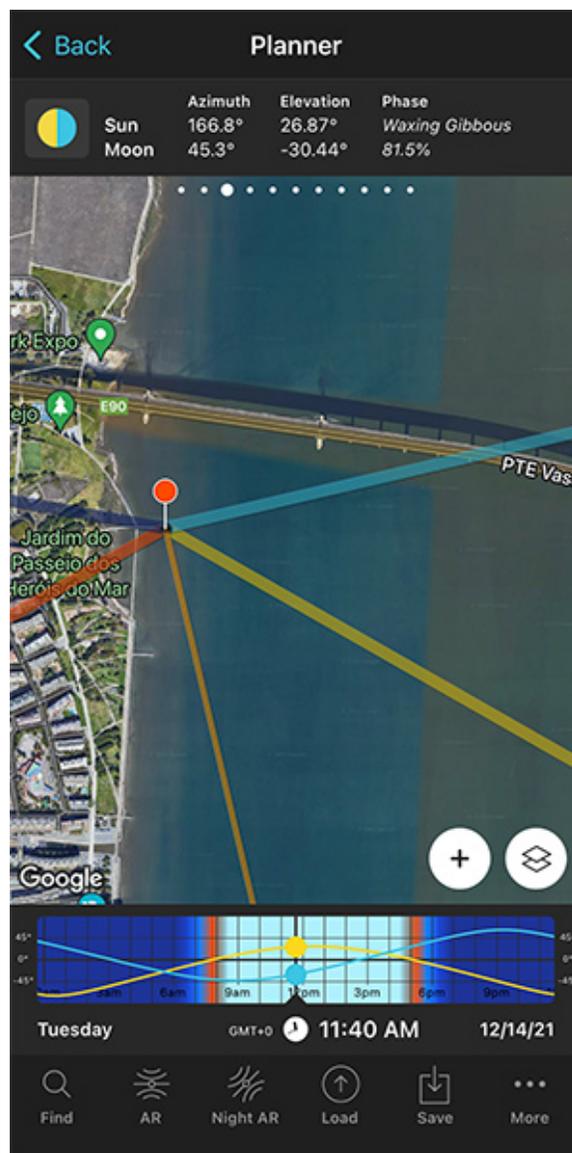


Let's see when it happens! :)

Place Red Pin on the shooting spot



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is in Lisbon (Portugal).

Open [PhotoPills](#), tap *Planner* (*Pills* Menu) and place the **Red Pin** right on the shooting spot you want.

If you don't know how to do it, [this video shows you how to move the Red Pin](#).

For example, at the end of the Caminho das Gaivotas. There's a pier at the end of the path, located over the Tagus River. From the lookout at the edge, called Miradouro da Vasco da Gama, you get a great view of the river and the bridge.

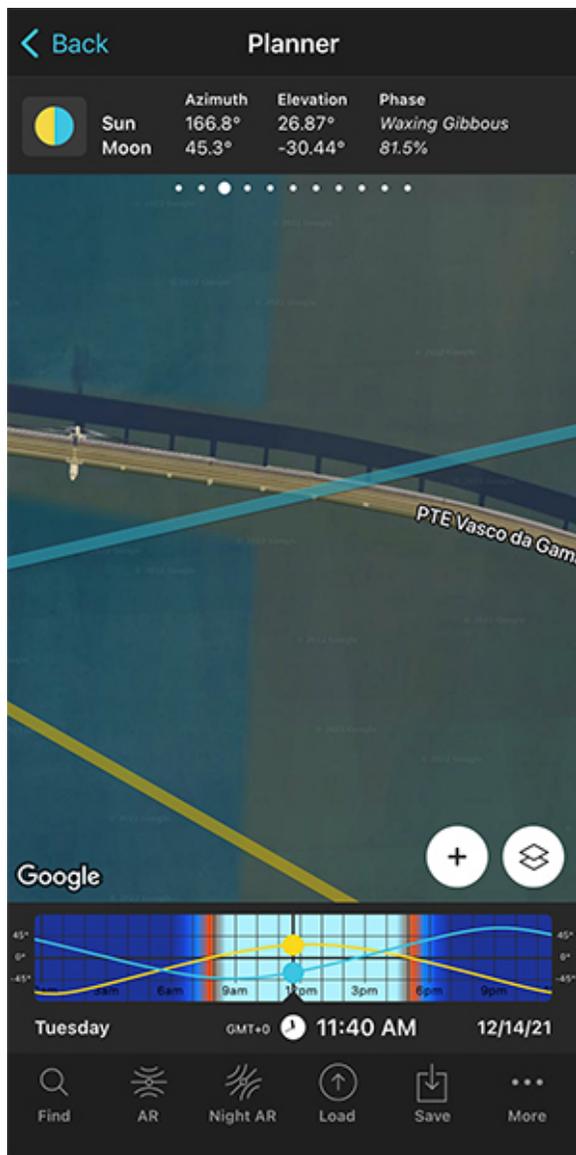
Also, this is a great spot because you can move along the pier to get the best composition

considering the **Sunrise** direction.

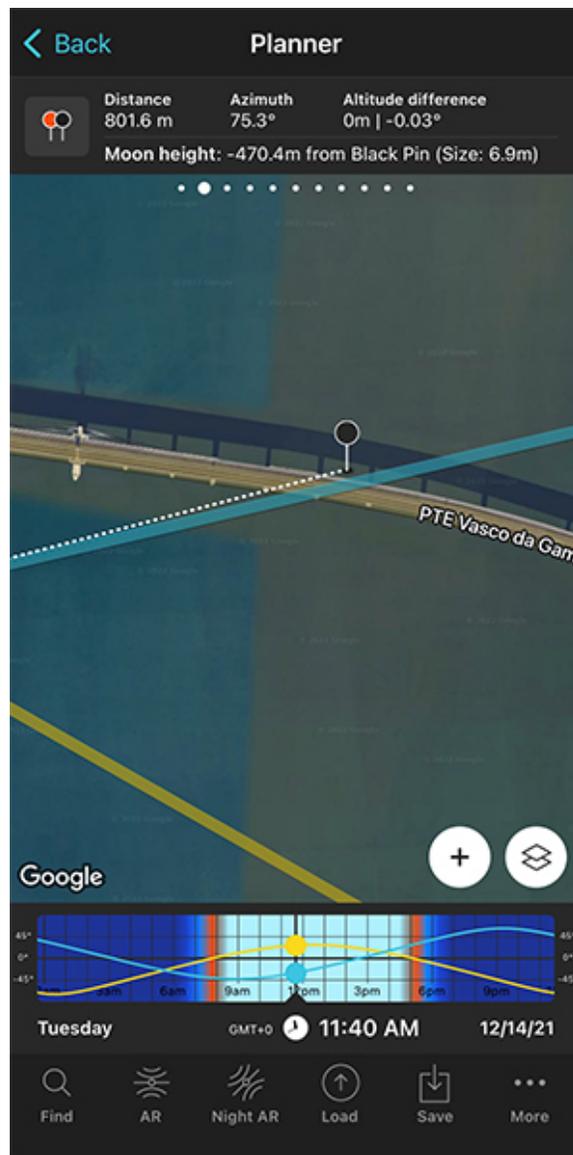
To quickly place the Red Pin, tap the *Load* button (at the bottom) and type "Vasco da Gama Bridge" in the search bar. Then, select it and the Red Pin will be placed next to it.

Now, do a long press on the spot where you want to place the Red Pin, somewhere on the Caminho das Gaivotas pier.

Place Black Pin where you want the Sun to rise (or set)



PhotoPills Planner - Zoom in on the map to get a clear view of the Vasco da Gama Bridge.



PhotoPills Planner - Panel 2 is now activated and the Black Pin is located on the Tagus River behind the Vasco da Gama Bridge, exactly where you want the Sun to rise.

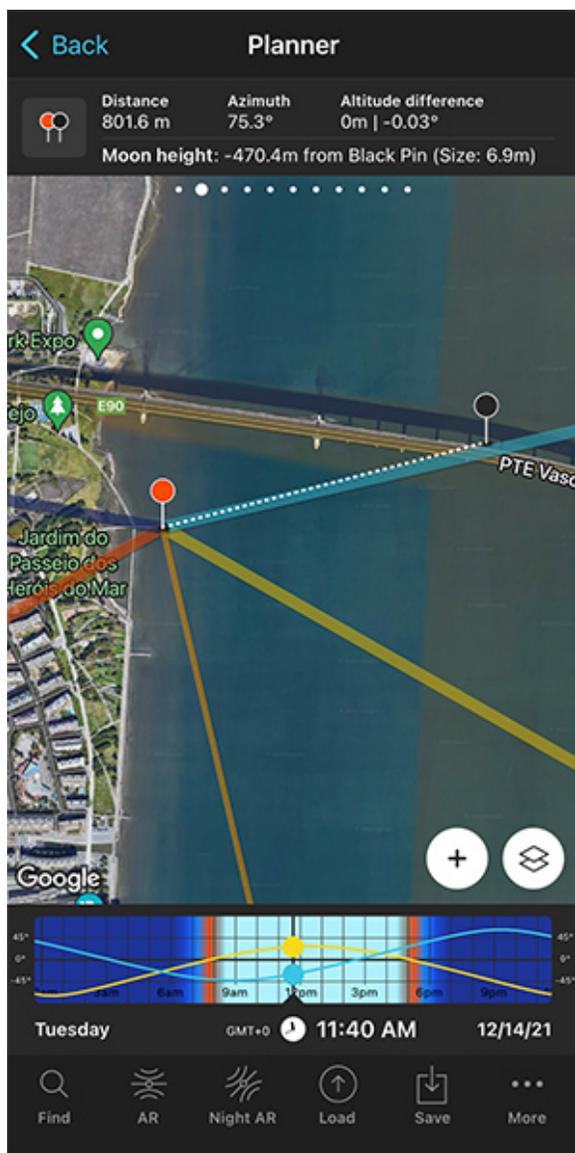
Now you need to place the Black Pin right on the spot you want the rising Sun to be, this is right behind the Vasco da Gama Bridge.

So zoom in on the map, until you can clearly see the Vasco da Gama Bridge.

Swipe the panels above the map to the right until you find the Black Pin information panel (**Panel 2**). Tap the icon on the panel that's showing the Red Pin and the Black Pin to activate the Black Pin on the map.

Drag and drop the Black Pin on the Tagus River behind the Vasco da Gama Bridge, right where you want the Sun to rise.

Find the dates and times when the photo is possible



PhotoPills Planner - A general view of the Vasco da Gama Bridge with the Black Pin right where you want the Sun to rise.



PhotoPills Planner - With the tool Find > Sun at azimuth and elevation you'll find out the dates in which you can see the Sun rising behind the Vasco da Gama Bridge.

Now it's time to find out if the photo is possible. If yes, when will it happen?

To do it, tap the **Find** button. It's located on the bottom left corner of the Planner. And then, select *Sun at azimuth and elevation* (Sun on Android).

On the new screen, you have to tell 3 things to PhotoPills:

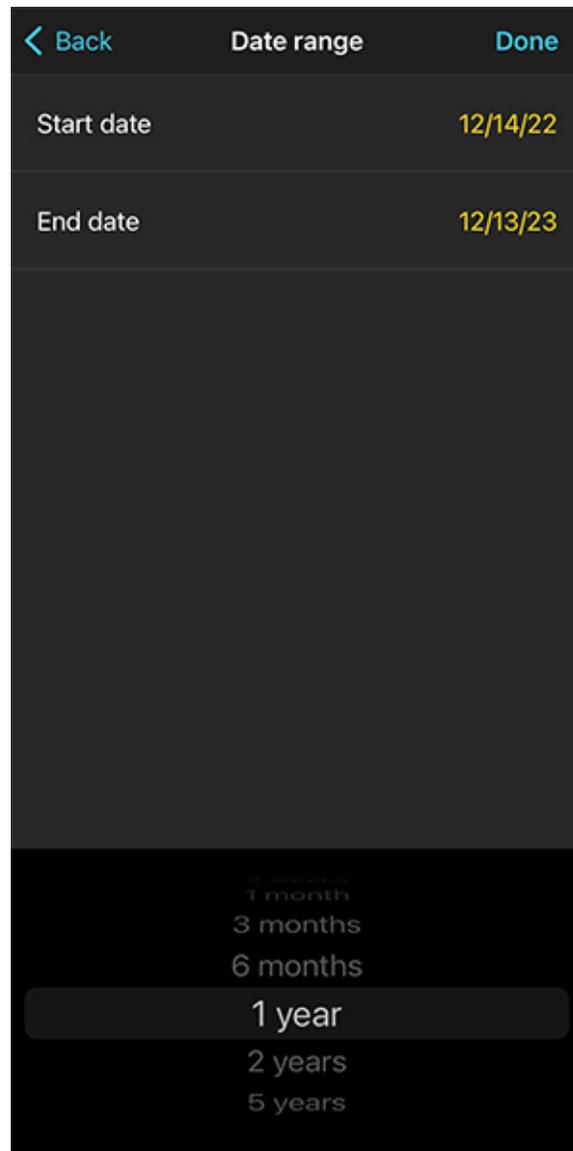
- The date range you want to search for results. For example, 1 year starting from today.

- The Sun azimuth or direction. In this case, just behind the Vasco da Gama Bridge.
- The Sun elevation or altitude. In this case, set it to 0° for a Sunrise.

Enter the date range



PhotoPills Planner - On the Sun at azimuth and elevation tool, tap Date range.



PhotoPills Planner - Search a 1-year date range starting from 12/14/2022.

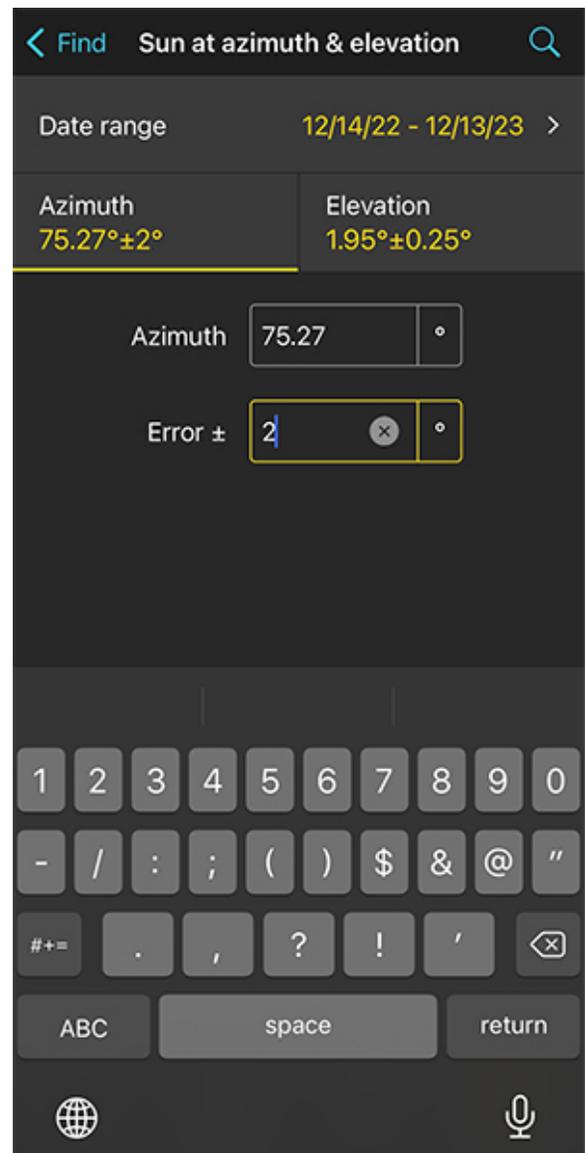
Tap *Date Range*, tap *Start date*, then *Today* and *OK* (back arrow on Android).

Next, tap *End date*. Now you can enter a certain date or range. To enter a range, tap the black area of the screen and the date options will change. Select *1 year*, for example, and tap *OK* (back arrow on Android).

Enter the Sun azimuth



PhotoPills Planner - On the Sun at azimuth and elevation screen you can define the Sun azimuth and its error (the direction tolerance).



PhotoPills Planner - To change the error, tap the Numeric button at the bottom. And for example set the error to 2°.

To set the azimuth you want the Sun to rise, you can drag and drop the Yellow Pin you see on the map. But the good news is that the Yellow Pin is linked to the Black Pin. So the azimuth of the Sun is already set (75.27°), behind the Vasco da Gama Bridge.

Don't you know what the azimuth and the elevation are?

Well, don't worry. You have a quick reminder in [section 4](#).

Let's get back to our example.

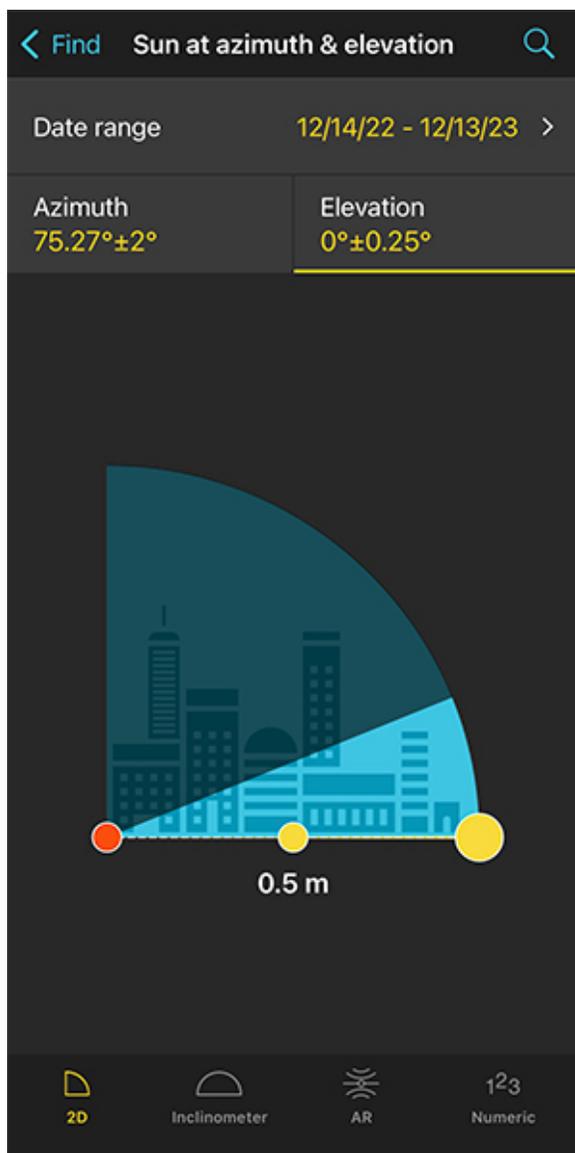
OK! You've set the azimuth. But what about the error or tolerance defined by the yellow sector you see on the map?

Now take a look at the first screenshot above: the azimuth is 75.27° with a $\pm 0.25^\circ$ error represented by the yellow area on the map.

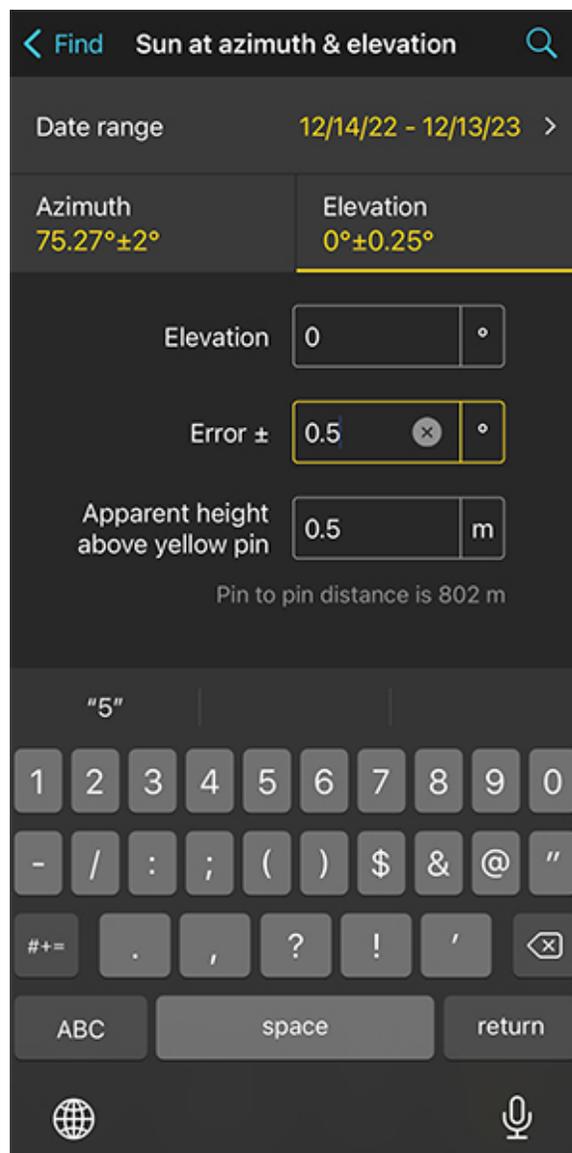
For this shot, you want the Sun to rise behind the Vasco da Gama Bridge, but you don't need the azimuth (75.27°) to be super precise. This location allows you to move around to adjust the shooting spot, so I recommend you to set a relatively high azimuth error. This will give you more possible dates to shoot.

Set a higher error, for example $\pm 2^\circ$. To change it, tap *Numeric* (at the bottom).

Enter the Sun elevation



PhotoPills Planner - On the Sun at azimuth and elevation screen you can set the Sun elevation (the altitude).



PhotoPills Planner - Since you want to photograph the Sunrise, you have to select an elevation of 0°. That is, very close to the horizon.

Tap *Elevation* to set the elevation of the Sun.

In this case, you're looking for a Sunrise. So you have to set an elevation of 0°.

You can do this by dragging the yellow dot in the diagram until it touches the horizon. You can also do this by tapping *Numeric* and typing "0°" in the Elevation field of the new screen.

Also increase the elevation error (or tolerance) to 0.5°. Again, this will give you more possible dates to shoot. Because at the end of the day, you can always adjust the shooting spot and shooting time.

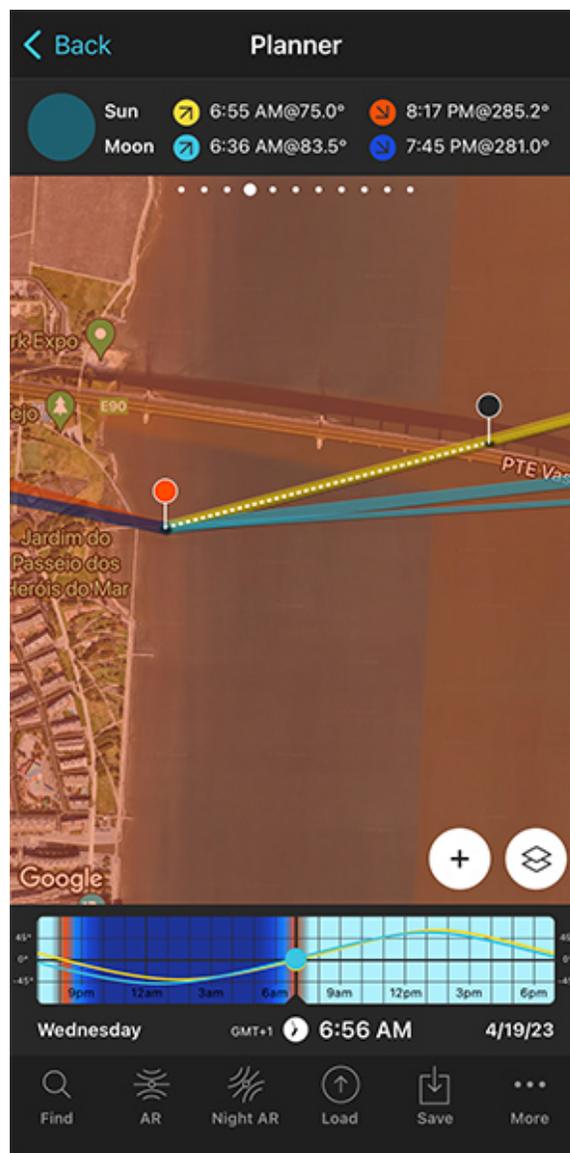
Get the possible dates on a table

Results

Sun at azimuth $75.27 \pm 2^\circ$ elevation $0.0 \pm 0.5^\circ$

Date ^	Azimuth	Elevation
Sa 4/15/23 6:59 AM	76.59°	-0.48°
Su 4/16/23 6:58 AM	76.2°	-0.41°
Mo 4/17/23 6:57 AM	75.81°	-0.34°
Tu 4/18/23 6:56 AM	75.42°	-0.28°
We 4/19/23 6:56 AM	75.18°	-0.06°
Th 4/20/23 6:57 AM	75.11°	0.32°
Fr 4/21/23 6:56 AM	74.72°	0.38°
Sa 4/22/23 6:55 AM	74.34°	0.44°
Su 4/23/23 6:54 AM	73.95°	0.49°

Cancel Share



PhotoPills Planner - By tapping the magnifying glass icon (top right), PhotoPills shows you all the dates in which you can take the photo (the event occurs).

PhotoPills Planner - Tap the date you want to see the plan, for example: 04/19/2023.

Tap *Search* (magnifying glass icon at the top right corner) to see the potential dates.

Pick one of the dates in the table. For example, April 19, 2023. Tap it to review the Plan.

As you can see on the second screenshot above:

- The thick yellow line indicates the Sunrise direction for the selected date (04/19/2023).
- And if you swipe the top panel to **Panel 4**, you'll see the Sunrise time: 06:55 am.

Cool!

You have your plan :)

You know the shooting spot, the Red Pin Position and the shooting time, around **Sunrise** (06:55 am), when the Sun will rise where you want relative to the Vasco da Gama Bridge.

And since the Sun's position doesn't change that much from one day to the next, the photo is also possible on April 17, 18, 20, 21, 22... This allows you to choose the day with the best weather forecast ;)

Simply swipe the Time bar to change the day and adjust the shooting spot according to the new Sunrise direction.

In addition to this, when you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize through your phone where the Sun will rise.

You could also follow the steps I show you in **section 20** to plan the photo to the very last detail. This includes planning the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).

Finally, don't forget to save the Plan using the Save button! ;)

Section 7:

How to plan a Big Sun
aligned with a subject



Nikon Z6 | 210mm | f/5.6 | 0.8s | ISO 200 | 5950K | Soft GND 0.9 (3 stops) filter

Another cool photography idea is to capture a huge rising or setting Sun aligned with an iconic subject (or any subject you like if you can get far enough from it).

The results are truly spectacular and you can imagine dozens of pictures!

You can create this type of pictures by going far away from the subject and by using a telephoto lens (e.g. 300mm, 400mm, 500mm...). This will allow you to capture a close up of the Sun and your subject.

Before you keep reading, make sure to check [section 4](#) and learn how the shooting distance and the focal length define the size of the Sun compared to the size of the subject and the size of the frame (photo). Understanding this is key to help you plan your photos.

As usual, [PhotoPills](#) will help you find out if the photo you're thinking of is possible and when (or where) it will happen.

In the previous section ([section 6](#)) you learnt how to plan a **Sunrise** or a **Sunset**, but you weren't considering the size of the Sun.

And we want a big Sun here!

So let's add this little detail into your plans...

The two most common planning cases are:

- A plan for a big Sun on a certain date. This is when you know the shooting date, and need to find a cool subject that aligns with the sun, the shooting spot and the shooting time.
- A plan for a big Sun in a certain position. In this case, you know the shooting spot and the photo you want (where you want the Sun to be in the frame), and you need to find out when it happens (shooting date and time).

Let's jump right in!

How to plan a big Sun on a certain date (1)

When you know the date you want to go shooting, you need to base your planning on the Sunrise or Sunset directions.

So have to:

- Find a cool subject that you can align with the rising or setting Sun, and in a location where you can go far enough from it (1 km, 2 km, 5 km...). The further away you go, the bigger the Sun will be compared with your subject.
- Find the shooting spot and shooting time the Sun aligns with the subject, or in any other position you like in the frame.

The trick here is to check different subjects you like until you find a cool photo.

To sum up...

Based on the Sunrise or Sunset directions, you need to come up with a great plan for a great photo.

But don't panic!

Planning a big rising or setting Sun occurring on a certain date is much easier than you think.

To prove it, here's a video in which Rafa explains how to do it step by step:



Would you prefer to read a full explanation?

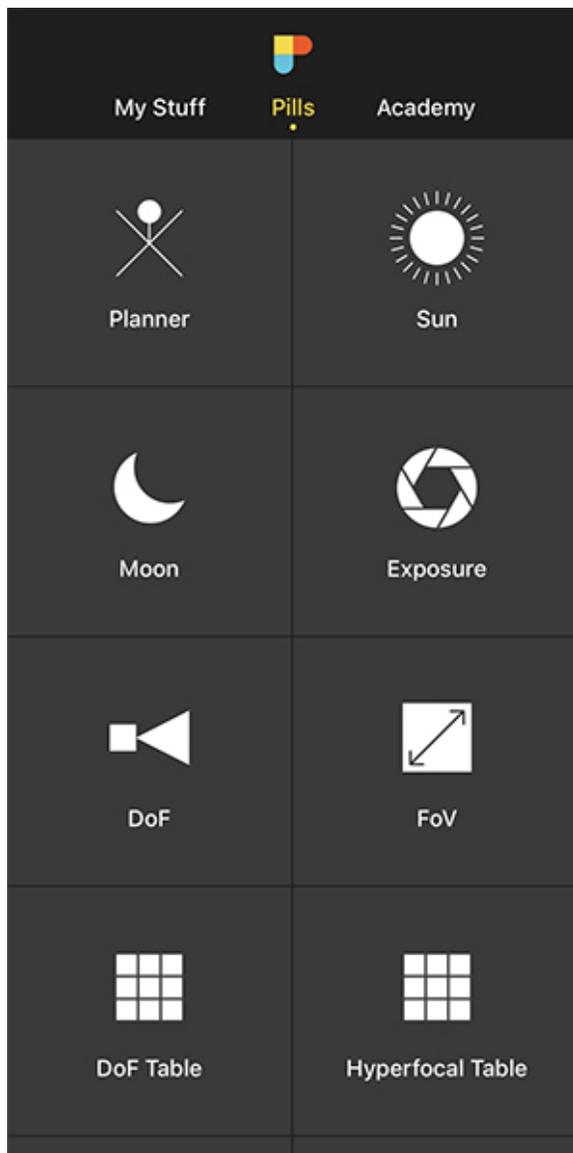
Fine. Here are all the steps you need to follow.

In this case, we're going to plan a photo of a huge Sun aligned with the top of the amazing 170-meter tall Spinnaker Tower, located in Portsmouth (UK).

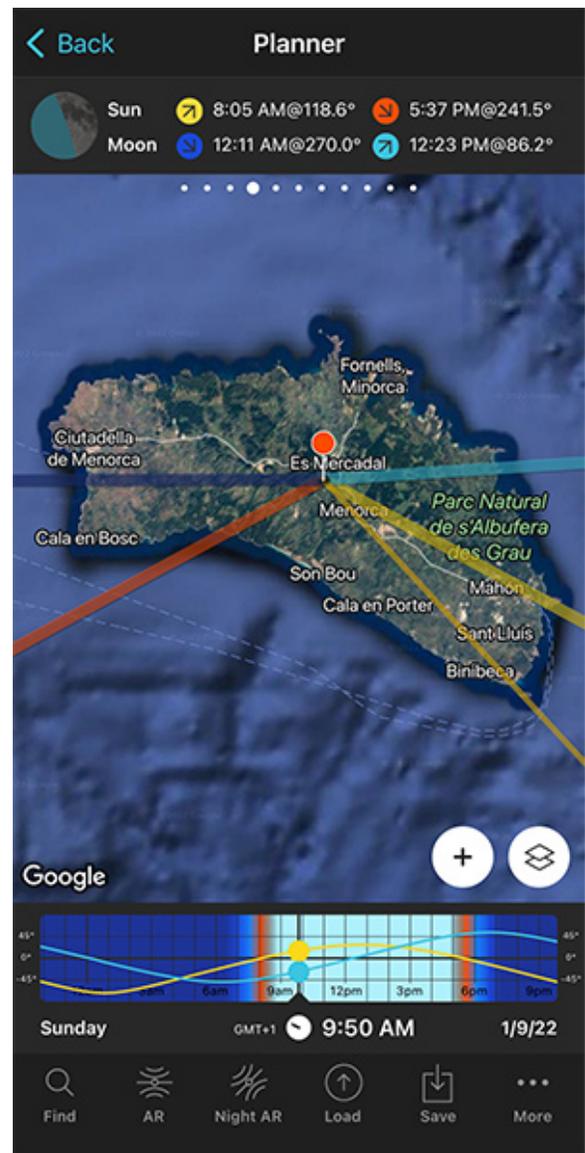


Let's see together how you can plan it.

Set the shooting date



PhotoPills - Pills Menu where you can find the Planner.

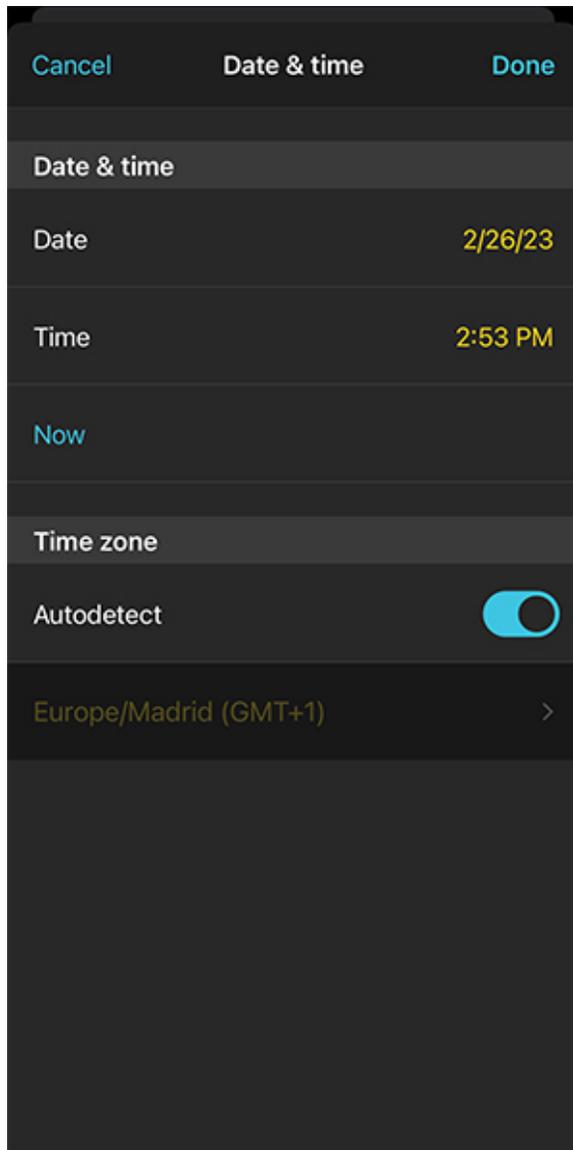


PhotoPills Planner - The Red Pin is placed on the beautiful island of Menorca (Spain).

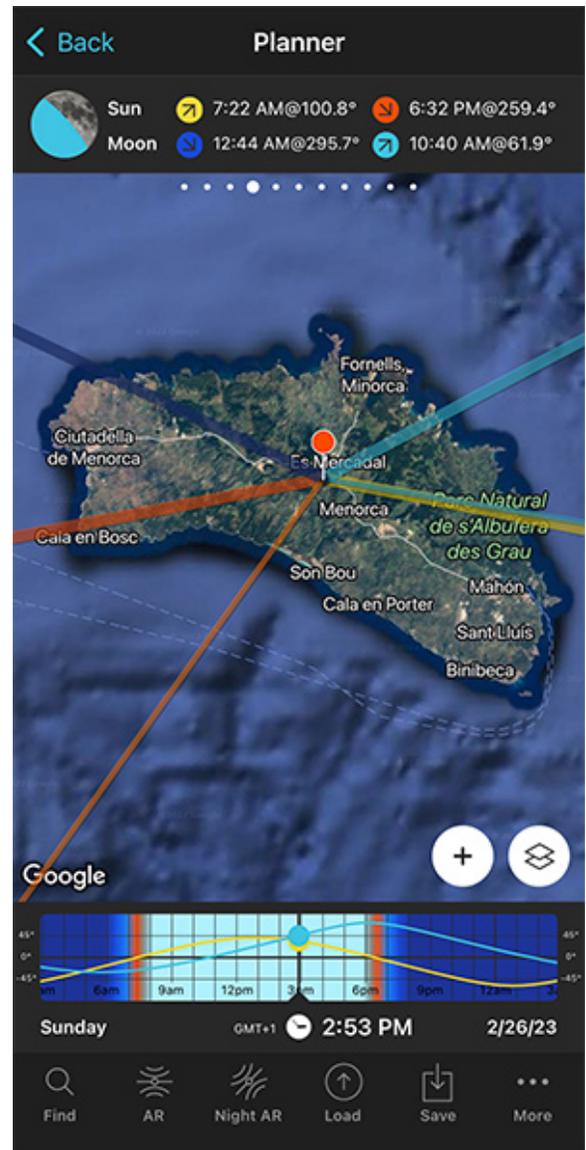
Open **PhotoPills** and tap *Planner* (*Pills* menu).

No matter where you have the Red Pin, since you know the date you want to take the picture, tap the Time bar once. And set the date on the Date and time screen.

Let's say February 26, 2023.



PhotoPills Planner - The date (02/26/2023) is set on the Date and time screen.

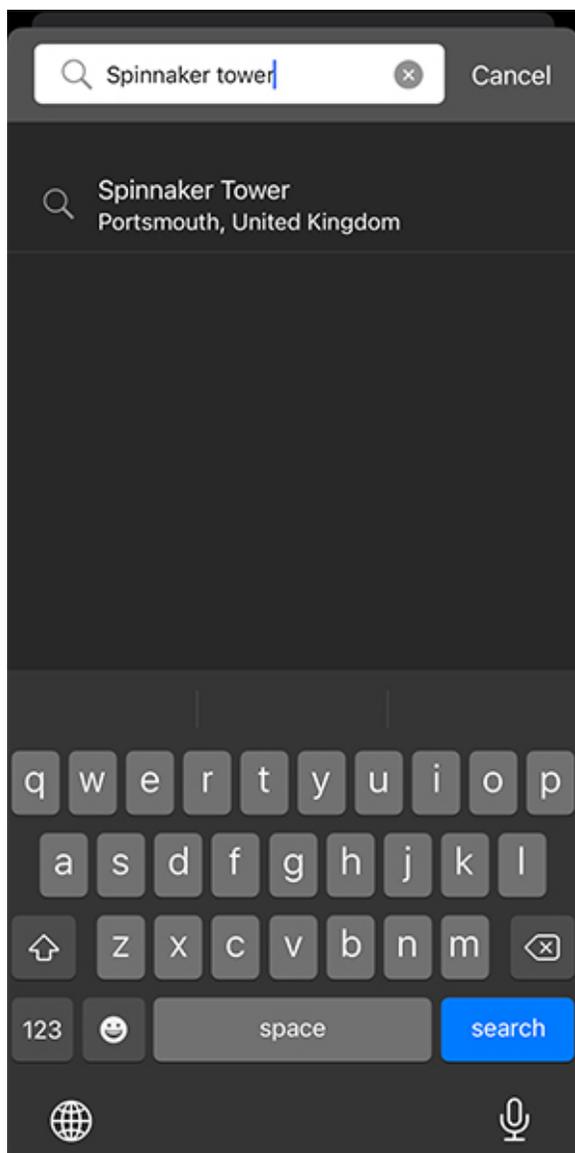


PhotoPills Planner - The Sunrise and Sunset directions are displayed on the map. Panel 4 shows the Sunrise and Sunset times.

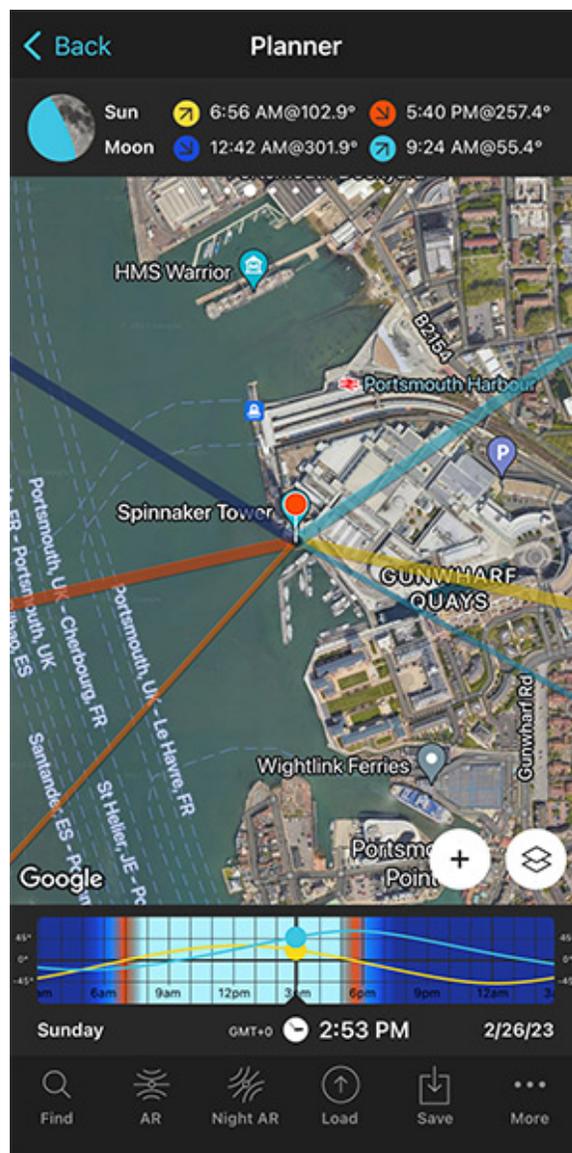
On the map you can see the Sunrise direction (yellow thick line) and Sunset direction (orange thick line) for the Red Pin position and the selected date, February 26, 2023. On the panel above the map you have the rise (07:22 am) and set (06:32 pm) times.

Now, you need to find a cool subject that you can align, for example, with the Sunset direction, in a location where you can go far away to photograph it.

Place Red Pin next to your subject



PhotoPills Planner - Tap the Load button and type "Spinnaker Tower".



PhotoPills Planner - The Red Pin is now placed on the tower itself.

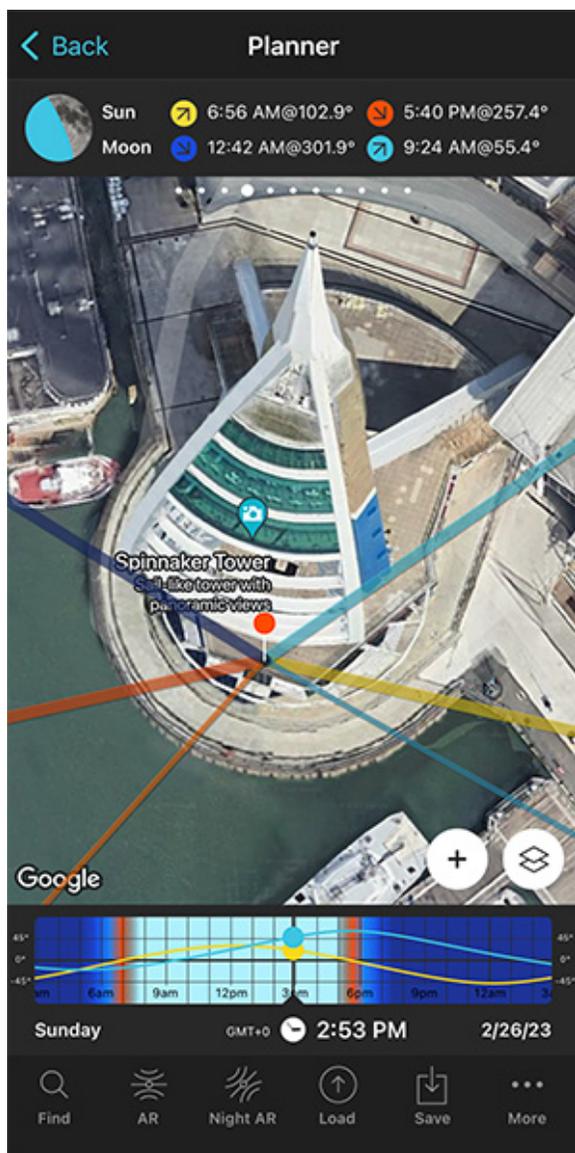
Imagine that after testing a few subjects, you found one you love and that the setting sun aligns with it: the Spinnaker Tower in Portsmouth, UK.

It's a 170-meter tall building and you can photograph it from far away. Cool!

So the next step is to place the Red Pin near your subject, the Spinnaker Tower. If you don't know how to do it, [this video shows you how to move the Red Pin](#).

For example, tap the *Load* button (at the bottom) and type "Spinnaker Tower" in the search bar. Select the result and the Red Pin will be placed on the tower itself.

Place Black Pin on the subject



PhotoPills Planner - Zoom in on the map, until you can clearly see the Spinnaker Tower.



PhotoPills Planner - Go to Panel 2 to activate the Black Pin on the map.

Zoom in on the map, until you can clearly see the Spinnaker Tower.

And swipe the panels above the map to the right until you find the Black Pin information panel (**Panel 2**). Tap the icon on the panel that's showing the Red Pin and the Black Pin to activate the Black Pin on the map.

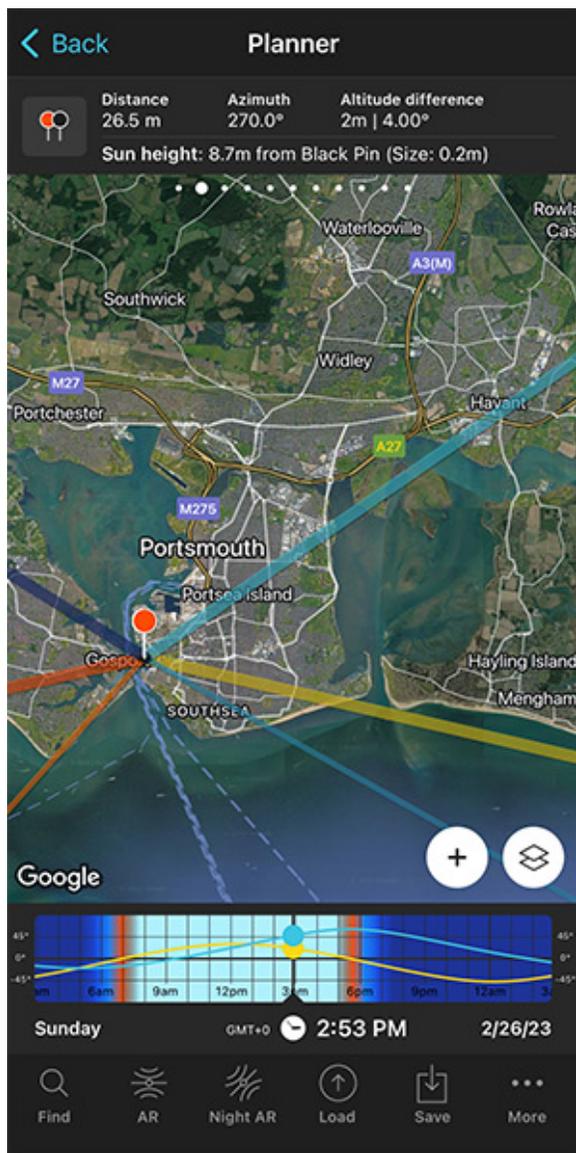
Drag and drop the Black Pin at the center of the base of the Spinnaker Tower, right where you want the Sun to be.

Both the Black Pin and **Panel 2** are key. They'll help you understand how high the center of

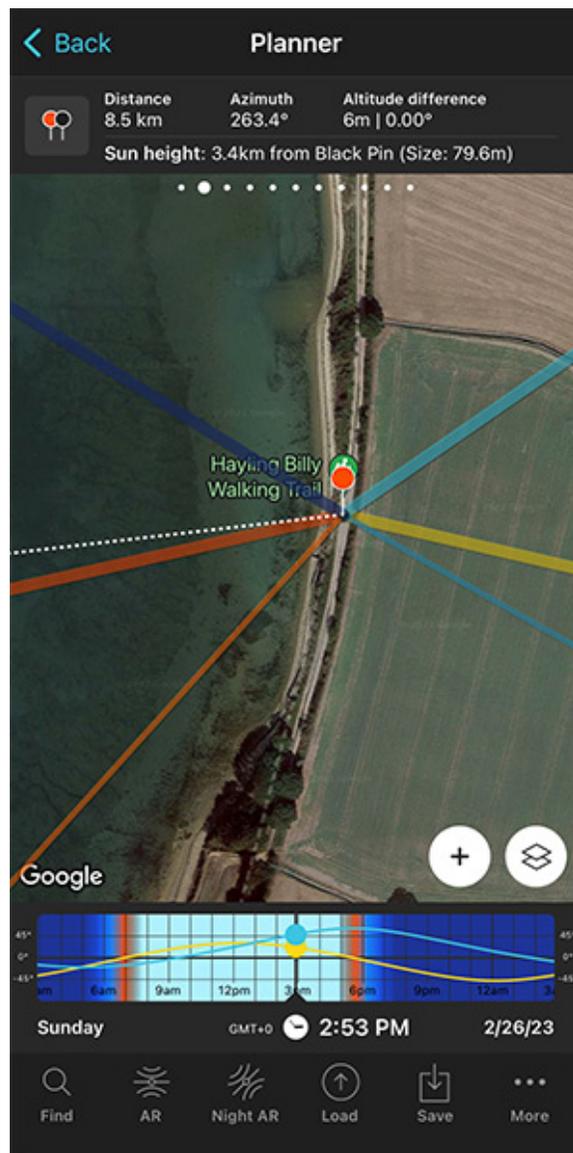
the Sun is relative to the ground level (you can see Sun elevation on the panel) so you can compare it to the height of the building.

In addition to this, they help you understand how big the Sun is (you can see Sun size in brackets) so you can compare it to the width and height of the building.

Find the initial shooting spot and shooting time



PhotoPills Planner - Zoom out on the map to see the area.



PhotoPills Planner - Place Red Pin far away from the subject. The further away from the Black Pin (the Sun) it is, the bigger the Sun will be.

Remember, we're looking for a spot from which to photograph a big Sun aligned with the top of the Spinnaker Tower (170 m).

Zoom out on the map to get an overview of the area where you want to take the photo.

On the map, you have the Sun, the Sunrise and the Sunset directions for the selected date (02/26/2023):

- The Sun direction at the selected time (02:53 pm) is represented by the thin orange line.
- The Sunrise direction is represented by the thick yellow line.
- The Sunset direction is represented by the thick orange line.

These lines are crucial to find your initial shooting spot.

To continue with this example, let's imagine you want to shoot at **Sunset**.

Keep zooming out the map while keeping an eye on the Sunset direction (thick orange line). You'll soon find out that to capture a big Sun setting aligned with the Spinnaker Tower you need to go to Hayling Island.

Put the Red Pin somewhere along the Hayling Billy Walking Trail, at around 8.5 km away from the tower according to the **Panel 2** above the map. To do so, make a long press right where you want to put the Red Pin.

Also, on the panel you have the size (apparent diameter) of the Sun, 79.6 m, which is a cool size considering that the tower is 170 m tall.

Let's move on!

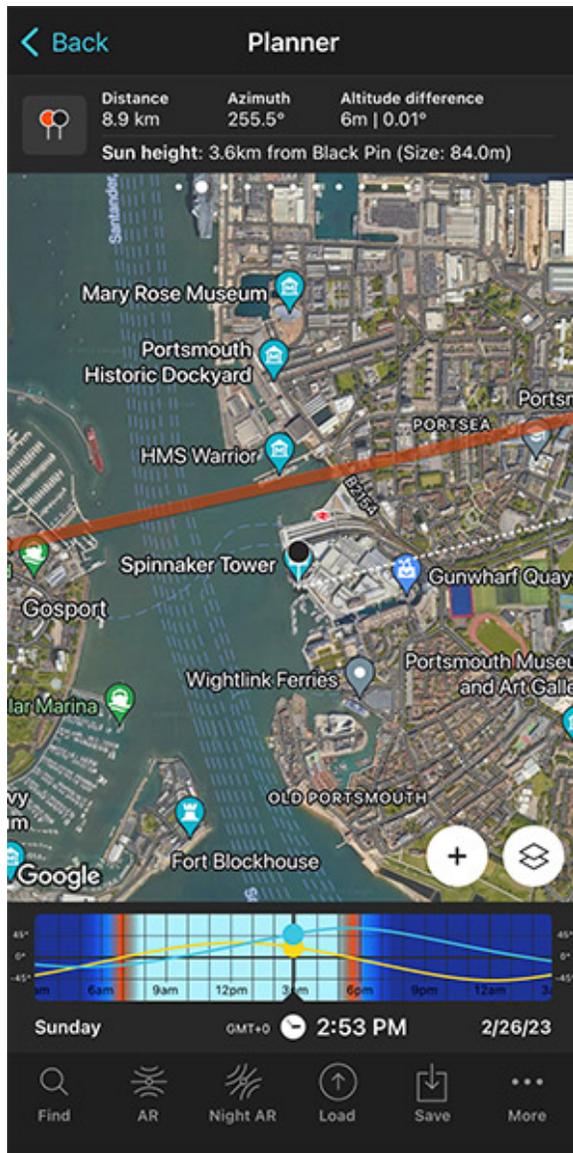
As you can see from the second screenshot above, the thick orange line is south (above) the Black Pin white dashed line. This means that the Sun will set before it reaches the Spinnaker Tower if you shoot from this spot (the Red Pin is in the Northern Hemisphere).

So you need to choose a new shooting spot making sure that the thick orange line is north (above) the Black Pin white dashed line. This way, when the Sun sets, it will go behind the tower.

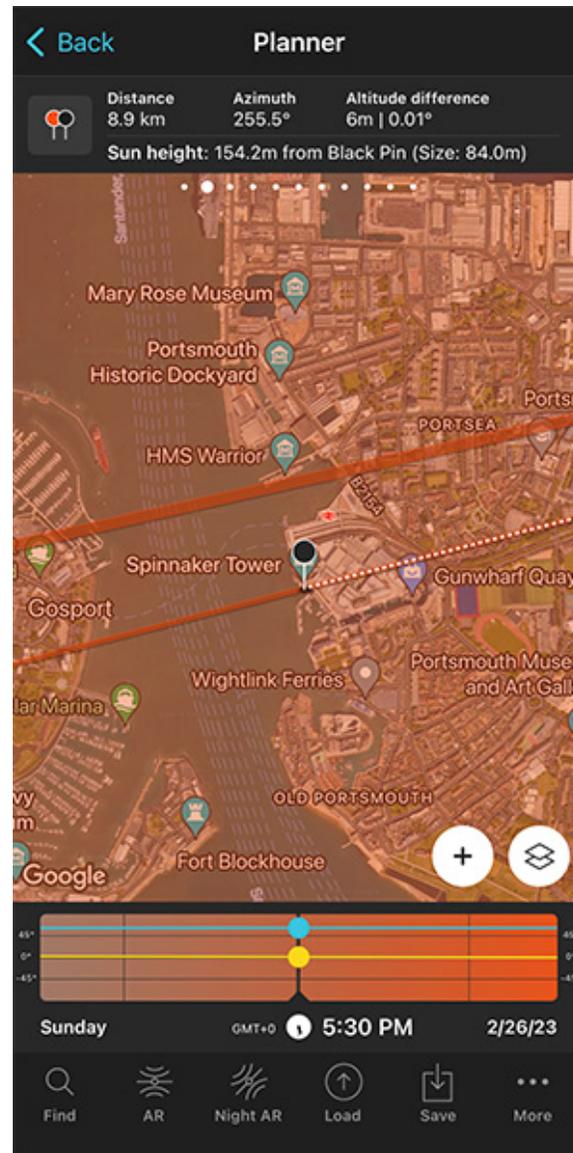
Note: *In the Southern Hemisphere it's the other way around of course.*

Keep moving the Red Pin until you find a spot.

Great!



PhotoPills Planner - The Sunset direction (thick orange line) is north (above) the Black Pin white dashed line.



PhotoPills Planner - The Sun line (orange thin line) is aligned with the Black Pin at 05:30 pm.

According to **Panel 2**, from this new shooting spot the shooting distance is 8.9 km and the size of the Sun is 84 m, slightly larger than the previous shooting spot.

Now there's one more thing you need to do: align the Sun with your subject, the Spinnaker Tower, and check the elevation of the Sun.

Remember that you want the Sun aligned with the top of the tower. So you need the center of the Sun to have an elevation of 170 m.

To do it, swipe the Time bar to move time forward or backward. In this example, swipe it to the left to move time forward.

If you need to move time accurately, make a long press on the center of the Time bar. It will expand so you can adjust the time minute by minute.

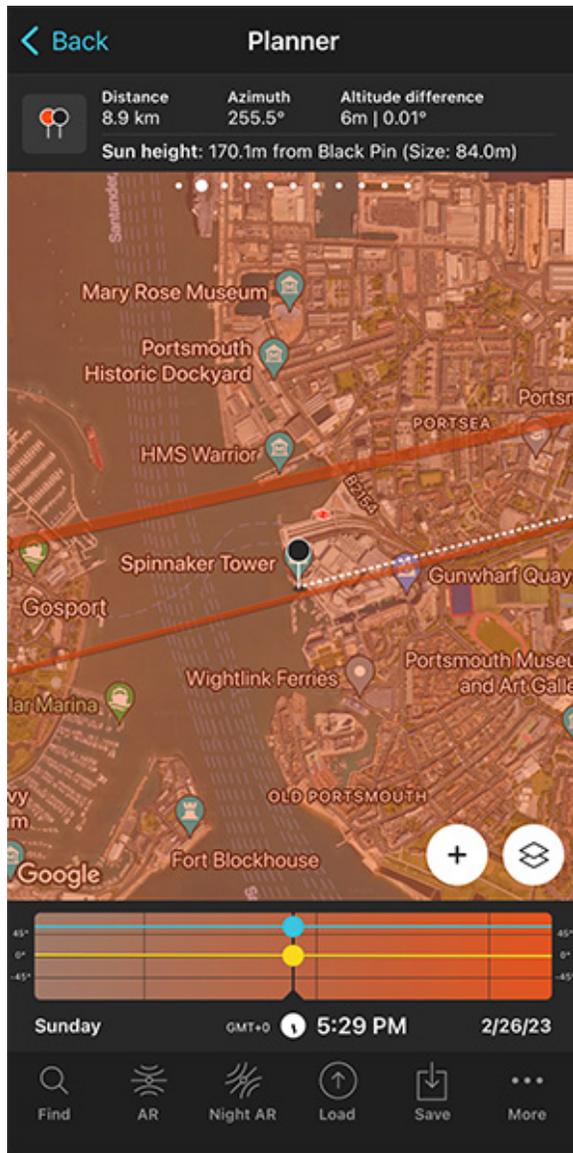
Now you have the Sun line (orange thin line) aligned with the Black Pin. This happens at 05:30 pm.

Cool, but is the Sun at the right elevation? Is it aligned with the top of the Spinnaker Tower (170 m)?

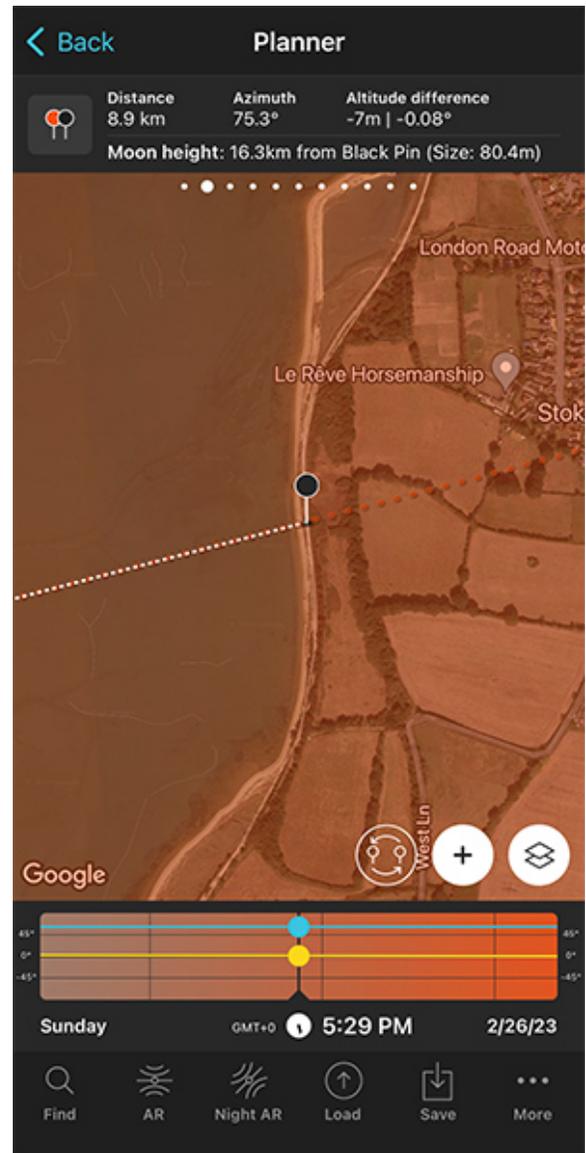
Take a look at **Panel 2**. It's telling you that the center of the Sun is at an elevation of 154.2 m above the Black Pin. So the Sun is not where you want it to be... :(

You need it to be higher in the sky, so you need to find a new shooting spot and shooting time!

Adjust the shooting spot and shooting time



PhotoPills Planner - The Sun is 170 m above the Black Pin at 05:29 pm.



PhotoPills Planner - Place the Black Pin where the orange dashed azimuth line is at 05:29 pm.

Move time backward until the Sun elevation above the Black Pin is 170 m. To confirm it, have a look at [Panel 2](#).

Once you get it, check the Time bar again. The Sun is 170 m above the Black Pin at 05:29 pm.

But now the Sun and the Black Pin are not aligned, so you need to adjust the Red Pin position to realign them.

Where should you move the Red Pin? There's a cool way to find it out.

Tap the **(+) button**, and then look for the Expand azimuth lines button. It's the 7th button starting from the left.

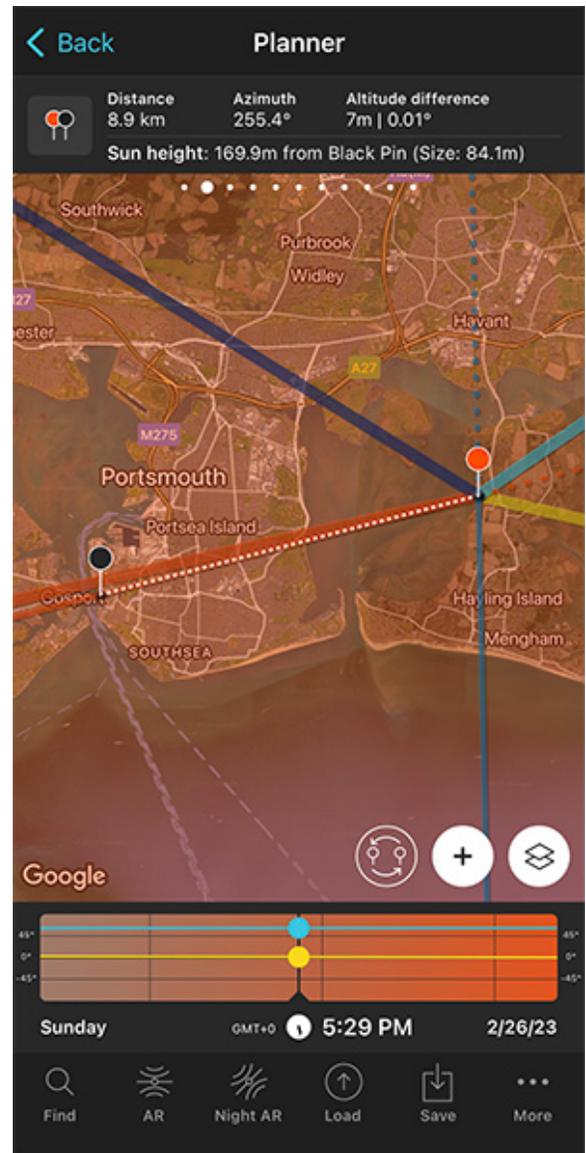
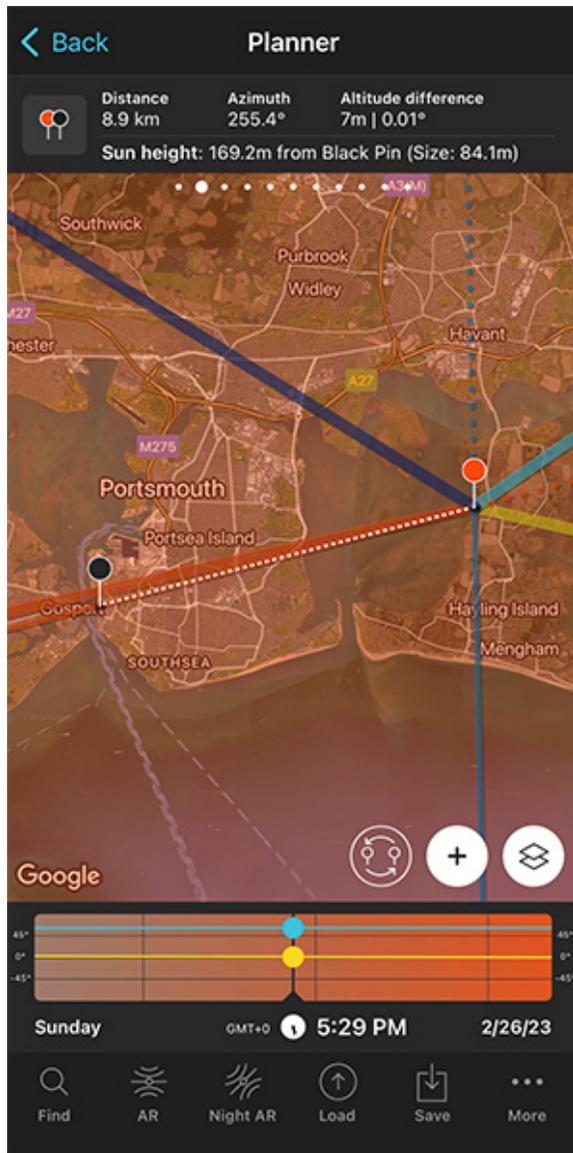
Tap it and the azimuth line of the Sun is expanded (orange dashed line).

Then, tap the **(+) button** again, and look for the Swap pins button. It's the 6th button starting from the left.

Tap it and the Black Pin will be now at the Red Pin position and vice versa. Now, all you need to do is move the Black Pin where the orange dashed line is (see second screenshot above).

Finally, tap again the Swap pins button so the Black Pin and the Red Pin return to their initial positions.

Now the Sun is perfectly aligned with the Spinnaker Tower! :)



Planificador de PhotoPills - The Sun is 169.2 m above the Black Pin at 05:29 pm.

PhotoPills Planner - The Sun is 169.9 m above the Black Pin.

Because you changed the position of the Red Pin, topography also changes, therefore, as you can see on **Panel 2**, the Sun's elevation is now 168.3 m, not 170 m.

So it's just a matter of repeating the previous process:

- Adjust time on the Time bar until the height of the Sun is 170 m.
- Tap the Swap pins button.
- Zoom in on the area where the Black Pin is and adjust its position until it's right on the orange dashed line.

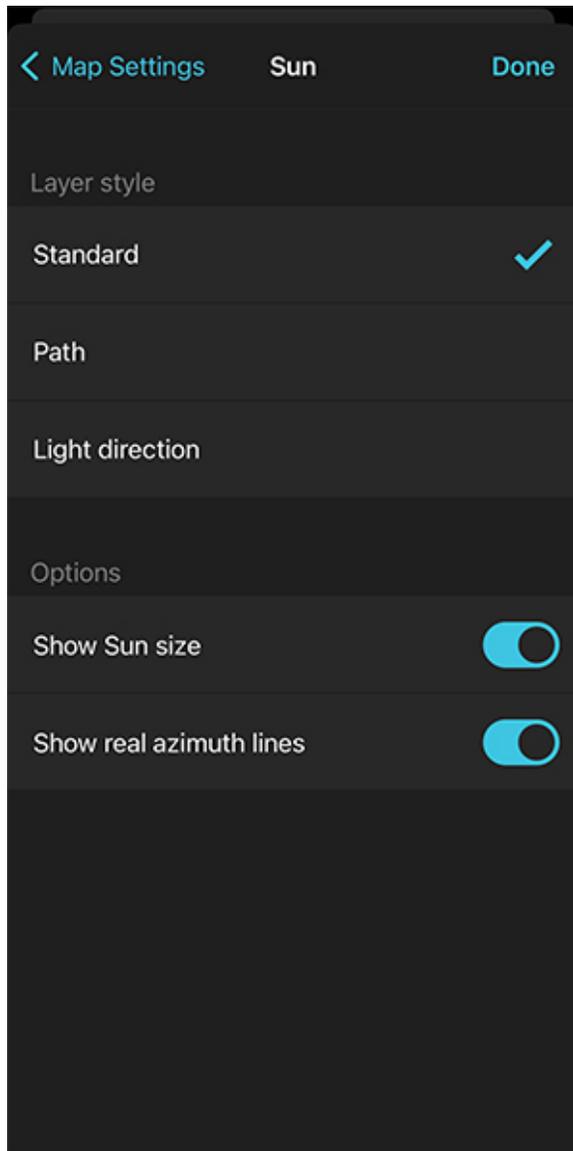
- Zoom in on the area where the Black Pin is to check that the orange dashed line and the white dashed line are exactly one over the other.
- Tap the Swap pins button again.

There you go!

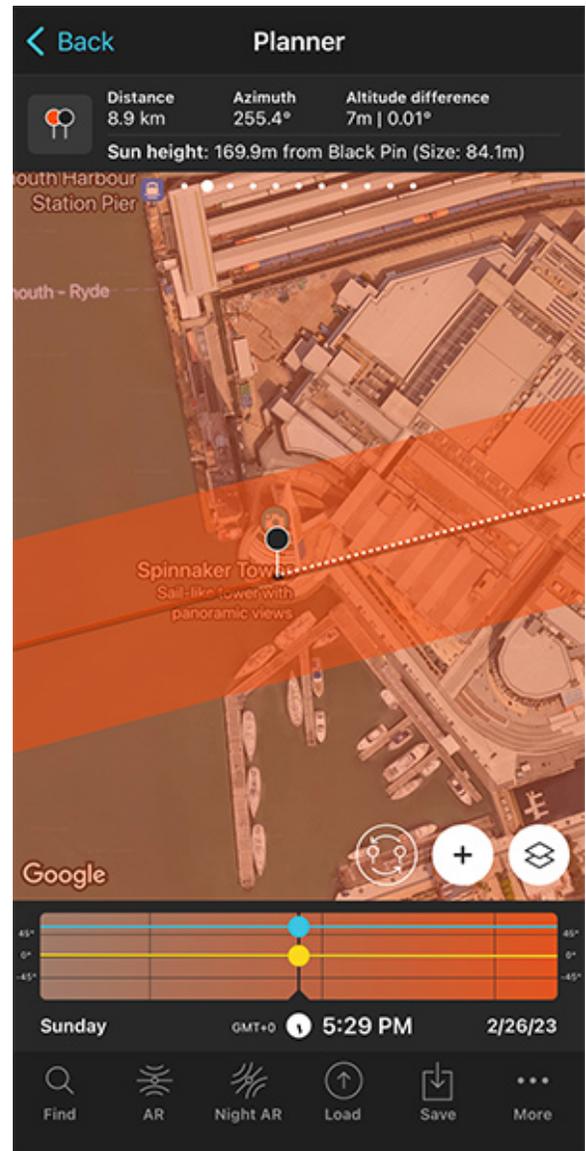
Your plan is done. You know now that if on February 26, 2023 at 05:29 pm, you are at the Red Pin position (shooting spot), you'll be able to photograph a big Sun (84.1 m) aligned with the top of the Spinnaker Tower (170 m).

But there is more!

Check the Sun size on the map



PhotoPills Planner - Activate the Show sun size option on the Layer style screen.



PhotoPills Planner - The size of the Sun (84.1 m) is represented on the map.

One final tip.

As you can see on [Panel 2](#), the Sun's size is 84.1 m (diameter).

But if you want to see it on the map, tap the **Map Settings** button. You'll find it at the bottom right corner of the map, right next to the **(+) button**.

On the Map Settings screen, tap the **Sun layer** and activate the **Show Sun size** option. Finally, tap **OK** (top right corner) in iOS or the back arrow in Android.

Zoom in on the map over the Black Pin to see that the width of the thin orange line shows

you the Sun diameter at that date and time. This allows you to compare its size to the Spinaker Tower.

In addition to this, when you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize on your smartphone where the Sun will set.

Now, it's also a good idea to use the steps I show you in **section 20** to plan the photo to the very last detail. This includes planning the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).

Finally, don't forget to save the Plan using the Save button! ;)

How to plan a big Sun in a certain position (2)

This is one of my favorite ways of planning. It opens a door to a whole new world of creative possibilities.

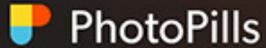
In this type of shot you know the shooting spot and the position of the Sun you want relative to your subject, but you need to figure out the shooting date and shooting time.

In this planning workflow, you'll use the **Find tool** included in the **PhotoPills** Planner.

Let's see a few examples.

The first one is a video in which Rafa explains how to plan a photo of a big Sun aligned with the beautiful lighthouse of Sa Farola in Menorca.

Plan Sun Alignments Fast!



The second one is a step by step explanation that you can start reading below.

I'll show you how to photograph a picture you've been dreaming about – a huge Sun aligned with the center of the Ferris wheel located on the Steel Pier in Atlantic City, New Jersey (USA).



You've done your scouting work, and you've found a cool shooting spot located southwest of the Ferris wheel, at the far end of Ocean City and next to the Ocean Drive Bridge, and that is 13.5 km away from your subject.

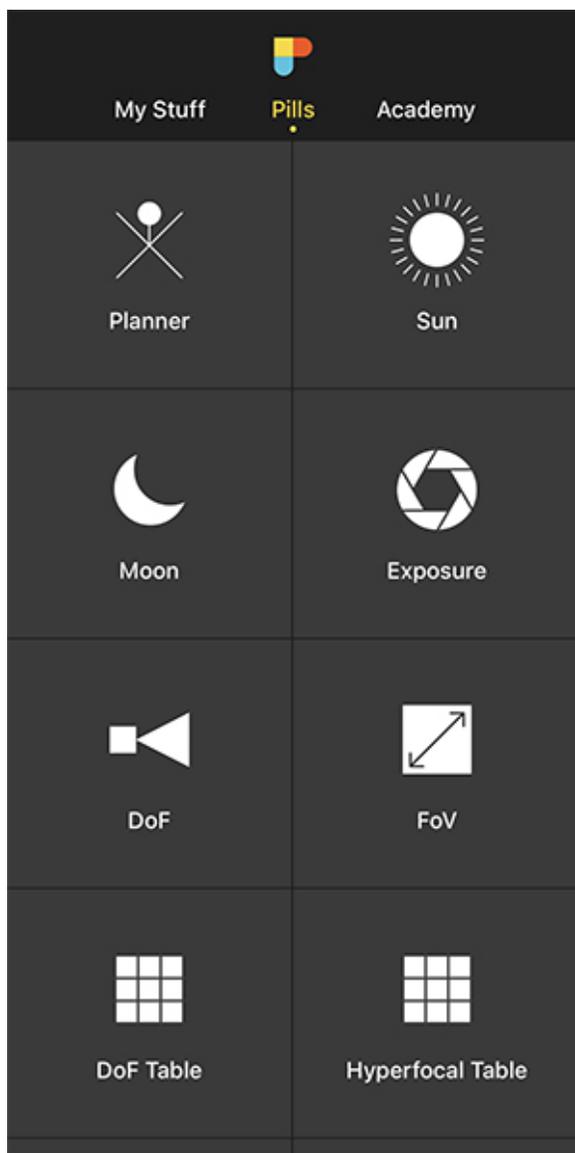
Very quickly, you apply the PhotoPills Rule of 100 I explained in [section 4](#), and come up with the conclusion that you'll be able to photograph a Sun with a diameter of 135 m approximately. You'll fine tune the size of the Sun in a minute.

Given that the Ferris wheel has a diameter of 70 m (227 ft), the Sun will be huge!

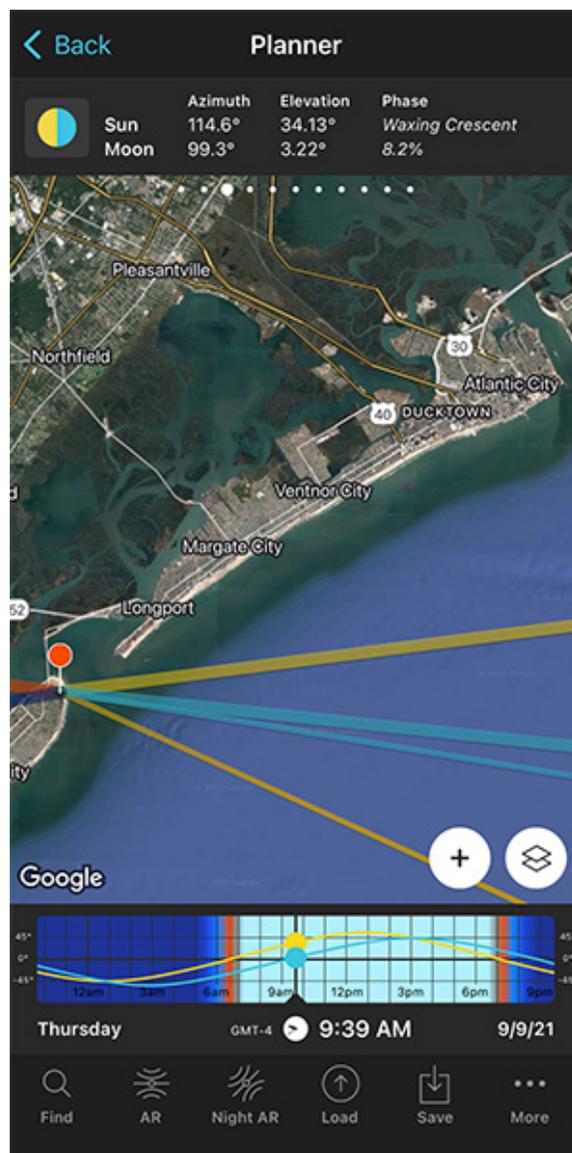
Fantastic!

Let's plan the photo.

Place Red Pin on the shooting spot



PhotoPills - Pills Menu where you can find the Planner.



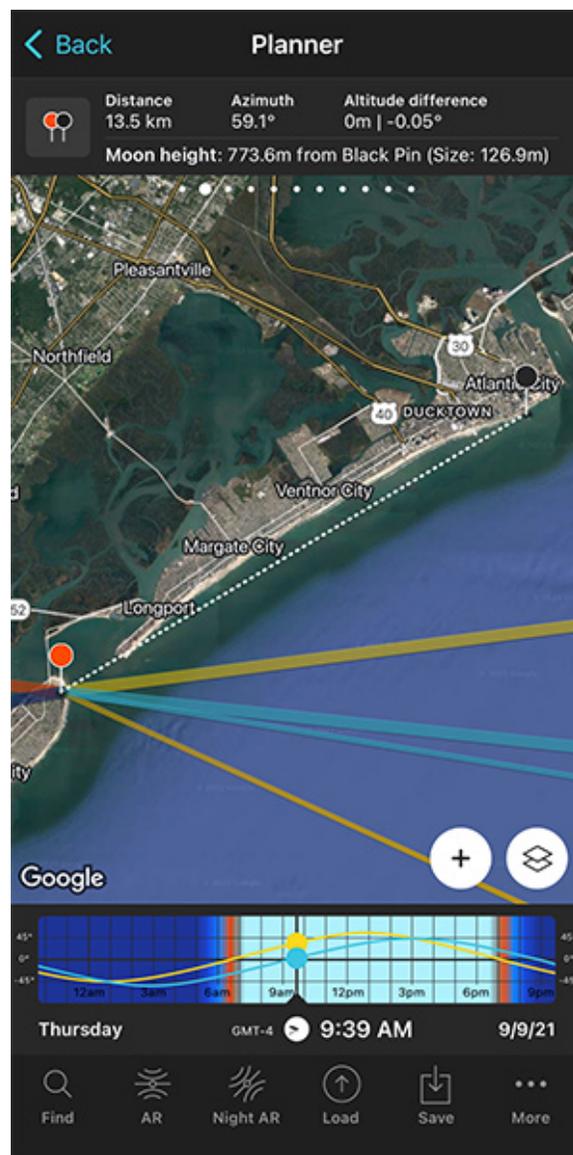
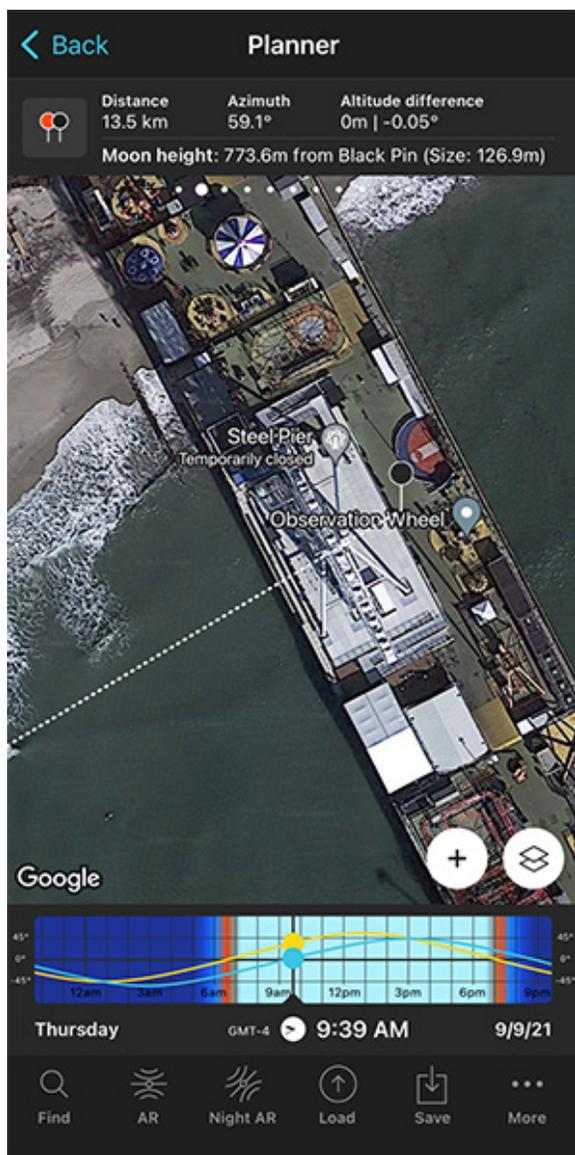
PhotoPills Planner - The Red Pin is placed on your shooting spot, at the far end of Ocean City.

Open [PhotoPills](#), tap *Planner* (*Pills* Menu) and place the **Red Pin** right on the shooting spot you want, on a beach located southwest of the Ferris wheel, at the far end of Ocean City and next to the Ocean Drive Bridge.

If you don't know how to do it, [this video shows you how to move the Red Pin](#).

First step accomplished!

Place the Black Pin where you want the Sun to be



PhotoPills Planner - Panel 2 is now activated and the Black Pin is located at the center of the base of the Ferris wheel, exactly where you want the Sun to be.

PhotoPills Planner - Panel 2 indicates that the apparent diameter of the Sun is 110.2 m from the current Red Pin position.

Step two is to place the Black Pin right on the spot you want the Sun to be. That is, aligned with the Ferris wheel located on the Steel Pier.

So zoom in on the map, until you can clearly see the Ferris wheel.

And swipe the panels above the map to the right until you find the Black Pin information panel (**Panel 2**). Tap the icon on the panel that's showing the Red Pin and the Black Pin to activate the Black Pin on the map.

Drag and drop the Black Pin at the center of the base of the Ferris wheel, right where you

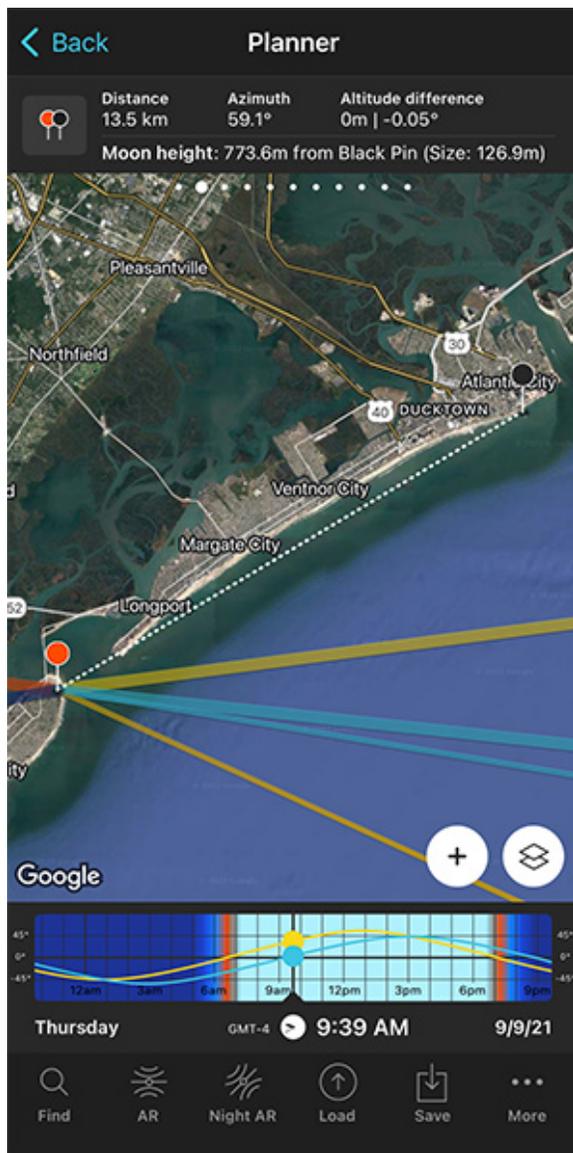
want the Sun to be, right at the center of the wheel.

Notice that the top panel is also telling you (see second screenshot above):

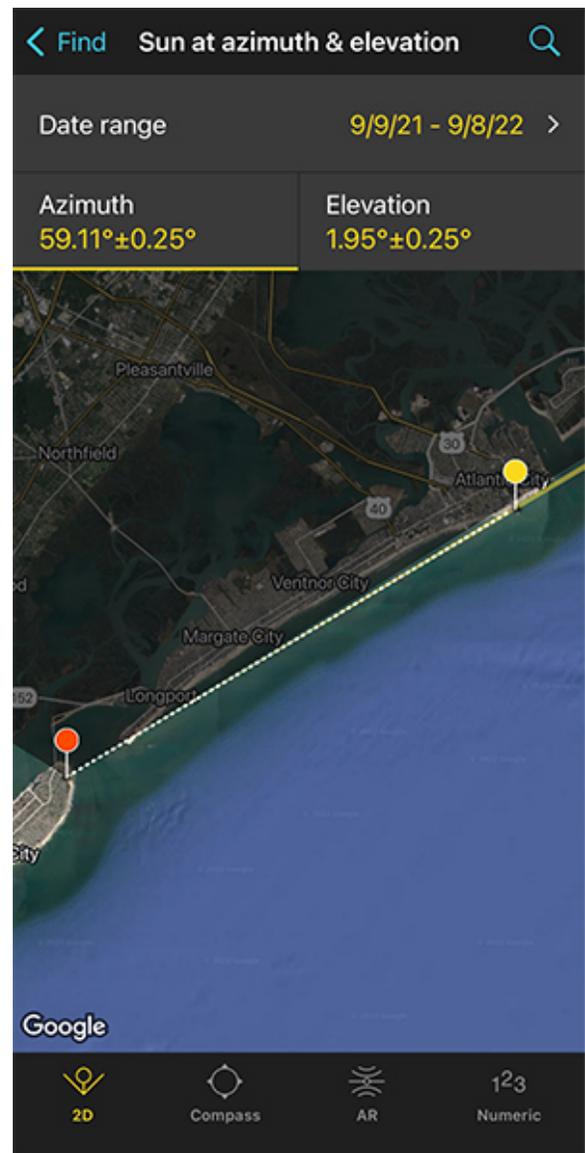
- The shooting distance between pins (13.5 km).
- The elevation of the center of the Sun above the Black Pin ground level (773.6 m), so you can compare it with the height of your subject.
- The apparent diameter of the Sun (126.9 m), so you can compare it with the size of your subject, the Ferris wheel (70 m).

Cool! It's time to check whether the photo is possible or not. And if it's possible, you need to figure out the date and time it occurs.

Find the dates and times when the photo is possible



PhotoPills Planner - A general view of the Ferris wheel with the Black Pin right where you want the Sun to be.



PhotoPills Planner - With the tool Find > Sun at azimuth and elevation you'll find out the dates and times the Sun is aligned with the Ferris wheel.

Remember that you want to photograph a big Sun aligned with the Ferris wheel.

OK! Let's figure out when the photo occurs.

Tap the **Find** button. It's located on the bottom left corner of the Planner. And then, select *Sun at azimuth and elevation* (*Sun on Android*).

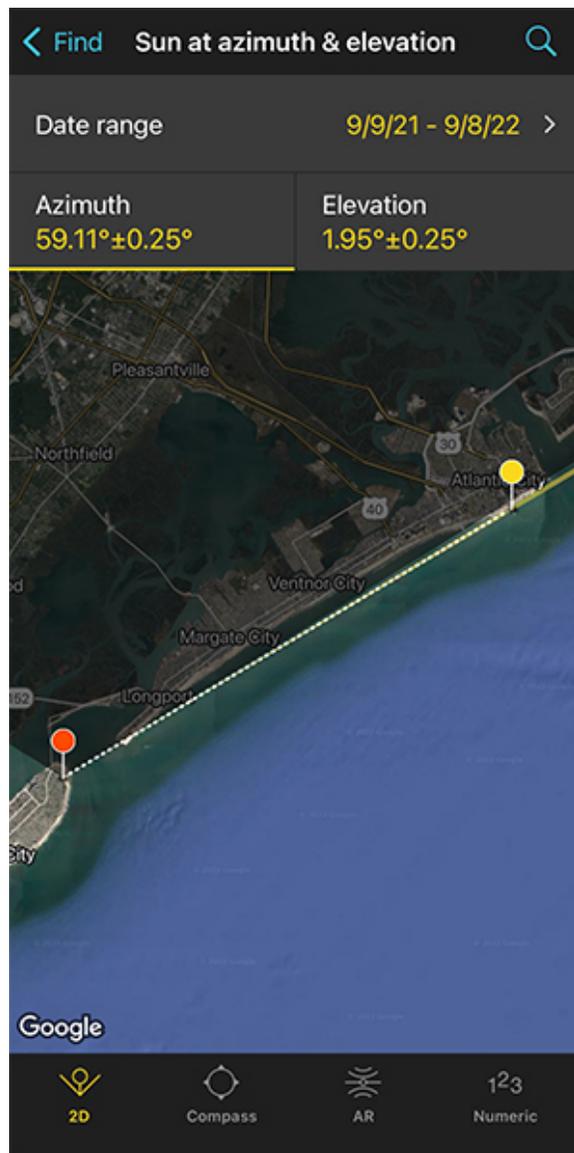
On the new screen, you have to tell 3 things to PhotoPills:

- The date range you want to search for results. For example, 1 year starting from today.

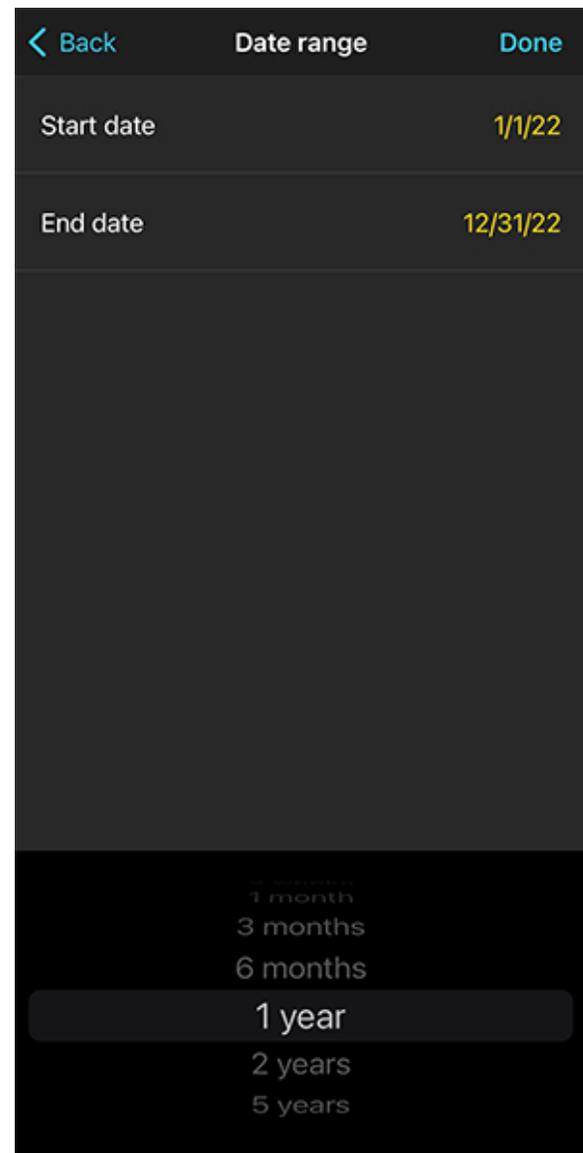
- The Sun's azimuth or direction. In this case, you want it aligned with the Ferris wheel.
- The Sun's elevation or altitude. Imagine that your creative decision is to have the center of the Sun at a height of 35 m above the pier. This is right at the center of the wheel, which has a diameter of 70 m.

Let's begin by setting the date range.

Enter the date range



PhotoPills Planner - On the Sun at azimuth and elevation tool, tap Date range.

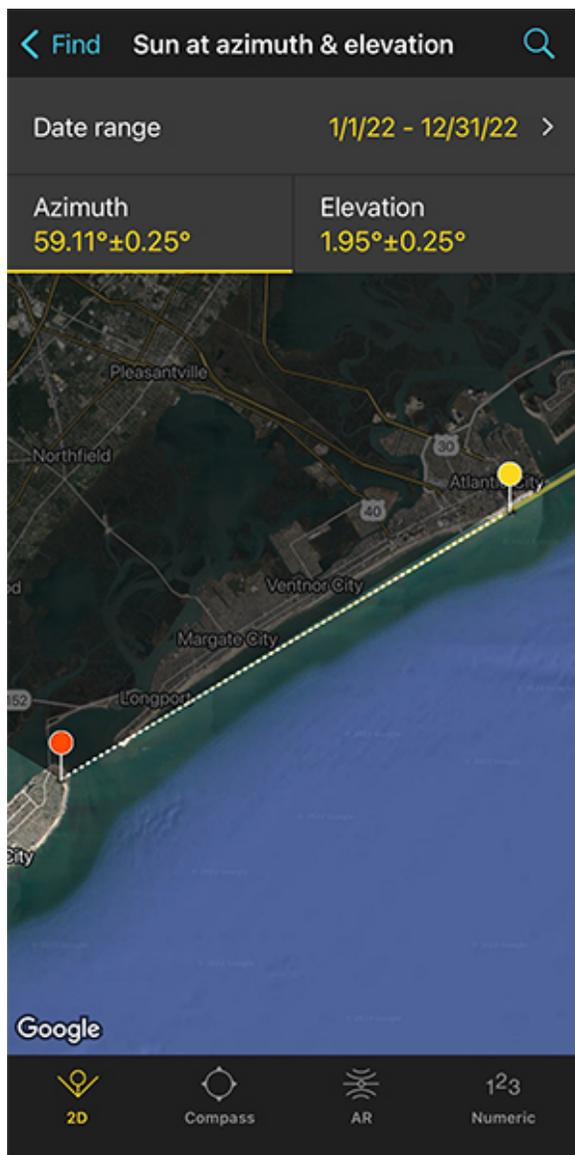


PhotoPills Planner - Search a 1-year date range starting from 01/01/2022.

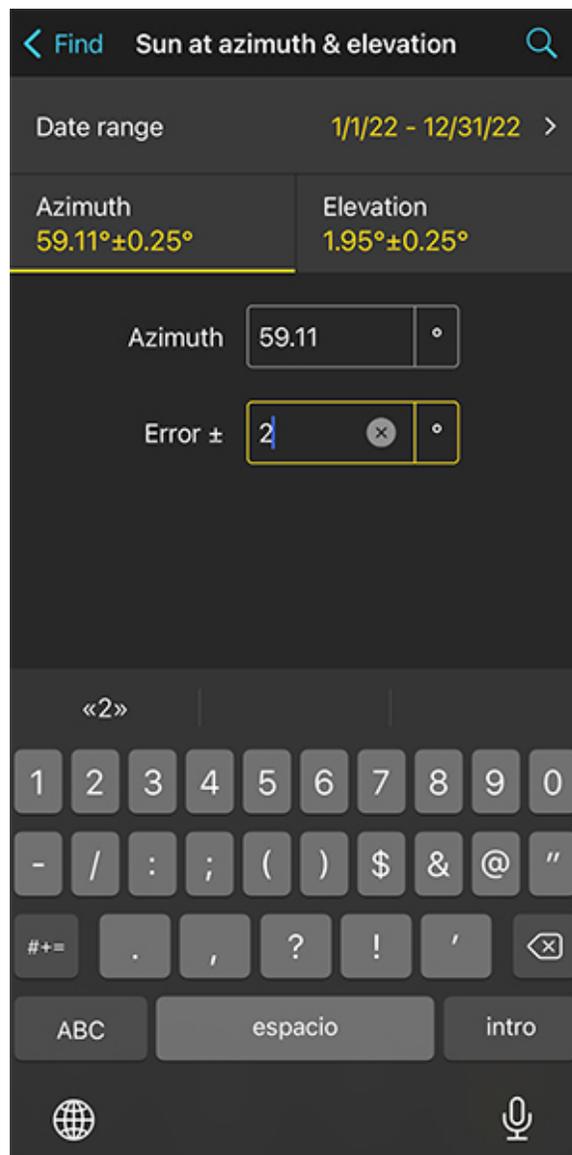
Tap *Date Range*, tap *Start date*, then *Today* and *OK* (back arrow on Android).

Next, tap *End date*. Now you can enter a certain date or range. To enter a range, tap the black area of the screen and the date options will change. Select *1 year*, for example, and tap *OK* (back arrow on Android).

Enter the Sun azimuth



PhotoPills Planner - On the Sun at azimuth and elevation screen you can define the Sun azimuth and its error (the direction tolerance).



PhotoPills Planner - To change the error tap the Numeric button at the bottom. And for example set the error to 2°.

To set the azimuth at which you want the Sun to rise, you can drag and drop the Yellow Pin you see on the map.

But... Good news! The Yellow Pin is linked to the Black Pin. So the azimuth of the Sun is already aligned with the Ferris wheel.

So you have the azimuth set ;)

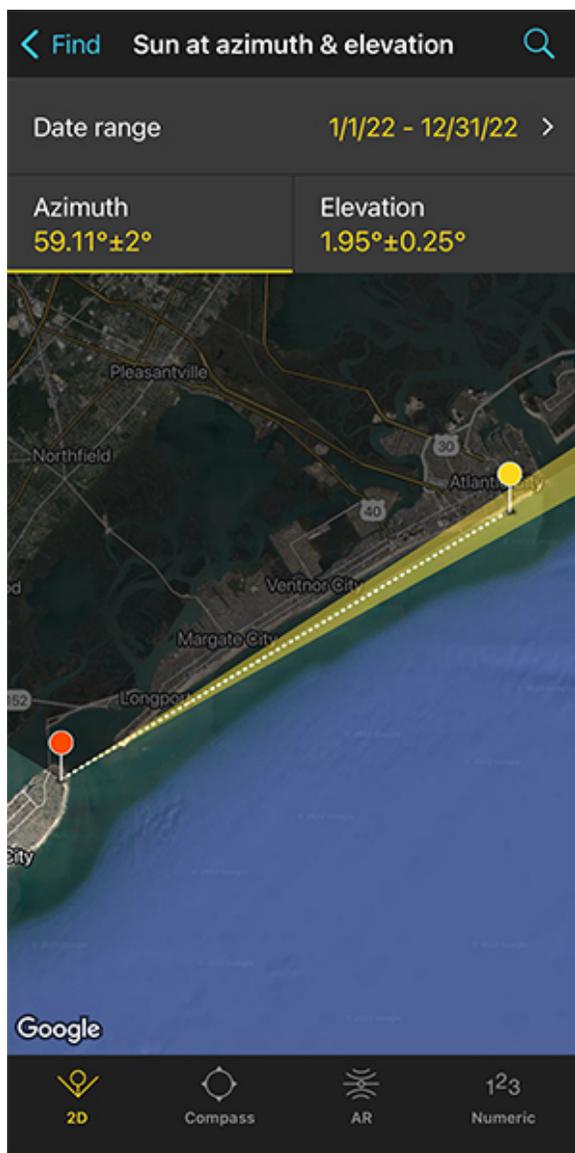
But what about the error (or tolerance) defined by the yellow sector you see on the map?

This yellow sector represents all the directions PhotoPills will look for results. In this example, these are all the directions within the azimuth $59.11^\circ \pm 2^\circ$.

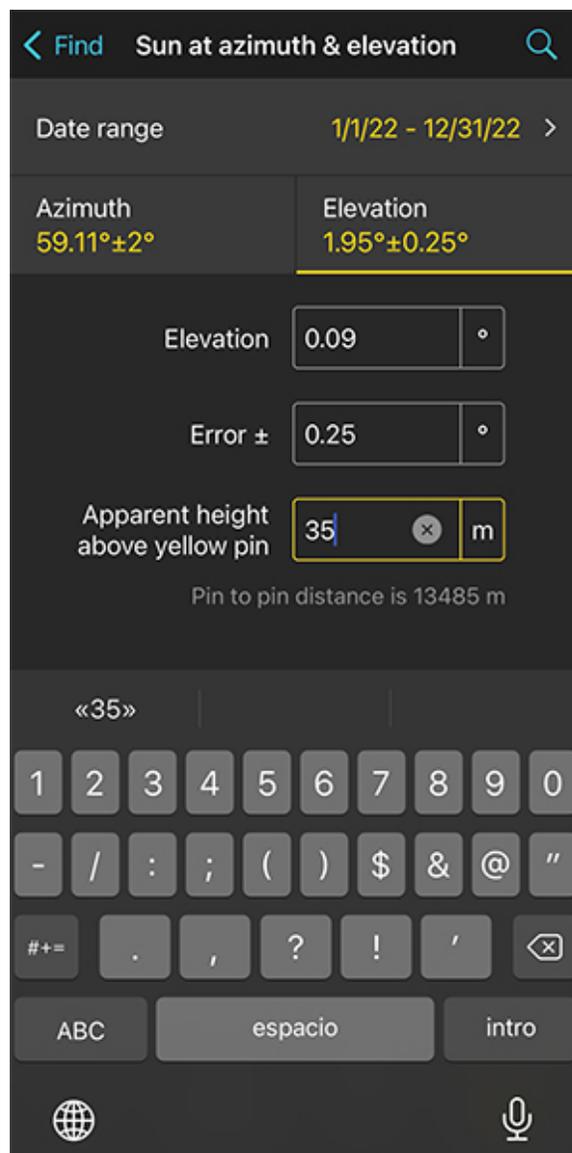
For this shot, you want the Sun to rise aligned with the Ferris wheel exactly at azimuth 59.11° . So it's a good idea to use a smaller error like for example $\pm 2^\circ$ to narrow down the results. To change it, tap *Numeric* (at the bottom).

If your shooting spot allows you to move around, I recommend using a relatively large error (2° , 3° or even more) to get more possible shooting dates. Because at the end of the day you can always adjust your shooting spot.

Enter the Sun elevation



PhotoPills Planner - Tap Elevation to set the Sun elevation (the altitude).



PhotoPills Planner - Since you want to photograph the Sun aligned with the center of the Ferris wheel, set an apparent height of the Sun above Yellow Pin of 35 m (0.09°).

Tap *Elevation* to set the elevation of the Sun.

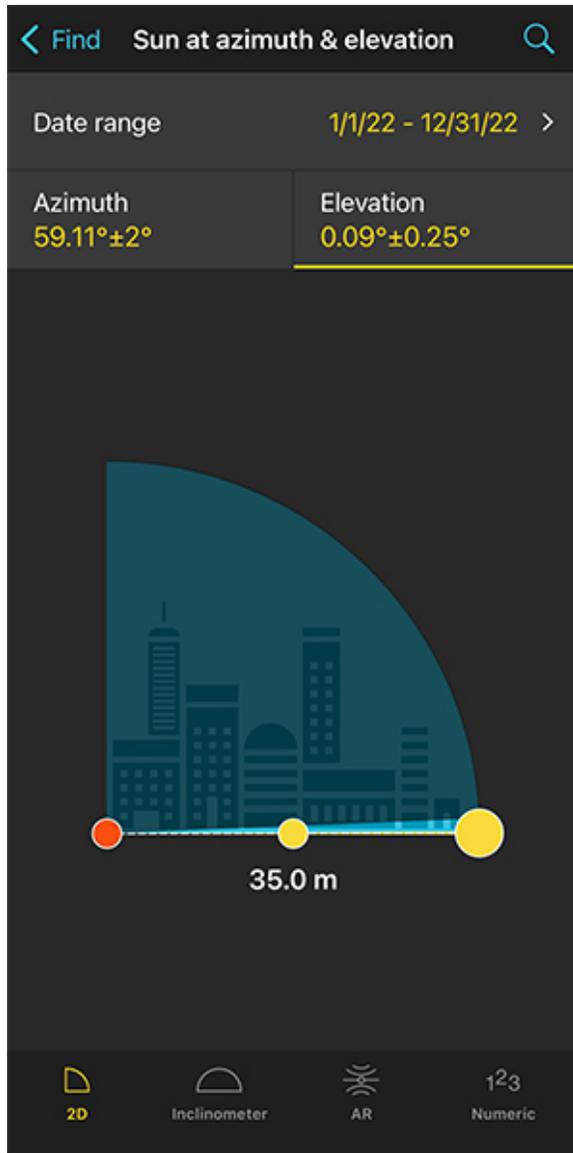
In this case, you want the center of the Sun aligned with the center of the Ferris wheel.

Remember, the Ferris wheel is 70 m tall (227 ft approximately). So the center of the Sun should have an elevation of 35 m.

So, drag the yellow dot in the diagram until it shows 35 m above the horizon. Or tap *Numeric* and type "35" in the *Apparent height above yellow pin* field.

Also, in the *Numeric*, set a small error (or tolerance) to be more precise with the elevation. For example "0.25".

Get the possible shooting dates and times



PhotoPills Planner - Tap the magnifying glass icon to get all possible dates for the photo.



PhotoPills Planner - Table of all dates and times the Sun will be within the search parameters (aligned with the Ferris wheel).

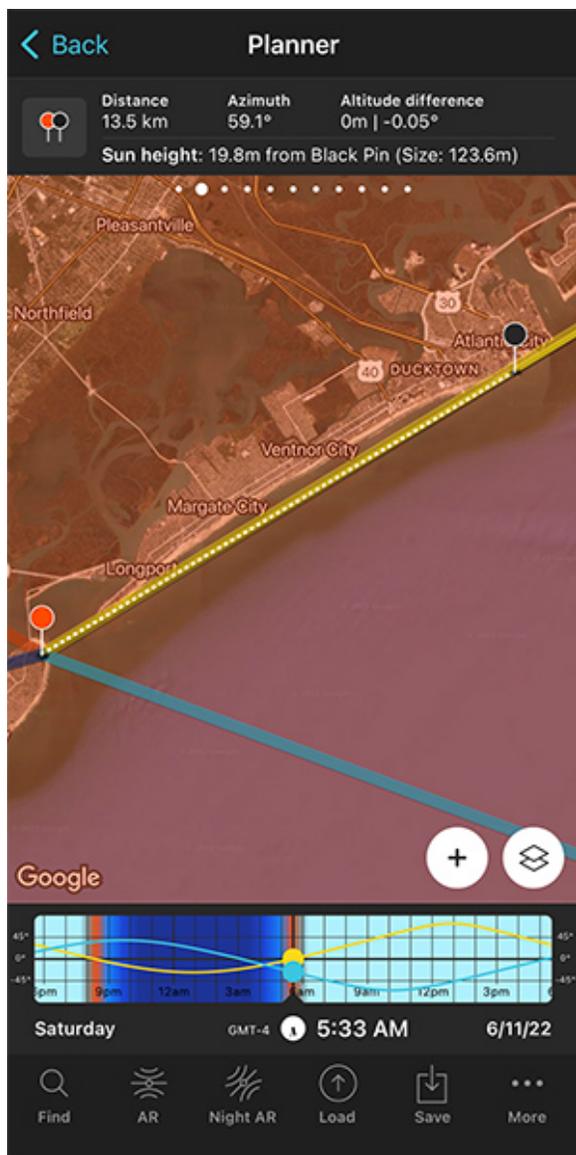
Great, you've just entered the date range and the Sun position you want (azimuth and elevation).

Let's calculate when the photo occurs.

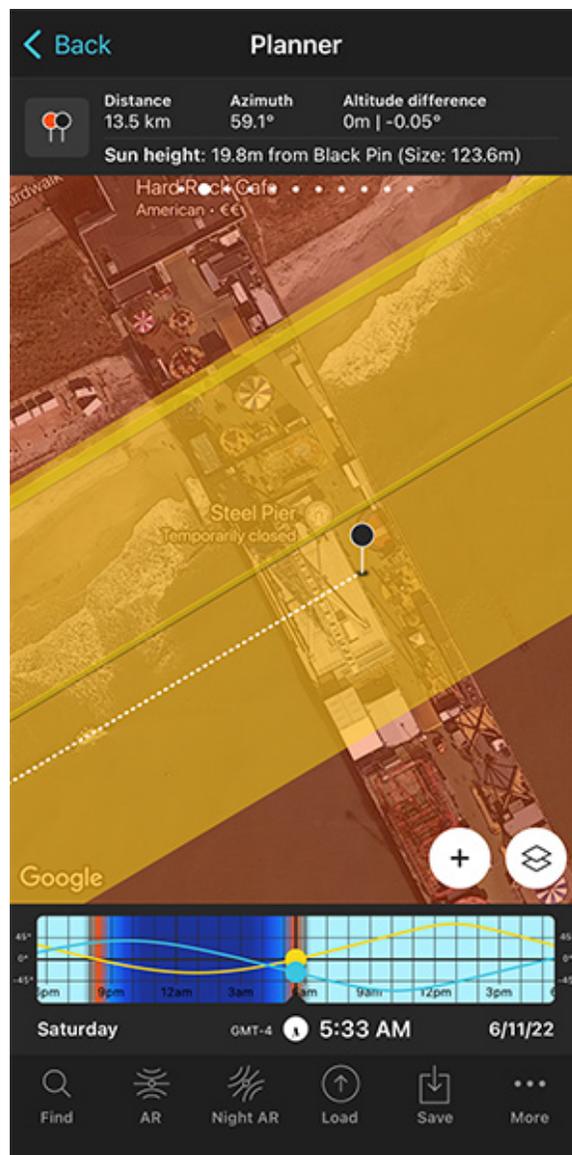
Tap *Search* (the magnifying glass icon at the top right corner) to see all the possible dates

and times the Sun will be within the search parameters. In other words, when the Sun will be aligned with the Ferris wheel.

And tap the date you want on the table, for example June 11, 2022, to check the plan (second screenshot above).



PhotoPills Planner - The Plan for June 11, 2022 at 05:33 am.



PhotoPills Planner - Zoom in on the Ferris wheel to check the alignment.

On the map:

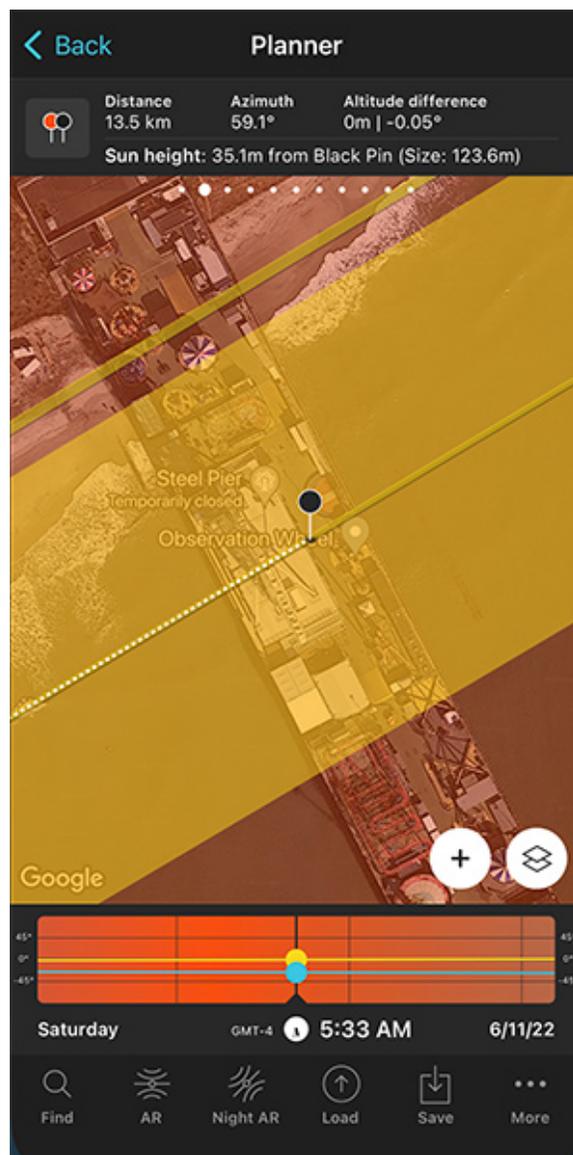
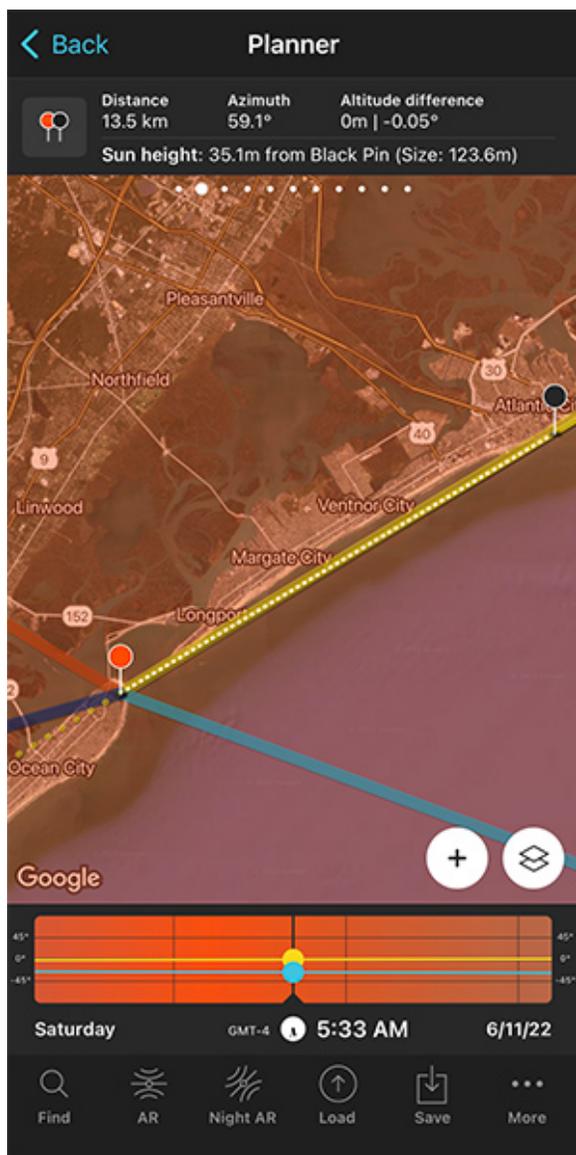
- The thick yellow line indicates the Sunrise direction for the selected date (06/11/2022).
- And the thin yellow line shows you where the Sun will be at the time you have to take the photo, at 05:33 am.

As you can see, the thin yellow line is not exactly aligned with the center of the Ferris wheel (Black Pin position). So the Sun is not aligned. You need to fix this.

Also, **Panel 2** tells you that the center of the Sun will be 19.8 m above the pier (Black Pin ground level). And you need it to be at 35 m.

So, what you have to do next is to change the time using the Time Bar until the elevation of the Sun on **Panel 2** shows 35 m. Then, move the Red Pin to align the thin yellow azimuth line of the Sun with the Black Pin (the Ferris wheel).

You might need to repeat this workflow a few times until you get what you want.



PhotoPills Planner - The plan will happen on June 11, 2022 at 05:33 am.

PhotoPills Planner - Zoom in on the Ferris wheel to check the alignment.

Now, if on June 11, 2022 at 05:33 am, you're at the Red Pin position, you'll be able to photo-

graph a huge Sun (123.6 m) aligned with the Ferris wheel (70 m).

Congrats! You have made a cool plan.

Just a few final tips:

- To see the size of the Sun on the map (123.6 m), tap the **Map Settings** button. You'll find it at the bottom right corner of the map, right next to the **(+) button**. Then, on the Map Settings screen, tap the **Sun layer** and activate the **Show Sun size** option.
- Also, when you're in the field, right at the shooting spot (Red Pin position), use the **Augmented Reality view (AR)** on the Planner double check that the Sun will be where you want it to be.
- It's also a good idea to use the steps I show you in **section 20** to plan the photo to the very last detail. This includes planning the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).
- And finally, as always, don't forget to save the plan to add it to your to do list by tapping the Save button! ;)

If you want to master this type of photography, read carefully the following articles:

- **'Sunrise Photography: The Definitive Guide'**.
- **'Sunset Photography: The Definitive Guide'**.

Section 8:

How to plan Moonrises
(and Moonsets)



Nikon Z6 | 70mm | f/4 | 0.4s | ISO 1000 | 6000K

Just like you did when planning a **Sunrise** or **Sunset** photo ([section 6](#)), you need to find:

- A shooting spot, from where to take the picture,
- A shooting direction (framing) and
- A date and time of shooting.

That's it!

And with **PhotoPills** you can do it in a breeze.

Hard to believe?

Well, here's a detailed explanation of the two most common planning situations:

- A Moonrise/Moonset plan for a certain date.
- A Moonrise/Moonset plan with the Moon in a certain position. In this case, you know the shooting spot and the photo you want, and you want to find out when it happens.

In both scenarios the Moon will be relatively small because you will be shooting somehow close to the subject. So take into account that you'll need to imagine the Moon as a dot in the composition.

If you envision a composition including a big Moon with a subject you like, go to [section 9](#).

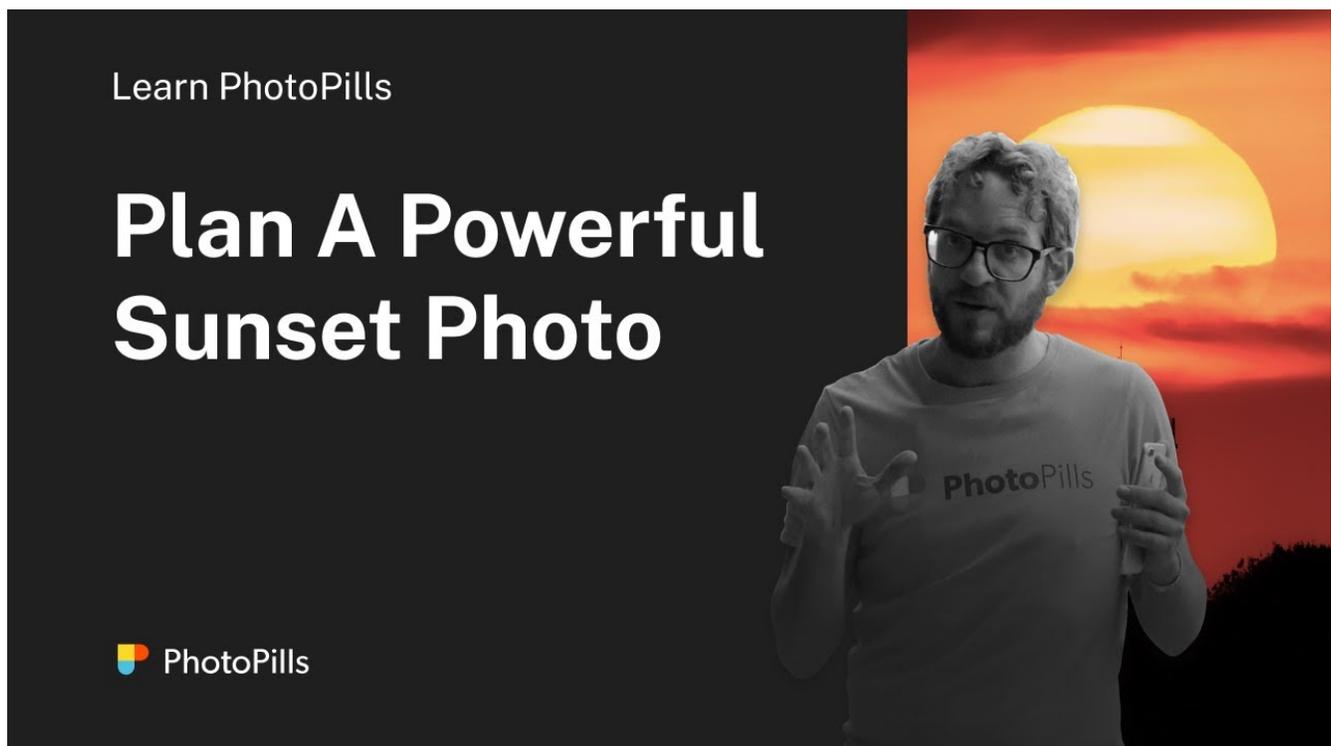
Keep reading!

How to plan a Moonrise (or Moonset) on a certain date (1)

Planning a Moonrise or a Moonset shot when you know the date you want to take the picture is extremely easy.

You need to follow the same steps I showed you when planning Sunrises and Sunsets in [section 6](#).

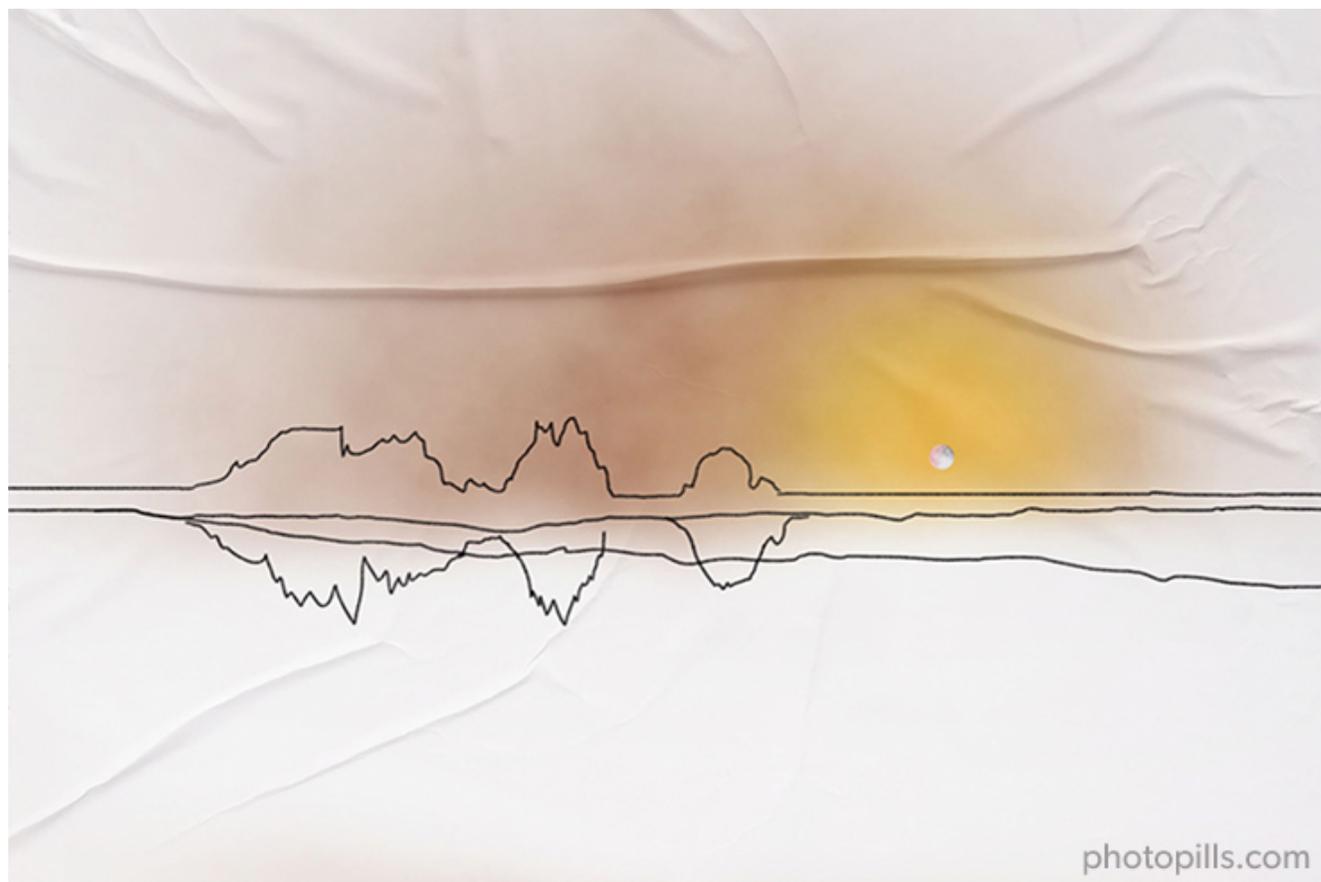
To prove it, here's a video in which Rafa explains how to do it step by step:



If you don't like videos or you prefer to read, no problem!

Here's a full explanation of all the steps you need to follow.

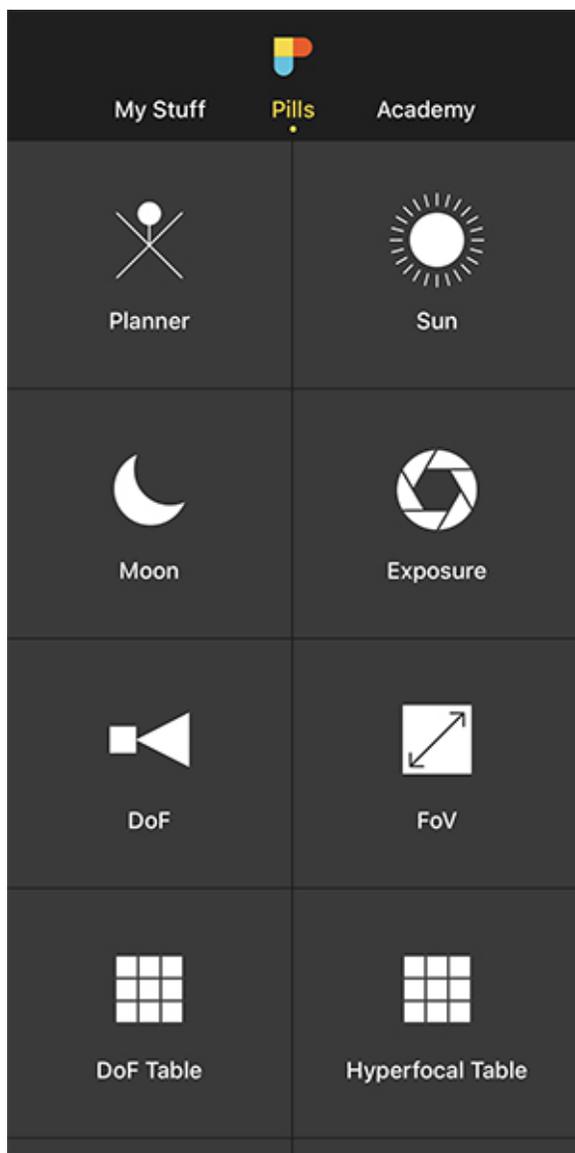
In this case, you're going to plan a photo of a Full Moon setting with some sea stacks in the beautiful Point of Arches, located in Olympic National Park, Washington (USA).



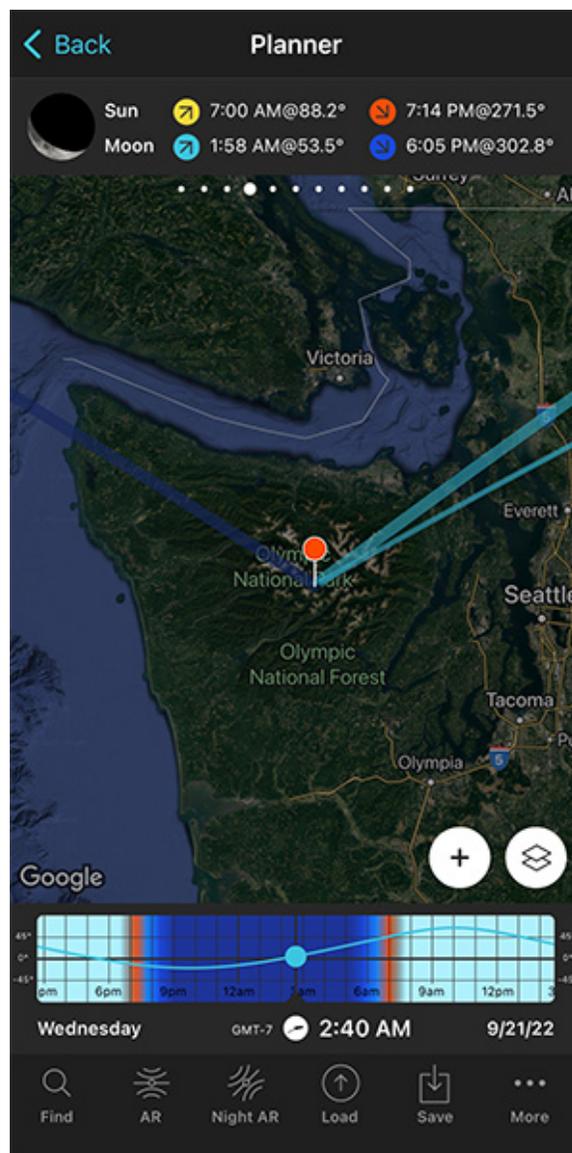
The idea is to shoot a **long exposure** to create the silky water effect, using the sea stacks as the main subject and the Moon as a bright dot in the composition, to add more interest to the picture. Let's hope that the sky is clear!

OK, let's start planning.

Place the Red Pin in a potential location



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is in Olympic National Park, Washington (USA).

Open [PhotoPills](#), tap *Planner* (*Pills* Menu).

In this case, you want to photograph the setting **Moon**, so the first thing you need to do is to place the **Red Pin** in a potential location that is photographically attractive during the Moonset. It can be a beach, a mountain... Whatever you prefer.

Remember that the Moon rises in the east and sets in the west.

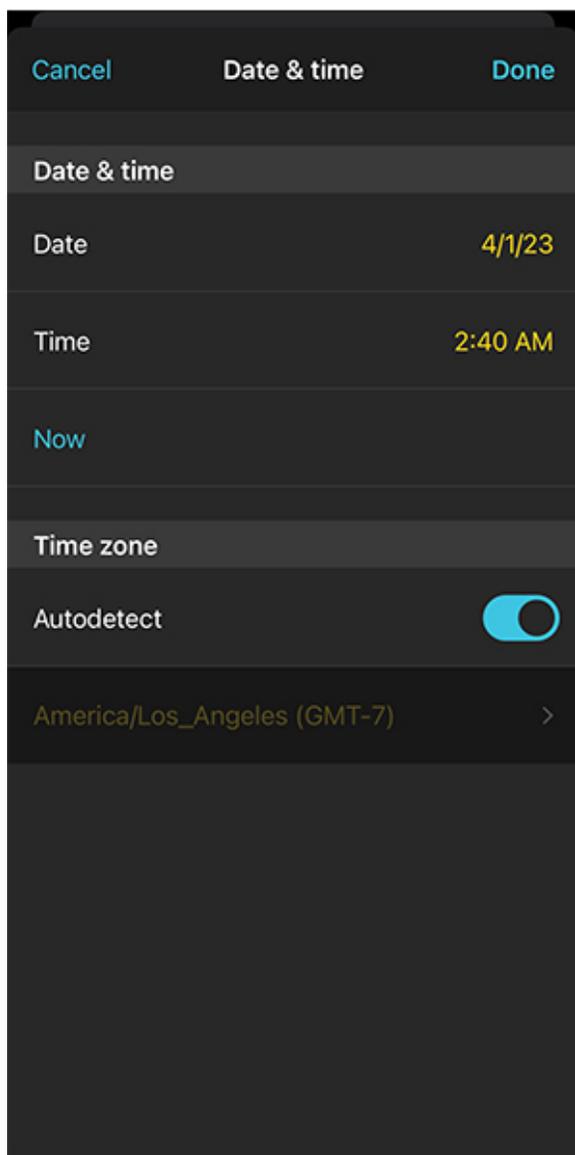
Right now there's no need to be very precise. You only need to decide on a shooting area. Later on, you'll determine the exact shooting spot.

For example, place the Red Pin in Olympic National Park, Washington (USA), somewhere along the Pacific coast, where you'll have a clear horizon in the west. Great for a Moonset shot.

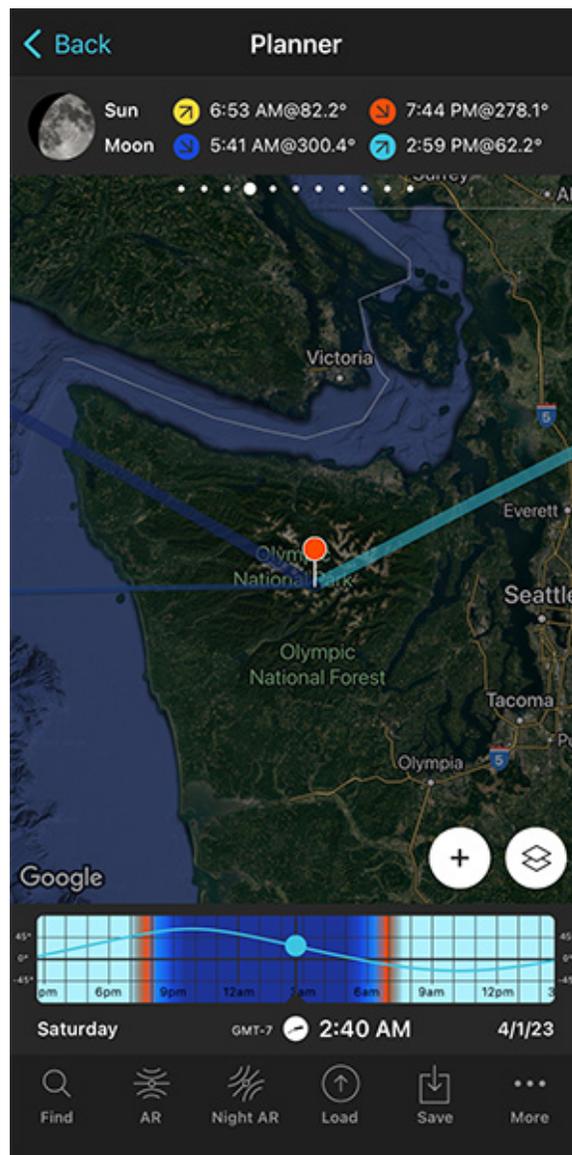
If you don't know how to do it, [this video shows you how to move the Red Pin](#).

Now that you have the Red Pin in the location you want, it's time to set the date you would like to go shooting.

Set the date you're planning to photograph the Moonrise (or Moonset)



PhotoPills Planner - On the Date & time screen you can manually set the date and time.



PhotoPills Planner - On the Time bar, the date is set to 04/01/2023.

Let's say you want to capture the Full Moon of April 2023.

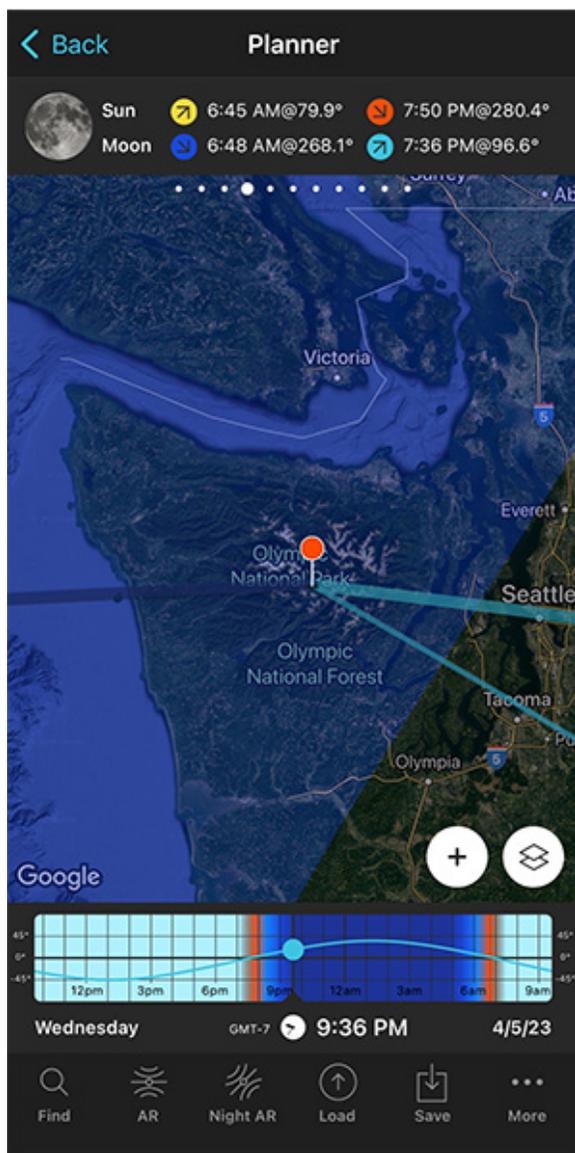
There are several ways to set the date in **PhotoPills**.

You can set any date using the calendar. So tap the center of the Time bar and the Calendar will pop up. Finally, on the Date & time screen, tap *Date* to manually change the shooting date. In this case, select April 1, 2023.

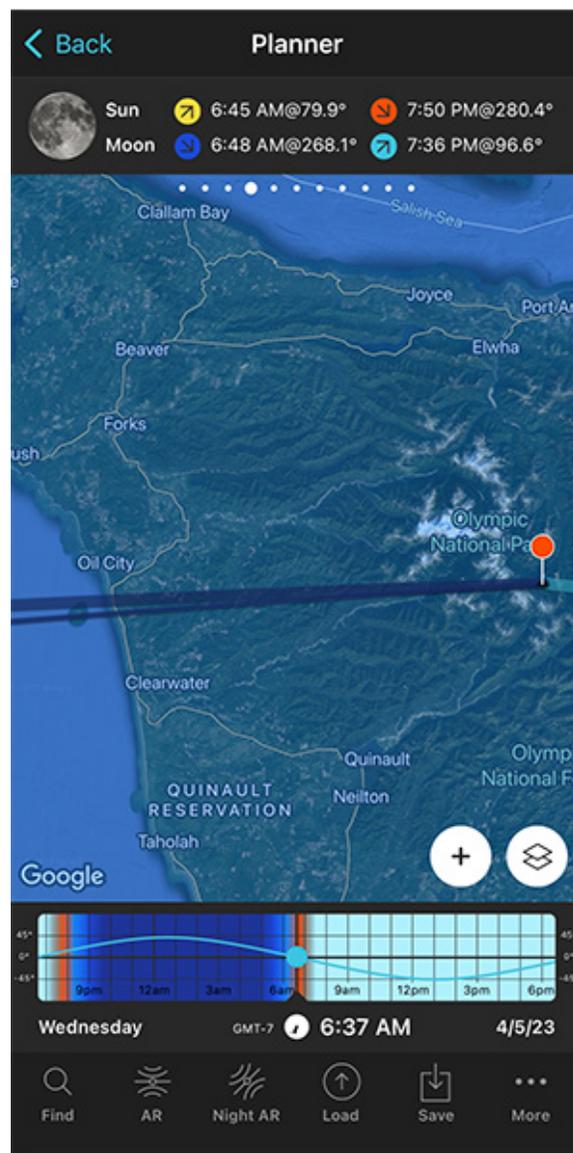
Then swipe the top panels to **Panel 4**. Once there, tap the Moon icon to jump in time to the next important phase. Keep tapping until you get to the next Full Moon.

Here, this happens on April 5, 2023.

Find out the Moonrise (or Moonset) direction and time



PhotoPills Planner - According to Panel 4, on 04/05/2023 the Moon sets at 06:48 am. The thick dark blue line shows the Moonset direction.



PhotoPills Planner - The thin blue line shows the position of the Moon at 06:37 am, when the Moon is about to set.

Now that you've set the shooting date, the Full Moon date (April 5, 2023), use the information on the panels above the map and the lines on the map to plan your shot.

This is to find:

- A cool subject that aligns with the Moonset direction.
- The shooting spot and shooting time to get a cool composition considering the subject and the position of the Moon.

Make sure that you have **Panel 4** selected above the map. If not, swipe the top panels until you get to it.

Have a look at the screenshots above.

Panel 4 is telling you that on April 5, 2023 the Moon sets at 06:48 am according to the Red Pin position. So you know the time you should be ready to press the shutter.

On the map, you have the Moon, the Moonrise and the Moonset directions for the selected date (04/05/2023):

- The Moon direction at the selected time (06:37 am) is represented by the thin dark blue line.
- The Moonrise direction is represented by the thick light blue line.
- The Moonset direction is represented by the thick dark blue line.

Note: If you don't see these lines, activate the **Moon layer**. You can do this by tapping the **Map Settings** button. You will find it next to the **(+) button** on the map.

The Moonset direction line is crucial to determine the perfect subject and the perfect shooting spot.

Great! Let's move on.

Check different locations until you find a photo you like

Now that you know where and when the Moon will set, it's time to **move the Red Pin** to several cool locations you know. Do it one by one until you find the one where your Moonset photo corresponds to the idea you have in mind. Or until you find a great photo opportunity.

If you can't think of any location, do your homework, and find at least one following the workflow I explained in **section 3**.

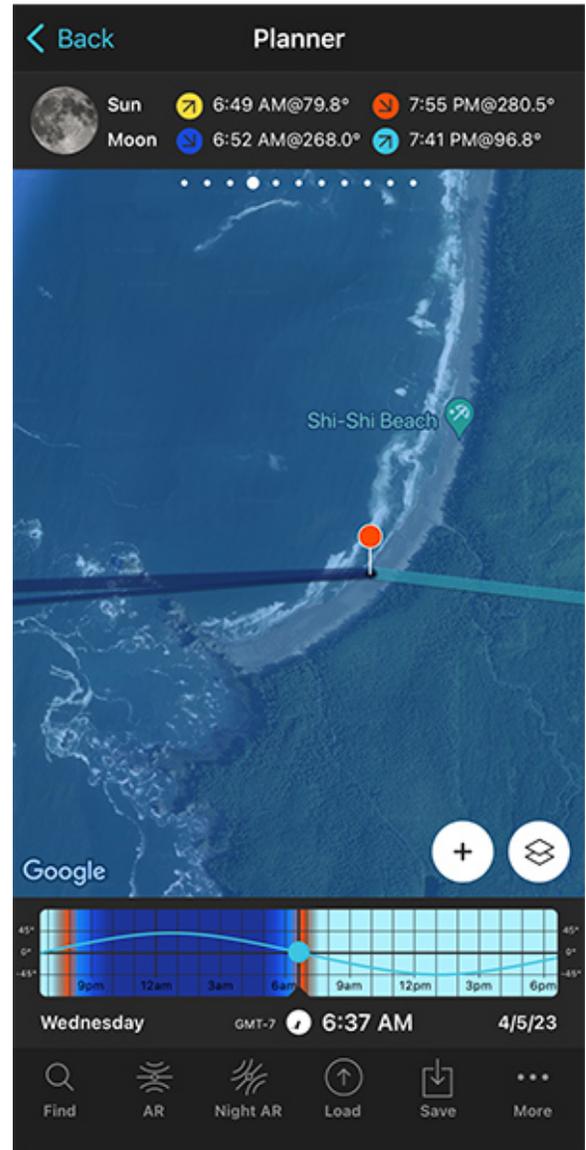
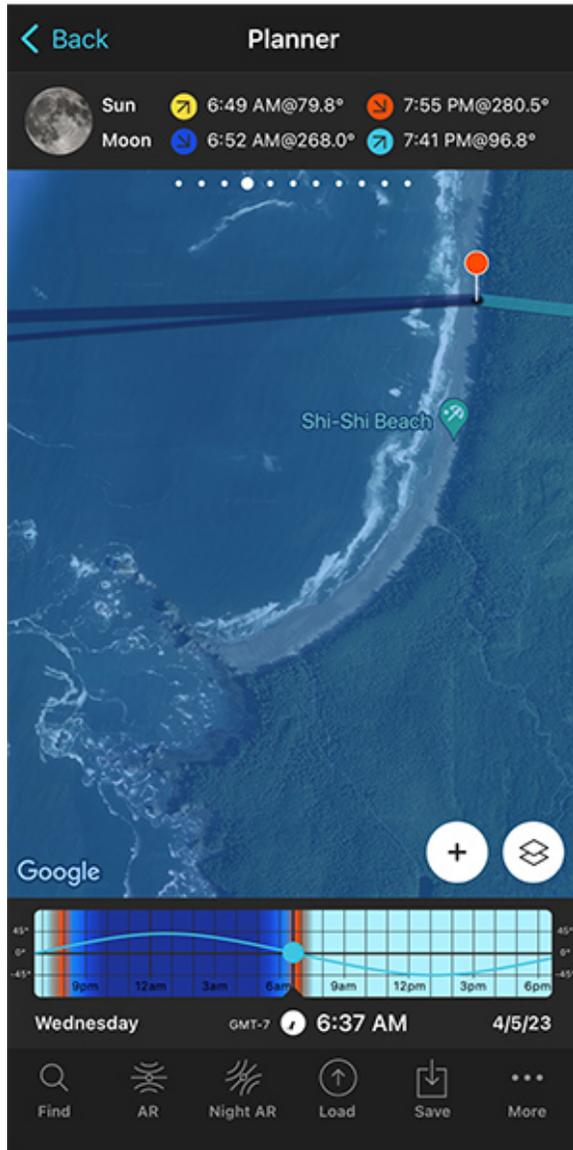
For this example, I found a fantastic beach called Shi-Shi Beach, located in Olympic National Park, Washington (US). There, you can find several interesting sea stacks very close to the seashore.

Shi-Shi Beach has 3 characteristics that make it a perfect location for taking photos at dawn:

- There's a long coastline where you can move freely and play with several shooting directions.

- The coastline and the sea stacks can be photographed by shooting to the west, in the Moonset direction.
- The combination of the water, the sea stacks and the Moon offer you lots of possibilities to find a cool composition.

It's a great location. So let's go back to PhotoPills and complete the plan...



PhotoPills Planner - Red Pin placed in Shi-Shi Beach, a cool beach with lots of sea stacks.

PhotoPills Planner - Change the Red Pin position to align the Moonset direction (thick dark blue line) with the sea stacks.

Place the Red Pin in a spot near your subject, next to the sea stacks.

To do it, tap the *Load* button (at the bottom) and type "Shi-Shi Beach" in the search bar. Then, select it and the Red Pin will be placed next to it.

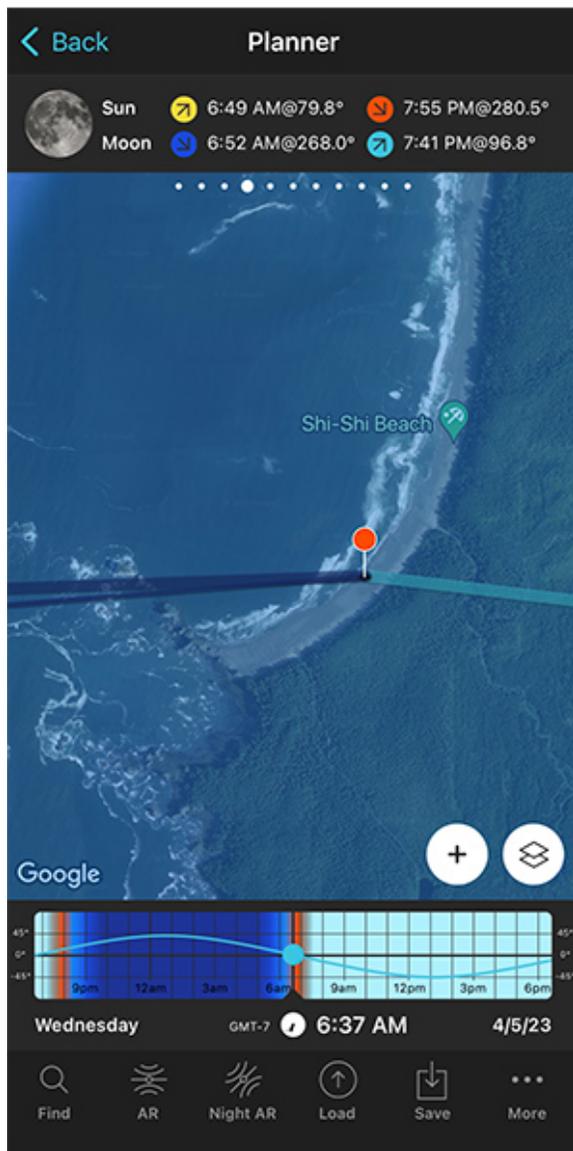
Now zoom out a bit on the map and move the Red Pin to a place that works great as a shooting spot based on the Moonset direction (thick dark blue line), and the composition you want.

Check the second screenshot above. The Red Pin is right on the beach to get the Moon setting next to the sea stacks. The idea is to photograph a **long exposure** (a 1-second shutter speed more or less) of the sea stacks, the moving water and the setting Full Moon.

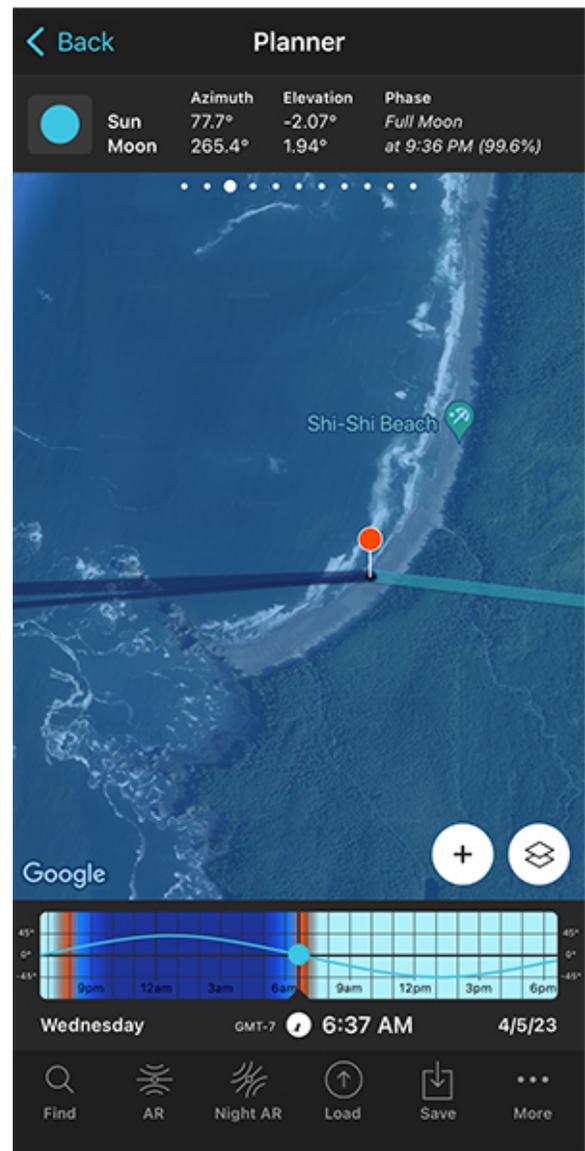
Now you have your shooting spot (Red Pin position), your shooting date (04/05/2023) and your shooting time around Moonset (06:37 am).

But there is still a key thing to check: **natural light**.

Check the natural light at the time of the shooting



PhotoPills Planner - According to Panel 4, the Moon sets at 06:52 am, and the Sun is about to rise at 06:49 am.



PhotoPills Planner - According to Panel 3, the elevation of the Sun at the time of the shooting (06:37 am) is -2.07°.

In Moon photography, you definitely need to check the type of natural light you'll get at the planned shooting time.

The color of the Moon will vary dramatically depending on the natural light you'll find at a certain time. It's not the same to photograph the Moon in daylight (weak Moon), during **golden hour** (strong yellow Moon), during **blue hour** (strong orange-red Moon) and at night-time (white Moon).

Furthermore, during daytime, **golden hour** and **blue hour**, you can correctly expose both

the Moon and the foreground (your subject) in a single exposure. However, that's not possible at night (unless your subject is artificially lit, like for example in a city).

So let's check natural light!

Swipe the top panel to the right, until you get to **Panel 3**, and check the elevation of the Sun at the time of the shooting (06:37 am): -2.07° .

This is good news because it's golden hour!

As we saw in **section 4**, the type of natural light is linked to the elevation of the Sun:

- **Day.** Elevation higher than 6° .
- **Golden hour.** Elevation between 6° and -4° .
- **Blue hour.** Elevation between -4° and -6° .
- **Civil twilight.** Elevation between 0° and -6° .
- **Nautical twilight.** Elevation between -6° and -12° .
- **Astronomical twilight.** Elevation between -12° and -18° .
- **Night.** Elevation lower than -18° .

My favorite time to photograph the Moon is during the Civil twilight, because it happens during a certain part of the **golden hour** and the whole **blue hour**. It's when the Moon has a super intense color.

And because it's when you can correctly expose the Moon and the foreground in a single exposure.

Good!

In addition to this, when you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize on your smartphone where the Moon will set.

Now, if you want, you could keep planning. You could use the steps I show you in **section 20** to plan the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).

Also, don't forget to save your plan so you can come back to it at any time. To do so, tap *Save* and then *Plan*.

And you're done!

This is the easiest and fastest way to plan your Moonrise and Moonset shots when you know the date.

Let's see what happens when you want the Moon in a certain position but you don't know the date it will happen.

How to plan a Moonrise (or Moonset) with the Moon in a certain position (2)

In this case, you need to follow a similar workflow as for a **Sunrise** or a **Sunset** with the Sun in a certain position.

You need to use the *Find* tool in the **PhotoPills** Planner.

And how can you use this tool?

Easy!

In this video Rafa explains in depth how to plan a photo of the Moon setting inside the Arc de Triomphe, the famous arch located in Paris (France).



Let me show you how it works with another example.

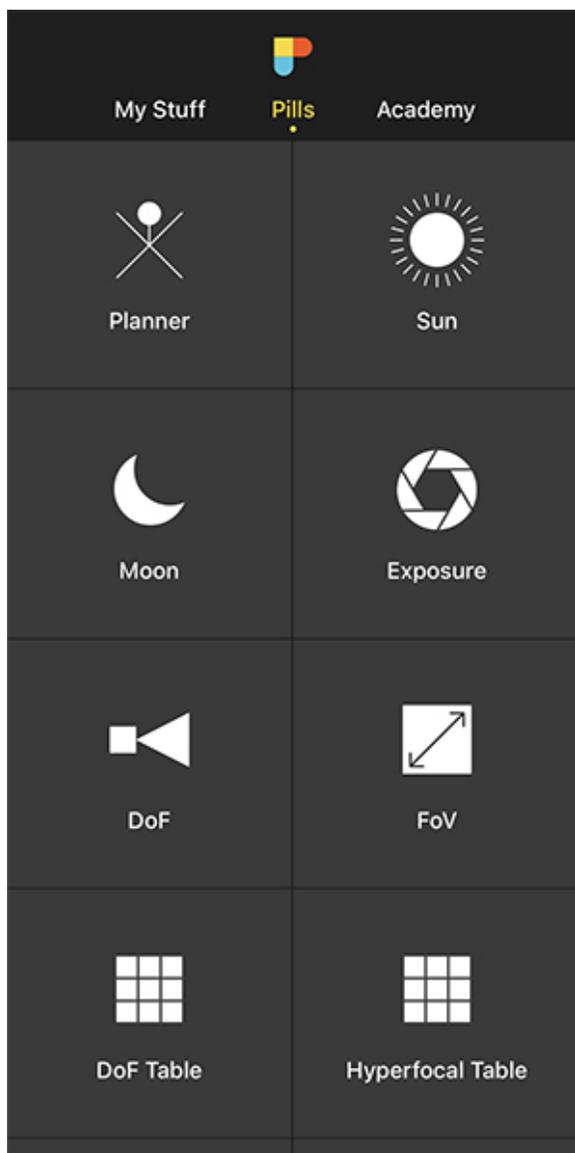
Imagine that you want to photograph the Moon rising behind the amazing Phare du Petit

Minou, a beautiful lighthouse located not far away from Brest (France).

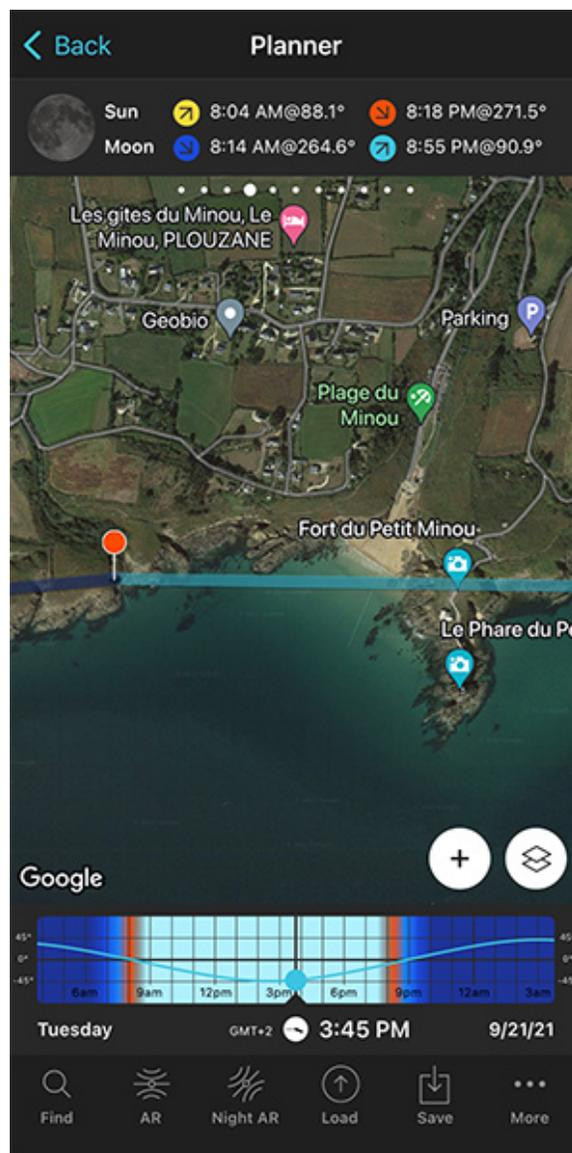


Let's see when it happens! :)

Place Red Pin on the shooting spot



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is on a cliff located to the west of the Phare du Petit Minou in Brest (France).

Open [PhotoPills](#), tap *Planner* (*Pills* Menu) and place the **Red Pin** right on the shooting spot you want.

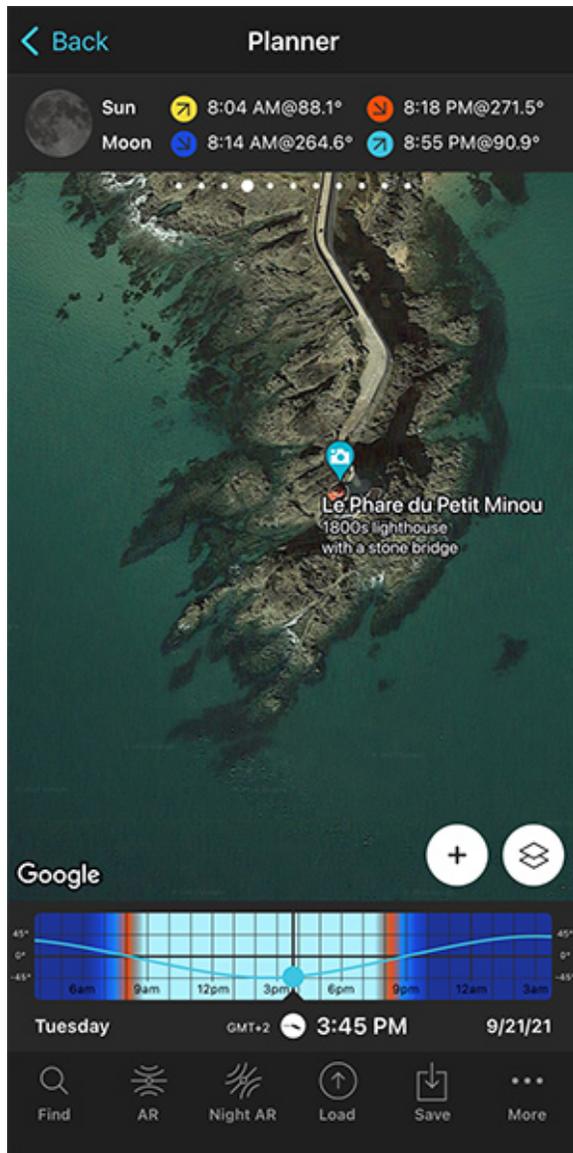
For example, a cliff located to the west of the Phare du Petit Minou. South of the small town of Plouzane, there's a path starting from Route de la Corniche leading to the sea. From the edge of the cliff, you get a great view of the sea and the lighthouse.

Also, this is a great spot because you can move along the area to get the best composition considering the Moonrise direction.

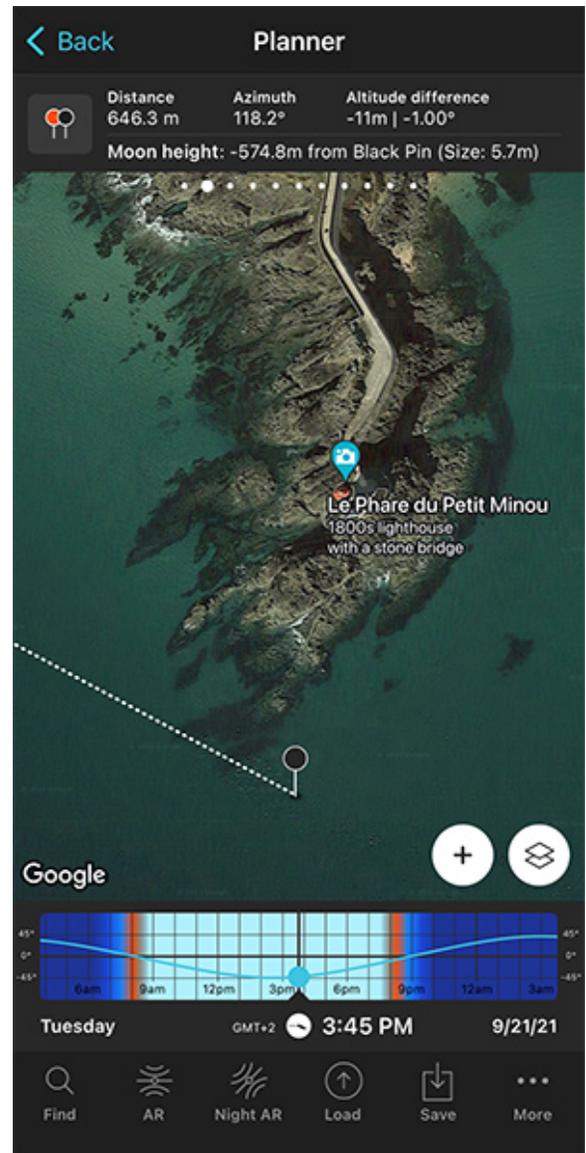
To quickly place the Red Pin, tap the *Load* button (at the bottom) and type "Phare du Petit Minou" in the search bar. Then, select it and the Red Pin will be placed next to the lighthouse.

Now, do a long press on the shooting spot, on the cliff, from where you want to take the photo.

Place Black Pin where you want the Moon to rise (or set)



PhotoPills Planner - Zoom in on the map to get a clear view of the Phare du Petit Minou.



PhotoPills Planner - Panel 2 is now activated and the Black Pin is located on the Phare du Petit Minou, exactly where you want the Moon to rise.

Remember that you want to photograph the Moon rising next to the Phare du Petit Minou. That is, a bit to the south from the lighthouse.

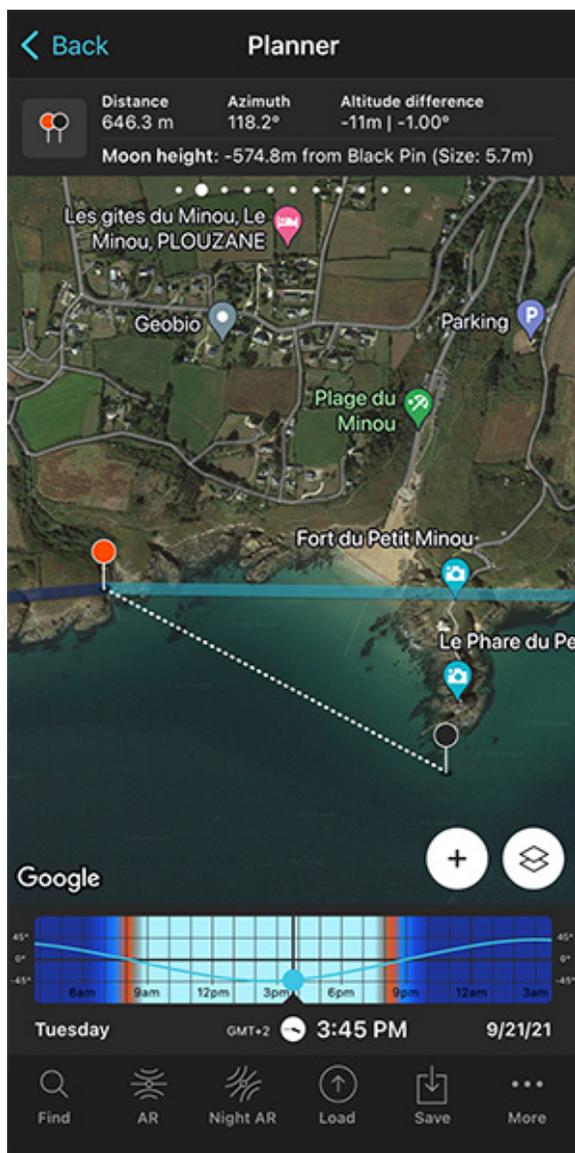
So the next step is to place the Black Pin right on the spot you want the rising Moon to be.

To do it, zoom in on the map, until you can clearly see the Phare du Petit Minou.

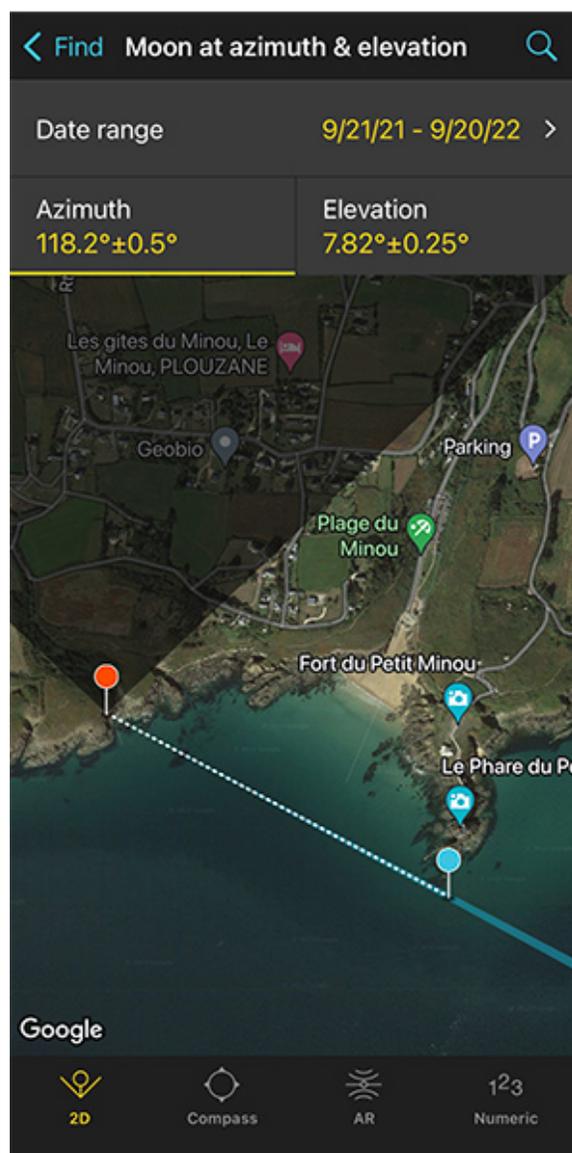
Swipe the panels above the map to the right until you find the Black Pin information panel (**Panel 2**). Tap the icon on the panel that's showing the Red Pin and the Black Pin to activate the Black Pin on the map.

Drag and drop the Black Pin right where you want the Moon to rise relative to the Phare du Petit Minou.

Find the dates and times when the photo is possible



PhotoPills Planner - A general view of the Phare du Petit Minou with the Black Pin right where you want the Moon to rise.



PhotoPills Planner - With the tool Find > Moon at azimuth and elevation you'll find out the dates in which you can see the Moon rising to the right of the Phare du Petit Minou.

Now it's time to find out if the photo is possible. And if yes, when will it happen?

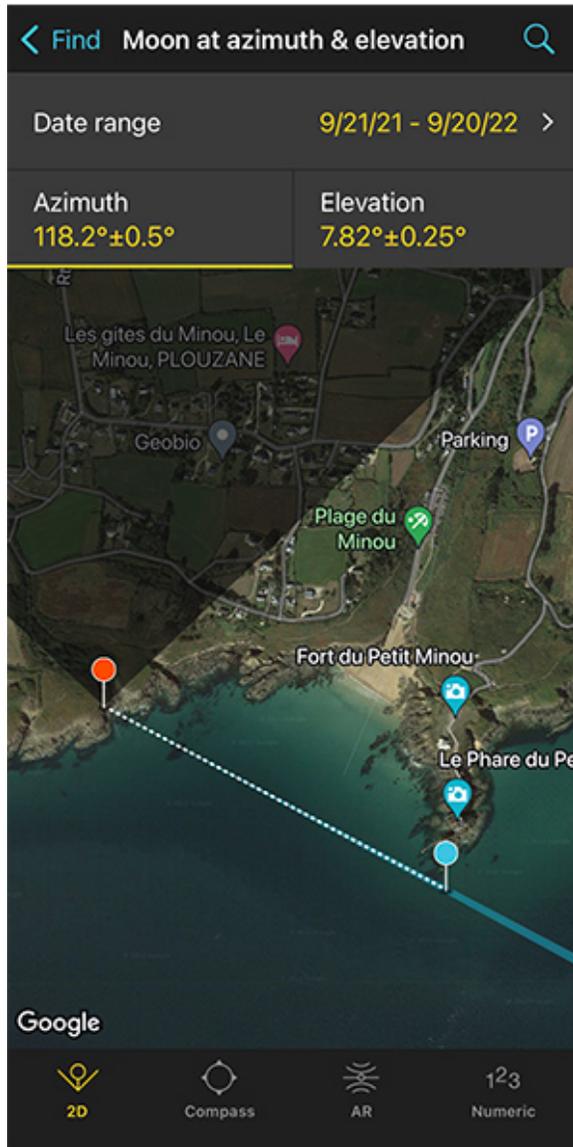
To do it, tap the **Find** button. It's located on the bottom left corner of the Planner. And then, select *Moon at azimuth and elevation* (*Moon on Android*).

On the new screen, you have to tell 3 things to PhotoPills:

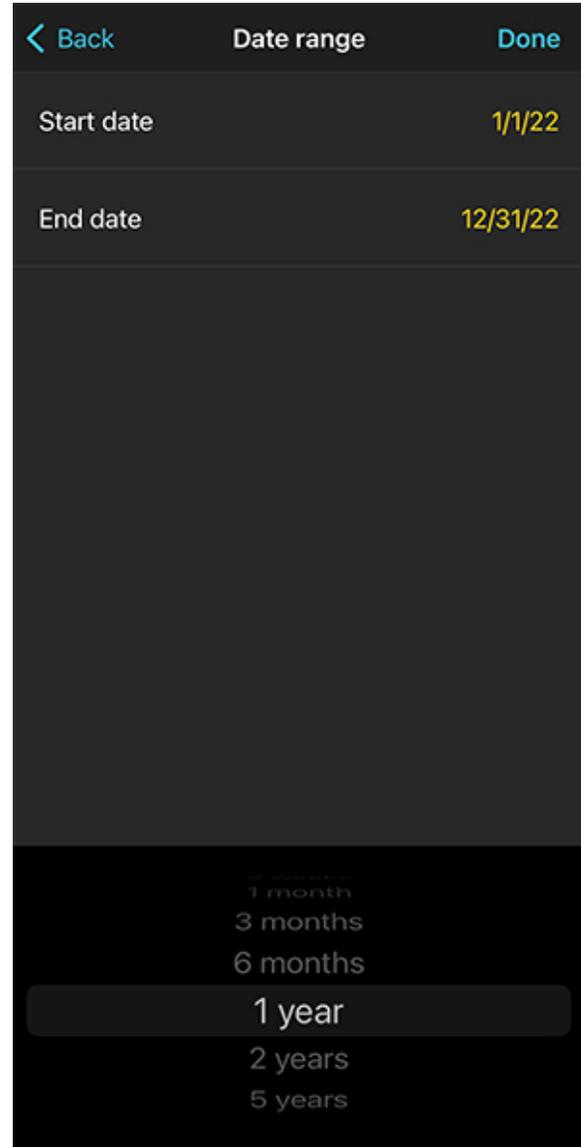
- The date range you want to search for results. For example, 1 year starting from today.

- The Moon azimuth or direction. In this case, to the right of the Phare du Petit Minou.
- The Moon elevation or altitude. In this case, set it to 0° for a Moonrise.

Enter the date range



PhotoPills Planner - On the Moon at azimuth and elevation tool, tap Date range.

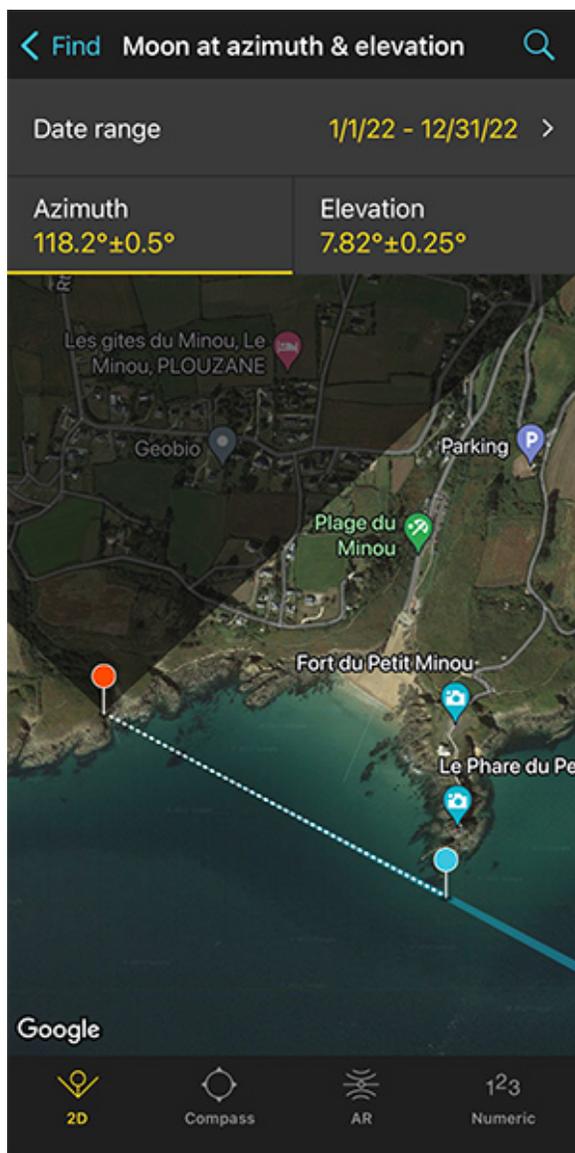


PhotoPills Planner - Search a 1-year date range starting from 01/01/2022.

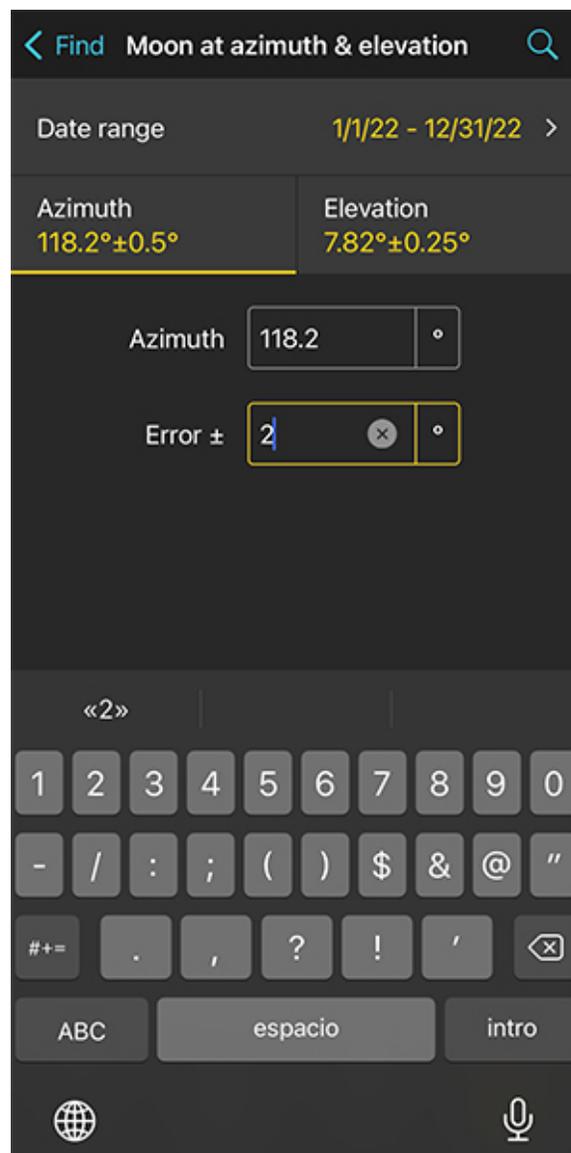
Tap *Date Range*, tap *Start date*, then *Today* and *OK* (back arrow on Android).

Next, tap *End date*. Now you can enter a certain date or range. To enter a range, tap the black area of the screen and the date options will change. Select *1 year*, for example, and tap *OK* (back arrow on Android).

Enter the Moon azimuth



PhotoPills Planner - On the Moon at azimuth and elevation screen you can define the Moon azimuth and its error (the direction tolerance).



PhotoPills Planner - To change the error tap the Numeric button at the bottom. And for example set the error to 2°.

To set the azimuth you want the Moon to rise, you can drag and drop the Blue Pin you see on the map. But the good news is that the Blue Pin is linked to the Black Pin. So the azimuth of the Moon is already set (118.2°), to the south of the Phare du Petit Minou.

Don't you know what the azimuth and the elevation are?

Well, don't worry. You have a quick reminder in [section 4](#).

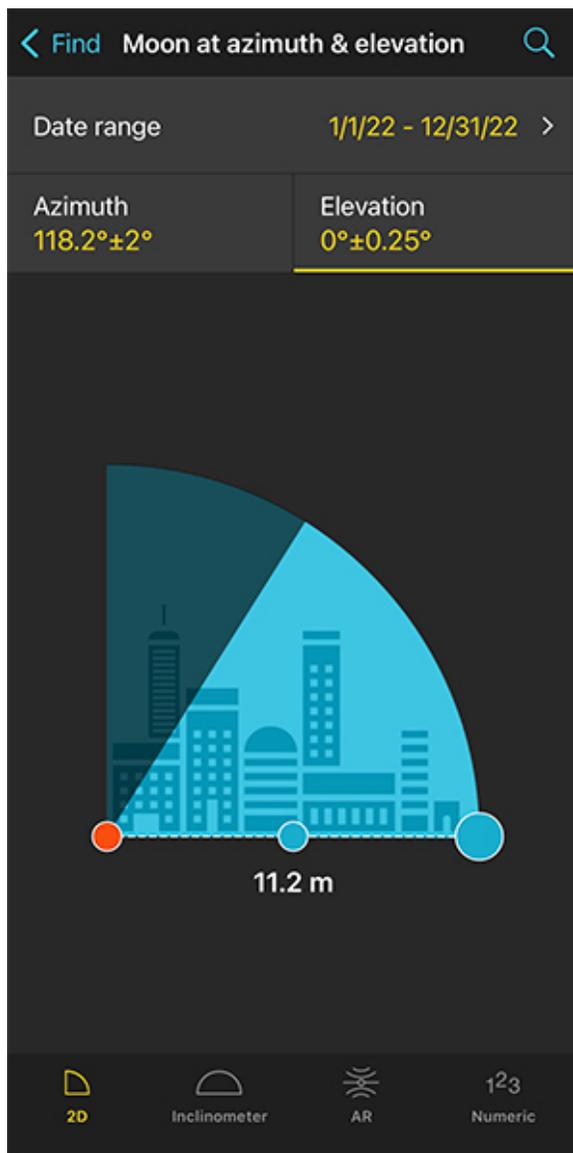
Cool, now that you have the azimuth set you need to decide the error (tolerance) defined by the blue sector you see on the map.

Take a look at the first screenshot above: the azimuth is 118.2° with a $\pm 0.5^\circ$ error represented by the blue area on the map.

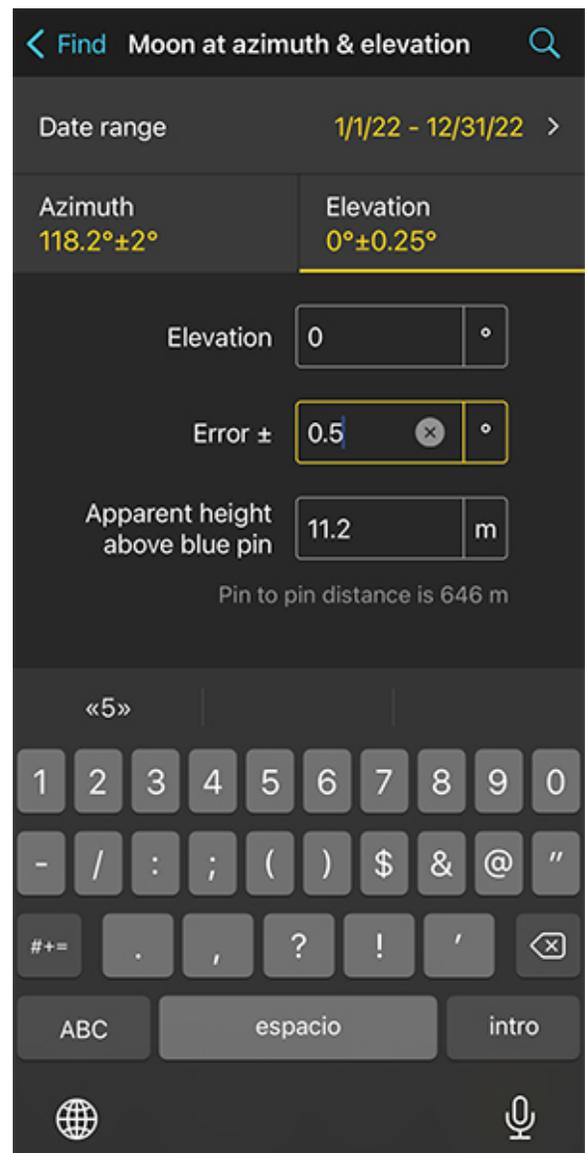
For this shot, you want the Moon to rise to the right of the Phare du Petit Minou, but you don't need the azimuth (118.2°) to be super precise. This location allows you to move around to adjust the shooting spot, so I recommend you to set a relatively high azimuth error. This will give you more possible dates to shoot.

Set a higher error, for example $\pm 2^\circ$. To change it, tap *Numeric* (at the bottom).

Enter the Moon elevation



PhotoPills Planner - On the Moon at azimuth and elevation screen you can set the Moon elevation (the altitude).



PhotoPills Planner - Since you want to photograph the Moonrise, you have to select an elevation of 0° . That is, very close to the horizon.

Tap *Elevation* to set the elevation of the Moon.

In this case, you're looking for a Moonrise. So you have to set an elevation of 0°.

You can do this by dragging the blue dot in the diagram until it touches the horizon. You can also do this by tapping *Numeric* and typing "0°" in the Elevation field of the new screen.

Also increase the elevation error (or tolerance) to 0.5°. Again, this will give you more possible dates to shoot. Because at the end of the day, you can always adjust the shooting spot and shooting time.

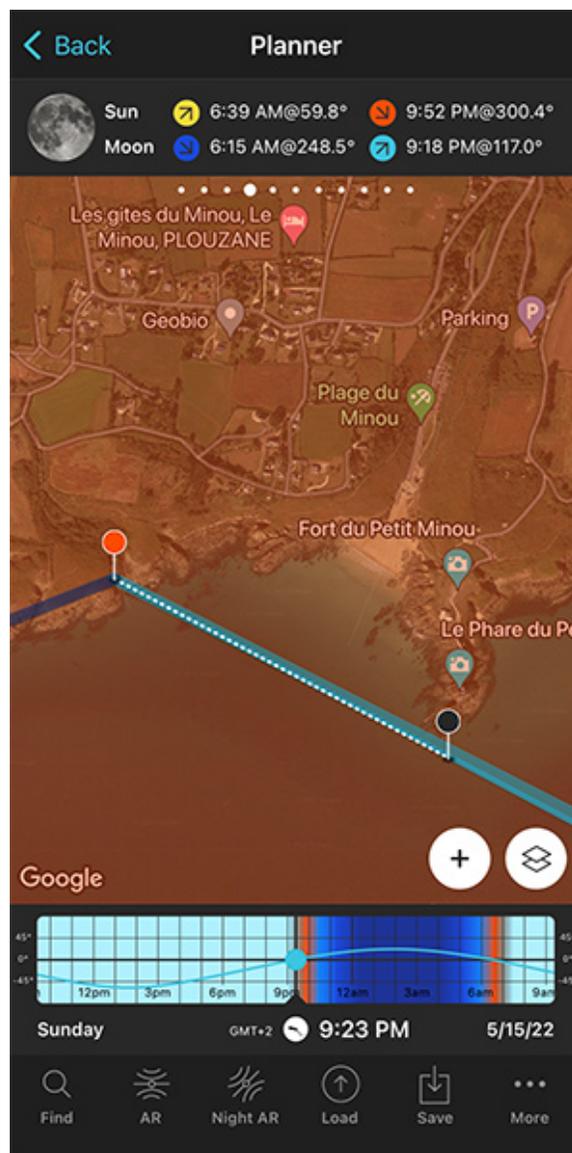
Get the possible shooting dates and times

Results

Moon at azimuth $118.2 \pm 2^\circ$ elevation $0.0 \pm 0.5^\circ$

Date ^	Azimuth	Elevation	Phase
Mo 3/21/22 11:50 PM	116.97°	0.49°	
Mo 4/25/22 5:36 AM	118.09°	0.23°	
Su 5/15/22 9:23 PM	117.92°	0.35°	
Sa 7/9/22 5:47 PM	118.02°	0.23°	
Sa 7/16/22 12:03 AM	118.42°	-0.3°	
Th 9/8/22 8:27 PM	118.43°	-0.24°	
Th 9/29/22 12:23 PM	118.3°	-0.2°	
We 11/2/22 4:05 PM	117.24°	0.4°	
We 11/23/22 7:57 AM	119.12°	-0.52°	

Cancel Share

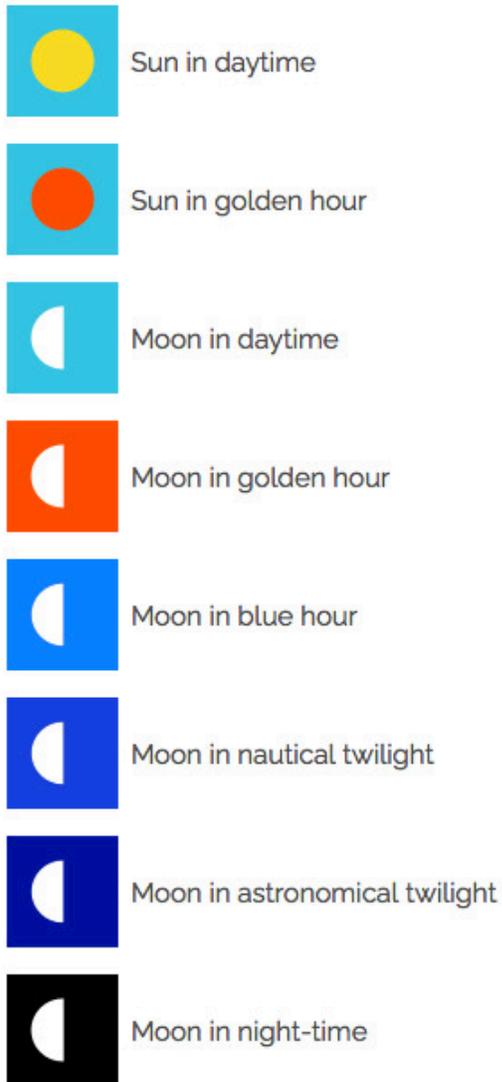


PhotoPills Planner - By tapping the magnifying glass icon (top right), PhotoPills shows you all the dates in which you can take the photo (the event occurs).

PhotoPills Planner - Tap the date you want to see the plan, for example: 05/15/2022.

Tap *Search* (magnifying glass icon at the top right corner) to see the potential dates.

On the table, you can also see the Moon phase and the type of natural light (background color) for every shooting date and time:



OK!

Pick one of the dates of the table. Tap it to review the Plan.

For example, May 15, 2022.

Why this date? Well, for 2 reasons.

The first one is that it's almost Full Moon (97.4%).

The second one is that you'll be shooting during **golden hour**. You know this thanks to the **orange Moon icon**.

Thanks to this type of light, the Moon takes a spectacular tone, which varies between pink and yellow as the Sun goes down. On top of it, during **golden hour** you can photograph the

landscape and the Moon in a single exposure.

As you can see on the second screenshot above:

- The thick light blue line indicates the Moonrise direction for the selected date (05/15/2022).
- And if you swipe the top panel to **Panel 4**, you'll see the Moonrise time: 09:18 pm.

Cool!

Your plan is ready to be executed :)

You know the shooting spot, the Red Pin Position and the shooting time, around Moonrise (09:18 pm), when the Moon will rise where you want relative to the Phare du Petit Minou.

In addition to this, when you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize on your smartphone where the Moon will rise.

Now, it's also a good idea to use the steps I show you in **section 20** to plan the photo to the very last detail. This includes planning the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).

Finally, don't forget to save the Plan using the Save button! ;)

Section 9:

How to plan a Big
Moon aligned with a
subject



Nikon Z6 | 500mm | f/5.6 | 1/50s | ISO 1600 | 6500K

In **Moon** photography...

Size matters!

I mean, don't get me wrong. As I showed you in **section 8** I love including a small Moon in the frame when photographing a beautiful landscape. It adds a lot to the images.

But what I like the most is to drive the viewers attention to the Moon and the subject.

How do I do it?

Well...

I go far away from the subject and use a long lens to take a close up view of the subject along with a big Moon.

Here, understanding how the shooting distance affects the size of the Moon relative to the subject is key. So I recommend you to read [section 4](#) before you start planning your Moon shots.

If you have already read it, good. Let's move on.

As usual, when planning the Moon, the two most common cases are:

- A plan for a certain date, as for example, when you want to plan the next Full Moon.
- A plan with the Moon in a certain position. In this case, you know the shooting spot and the photo you want, and you want to find out when it happens.

How to plan a big Moon on a certain date (1)

In this case, you want to capture the Moon on a specific day.

That is, you know the date you want to take the photo but you need to find out:

- A cool subject that can be aligned with the Moon.
- The exact shooting spot from which you'll be shooting to get the size of the Moon you need. Or, if the location limits the shooting distance, then, at least get a large enough Moon.
- The exact time the Moon will be where you want it to be.

Imagine you want to photograph the next Full Moon, a Supermoon or a lunar eclipse.

You know when they're going to happen, but... What subject can be aligned? Where will it be better to take the picture from? And at what time?

To find the answers to these questions it's best to use the main [PhotoPills](#) tool: the Planner.

Here's a video in which Rafa explains in great detail how to plan a photo of a huge Full Moon just behind the imposing Empire State Building, the iconic 381-meter high skyscraper in New York City, New York (USA).

More specifically, the aim is to capture the Moon just behind the top floor of the tower, which is about 220 m above ground level.

Learn PhotoPills

Plan A Full Moon Photo With A Building



But if instead of watching the video, you prefer to read the workflow you should follow, here is another example.

Let's imagine that you want to plan a photo of the Full Moon aligned with a cool subject in Seattle, Washington (US). After doing your research, you find the Space Needle, a fantastic tower that will serve as the main subject.

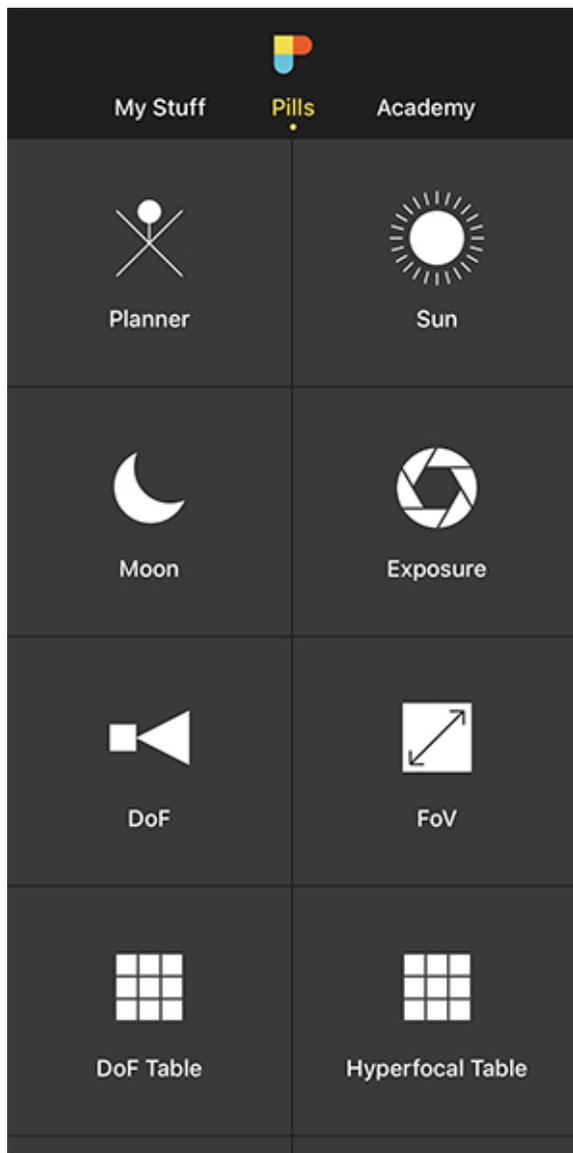
The building is 184 m high, including its antenna. It's visible from many locations. So you would like to capture a photo of the Full Moon (as big as possible) aligned with the top of the Space Needle, and behind the antenna spire.

Spectacular!

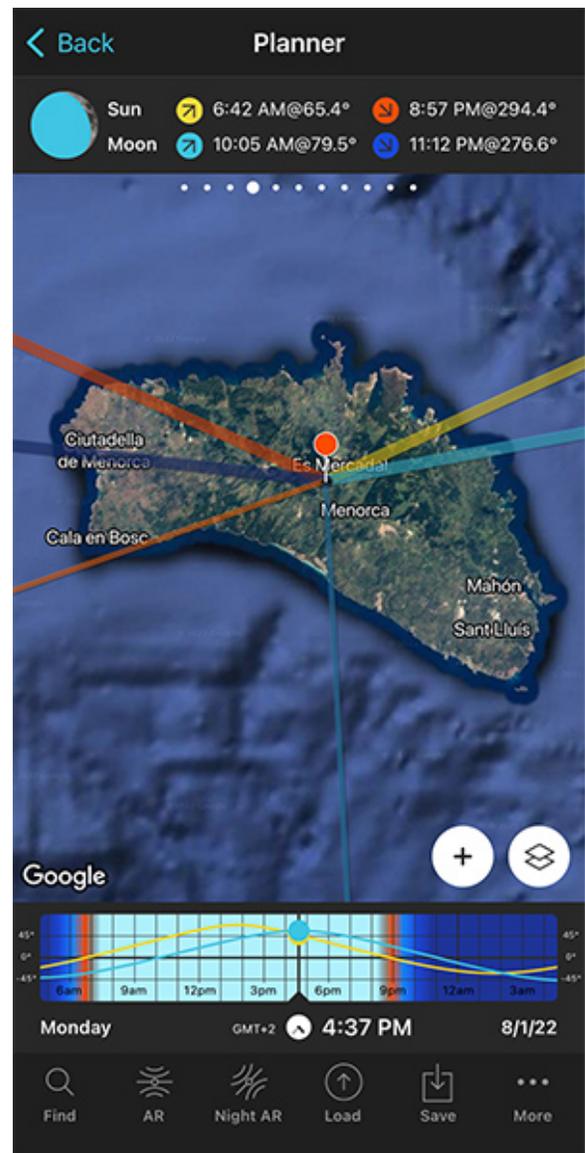


Let me show you how you can plan the photo.

Set the shooting date



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - On Panel 4, tap the Moon icon until you get to the next Full Moon.

As soon as you start planning, you need to find out when the next Full Moon is.

Open **PhotoPills**, and tap *Planner* (Pills Menu).

In the Planner, tap twice on the center of the Time bar to set the current date and time.

Then swipe the top panels to **Panel 4**. Once there, tap the Moon icon to jump in time to the next important phase. Keep tapping until you get to the next Full Moon.

Let's imagine that the next Full Moon occurs on August 11, 2022.

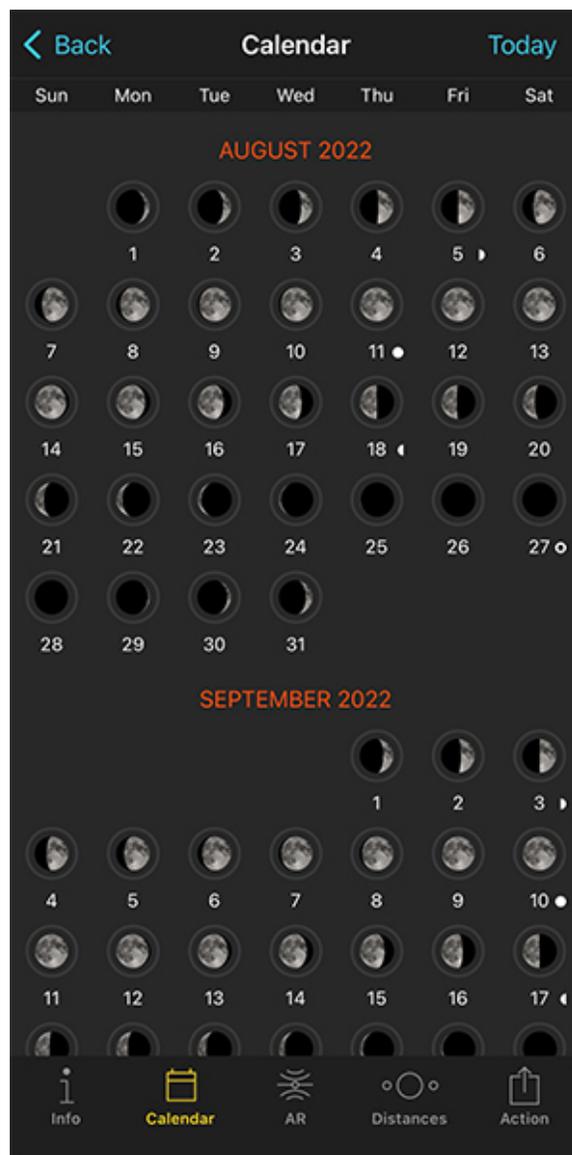
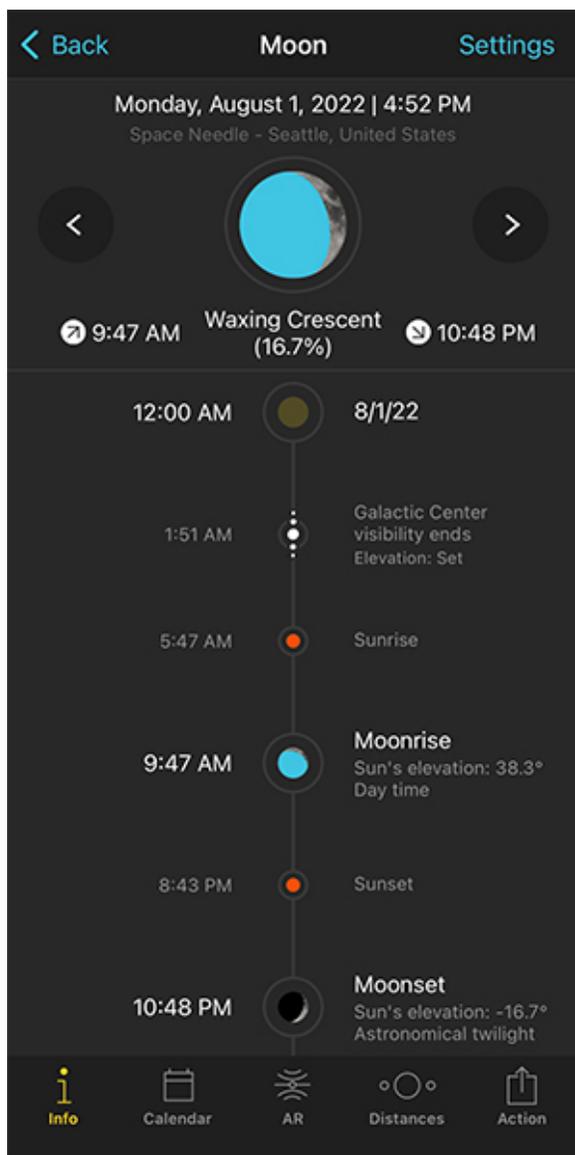
There are 2 more ways to set the date...

Here's the first one.

If you know the date, tap the Time bar once. In the Date and time screen, you can set the date directly.

And here's the second one.

Exit the Planner by tapping on *Back*, and then tap *Moon (Pills Menu)*. Then, tap the *Calendar* button. And choose the Full Moon you want. Full Moons have a white dot below the date.



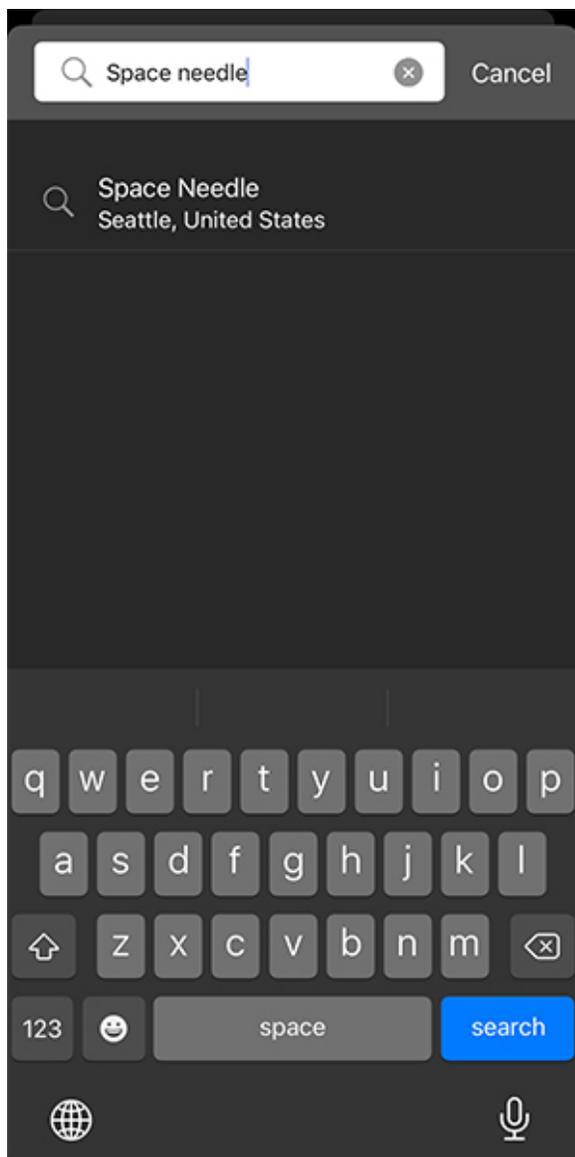
PhotoPills Moon Pill - Access the Moon Pill from the Pills Menu.

PhotoPills Moon Pill - Tap the Calendar button to see the dates of the next Moon phases.

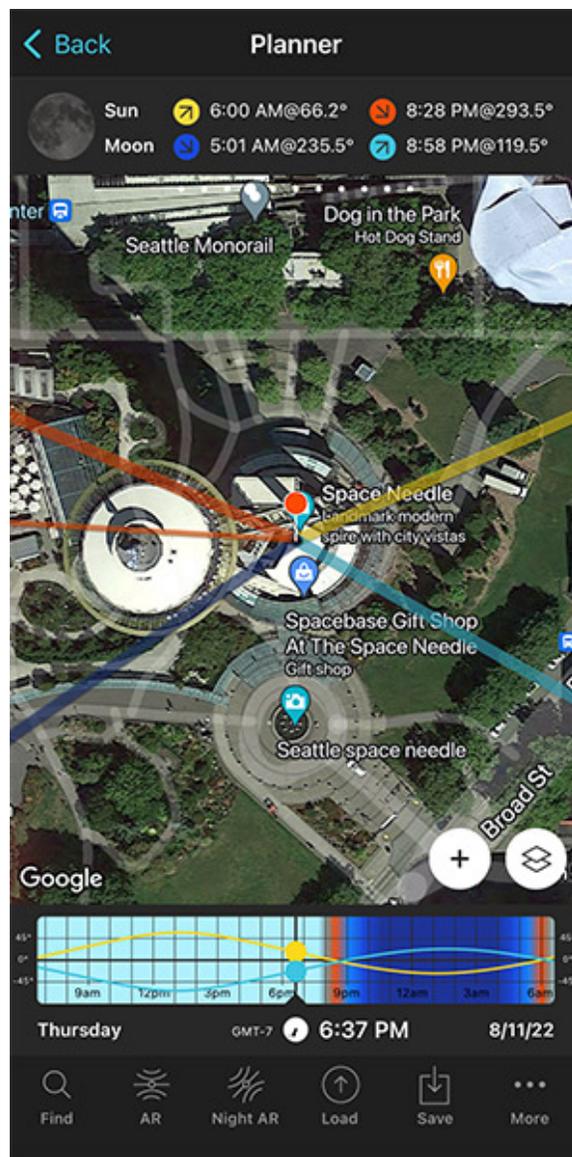
Tap, for example, the August 11, 2022 Full Moon. And on the Moon screen, tap the *Action*

button (bottom right) and select *Send to planner*. The date of the Full Moon will be set in the Planner.

Place the Red Pin near the subject



PhotoPills Planner - Tap the Load button and type "Space Needle".



PhotoPills Planner - Red Pin placed on the subject, the Space Needle in Seattle, Washington (US).

Now, place the **Red Pin** near your subject, the Space Needle. If you don't know how to do it, [this video shows you how to move the Red Pin](#).

For example, tap the *Load* button (at the bottom) and type "Space Needle" in the search bar. Select the result and the Red Pin will be placed on the tower itself.

Now that you have the Red Pin near your subject, and the Full Moon date set in the time bar

(08/11/2022), you can see the Moonset (5:01 am) and Moonrise (8:58 pm) times on **Panel 4**.

And on the map you have:

- The Moonrise direction is the thick light blue line.
- And the Moonset direction is the thick dark blue line.

As you'll see in a second, these lines are key to plan the shot.

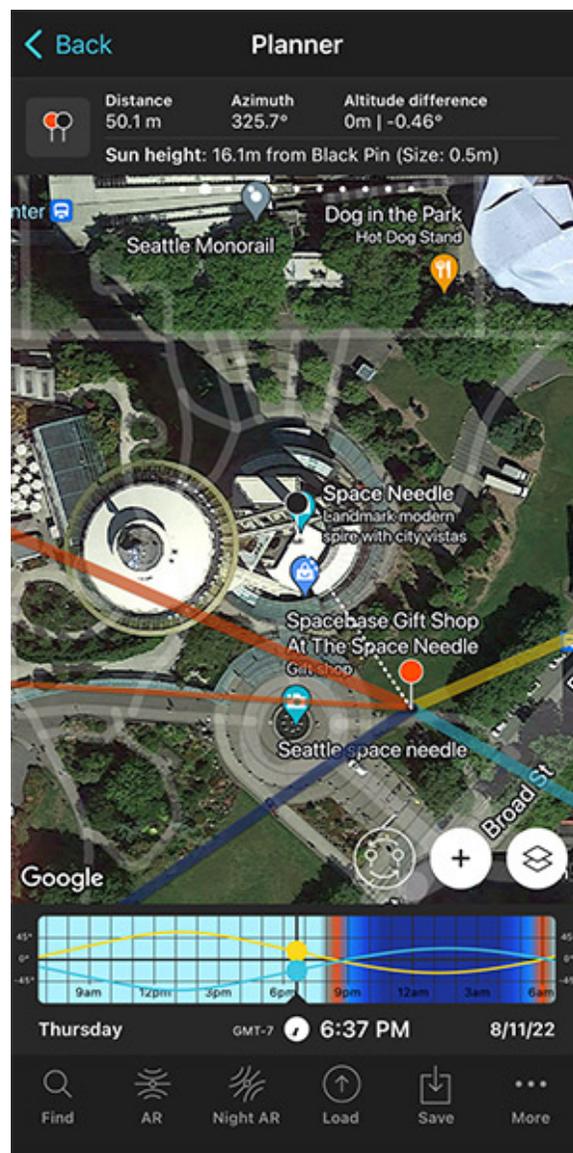
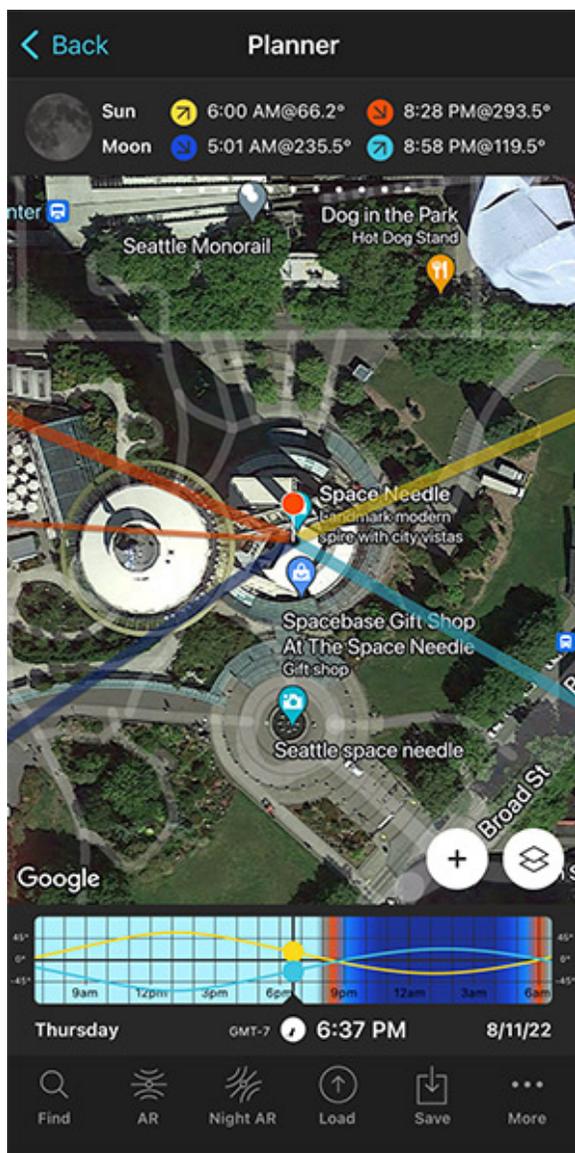
If, for some reason, you don't see these lines, you may not have the **Moon layer** activated.

Activate it!

Tap the **Map Settings** button. You'll find it at the bottom right corner of the map, right next to the **(+) button**.

On the Map Settings screen, activate the *Moon layer*. To do this, tap the eye-shaped icon to the left of the layer.

Place the Black Pin on the subject



PhotoPills Planner - Panel 4 indicates the Moon (and Sun) rise and set times for the selected date. In this case, the Full Moon day.

PhotoPills Planner - The Black Pin is placed at the base of the Space Needle, so that the Moon is aligned with the top of the tower.

Now move the Red Pin a bit away from the tower and zoom in on the map until you've enlarged the Space Needle as much as possible.

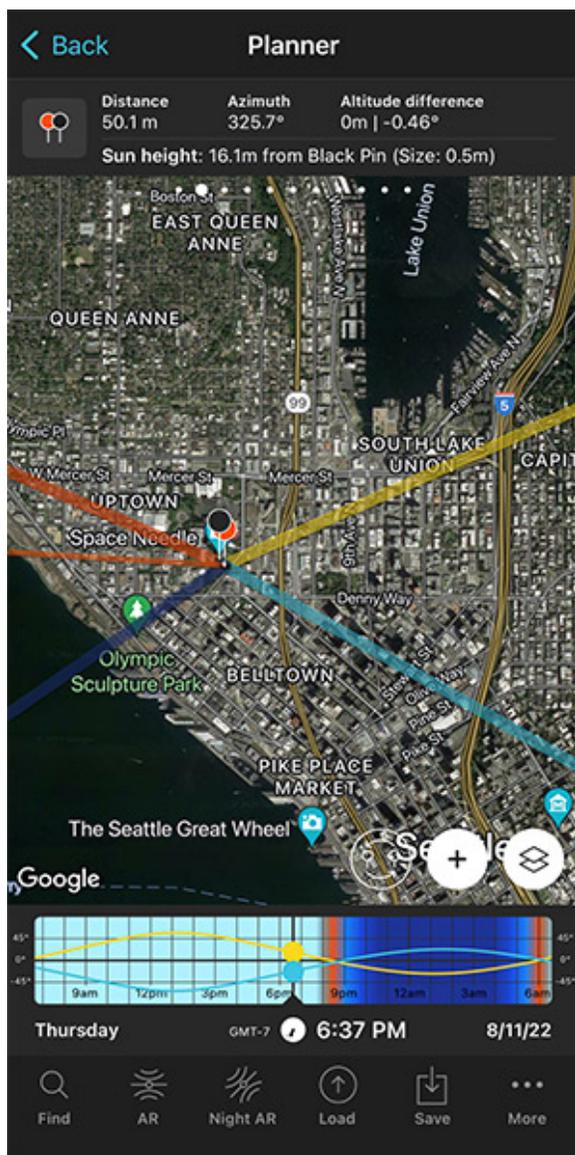
Swipe the panels above the map until you find the Black Pin information panel (**Panel 2**). Tap the icon showing the Red Pin and the Black Pin to activate the Black Pin on the map. Drag the Black Pin to the center of the ground floor of the Space Needle, right where you want the Moon to be aligned.

Don't place the Black Pin on the roof. Keep in mind that what you're seeing on the map is a

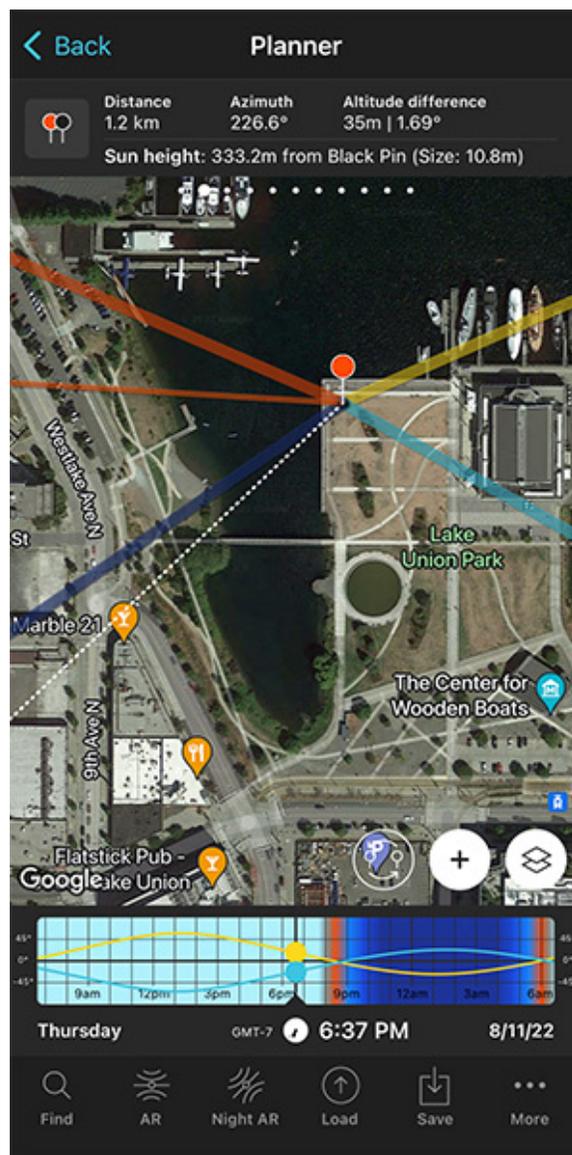
projection of the buildings, not a 3D representation. That's why you should always place the Black Pin at the base of the building, right where you want to align the Moon with the tower.

Also, the Black Pin helps you to have your subject perfectly located on the map at all times.

Find the initial shooting spot and shooting time



PhotoPills Planner - Zoom out on the Map to see the area.



PhotoPills Planner - Place Red Pin far away from the subject. The further away from the Black Pin (the Moon) it is, the bigger the Moon will be.

As I said, the Moonrise (thick dark blue) and Moonset (thick light blue) lines are key to guide you when choosing the shooting spot.

The Space Needle is 184 m high, including its antenna. Since you want to capture a photo

of the Full Moon (as big as possible) aligned with the top of the Space Needle, you need the Moon to have an elevation of 184 m when aligned with the needle.

Let's find the shooting spot and shooting time.

Zoom out the map while keeping an eye on the Moonset and Moonrise directions. You'll soon find out that to capture a big Moon aligned with the Space Needle you need to go to the east, to Lake Union Park. From this spot you have a clear view of the tower and the setting Moon.

So let's go for a Moonset.

Put the Red Pin somewhere in Lake Union Park. To do so, make a long press right where you want to put the Red Pin.

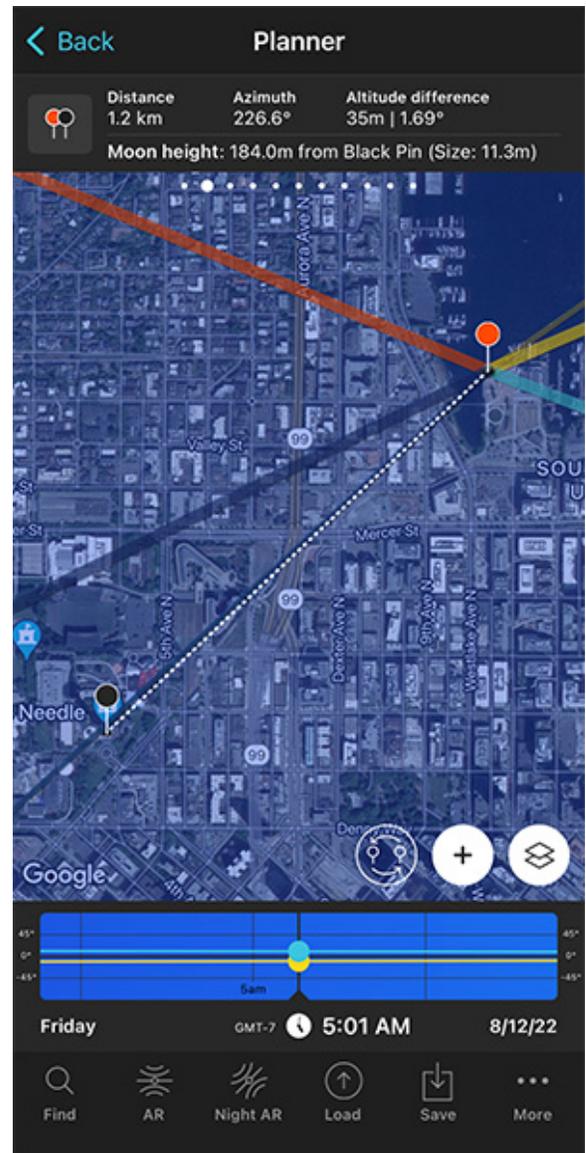
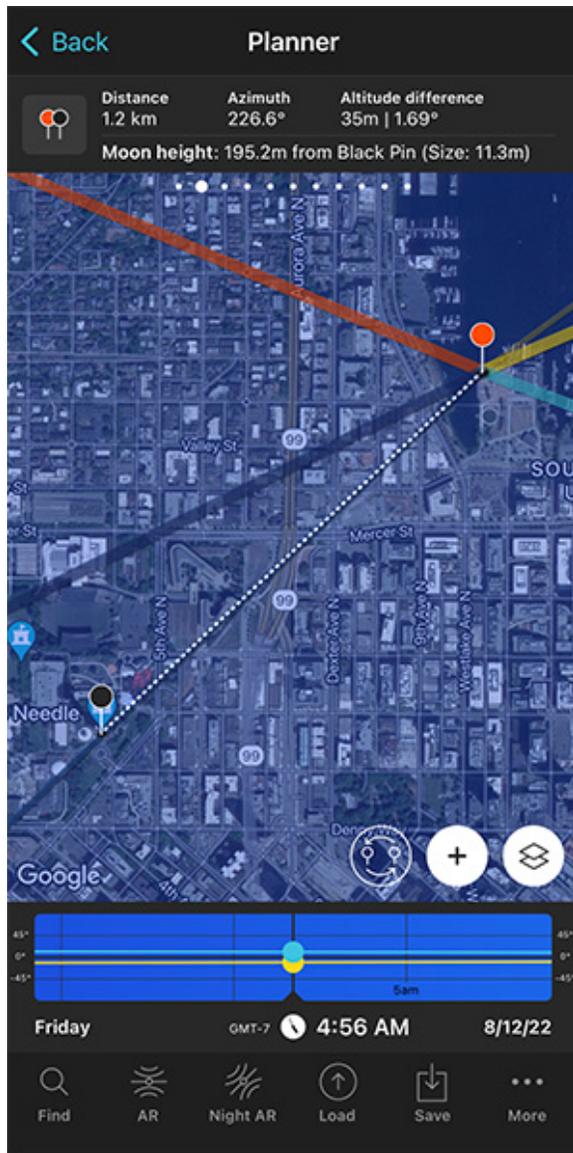
As you can see from the first screenshot below, the thick dark blue line is above (north) the Black Pin. This means that the setting Moon will go behind (or above) the Space Needle if you shoot from this spot.

If the Moonset direction is below (south) the Black Pin, it would mean that the Moon would set before reaching the subject. So you would need to choose a new shooting spot making sure that the thick dark blue line is above the Black Pin.

Note: *In the Southern Hemisphere it's the other way around of course.*

If that's the case, keep trying until you find it.

Great!



PhotoPills Planner - The Moonset direction (thick dark blue line) is above the Black Pin white dashed line.

PhotoPills Planner - The Moon line (blue thin line) is aligned with the Black Pin at 04:56 am.

Now, the next step is to align the Moon with your subject, the Space Needle, and check its height.

To do it, swipe the Time bar to move time forward or backward. In this case, swipe it to the left to move time forward.

If you need to move time accurately, make a long press on the center of the Time bar. It will expand so you can adjust the time minute by minute.

Now you have the Moon line (blue thin line) aligned with the Black Pin. This happens at 04:56 am.

Cool!

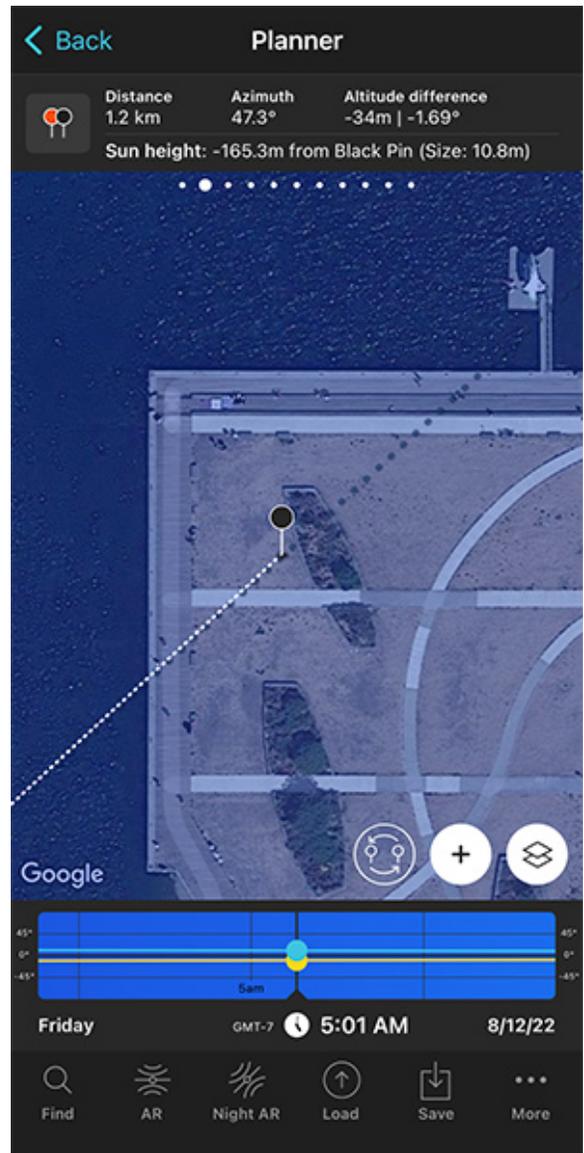
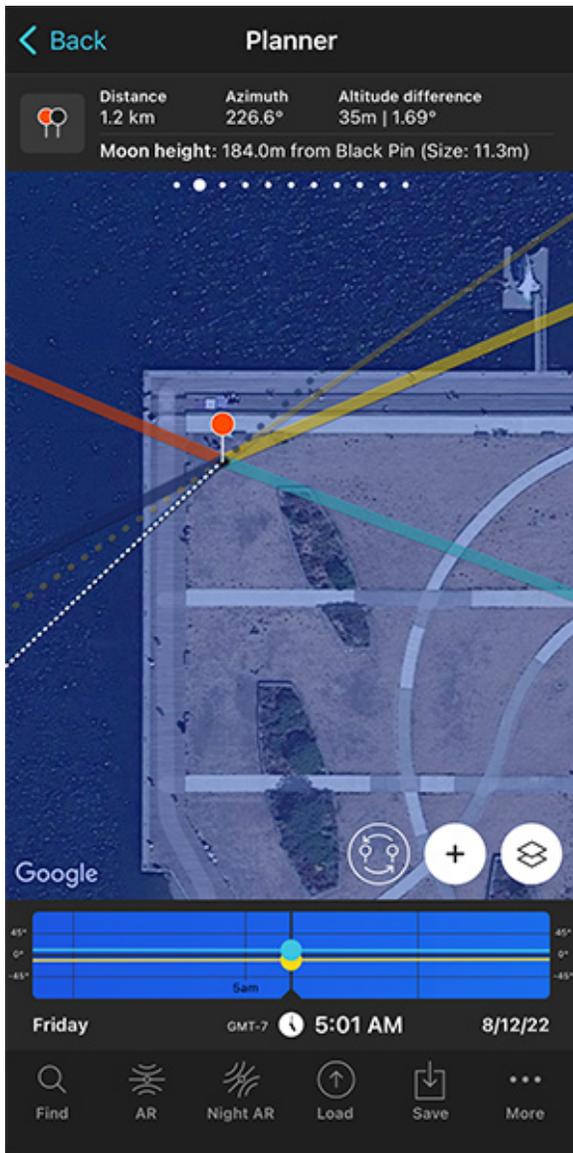
But is the Moon at the right height?

Remember, you want it aligned with the top of the Space Needle, which is 184 m high.

Take a look at **Panel 2**. It tells you that the center of the Moon is at an elevation of 195.2 m above the Black Pin (the Space Needle ground level). So the Moon is not where you want it to be... :(

You need it at 184 m, so you need to find a new shooting spot and shooting time!

Adjust the shooting spot and the shooting time



PhotoPills - The Moon is 184 m above the Black Pin at 05:01 am, but not aligned with the Black Pin (Space Needle).

PhotoPills Planner - Thanks to the Expand azimuth lines button you can see the expanded azimuth line of the Moon (dark blue dashed line).

OK!

Let's fine tune the shooting spot and shooting time to get the Moon aligned and at a height of 184 m.

Move time backward until the Moon height above the Black Pin is 184 m. To confirm it, have a look at [Panel 2](#).

Once you get it, check the Time bar again. The Moon is 184 m above the Black Pin at 05:01 am.

But now the Moon and the Black Pin are not aligned, so you need to adjust the Red Pin position to realign it.

Where should you move the Red Pin? There's a cool way to find it out.

Tap the **(+) button**, and then look for the Expand azimuth lines button. It's the 7th button starting from the left.

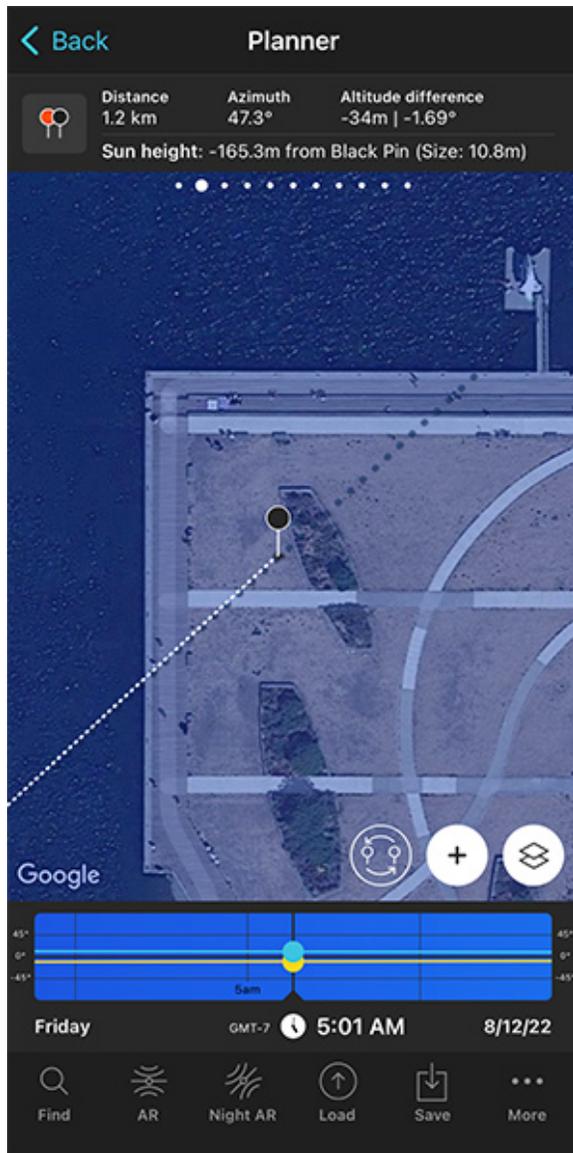
Tap it and the azimuth line of the Moon is expanded (dark blue dashed line).

Then, tap the **(+) button** again, and look for the Swap pins button. It's the 6th button starting from the left.

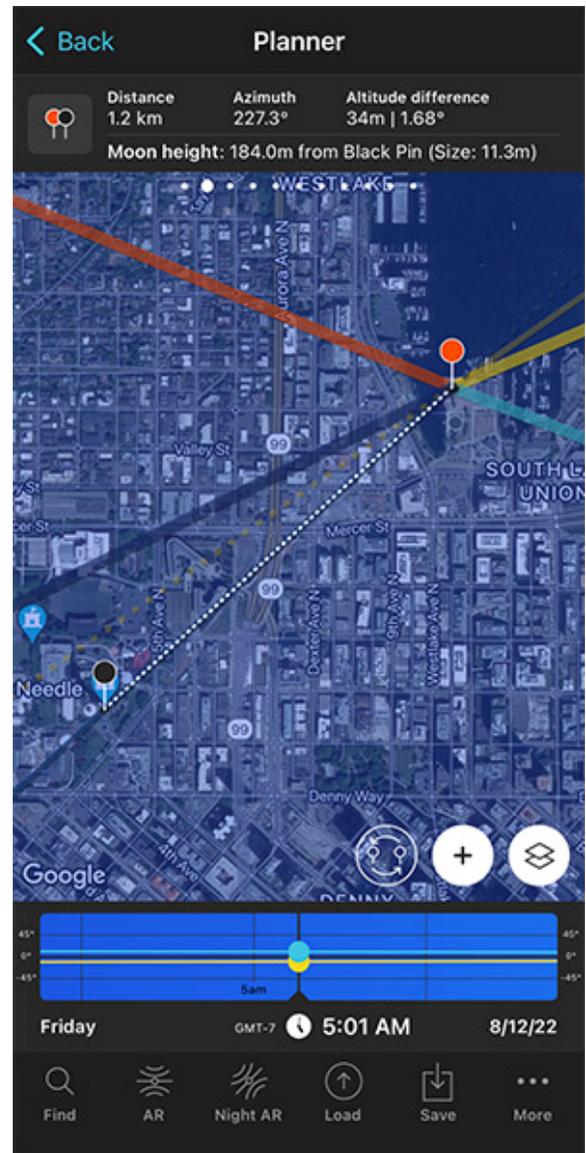
Tap it and the Black Pin will be now at the Red Pin position and vice versa. Now, all you need to do is move the Black Pin where the dark blue dashed line is (see second screenshot above).

Finally, tap again the Swap pins button so the Black Pin and the Red Pin return to their initial positions.

Now the Moon is perfectly aligned with the Space Needle! :)



PhotoPills Planner - After tapping the Swap Pins button, place the Black Pin where the blue dashed azimuth line is at 05:01 am.



PhotoPills Planner - The Moon is 184 m above the Black Pin at 05:01 am.

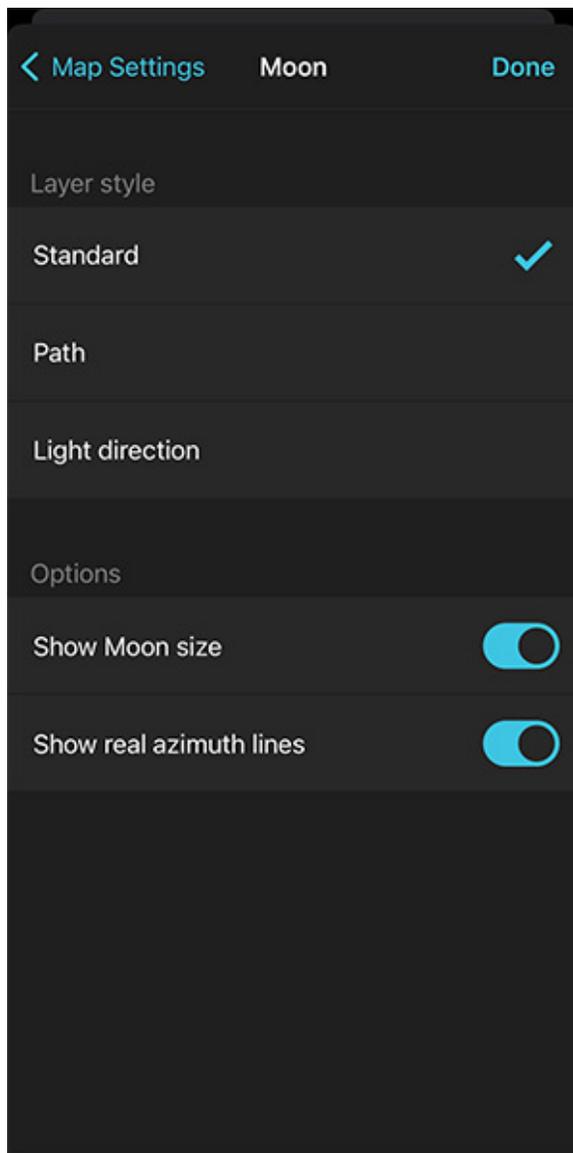
Because you changed the position of the Red Pin, topography also changes, therefore, as you can see on **Panel 2**, the Moon's elevation is now 184 m.

There you go!

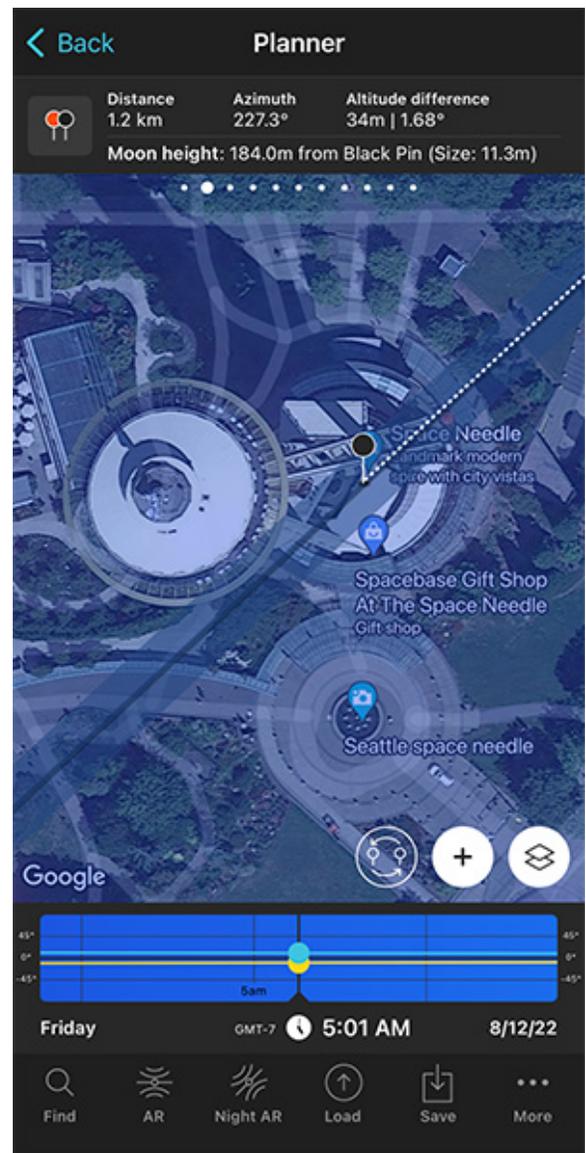
Your plan is done. You know now that if on August 12, 2022 at 05:01 am, you are at the Red Pin position (shooting spot), you'll be able to photograph a big Moon (11.3 m) aligned with the top of the Space Needle (184 m).

But there is more!

Check the Moon size on the map



PhotoPills Planner - Activate the Show moon size option on the Layer style screen.



PhotoPills Planner - The size of the Moon (11.3 m) is represented on the map.

One final tip.

As you can see on [Panel 2](#), the Moon's size is 11.3 m (diameter).

But if you want to see it on the map, tap the **Map Settings** button. You'll find it at the bottom right corner of the map, right next to the **(+)** button.

On the Map Settings screen, tap the **Moon layer** and activate the **Show Moon size** option. Finally, tap **OK** (top right corner) in iOS or the back arrow in Android.

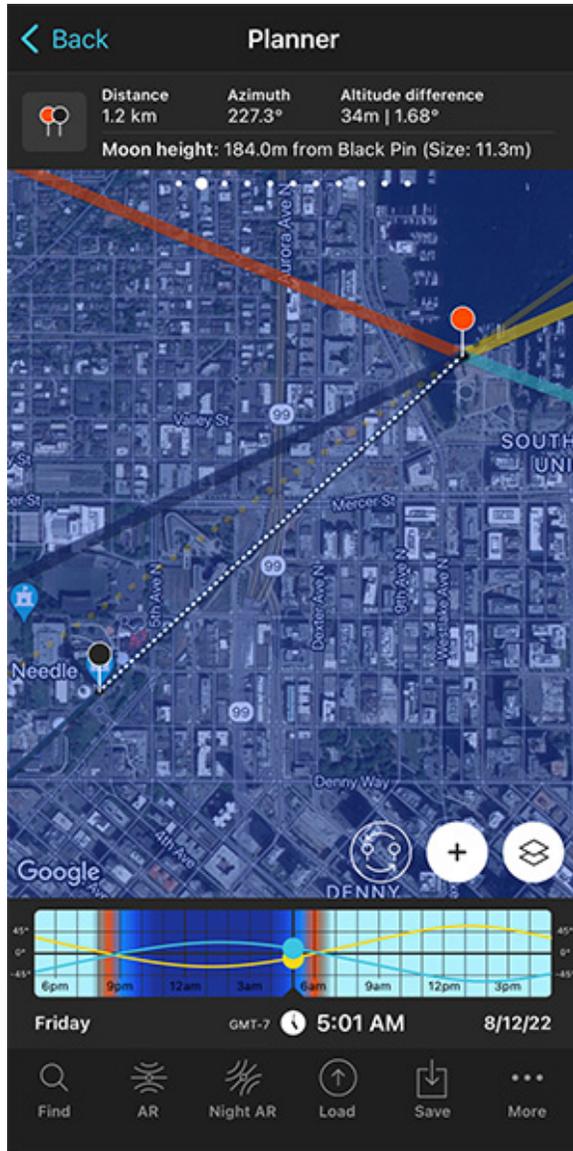
Zoom in on the map over the Black Pin to see that the width of the thin blue line shows you

the Moon diameter at that date and time. This allows you to compare its size to the Space Needle.

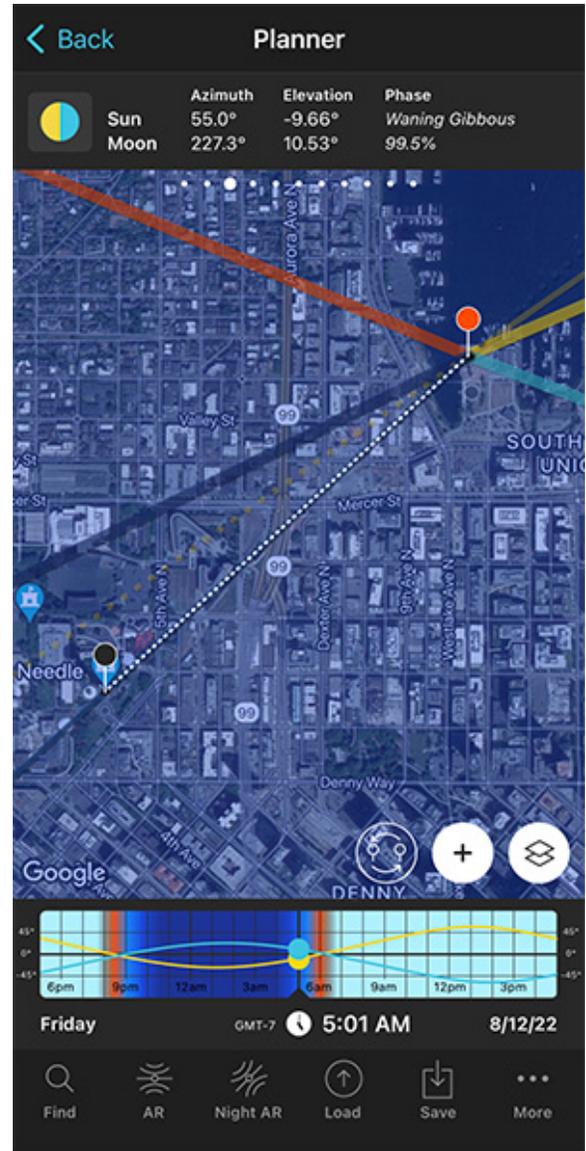
What do you think? Is it big enough?

If you want to have a larger Moon, all you have to do is to find a shooting spot that's further away from your subject. And repeat the process that I just explained to you in this section.

Check the natural light



PhotoPills Planner - Plan done. The Moon aligns with the top of the Space Needle on August 12, 2022 at 05:01 am.



PhotoPills Planner - On Panel 3 you can see the Sun elevation. It tells you what kind of natural light you'll have on the scene.

When you photograph the Moon, the **light you have at the time of shooting** is super important.

As you read in **section 4**, natural light is crucial because it will determine the color of the Moon you'll get and whether you'll need to take one or two exposures to expose the scene correctly.

Therefore, it's essential to check the conditions you're going to have.

To do this, swipe the top panels until you get to **Panel 3**. Here you can see the Sun elevation at the time of the photo. In this example, $-9,66^\circ$.

This means that the Sun is below the horizon and that it's nautical twilight. Remember that the nautical twilight occurs when the Sun has an elevation between -6° and -12° .

During nautical twilight, there is not enough natural light to photograph both the Moon and the landscape (subject) in one exposure. But in this case, being a city, and because the tower is lit, you'll be able to nail your shot in a single exposure.

Moreover, when you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize on your smartphone where the Moon will set.

Have a look at **section 20** and plan your Moon shot to the very last detail. This includes planning the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).

Finally, don't forget to save the Plan using the Save button! ;)

How to plan a big Moon in a certain position (2)

You know exactly the photo you want: you know the exact shooting spot from which you'll be taking pictures, the frame and the Moon position relative to the subject you want.

Now you just need to find out:

- If that specific photo is possible.
- And if it is, when exactly it does happen and the size of the Moon you'll get.

Here's a video in which Rafa explains how to use the **Find tool** of **PhotoPills** to plan any Moon alignment you imagine:



But let me give you another example. Let's plan a picture together.

Imagine that you want to capture a big Moon aligned with the top of the huge International Commerce Centre (ICC) in Hong Kong. It's a beautiful skyscraper 484 m tall (1,588 ft approximately).



You've found a cool shooting spot in Peng Chau, a small island located off the north-eastern coast of Lantau Island, in Hong Kong. It's located 12 km away from your subject.

You can quickly use the PhotoPills Rule of 100 explained in [section 4](#) to find out that you may be able to photograph a Moon with a diameter of 120 m approximately. So big, so cool!

Now...

The question is:

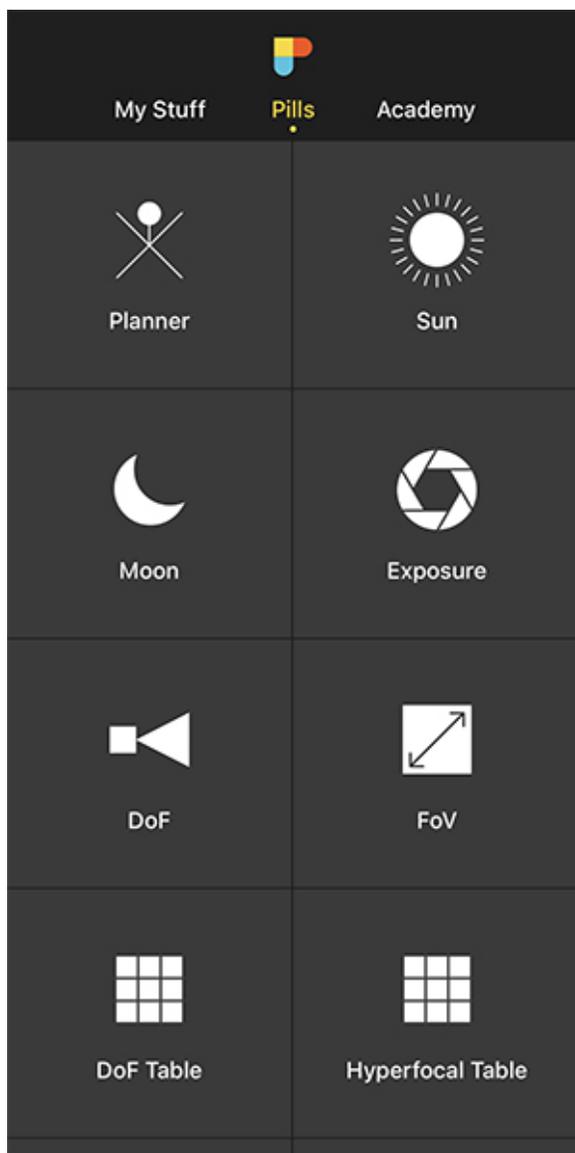
Is the photo possible?

And if yes, when will it happen?

Well, let's find out!

Take your phone, open PhotoPills and follow these steps with me.

Place the Red Pin on the shooting spot



PhotoPills Pills menu - Tap Planner.



PhotoPills Planner - The Red Pin is on the shooting spot: Peng Chau, a small island located off the north-eastern coast of Lantau Island, in Hong Kong.

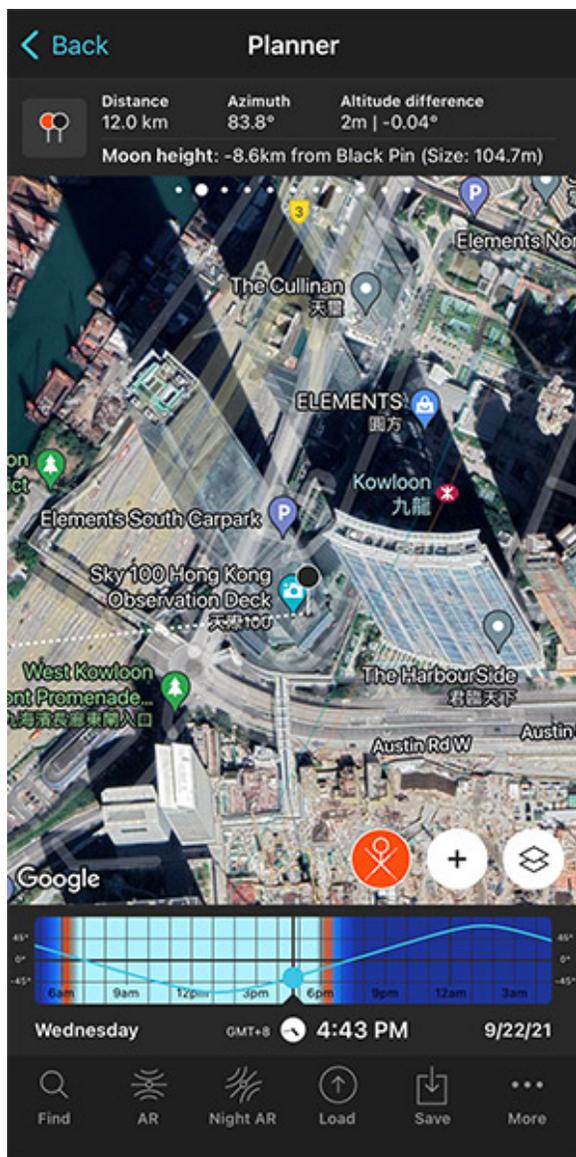
The first step is to place the Red Pin on the shooting spot you want.

Open [PhotoPills](#), tap *Planner* (*Pills* Menu) and then place the Red Pin on the shooting spot. For example, at Peng Chau, a small island located off the north-eastern coast of Lantau Island, in Hong Kong. If you don't know how to do it, [this video shows you how to move the Red Pin](#).

To quickly place the Red Pin, tap the *Load* button (at the bottom) and type "Peng Chau" in the search bar. Then, select it and the Red Pin will be placed on the island.

Now, do a long press on the shooting spot, on the coast, from where you have a beautiful view of your subject to the east – the International Commerce Centre (ICC).

Place the Black Pin where you want the Moon



PhotoPills Planner - Panel 2 is now activated and the Black Pin is located at the center of the base of the International Commerce Centre (ICC), exactly where you want the Moon to be.

PhotoPills Planner - Panel 2 indicates that the apparent diameter of the Moon is 104.7 m from the current Red Pin position.

Zoom in on the map, until you can clearly see the International Commerce Centre (ICC).

Now swipe the top panels on the map until you find the Black Pin information panel (**Panel 2**). Tap the icon showing the Red Pin and the Black Pin to activate the Black Pin on the map.

Place the Black Pin right on the spot you want the Moon to be relative to your subject. In this case, right where the building is. Remember that you want the Moon to be aligned with the top of the International Commerce Center (484 m).

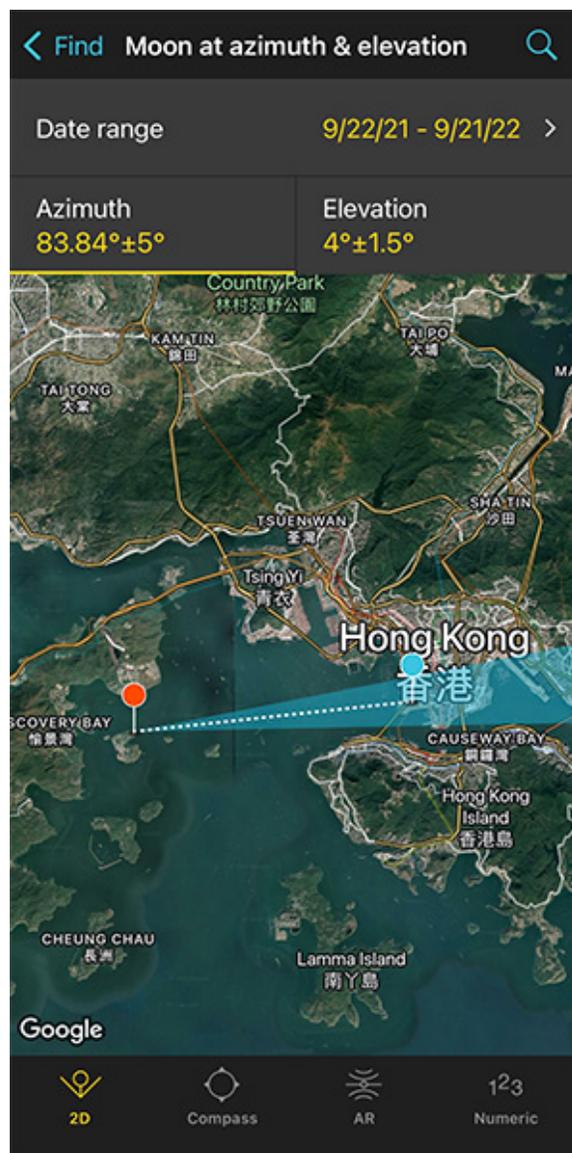
Now **Panel 2** is also telling you:

- The shooting distance between pins (12 km).
- The elevation of the center of the Moon above the Black Pin ground level (-8.6 km), so you can compare it with the height of your subject.
- The apparent diameter of the Moon (104.7 m), so you can compare it with the height of your subject, the International Commerce Centre (ICC) (484 m).

Find the dates and times when the photo is possible



PhotoPills Planner - A general view of the International Commerce Centre (ICC) with the Black Pin right where you want the Moon to be.



PhotoPills Planner - With the tool Find > Moon at azimuth and elevation you'll find out the dates and times the Moon is aligned with the International Commerce Centre (ICC).

Let's find out if the photo is possible and when it occurs.

Tap the **Find** button. It's located on the bottom left corner of the Planner. And then, select *Moon at azimuth and elevation* (*Moon on Android*).

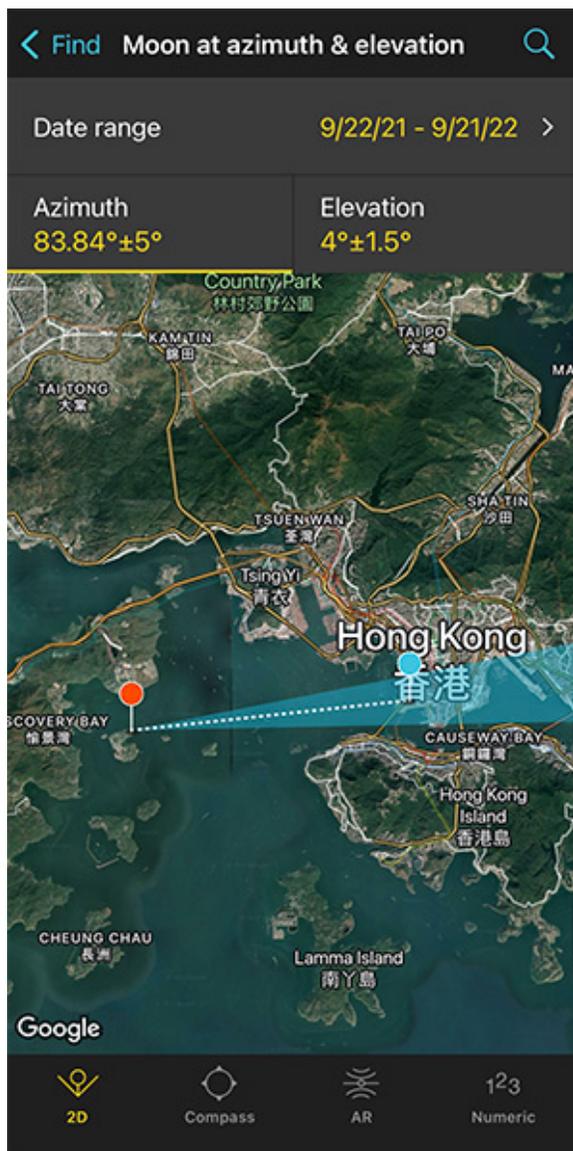
On the new screen, you have to tell 3 things to PhotoPills:

- The date range you want to search for results. For example, 1 year starting from today.

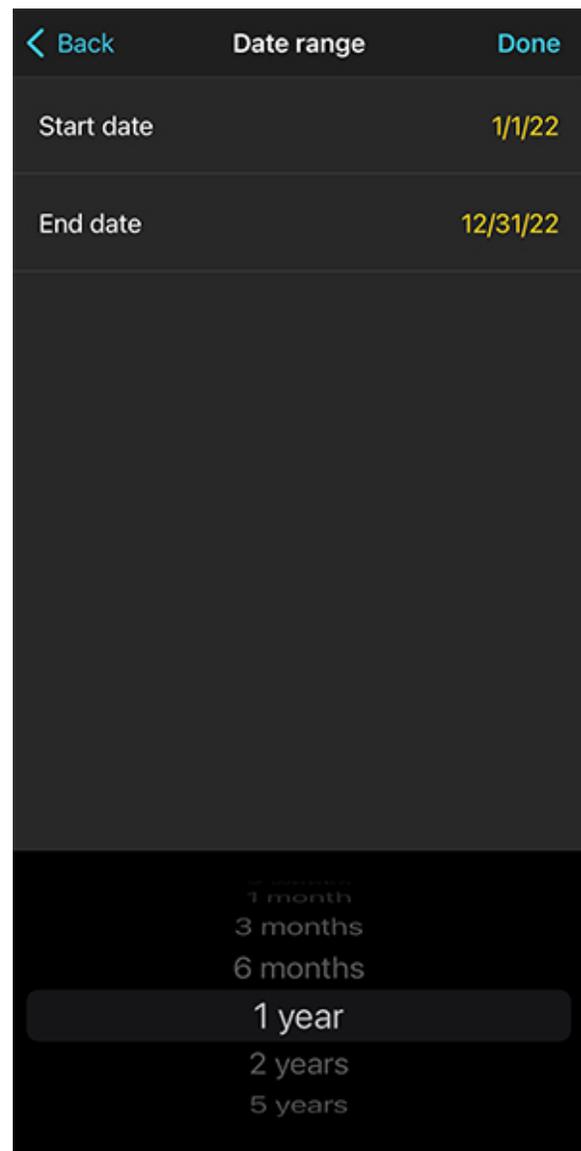
- The Moon's azimuth or direction. In this case, you want it aligned with the International Commerce Centre (ICC).
- The Moon's elevation or altitude. Imagine that you want to have the center of the Moon at a height of 500 m above the International Commerce Centre (ICC). This is a little bit above the tower, which has a height of 484 m.

Let's begin by setting the date range.

Enter the date range



PhotoPills Planner - On the Moon at azimuth and elevation tool, tap Date range.

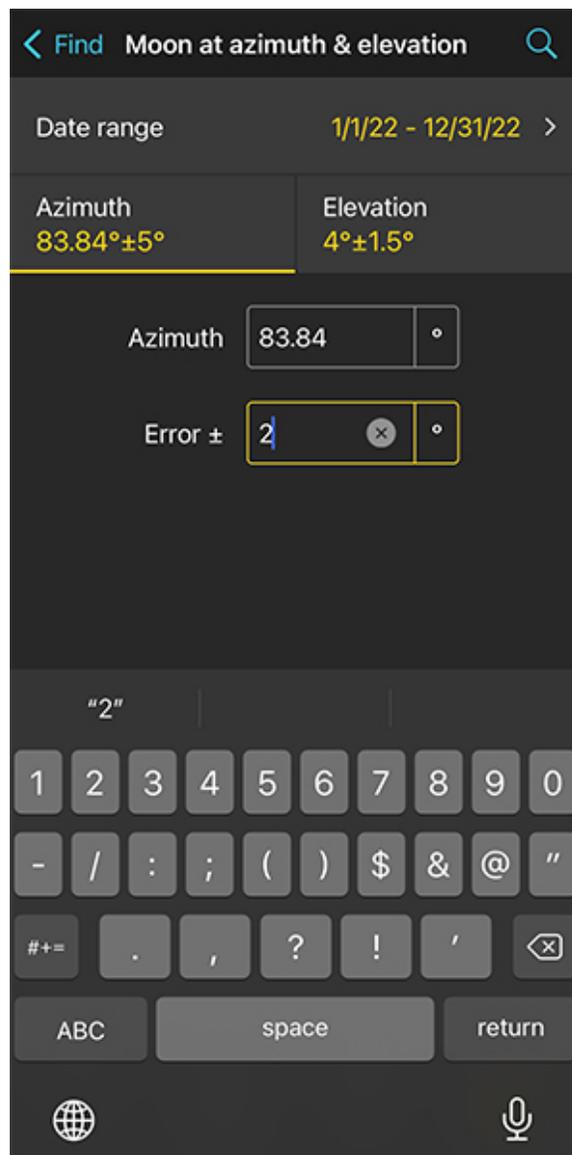


PhotoPills Planner - Search a 1-year date range starting from 01/01/2022.

Tap *Date Range*, tap *Start date*, then *Today* and *OK* (back arrow on Android).

Next, tap *End date*. Now you can enter a certain date or range. To enter a range, tap the black area of the screen and the date options will change. Select *1 year*, for example, and tap *OK* (back arrow on Android).

Enter the Moon azimuth



PhotoPills Planner - On the Moon at azimuth and elevation screen you can define the Moon azimuth and its error (the direction tolerance).

PhotoPills Planner - To change the error tap the Numeric button at the bottom. And for example set the error to 2°.

To set the azimuth at which you want the Moon to rise, you can drag and drop the Blue Pin you see on the map.

But because the Blue Pin is linked to the Black Pin the azimuth of the Moon is already aligned with the International Commerce Centre (ICC).

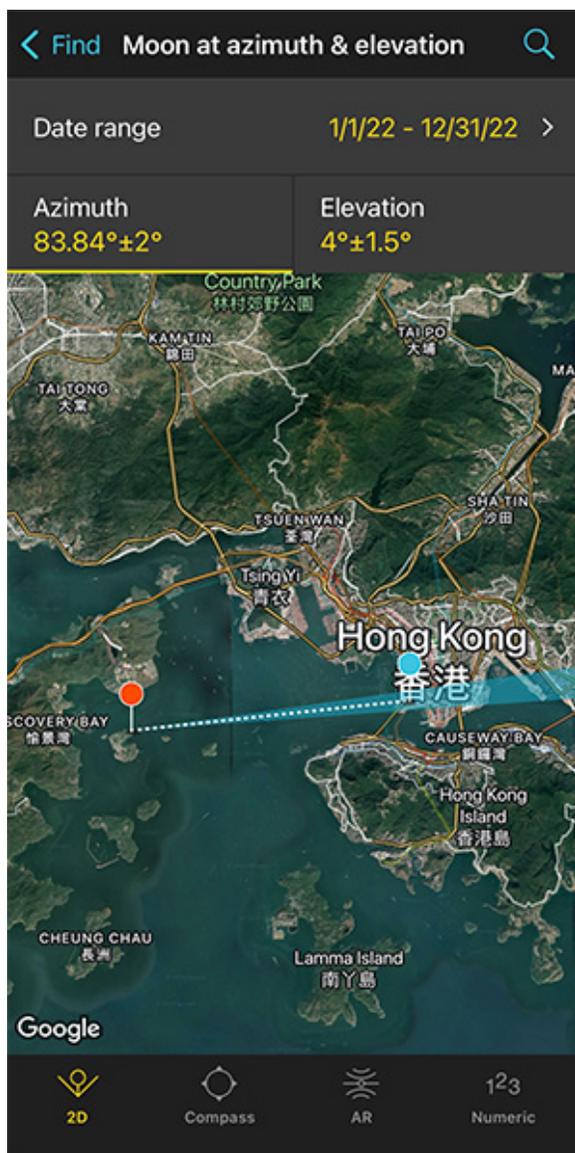
Now that the azimuth is set, it's time to decide the error (or tolerance) defined by the blue sector you see on the map.

This blue sector represents all the directions PhotoPills will look for results. In this example, these are all the directions within the azimuth $83.84^\circ \pm 2^\circ$.

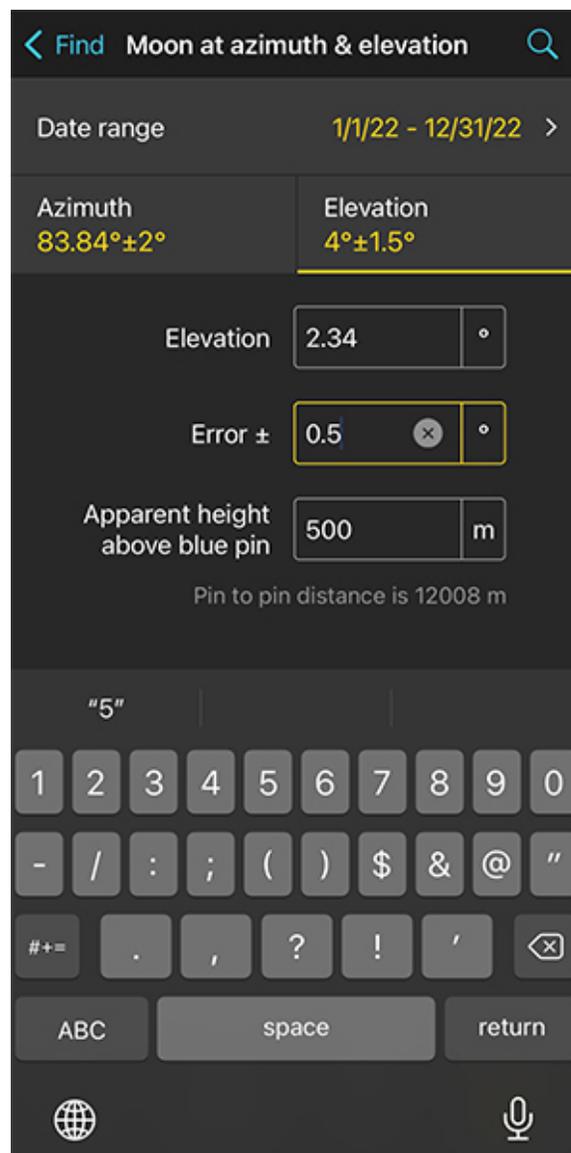
If you want to change the error, tap *Numeric* (at the bottom).

If your shooting spot allows you to move around, I recommend using a relatively large error (2° , 3° or even more) to get more possible shooting dates. Remember that you can always adjust your shooting spot.

Enter the Moon elevation



PhotoPills Planner - Tap Elevation to set the Moon elevation (the altitude).



PhotoPills Planner - Since you want to photograph the Moon aligned with the International Commerce Centre (ICC), set an apparent height of the Moon above Blue Pin of 500 m (2.34°).

Tap *Elevation* to set the elevation of the Moon.

In this case, you want the center of the Moon aligned with the top of the International Commerce Centre (ICC). Slightly above it.

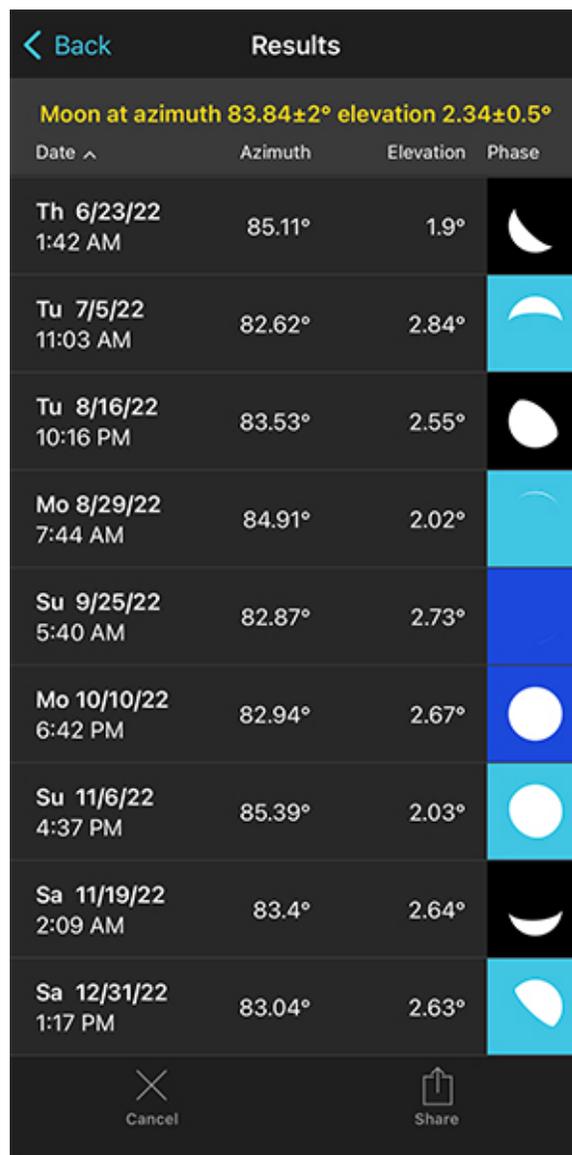
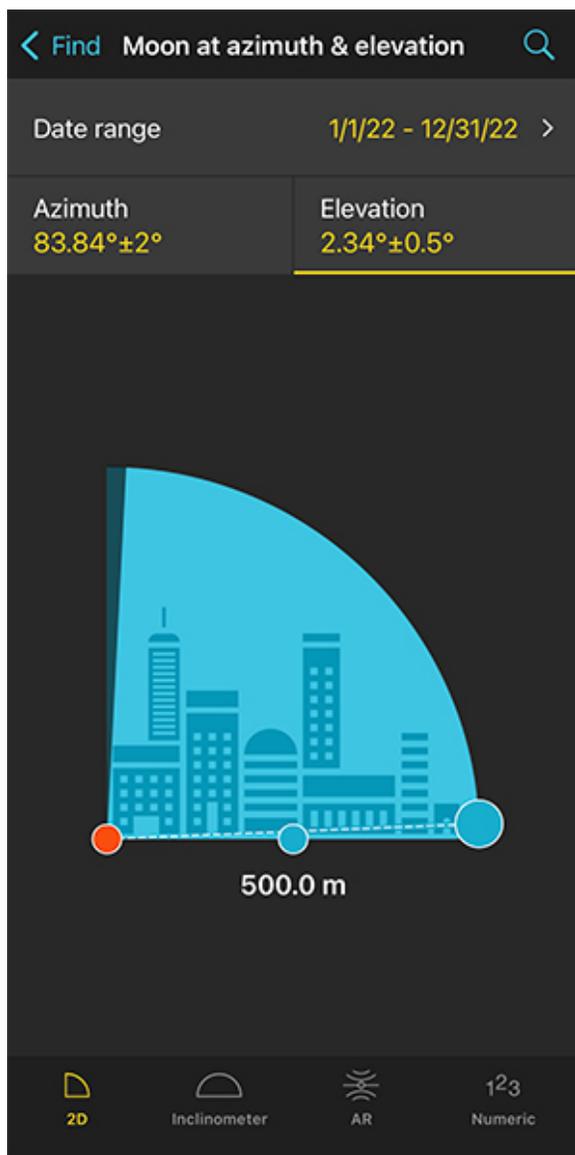
Remember, the International Commerce Centre (ICC) is 484 m tall (1,588 ft approximately). So the center of the Moon should have an elevation above 484 m, let's say 500 m.

So, drag the blue dot in the diagram until it shows 500 m above the horizon. Or tap *Numeric*

and type "500" in the *Apparent height above blue pin* field.

Also, in the *Numeric*, set a small error (or tolerance) to be more precise with the elevation. For example "0.5°".

Get the possible shooting dates and times



PhotoPills Planner - Tap the magnifying glass icon to get all possible dates for the photo.

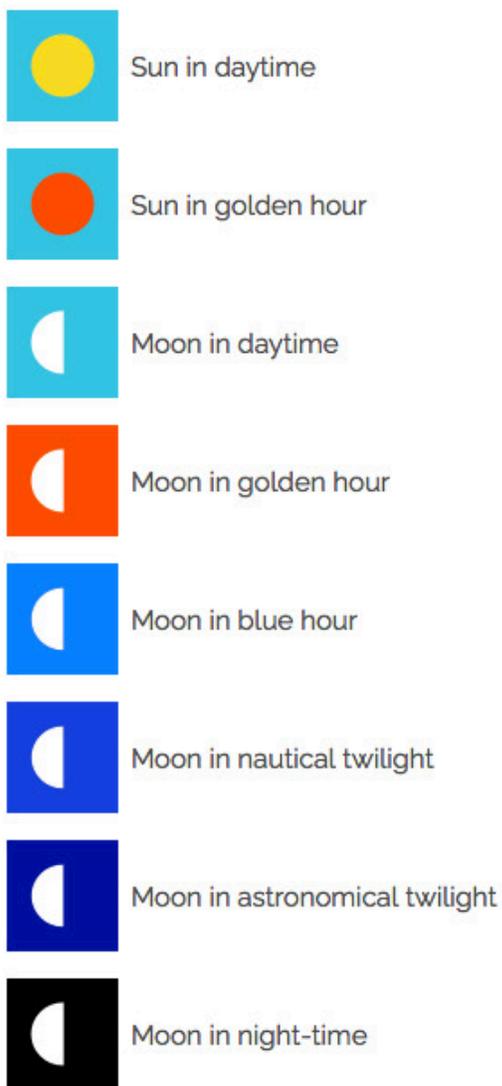
PhotoPills Planner - Table of all dates and times the Moon will be within the search parameters (aligned with the International Commerce Centre (ICC)).

Now that you've set the date range and the Moon position you want (azimuth and elevation), let's calculate when the photo occurs.

Tap *Search* (the magnifying glass icon at the top right corner) to see all the possible dates

and times the Moon will be within the search parameters. In other words, when the Moon will be aligned with the International Commerce Centre (ICC).

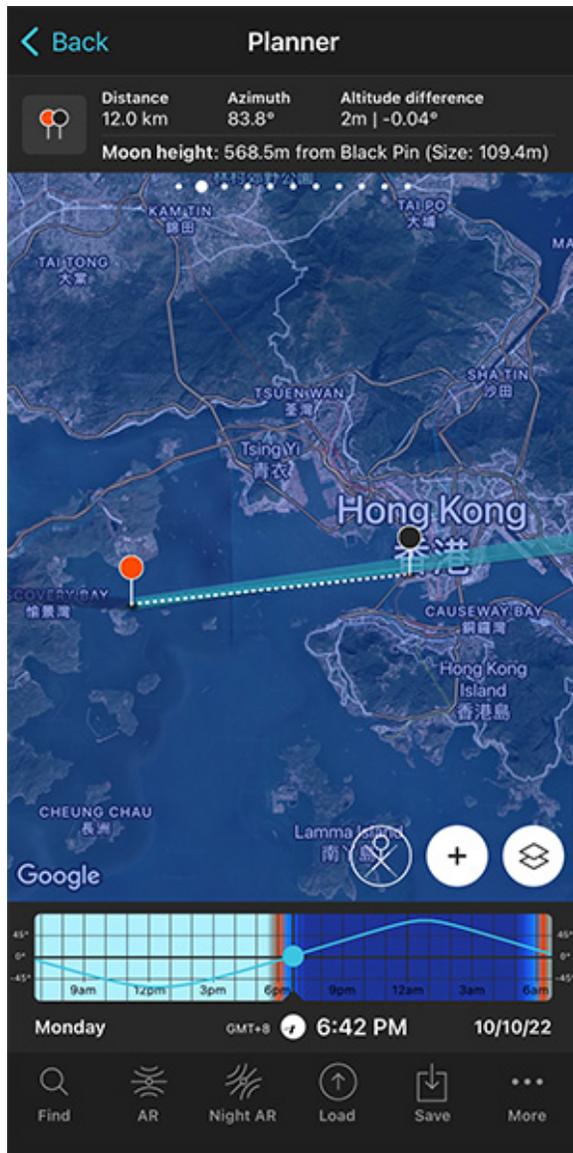
On the results table, you can also see the Moon phase and the type of natural light (background color) for every shooting date and time:



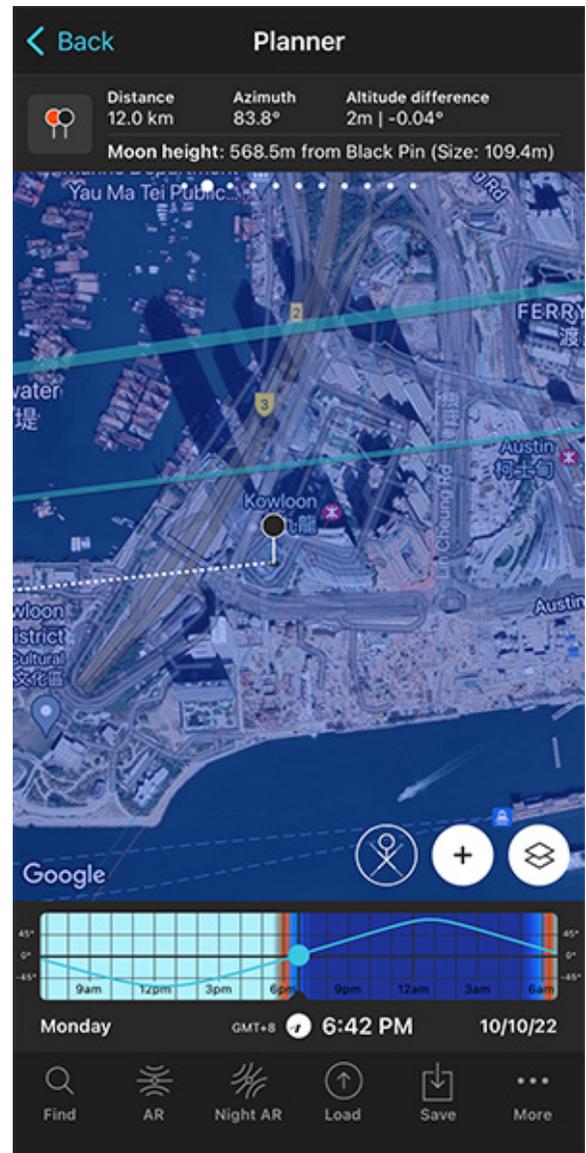
The idea is to photograph a Full Moon, so October 10, 2022 looks great:

- It's almost Full Moon (99.5% which is something you can check using the *Moon pill*).
- You'll be shooting during the nautical twilight. You know this thanks to the **dark blue Moon icon**.

So tap the date to see the plan (second screenshot above).



PhotoPills Planner - The plan for October 10, 2022 at 06:42 pm.



PhotoPills Planner - Zoom in on the International Commerce Centre (ICC) to check the alignment.

On the first screenshot above you see:

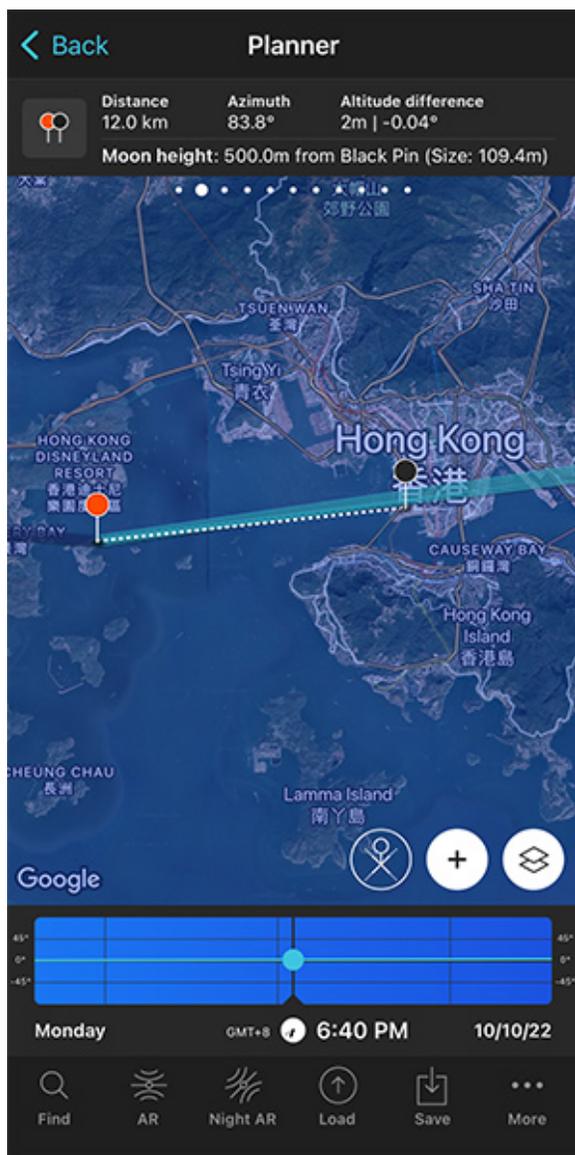
- The thick light blue line indicates the Moonrise direction for the selected date (10/10/2022).
- And the thin blue line shows you where the Moon will be at the time you have to take the photo, at 06:42 pm.

As you see in the second screenshot above, the thin light blue line is not exactly aligned with the International Commerce Centre (ICC) (Black Pin position). In other words, the Moon is not exactly aligned with your subject.

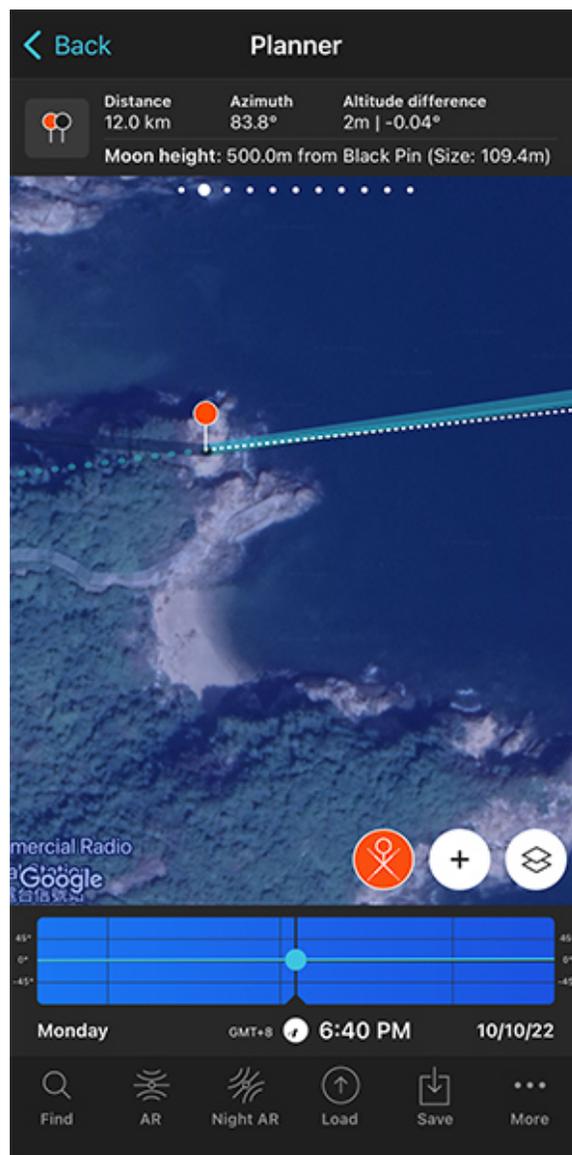
So you need to fix it...

Moreover, **Panel 2** tells you that the center of the Moon will be 570.2 m above the building (Black Pin ground level). However, you want it to be 500 m.

Adjust the shooting spot and the shooting time



PhotoPills Planner - The Moon is 500 m above the Black Pin at 06:40 pm, but not aligned with the Black Pin (International Commerce Centre).



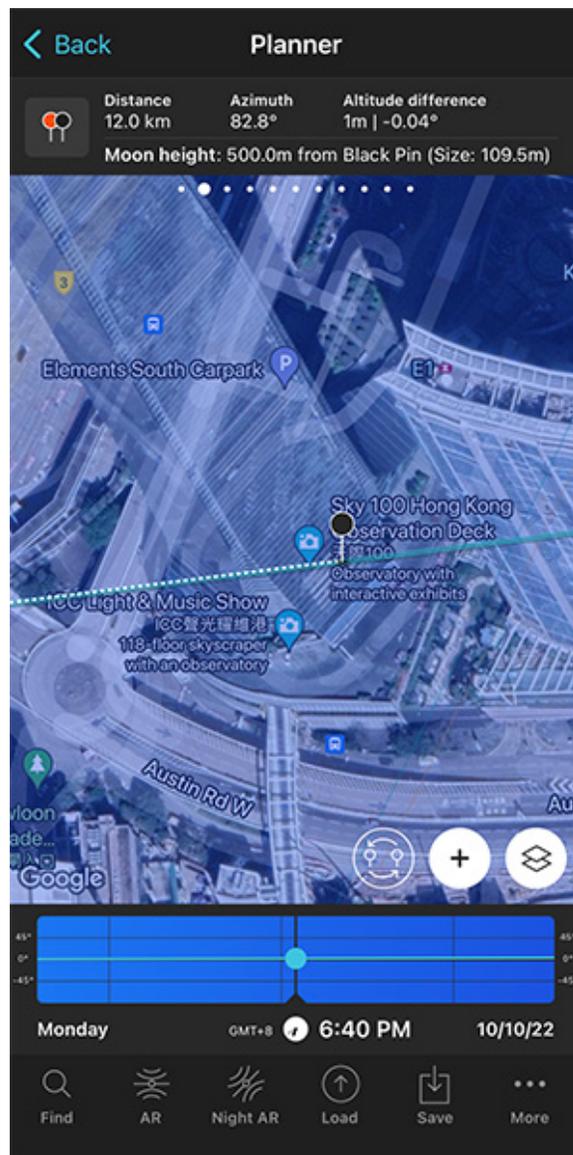
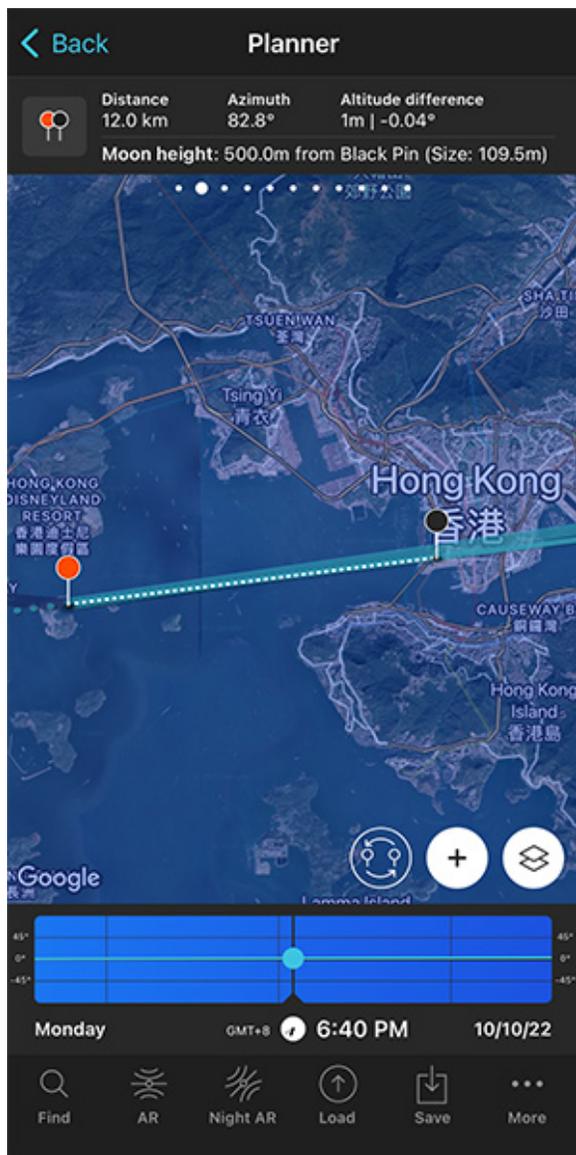
PhotoPills Planner - Thanks to the Expand azimuth lines button you can see the expanded azimuth line of the Moon (dark blue dashed line).

Now you need to change the time using the Time bar until the elevation of the Moon on **Panel 2** shows 500 m.

Check the Time bar again. The Moon is 500 m above the Black Pin at 06:40 pm.

But now the Moon and the Black Pin are not aligned, so you need to adjust the Red Pin position to realign them.

Where should you move the Red Pin? There's a cool way to find it out.



PhotoPills Planner - The plan will happen on October 10, 2022 at 06:40 pm.

PhotoPills Planner - Zoom in on the International Commerce Centre (ICC) to check the alignment.

Tap the **(+) button**, and then look for the Expand azimuth lines button. It's the 7th button starting from the left.

Tap it and the azimuth line of the Moon is expanded (dark blue dashed line).

Then, tap the **(+) button** again, and look for the Swap pins button. It's the 6th button starting from the left.

Tap it and the Black Pin will be now at the Red Pin position and vice versa. Now, all you need to do is move the Black Pin where the dark blue dashed line is (see second screenshot above).

Finally, tap again the Swap pins button so the Black Pin and the Red Pin return to their initial positions.

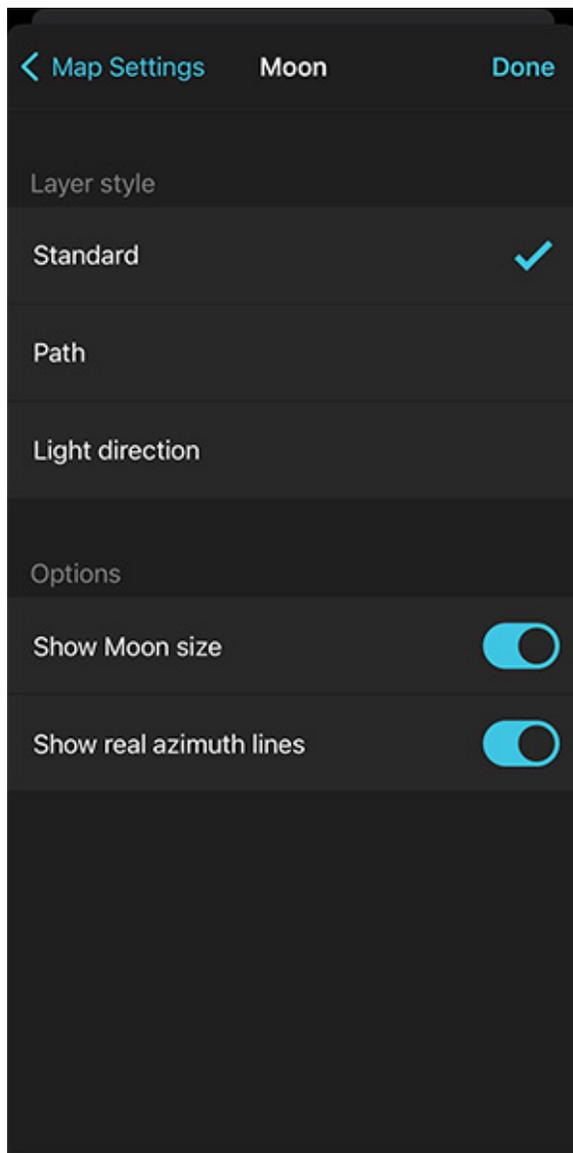
Now the Moon is perfectly aligned with the International Commerce Centre (ICC)! :)

You might need to repeat this workflow a few times until you get what you want.

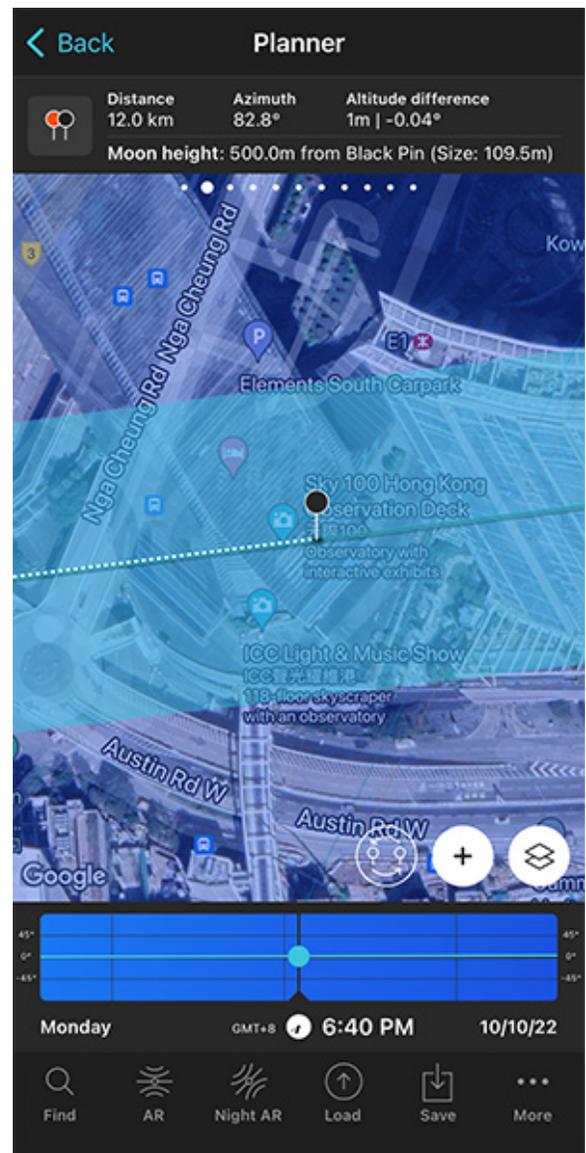
And you have the plan!

Now, if on October 10, 2022 at 06:40 pm, you're at the Red Pin position, you'll be able to photograph a huge Moon (109.5 m) aligned with the top of the International Commerce Centre (ICC), at a height of 500 m.

Check the Moon size on the map



PhotoPills Planner - Activate the Show moon size option on the Layer style screen.



PhotoPills Planner - The size of the Moon (109.5 m) is represented on the map.

Moreover, there is a way to visualize the size of the Moon (109.5 m) on the map, so you can compare it with the width of the International Commerce Centre (ICC).

To see the Moon size on the map, tap the **Map Settings** button. You have it on the map, next to the **(+) button**.

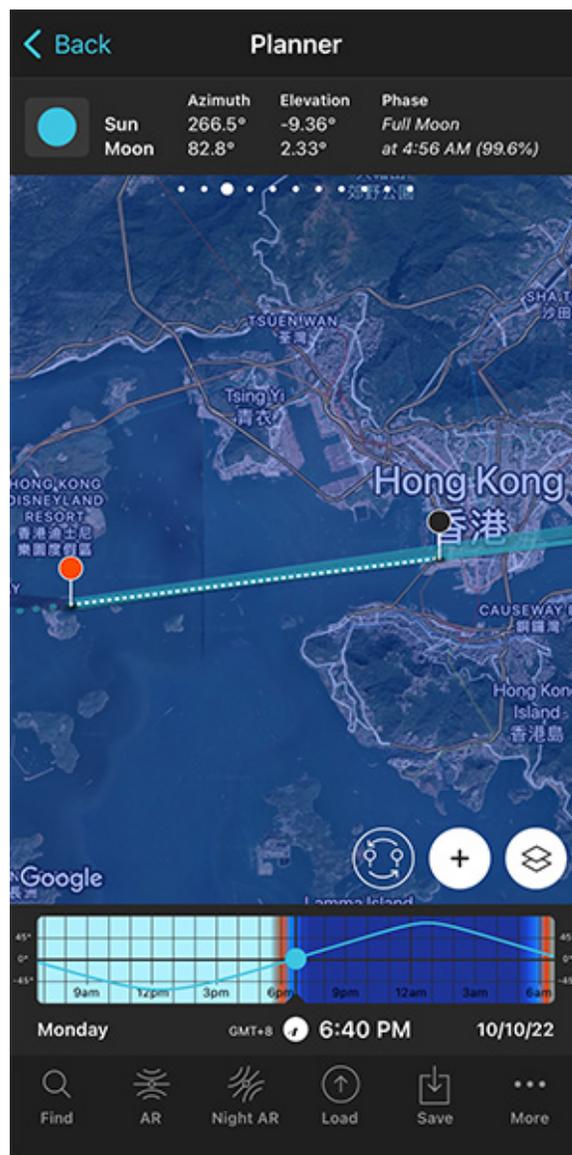
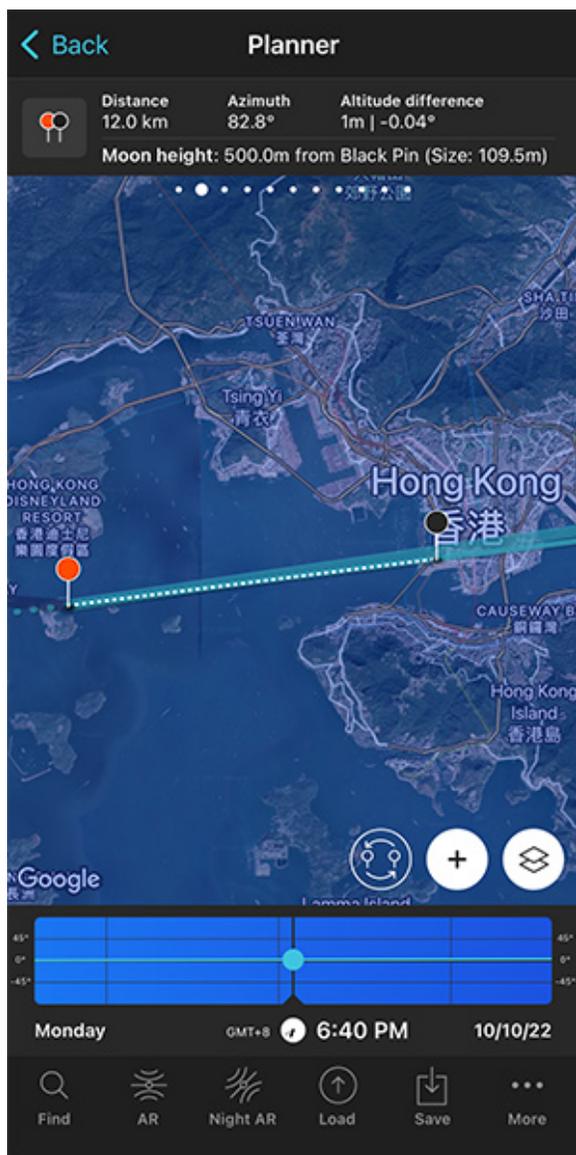
On the Map Settings screen, in the Map Layers section, tap *Moon*. In the new screen, activate the **Show Moon size** option using the slider and tap *OK*.

Once you return to the Planner, the Moon azimuth blue line has widened to show you the

Moon apparent size in the photo relative to the width of the International Commerce Centre (ICC).

The Moon looks huge!

Check the natural light



PhotoPills Planner - Plan done. The Moon aligns with the top of the International Commerce Centre (ICC) on October 10, 2022 at 06:40 pm.

PhotoPills Planner - On Panel 3 you can see the Sun elevation. It tells you what kind of natural light you'll have on the scene.

Next step is to check the type of **natural light** you'll have in the scene at the time of the photo.

As I mentioned before, when photographing the Moon, knowing the **natural light** you'll have

is key. Have a look at [section 4](#) to learn why.

To do this, look at the Sun elevation on [Panel 3](#). In this case, the elevation of the Sun is -9.36°.

This means that the Sun is below the horizon and that it's nautical twilight. Remember that the nautical twilight occurs when the Sun has an elevation between -6° and -12°.

During nautical twilight, there is not enough natural light to photograph both the Moon and the landscape (subject) in one exposure. But in this case, being a city, and because the tower is lit, you'll be able to nail your shot in a single exposure.

And now a few final tips!

When you're in the field, at the Red Pin position, use the [Augmented Reality view \(AR\)](#) on the Planner to visualize on your smartphone the position of the Moon.

Also, have a look at [section 20](#) and plan your Moon shot to the very last detail. This includes planning the field of view (the focal length) and the [depth of field](#) (to make sure you get everything in focus).

Oh!

And don't forget to tap the Save button and save the plan to your to-do list.

Would you like to become a Moonmaster? Then, check our [Moon photography guide](#).

Section 10:

How to plan a Milky
Way shot



Nikon Z6 | 14mm | f/2.8 | 30s | ISO 6400 | 4000K | Optolong clear sky 77mm (for the light pollution) and Kase Starglow (for the stars) filters

Photographing the Milky Way is magical.

But if you manage to do it in the way and the location you want, the result is even more rewarding. That's why planning is so important.

The good news is that planning the Milky Way is super easy.

Let me show you how to do it from your couch... ;)

In the following video you'll learn:

- How to easily plan the best possible Milky Way photo for a given date with PhotoPills.
- If you know the photo you want to take but don't know when it happens, how to determine the exact date and time that the Milky Way will be exactly where you want it to be.

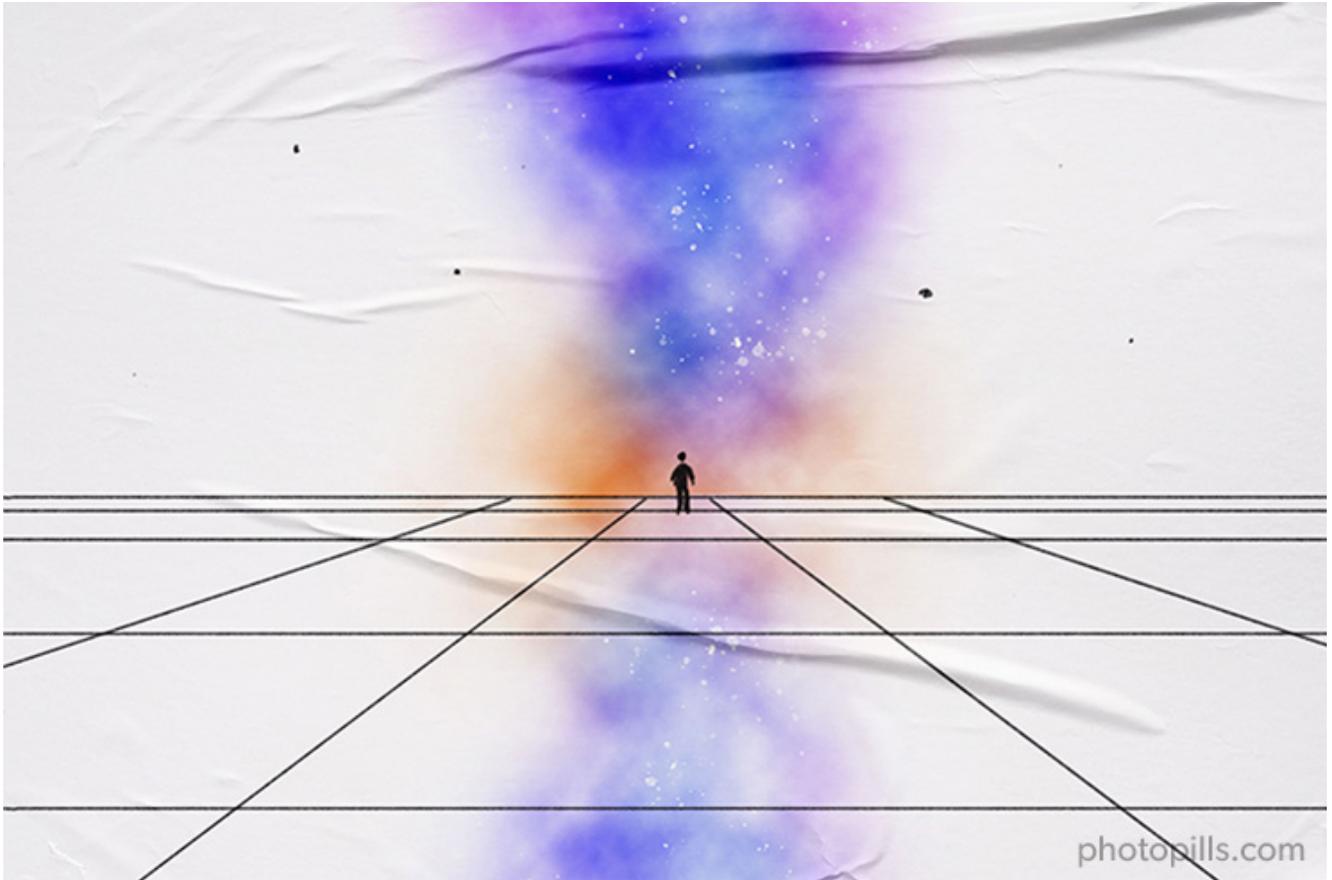
Learn PhotoPills

Milky Way Photography Planning



Now let's dive into the wonderful world of Milky Way planning with another example :)

Imagine that you want to capture the Milky Way completely vertical above the magical salt pans of Fuencaliente in the island of La Palma (Spain).



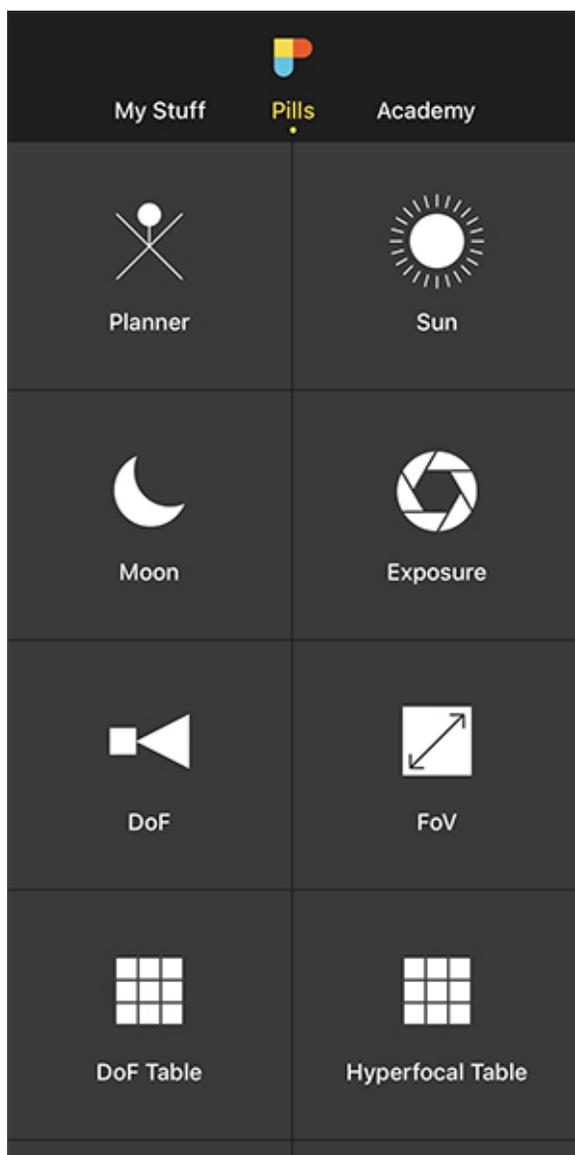
In addition to this, you could add a human figure aligned with the Milky Way to give the viewer a sense of scale, to add more interest to the image.

What do you think?

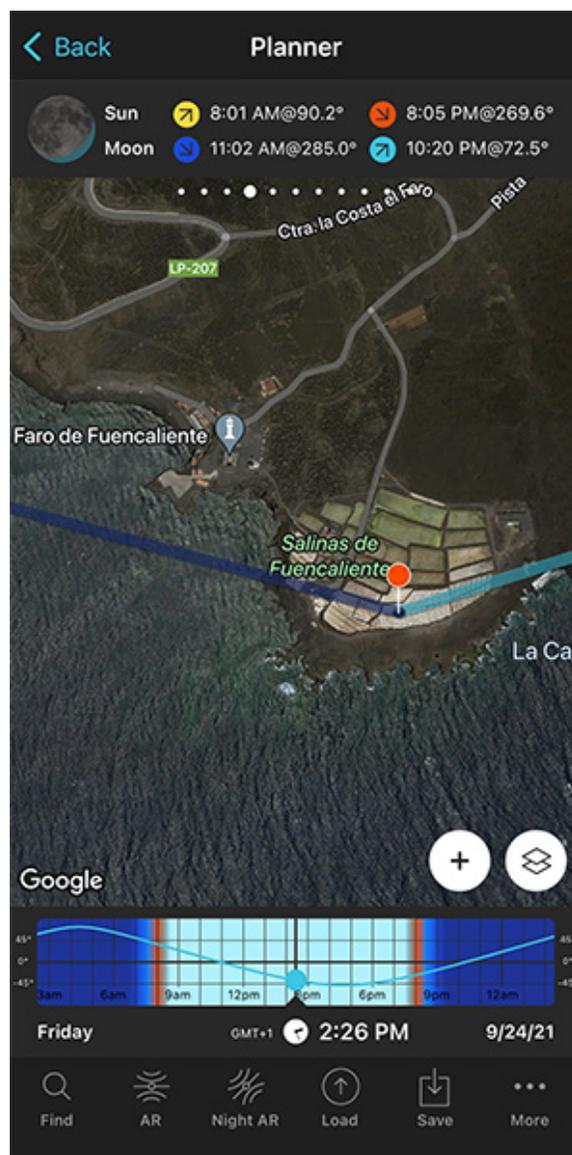
Doesn't it sound cool?

Let's plan the photo step by step! :)

Place the Red Pin on the shooting spot



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is on Salinas de Fuencaliente, on the island of La Palma (Spain).

The first step is to place the Red Pin in the location. You'll adjust the shooting spot later on.

So open **PhotoPills**, tap *Planner* (*Pills* Menu) and then place the **Red Pin** on the location you wish to go to photograph the Milky Way. For example, on Salinas de Fuencaliente, on the island of La Palma (Spain).

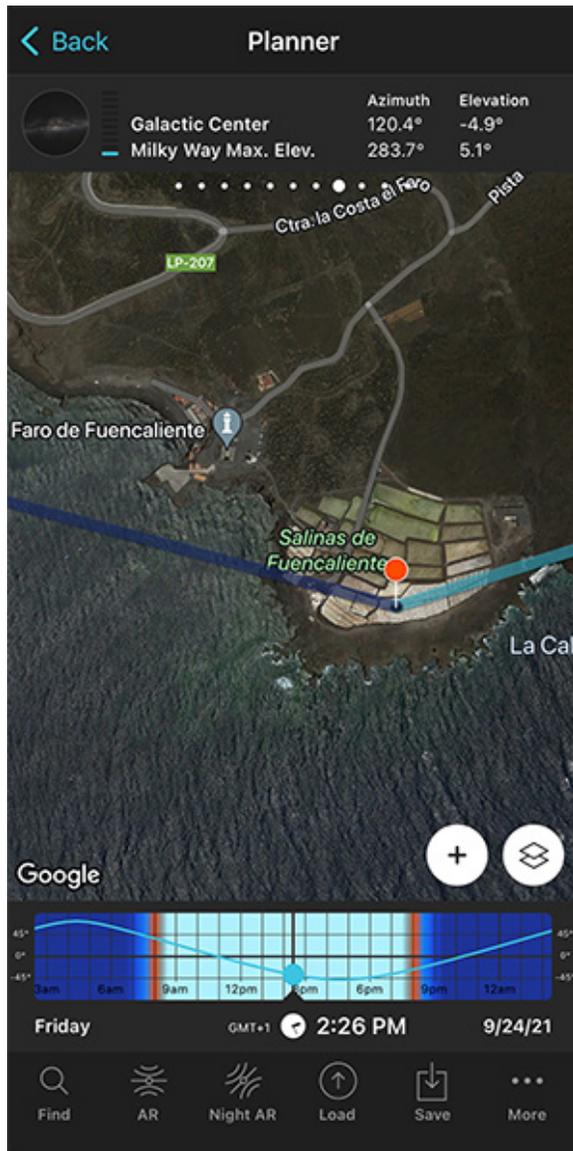
It's an incredibly beautiful spot, with plenty of salt pans where the salty water is perfect to capture reflections of the stars.

Tap the *Load* button (at the bottom) and type "Salinas de Fuencaliente" in the search bar.

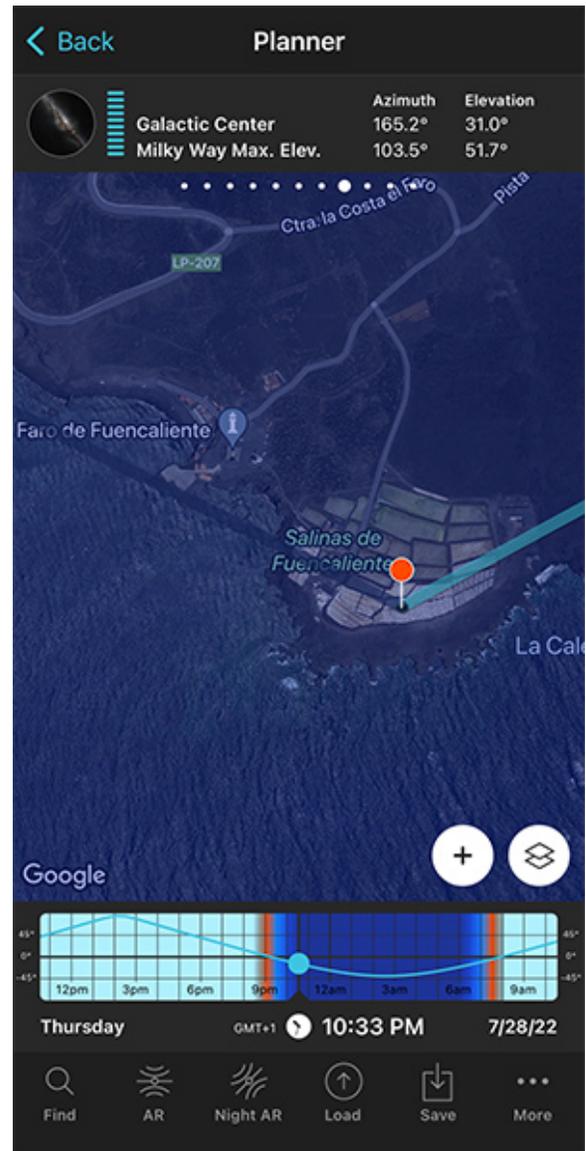
Then, select it and the Red Pin will be placed in the location.

If you don't know how to do it, [this video shows you how to move the Red Pin.](#)

Set the shooting date



PhotoPills Planner - Tap the Milky Way picture on Panel 8 to jump in time to the July 2022 New Moon.



PhotoPills Planner - On the Time bar, the date is set to 07/28/2022 (New Moon) and the time is 10:33 pm.

Now...

You can face two scenarios.

Scenario #1

If you know the date you want to photograph the Milky Way, let's say next Saturday, the next New Moon or any other date, you can set it using the **Time bar**.

When it's a date not far away from the present, set your current date and time by double tapping the Time bar below the map. And go forward in time by swiping it to the left to get to the date you want to take the photo.

When it's a date far away in time, set this specific date using the Calendar. To do this, tap the center of the Time bar. On the Date & time screen, tap *Date* to manually change the shooting date.

Once you have set the date, then you can find your shooting spot and shooting time based on the position of the Milky Way for that specific date. I'll explain how to do it in a minute.

But first, let's see scenario #2.

Scenario #2

Imagine that you have a composition in mind, for example, the Milky Way vertical with the salt pans of Fuencaliente, but you don't know the date it happens.

In this case I recommend you to check the possible compositions you can get in each one of the New Moons of the year, until you find the composition you're looking for.

This is the workflow you need to follow:

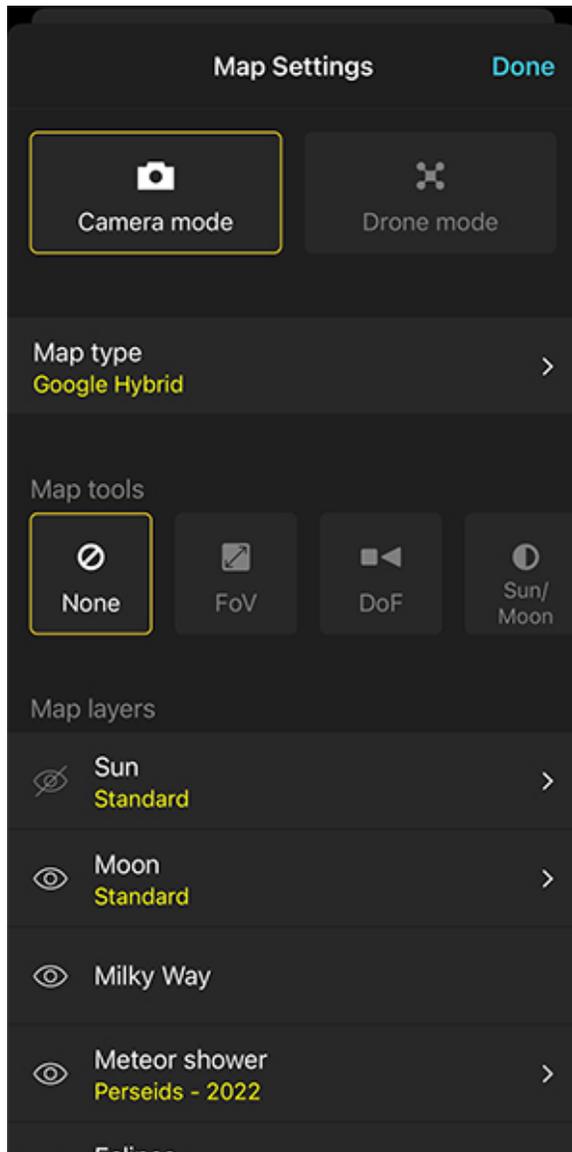
- Double tap the center of the Time bar to set the date to today and the time to right now.
- Swipe the panels above the map until you get to **Panel 8**, the second Milky Way panel.
- Tap the Milky Way picture on **Panel 8** to jump in time to the next New Moon. Double-tap it to jump the date to the previous New Moon.
- Finally, change the time with the Time bar to see where the Milky Way (and the Galactic Center) will be during the night.

OK!

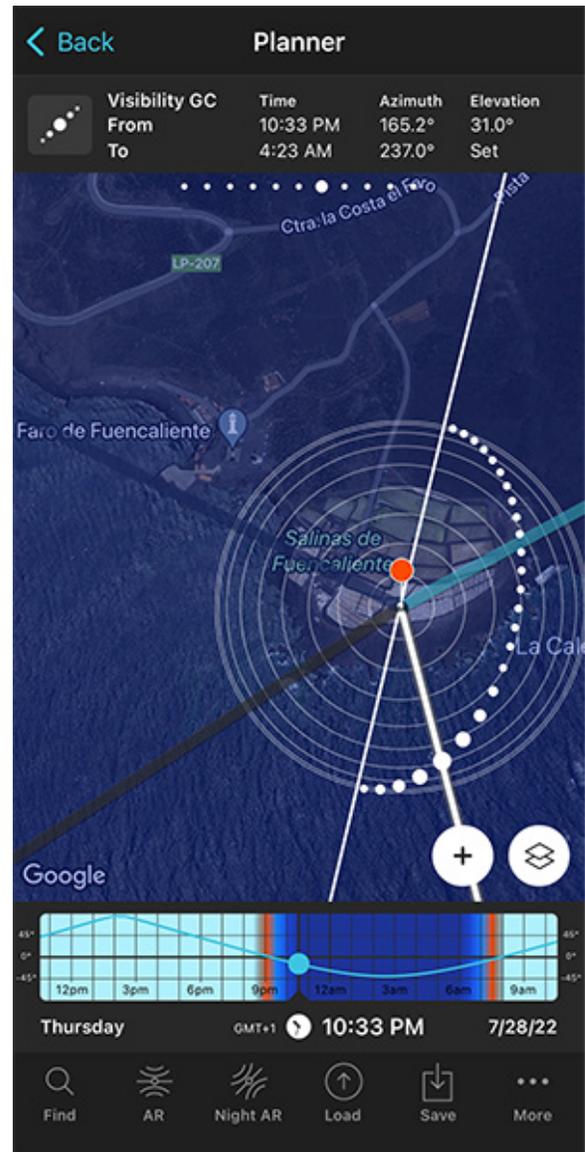
Let's suppose you want to take your Milky Way photo on the July 2022 New Moon.

In this case, the best option is to set the date is to use the Milky Way picture on **Panel 8**.

Switch on the Milky Way layer



PhotoPills Planner - On the Map Settings screen, tap the crossed eye icon to switch on the Milky Way layer.



PhotoPills Planner - Now you can see the Milky Way layer on the map and Panel 7 tells you the visibility time frame of the Galactic Center.

You have the Red Pin on the location you want, in Salinas de Fuencaliente. And you've set the shooting date you want (the July 28, 2022 New Moon).

To plan your Milky Way photo you need to understand the position of the Milky Way at all times. So the next step is to switch on the Milky Way layer on the map. Let's do it!

On the Planner's map, tap the **Map Settings** button (bottom right-hand corner, next to the **(+) button**).

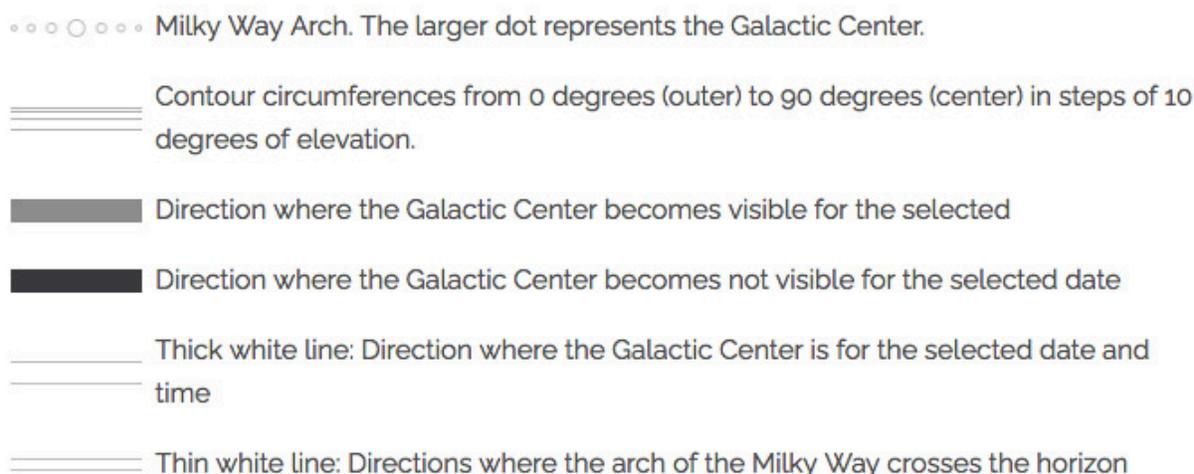
Then, check that the eye icon on the **Milky Way layer** map layer is not crossed out. If it is, tap it to turn the layer on. Tap *OK* (upper right corner) in iOS or the arrow to go back in Android.

If you want to have a cleaner view on the Planner, you can turn off the rest of the layers (tap the eye icons to cross them out). Consider keeping the **Moon layer** as it's always useful to know where the Moon is when planning a Milky Way photo.

Now...

If you swipe the Time bar until it's nighttime, you'll see the Milky Way appear on the map. It's represented by the white dotted arch.

This is the Milky Way info you can see on the map:



The biggest dot on the arch represents the Galactic Center, the center of our galaxy. It's the brightest part of the Milky Way, so it's the part you definitely want to include in your composition.

The contour circumferences help you understand the position of the Milky Way in the sky:

- When the Milky Way is close to the center (Red Pin), then the Milky Way is higher in the sky (more vertical).
- When the Milky Way is far away from the center, then the Milky Way is lower in the sky (more horizontal).

Tip!

The Milky Way picture on **Panel 8** tells you how vertical or horizontal the Milky Way is. Also, when you're in the field at the Red Pin position, you can use the **Night AR** button to visual-

ize the position of the Milky Way.

Cool... Let's go back to the plan...

The thin white line is key because it shows you the directions where the Milky Way arch meets the horizon.

Now, swipe the top panels to get to **Panel 7**, the first Milky Way panel. This panel tells you the visibility time frame of the Galactic Center (remember, the brightest part of the Milky Way).

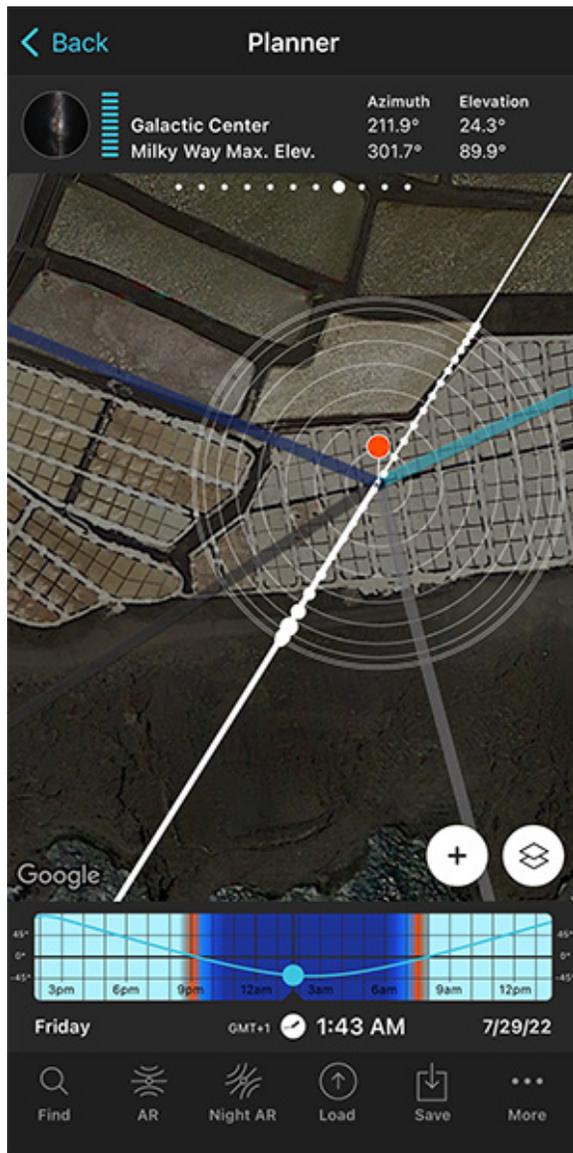
You can also see this information on the map, for the selected date and Red Pin position:

- The light grey line indicates the direction in which the Galactic Center will become visible. This occurs on July 28, 2022 at 10:33 pm.
- The dark grey line indicates the direction in which the Galactic Center will not be visible anymore. This occurs on July 29, 2022 at 04:23 am.

So the Galactic Center of the Milky Way will be visible in the directions between those two grey lines from 10:33 pm until 04:23 am.

Notice the Milky Way is visible everyday at night. But the Galactic Center is only visible for a certain period of time during nighttime.

Change the time until the Milky Way is in the position you want



PhotoPills Planner - Position of the Milky Way on July 29, 2022 at 01:43 am.



PhotoPills Night Augmented Reality view - Position of the Milky Way on July 29, 2022 at 01:43 am.

Now, swipe the top panels to get to **Panel 8**, the second Milky Way panel. The picture on this panel shows you the inclination of the Milky Way in the sky for a given date, time and Red Pin position.

So change the time with the **Time bar** until the Milky Way is in the position you want. For example, when it's completely vertical.

As you can see from the first screenshot above, this happens on July 29, 2022 at 01:43 am.

On the map, you see that the Galactic Center is visible towards the south west.

Have a look at the dotted white line – it's a completely straight line going over the Red Pin. This means that the Milky Way is completely vertical. To confirm it, have a look at the picture on **Panel 8** – it is clearly showing a vertical Milky Way.

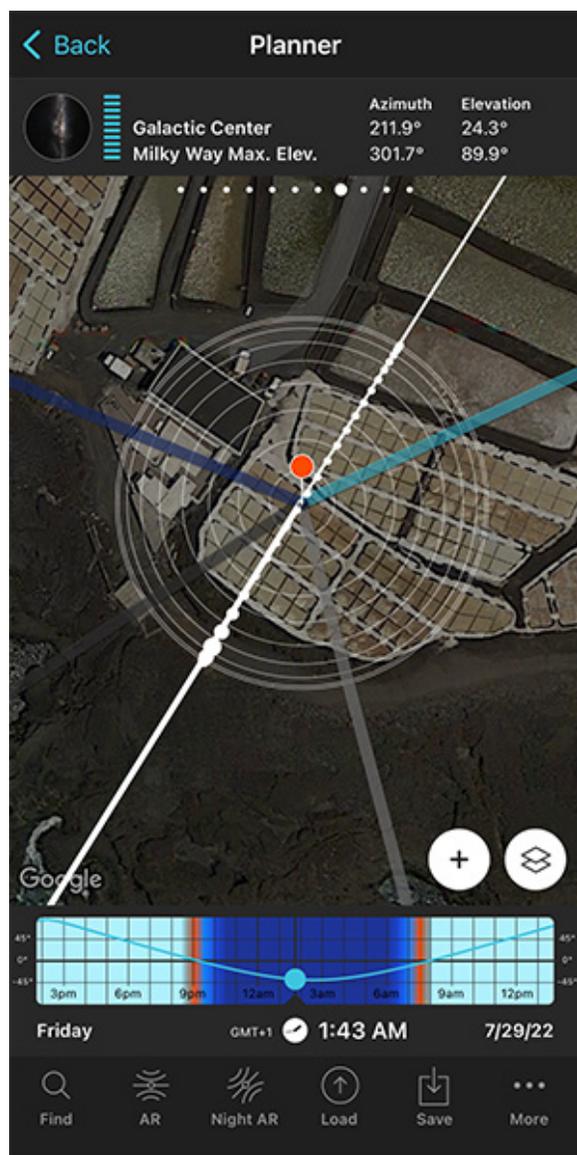
In addition to this, you can use the Night Augmented Reality (AR) view to check the position of the Milky Way, the Galactic Center (red dot) and the two crossing points with the horizon (represented by a thin white line on the Planner's map).

The Night AR view is showing a vertical Milky Way on July 29, 2022 at 01:43 am.

And remember that you can swipe the Night AR view to the left to move time forwards, and swipe it to the right to move time backwards.

If you can't get the position of the Milky Way for that specific date, follow the workflow I just explained in the "Set the shooting date" section. Just tap the Milky Way picture on **Panel 8** to jump time from New Moon to New Moon, until you find the Milky Way position you're looking for.

Move the Red Pin to adjust the shooting spot



PhotoPills Planner - On July 29, 2022 at 01:43 am the Core of the Milky Way will be vertical and aligned with the salt pans.



PhotoPills Night Augmented Reality view - The Night Augmented Reality view allows you to visualize if you got the composition you're looking for.

Now that you have the Milky Way where you want in the sky (e.g. completely vertical), all you have to do is move the Red Pin until you find a shooting spot to get a cool composition.

For example, move the Red Pin to align the Milky Way with your subject.

In this case, you should align the white line with the grid formed by the salt pans to create a powerful leading line...

Then, confirm the composition using the PhotoPills Night Augmented Reality (AR) view.

Make sure that the date and time is correct: July 29, 2022 at 01:43 am.

Once you find the photo you want, you have all the information you need:

- Your shooting spot (where you need to go).
- The shooting date and time (when you need to take the picture).

Also, have a look at [section 20](#) and plan your Milky Way photo to the very last detail. This includes planning the field of view (the focal length) and the [depth of field](#) (to make sure you get everything in focus).

Awesome!

Now you know where you have to go to capture a unique photo of the Milky Way.

The last step is to save the plan tapping *Save* and then *Plan*.

If you want to keep learning, have a look at our [Milky Way photography guide](#)!

Section 11:

How to plan a Star
Trails shot



Nikon Z6 | 18mm | f/2.8 | 25s | ISO 3200 | 3800K | 196 photos edited in [Lightroom](#) and stacked with [Star Trails for Mac](#)

I am sure that the first thing that comes to your mind is “What Star Trails pattern can I capture?”.

Well, it depends on the location you are in.

As you know, in [section 4](#) I explain in detail all the Star Trails patterns you can photograph in both the Northern Hemisphere and the Southern Hemisphere.

But the good new is that [PhotoPills](#) will help you plan not only the Star Trails pattern you want, but also:

- If you will have Moonlight in the scene.
- The position of the Polaris (Northern Hemisphere)

- The position of the South Celestial pole (Southern Hemisphere)
- The position of the celestial equator. It's where stars seem to move in a straight line.
- The time at which you should start taking photos.

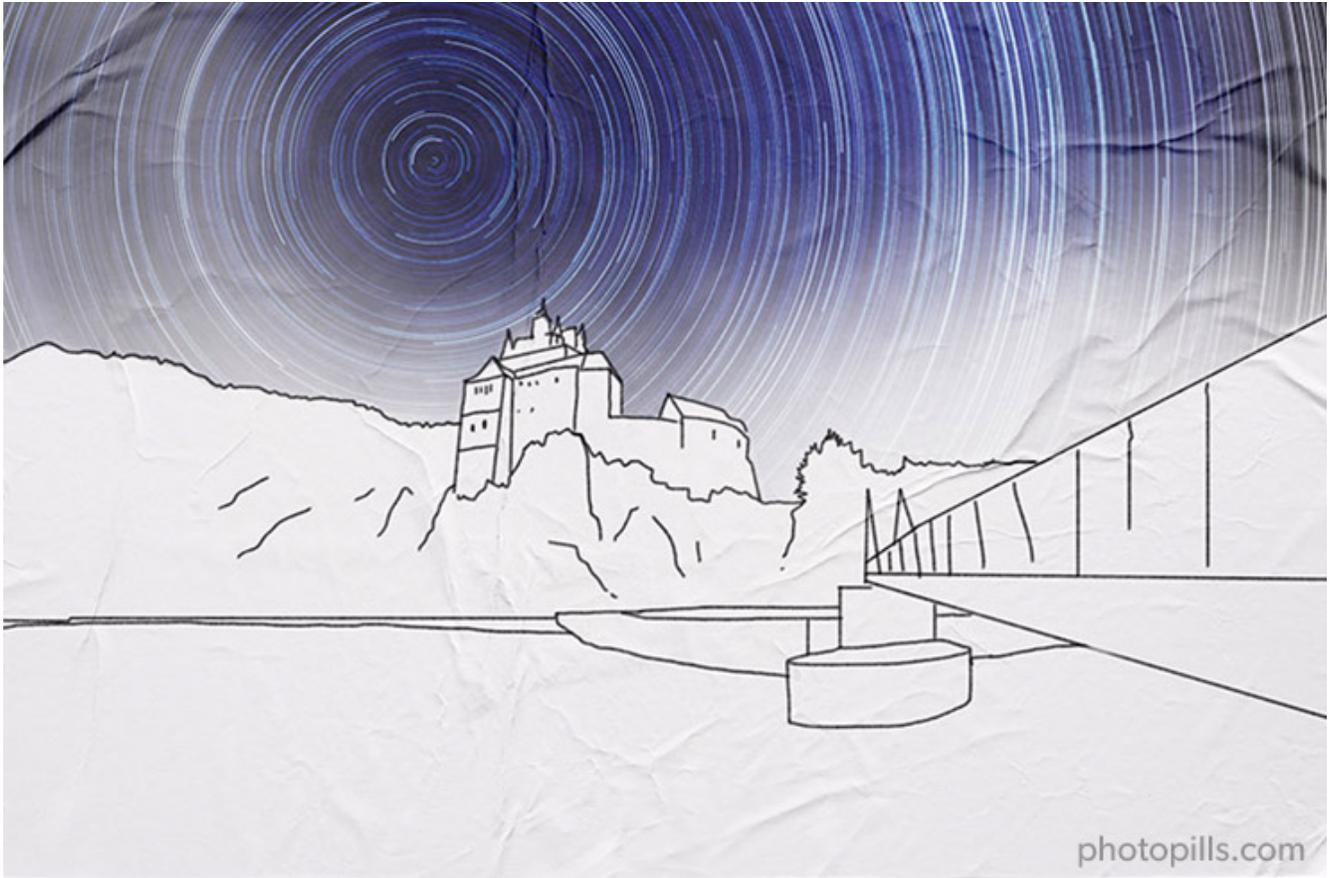
Actually, PhotoPills will answer all your questions!

If you're still in doubt, check out this video where Rafa teaches you how to plan a Star Trails photo from start to finish.



And if you don't like videos, here's a step by step explanation of another example.

Imagine that you want to capture an amazing circumpolar right above the magical Kriebstein Castle, a beautiful castle located in Kriebstein near the town of Waldheim, Saxony (Germany).



Sounds cool, huh?

Let's see how you can easily plan it...

Plan your Star Trails shot in the field (1)

To plan your Star Trails shot in the field, you need to follow a very simple workflow and use one of my favorite tools – the Night Augmented Reality (AR) view.

Here's a video where Rafa explains how to do it in a few minutes.

Plan Star Trails in the Field in 1 Minute

 PhotoPills



Go to the location to check your composition

The first thing that you need to do is to go to the location. In this case, Kriebstein Castle, a beautiful castle located in Kriebstein near the town of Waldheim, Saxony (Germany).

You want to check and confirm your composition on the field. Go to the other side of the Zschopau river, right at the end of the bridge crossing it from the castle.

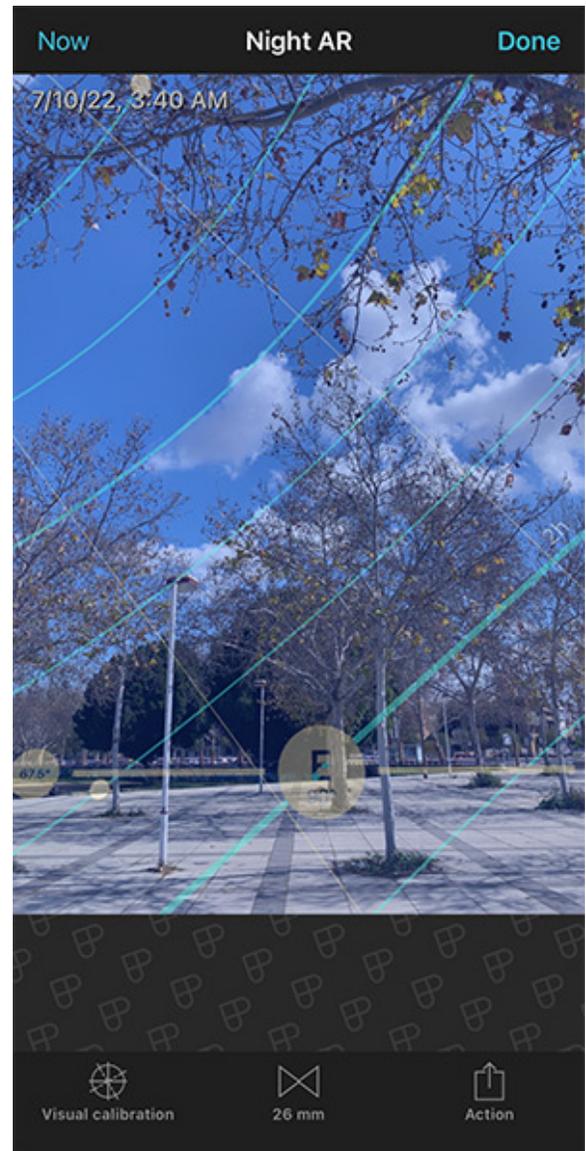
Now, stand in front of the subject.

Don't worry about the distance or the angle. You'll fine tune it later on.

Use the Night Augmented Reality (AR) (AR)



PhotoPills Night AR view - Polaris and the circumpolar pattern.



PhotoPills Night AR view - Celestial equator (thick blue diagonal) and the Star Trails pattern.

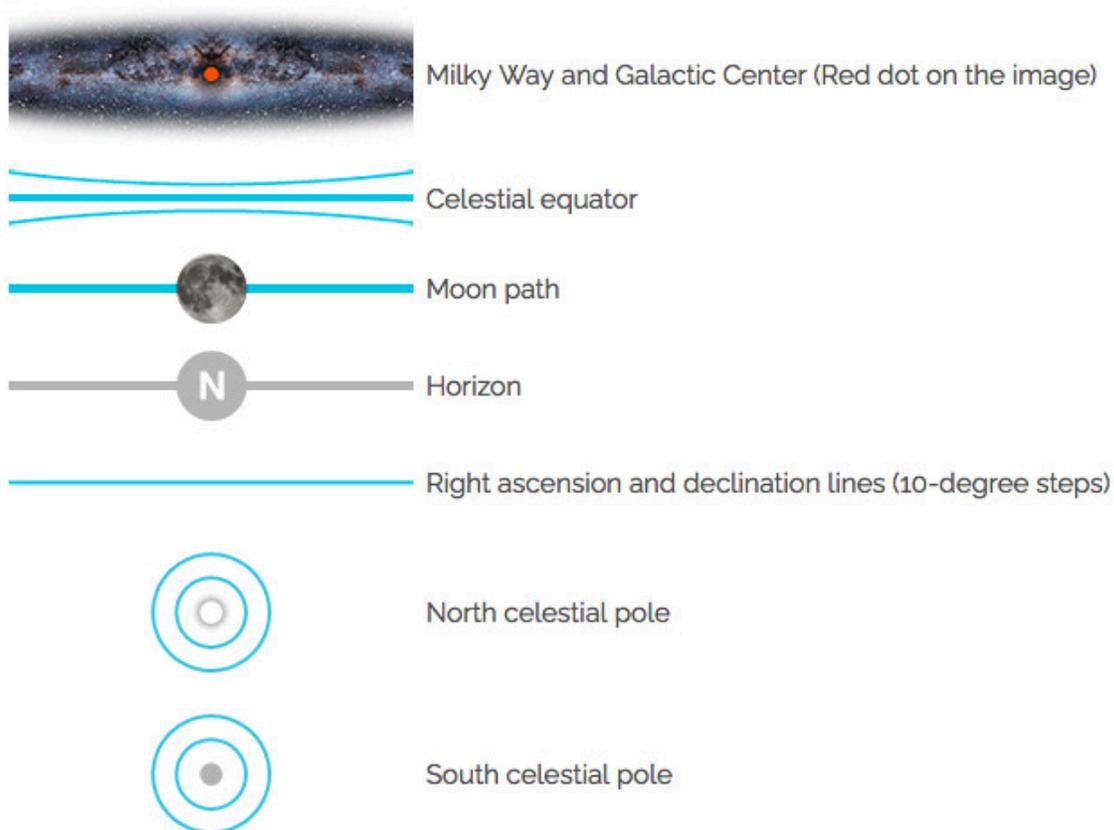
Use the Night Augmented Reality (AR) view to find the Polaris, the celestial equator, and every possible star trail pattern.

Tap the **Night RA** button (at the bottom of the screen).

Thanks to your smartphone's GPS, PhotoPills knows your current position and current date and time. You can check it at the top left hand corner of the screen.

Point your smartphone to your subject. In this case, Kriebstein Castle.

On the screen you can see what's going on in the sky right at that moment!



The blue curved lines you see on the Night AR view represent the Star Trails pattern you'll get when framing in that direction.

And the white moving dots are the stars. Their movement indicates the sense of rotation around the celestial poles.

So now you can see on the screen:

- Your subject, Kriebstein Castle.
- The Star Trails pattern you'll get when framing in that direction.
- The stars' movement and sense of rotation around the celestial poles.

Also, what's great about Star Trails is that you can photograph the same composition (same Star Trails pattern) every night. The only things that change are the weather and the Moon. Always double check the phase, position and path of the Moon in the Night AR view.

Therefore, decide the shooting date depending on what you need. In other words, just wait for a night with no clouds and the Moon conditions you want (e.g. no Moon, thin Moon to add light from the side...)

Going back to our example...

What's amazing is that the Polaris is right above Kriebstein Castle! So you can capture a beautiful circumpolar along with the castle, the waterfall below and part of the bridge.

On top of it, dragging your finger on the Night AR view allows you to see where the Moon and the Milky Way will be during the shooting:

- Do it from right to left to move time forwards.
- Do it from left to right to move time backwards.

Why would you like to know where the Moon is going to be?

Well, for 3 reasons:

- To know if the Moon is going to illuminate the scene, you need to know the Moon phase.
- If yes, what is going to be the Moonlight direction during the shooting session.
- And because you should avoid the Moon entering the frame at all times! Remember that you'll be shooting a sequence of long exposures for a few hours.

So, back to the plan...

According to the Night AR view, on July 10, 2022 the Moon will be towards the south west. So it's going to be behind you, illuminating Kriebstein Castle (80.9%).

Note: You can check the Moon phase using the Moon pill. Alternatively, have a look [Panel 3](#) on the Planner checking that the Red Pin is in the shooting spot and the Time bar is set to July 10, 2022.

If the Star Trails pattern you get is not the one you want, just move around the location and readjust the shooting spot according to your needs.

Then, use the Night AR view again to check the Star Trails pattern, the stars' movement and how the elements are aligned in your composition.

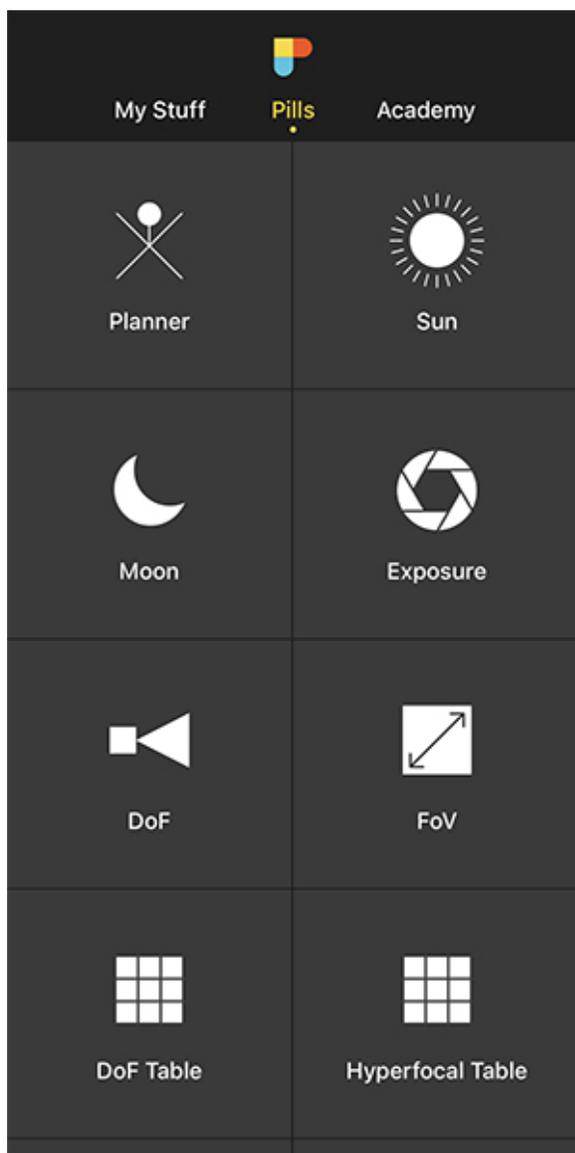
If you don't like what you see, change the shooting spot and repeat the process. Simply iterate until you find the photo you want.

Plan your Star Trails shot from home (2)

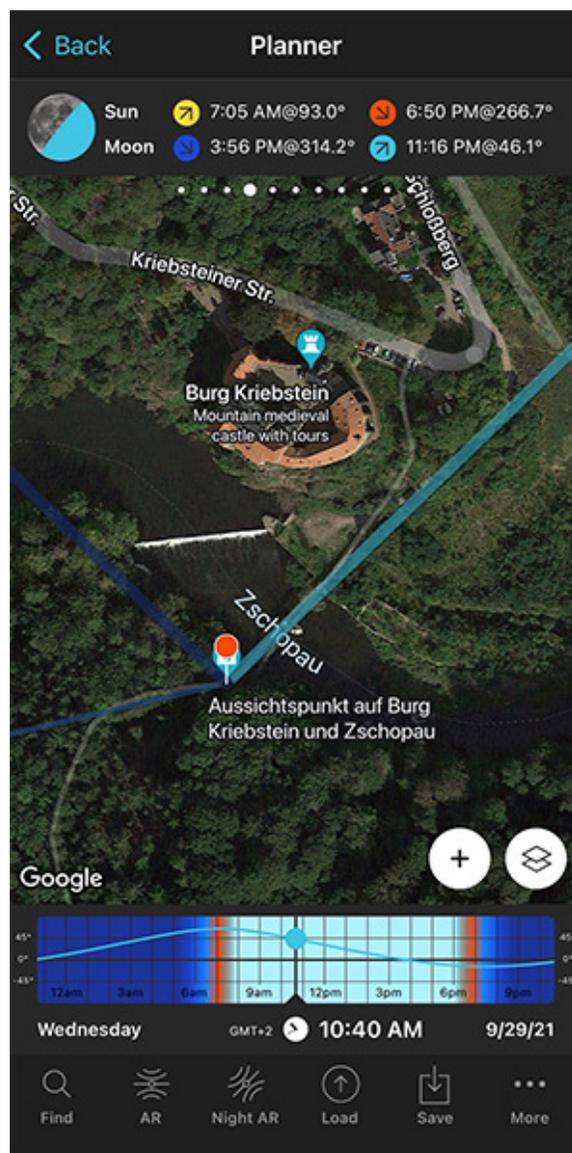
To plan your Star Trails shot from home, your best ally is the Planner.

Let's see together the steps you need to follow.

Place the Red Pin on the shooting spot



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is on Kriebstein Castle, located in Kriebstein, Saxony (Germany).

Open **PhotoPills** and tap *Planner* (*Pills* menu).

Then, place the **Red Pin** on the potential shooting spot. In this case, in front of Kriebstein Castle, a beautiful castle located in Kriebstein near the town of Waldheim, Saxony (Ger-

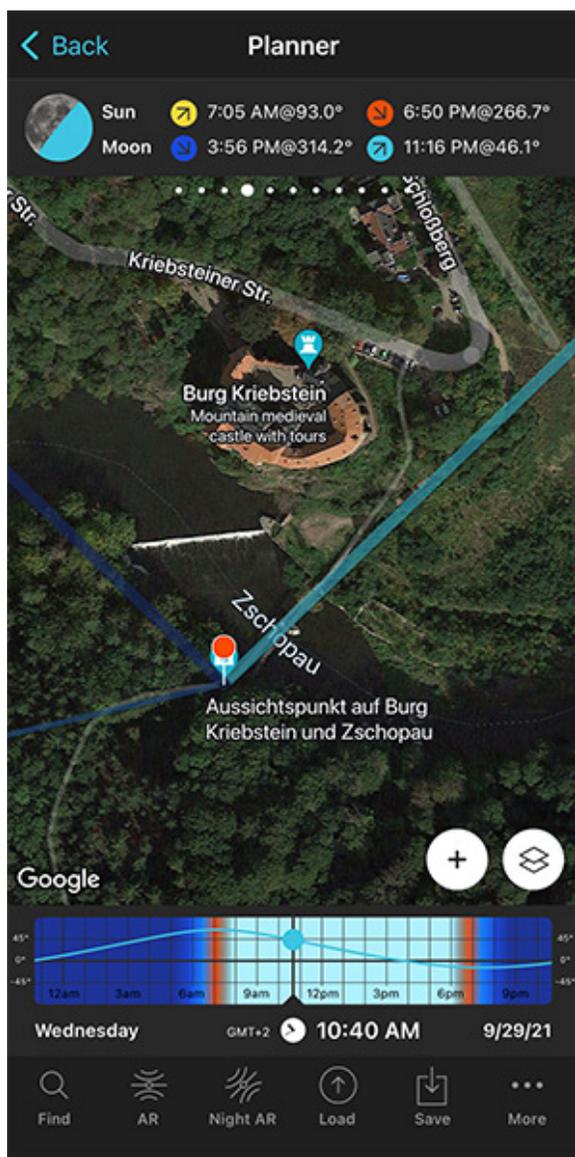
many).

Tap the *Load* button (at the bottom) and type "Kriebstein Castle" in the search bar. Then, select it and the Red Pin will be placed in the location.

Now, move the Red Pin to the other side of the Zschopau river, right at the end of the bridge crossing it from the castle.

If you don't know how to do it, [this video shows you how to move the Red Pin](#).

Decide the Star Trails Pattern you want



PhotoPills Planner - The Red Pin is on Kriebstein Castle, located in Kriebstein, Saxony (Germany).



PhotoPills Night AR view - Polaris and the circumpolar pattern.

On the map, north is straight up (in the direction of the castle based on the Red Pin position), south is straight down, east is straight right and west, straight left.

Knowing this, and with the help of the Night AR view, you also know the **Star Trails pattern** you'll get based on the shooting direction.

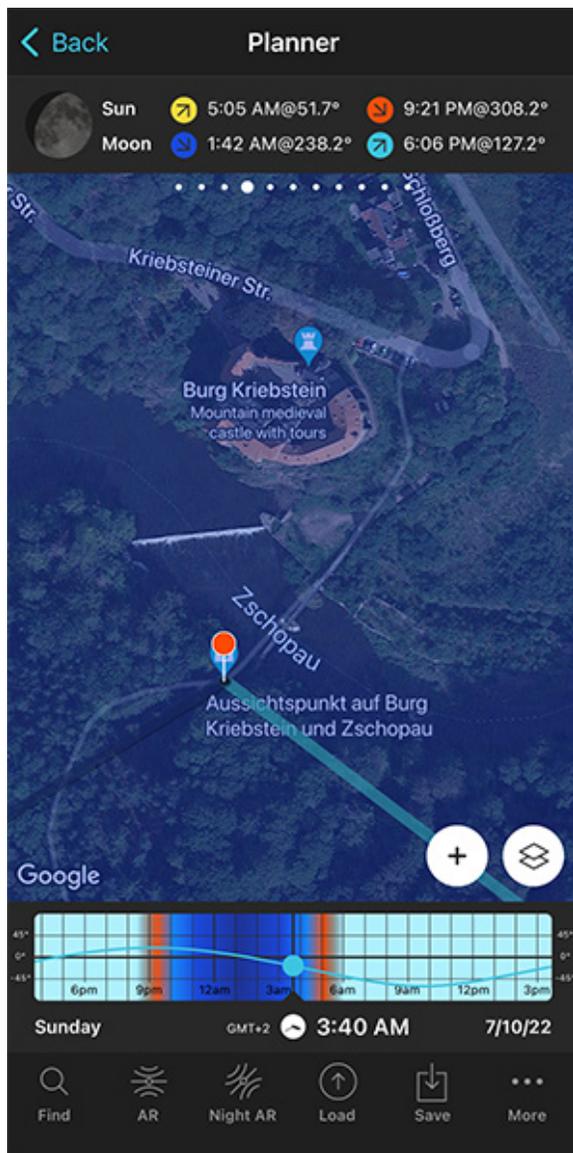
For example, in the Northern Hemisphere:

- Aiming north, you'll frame the Polaris, and thus you'll get a circumpolar image.
- Aiming east and west, you'll frame the celestial equator, getting a pattern where stars appear to move in 3 directions: in a straight line on the Equator and diverging away from it on both sides.
- Aiming south, stars will describe arches above the landscape.

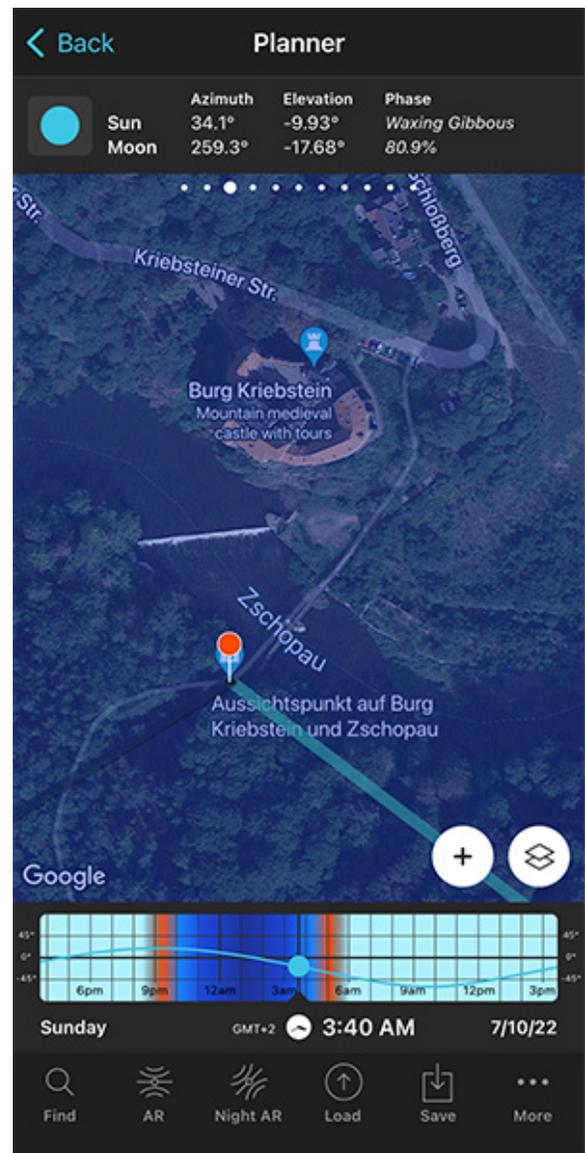
To sum it up, place the Red Pin in a location where you can get the Star Trails pattern you want aligned with your subject.

In this example, I've placed the Red Pin to the south of the castle, placing the Polaris above it to capture a circumpolar image.

Set the shooting date and time and check the Moon



PhotoPills Planner - Panel 4 shows you the Moonset time (01:42 am) and the Moon phase.



PhotoPills Planner - Panel 3 gives you the exact Moon phase percentage (80.9%).

Once you've placed the Red Pin right where you are (ie. in the shooting spot), you need to set the date when you will shoot the Star Trails. So you can check the phase and position of the Moon.

Will it be below the horizon? Above the horizon? And where will it be in the sky (light direction)?

Since you know the date you want to photograph the Star Trails, let's say next Saturday, the next New Moon or any other date, you can set it using the **Time bar**.

When it's a date not far away from the present, set your current date and time by double tapping the Time bar below the map. And go forward in time by swiping it to the left to get to the date you want to take the photo.

When it's a date far away in time, set this specific date using the Calendar. To do this, tap the center of the Time bar. On the Date & time screen, tap *Date* to manually change the shooting date.

Once you've set the date, check the information the Planner is giving you.

First, the Moon directions:

- The thick light blue line tells you the direction of the Moonrise. Since it's happening at 06:06 pm, you don't need to worry about it because you don't intend to shoot at that time of the day.
- The thick dark blue line tells you the direction of the Moonset. As you can see, the Moon will set opposite your subject, so it will be right behind the Red Pin position (the shooting spot where you'll be). In other words, it won't be in your frame.
- The thin blue line tells you where the Moon is at the selected time. So you know where the Moon will be throughout the night. When the Moon is above the horizon, you'll know the Moonlight direction.

Second, **Panel 4** is telling you that the Moon will set at 01:42 am, so there will be no Moon to worry about after that time. Therefore, unless you want to have the Moon lighting the foreground, you should start shooting after that time.

Third, **Panel 3** is giving you the exact Moon phase percentage: 80.9%.

In addition to this, you can always use (even from home!) the Night Augmented Reality (AR) view to check the position of:

- The Polaris.
- The stars while creating the Star Trails pattern.
- The Moon.
- The Milky Way.
- The Galactic Center (red dot).
- The two crossing points with the horizon (represented by a thin white line on the Planner's map).

Great!

Now all you have to do is to save the plan tapping *Save* and then *Plan*.

Keep learning with our [Star Trails photography guide!](#)

Section 12:

How to plan a Meteor
Shower shot



Nikon Z6 | 18mm | f/2.8 | 25s | ISO 3200 | 3800K | 1 base shot and 2 meteor shots

The key to successfully photographing a Meteor Shower is knowing:

- The peak date and time. So you can capture as many meteors as possible.
- The time the Moon will set, and the number of hours you can photograph the Meteor Shower with no Moon. Moonlight washes out meteors.
- And the position of the Meteor Shower's radiant.

"That's great Toni, but... What is the radiant? And why is it so important?"

Well...

The radiant is the point in the sky from which meteors originate.

Include the radiant in the frame, and you'll be able to create in post-processing an image in which all meteors irradiate from a single spot in the sky. Just like you see in the picture above.

Or you could frame away from the radiant (30°-40°) to try to capture longer meteors.

It all depends on the photo you have in mind...

So the question here is:

How can you locate the radiant in the sky?

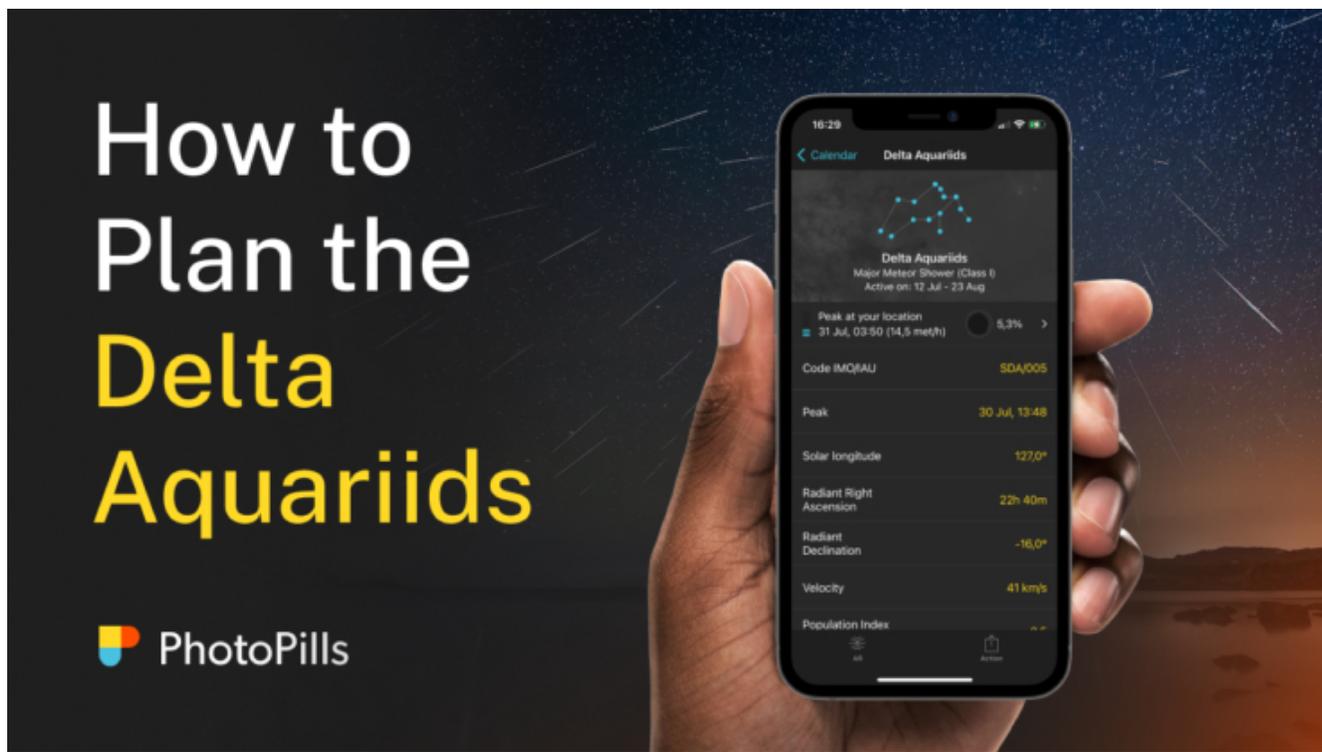
Easy...

Find it out with the help of **PhotoPills**:

- In the field, with the Meteor Shower pill.
- From home, with the Meteor Shower features of the Planner.

Long story short...

If you want to learn everything you need to plan a photo of a Meteor Shower you like (e.g. the Perseids, the Geminids...), watch this video:



But let me explain another example...

Let's say you want to plan the Geminids Meteor Shower above a magical taula – a megalithic stone monument formed by a vertical pillar with a horizontal stone lying on it. You can find many of these ancient constructions on the island of Menorca (Spain).

One of the most impressive ones is the taula of Torralba d'en Salort talaiotic village, one of the largest on Menorca and perfectly preserved.



Let's plan this photo. You can do it following 2 workflows: when you're in the field and from home.

Plan your Meteor Shower shot in the field (1)

Before the Sun sets, go to the shooting location in advance (hours, days, or months before the shooting date).

Why before **Sunset**?

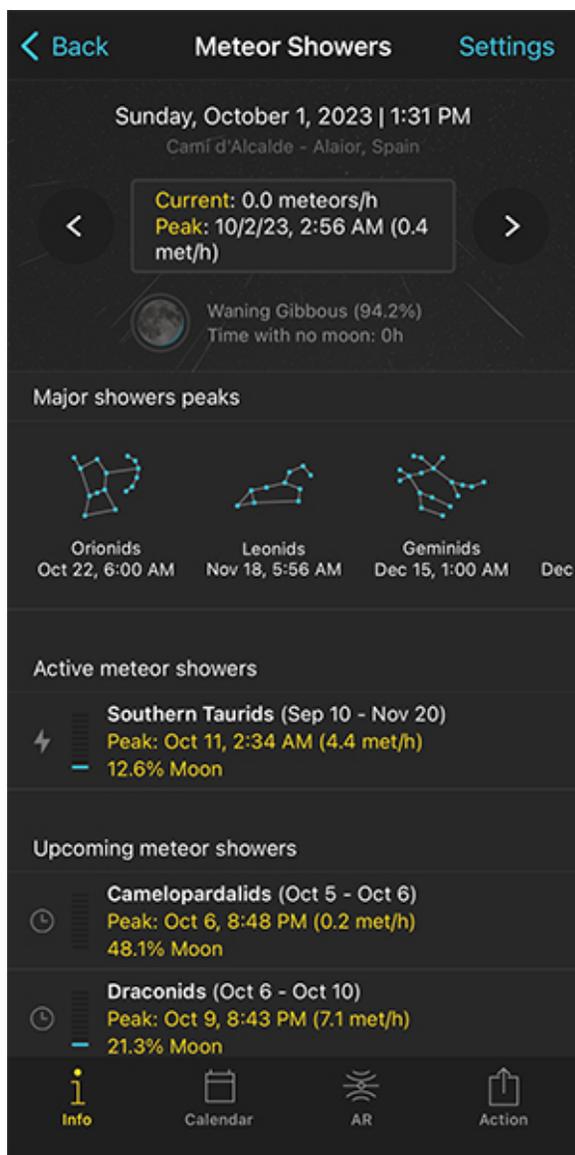
Because finding a cool composition in the dark is complicated. Planning your photos during the day is much easier!

So...

When you're in the field, get close to your subject (the taula in this example). Then, use the Meteor Shower Pill in PhotoPills to quickly plan the shot for the Geminids.

The Meteor Shower Pill gives you instant access to all the key information of the most important Meteor Showers, including an Augmented Reality view to help you locate the radiant in the sky... And it works offline!

Select the Meteor Shower you want to photograph



Meteor Showers > Info. All the key information about the active Meteor Showers for a selected date and location. And also a shortcut to the most important Meteor Shower peaks.



Meteor Showers > Calendar. The calendar of the most important Meteor Showers for the selected year (2023). Swipe left or right to change the year.

Open [PhotoPills](#) and tap the *Meteor Shower Pill* (*Pills* menu).

PhotoPills uses your current date, time and location to show you all the key information about the upcoming Meteor Showers.

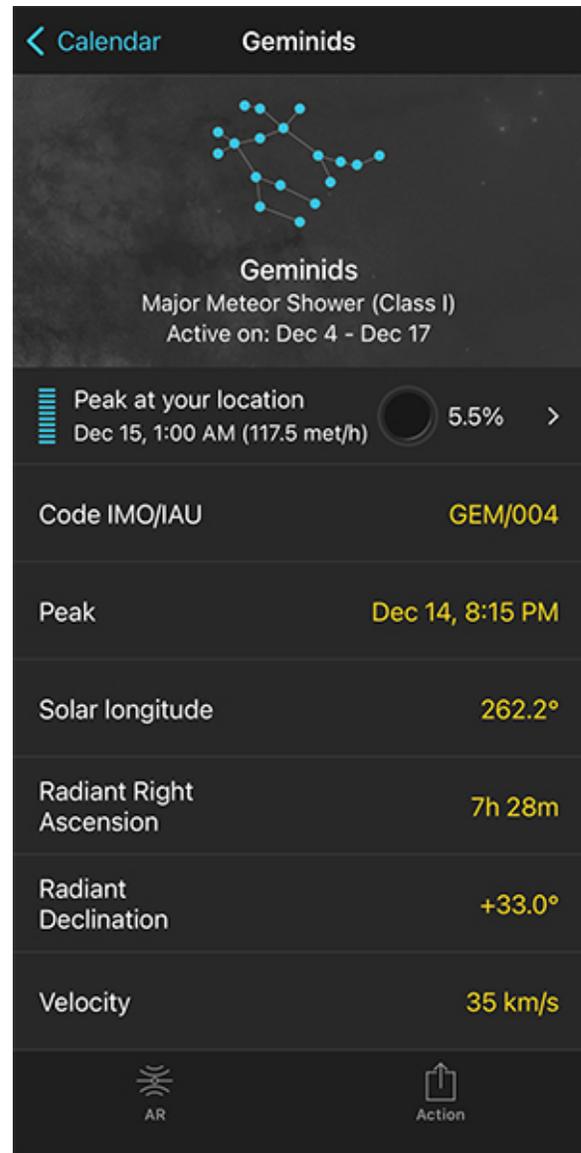
Notice that your location, date and time appear at the top of the screen (*Info* tab). If necessary, you can change the location, date and time from the *Settings* option (at the top right hand corner).

In this case, it shows you that you are at the Torralba d'en Salort talaiotic village in Menorca (Spain).

Now, choose the Meteor Shower peak you want to plan either from the *Info* tab (choosing one of the major upcoming showers) or from the *Calendar* tab.

Notice that to help you choose a cool Meteor Shower, the information PhotoPills provides includes the name, the period of activity, peak date, peak time, peak meteors/h and peak Moon phase.

It also includes a blue energy bar showing you how good the Meteor Shower is in terms of the number of meteors you could capture. The more filled the energy bar is, the better the Meteor Shower is expected to be.



Meteor Showers > Calendar. The calendar of the most important Meteor Showers for the selected year (2023). Swipe left or right to change the year.

Meteor Showers > Calendar > Geminids. The 2023 Geminids information sheet. Tap the first row to select it and see all the information in the Info tab.

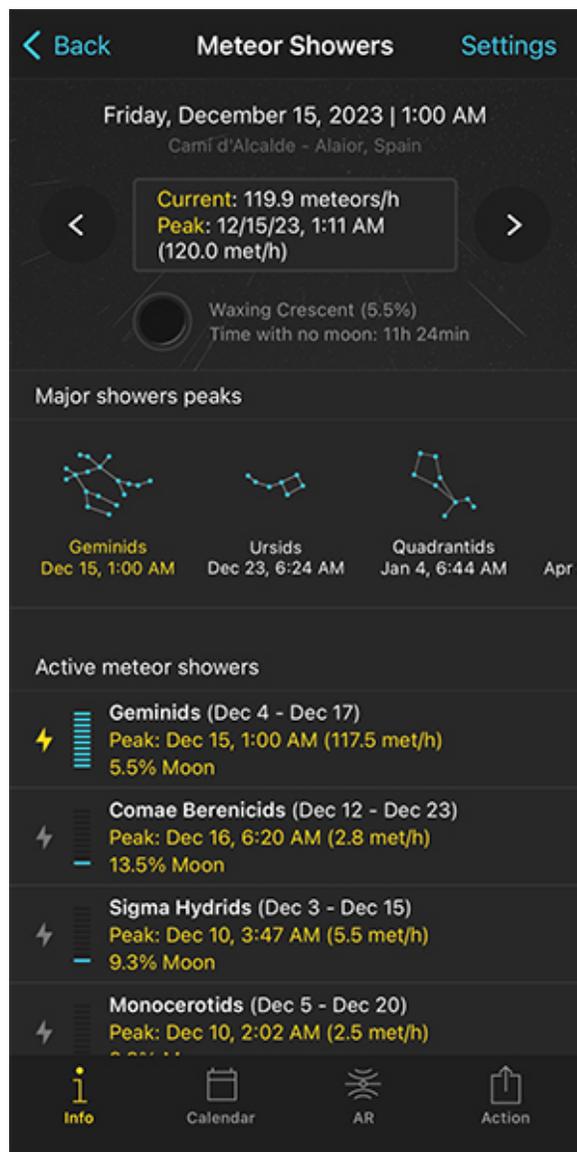
Let's say that you have a look at the 2023 Meteor Shower calendar and decide to plan a photo of the Geminids.

It seems to be a great year for the Geminids. The peak is on December 15 at 01:00 am, the Moon is very thin (5.5%) and the shower is expected to be super intense (117.5 meteors/h) from your location.

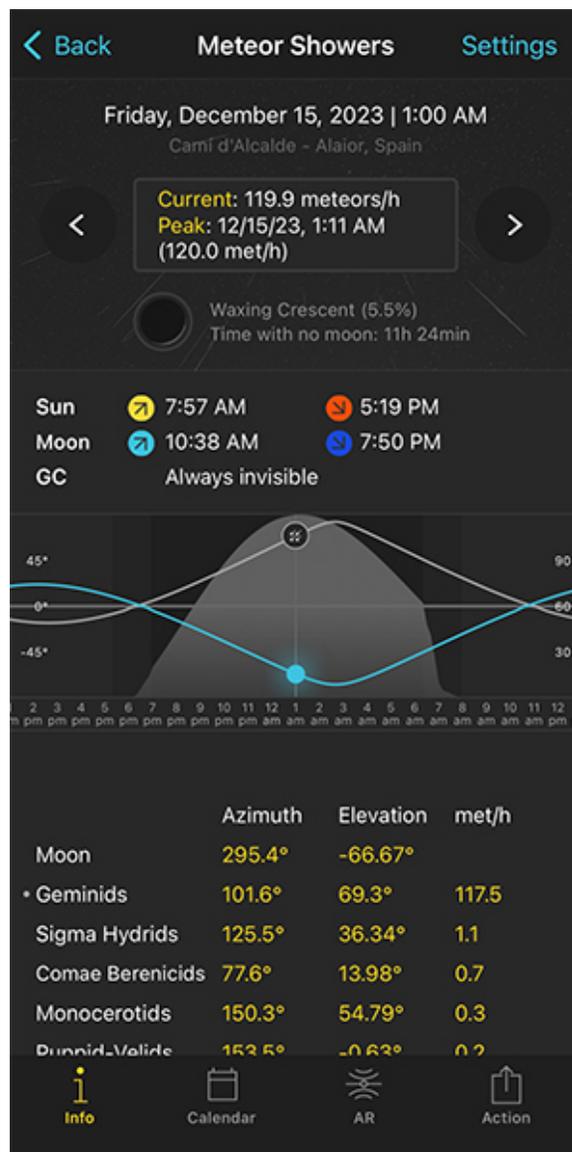
In the Calendar, when you tap a Meteor Shower, you'll access the Meteor Shower information sheet. Tap the Meteor Shower peak info (first row of the table) to select it and see the Geminids information on the main *Info* tab.

Now you have everything you need to start planning your photo of the 2023 Geminids.

Find the shooting date and time



Meteor Showers > Info. All the key information about the active Meteor Showers for a selected date and location. And also a shortcut to the most important Meteor Shower peaks.



Meteor Showers > Info. Scroll down the screen to discover more info. Including the key Sun, Moon and Milky Way info; a graph showing the peak of activity and the paths of the radiant and the Moon; the azimuth and elevation of the Moon and active Meteor Showers, and meteors/h of each shower.

Once you've selected the Meteor Shower, all the key information will appear in the *Info* tab.

What you're seeing now is all the information you need to know about the Meteor Shower activity for your current location and for the date and time the 2023 Geminids is peaking (December 15 at 01:00 am). If you want to change the location, the date and time, tap Set-

tings (at the top right hand corner).

In the big box, you have:

- The number of meteors/h for the selected date and time (the Geminids peak date and time: December 15 at 01:00 am). Notice that this number takes into account all the active Meteor Showers. You can see these Meteor Showers listed further down in the screenshot.
- The expected peak time and expected peak meteors/h (taking into account all active Meteor Showers).

Below the big box, you find the Moon phase and the amount of time you can enjoy the Meteor Shower activity without any Moon: 11h 24min.

Pretty cool, isn't it?

Swipe your finger on the big box to change time and see how the Meteor Shower conditions change throughout the night.

If you scroll down a bit, you'll also find the key Sun, Moon and Milky Way information.

And below it, there is a super interesting graph (see screenshot 2 above).

This graph is great to quickly know at what time the maximum intensity of meteors will happen and how intense the shower will be. Moreover, visualizing the paths of the radiant and Moon gives you valuable inputs on how the Moon and the radiant will affect the shooting session.

Swipe your finger on the graph to change the time and see how the Meteor Shower intensity evolves.

Finally, at the bottom, you'll find the azimuth and elevation of the Moon and all the radiants of the active Meteor Showers. It also includes the number of meteors/h of each shower.

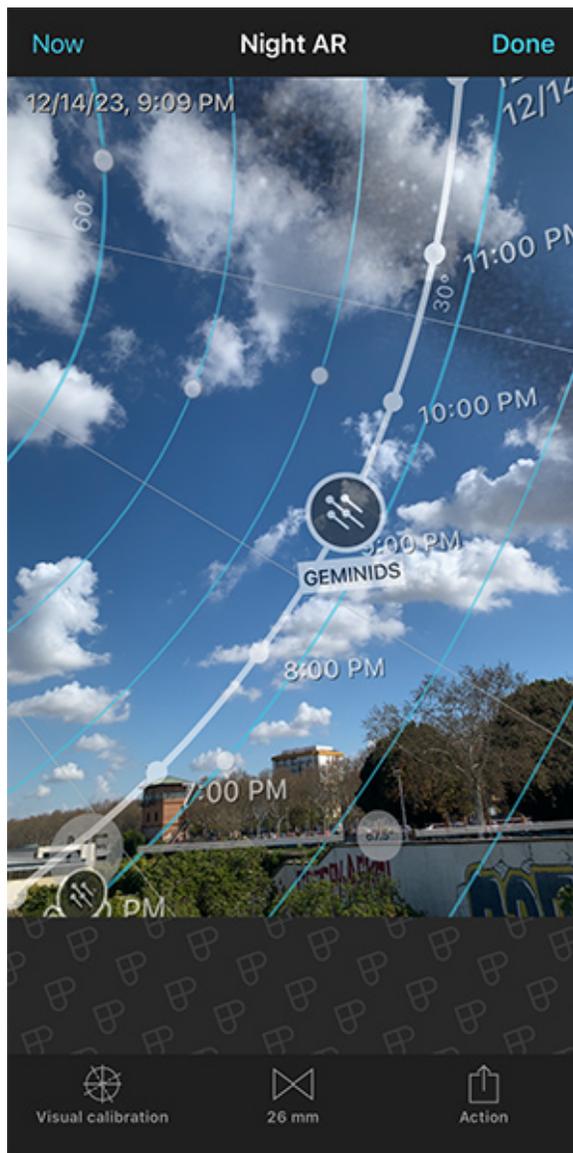
Now...

When should you photograph the 2023 Geminids?

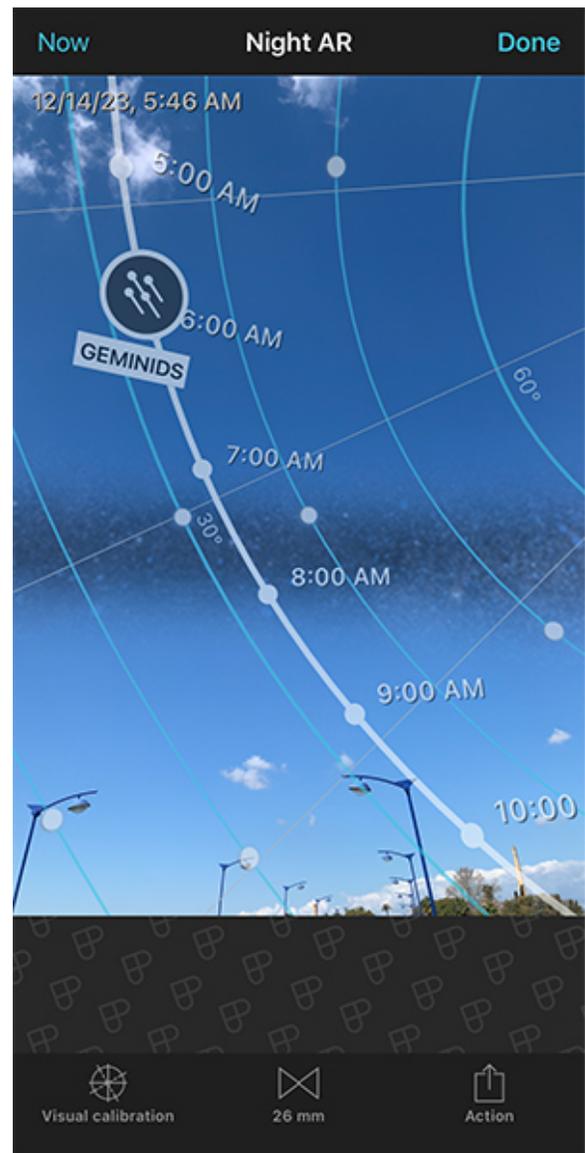
According to the meteors intensity graph, you should do so on the peak night, which is December 14 to 15, from 07:00 pm until 07:00 am.

As you've guessed, the longer you spend taking photos, the more meteors you'll capture.

Find your shooting spot and framing (locate the radiant in the sky)



PhotoPills Night AR view - Night AR view of the radiant at the beginning of the shooting session.



PhotoPills Night AR view - Night AR view of the radiant at the end of the shooting session.

You're there, in front of your subject, and you want to know the position of the radiant. Once you know it, you can decide the shooting spot from where you can capture the photo you want.

Previously, you've selected the peak date of the Geminids from the Calendar and you're ready for action.

Now, tap the AR button to locate the radiant at the beginning and at the end of the shooting session.

It's always a good idea to **calibrate the AR view** to make sure that what you're seeing through your smartphone is accurate.

Swipe your finger from left to right or right to left on the AR view to visualize how the radiant moves across the sky.

Cool...

Now that you know where the radiant is at all times, you can decide to include it in the frame, for example. Thus, walk around the area looking for the right shooting spot to get the composition you have in mind.

Yeah!

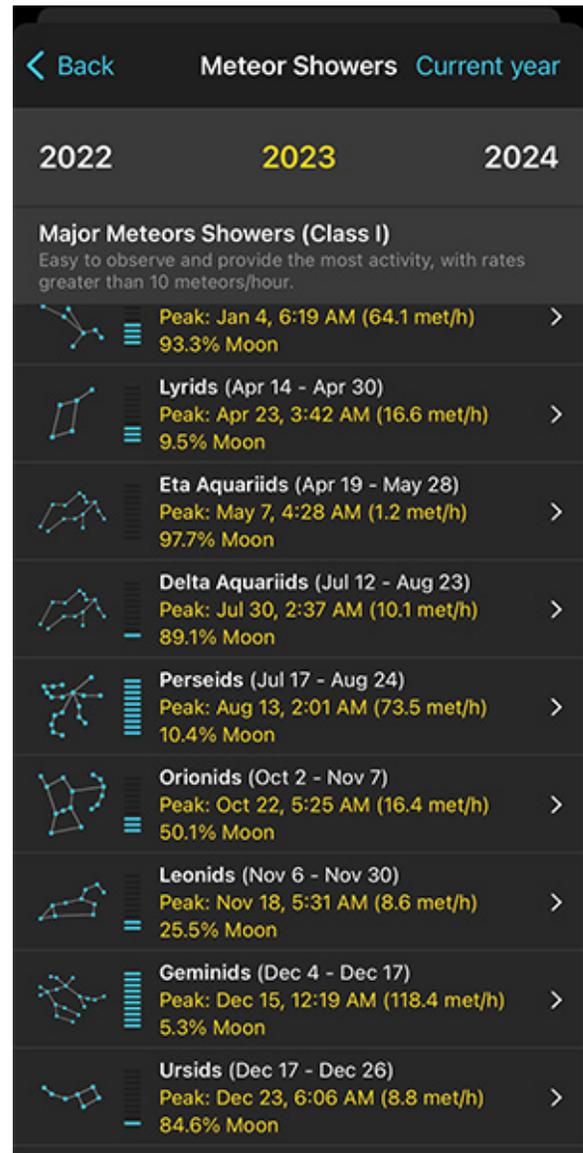
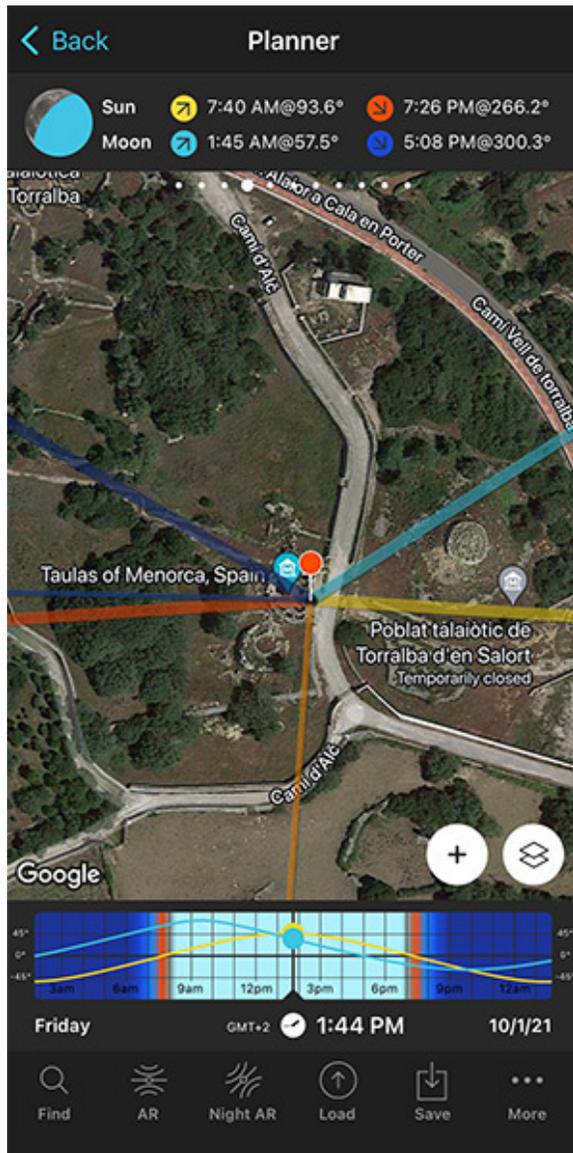
You have everything you need: the shooting spot, shooting date and shooting time!

Plan your Meteor Shower shot from home (2)

You can use the **PhotoPills** Planner to plan from your couch any Meteor Shower for any location on Earth!

Let's see how it works...

Choose the Meteor Shower and figure out the shooting date and time



Planner main view. Place the Red Pin at the desired shooting spot. Tap the Map Settings button and then tap the Meteor Shower layer to see the calendar.

Planner > Map Settings Button > Meteor Shower layer. Choose the Meteor Shower from the calendar.

Open **PhotoPills** and tap *Planner* (*Pills* Menu).

Place the Red Pin where you want to plan the Meteor Shower.

In this case, you want it next to the taula of Torralba d'en Salort in Menorca (Spain).

Tap the *Load* button (at the bottom) and type "Torralba d'en Salort" in the search bar. Then, select it and the Red Pin will be placed in the location.

Now, move the Red Pin to the other side of the Camí d'Alç, right where the taula is.

If you don't know how to do it, [this video shows you how to move the Red Pin](#).

Then,

- Tap the **Map Settings** button. You'll find it on the Map, next to the (+) *map button*.
- Switch off the map layers you don't need (like the Sun layer for example). To do it, tap the eye icon you have next to each of the layers.
- Tap the *Meteor Shower* layer.
- And choose the Meteor Shower peak from the calendar.

Notice that to help you choose a cool Meteor Shower, **PhotoPills** provides the name, period of activity, peak date, peak time, peak meteors/h and peak Moon phase.

It also includes an energy bar showing you how good the Meteor Shower is in terms of the number of meteors you could capture. The more filled the energy bar is, the better the Meteor Shower is expected to be.

Let's use the Geminids again as an example and say that you want to plan to shoot them in 2023. On the Calendar, tap the 2023 Geminids to select it and see all the information on the map and on **Panel 11**.

According to the panel, for the Red Pin position, the Geminids are peaking on December 15 at 01:00 am.

On the Time bar you have the same gray graph you have in the Meteor Shower Pill. This is the graph that represents the curve of meteors/hour. So you know when to start and stop shooting.

According to the graph you should be ready to shoot all night from December 14 to 15, from 07:00 pm until 07:00 am to capture as many meteors as possible.

As you can see on the Time bar, the Moon will be below the horizon too.

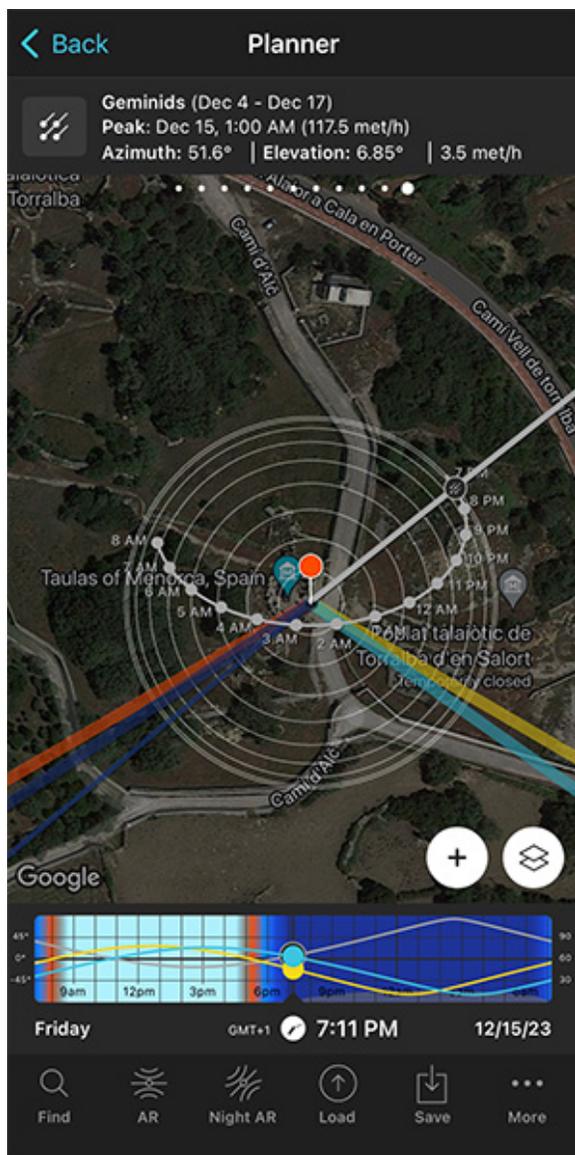
Now that you know the shooting date and time, let's figure out the shooting spot for the composition you want.

Find your shooting spot and framing

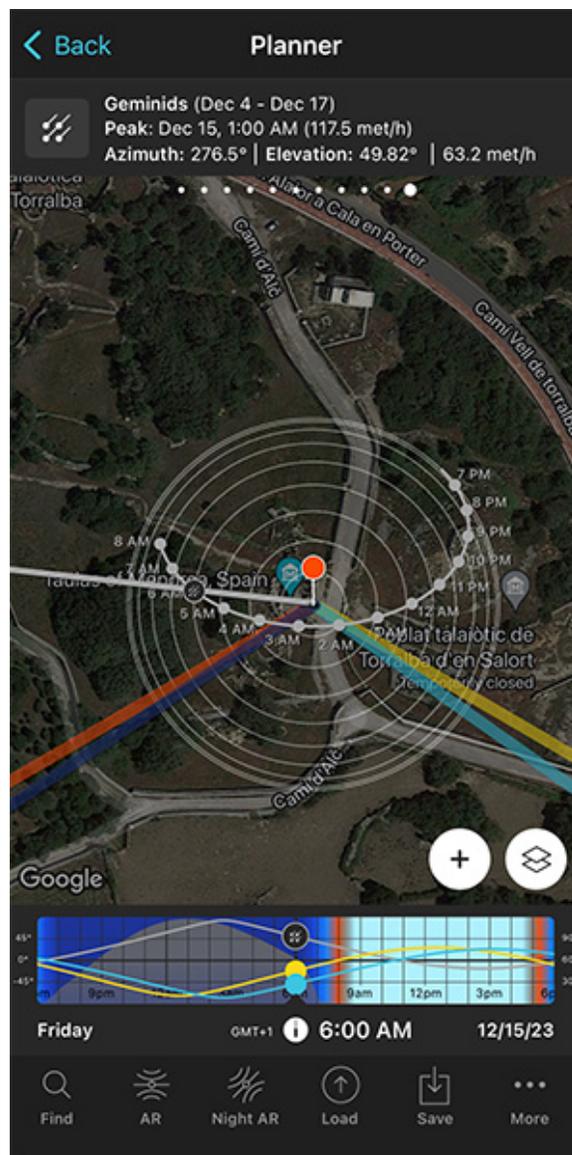
To find your shooting spot and framing, you need to know the Meteor Shower radiant's position and path during the shooting session.

When you select a Meteor Shower from the calendar, the peak date and time will be set in the Planner (check the Time bar below the map).

And you'll find all the information you need to plan the photo on the map and on [Panel 11](#).



Planner. Map view of the Meteor Shower radiant and path, and the Meteor Shower information on Panel 11 at the beginning of the shooting session.



Planner. Map view of the Meteor Shower radiant and path, and the Meteor Shower information on Panel 11 at the end of the shooting session.

On the map you have the following information:

- **Radiant path:** The curved dotted grey line you see is the path the radiant will follow during the night.
- **Radiant position:** Every grey dot on this curved line is the radiant position. The radiant azimuth line (that starts at the Red Pin) shows you where the radiant is at the selected date and time.
- **Concentric circumferences:** The contour lines help you understand the elevation of the radiant.

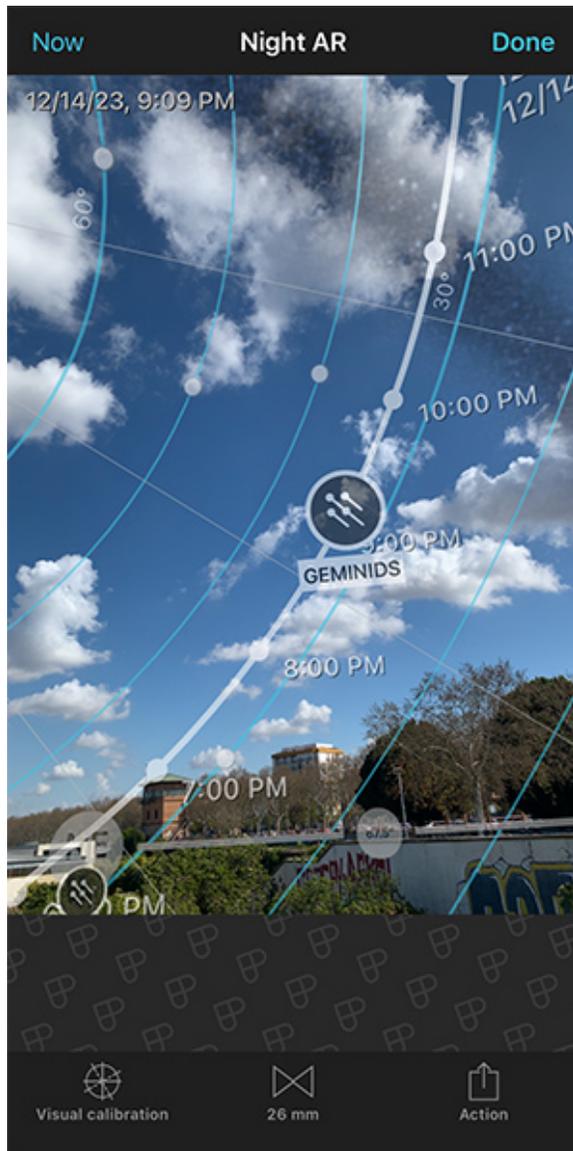
And for the position of the Red Pin and the selected time and date, on **Panel 11** you have the

- Meteor Shower name (Geminids).
- Activity period (December 4 - December 17).
- Peak date and time (December 15 at 01:00 am).
- Radiant azimuth and elevation (276.6° and 49.63°).
- Number of meteors/h (62.9).

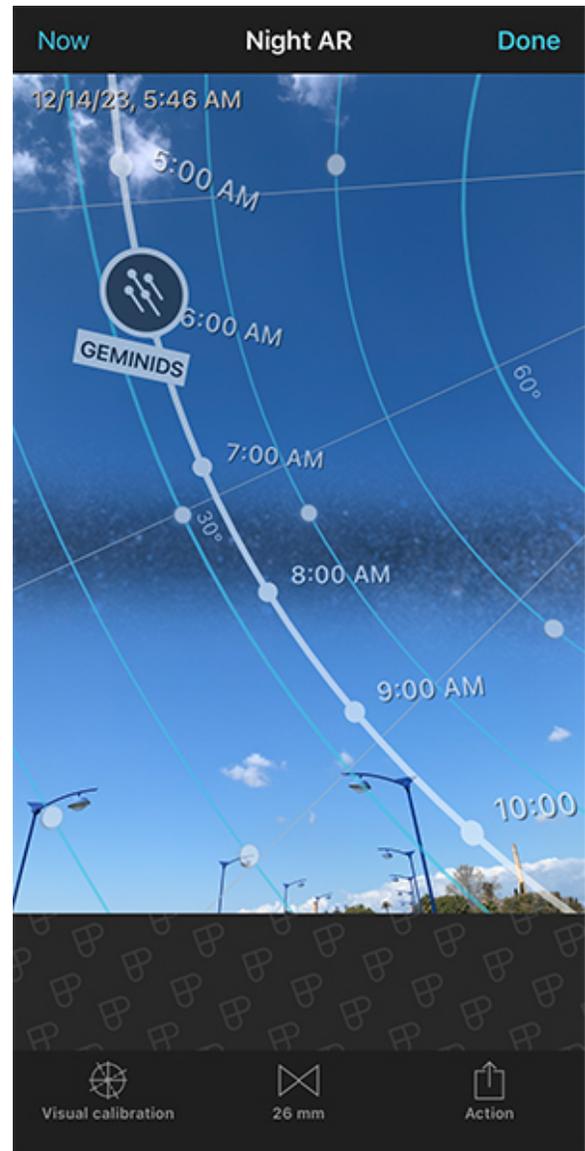
Swipe the Time bar to see how the radiant changes its position throughout the night.

Knowing the position of the radiant at all times will help you adjust the position of the Red Pin, and thus find your shooting spot and framing.

Locate the radiant in the sky



Planner > Night AR. Tap the Night AR option to visualize the radiant position and path.



Planner > Night AR. Night AR view of the radiant at the end of the shooting session.

Finally, use the Planner's Night AR bottom option to view the radiant position in the sky. Notice that what you're seeing is the view from the Red Pin position (not from the position where you currently are).

So when the Meteor Shower peaking date arrives, go to the shooting spot (where the Red Pin is), and use the Planner's Night AR view (or the Meteor Shower Pill > AR) to locate the radiant at the beginning and at the end of the shooting session.

Again, **calibrate the AR view** to make sure that what you're seeing through your smart-phone is accurate.

Swipe your finger from left to right or right to left on the AR view to visualize how the radiant moves across the sky.

This will greatly help you to fine tune the shooting spot based on the photo you want.

Now that you have the plan, it's time to save it to your to-do list of plans by tapping Save and then *Plan*.

Do you want to know more about Meteor Showers? Don't miss our [Meteor Showers photography guide](#).

Section 13:

How to plan an
architecture shot



Sony A1 | 24mm | f/10 | 3.2s | ISO 100 | 8399K
Photo by [Jesús García](#)

Lighting for architectural photography, as well as for interior photography, can be very demanding. The light defines the space or structure of the building.

However, the required conditions for architectural exterior photography depend on the weather and cloud formations.

And what are these required conditions?

Well, the clarity of the light, the type of sky, the direction of the Sun and the quality of the light (hard or diffused) are all critical factors.

In this sense, photos of buildings can really benefit from the soft light of the golden hours.

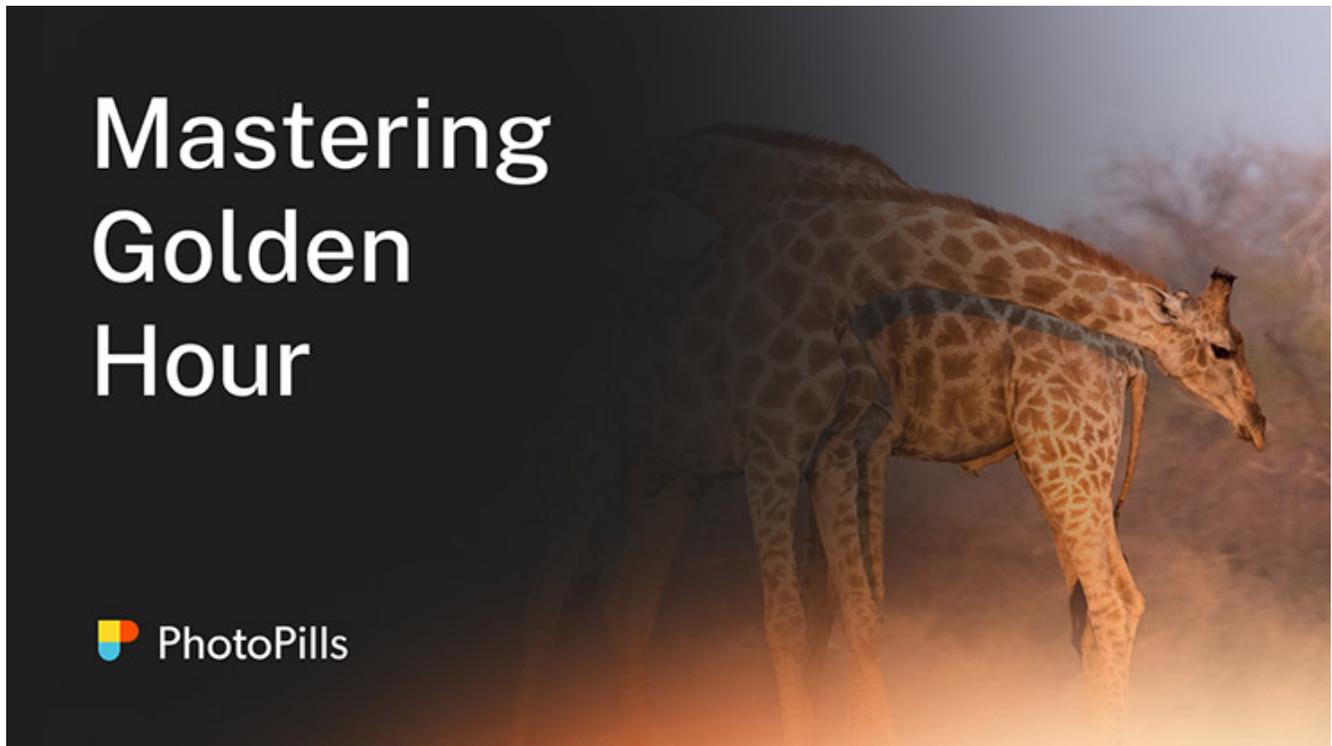
This is particularly true for the **golden hour** light just after **Sunrise** or just before **Sunset** because the Sun's low angle adds warmth, mood, and drama to the photograph with long, deep shadows.

This type of light makes all the colors very vivid and vibrant. It's perfect for creating an image with a positive, dramatic, and inspirational ambience.

So, it's always a good idea to plan your architecture shots during **golden hour**.

If you want to learn how to plan your **golden hour** shots from your couch, you can do 2 things.

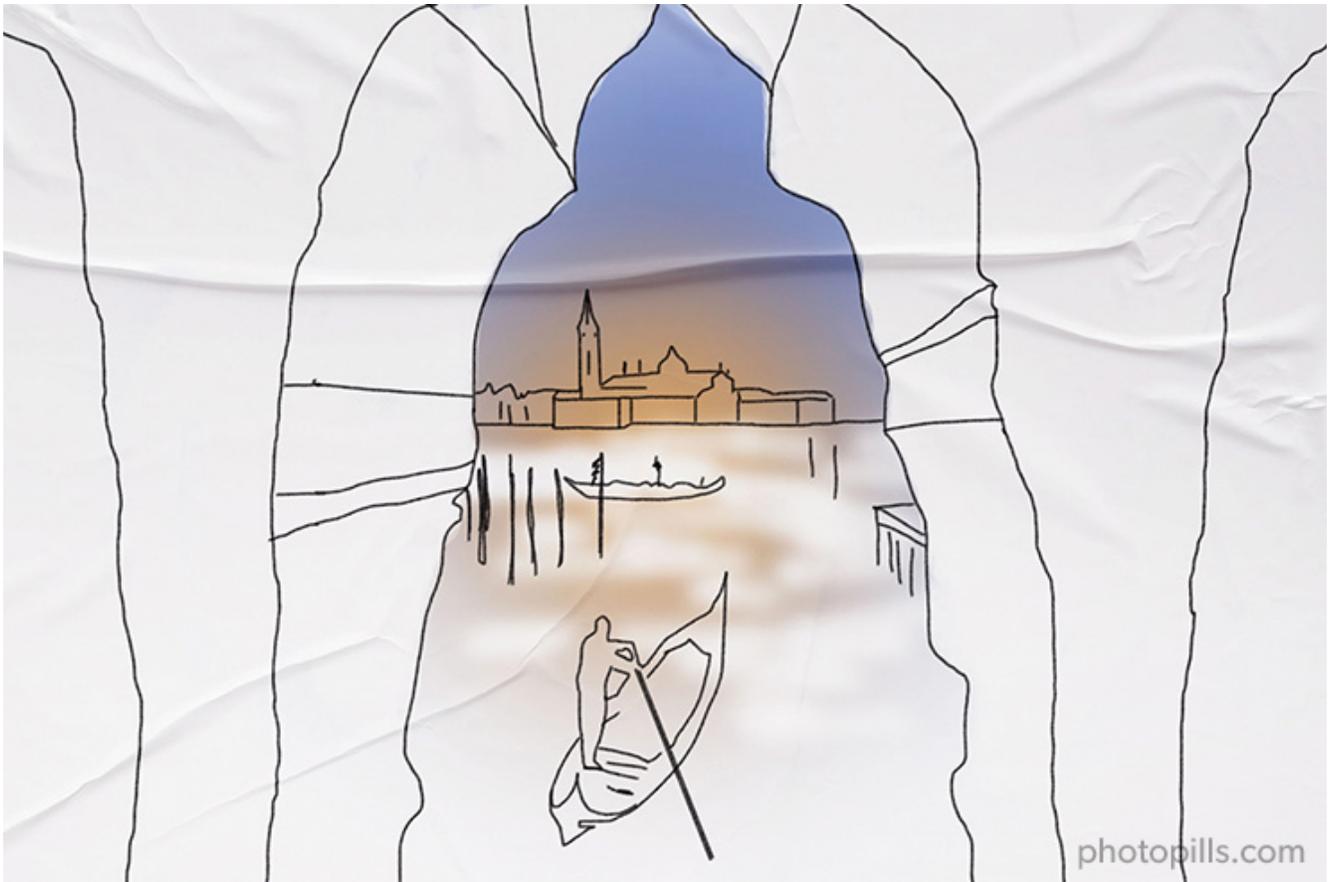
The first one is to watch this video:



And the second one is to keep reading!

Let's see a cool example of architecture photography planning. It's a bit more advanced one.

You'll decide the framing you want and the light conditions you want first, and then you'll figure out the exact date and time you need to go and take the photo.



Let's say you want to photograph the iconic church of San Giorgio Maggiore, which is in Venice (Italy).

You can have a very nice view of the church from the Piazzetta di San Marco as you are facing the San Marco basin – the most iconic area of the Venetian Lagoon. From there, you can try to capture some gondolas along with the church of San Giorgio Maggiore while it's illuminated by a warm golden light before the **Sunset**.

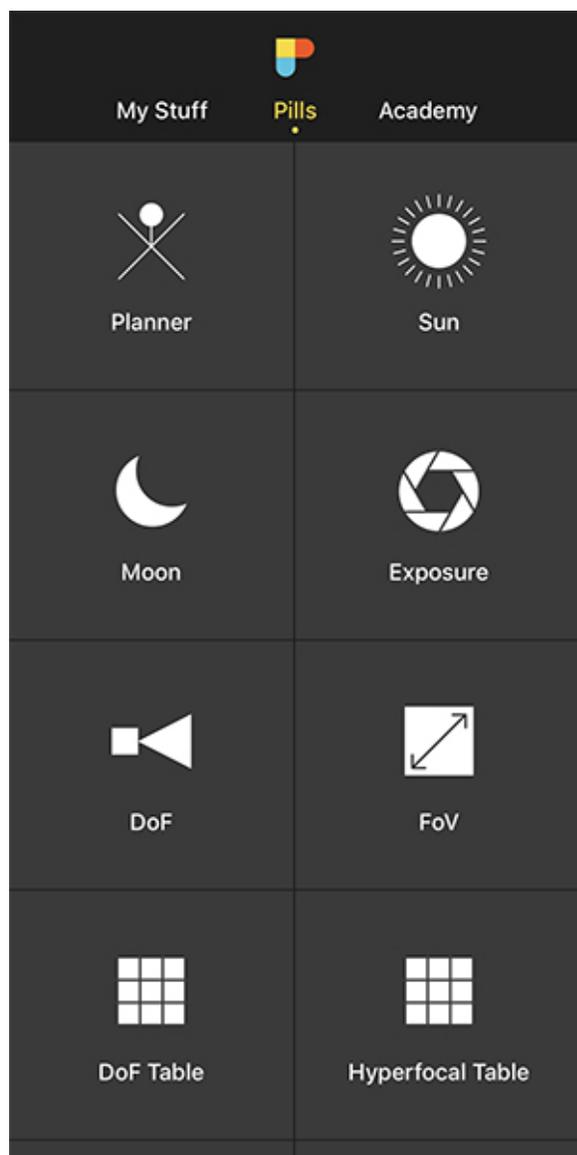
And now you may be wondering...

What is the best location and framing during **golden hour**? And when will you have the church illuminated from the right of the frame?

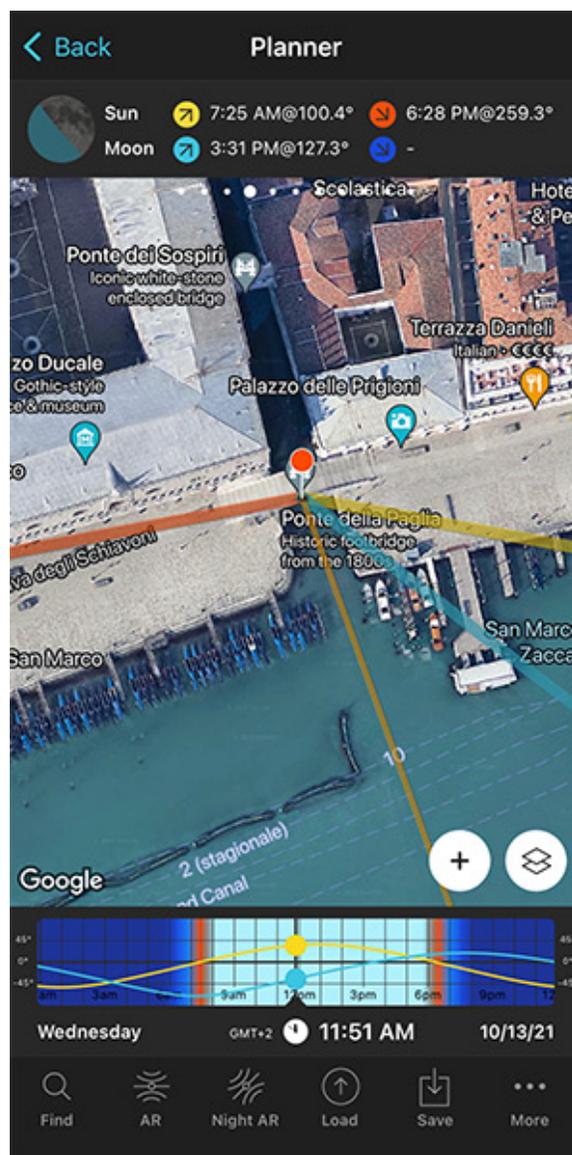
Let's plan this picture to find it out, shall we?

To do it you'll use the power of the **Find tool** included in the **PhotoPills** Planner.

Place Red Pin on the shooting spot



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is in Venice (Italy).

Open [PhotoPills](#), tap *Planner* (*Pills* Menu) and place the **Red Pin** right on the shooting spot you want.

For example, on the Ponte della Paglia – a beautiful 1850s bridge crossing the rio del Palazzo and located to the right of the Colonna di San Marco.

Exit the Piazzetta di San Marco, walk along the Palazzo Ducale on the Riva degli Schiavoni and you'll easily spot the Ponte della Paglia. From the edge you get a great view of the church of San Giorgio Maggiore and the Venetian Lagoon.

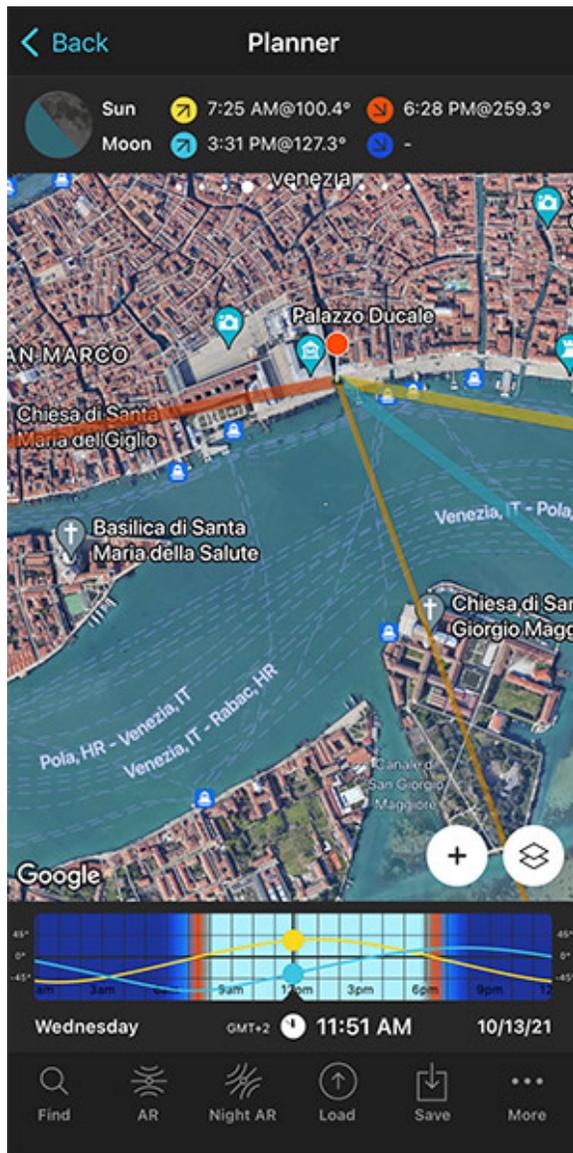
Also, this is a great spot because you can move along the bridge to get the best composition considering the **Sunset** direction.

To quickly place the Red Pin, tap the *Load* button (at the bottom) and type "Colonna di San Marco" in the search bar. Then, select it and the Red Pin will be placed next to it.

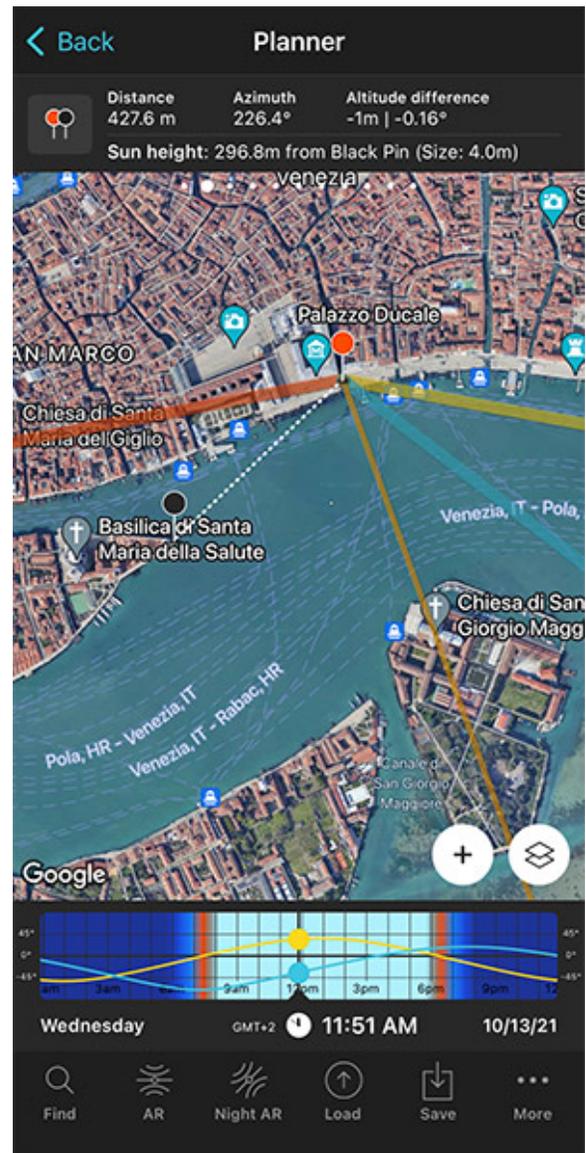
Now, do a long press on the spot where you want to place the Red Pin, somewhere on the Ponte della Paglia.

If you don't know how to do it, **[this video shows you how to move the Red Pin.](#)**

Place Black Pin where you want the Sun to rise (or set)



PhotoPills Planner - Zoom out on the map to get a clear view of the church of San Giorgio Maggiore.



PhotoPills Planner - Panel 2 is now activated and the Black Pin is located on the Venetian Lagoon to the right of the church of San Giorgio Maggiore, exactly where you want the Sun to set.

Now you need to place the Black Pin right on the spot you want the setting Sun to be, this is to the right of the church of San Giorgio Maggiore. Remember that you want the **golden hour** Sunlight hitting the church from the side.

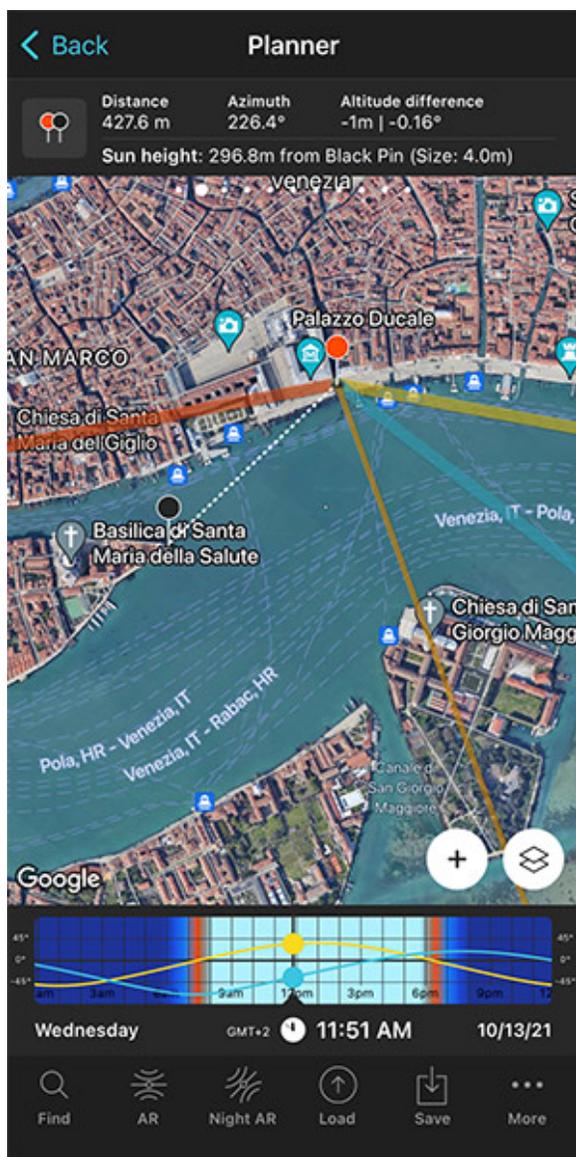
So zoom out on the map, until you can clearly see the church of Santa Maria della Salute.

Swipe the panels above the map to the right until you find the Black Pin information panel

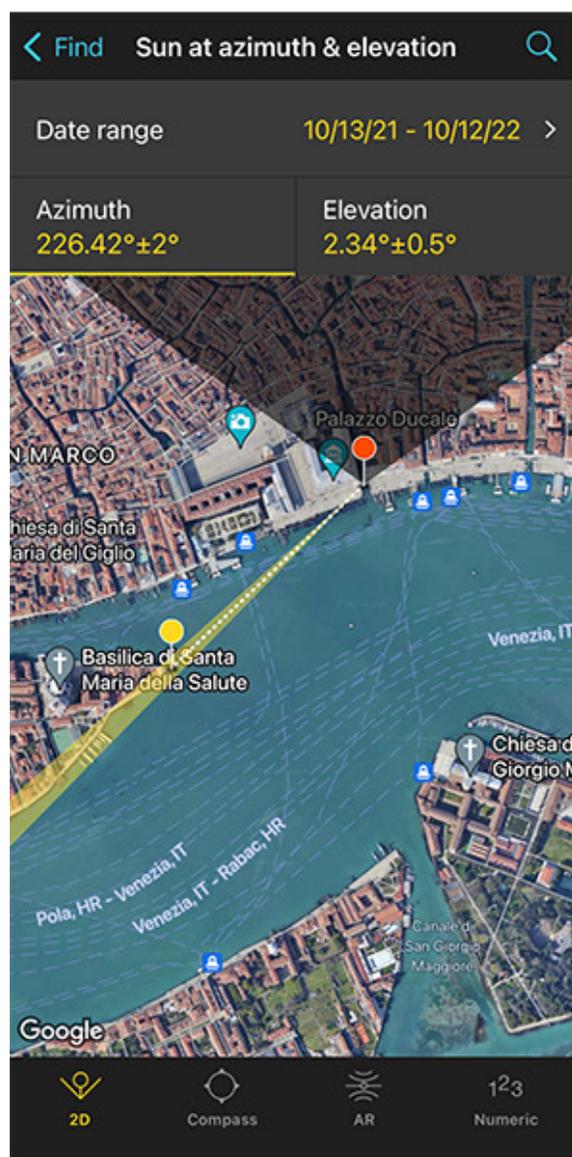
(Panel 2). Tap the icon on the panel that's showing the Red Pin and the Black Pin to activate the Black Pin on the map.

Drag and drop the Black Pin on the tip of the area, also called Punta della Dogana, right where you want the Sun to set.

Find the dates and times when the photo is possible



PhotoPills Planner - A general view of the Venetian Lagoon and the church of San Giorgio Maggiore with the Black Pin right where you want the Sun to set.



PhotoPills Planner - With the tool Find > Sun at azimuth and elevation you'll find out the dates in which you can see the Sun setting to the left of the church of San Giorgio Maggiore.

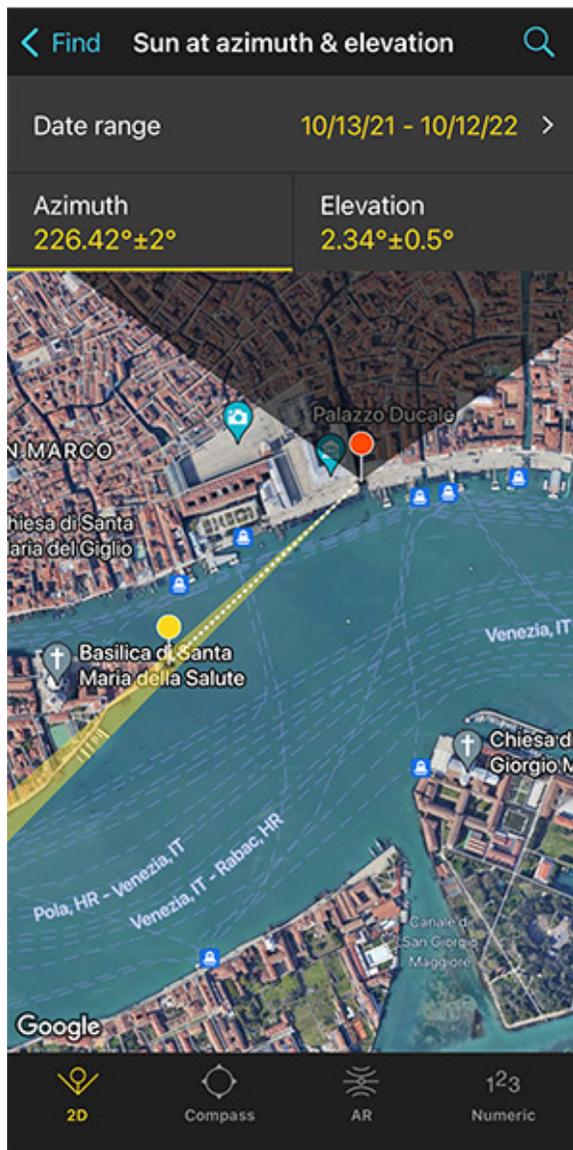
Now it's time to find out if the photo is possible. If yes, when will it happen?

To do it, tap the **Find** button. It's located on the bottom left corner of the Planner. And then, select *Sun at azimuth and elevation* (*Sun* on Android).

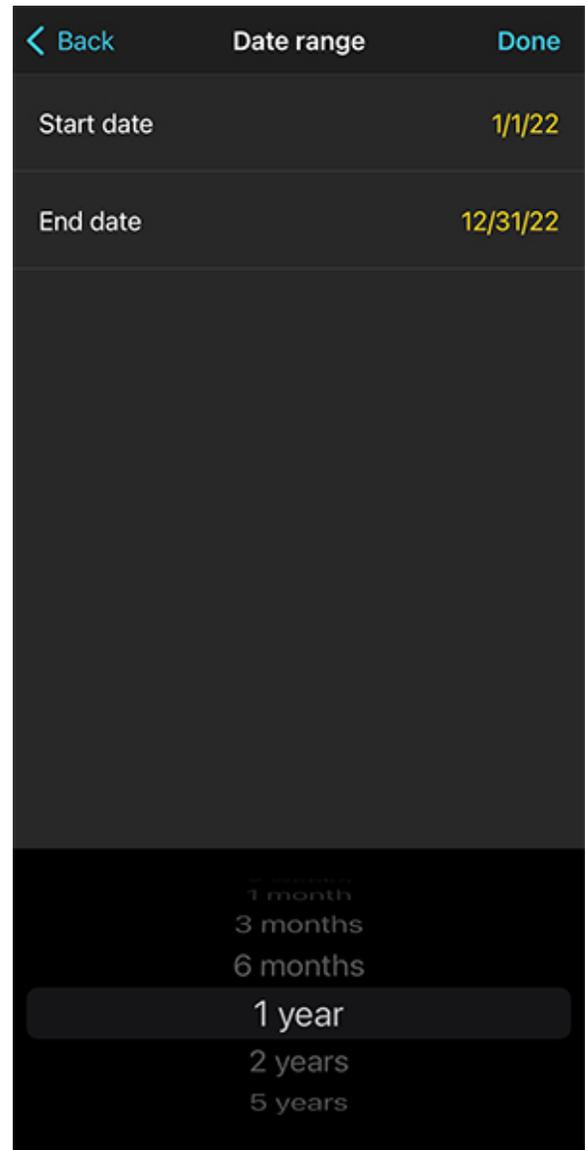
On the new screen, you have to tell 3 things to PhotoPills:

- The date range you want to search for results. For example, 1 year starting from today.
- The Sun azimuth or direction. In this case, to the left of the church of San Giorgio Maggiore.
- The Sun elevation or altitude. The **golden hour** happens when the Sun has an elevation between 6° and -4° . In this case, set it between -4° and 6° , let's say 1° .

Enter the date range



PhotoPills Planner - On the Sun at azimuth and elevation tool, tap Date range.

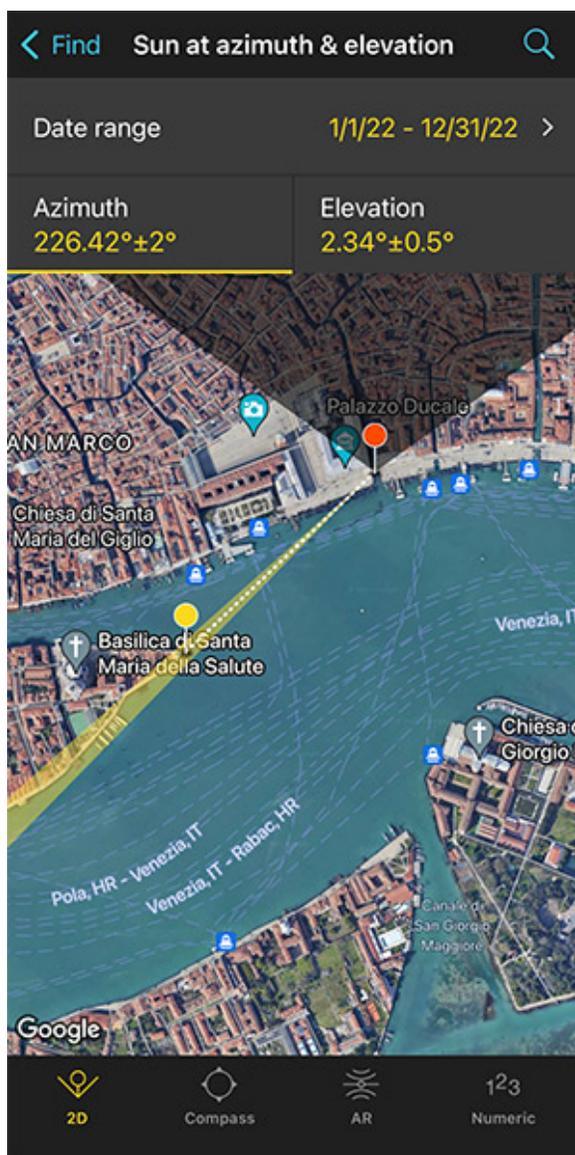


PhotoPills Planner - Search a 1-year date range starting from 01/01/2022.

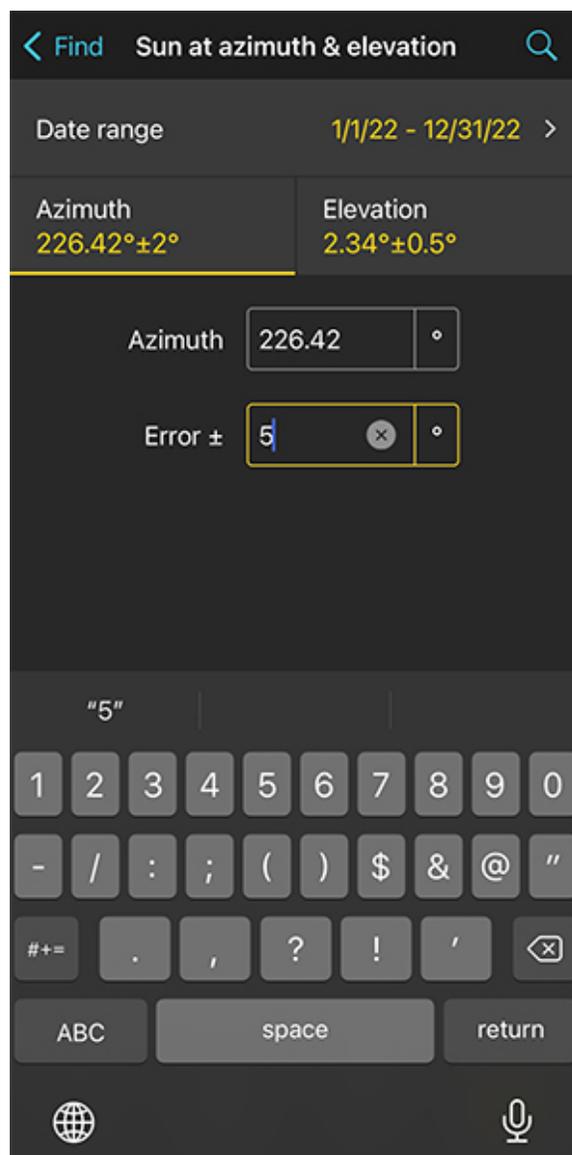
Tap *Date Range*, tap *Start date*, then *Today* and *OK* (back arrow on Android).

Next, tap *End date*. Now you can enter a certain date or range. To enter a range, tap the black area of the screen and the date options will change. Select *1 year*, for example, and tap *OK* (back arrow on Android).

Enter the Sun azimuth



PhotoPills Planner - On the Sun at azimuth and elevation screen you can define the Sun azimuth and its error (the direction tolerance).



PhotoPills Planner - To change the error tap the Numeric button at the bottom. And for example set the error to 5°.

To set the azimuth you want the Sun to set, you can drag and drop the Yellow Pin you see on the map. But the good news is that the Yellow Pin is linked to the Black Pin. So the azimuth of the Sun is already set (226.41°), to the left of the church of San Giorgio Maggiore.

Don't you know what the azimuth and the elevation are?

Well, don't worry. You have a quick reminder in [section 4](#).

End of the side note. Let's get back to our example.

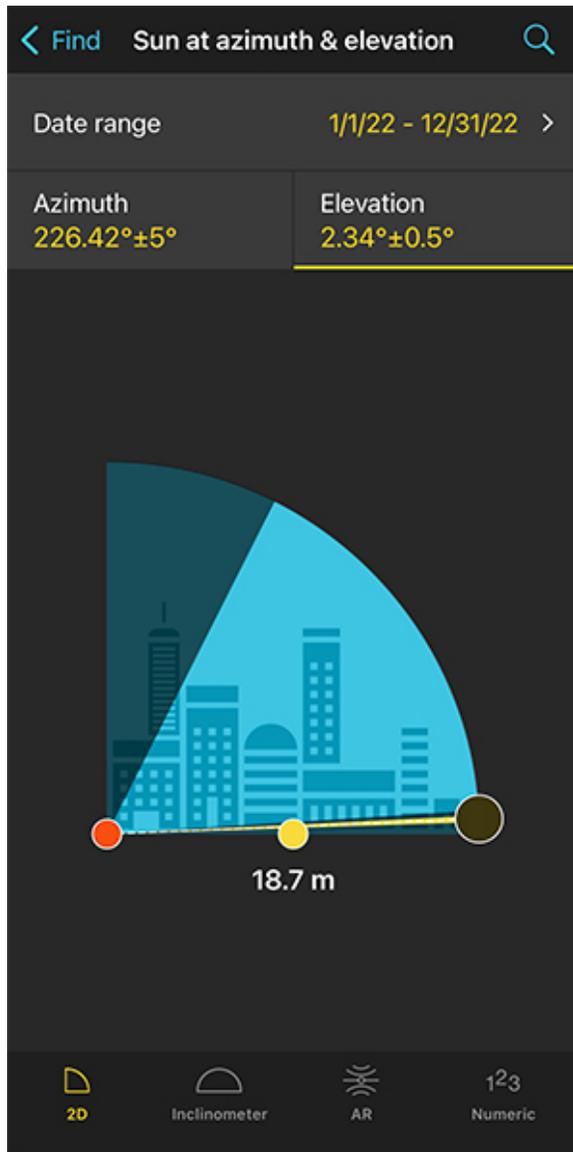
OK! You've set the azimuth. But what about the error or tolerance defined by the yellow sector you see on the map?

Now take a look at the first screenshot above: the azimuth is 226.41° with a $\pm 2^\circ$ error represented by the yellow area on the map.

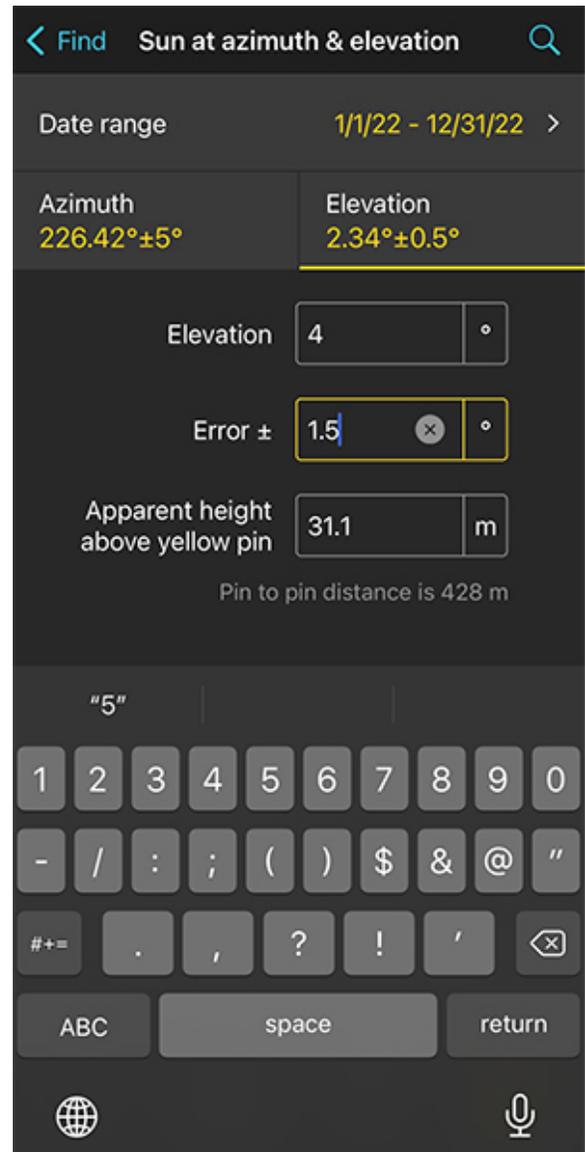
For this shot, you want the Sun to set to the left of the church of San Giorgio Maggiore, but you don't need the azimuth (226.41°) to be super precise. This location allows you to move around to adjust the shooting spot, so I recommend you to set a relatively high azimuth error. This will give you more possible dates to shoot.

Set a higher error, for example $\pm 5^\circ$. To change it, tap *Numeric* (at the bottom).

Enter the Sun elevation



PhotoPills Planner - On the Sun at azimuth and elevation screen you can set the Sun elevation (the altitude).



PhotoPills Planner - Since you want to photograph the golden hour, you have to select an elevation between -4° and 6° . That is, very close to the horizon.

Tap *Elevation* to set the elevation of the Sun.

In this case, you're looking for a **golden hour** during the **Sunset**. So you have to set an elevation between -4° and 6° , let's say 4° .

You can do this by dragging the yellow dot in the diagram until it touches the horizon. You can also do this by tapping *Numeric* and typing "4°" in the Elevation field of the new screen.

Also increase the elevation error (or tolerance) to 1.5° . Again, this will give you more possi-

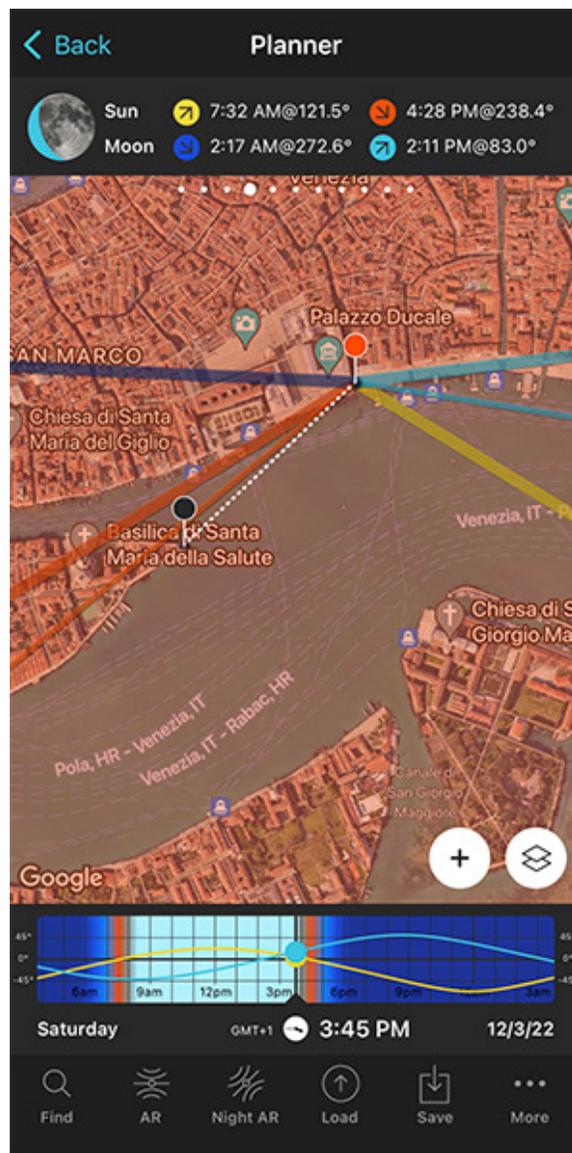
ble dates to shoot. Because at the end of the day, you can always adjust the shooting spot and shooting time.

Get the possible dates on a table

Results
Sun at azimuth $226.42 \pm 5^\circ$ elevation $4.0 \pm 1.5^\circ$

Date ^	Azimuth	Elevation
Th 12/1/22 3:47 PM	231.27°	5.38°
Fr 12/2/22 3:46 PM	230.92°	5.45°
Sa 12/3/22 3:45 PM	230.57°	5.52°
Su 12/4/22 3:45 PM	230.42°	5.47°
Mo 12/5/22 3:45 PM	230.27°	5.42°
Tu 12/6/22 3:45 PM	230.12°	5.38°
We 12/7/22 3:44 PM	229.78°	5.47°
Th 12/8/22 3:44 PM	229.64°	5.45°
Fr 12/9/22 3:44 PM	229.5°	5.43°

Cancel Share



PhotoPills Planner - By tapping the magnifying glass icon (top right), PhotoPills shows you all the dates in which you can take the photo (the event occurs).

PhotoPills Planner - Tap the date you want to see the plan, for example: 12/03/2022.

Tap *Search* (magnifying glass icon at the top right corner) to see the potential dates.

Pick one of the dates in the table. For example, December 3, 2022. Tap it to review the Plan.

As you can see on the second screenshot above:

- The thick orange line indicates the Sunset direction for the selected date (12/03/2022).
- And if you swipe the top panel to **Panel 4**, you'll see the Sunset time: 04:28 pm.

Cool!

You have your Plan :)

You know the shooting spot, the Red Pin Position, and the shooting time, around **Sunset** (04:28 pm), the Sun will set where you want relative to the church of San Giorgio Maggiore.

Moreover, check on **Panel 6** the time the **golden hour** begins, so you get there on time.

And since the Sun's position doesn't change that much from one day to the next, the photo is also possible on December 1, 2, 4, 5, 6... This allows you to choose the day with the best weather forecast ;)

Simply swipe the Time bar to change the day and adjust the shooting spot according to the new Sunrise direction.

In addition to this, when you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize through your phone where the Sun will set.

Also, have a look at **section 20** and plan your shot to the very last detail. This includes planning the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).

Finally, don't forget to save the Plan using the Save button! ;)

Section 14:

How to plan a portrait
outdoors



Nikon D4s | 85mm | f/1.4 | 1/800s | ISO 100 | 3800K

Capturing stunning outdoor portrait photography requires planning and preparation.

Here are some basic questions that may arise:

- Where should you go for the shooting?
- When should you start the photo session?
- When is **golden hour**?
- How should you pose your subject?
- What's going to be the direction of natural light on location?

Based on the photo you have in mind, choosing your location right is mandatory and managing **natural light** is essential.

Be careful with direct sunlight as it can be treacherous – it makes your subject squint, and creates hard directional shadows.

Instead, you should shoot in other conditions (e.g. with an overcast sky or a low Sun) and try to capture your subject in soft, flattering light.

Like I did in the picture illustrating this section.



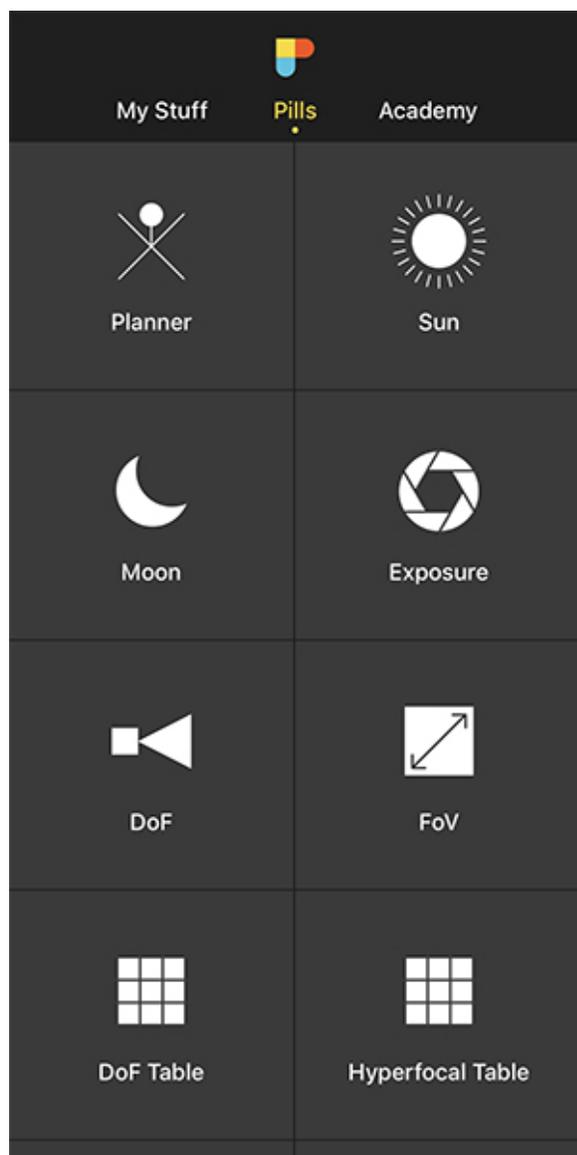
The photo was taken during **golden hour** in the s'Hostal Quarries (also known as Líthica), not far away from Ciutadella in Menorca (Spain). These are quarries of marés limestone, the stone traditionally used in the island for building. I just love the red, ocre and golden colors of the rocks there: they make a fantastic background.

The idea was to have the Sun setting to the left of the models so it would illuminate them from the side, while casting a fabulous golden light on them.

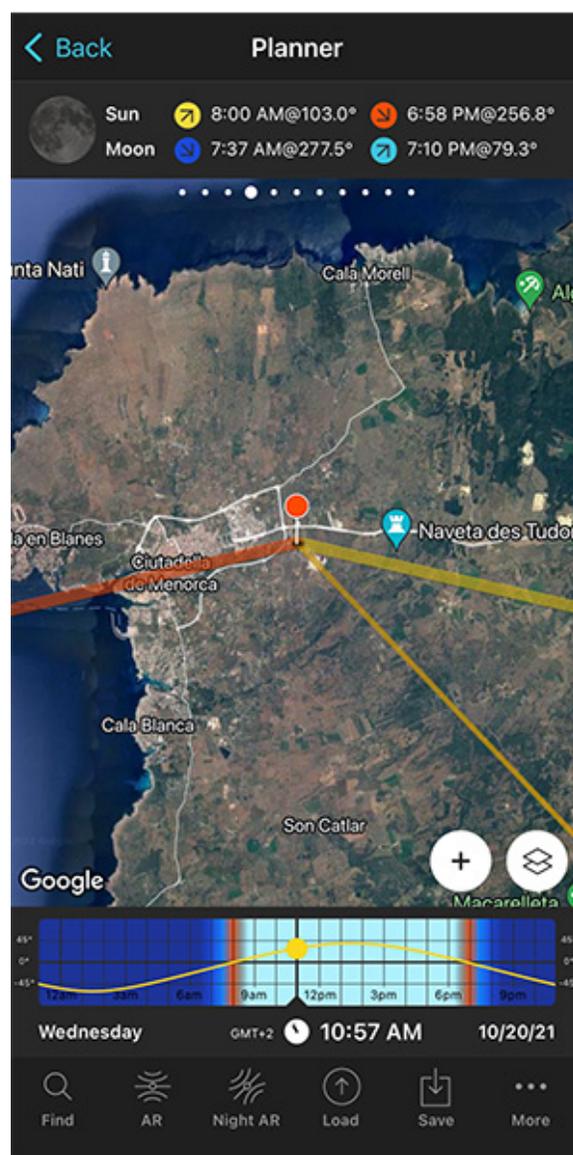
Would you like to know how I figure out the shooting spot and shooting time to get this particular natural light quality and direction?

Keep reading, because this is how I planned the photo.

Place the Red Pin in a potential location



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is in the s'Hostal Quarries (also known as Líthica), not far away from Ciutadella in Menorca (Spain).

Open **PhotoPills** and tap *Planner* (*Pills* Menu).

As always, when you plan a photo, the first thing you need to do is to place the **Red Pin** in the location where you'll be shooting your portrait.

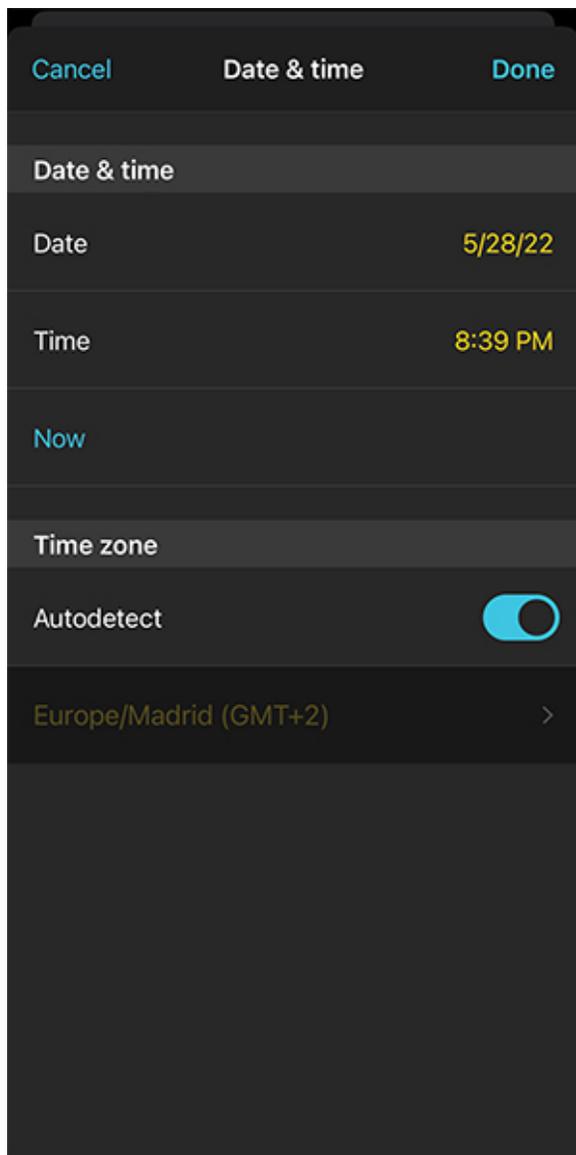
At this stage, don't be obsessed with precision. Pick an area you like. You'll have time later to determine the exact shooting spot.

For example, place the Red Pin in the s'Hostal Quarries (also known as Líthica), not far away

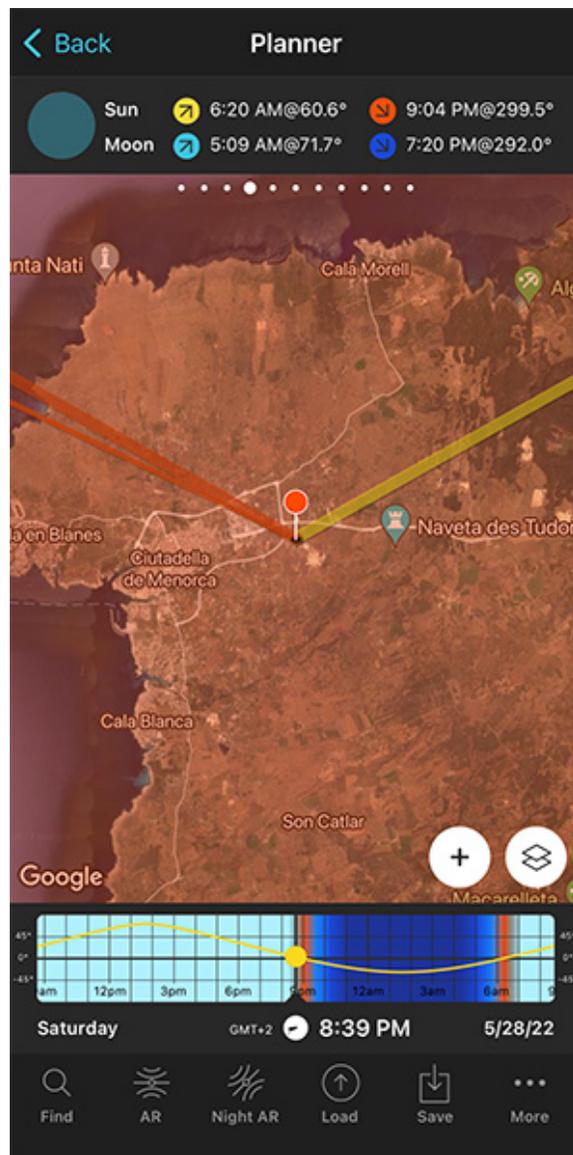
from Ciutadella in Menorca (Spain). If you don't know how to do it, [this video shows you how to move the Red Pin](#).

Now that you have the Red Pin in the location you want, it's time to set the date you would like to go shooting.

Set the date you're planning to take the portrait



PhotoPills Planner - On the Date & time screen you can manually set the date and time.



PhotoPills Planner - On the Time bar, the date is set to 05/28/2022 and the time to 08:39 pm.

There are several ways to set the date in [PhotoPills](#).

If it's a date close in time, let's say next Saturday, then double tap the [Time bar](#) below the

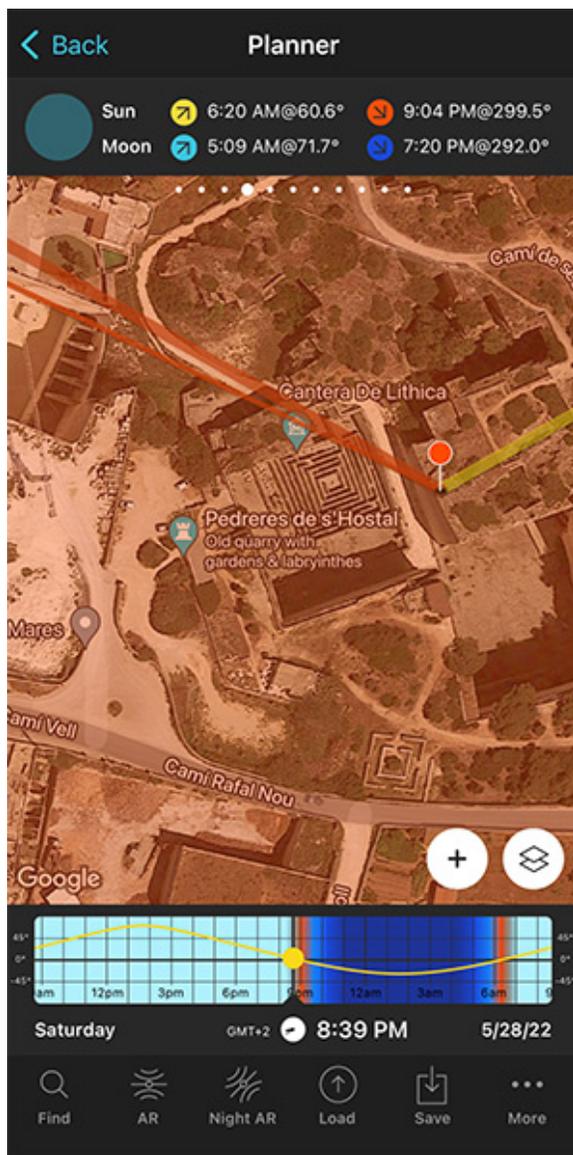
map. Then, move time forward by swiping the Time bar to the left until you get to the date you want to take the photo.

You can also set any date using the Calendar. Tap the center of the Time bar and the Calendar will pop up. Finally, on the Date & time screen, tap *Date* to manually change the shooting date.

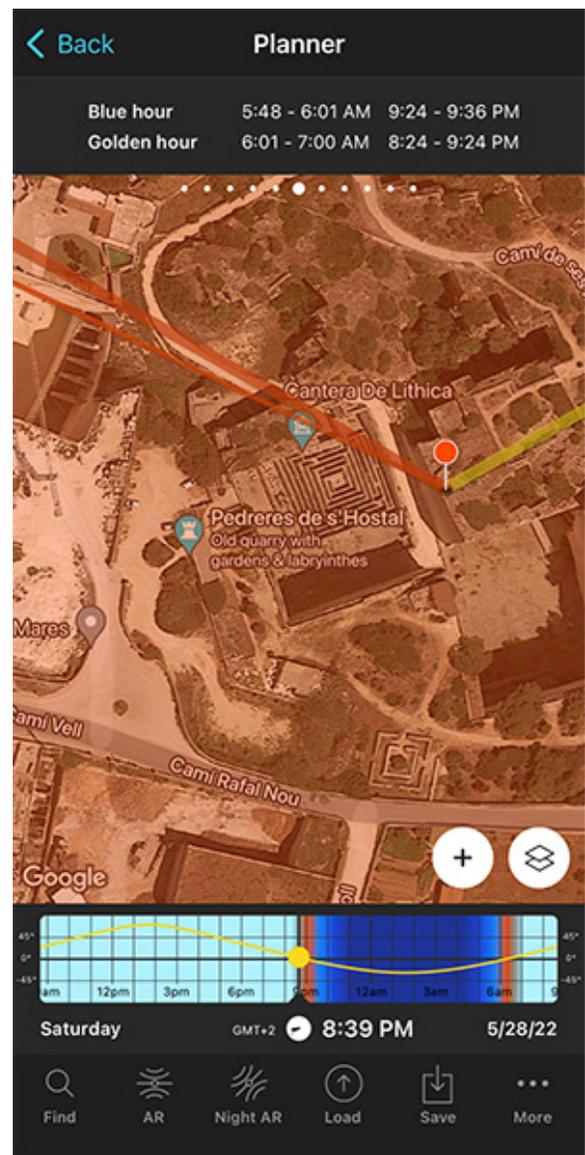
Now, suppose you want to take the portrait photo on May 28, 2022.

Set it in the Planner using the Time bar.

Find out the Sunset (or Sunrise) direction and time



PhotoPills Planner - According to Panel 4, on 05/28/2022 the Sun sets at 09:04 pm and the Sunset direction is 299.5°.



PhotoPills Planner - According to Panel 6, the evening golden hour starts at 08:24 pm and ends at 09:24 pm.

You're in a gorgeous location, and you want to take advantage of the **golden hour** while the Sun is setting to the left of your main subject.

Therefore,

- The **Sunset** direction line is crucial to determine the perfect shooting spot.
- And you also need to find out the evening **golden hour** times.

Now that you've set the shooting date, use the information on the panels above the map and the lines on the map to plan your shot.

First, make sure that you have **Panel 4** selected above the map. If not, swipe the top panels until you get to it.

Have a look at the screenshots above.

On the left screenshot, **Panel 4** is telling you that on May 28, 2022 the Sun sets at 09:04 pm according to the Red Pin position. So you know the time you should be ready to press the shutter.

On the map, you have the Sun, the Sunrise and the Sunset directions for the selected date (05/28/2022):

- The Sun direction at the selected time (08:39 pm) is represented by the thin orange line.
- The Sunrise direction is represented by the thick yellow line.
- The Sunset direction is represented by the thick orange line.

Note: If you don't see these lines, activate the **Sun layer**. You can do this by tapping the **Map Settings** button. You will find it next to the **(+) button** on the map.

Second, let's figure out the **golden hour** times!

Swipe the top panels until you get to **Panel 6**.

On the right screenshot, **Panel 6** is telling you that on May 28, 2022 the evening **golden hour** starts starts at 08:24 pm and ends at 09:24 pm, according to the Red Pin position.

Great!

Now you know the **golden hour** times and the light direction at all times (thanks to the thin orange line).

Let's move on!

Check different locations until you find a photo you like

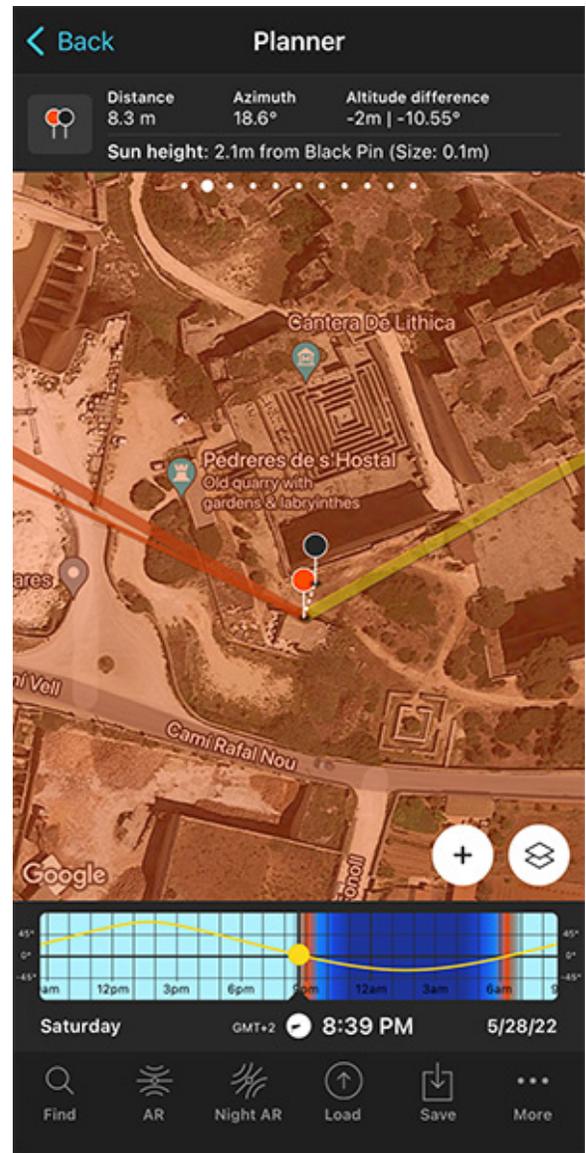
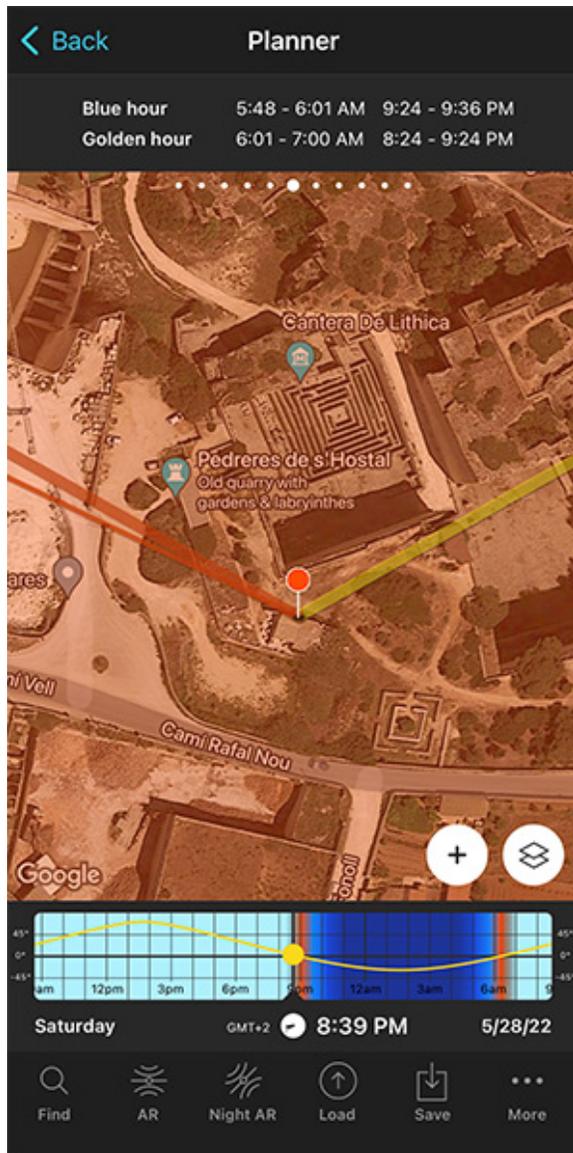
Now that you know where the Sun will set, the time it will set, and the evening **golden hour** times, **move the Red Pin** to several cool locations you know. Do it one by one until you find the one where your portrait photo fits your idea.

Obviously, even if it takes longer, the more locations you can think of that might work, the better.

As you can see from the photo of this example, the models are at the beach with the Sun setting to their left (from your point of view). A nice golden light enhances the main subject's face and skin.

It's a great location. I just love the colors in the background.

So let's go back to PhotoPills and complete the plan...



PhotoPills Planner - Change the Red Pin position to a nice location inside the quarries from which the Sunset direction (thick orange line) casts a nice side light.

PhotoPills Planner - Use the Black Pin to mark the position where the models are going to pose.

Place the Red Pin in a nice location inside the quarries from which the Sunset direction (thick orange line) casts a nice side light.

From this shooting spot the Sun will set towards the northwest creating a beautiful side light to the left of the main subject.

In addition to this, swipe the panels above the map to the right until you find the Black Pin information panel (**Panel 2**). Tap the icon on the panel that's showing the Red Pin and the Black Pin to activate the Black Pin on the map.

Drag and drop the Black Pin in front of the Red Pin, right where you want the models to be, with the beautiful sandstone behind them.

And that's it!

You have your shooting spot and shooting time.

You've just planned a nice **golden hour** portrait outdoors.

In addition to this, when you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize through your phone where the Sun will set.

Also, have a look at **section 20** and plan your shot to the very last detail. This includes planning the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).

Now you just have to save the plan to your to-do list. Tap Save (at the bottom) and then choose to save a plan.

Section 15:

How to plan a wedding
photo in natural light



Photo by [Joan Mercadal](#)

Wedding photography can pose some serious challenges, even to seasoned photographers. Carrying gear around, being on your feet all day and staying mentally focused and creative for such a long time can be mentally and physically exhausting!

But most importantly, you have an immense responsibility to make sure that the special moments of the big day are captured and presented to the couple in a beautiful way. And just have one chance to do so! :O

That's why planning is so important...

You need to scout the venue in advance, trying to determine the best shooting spots and anticipate the type of light you'll have at all times.

In addition to this, planning some potential shots ahead of time will surely come in handy on D-Day.

Let me give you an example. Let's see how you can plan the wedding picture illustrating this section.



The photo was taken by [Joan Mercadal](#) in [Alcaufar Vell](#), a rural hotel located in Menorca (Spain) and a fantastic venue for a wedding.

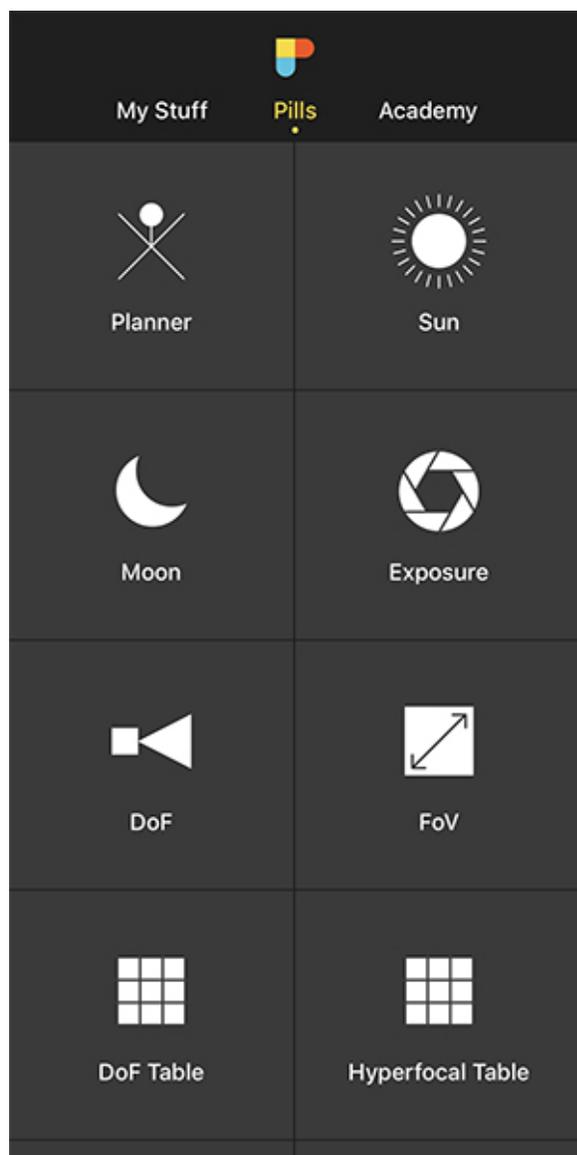
The idea was to have the Sun setting along the main building creating beautiful red and golden colors in the background, behind the newly weds.

And then, use a flash to light the adorable couple.

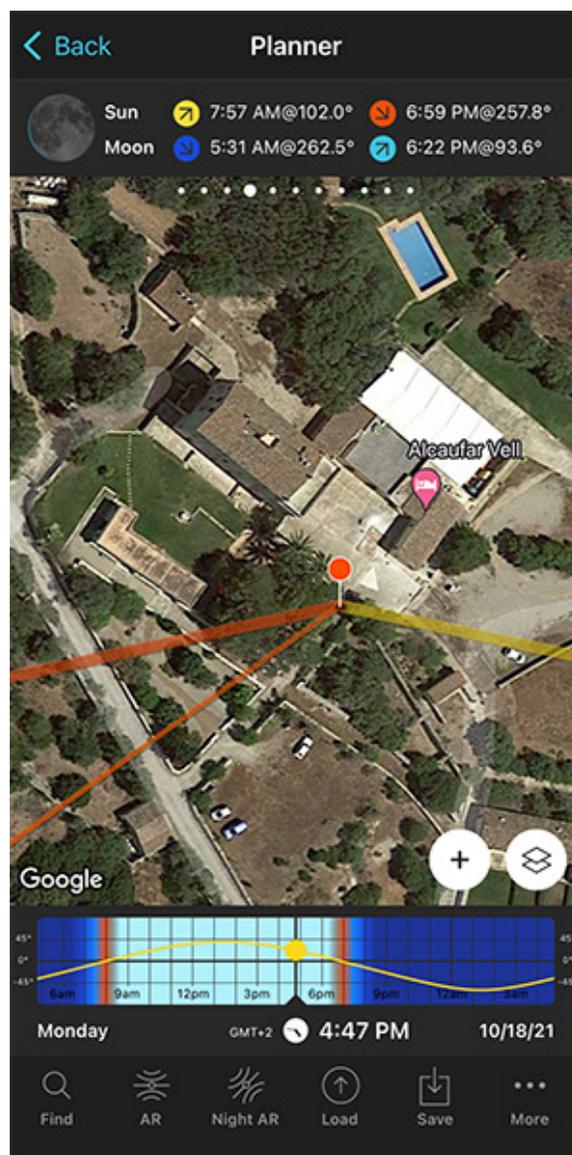
How did Joan figure out the right shooting spot and time on the wedding day?

He followed the following steps.

Place the Red Pin in a potential location



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is in Alcaufar Vell, a rural hotel located in Menorca (Spain).

Open **PhotoPills** and tap *Planner* (*Pills* Menu).

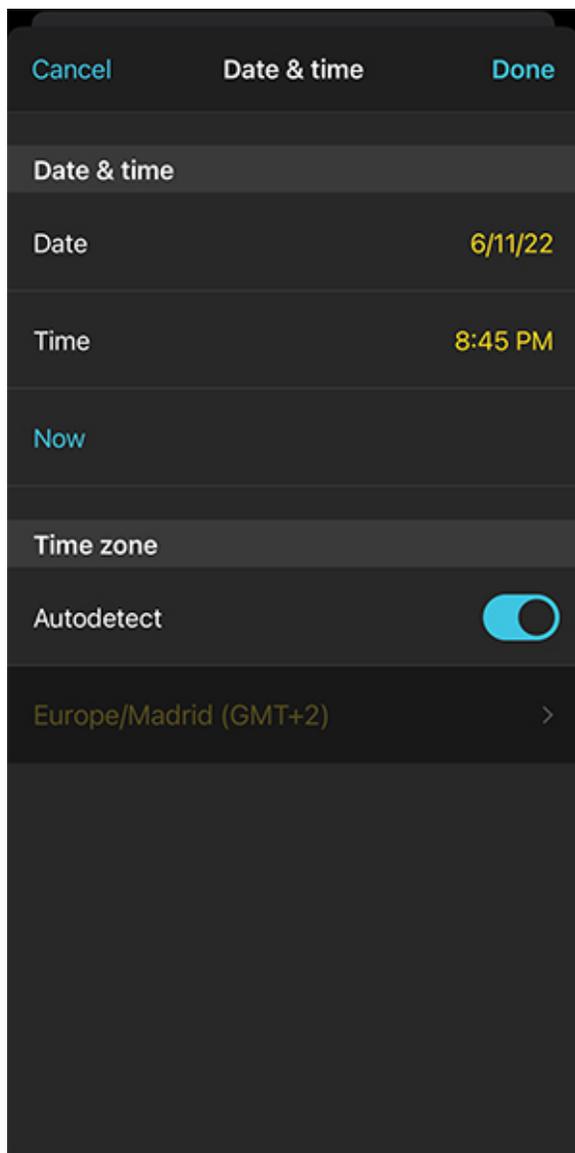
As always, when you plan a wedding photo, the first thing you need to do is to place the **Red Pin** in the location where you'll be doing the wedding shooting session.

At this stage, don't be obsessed with precision. Pick an area you like. You'll have time later to determine the exact shooting spot based on the natural light direction.

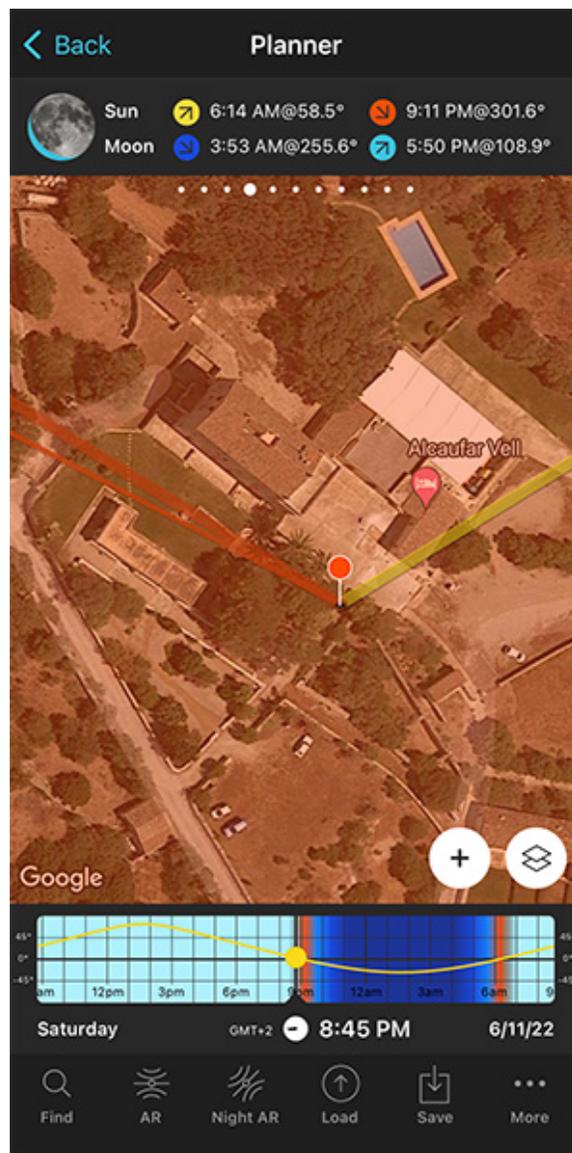
For example, place the Red Pin in Alcaufar Vell, a rural hotel located in Menorca (Spain). If you don't know how to do it, [this video shows you how to move the Red Pin](#).

Now that you have the Red Pin in the location you want, it's time to set the date you would like to go shooting. For example, the wedding date.

Set the wedding date



PhotoPills Planner - On the Date & time screen you can manually set the date and time.



PhotoPills Planner - On the Time bar, the date is set to 06/11/2022 and the time to 08:45 pm.

It's time to set the date of the wedding!

There are several ways to set the date in **PhotoPills**.

If it's a date close in time, let's say next Saturday, then double tap the **Time bar** below the map. Then, move time forward by swiping the Time bar to the left until you get to the date

you want to take the photo.

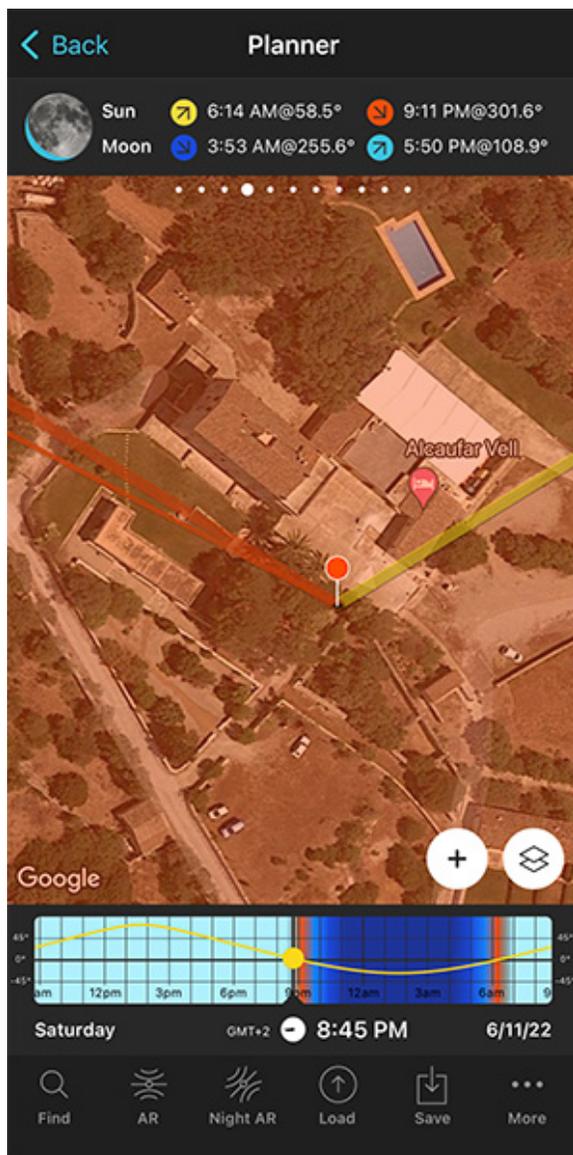
You can also set any date using the calendar. Tap the center of the Time bar and the calendar will pop up. Finally, on the Date & time screen, tap *Date* to manually change the shooting date.

Now, suppose that the wedding takes place on June 11, 2022.

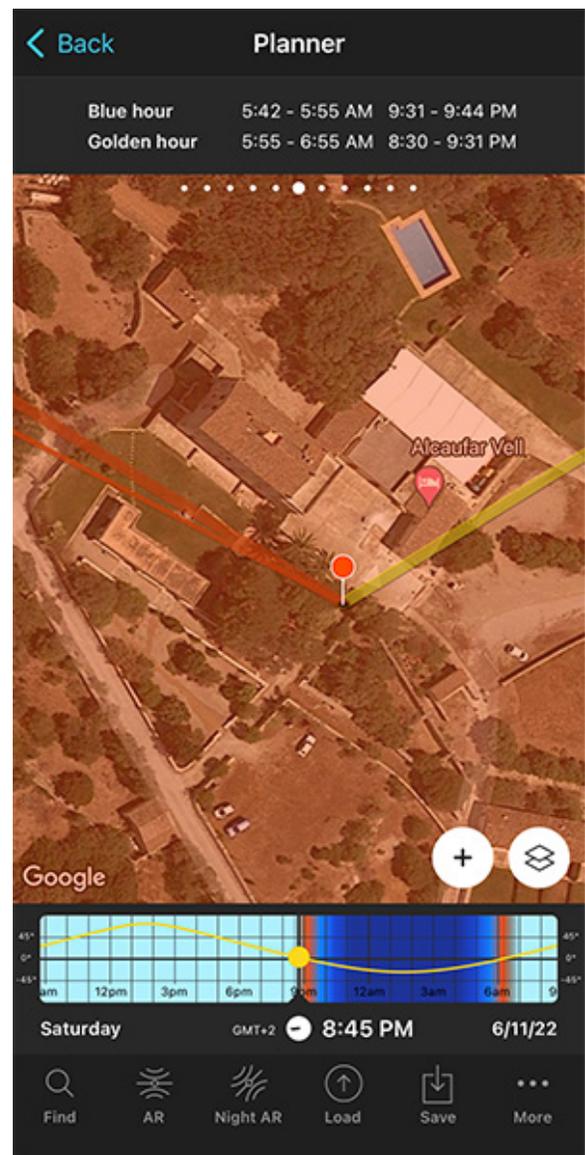
Set it in the Planner using the Time bar.

Great! The next step is to figure out the **Sunset** direction and **Sunset** time so you can decide your final shooting spot and shooting time.

Find out the Sunset (or Sunrise) direction and time



PhotoPills Planner - According to Panel 4, on 06/11/2022 the Sun sets at 09:11 pm and the Sunset direction is 301.6°.



PhotoPills Planner - According to Panel 6, the evening golden hour starts at 08:30 pm and ends at 09:31 pm.

The wedding celebration takes place in the evening, and you want to take advantage of the **golden hour** while the Sun is setting behind the newly weds.

Therefore,

- The **Sunset** direction line is crucial to determine the perfect shooting spot.
- And, you also need to find out the evening **golden hour** times.

Now that you've set the shooting date, use the information on the panels above the map and the lines on the map to plan your shot.

First, make sure that you have **Panel 4** selected above the map. If not, swipe the top panels until you get to it.

Have a look at the screenshots above.

On the left screenshot, **Panel 4** is telling you that on June 11, 2022 the Sun sets at 09:11 pm according to the Red Pin position. So you know the time you should be ready to press the shutter.

On the map, you have the Sun, the Sunrise and the Sunset directions for the selected date (06/11/2022):

- The Sun direction at the selected time (08:45 pm) is represented by the thin orange line.
- The Sunrise direction is represented by the thick yellow line.
- The Sunset direction is represented by the thick orange line.

Note: If you don't see these lines, activate the **Sun layer**. You can do this by tapping the **Map Settings** button. You will find it next to the **(+) button** on the map.

Thanks to the Sun direction line, you'll know the light direction at all times. And that's a key piece of information when choosing the shooting spot.

And second, let's figure out the **golden hour** times.

Swipe the top panels until you get to **Panel 6**.

On the right screenshot, **Panel 4** is telling you that on June 11, 2022 the evening **golden hour** starts starts at 08:30 pm and ends at 09:31 pm, according to the Red Pin position.

You now have the information you need to decide the shooting time.

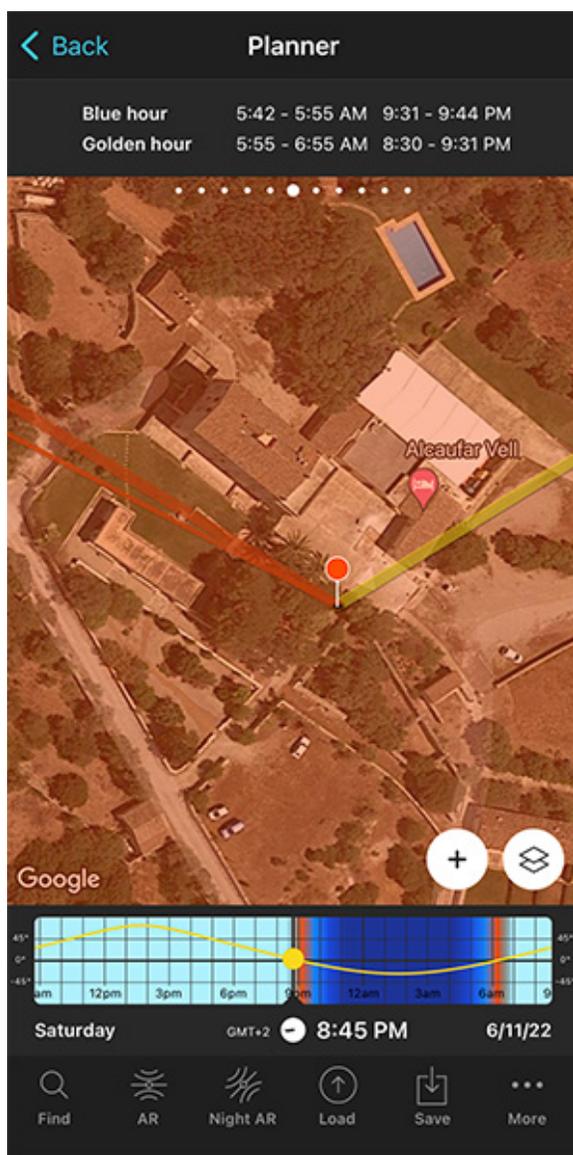
Great! Let's move on.

Check different locations until you find a photo you like

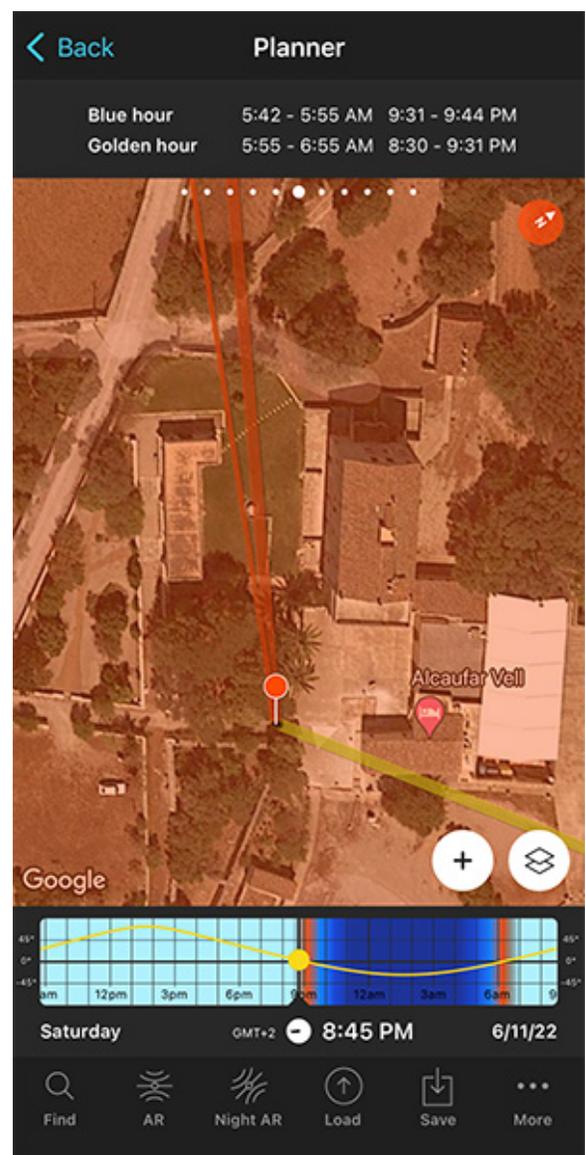
Now that you know where the Sun will set, the time it will set, and the evening **golden hour** times, **move the Red Pin** to several cool locations within the wedding venue. Do it one by one until you find the one where your wedding photo fits your idea.

As you can see from the photo of this example, the couple is in the garden with the Sun setting behind them, to the left (from your point of view). You can also see the main building to their right.

It's a great location. So let's go back to PhotoPills and complete the plan...



PhotoPills Planner - The Red Pin is at the entrance of Alcaufar Vell.



PhotoPills Planner - Change the Red Pin position to a beautiful garden inside Alcaufar Vell.

Place the Red Pin in a beautiful garden inside Alcaufar Vell from which the **Sunset** direction (thick orange line) is along the main building.

From this shooting spot the Sun will set along the main building creating a beautiful back-light behind the newly weds. Remember that this lighting scheme will create a silhouette so you may need to use a flash from the right to illuminate the subjects and enhance them.

And that's it!

You've just planned a cool wedding shot during the evening **golden hour**.

In addition to this, when you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize through your phone where the Sun will set.

Also, have a look at **section 20** and plan your shot to the very last detail. This includes planning the field of view (the focal length) and the **depth of field** (to make sure you get everything in focus).

Now you just have to save the plan (tap Save and then choose to save a Plan).

Section 16:

How to plan a drone
shot



DJI Air 2S | 22mm | f/2.8 | 1/4000 | ISO 110
Photo by [Javier de la Torre](#)

Nowadays drone technology has advanced so rapidly that pretty much any photographer can capture amazing aerial shots.

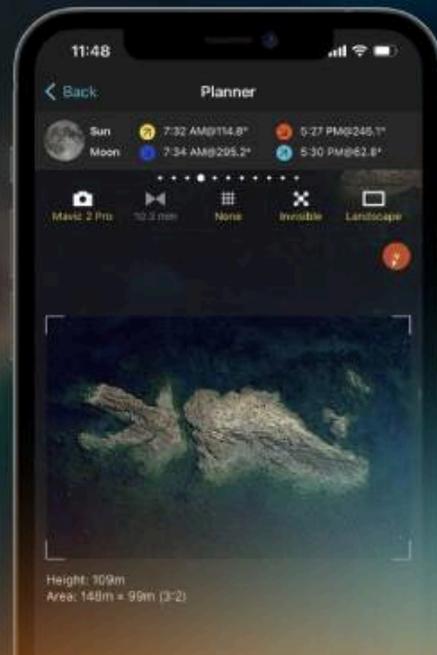
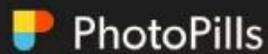
You can keep shooting and getting amazing images even after exhausting all the possibilities available on the ground! :)

But to get a truly cool result you need to plan the shooting spot, the frame, the composition, and the date and time you need to go to the location to get the right light direction and light quality.

And here is where the [PhotoPills drone mode](#) comes into play.

In this video Rafa explains in depth how to plan a top down aerial photo of an amazing rock that looks like a crocodile and that is located on the island of Menorca (Spain).

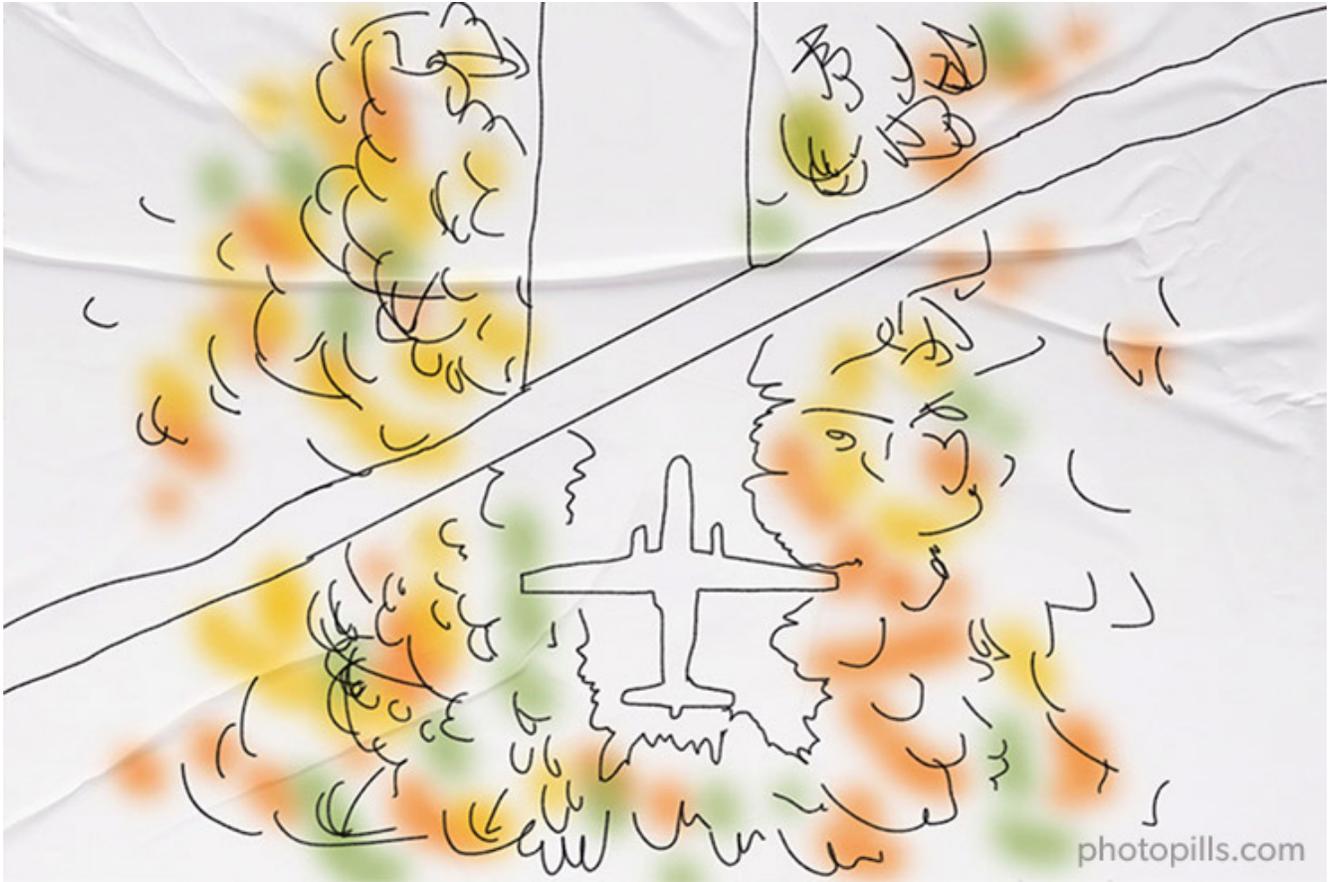
How to Plan Your Drone Photos



But let me show you how to plan your drone photos with another example.

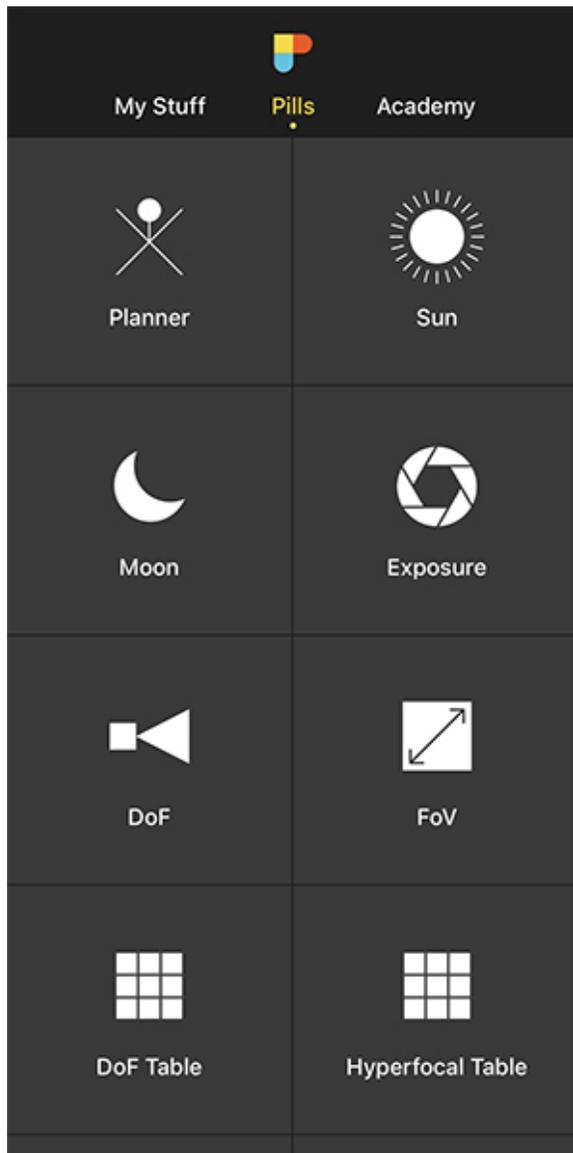
Imagine that you want to capture an abandoned plane, more precisely an Antonov An-8, from high above with your drone.

This abandoned plane is in the outskirts of St Petersburg (Russia), some 25 km north of the city center.

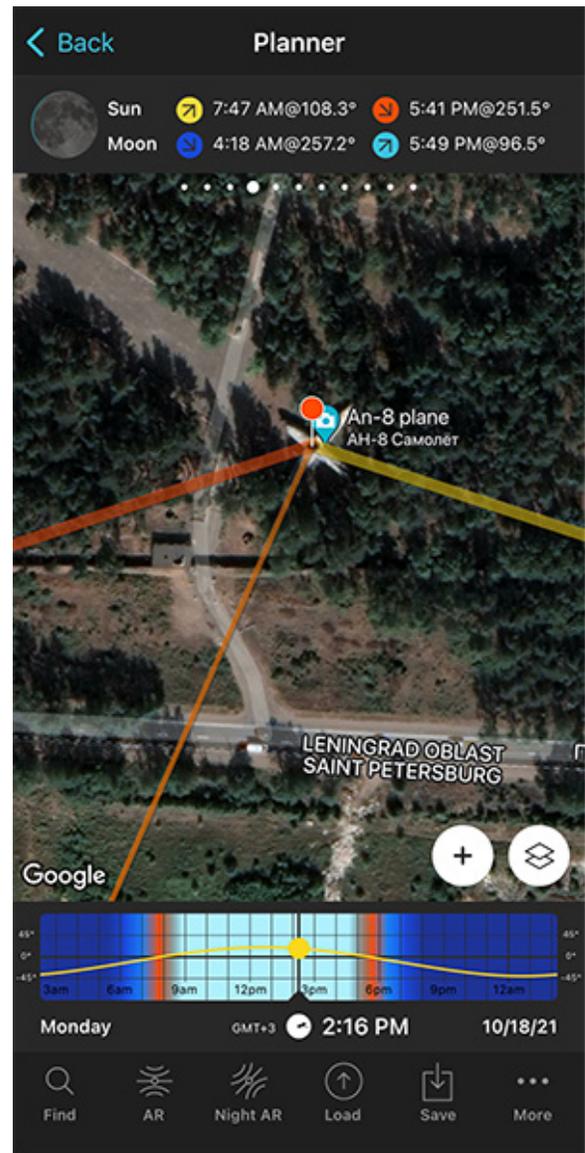


Let's see how you plan a cool aerial image of the abandoned plane with PhotoPills...

Place the Red Pin on the area you want to photograph



PhotoPills - Pills Menu where you can find the Planner.



PhotoPills Planner - The Red Pin is at the abandoned plane location, some 25 km north of the St Petersburg city center (Russia).

Open your **PhotoPills** app and tap *Planner* (*Pills* menu).

Then, place the **Red Pin** in the area where you want to take your drone shot.

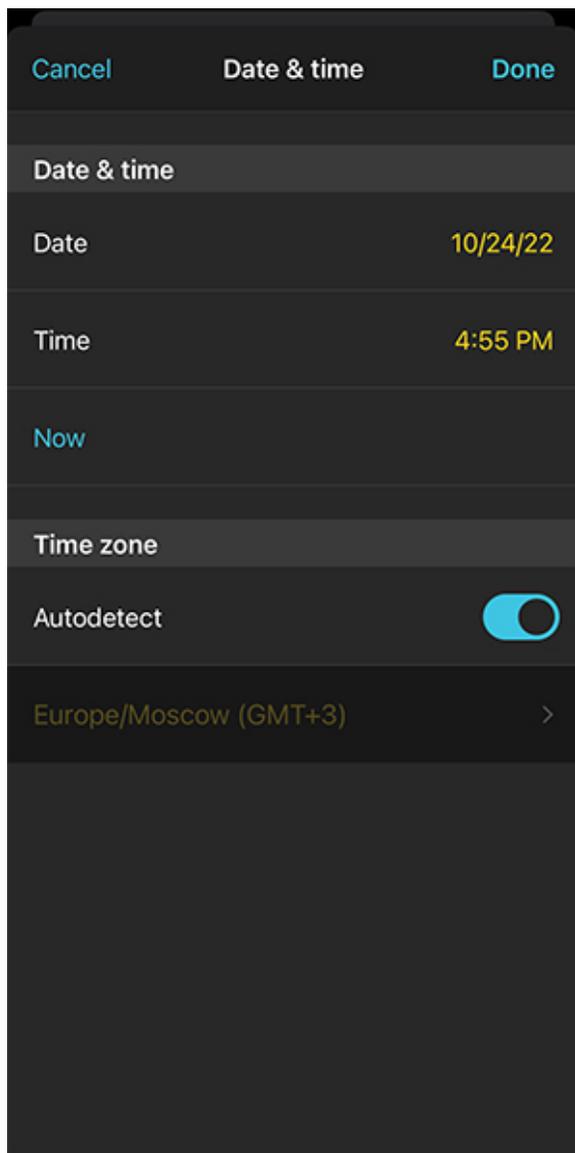
For example, at the abandoned plane location, some 25 km north of the St Petersburg city center (Russia).

Tap the *Load* button (at the bottom), select Latitude/Longitude and type the abandoned

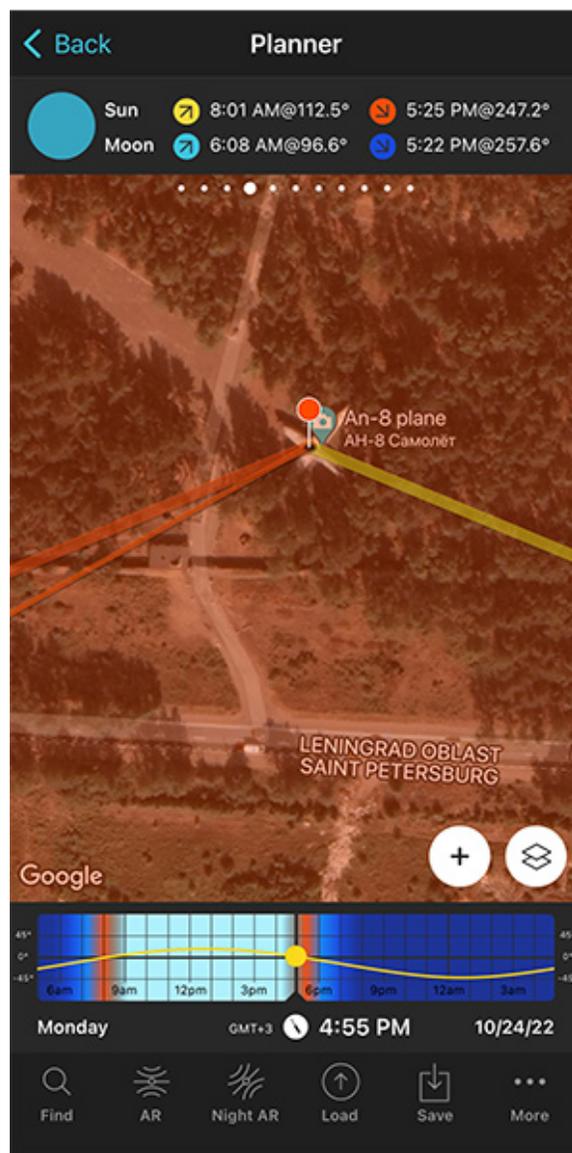
plane location coordinates in the empty fields, which are 60°07'04"N/30°12'12"E. Then, tap OK (back arrow on Android) and the Red Pin will be placed in the location.

If you don't know how to do it, [this video shows you how to move the Red Pin.](#)

Set the shooting date



PhotoPills Planner - On the Date & time screen you can manually set the date and time.



PhotoPills Planner - On the Time bar, the date is set to 10/24/2022 and the time to 04:55 pm.

The next step is to set the date you want to take the drone photo. You need it to figure out, for example, when the **golden hour** occurs and how light will hit your subject.

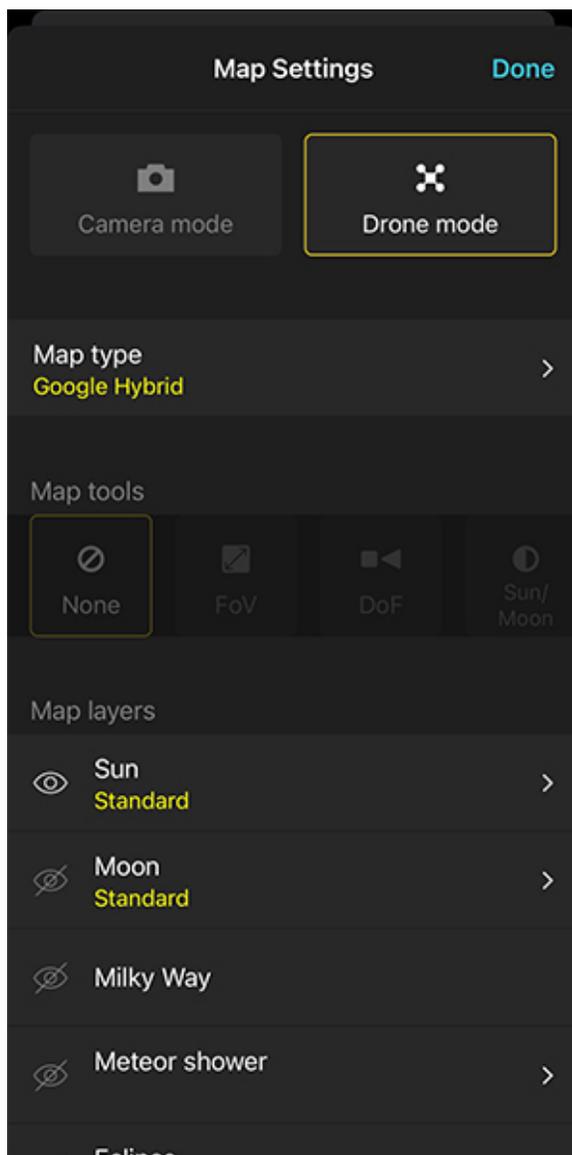
Suppose you want to take your drone photo on October 24, 2022.

There are a few ways to quickly set the date.

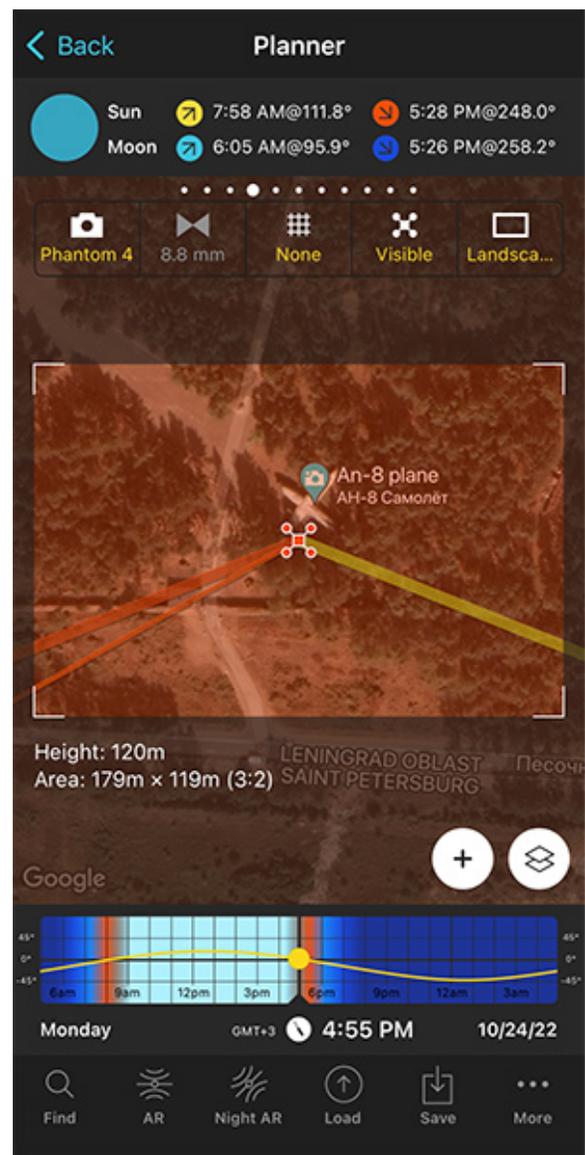
The first one is to set your current date and time by double tapping the **Time bar** below the map. Then, move time forward by swiping the Time bar to the left until you get to the date you want to take the photo.

The second one is to set the date using the Calendar. To do this, tap the center of the Time bar. On the Date & time screen, tap *Date* to manually change the shooting date.

Switch on the PhotoPills Drone mode



PhotoPills Planner - Select the Drone mode on the Map settings screen.



PhotoPills Drone view - The Planner now displays the Drone view.

To see the drone information on the map you need to switch on the Drone mode of the PhotoPills Planner.

To do it, tap the **Map Settings** button (bottom right-hand corner, next to the **(+) button**).

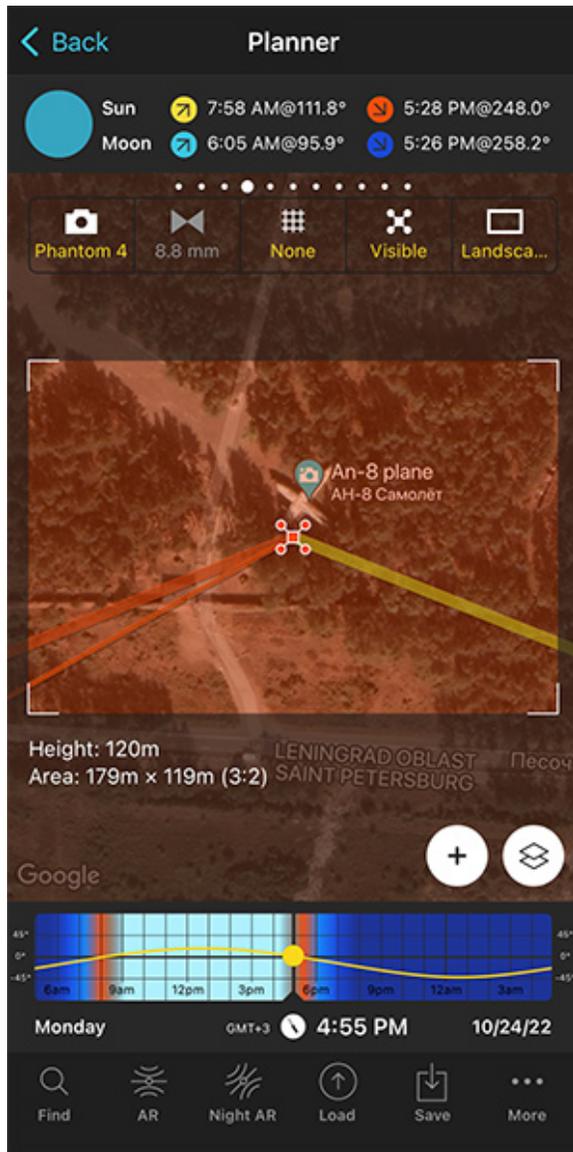
On the Map Settings screen, set the *Drone mode* (top right hand corner).

On this screen, you can also choose the *information layers* you want to see on the map (Sun, Moon, Milky Way, Meteor Showers, Eclipse, Twilights, Shadow, etc.).

I suggest you turn all the information layers off, except for the **Sun layer**. To enable/disable a layer, tap the eye icon you see on the left of the layer. Then, tap *Done* to confirm your settings in iOS or the back arrow in Android.

The Sun layer will help you understand everything about light direction :)

Set the drone photography settings



PhotoPills Drone view - In the Drone mode, the rectangle you see on the map shows you the field of view.



PhotoPills Drone view - The Drone settings are set.

Have a look at the first screenshot above, now the Planner shows the Drone mode and the Red Pin is now a small drone... :)

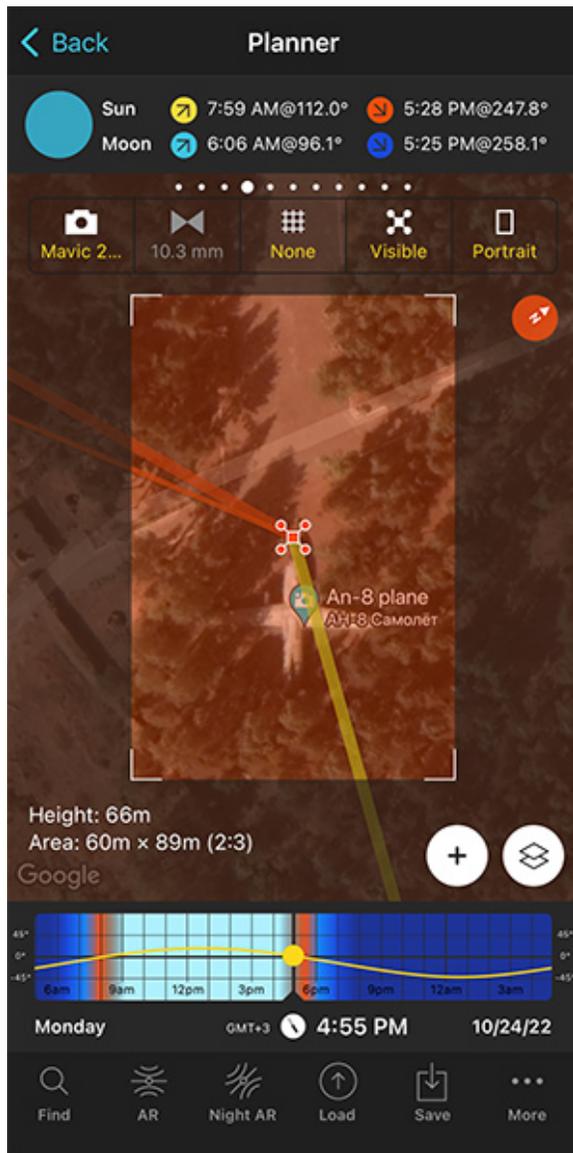
- The rectangle you see on the map shows you the field of view. That is, the framing you'll get depending on the focal length you're using and the height of the drone.
- Right below, you can see the drone's height and the area.

At the top of the map, right below the top panels, you can see 5 Drone buttons.

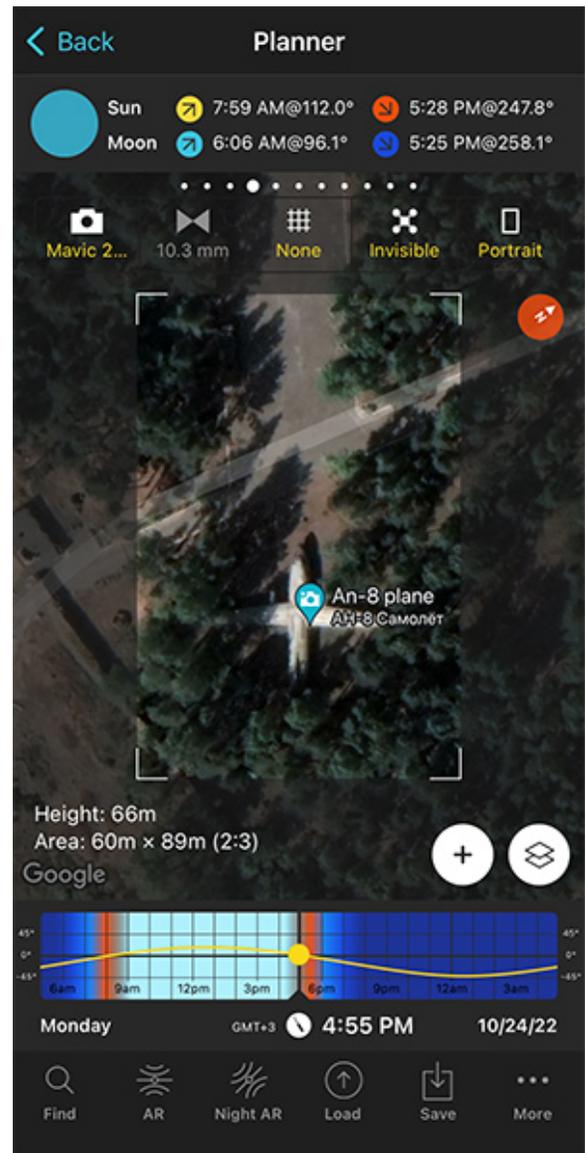
Tap each one of them to change the settings:

- **Drone selector:** Select your drone or the camera you've attached to a drone. My drone is a DJI Mavic 2 Pro.
- **Focal length:** Select the focal length you'll use with your drone. If it's grey it displays the fixed focal length of your selected drone (4.7mm on my drone).
- **Composition grid:** Choose from different composition proportions (thirds, diagonal, triangle, golden ratio, golden spiral, etc.) to help you plan your aerial photo.
- **Visible/Invisible:** Hide the Sun, Moon and Milky Way map lines to enjoy a clean view of the map.
- **Landscape/Portrait:** Choose between landscape and portrait shooting orientation.

Find an awesome drone composition (to shoot straight down)



PhotoPills Drone view - View of the abandoned plane area using the Drone Mode. Navigate and/or rotate the map looking for interesting elements.



PhotoPills Drone view - View of the abandoned plane and the frame captured with the drone at a height of 66 m.

Shooting straight down is by far my favorite drone photography style.

I literally love navigating the **PhotoPills** map looking for eye catching patterns, lines, landmarks or any other interesting elements.

Now that you know that you want to capture the abandoned plane, just drag the map and zoom in and out looking for a great composition.

First, to adjust the shot, you can rotate the map and also play a bit with the zoom.

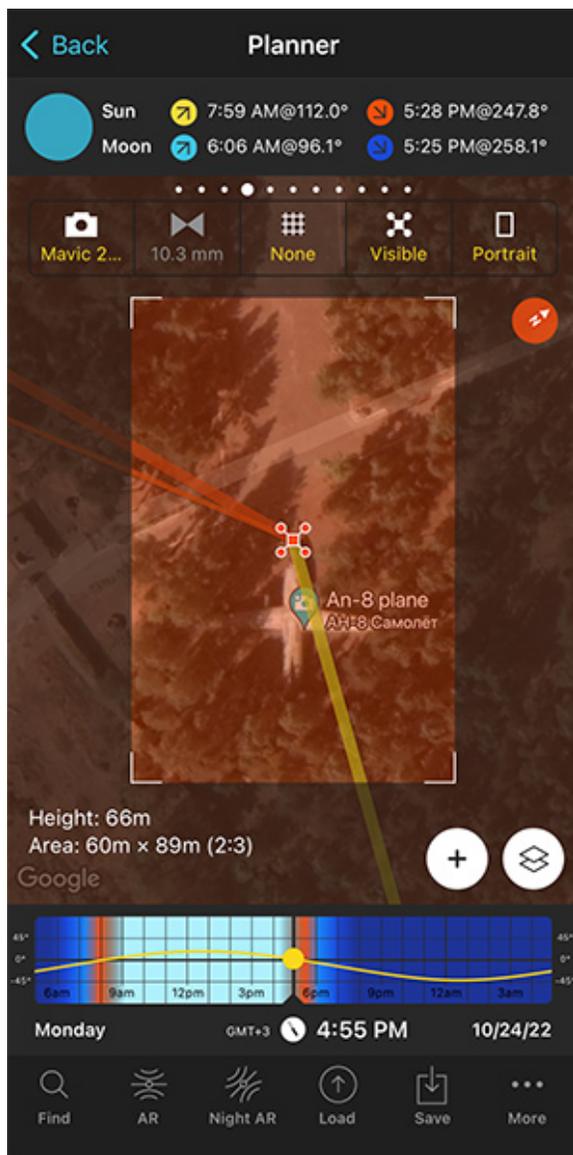
Then, tap the *Visible* button (above the map) to hide the red drone and Sun/Moon azimuth map lines.

Pay attention to the second screenshot above. Notice that the button says *Invisible* now, and no lines are displayed on the map for a cleaner view of the photo.

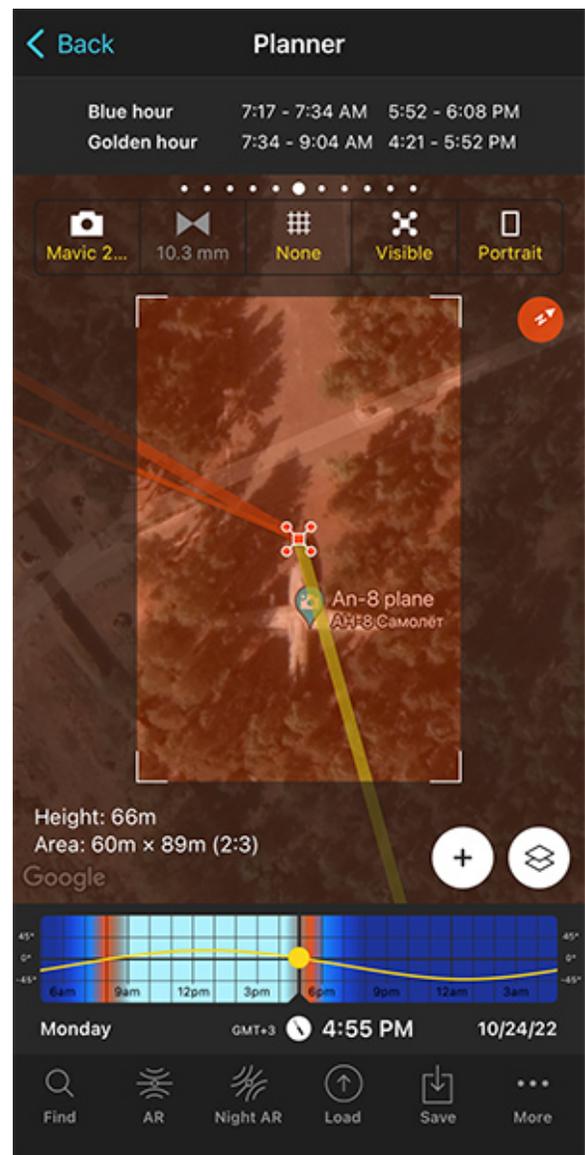
Zoom in and out until you get the photo you want – the perfect shooting spot, frame and the drone height required (in this case, 66 m).

Note: Always check the [local regulations on drone flying](#). You need to be sure you're flying your drone in a place where it's allowed, and at a height that's allowed too.

Plan the natural light (time and direction)



PhotoPills Drone view - Panel 4 shows the Sun/Moon rise and set times and directions (azimuth).



PhotoPills Drone view - Panel 6 shows the golden hour and blue hour start and end times.

Depending on the shooting time you choose, you'll have one type of **natural light** or another.

Let's say you want to have a warm golden hue in the image. When does the **golden hour** begin? And what's the light direction?

Let's figure it out.

First, tap the *Invisible* button (above the map) to display the red drone and the Sun azimuth map lines:

- The thick yellow line represents the **Sunrise** direction for the selected date.
- The thick orange line represents the **Sunset** direction for the selected date.
- And the thin orange line represents the position of the Sun for the selected date and time.

So, thanks to the thin orange line you know the Sunlight direction at all times.

When does the **golden hour** begin?

Swipe the top panels above the map until you get to **Panel 6**. This panel gives you the **golden hour** and **blue hour** information for the selected date and selected Red Pin position.

According to **Panel 6**, on October 24, 2022 the golden hour times are:

- Between 07:34 am and 09:04 am.
- Between 04:21 pm and 05:52 pm.

Therefore, if you want to shoot in the evening, now you know the **golden hour** begins at 04:21 pm and ends at 05:52 pm. That's your shooting time range.

Use the Time bar to choose the shooting time based on light direction and light type (**golden hour**) you're looking for.

And that's it! You've just planned a cool drone photo.

Now you just have to save the plan (tap Save and then choose to save a Plan).

Oh, and make sure to get there on time! ;)

Become a master reading our **drone photography guide**.

Section 17:

How to plan tides in a seascape



Nikon Z6 | 18mm | f/9 | 1.3s | ISO 200 | 6500K | ND 1.8 (6 stops) and soft GND 0.9 (3 stops) filters

Timing is crucial in seascape photography.

Apart from [natural light \(section 4\)](#) and weather ([section 21](#)), you'll need to take another important element into consideration: tides.

All 3 of them will define the shooting time.

Plan the seascape tides on the field (1)

Ideally, you should scout the location during the day at low tide to look for a subject, but most specifically to develop compositions with all sorts of elements (e.g. rocks, moss, sand patterns, reflections, rock pools, etc.).

From there, you can also determine if high tide might work: water will hide most of these elements and will therefore eliminate clutter.

This is a really useful exercise as it will allow you to envision your shot and plan it consequently.

In addition to this, you can always confirm the tide times with my 2 favorite tools:

- **Nautide** (and its free website [tides4fishing](#)).
- **Tide Charts Near Me**.

More details on them in the next section... ;)

Plan the seascape tides from home (2)

You can use the **PhotoPills** Planner to plan from your couch any seascape for any location on Earth!

Plan the position of the Sun, the natural light type and direction you need so you have the shooting time. Then, check the tides.

If you want to become a master of seascape photography and seascape photography planning, you should study in depth the Masterclass that my friend Francesco Gola gave us on this topic.



But if you prefer a written explanation, keep reading!

Let's see how it works...

Decide the type of shot you want to capture

Depending on the type of picture you have in mind, follow the steps I explained previously:

- Have a look at [section 6](#) if you want to shoot a [Sunrise](#) or a Moonrise.
- Check [section 8](#) if you want to shoot a [Sunset](#) or a Moonset.
- Check [section 10](#) if you want to photograph the [Milky Way](#).

Check the tides on the shooting location

Now that you have your photo planned, it's time to check the tides.

Remember that the Sun/Moon's position doesn't change that much from one day to the next during a week or so... This allows you to choose the day with the tide that you are looking for ;)

And in order to do so, here are my favorite tools.

Nautide

If you intend to photograph a seascape, it's essential that you know what time the tide rises or falls in the location.

My favorite tidal app is Nautide.

I like it because it gives a lot of very detailed information: high and low tides times, the water level (how much the water will rise or fall), daily tide charts, the tidal coefficient and the marine life activity among others.

Nautide relies on the data provided by the [National Ocean Service of the American NOAA](#) buoys, so you can choose from more than 10,000 buoys...

The downside is that if you want to plan weeks or months in advance, you'll need to purchase an annual data package.

The good news is that their website [tides4fishing](#) is completely free ;)

[Nautide](#) is available on [iOS](#) and [Android](#).

Tide Charts Near Me

What I like most about Tide Charts Near Me is that it offers tidal information with no time limitation. There's no need to buy a data package or pay for a premium version.

Its main graph shows the information very clearly and how the tide is going to rise and fall throughout the day and night.

You can also see the current tide level (meters and centimeters or feet and inches, depending on the system you prefer). And to make the information more visual, a small arrow points up or down as the tide rises or falls.

[Tide Charts Near Me](#) is available on [iOS](#) and [Android](#).

Check the weather on the shooting location

Finally, it's time to check the weather conditions.

You have all the essential steps to do so detailed in [section 21](#).

Again, because the Sun/Moon's position doesn't change that much from one day to the next during a week or so you can choose the day with the best weather forecast ;)

Obviously, you'll have to make compromises if you don't get the perfect conditions in one day. That is

- The Sun or Moon in the direction or position you want (e.g. To the side of your subject).
- The tide you're looking for (e.g. Low tide to photograph the mossy rocks).
- The weather you envision (e.g. A nice sky with scattered clouds).

Therefore, establish the priorities and decide your shooting date according to what's most important for you.

Section 18:

How to plan a photo of
a lunar eclipse



Apple iPhone 7 Plus | 31mm | f/1.8 | 1/33s | ISO 20

A lunar eclipse is a rare and breathtaking phenomena, which occurs when the Moon passes into the Earth's shadow and seemingly changes shape, color, or disappears from the night sky completely.

Have a look at [section 4](#) to learn more about the different lunar eclipses and the eclipse phases that you can photograph.

And if you want to learn how to photograph a lunar eclipse, check our super detailed [lunar eclipse photography guide](#). You'll find everything you need to nail your lunar eclipse photos in there.

Living a lunar eclipse, either partial or total, and photographing it is something every photographer should do at least one in a lifetime.

And in order to photograph it, you need to plan it first ;)

You may have to answer a few questions:

- When does the next lunar eclipse occur?

- Where on Earth is the lunar eclipse visible?
- Is it a partial or a total lunar eclipse?
- And most importantly, what's the best shooting spot and shooting time to photograph it?

Well...

You can quickly answer all these questions with [PhotoPills](#). Actually, in this video Rafa teaches you how to plan a photo of a total lunar eclipse step by step.



But let's see another example of lunar eclipse planning.

Suppose that you want to capture a totally eclipsed Full Moon (also known as Blood Moon) with a telephoto lens.

Where does the Blood Moon name come from? It's because during a total lunar eclipse the Moon takes a mystic red hue.

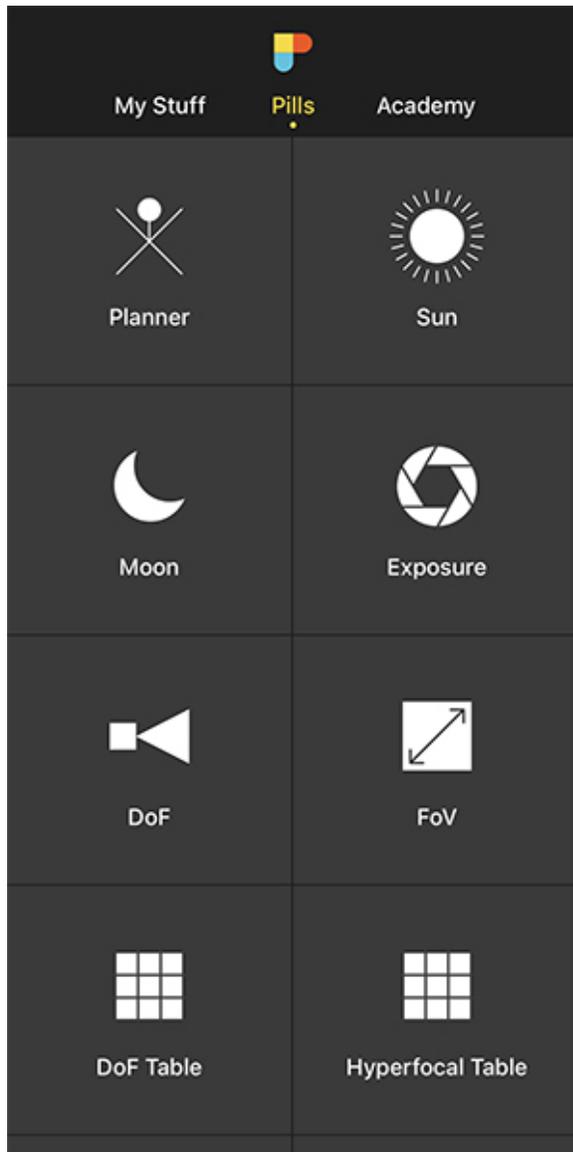


The idea is to photograph a close up of the totally eclipsed Moon (the red Moon), without any other element in the frame.

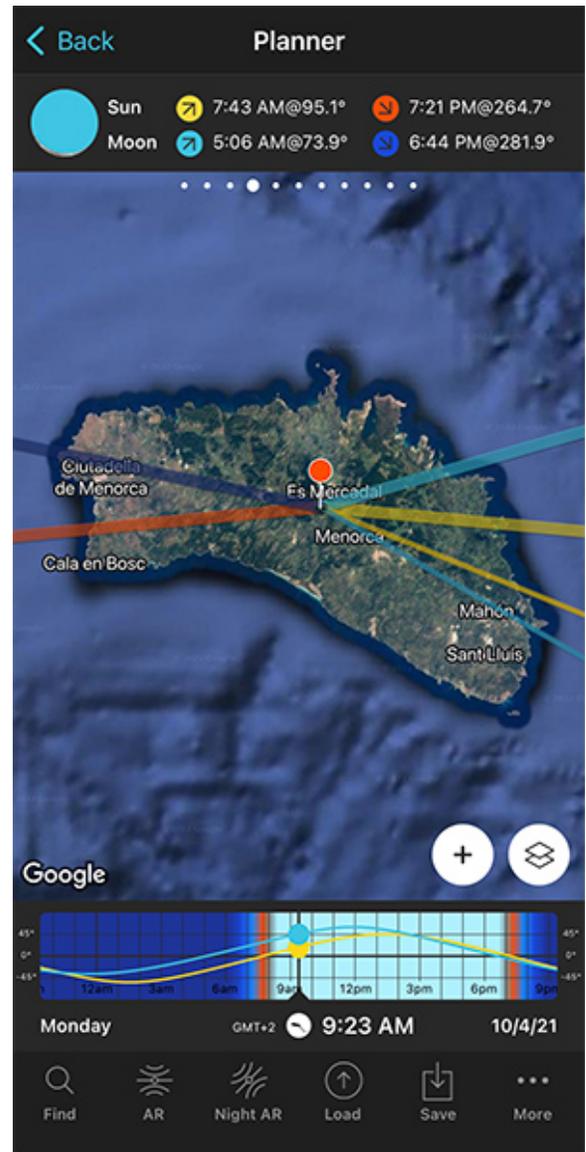
Let's see how you can plan this shot.

The first step is to figure out when the next total lunar eclipse occurs.

Select the lunar eclipse you want to plan



PhotoPills - Pills Menu where you can find the Planner.

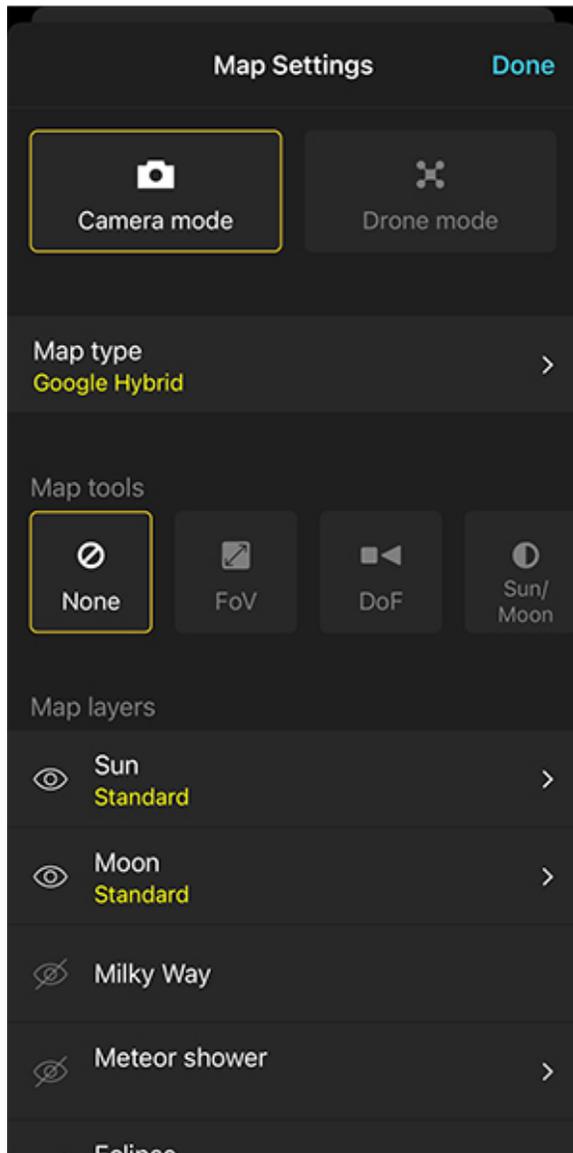


PhotoPills Planner - You'll find the Map Settings button next to the (+) button on the map.

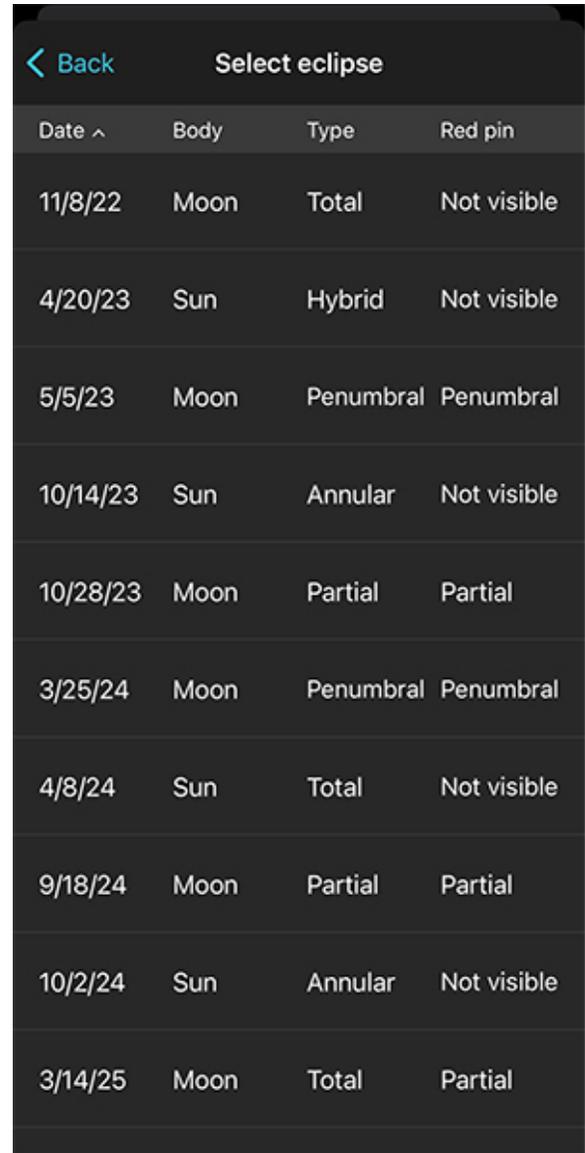
The first thing you have to do is to select the eclipse you want to plan.

Open **PhotoPills**, and tap *Planner* (*Pills* Menu).

Then, tap the **Map Settings** button. You'll see it on the map, in the lower right corner, right next to the **(+)** button on the map.



PhotoPills Planner - Map Settings. Tap Eclipse to see the full calendar of eclipses.



PhotoPills Planner - PhotoPills solar and lunar eclipse calendar. Scroll the calendar up to see more eclipses.

Once on the Map Settings screen, tap the *Eclipse layer* to see the calendar of eclipses.

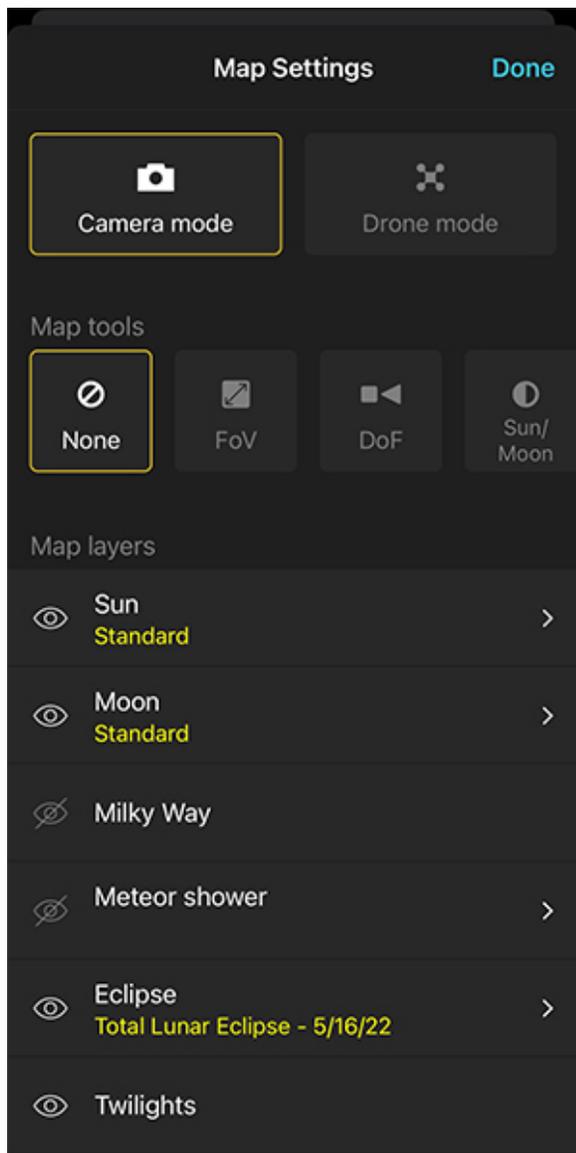
The calendar displays all the solar and lunar eclipses, showing:

- Date
- Object (Sun or Moon)
- Type (total, partial, annular or hybrid)
- Red Pin, if it's visible or not from the Red Pin position. And when visible, if it's total, partial or penumbral.

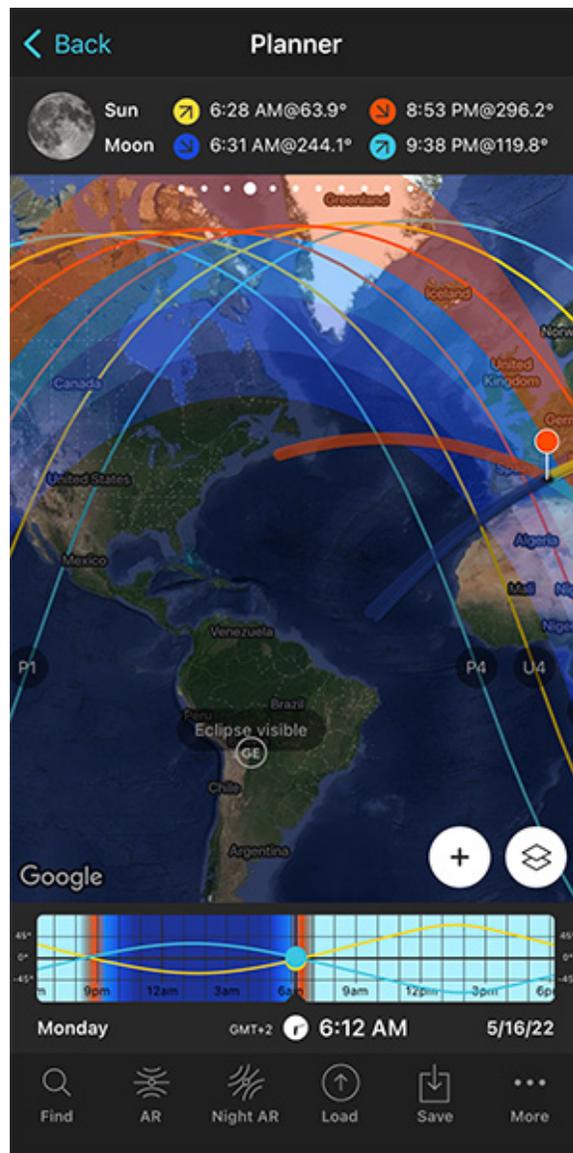
Note: Tap Date, Object, Type or Red Pin at the top to sort the table according to the criteria you prefer.

Let's say that you want to plan a photo of the total lunar eclipse of May 16, 2022.

On the table, tap the eclipse of May 16, 2022 to select it. And go back to the map.



PhotoPills Planner - Map Settings screen once the Eclipse layer is activated. The eye icon to the left of the Eclipse layer is not crossed out.

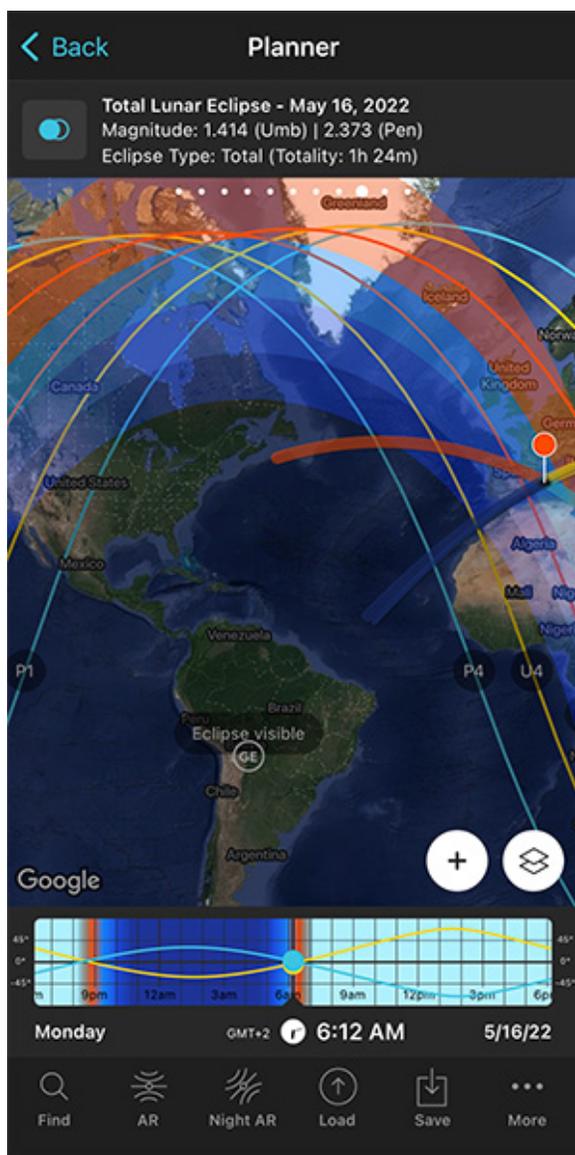


PhotoPills Planner - The eclipse visibility information of May 16, 2022 is displayed on the map. The Time bar indicates the date of the eclipse as well.

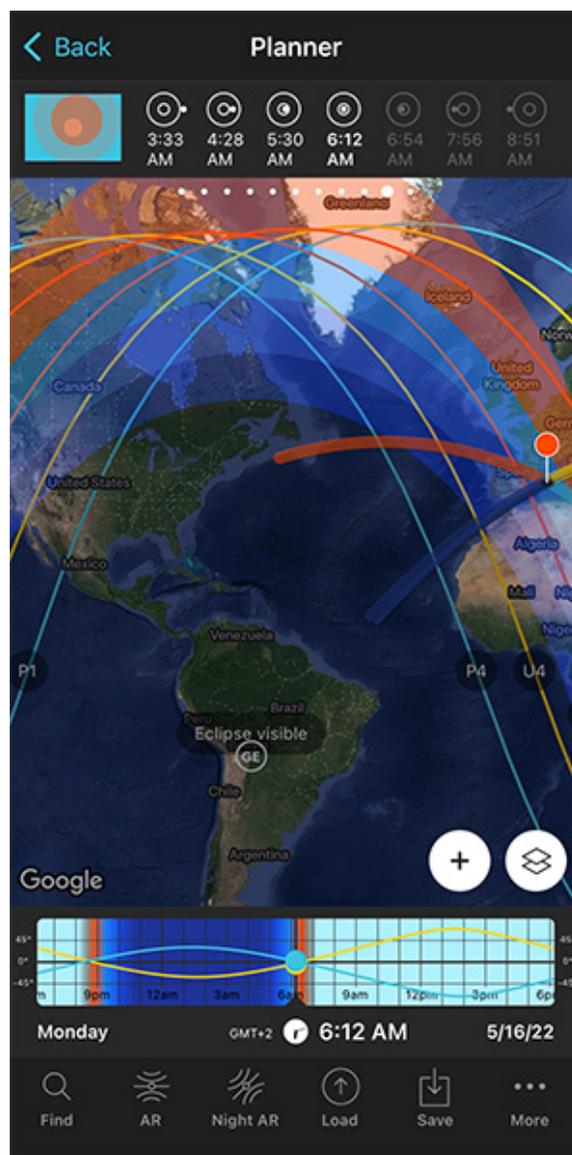
On the map, zoom out to get a global view of the eclipse visibility information.

Let's find out where you can see and photograph the lunar eclipse.

Find out where the lunar eclipse is visible



PhotoPills Planner - Panel 9 shows the eclipse information (date, magnitude, type and duration) according to the Red Pin position.



PhotoPills Planner - Panel 10 shows the time and image of the different phases of the eclipse according to the Red Pin position.

Swipe the top panels above the map to the left to get the eclipse information: **Panel 9** (first screenshot above) and **Panel 10** (second screenshot above).

Look at the map so you can quickly find out the areas of the planet where the total eclipse is visible.

Again, have a look at **section 4** to understand lunar eclipses and their phases.

In order to enjoy a total lunar eclipse, you should go to the areas displayed on the map as:

- Eclipse visible.
- Eclipse at Moonrise, only between lines P1 and U3.
- Eclipse at Moonset, only between lines P4 and U2.

Navigate the map.

For example, Toronto (Canada) is located in the area of the map where the eclipse is visible. Thus, it's a great place to enjoy all the phases of the total lunar eclipse.

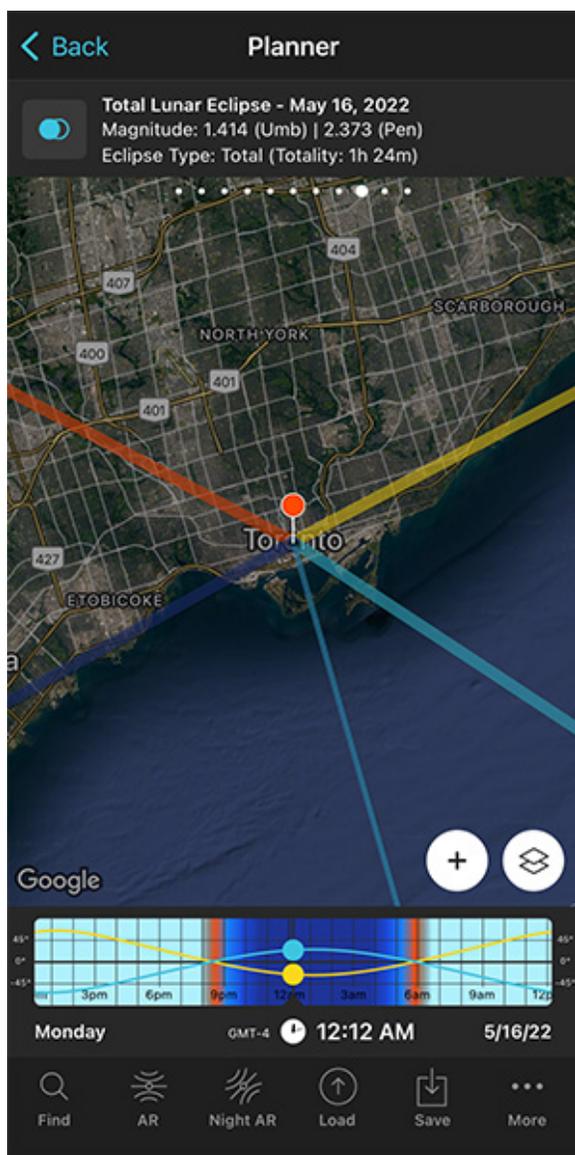
But there are many other areas where you can see the total lunar eclipse: Northwest North America, South America, west of Europe and west of Africa. Not bad :)

Now, all you need to do is to place the Red Pin in Toronto (Canada). If you don't know how to do it, [this video will teach you how to move the Red Pin](#).

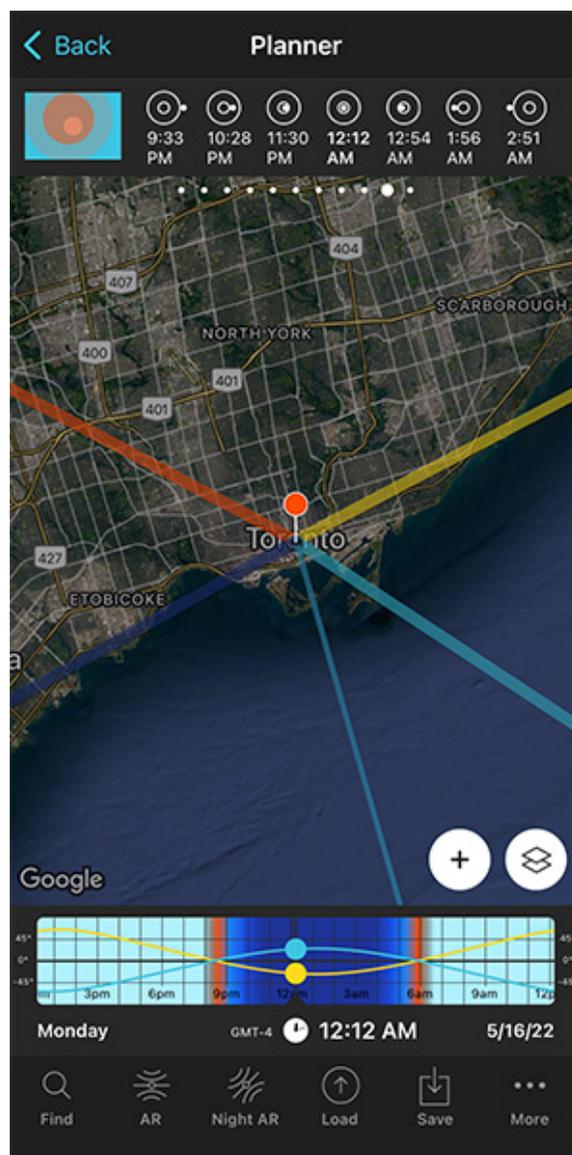
Let's find out

- When each phase of the eclipse occurs in Toronto so you arrive in time.
- Where in the sky they will occur so you know where to frame the camera.

Find out when and where the lunar eclipse is visible



PhotoPills Planner - Panel 9 shows the eclipse information (date, magnitude, type and duration) according to the Red Pin position.



PhotoPills Planner - Panel 10 shows the time and image of the different phases of the eclipse according to the Red Pin position.

In other words...

- At what time does each phase of the eclipse occur according to the Red Pin position?
- And where will the Moon be during each phase of the eclipse?

You'll find the answer of the first question on the top panels above the map. Again, **Panel 9** and **Panel 10**.

First, have a look at **Panel 10**. Considering the Red Pin position, the penumbral phase of the May 15, 2022 eclipse starts at 09:33 pm. The partial phase starts at 10:28 pm and the total eclipse starts at 11:30 pm.

Let's look at the two eclipse panels in more detail...

In **Panel 9** you'll find the basic information of the eclipse for the position of the Red Pin:

- **Eclipse selector button:** If the Eclipse layer is active on the map, you can deactivate it by tapping this button. Tap it again to access the eclipse calendar and select the eclipse you wish to plan.
- **Selected eclipse:** In this case, the total lunar eclipse of May 15, 2022.
- **Eclipse magnitude:** A lunar eclipse has two magnitudes (**section 4**). Here, the umbral magnitude is 1.414 and the penumbral magnitude is 2.373.
- **Eclipse type:** The type of eclipse that you can see from the Red Pin position (total, partial, penumbral or not visible). If the Red Pin is within the area of totality, it also indicates the duration of totality (1h 24min).

Finally, **Panel 10** will help you to quickly find out the exact time the different phases of the eclipse happen considering the Red Pin position:

- **Eclipse phase picture:** Image on the left of the panel. It shows the phase of the eclipse at all times as seen from the Red Pin position. Tap it to jump in time to the next phase and the time will be set in the Time bar. Double tap it and you'll go back in time to the previous phase.
- **Eclipse phase time:** The panel displays the times at which the eclipse phases occur.

Good...

Thanks to **Panel 10** now you know when each phase of the eclipse occurs. To select the time of a phase, tap and hold the time of the phase that is displayed on the panel. The time will be set in the Time bar.

Once you've set the time of the phase you want to photograph, pay attention to the map. The thin blue line tells you the direction where that particular eclipse phase occurs. It helps you determine the direction you need to point the camera to.

But how high in the sky?

Well...

When you're in the field, at the Red Pin position, use the [Augmented Reality view \(AR\)](#) on the Planner to visualize on your smartphone the position of the Moon during the eclipse.

Your plan is done.

Good job!

Now all you have to do is to save the plan tapping *Save* and then *Plan*.

One last thing.

If you want to align the eclipsed Moon with a subject, you need to go to a location on Earth where the Moon is low in the sky during the eclipse. This occurs in the areas where the eclipse is visible at Moonrise and at Moonset.

And then follow the same steps I explain in [section 9](#) about planning a big Moon aligned with a subject. You can't miss it!

Become a master in lunar eclipses reading our [lunar eclipse photography guide](#).

Section 19:

How to plan a photo of
a solar eclipse



Nikon Z7 | 500mm | f/8 | 1/100s | ISO 200 | 5170K | ND 3.0 (10 stops) filter
Photo by [Josh Cripps](#)

A total solar eclipse is a natural event you need to live (and photograph) at least once in your life.

As the Moon covers the Sun completely, the temperature drops, darkness surrounds you and wild animals go quiet... It's a strange and magical moment at the same time.

It cannot be described with words, you must live it.

The good news is...

You can plan any solar eclipse picture you imagine with [PhotoPills!](#)

Thanks to the app, you can quickly figure out:

- When the next total or partial solar eclipse occurs.
- And where on earth the solar eclipse is visible.

With this information, you can figure out the right shooting spot and shooting time to capture the photo of the solar eclipse you have in mind.

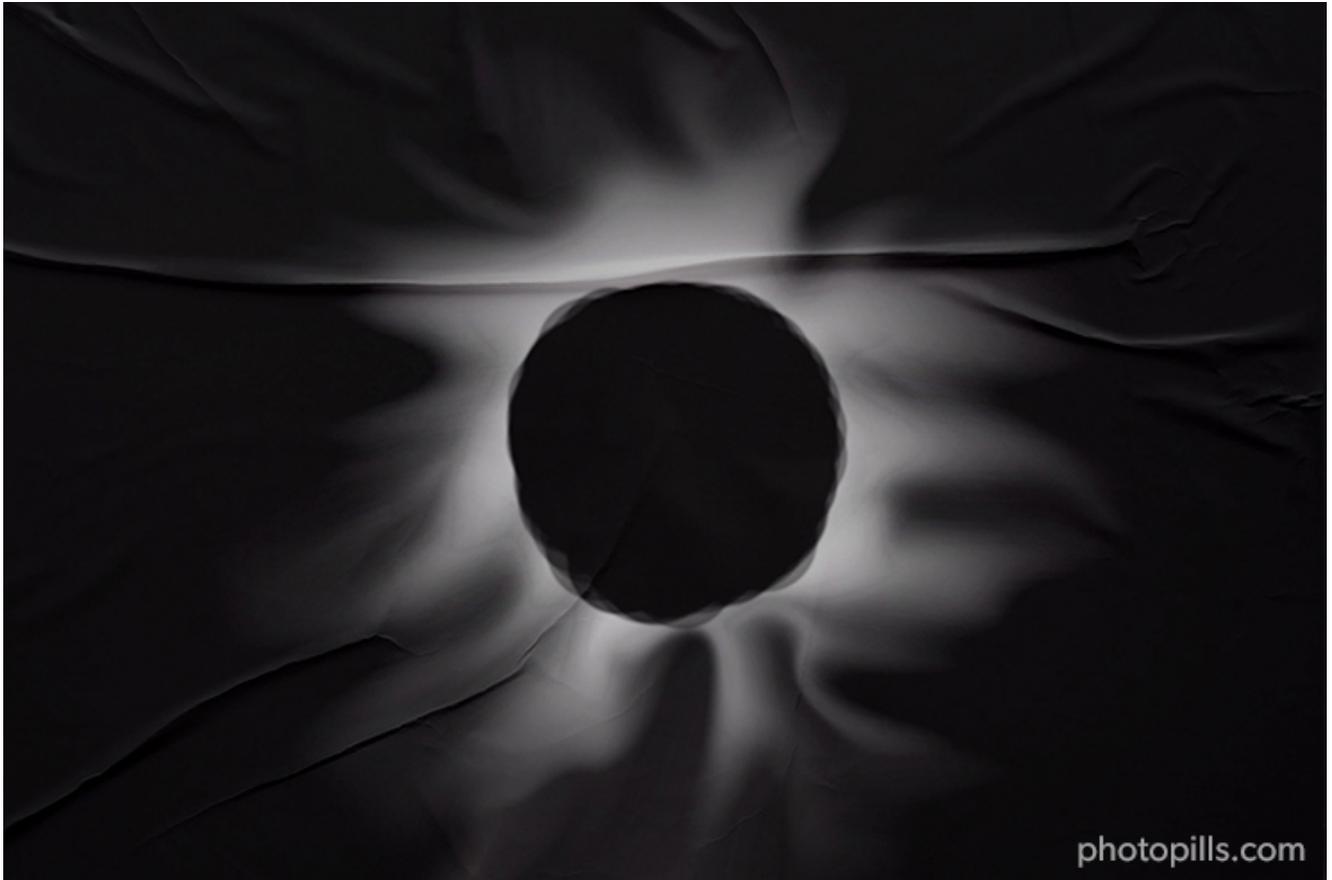
Would you like to learn how you can do it?

Well, watch this video and learn how to plan a photo of a total solar eclipse, step by step.



But if you prefer to read, here you have another example.

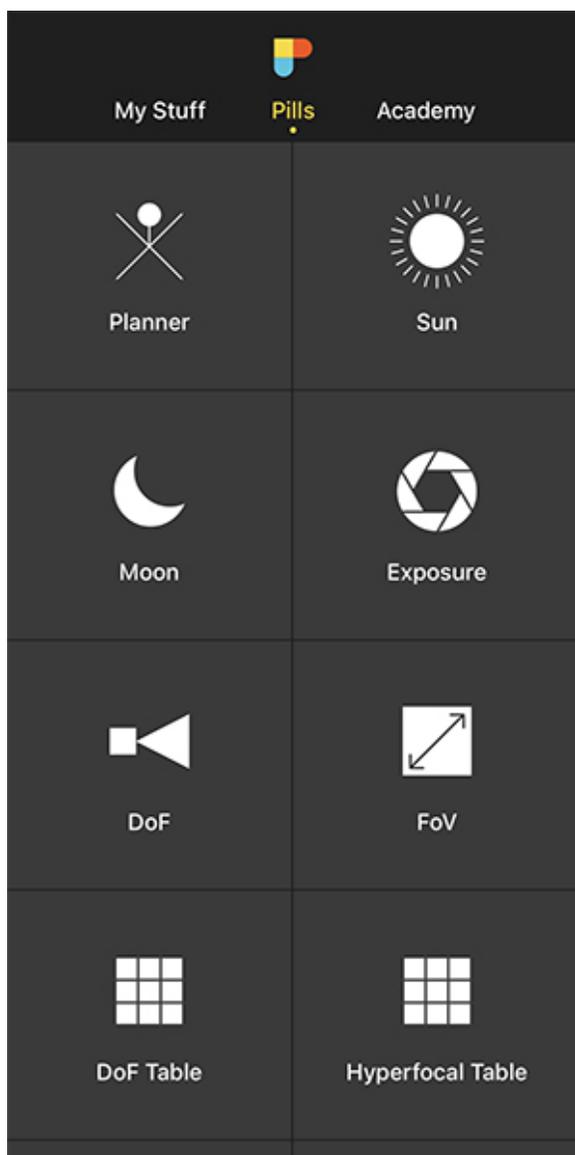
Suppose that you want to capture a totally eclipsed Sun (what's called the totality phase) with a telephoto lens. It's when the Moon completely covers the Sun's disk.



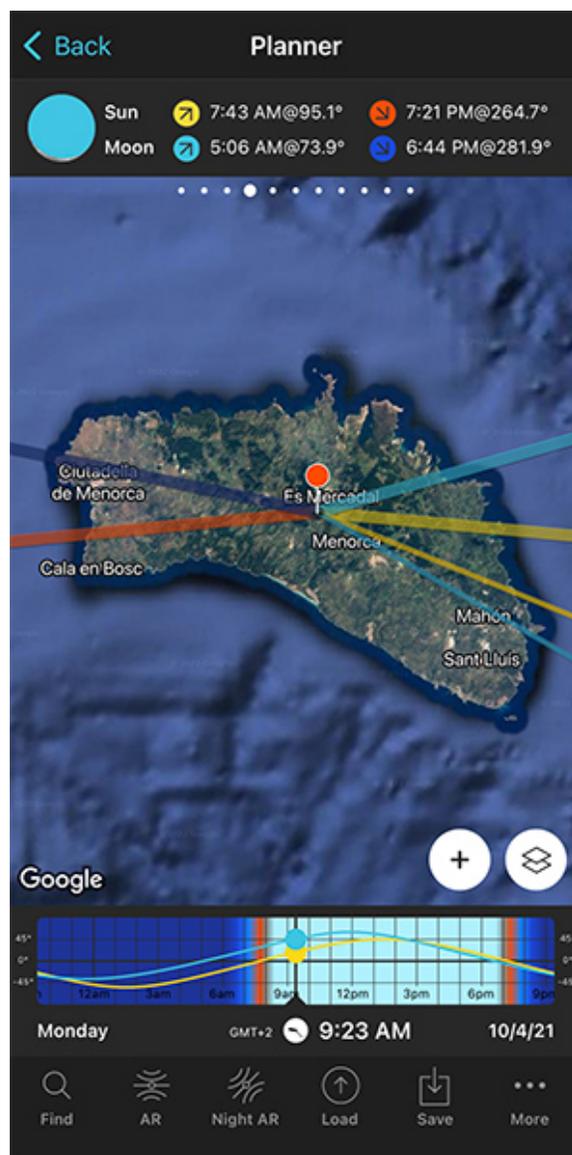
You don't want to include the foreground in the frame. You just want to photograph a close up of the Sun and capture all the spectacular phenomena that occur during totality: the Diamond Ring, the Baily's beads, the Sun's corona and the Sun's chromosphere.

Let's see how to plan your eclipse shots.

Select the solar eclipse you want to plan



PhotoPills - Pills Menu where you can find the Planner.

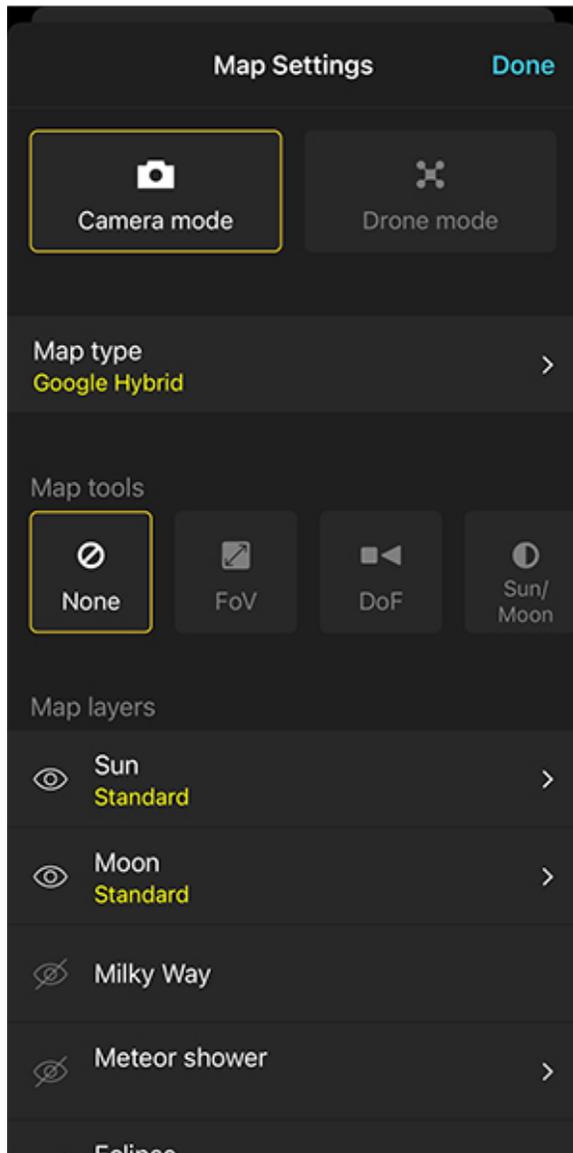


PhotoPills Planner - You'll find the Map Settings button next to the (+) button on the map.

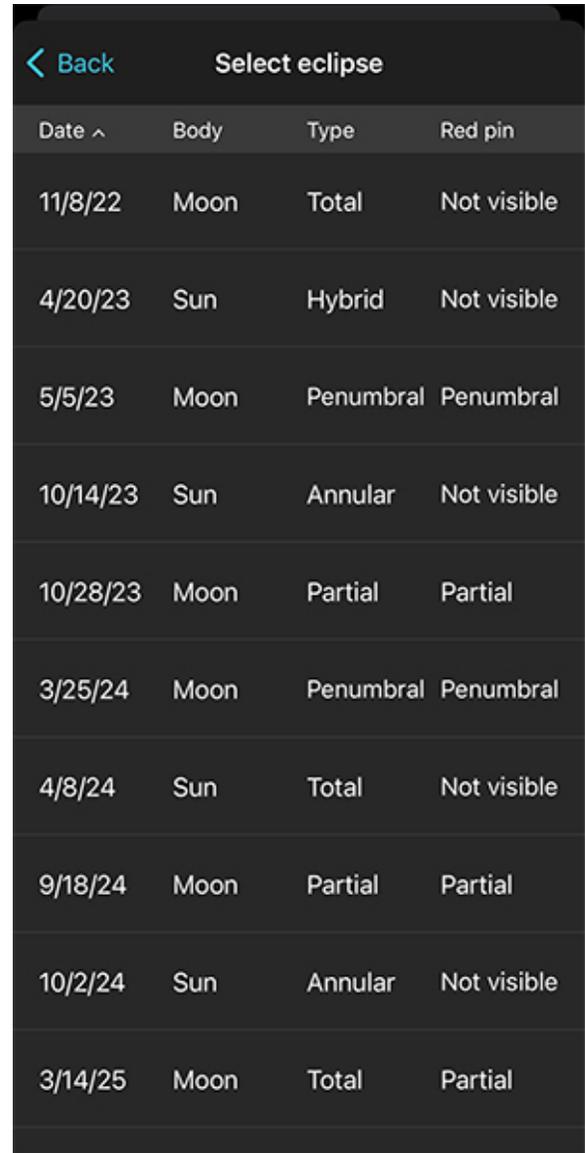
The first thing you have to do is to select the eclipse you want to plan. So let's see the eclipses that will occur in the future.

Open **PhotoPills**, and tap *Planner* (*Pills* Menu).

Then, tap the **Map Settings** button. You'll see it on the map, in the lower right corner, right next to the **(+)** button on the map.



PhotoPills Planner - Map Settings. Tap Eclipse to see the full calendar of eclipses.



PhotoPills Planner - PhotoPills solar and lunar eclipse calendar. Scroll the calendar up to see more eclipses.

Once on the Map Settings screen, tap the *Eclipse layer* to see the calendar of eclipses.

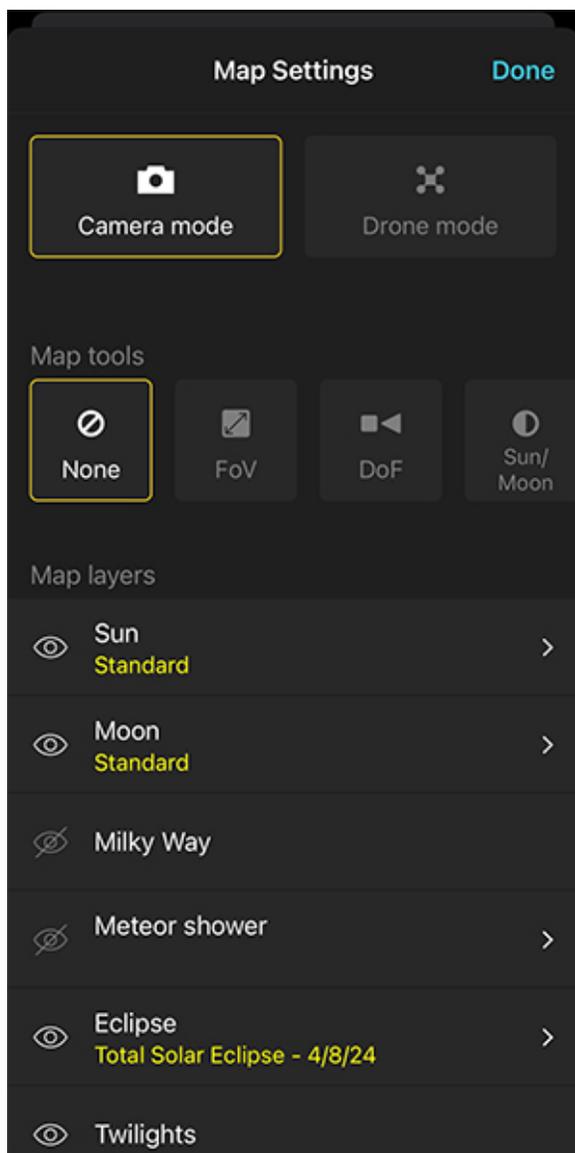
The calendar displays all the solar and lunar eclipses, showing:

- Date
- Object (Sun or Moon)
- Type (total, partial, annular or hybrid)
- Red Pin, if it's visible or not from the Red Pin position. And when visible, if it's total, partial or penumbral.

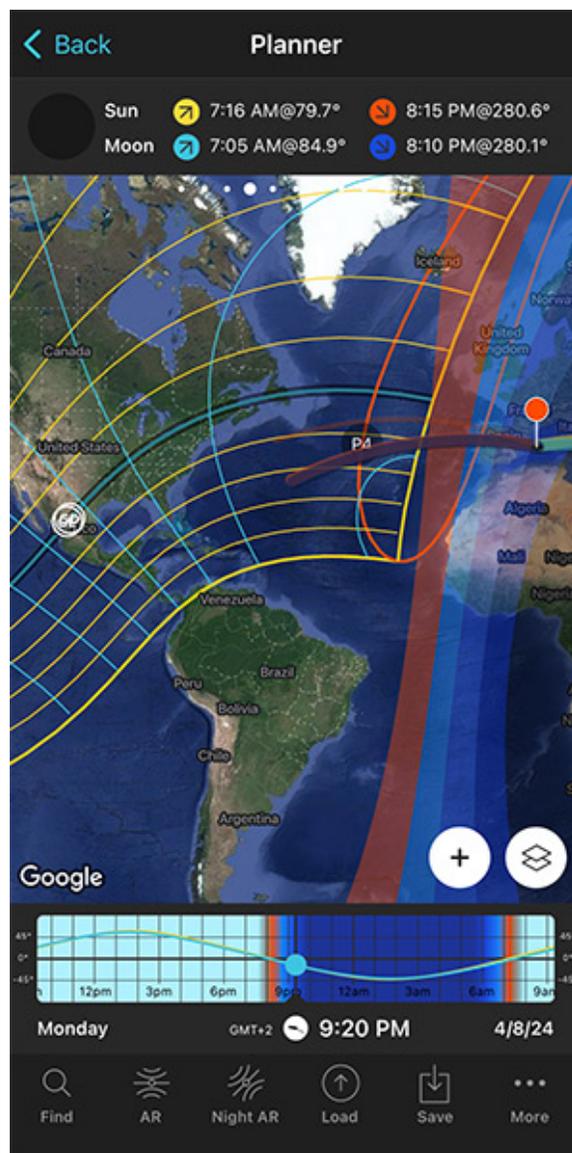
Note: Tap Date, Object, Type or Red Pin at the top to sort the table according to the criteria you prefer.

For example, let's plan a photo of the total solar eclipse of April 8, 2024.

Tap the total solar eclipse to select it. And go back to the map.



PhotoPills Planner - Map Settings screen once the Eclipse layer is activated. The eye icon to the left of the Eclipse layer is not crossed out.

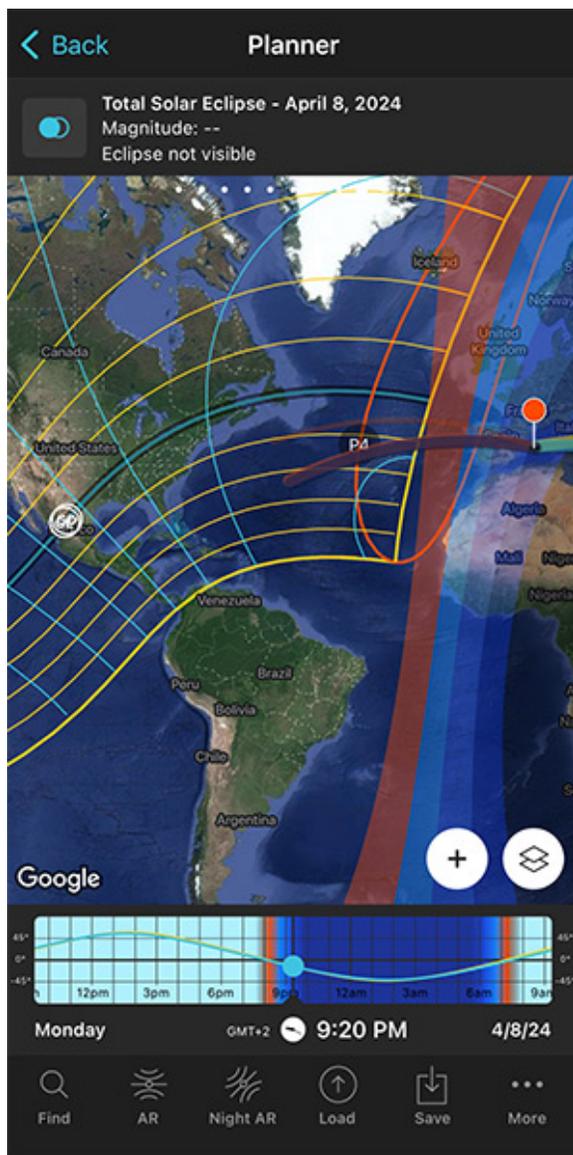


PhotoPills Planner - The eclipse visibility information of April 8, 2024 is displayed on the map. The Time bar indicates the date of the eclipse as well.

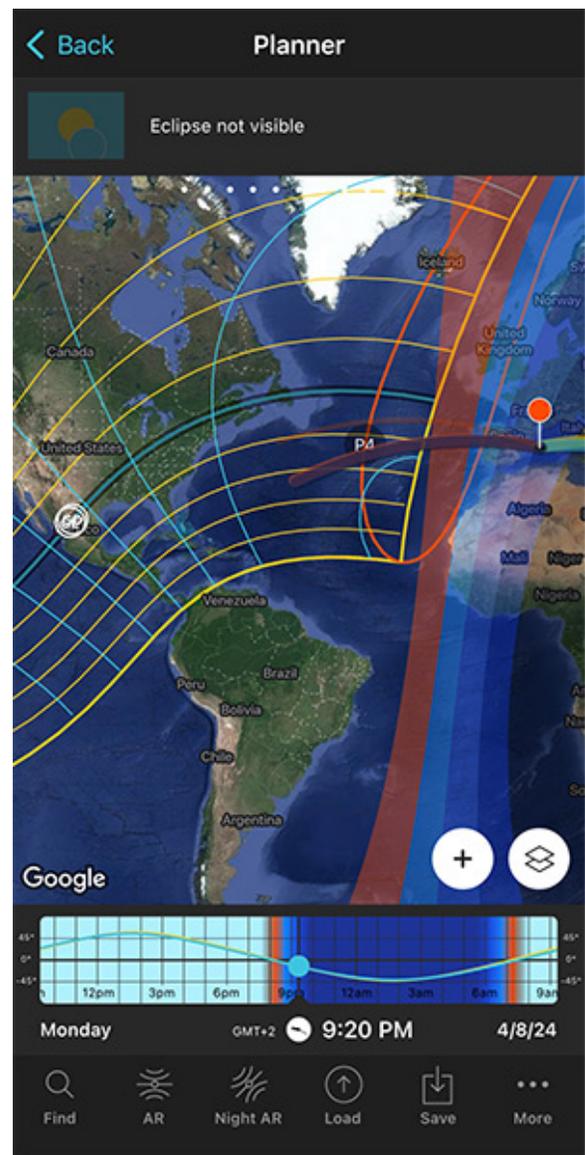
On the map, zoom out to get a global view of the eclipse visibility information.

Now, let's find out where you can see and photograph the total solar eclipse.

Find out where the solar eclipse is visible



PhotoPills Planner - Panel 9 shows the eclipse information (date, magnitude, type and duration) according to the Red Pin position. In this case, the eclipse is not visible from the Red Pin position.



PhotoPills Planner - Panel 10 shows the time and image of the different phases of the eclipse according to the Red Pin position. In this case, the eclipse is not visible from the Red Pin position.

Swipe the top panels above the map to the left to get the eclipse information: **Panel 9** (first screenshot above) and **Panel 10** (second screenshot above).

Look at the map so you can quickly find out the areas of the planet where the total eclipse is visible.

In order to enjoy a total solar eclipse, you should go to the areas displayed on the map as:

- Map central dark band, which is the path of totality (the area of total darkness).
- Map blue line within the path of totality, which is the centerline where you'll benefit from the longest amount of time the Sun will be covered by the Moon.

The areas outside the path of totality and within the yellow lines mark the areas on Earth where you'll be able to see a partial eclipse.

And in the areas outside the yellow lines, the eclipse won't be visible.

For example, Mazatlán (Mexico) is located within the path of totality. Thus, it's a great place to enjoy all the phases of the total eclipse, including totality.

But there are many other areas where you can see the total eclipse: Mexico, central USA, east Canada. Not bad :)

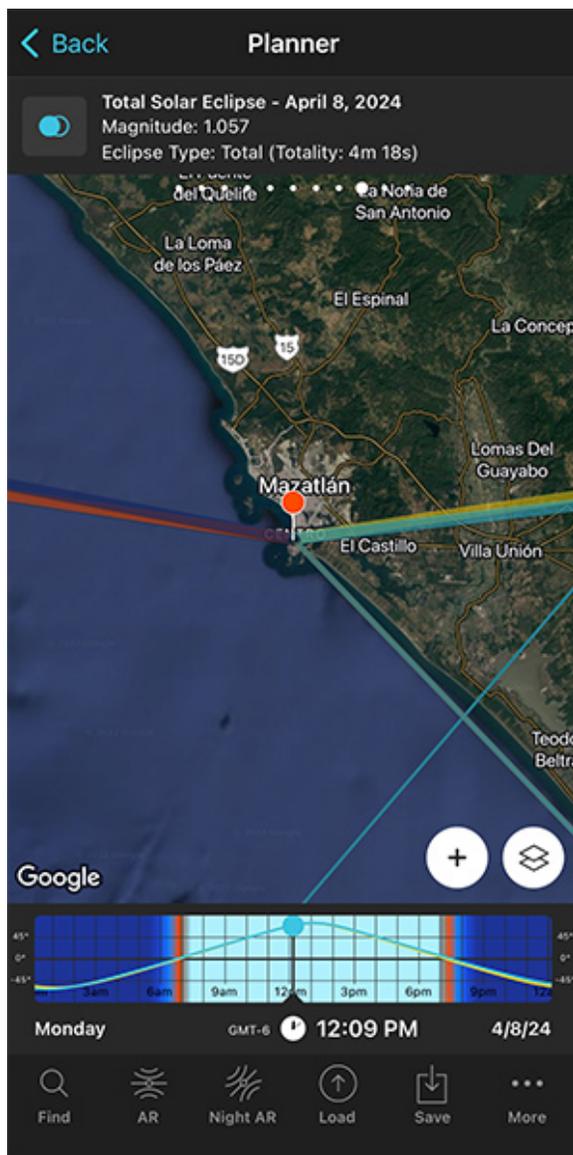
Now, all you need to do is to place the Red Pin in Mazatlán (Mexico) or in any location you want that is within the path of totality. If you don't know how to do it, [this video will teach you how to move the Red Pin](#).

Great!

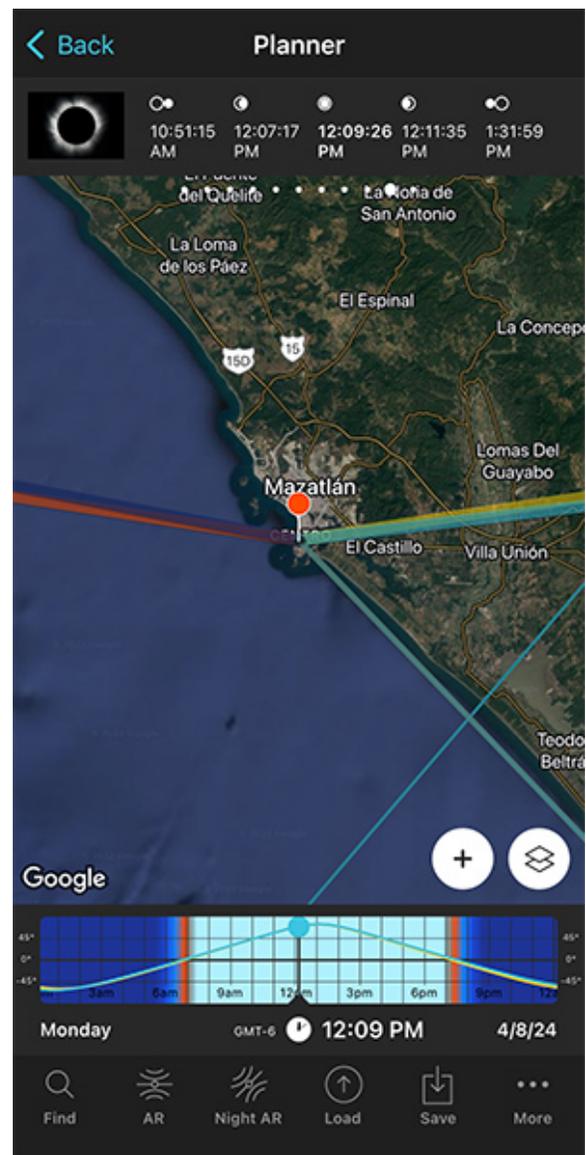
Let's find out:

- When each phase of the eclipse occurs in Mazatlán so you arrive in time.
- Where in the sky totality will occur so you know where to frame the camera.

Find out when and where the solar eclipse is visible



PhotoPills Planner - Panel 9 shows the eclipse information (date, magnitude, type and duration) according to the Red Pin position.



PhotoPills Planner - Panel 10 shows the time and image of the different phases of the eclipse according to the Red Pin position.

Long story short...

You need to answer the following questions:

- At what time does each phase of the eclipse occur according to the Red Pin position?
- And where will the Sun be during each phase of the eclipse?

The answer to the first question is in the top panels above the map. Again, **Panel 9** and

Panel 10.

First, have a look at **Panel 10**. Considering the Red Pin position, the April 8, 2024 eclipse totality phase starts at 12:07:17 pm and ends at 12:11:35 pm. And the maximum eclipse occurs at 12:09:26 pm.

That gives you the shooting times.

Let's look at the two eclipse panels in more detail...

In **Panel 9** you'll find the basic information of the eclipse for the position of the Red Pin:

- **Eclipse selector button:** If the Eclipse layer is active on the map, you can deactivate it by tapping this button. Tap it again to access the eclipse calendar and select the eclipse you wish to plan.
- **Selected eclipse:** In this case, the total solar eclipse of April 8, 2024.
- **Eclipse magnitude:** Here, the eclipse magnitude is 1.057 (**section 4**).
- **Eclipse type:** The type of eclipse that you can see from the Red Pin position (total, partial, annular or not visible). If the Red Pin is within the area of totality, it also indicates the duration of totality (4m 18s).

Finally, **Panel 10** will help you to quickly find out the exact time the different phases of the eclipse happen considering the Red Pin position:

- **Eclipse phase picture:** Image on the left of the panel. It shows the phase of the eclipse at all times as seen from the Red Pin position. Tap it to jump in time to the next phase and the time will be set in the Time bar. Double tap it and you'll go back in time to the previous phase.
- **Eclipse phase time:** The panel displays the times at which the eclipse phases occur. To select the time of a phase, tap and hold the time of the phase that is displayed on the panel. The time will be set in the Time bar.

OK!

On **Panel 10** you have the time each phase of the eclipse occurs. To select the time of a particular phase, tap and hold the time of the phase that is displayed on the panel. The time will be set in the Time bar.

Once you've set the time of the phase you want to photograph, pay attention to the map. The thin yellow line tells you the direction where that particular eclipse phase occurs. This helps you determine the direction you need to point the camera to.

But how high in the sky?

Well, it's super easy to figure it out thanks to the Augmented Reality views.

When you're in the field, at the Red Pin position, use the **Augmented Reality view (AR)** on the Planner to visualize on your smartphone the position of the Sun during the eclipse.

And that's it!

Now all you have to do is to save the plan tapping *Save* and the *Plan*.

If you want to align the Sun during totality with a subject (although it's not always possible), just follow the same steps I explain in **section 7** about planning a big Sun aligned with a subject.

If you want to know everything about solar eclipses, read our **solar eclipse photography guide**.

Section 20:

How to plan the field
of view and depth of
field



Nikon Z6 | 440mm | f/5.6 | 1/20s | ISO 1600 | 5600K

Planning the field of view and the **depth of field** is essential in any type of picture. For example, for

- A Sunrise or a Sunset, both on a certain date and with the Sun in a certain position (**section 6**).
- A Big Sun, both on a certain date and with the Sun in a certain position (**section 7**).
- A Moonrise or a Moonset, both on a certain date and with the Sun in a certain position (**section 8**).
- A Big Moon, both on a certain date and with the Sun in a certain position (**section 9**).
- The Milky Way (**section 10**).

Why?

Because, depending on the camera settings you use,

- The field of view determines what will be inside the frame.
- The **depth of field** of your photo determines what is in focus and what isn't.

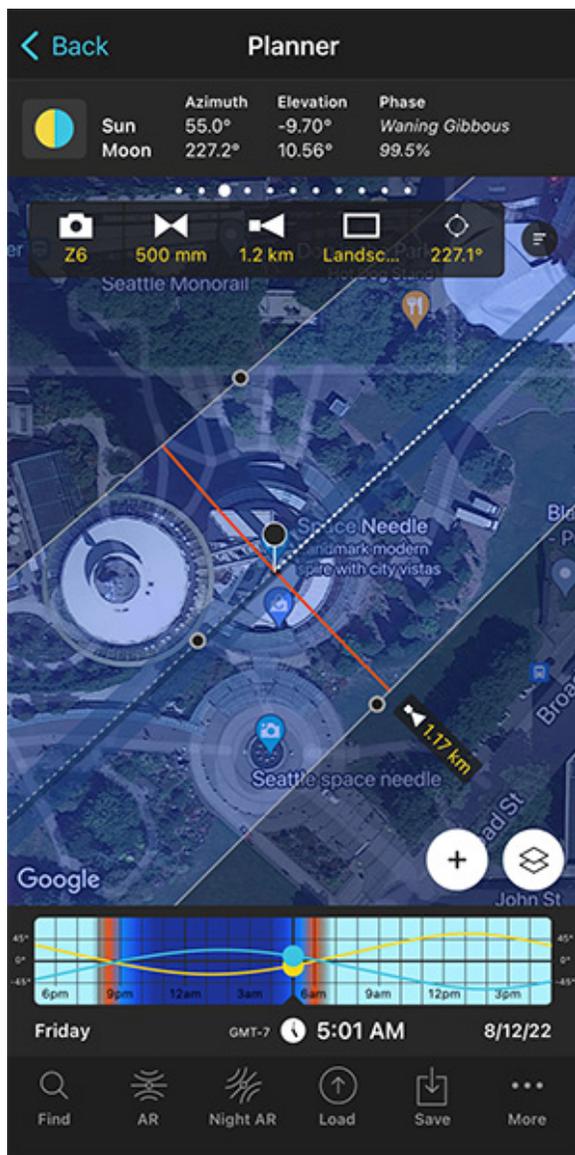
As you can imagine, **PhotoPills** is the perfect tool to plan both the field of view and the **depth of field**.

To make things even easier, here's a video in which Rafa explains how to do it step by step:

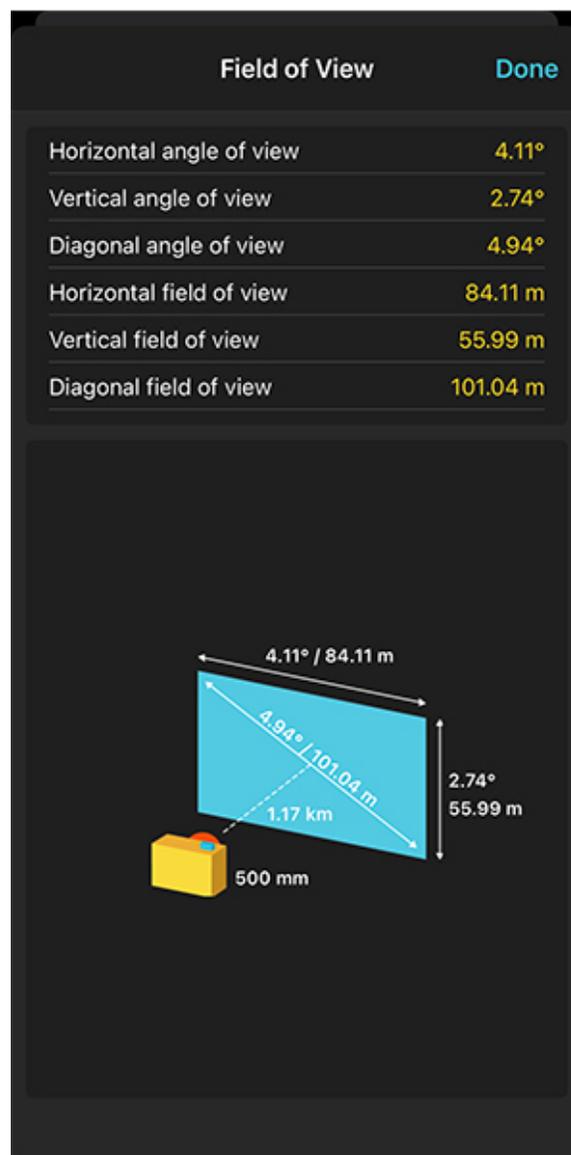


But if you prefer to read, let's use the planning example of **section 9**, a photo of the Full Moon aligned with the Space Needle in Seattle, Washington (US).

How to use PhotoPills to see the field of view



PhotoPills Planner - To view the field of view on the map, set the camera, focal length, shooting distance, shooting mode (horizontal/vertical) and shooting direction.



PhotoPills Planner - When tapping the button with 3 dashes to the right of the field of view box you'll have all the frame size information in a new screen.

Open PhotoPills and tap *Planner* (*Pills Menu*).

Tap the **Map Settings** button. You have it on the map, next to the **(+)** button.

On the Map Settings screen, in the Map Tools section, tap the **FoV (Field of View)** button. Tap *Done* (top right corner) in iOS or the back arrow in Android.

You'll see that a new panel has appeared on the map.

Imagine you're using a Nikon Z6 with a 500mm in landscape mode (horizontally) and you're focusing right at the distance to the Black Pin.

You want to frame in the direction in which the Black Pin is located. Tap the *Azimuth framing* button (the last button). And on the Azimuth screen, tap the *Align with Black Pin* option. The field of view is now aligned with the Black Pin.

And the cool thing is that you can also see the size of the Moon on the map.

Simply tap the **Map Settings** button next to the **(+) button** on the map (lower right corner). Then tap the **Moon layer** and activate the **Show Moon size** option.

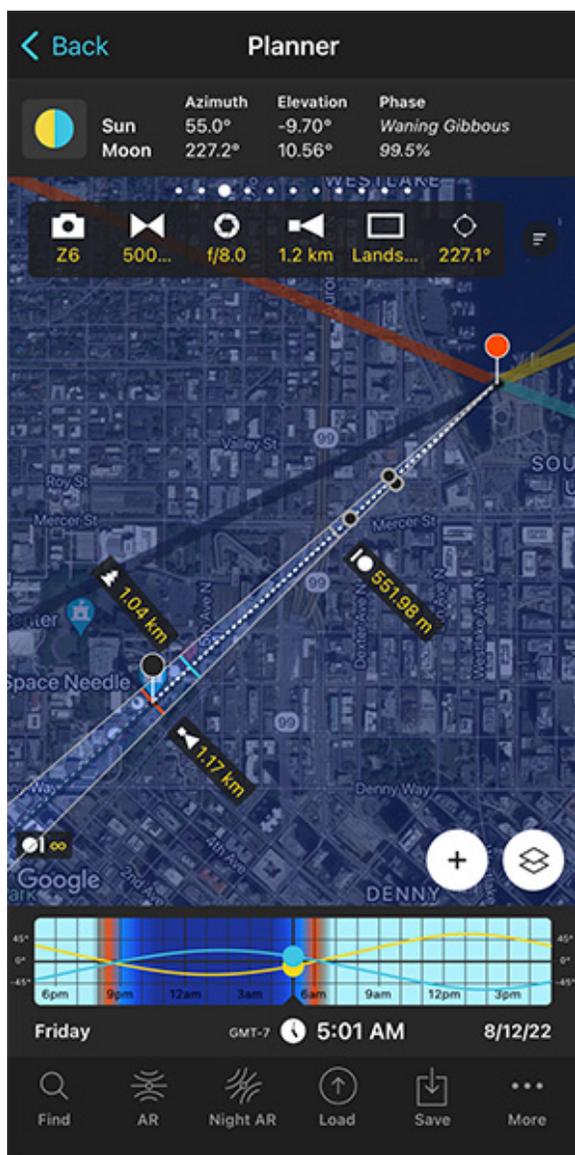
Go back to the map and zoom in on the Black Pin. You'll now see

- What part of the landscape fits into the frame.
- That the light blue line (the one showing the Moon azimuth) shows you the size of the Moon. So it's very easy to know how big the Moon is going to be compared to the width of your subject.

Tap the 3-line rounded icon on the right of the new panel to get a visual of the field of view.

Now, let's have a look at the **depth of field** to make sure that everything is acceptably sharp.

How to use PhotoPills to see the depth of field



PhotoPills Planner - To view the depth of field on the map type the camera, focal length, shooting distance, aperture, shooting mode (horizontal/vertical) and shooting direction.



PhotoPills Planner - When tapping the button with 3 dashes to the right of the field of view box you'll have all the depth of field information in a new screen.

Again, tap the **Map Settings** button. You have it on the map, next to the **(+)** button.

On the Map Settings screen, in the Map Tools section, tap the *DoF* (Depth of Field) button. Tap *Done* (top right corner) in iOS or the back arrow in Android.

You'll see that a new panel has appeared on the map.

Imagine you're using a Nikon Z6 with a 500mm at f/8 and you're focusing right at the distance to the Black Pin. You're focusing on your subject, where the Black Pin is.

On the map you can now see that the **hyperfocal distance** is 1.04 km, less than the shooting distance (8.9 km). So by focusing on the Black Pin, on your subject, the Space Needle will be perfectly focused. And the Moon will be acceptably sharp.

Why is that?

Well...

If you want to master the **hyperfocal distance** you can do 2 things:

1. Watch **this video**.
2. Read our super detailed **depth of field guide**.

Tap the 3-line rounded icon on the right of the new panel to get a visual of the **depth of field**.

Section 21:

How to plan the
weather



Nikon Z6 | 150mm | f/8 | 1/20s | ISO 100 | 5100K | Soft GND 0.9 (3 stops) | 6-photo panorama

Except for very specific photos in which you want the Sun or the Moon to be perfectly aligned with your subject, you can still take your planned shots during a week more or less.

This allows you to choose the day with the weather conditions that you are looking for ;)

Let's see what the right weather conditions are!

Wait for the right weather conditions

Unfortunately, weather conditions are out of your control. You'll have to be patient and wait for the right timing...

Here's what you should look for depending on the type of picture you intend to capture.

A specific light:

- It all depends on what you are looking for. Sometimes you'll want clear skies, other times you'll prefer some clouds or even a completely overcast sky (diffused light).
- You'll find all the key features of **natural light** in [section 4](#) and you'll learn how to plan a specific natural light in [section 5](#).

Sunrises and Sunsets:

- The best conditions are a sky with enough middle and high clouds to get amazing colors.
- Try to avoid very windy days as the clouds will move too fast across the sky.

A big Sun aligned with a subject:

- Ideally, you should look for a clear sky to avoid any cloud covering the Sun.
- However, some scattered clouds can also add drama to the shot.

Moonrises and Moonsets:

- Shoot with a clear sky.
- If there are clouds, take pictures anyway. They may confer the scene another atmosphere and you may capture something spectacular you never imagined.

A big Moon aligned with a subject:

- Ideally, you should look for a clear sky to avoid any cloud covering the Sun.
- However, some scattered clouds can also add drama to the shot.

A Milky Way, Star Trails or Meteor Shower shot:

- Actually any night shot needs a dark clear sky. On an overcast night you won't be able to capture anything.
- Decide whether to shoot on a New Moon night (no Moonlight means brighter stars) or on a Full Moon light (when you can use the Moonlight to illuminate the foreground).

A drone shot:

- Avoid rainy and windy days as these are dangerous conditions to fly your drone.

Tides:

- If you plan to shoot a **Sunrise** or a **Sunset**, have a look at the conditions suggested above.
- If you plan to shoot a Moonrise or a Moonset, have a look at the conditions suggested above.

Lunar or solar eclipse:

- You need a clear sky or very few scattered clouds that don't hide the Sun and the Moon.

My favorite apps and websites to help you plan the weather

The good news is that you don't need to do anything. I've been testing a ton of tools for years! And now I know which ones are the best.

So whenever you need to check the weather forecast, I suggest you have a look at these tools.

Windy

There are so many weather applications, websites and services that it's almost impossible to decide which is the best or the most reliable.

You cannot imagine the amount of applications and web pages that I have used over the years... I have lost count, really.

So after much searching and testing, I've come to the conclusion that Windy is my favorite app.

For starters, I love the reliability of its information: it's rarely wrong, although no meteorology service is infallible. In addition to this, its interface allows me to check a lot of information and a lot of options.

The application gives you the following data, depending on the location you determine: wind (direction and speed), rain, snow, temperatures, clouds (at different altitudes) and waves direction, force and water temperature). And you still have many more options, data and forecasts.

And best of all, it's free...

You can download the Windy application on your smartphone and on your tablet. But you can also use it through the website on your laptop and desktop computer.

Windy is available on **iOS** and **Android**.

Ventusky

As I just told you, no weather application or service is infallible. That's why I always like to check several sources of information. Therefore, I can get a more realistic idea of what can happen on the shooting day.

And my second favorite option is Ventusky, an app that uses multiple maps to give you tons of weather information.

By default, the main interface is a map of your local area that allows you to see, at a glance, what the weather is like in your location. Thanks to a color code you can see the temperature and the wind direction lines that move over the earth. Of course, you can change the units in the configuration settings.

To see the weather nationwide, zoom out the map. To see it internationally, zoom out even further.

You can also see an animated weather forecast on the screen. Tap the *Play* button (lower left corner) and you'll see the weather evolution in the next hours or days. You can see a 7-day forecast or go back in time.

You can download the Ventusky application on your smartphone and on your tablet. But you can also use it through the website on your laptop and desktop computer.

Ventusky is available on **iOS** and **Android**.

Local weather services

And since good things come in threes, I always check one last source of information to try to get the most accurate and reliable forecast possible.

I believe it's essential to check the official meteorology service of the location where I plan to take photos. This service is usually owned by the local government and the accuracy of its data is far greater than that of any other source.

Neither is 100% infallible, but they help me verify the information Windy and Ventusky give me.

Here are some examples: the US **National Weather Service**, the German **Deutscher Wetterdienst**, the Australian **Bureau of Meteorology**, the British **Met Office**, and the Spanish **Aemet**.

SunsetWx

Even though the [SunsetWx](#) website has a 90s interface, it's the best free tool for predicting the Sunrise and Sunset quality.

And this type of information is essential in landscape photography.

It works in a very simple way. On the home page there is a satellite image of the USA (although, if you prefer, you can change it to a satellite image of Europe or the World with the options on the top menu). And on it, you can see a heat map overlay.

The heat map represents the probability of a good Sunrise:

- The warmer (closer to red or a higher percentage) the image, the higher the probability that the Sunrise will be amazing.
- The colder (closer to blue or a lower percentage), the greater the probability of a poor Sunrise.

The first maps you see are the Sunset one's.

Scroll down the screen or use the options in the top menu to see the Sunrise maps.

Section 22:

How to plan a shoot
during a certain
season

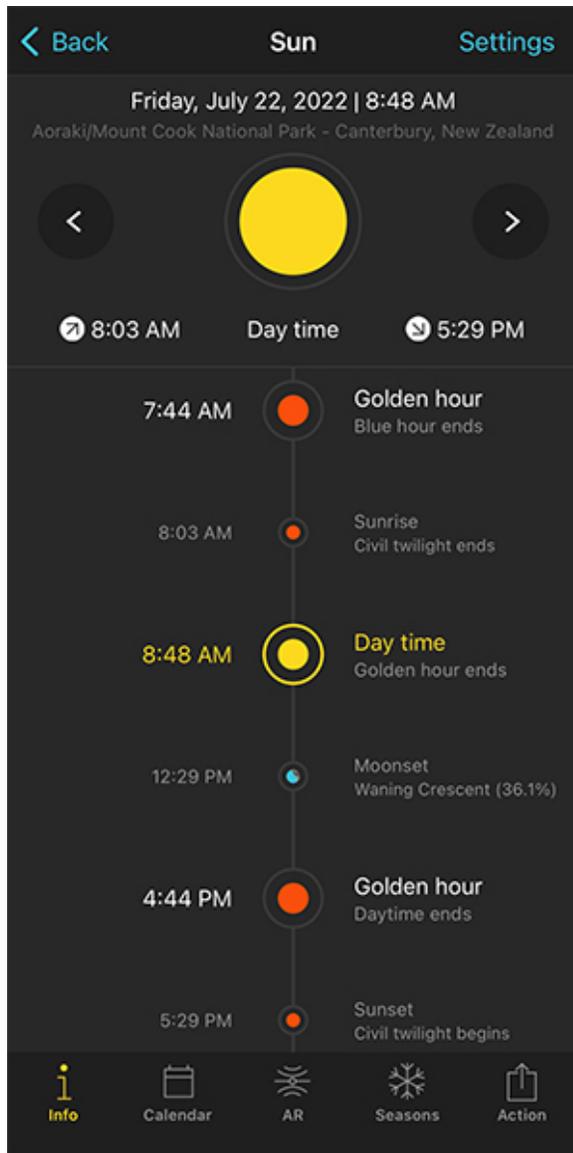


Nikon Z6 II | 18mm | f/16 | 2s | ISO 100 | 6000K | ND 0.9 (3 stops), soft GND 0.9 (3 stops) and polarizer filters

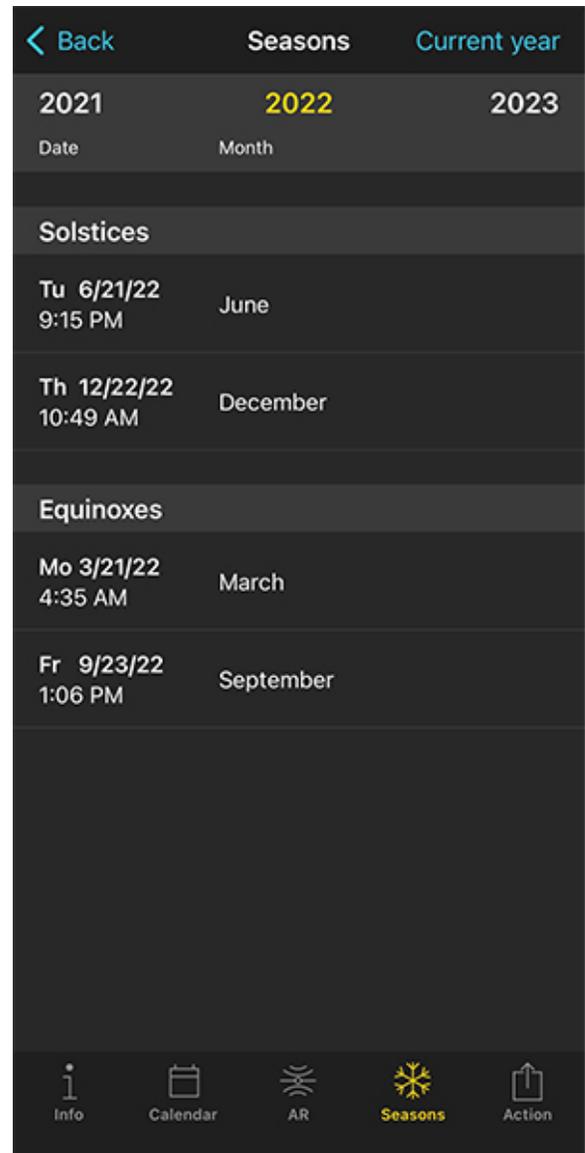
It may occur to you that you need to know when a season starts (or ends) in a certain location.

Let's say you live in the United States and you're planning a trip to New Zealand. You want to capture the amazing Mt Cook covered in snow. Since New Zealand is in the Southern Hemisphere, you're not sure when the winter starts.

It's very easy to find it out with the Sun Pill of PhotoPills.



PhotoPills Sun Pill - It displays all key Light, Sun, Moon and Milky Way events for the selected date (July 22, 2022) and location (Mount Cook).



PhotoPills Sun Pill - The Seasons table shows you the solstices and equinoxes dates for the selected date (July 22, 2022) and location (Mount Cook).

Open **PhotoPills**, and tap **Sun** (*Pills Menu*). By default, the information displayed corresponds to your current location (according to the GPS on your smartphone) and the current date and time.

So the first thing you need to do if you're planning to go to Mount Cook is to set it as the location.

To do it, tap *Settings* (top right corner).

On the new screen, you can change:

- The location by tapping on *Position*. Slide the *Autoupdate* button to unlock the rest of the screen. You can use
 - The search box if you want to type an address (for example, type “Mount Cook”).
 - The coordinates option if you know the latitude and longitude.
- The date by tapping on *Date*. Slide the *Current date and time* button to unlock the rest of the screen. Tap
 - *Date* to change the date.
 - *Hour* to change the hour.
- You can also determine whether you want PhotoPills to automatically detect the time zone or not.

Once the location is set, tap *Seasons*.

According to the current year, PhotoPills gives you a table with the solstices and equinoxes dates.

To change the year, swipe the table right or left. Or tap the year you see on top of the table (on each side of the screen). In this case, you can tap 2022 to see when the winter will start in Mount Cook, New Zealand in 2022. The winter solstice begins on June 21st.

Now that you know when the season you want (winter) occurs in Mount Cook, you can plan your Sun ([section 6](#) and [section 7](#)), Moon ([section 8](#) and [section 9](#)), and Milky Way ([section 10](#)) shots following the steps I explained.

Section 23:

How to scout the
location before the
shooting date



Nikon Z6 | 18mm | f/2.8 | 25s | ISO 6400 | 3700K | Starglow filter

The cool thing about scouting a location is that it's something that you can do days, months, years before the actual shooting.

So you can use the hours of harsh light or any other time of the year to do your homework, gather all the practical information and then have it all ready for the shooting date.

First, it will help you identify potential risks so you remain safe at all times while shooting.

Then, this preparation work will also allow you to thoughtfully scan the scene, giving you time to work on your composition as well as identifying any distractions.

So take your time, explore the area thoroughly and take notes of everything that you consider relevant.

Being prepared is the main ingredient in the recipe for success. Cheesy but true!

Plan your route and schedule to get to the location

Planning your route to get to the location is essential.

You want to make sure to get there with enough time to:

- Get to the shooting spot.
- Confirm the frame and the composition.
- Prepare your photography gear.

There's nothing worse in photography than doing things in a rush. You'll forget something, you'll make mistakes and you risk not getting that shot you've carefully planned... :(

Plan your route using different services, just in case one of them gives you a better route or additional information of an incident. You can use [Google Maps](#), [Apple Maps](#), [Waze](#), [Maps.Me](#)...

If you can and it's not far away, drive to the shooting location a couple of days before. You'll get to know the road, the exits you need to take and where to park.

On the shooting date, get on the road with enough time. Something unexpected could come up (e.g. a traffic jam, an accident, strong rain) that could prevent you from being on time... and the Sun, [Moon](#) or [Milky Way](#) won't wait for you!

I can't stress it enough: take your time and get to the location in advance. Don't rush off.

Why you should scout the location thoroughly

I repeat it to my students over and over. And now I'm telling you.

Once you've decided on a location it's essential that you go there and scout it thoroughly.

You need to do it calmly and with enough time, so I suggest you do it at least one day in advance. Ideally you should go a few days before the shooting date.

This way, if you find something you didn't know or didn't find out during your research from home, you have more room to adjust.

These are the top two reasons why you should never underestimate the location' scouting.

To identify potential risks

As soon as you get to the location, check whether there's good cell phone service.

Your safety is critical and it has to be above photography. Don't put yourself in danger just to get the photo. Honestly, it's not worth it.

Keep it in mind at any time of the day. But you should be extra careful if

- You plan to arrive at the location at night to take landscape photos at [Sunrise](#).
- You plan to take photos at | sunset| since it will be dark by the time you've finished the shooting.
- You want to do night photography or astrophotography ([Moon](#), [Milky Way](#), [Star Trails](#),

Meteor Showers, etc.).

The absence of **natural light** makes everything much more difficult.

When scouting the location with natural light, look for landmarks so you can easily navigate the area on the shooting day. So it will be easier for you to identify the access route and you'll be able to get to the shooting spot without any problem.

You can also identify potential hazards such as a ditch, a cliff, or a fence.

As soon as you locate the shooting spot, adjust it in **PhotoPills** if necessary. Just in case, you can also save it in Google Maps and save the GPS coordinates as well.

To find a unique and powerful composition

If you want to be a good photographer, you should be able to find unique and powerful compositions. As you develop this skill, you'll create your own style.

I've spent years nurturing and honing my ability to find compositions almost anywhere. And I'm still working on it. I think it's something that you can never fully master and that you have to constantly work on.

The good news is that it's something that everyone can learn. You have that ability as well.

You just have to melt your curiosity, your creativity and your ambition. Sometimes you'll see it right away, other times it'll take you more time, but keep in mind that you can find a unique composition whenever you resolve.

And to achieve this, you should regularly train your photographic eye:

- Search for possible compositions all the time. When you're walking down the street or outdoors, from the train window or while driving. By having vision regardless of where you are, you'll be able to take good photos wherever you want.
- Find possible points of interest (subjects) even from a distance.
- When you've found a composition, don't stop and keep looking. The best is always yet to come.
- Use different composition rules, elements within the frame and some alternative tools to tell the story exactly how you want.
- Learn to evaluate and classify each composition that you've discovered in the location. This way you can decide the exact spot from which you'll capture the **Sunrise** or the **Sunset**, for example.

Look around (360° view)

Even though you should already have a rough composition in mind and an idea of where you intend to point your camera at, don't neglect looking around for other framings.

You may find different angles and points of view

It always surprises me how shifting a bit the point of view can turn a flat and dull image into something much more dramatic.

When you're in front of the scene you want to photograph, analyze the different points of view from which you can capture it.

Consider taking the photo from a high vantage point, putting your camera at ground level, or finding somewhere in between. And avoid photographing at eye level, which is how we all see the world.

You may find a different light

Another thing... Don't forget to turn around!

You never know what the light may be creating behind your back. The scene behind you may be spectacular and you risk missing it if you're focused on the Sun only.

So, when you get to the location, take a good look at the scene where you're going to work your composition:

- In the Sun's direction.
- In the Sun's opposite direction.

Thanks to [PhotoPills](#) it's very easy to check the Sunrise/Sunset direction. You have all the information in the Planner.

Make sure you've activated the [Sun layer](#) in the map tools. The thick yellow line indicates the Sunrise direction for the location and date you've set. And the thick orange line is the Sunset direction.

Scout at the right time

The cool thing about locations that are not far away from home is that you can return there as many times as you want.

So if you want to have a fair idea of the conditions that you will have on the shooting date, particularly in terms of **natural light** and other elements (e.g. vegetation, tides, traffic, crowds), go there at the time of day when you'll most likely be shooting.

Try to replicate the conditions as much as you can, particularly in terms of the season and the time of the day. The idea is to mimic what you would like to find on the shooting date.

I am aware that the weather is unpredictable, of course. But if you plan to shoot a seascape on a stormy afternoon, don't scout the location in the middle of the summer with a sunny and clear sky...! :D

The same occurs with specific conditions related to a particular season (e.g. fall foliage colors, snowy landscape) or event (e.g. fireworks, street parade). Try to go to the location when something similar takes place.

Scout for a different time of day

Scouting an area for a different time of the year is something that you can do with locations that are not far away from home and to which you can return over and over.

However, when you're on a long trip or a weekend getaway, you'd be scouting just a few hours before the shooting time. You may be visiting an area at midday while waiting for a beautiful **Sunset**, for example.

My recommendation would be to do it at least a couple of days before, but I understand that it's not always possible because of time constraints.

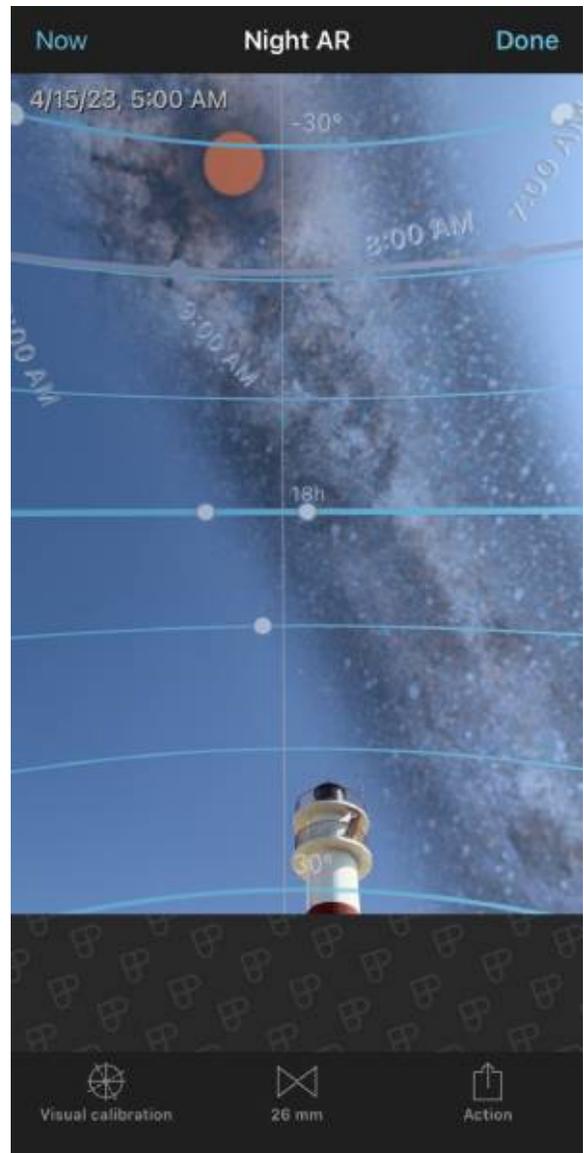
In this case, I suggest you spend the hours of harsh light scouting the location.

The first thing to do, of course, is to walk around and spend some time taking in a location's features. You may identify subjects and compositions that might be more compelling than what first caught your eye.

But you should also use the PhotoPills Augmented Reality views.



PhotoPills Sun Pill Augmented Reality view - It gives you the position and path of the Sun for the selected location (by default where you are), date and time (by default the current ones).



PhotoPills Night Augmented Reality Pill - It's ideal for planning night shots and predicting the position and path of the Milky Way.

You can find two types of Augmented Reality views in **PhotoPills**:

- The **AR view** inside the Sun Pill (also available in the Planner).
- The **Night AR Pill**.

Information on the Sun Pill's AR view

The Augmented Reality view gives you the position and path of the Sun for the selected location (by default where you are), date and time (by default the current ones).

Use it in situ, when planning any shot involving the Sun shots, to adjust your frame and shooting spot for the best composition before you shoot.

You'll see the selected date and time on the top left-hand corner of the AR view.

Notice that you can change the date and time directly from the AR view:

- Swipe the AR view to the left to move time forwards. Swipe it to the right to move time backwards.
- Tap the right-hand side of the AR view to jump to the next day.
- Tap the left-hand side of the AR view to jump to the previous day.
- Tap *Now* (top left corner) or double tap the center of the screen to come back to your current date and time.

Information on the Night AR view

The Night Augmented Reality view gives you the position and path of the following elements for the selected location (by default where you are), date and time: **Milky Way**, celestial equator, Polaris, north/south celestial pole, circumpolar stars path and sense of rotation, **Moon** position, **Moon** path, Moonrise/set directions, and the **Star Trails** pattern.

Use it in situ to plan your night shots and adjust your frame for the best composition before you shoot.

You'll see the selected date and time on the top left-hand corner of the Night AR view.

Notice that you can change the date and time directly from the Night AR view:

- Swipe the Night AR view to the left to move time forwards. Swipe it to the right to move time backwards.
- Tap the right-hand side of the Night AR view to jump to the next day.
- Tap the left-hand side of the Night AR view to jump to the previous day.
- Tap *Now* (top left corner) or double tap the center of the screen to come back to your current date and time.

The **PhotoPills** Augmented Reality views are an incredibly powerful tool while you're out on the field.

How to work on your composition while on the field

What should your picture have to attract the viewer's attention?

That is the key question you have to ask yourself before pressing the shutter.

Yes, you want to tell a story in a certain manner... But will it be compelling?

Because photography is a visual language, and it provides a myriad of ways to tell stories.

In order to do this you need to make artistic decisions so that your image is just as you've imagined it.

This is where the magic of composition comes into play.

And you're going to have to decide many things!

Find the perfect framing

Behind an impressive image, there's always the vision and emotions of the photographer.

Without vision or intention, there is little or nothing to say. And if you don't understand the creative process, your vision won't translate into a photo that best expresses that vision.

We all see the world in a different way. We have different opinions about what we see, and different tastes as to how we want to capture it in a photo. Ultimately, it comes down to two things: how you see the world and how you decide to show that world in your photos.

At the beginning of this section I asked you a question, but here are some more that you should ask yourself:

Why do I want to take this particular photograph?

What story do I want to tell?

What is the best way to do it?

What tools (technical and artistic) can I use?

And it can all be summed up in the following question: why?

Find your background, middleground and foreground

Depth and dimension in any picture add more interest in the eyes of the viewer. It makes her pause to take in different elements and how they work within the context of the frame.

And the best way to add depth and dimension is to take care of the background, the middle-ground and the foreground while working on your composition.

A quick recap...

- Background: the part of the image that is further away from the camera.
- Foreground: the part of the image that is closest to the camera.
- Middleground: everything between the background and the foreground.

So how can you use the background, the middleground and the foreground?

Well, in an ideal situation, it would be awesome if the frame has something eye-catching in all 3 areas.

Unfortunately, this is not always possible.

If you have to sacrifice an area, that would be the middleground.

As for the background, try to avoid distractions and work on keeping it as clean as possible. You don't want it to ruin your subject or your foreground.

Finally, the foreground should be the area you should pay most attention to – a strong foreground creates context whilst providing a sense of perspective. It's the entrance gate of the image, so get down low, use leading lines and experiment with **depth of field**.

Find your subject

Actually, I should have written "confirm your subject", because you already found it when you were looking for the location (**section 3**).

Once on the field, your mission should be:

- Confirm that the subject is actually there. I know it sounds absurd, but sometimes landscapes change (e.g. a rock arch may collapse).
- Check that everything is as it should be (e.g. no scaffolding on the building you wanted to photograph).

- Analyze how it looks from the shooting spot and if the composition is what you were looking for.

However, sometimes your subject can be elusive.

Imagine you're in Iceland, on a black beach called Breiðamerkursandur. Maybe the name Diamond Beach rings a bell...

This Icelandic beach is famous for its glittering ice chunks, which sparkle like diamonds.

Because the nearby Jökulsárlón glacier melts regularly, icebergs float down the river and into the Atlantic ocean. However, the strong currents wash ashore some of them and these icebergs end up sparkling on the black beach like diamonds, after having been polished by the waves.

This is a location where the elements are constantly changing and you'll never capture the same image twice.

So, in cases like this, you'll need to spend time finding your subject and then, working on a compelling composition.

The so-called composition rules

It may sound cliché, but the only rule in photography is that there are no rules.

However, there are established composition guidelines or rules that can be applied in almost any situation and which, if used skillfully, increase the visual impact of your scene.

Composition rules help your photos stand out. Thanks to them you can give them a natural balance, draw attention to what you consider important in the scene, or guide the viewer's eye through the image.

As you learn them, you'll be surprised how universal most of them are. You'll see them everywhere... And, above all, you'll understand why some photos work while others look like simple snapshots.

There are many composition rules and it would be impossible to include them all here, but here are some examples:

- **The rule of thirds.** Place your subject at the intersection of imaginary lines that divide a photo into three parts from top to bottom and from left to right.
- **The golden ratio.** Compose a photo following a spiral defined by this ratio.
- **Centered composition and symmetry.** Place your subject in the center of the frame and create a symmetry between the two halves.

- **Golden triangles.** Draw a diagonal line from the upper right corner to the lower left corner. Next, draw two more lines: one from the upper left corner until it touches your diagonal line, and another one from the opposite point, that is, from the lower right corner to your diagonal. You'll get an area divided into 4 triangles known as golden triangles.
- **Interesting foreground and depth.** Place elements in the foreground in a way that attracts the viewer's attention, and make sure that what's in the midground and the background also help to create depth.
- **Juxtaposition.** Combine 2 or 3 elements in the frame so that they convey something.
- **Frame within another frame.** Use the main framing and find another frame within the scene to highlight the subject.
- **Balance of the elements in the scene.** Make sure that the visual weights of the elements are not unbalanced.
- **Guiding lines.** Use elements of the composition to guide the viewer's eye where you want.
- **The left-to-right rule.** Most of us are used to reading from left to right so an image could be read that way too.
- **Diagonals and triangles.** Use diagonals and triangles, the vanishing point for example, to create tension in the scene.
- **The rule of space.** Be creative when using negative space, that part of the composition in which there is nothing.
- **Patterns and textures.** Patterns add visual harmony to an image while textures add depth.
- **Color theory.** Apply combinations of colors that fit well together, so that the result is harmonious.
- **Change your point of view.** Avoid shooting at eye level.
- **Odd rule.** If you repeat elements (trees, people) try to make their number odd.
- **Isolate the subject.** Make sure that the subject is tack sharp and leave the rest of the frame out of focus.
- **Fill the frame.** Don't leave any negative space inside the frame.
- **Simplicity and minimalism.** Generally a few elements are enough to tell a story. Avoid chaotic compositions.

Develop your own style by breaking the rules

Photography rules are made to be broken...

Becoming a rebel photographer will help you produce more impressive images.

As I explained in the previous section, composition rules are very useful to produce a balanced and attractive image.

But if you want to develop your own photography style, break them. You'll be more original by being creative.

Here are some ideas to inspire you...

- Forget the rule of thirds: place the horizon in the center to create symmetry or the subject near one of the edges to create tension.
- Break the pattern or symmetry you have created.
- Tilt the horizon... Although it's generally a very common mistake among beginning landscape photographers, a slight tilt (also called a Dutch angle) creates a diagonal that produces dynamism or tension in the composition.
- Put the subject in the center of the frame and don't use any other angle so it remains the main character.
- Place the vanishing point in the center.

Focus on what is important

Framing

The framing (or frame) is not just the content of the image. It's made up of the four most important lines in the image, the edges, and it determines how you should read the photo.

Its orientation (horizontal or vertical) is important as it dictates the path that the viewer's eye will follow when viewing the photograph.

And you also have to take into account the proportion as it will reinforce or soften the visual flow of your photography.

Point of view

The point of view is the most powerful tool you have. When you move and you move the camera, everything changes.

When you vary your position, study which elements strengthen that change and which weaken it. And then see if it's worth changing your point of view.

In this sense, you should observe how the position of the subject varies in the frame and in the composition since it's the main character of your story. Be careful, as it may lose its main role in the image.

Depth

The camera sees in two dimensions, flattening the world in a picture. Your mission is to create depth in the image. In other words, create an illusion so that the photo seems to be 3-dimensional and reflects the scene as you see it with your own eyes.

Why is the sense of depth so important?

Because deep images are what make the viewer have the impression of being inside the scene. Obviously, that's what makes a photo more captivating or attractive.

Take care of the different shots (foreground, midground and background) and above all, look at what you include (or not) in each one of them.

Exclusion

The camera offers you a myriad of possibilities and, as I said before, you can tell it what you want to isolate in your scene. That is, you can put intention into your composition.

Thus, photography is an art of exclusion.

One of the skills of a great photographer is to take care of the composition by identifying what elements are necessary to tell the story. Cut out and eliminate anything that is superfluous and doesn't add anything to the story.

Keep only with what really matters.

And in order to do this, use negative space: the space that remains between the different elements of a composition.

Relationship between elements

You may have noticed that I always attach great importance to the subject. And it makes sense because it's the main character of your story and the visual core of the photo.

However, the subject alone is not everything. An image works and has an impact when you manage to relate the subject to other elements in the frame.

That is why it is important for the viewer to easily and quickly recognize these relationships and understand what role each element plays, what links there are between them and how they affect the message you want to convey.

It's the key to visual language: that each ingredient you use in your photo fulfills its role and that it is recognizable.

Possible elements within the frame

All the elements that are in your composition have to be there for some reason. Don't leave anything to chance. Don't include superfluous elements or elements that don't add something to the story and that don't arouse an emotion in the viewer.

You should be concerned that they are a visual roadmap for the viewer to follow your steps while looking at the image.

And to help you with your compositions, here are some of the elements that you can play with.

- **Point.** It's a small element, separated from others, that conveys distance, order, balance, solitude.
- **Line.** The lines connect the different parts of the scene. A straight line provides rigidity and a dynamic curve. A horizontal line conveys stability and tranquility. A vertical line gives dynamism and movement. And a diagonal line breaks stability and brings perspective.
- **Shape.** These are a set of lines to form triangles, circles, etc. Thanks to the triangle you can emphasize its vertices. A circle isolates its content from the outside and translates totality, perfection and continuous movement.
- **Volume.** You need to use deception to show three-dimensionality (weight, volume) in the image and to convey volume you can use contrast, perspective and overlay.
- **Color.** A color is defined by its brightness (light intensity), its hue (tone) and its saturation (purity). They are usually divided into warm colors that are invigorating and cool that are intimate.

- **Black and white.** It's a picture without color or, rather, one that reflects a grayscale. Since there is an absence of color, the eye focuses on other aspects of the composition.
- **Lights and shadows.** A dark tonal range is synonymous with anguish and imbalance. A clear tonal range arouses interest and generates optimism and joy.
- **Contrasts.** It's an effect produced when one visual element stands out compared to another in the same image. There are several types of contrast: tonal and conceptual.
- **Texture.** A texture can be soft, rough, smooth, hard, rough and enhances the sense of sight and touch.
- **Scale.** It's the size relationship that you establish between the different elements present in the composition. Thanks to it, you can establish a hierarchy between them and highlight one or those that interest you the most.
- **Movement.** By changing the shutter speed you can convey movement and dynamism. You can do a **long exposure** or a panning shot.
- **Rhythm.** You produce rhythm through the regular repetition (or not) of lines or shapes. Or you can break it to create tension and get attention.
- **Positive and negative space.** Positive space can be considered to be the subject of the composition, while negative space is the backdrop. The use you make of each of these spaces determines the harmony, balance and tone of the image.
- **Balance.** To establish balance between the different elements of the composition, use visual weights. Thus, the larger the size of an element, the greater its visual weight. And light, warm, and saturated colors outweigh dark, cool, and low-saturated colors.
- **Symmetry.** Symmetry is a very powerful composition tool because it can create a serene and pleasant feeling.
- **Atmosphere.** It's the environment that your photo reflects. Thanks to it you can convey a wide array of sensations.

Some alternative tools

In the previous section I mentioned some elements to vary your compositions. But there are a lot of different creative resources.

Here are some ideas...

- **Frame:** what do you want to include and what do you want to leave out?
- **Simplification:** include only the necessary elements.

- Point of view: at eye level, from below, from above, looking up or down.
- Planes: be careful what you put in the foreground, in the midground and in the background.
- Format: you can choose between horizontal, vertical, panoramic or square format.
- Sharpness: determine where you want to focus.
- Focal length: remember that the wide angle distorts and a long focal distance compresses the scene.
- Subject size: You can modify the relative size of the subject according to how you display it compared to its surroundings.
- Exposure time: do you want to convey motion?
- Light: light is everything in landscape photography, it's your raw material and remember that it's neither good nor bad, it all depends on how you use it.
- Perspective: it's what gives the photo a real and three-dimensional look.
- Depth of field: its artistic possibilities are infinite as I explain in [this article](#).
- Exposure: thanks to the [exposure triangle](#) you can give your scene the look you want.

Take tons of test shots

When scouting, take tons of test shots. You can also call them drafts or sketches.

The idea behind this work is to take frames you know aren't working but have some idea in them you want to explore.

Obviously, you can take them with your smartphone, or you can also take your camera and experiment with several lenses and focal lengths to play with different perspectives.

So try different angles, make the photograph and see what it feels like.

Change the angles or the settings until you get it feeling the way you want it to. Then, let those images give you feedback.

Little by little you'll get closer to the magic – bad images will slowly get stronger and will lead to good images.

Until you finally get the image you were looking for.

At the same time, try to take in as much of the area as you can.

Keep an eye open for particularly interesting image possibilities. Even if you're scouting for a particular time of day, you may find good night photo opportunities when scouting locations for **Sunrise** images, for example.

Oh, and even if the light is bad when you're at a location, always take test shots because you never know...

Take notes

You should always take notes while scouting.

Most likely you'll be nervous on the shooting date. Or at least you'll have some butterflies in the stomach...

So the more prepared you are and the less you rely on your memory the higher chances of getting a great shoot.

Write down (or take pictures with your smartphone) of everything that can be useful.

Let me give you some examples:

- The exact location where you plan to be shooting (e.g. a lookout in a National Park, a precise area within a neighborhood).
- Access instructions if needed.
- The shooting spot GPS coordinates.
- The date and time of day you're scouting the location. You can compare the information with other times of the year or the day if it's a recurring location.
- Tidal conditions when appropriate.
- Possible images that you can take at the location.

Effective note taking helps you to remember information and to understand that information. Your notes then act as a record of your thinking and they also provide the source material for your next creative project.

All in all, your notes help you to organize your thoughts and time, keep all ideas and concepts in one place, and add reminders for the things you need to do.

Section 24:

Check the weather
forecast



Nikon Z6 | 18mm | f/8 | 30s | ISO 100 | 6500K | ND 0.9 (3 stops) and soft GND 0.9 (3 stops) filters

Predicting weather is arguably one of the most important aspects of photography, whether you're shooting outdoors or indoors (and you plan to use window light, for example).

And that's because it has a clear impact on the **4 attributes of natural light**: color, intensity, quality and direction.

The lights and shadows, as well as the main colors of the scene, will contribute towards the mood of your photo. Warm tones and yellow light give you a feeling of tranquility, whereas a stormy sky can give you a feeling of threat.

In the end, it's all about the atmosphere, that is the emotions that the scene (and its conditions) evokes in the viewer.

Why should you check the weather forecast?

Whenever you're planning to take photos outdoors (or indoors if you plan to use **window light**), it's important to take into account the weather forecast.

By doing this, you can anticipate what you'll find in the location. And also check if the conditions you're looking for are there.

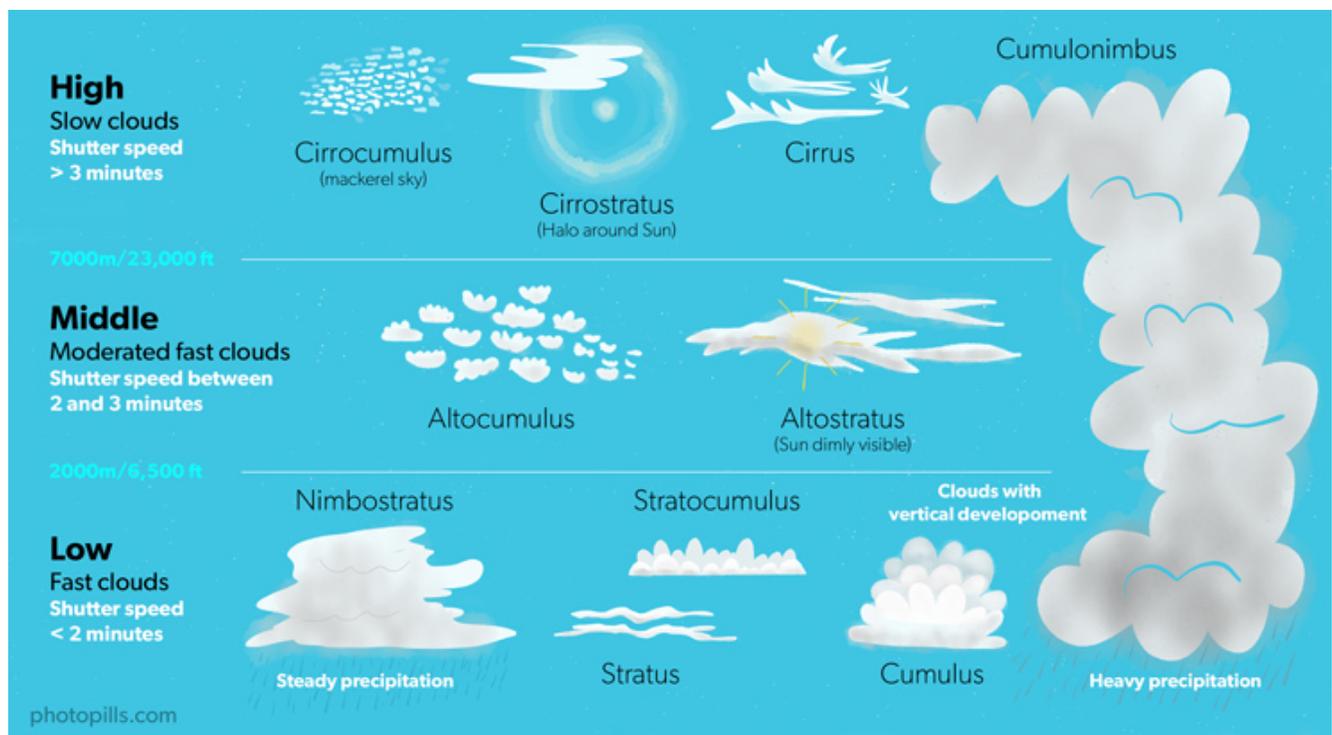
First of all, it will determine the type of **natural light** you'll have at the scene. And you know how important that is (**section 3**).

Then, from a composition point of view, clouds, along with wind direction and speed, are an essential element.

Sometimes you're lucky enough to have the clouds you want and the wind direction you need to reinforce the storytelling.

Nevertheless, if weather forecasts indicate that on the shooting time there will be clouds in your scene, you should study them. That's how you'll be able to anticipate their behavior and get the most out of them when you're doing your **long exposure**, for example.

How fast are the clouds going to move?



Don't panic because this isn't an "Advanced Meteorology" course... XD

I just want to draw your attention to some features so that you become familiar with the different types of clouds you may encounter.

Since we're talking about long exposures, and as long as there is wind in the location, the clouds will be one of the main elements that will help you convey motion.

But how much motion?

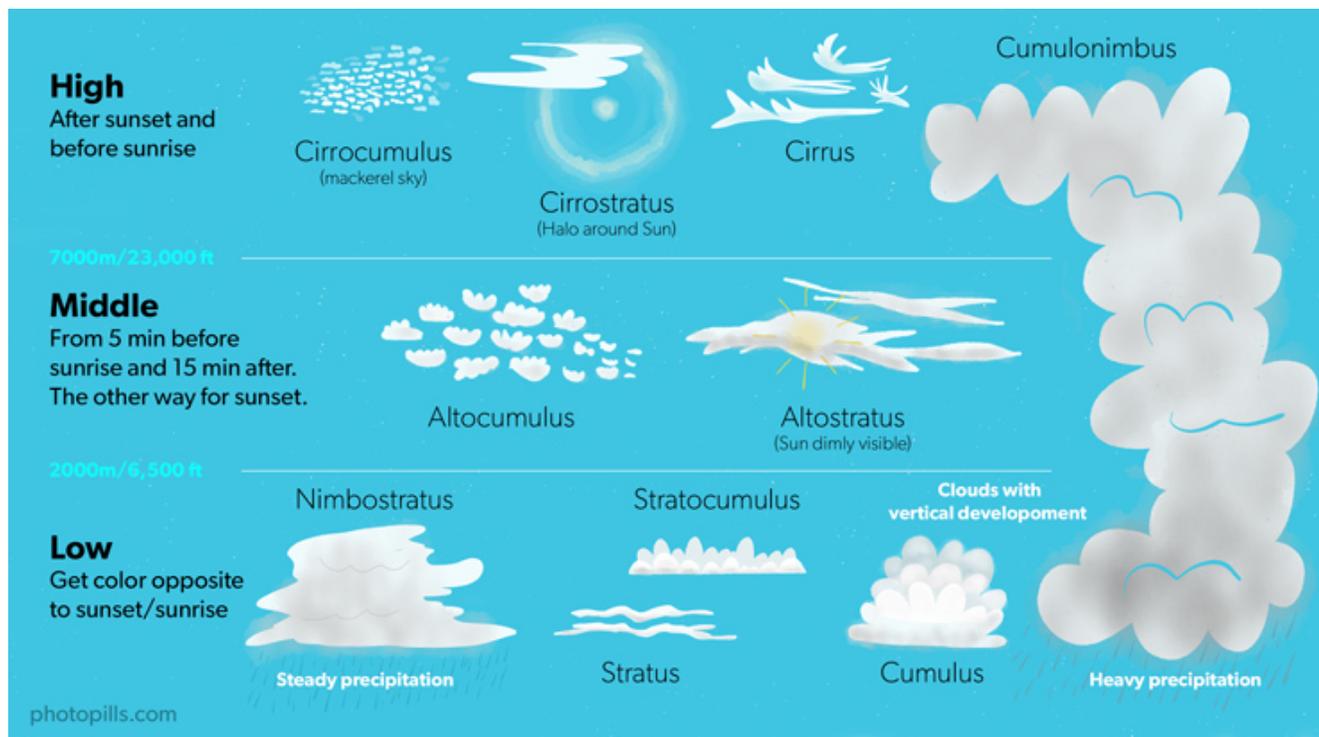
In other words, how fast do those clouds move? And what shutter speed do you need during the shooting?

We can divide the types of clouds into 3 groups. Each of them moves at a different speed:

- **High clouds.** They move very slowly. Use shutter speeds of **3 minutes or more.**
- **Middle clouds.** Their speed is moderately fast. I recommend using shutter speeds **between 2 and 3 minutes.**
- **Low clouds.** They move very fast. Use shutter speeds of **2 minutes or less.**

Obviously these are just estimates as everything will depend on how strong the wind blows.

What color can the clouds have?



Clouds convey other emotions on a long exposure picture. They can also leave the viewer speechless depending on the color they have.

That's why it's important to know when the sunlight is going to color them.

Again, we can divide the types of clouds into 3 groups. Each of them is colored at a different time of **Sunrise** or **Sunset**:

- **High clouds.** They are colored **before** Sunrise or **after** Sunset.
- **Middle clouds.** They can get color between 5 minutes before Sunrise and 15 minutes after Sunrise. Conversely, they can get color 15 minutes before Sunset and 5 minutes after.
- **Low clouds.** They are colored during Sunrise and Sunset. But only those that are in the **opposite** direction to the Sun.

Understand the location's own local weather

I can't stress enough the importance of understanding local weather phenomena or conditions, and the biases inherent in weather forecasts due to local terrain.

Most basic weather forecasts neglect smaller, localized weather patterns.

So knowing the local phenomena can make or break your photographic opportunities.

The more you study local weather conditions, and the more you compare reality to what you see in computer weather forecasts, the more you'll understand your local weather, and be able to anticipate what sort of conditions to expect in the field.

Nowadays there are tons of resources to study local weather.

Perhaps the two most important ones are:

- **Satellite imagery.** You can get a lot of information from it, but if you're just starting out the most important thing to know is where the clouds are, and then you can determine the best strategy for putting them to good use.
- **An ever growing network of webcams.** Thanks to webcams you can monitor almost any location on Earth in real time. So you can basically see the weather conditions with your own eyes.

Find out the 7-day weather forecast

Understanding weather forecasts and checking the local weather forecast before going to the location will help you increase your chances of success and, most importantly, avoid unnecessary risks.

These days you can get accurate forecasts many days in advance. You could rely on local news, weather information reports or even apps.

My personal experience is to always look for a 7-day weather forecast.

I'm aware that, depending on the location, weather conditions can change incredibly fast from one day to the next, or even within the same day.

However, looking at a 7-day weather forecast gives me a rough idea of what I can find in the location on the shooting date.

Let me give you a couple of examples:

- If the 7-day weather forecast predicts sunny and clear skies for a whole week, chances are that nothing will change on the shooting date.
- Nevertheless, if the prediction is erratic you should prepare for the worst, just in case.

As you may have imagined, I start looking at the weather forecast at least 7 days before the shooting date. But I keep checking it every day, until a few hours before the shooting time.

That way I have the most updated and accurate information and I can adapt accordingly.

I strongly recommend you to do the same.

The best apps to check the weather forecast

Whenever possible, I like to check first the location's national meteorology service. It usually provides the most accurate and reliable information.

But when meteorology comes into play, I'd rather be cautious and check several sources of information in order to have the most reliable data.

So here you have the three sources that I use to contrast the information the location's national meteorology service provides.

Windy

There are so many weather applications, websites and services that it's almost impossible to decide which is the best or the most reliable.

You cannot imagine the amount of applications and web pages that I have used over the years... I have lost count, really.

So after much searching and testing, I've come to the conclusion that Windy is my favorite app.

For starters, I love the reliability of its information: it's rarely wrong, although no meteorology service is infallible. In addition to this, its interface allows me to check a lot of information and a lot of options.

The application gives you the following data, depending on the location you determine: wind (direction and speed), rain, snow, temperatures, clouds (at different altitudes) and waves direction, force and water temperature). And you still have many more options, data and forecasts.

And best of all, it's free...

You can download the Windy application on your smartphone and on your tablet. But you can also use it through the website on your laptop and desktop computer.

Windy is available on **iOS** and **Android**.

Ventusky

As I just told you, no weather application or service is infallible. That's why I always like to check several sources of information. Therefore, I can get a more realistic idea of what can happen on the shooting day.

And my second favorite option is Ventusky, an app that uses multiple maps to give you tons of weather information.

By default, the main interface is a map of your local area that allows you to see, at a glance, what the weather is like in your location. Thanks to a color code you can see the temperature and the wind direction lines that move over the earth. Of course, you can change the units in the configuration settings.

To see the weather nationwide, zoom out the map. To see it internationally, zoom out even further.

You can also see an animated weather forecast on the screen. Tap the *Play* button (lower

left corner) and you'll see the weather evolution in the next hours or days. You can see a 7-day forecast or go back in time.

You can download the Ventusky application on your smartphone and on your tablet. But you can also use it through the website on your laptop and desktop computer.

Ventusky is available on **iOS** and **Android**.

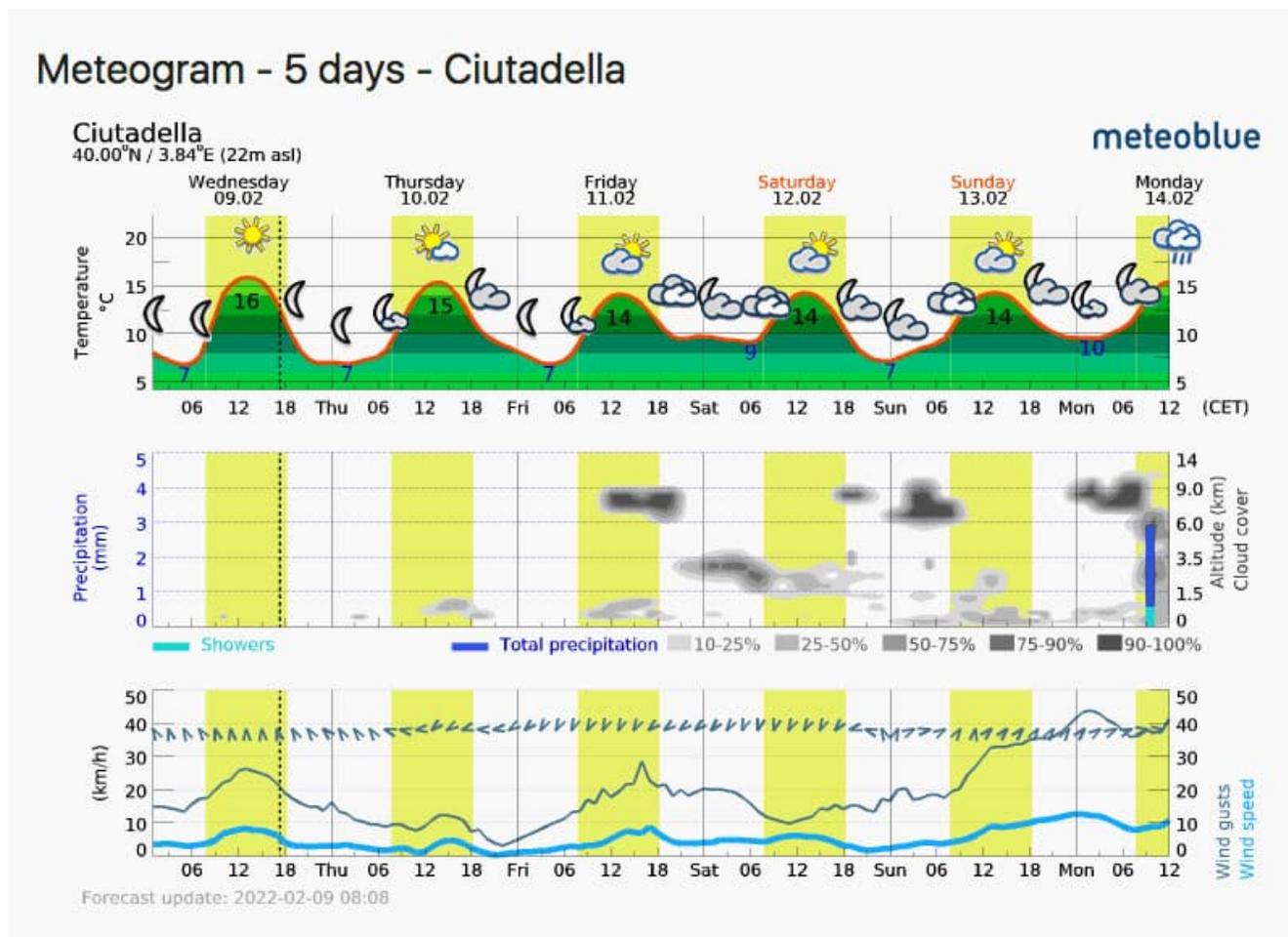
Meteoblue

It's a weather website and it looks simplistic, like many other websites...

But the interesting tool is called the meteogram.

To see it you can:

- Scroll down the page.
- On the left side, click on the submenu Forecast and then on Meteograms.



As you can see on the screenshot above, there are three charts. In all three you'll find the white and yellow vertical bars distinguishing day from night, yellow being daytime.

Temperature chart

The temperature chart shows the temperatures throughout the week. This includes highs, lows, and some basic information about clouds and rain or snow .

Wind chart

The wind chart shows you wind information:

- The light blue line is the wind speed.
- The dark blue line indicates wind gusts.
- A wind direction marker at the top of the chart.

This chart can be useful if you are looking to get dramatic windy conditions.

Precipitation chart

The precipitation chart is all about clouds! :)

It gives you in-depth information on where there will be high, mid, or low clouds; and how dense they will be.

Most forecasts ignore high clouds. However, high clouds tend to produce most of the warm **Sunrises** and **Sunsets** that you see because it is easy for the low angle Sun to get under these clouds and light them up.

Along the bottom of the chart, you can also see when a storm will be coming in through a bar chart – the higher the bar the higher the rainfall. If you see asterisks it may snow.

Meteoblue is available on **iOS** and **Android**.

However, I recommend you to check the meteograms on the website instead.

And now that you have checked the weather forecast for the shooting date, it's time to prepare and check your photography gear! :)

Section 25:

Prepare and check
your photography gear



Photo by [Max Winter](#)

A while ago you had a great idea that you wanted to photograph ([section 1](#)).

You carefully planned it with [PhotoPills](#).

And finally, the shooting date has come.

Everything is ready and you're about to walk out the door.

But just before going out you find yourself staring at your bag and wondering...

"Am I bringing everything I need for my session?"

"Am I forgetting something important?"

A crucial part of photography planning is to make sure that all equipment you're going to need is packed in your camera bag and ready to go.

That's why you need to make and go through a photography gear checklist before leaving home.

Why it's crucial to prepare and check your photography gear

Having the right stuff with you sure makes everything easier.

First of all, by equipping yourself with the right photography gear, you can give yourself one less thing to worry about.

Is there anything worse than realizing, just before starting shooting, that you've forgotten something essential? Just imagine that your batteries aren't charged or your memory cards are not empty...

Then, if you pack wisely, you won't need a pack mule to carry all your stuff around!

Over time, your photographic equipment will probably grow as you buy more gear. Depending on the type of photography you're trying to capture, you'll need a different lens, certain **lens filters** or a tripod.

That's why you should carefully choose the equipment you will take with you according to the picture you've planned.

So make a photography gear checklist.

You can create a digital template and save it on your computer or smartphone so you can always carry it with you. Alternatively, you can write it in a notebook or in an agenda.

What's essential is to check it while you're preparing your next shooting session.

Use a photography gear checklist

It doesn't matter, whether you're a professional photographer or you're just starting out, it's easy to overlook or forget a piece of gear when preparing your photography backpack.

The good news is that you don't have to worry anymore because I have compiled a checklist to help you, no matter your skill level, you haven't forgotten anything.

Keep in mind that this is a generic photography gear checklist. So feel free to adapt it to your needs.

- **Camera bodies.** If you're just starting out, you'll probably only have one camera body. But if you can afford it, it's always best to bring 2 camera bodies with you. If something goes wrong with your main camera body, you can always keep shooting. In addition to this, you can always use each body with a different lens and have a different composition.

- **Lenses.** If you can, take with you a variety of lenses which include a range of focal lengths. For example a wide angle (e.g. a fast prime lens like a 14mm, a 14-24mm or a 16-35mm), a standard zoom (e.g. a 24-70mm or a 24-105mm) and a telephoto (e.g. 70-200mm or a 100-400mm).
- **Tripod.** Essential for landscape and astrophotography. Pack a carbon fiber tripod if you have the budget and know you are going to be doing some hiking or carrying it around for long periods of time.
- **Tripod head and quick release plate.** Try to use an Arca-Swiss compatible plate. Alternatively, you can also use an L-bracket plate, very useful for shooting in portrait mode.
- **Memory cards.** Use 16GB, 32GB or 64GB cards depending on how many megapixels your camera's sensor has. Make sure to carry multiple cards in case one or two break or fail.
- **Extra batteries.** You never know when you'll have an opportunity to recharge your batteries.
- **Battery charger and power cords.** Apart from the regular cords that you can plug in a socket, it may also be interesting to bring a USB car charger.
- **Power adaptor.** In case you're traveling abroad...
- **Power banks.** If you're not going to be near power for a few days, take a couple of these to charge your equipment while on the road.
- **Lens filters.** My [essential lens filters](#) are a [circular polarizing filter \(CPL\)](#), a 6-stop [neutral density filter \(ND\)](#) and a 3-stop soft [graduated neutral density filter \(GND\)](#).
- **Filter holder and adapter rings.** You need a filter holder to use rectangular (ND) and rectangular (GND) filters. Buy adapter rings for all the lenses you have. That way you can use the same filter with all your lenses.
- **Microfiber cloths.** Take along several ones, as these will often get dirty or lost.
- **Intervalometer.** While shooting a [long exposure](#), you should avoid vibrations. Otherwise, you risk ending up with a whole bunch of blurred photos. I prefer an intervalometer to a shutter release because it's programmable – you can set the exposure time, the time interval between each shot, the total number of photos you want to take and even the time delay of the first picture.
- **Air blower.** To clean your camera lenses and sensor.
- **Plastic shower cap.** The most inexpensive way to protect your camera from dust or moisture!

- **Plastic zip lock bags.** They can prove useful for protecting spare memory cards or batteries.
- **LED headlamp and/or a flashlight.** In case you plan to shoot the **Sunrise**, the **Sunset** or at night. Don't forget to bring spare batteries too.
- **Allen key.** In case you need to screw your tripod legs, change the tripod plate or unscrew an L-plate.
- **Swiss army knife.** It's one of the most versatile tools you can carry. It's compact, lightweight, and small enough to fit in a pocket or pouch.

How to prepare your photography gear

The day before the big shoot you have a lot to consider before simply strapping that camera around your neck and running off.

You should prepare your photography gear.

Every photographer does this a little differently. So try to set up a routine and follow it consistently.

Charge your batteries

Make sure that your camera battery is fully charged. Although current batteries have a high durability, it's best to fully charge it.

Actually, bring several extra batteries as well, and make sure all of them are fully charged.

This is particularly important if you intend to shoot in a remote location. Although you should always take spare batteries with you regardless of the type of location. Yes, I know it's easier to find a socket in a city than in the middle of nowhere, but you don't want to worry about battery power when shooting!

Carrying spare batteries will come in handy in case one of them fails or you decide to stay longer in the location.

Remember that in low temperatures batteries drain in no time. So here are some simple tricks to extend battery life:

- Always keep at least one spare battery in your inner pocket. The closer to the body, the warmer it stays.
- Leaving Live View on in-between shots and compositions is the recipe for short battery life in cold weather.

- Leave the camera on if it's only a minute between the compositions. But if you're hiking further or spending some time scouting the area, turn it off.
- While hiking, wrap the camera in an extra clothing layer (e.g. fleece) when you're not using it.

How many spare batteries should you bring?

Well, that depends on:

- The type of camera you plan to use (e.g. mirrorless cameras drain their batteries faster than DSLRs).
- How long you intend to be shooting (e.g. half an hour, several hours at night).
- How remote the location is (e.g. you plan to hike for 3 days in a remote location without electricity and take photos along the way).

So my advice is that you should always carry at least 3 batteries. But considering the weight of a battery, the more the better.

Before leaving, check that every battery is fully charged and works correctly. To do so, insert each one in the camera and take several shots.

Prepare your memory cards

First, think about how many cards you will need.

Is it going to be a long session shooting **Star Trails**? Are you going to use the burst mode while capturing wildlife? Or are you going to create a time lapse?

You'll have to decide whether to take a number of high capacity memory cards or several medium capacity cards.

Again, just like I told you with batteries, since they take up little space and are light, take as many as you can with you.

Then, check each memory card one by one:

- Insert it in your camera.
- Review a few shots and make sure you have downloaded the files in your computer or in an external hard drive.
- Format it, so it's ready to use.

- Take a couple of test shots.
- Check that you can see the pictures on your LCD.

Pick only the photography gear you're going to use

Now it's time to take a difficult decision...

How many lenses should you take?

Well, it really depends on the type of photography you've planned to do.

However, even if you already have a certain picture in mind, you should always carry two lenses at least:

- The specific to the type of photography you intend to focus on.
- A zoom lens that allows you to cover various focal lengths, just in case you come up with a different composition or idea.

Consider also if you're going to need your tripod and **lens filters**. Or maybe an intervalometer to shoot **Star Trails** or some equipment against moisture to capture the **Milky Way**...

Check and clean all your photography gear

Take some time to check that all your photography gear is completely clean and in mint condition.

Have a close look at your lens (both the front and rear glass), **lens filters**, viewfinder and LCD screen – there may be dust or stains.

Remember that these are extremely delicate surfaces, so clean each element carefully with a microfiber cloth.

In addition to this, you can also clean your camera's sensor. It may seem difficult or complicated but it is actually much more straightforward than you may think.

It's the best way to avoid dust spots that could ruin your photos.

Check your camera settings

Before putting all your gear in your backpack, take a look at your camera's settings.

Little by little you should get in the habit of leaving your camera with neutral settings at the end of every session. If you don't, you may start the next session using settings that are completely useless.

For example, if you spent the night shooting the **Milky Way**, you may have been using a high ISO during the session (e.g. 3200, 6400).

A few days later you may want to shoot during the **golden hour**. What would be the point of keeping such a high ISO? None, of course.

But if you forgot to set it back to ISO 100, you may end up with a pile of files shot at ISO 6400...

So every time you stop using your camera after a shooting session, remember to leave the camera with neutral settings. Pay special attention to the following settings:

- ISO.
- White balance.
- Exposure compensation.
- Focus mode.

That way will make sure that you don't waste time reconfiguring these settings when you start your next session and you don't miss the chance to photograph something unique because your camera wasn't ready.

Don't forget other pieces of gear

Apart from the obvious you should also carry in your backpack some stuff that you may find helpful later on.

- Microfiber cloth to clean your lens or **lens filters** and remove dust, water spray, rain-drops...
- Dust removal tool to remove lens or sensor spots.
- Camera strap to comfortably carry your camera out of the backpack.
- Allen key in case you need to screw your tripod legs, change the tripod plate or unscrew an L-plate.

- Battery charger, if your shooting session is part of a getaway or a longer trip.

Wear comfortable and appropriate clothing

Sometimes, to get the perfect shot you'll do anything – kneel, sit or lie on the ground...

So try to wear flexible and comfortable clothing. The type that allows you to get it dirty, so to speak.

Obviously, depending on the shooting date (e.g. hot summer day, cold winter night) and the weather forecast for the shooting location, choose appropriate clothing and footwear.

In this sense, you can have a wider choice when shooting in an urban environment.

But if you plan to be in a natural landscape, consider wearing hiking clothing and footwear.

Wrap yourself up warm with multiple thin layers:

- Moisture-wicking underwear and sports bra (if you're a woman ;)).
- Moisture-wicking short or long sleeve t-shirt.
- Quick-drying shorts or pants. You may wear long pants to avoid scratches or insect bites. However, if you plan to shoot a seascape or a scene with water and the weather is nice, wear shorts.
- Lightweight fleece.
- Hiking socks. Both synthetic and wool are great, but I personally prefer wool.
- Hiking boots or shoes with good traction.
- Bandana. Bandanas are extremely simple, effective, multi-functional, and versatile. Use it to cool off in the heat, to dry off sweat, to protect you from the Sun, to keep your hair under control on a windy day, etc.

If you expect cool or rainy weather, you should wear:

- Rain jacket or shell jacket and rain pants.
- Insulated jacket. I prefer down to synthetic because they pack down significantly smaller and generally tend to be warmer.
- Long underwear layers.
- Gloves. Look for some well made photography-specific gloves.

- Beanie. Perfect to keep your head warm.

And don't forget to bring:

- Trekking poles. They will protect your knees and carrying a heavy pack will feel easier.
- Hand sanitizer. Washing your hands isn't always an easy option when hiking.

Bring something to eat and drink

It all depends on how long you plan to stay outside and the type of activity you intend to do (e.g. a 3-hour hike to the shooting location).

For water, you can usually start with about 2 liters per person for the day, but adjust the amount depending on length and intensity of the hike, weather conditions, your age, sweat rate and body type.

Along with water, it's essential to pack enough food for your hike (and even a little more).

So I would suggest taking with you all (or part) of the following:

- Reusable water bottle or hydration reservoir. Depending on the hike you should at least pack 1 liter of water (ideally, 2 liters). If your backpack supports it, use a hydration bladder. And if it's really hot outside, take an insulated water bottle filled with ice.
- Water filter or purifying tablets. If you're on a longer trail or one that you know has water nearby, bring a 1-2 liter collapsible water bottle. They're small and lightweight.
- Breakfast or dinner. Depending on if you're shooting at **Sunrise** or **Sunset**, plan to bring a meal.
- Snacks. Trail mix, granola bars, dried fruit, nuts, crackers, candy bars, vegetables (e.g. carrots, cucumbers).
- Small trash bag. Almost everyone forgets, but it's an important item to bring when you're outdoors (remember, leave no trace!). If you can, bring a reusable food storage bag.

Obviously, if you plan to be at the location for a couple of hours, bring just some water and a few snacks.

Section 26:

Be prepared to throw
the plan out of the
window



Nikon Z6 | 18mm | f/13 | 30s | ISO 100 | 6000K | ND 1.8 (6 stops) and soft GND 0.9 (3 stops) filters | 6-vertical photo panorama

I have told you about the importance of photography planning.

It's the only way to avoid surprises and have (almost) everything under control. And you'll make sure that you are always at the right place at the right time to capture the photo you want to capture.

However, there will always be instances when you have the best plan, you've thought of every risk and contingency, you have your shooting planned out, and then something happens that forces you to abort the plan...

What a bummer!

So in order to avoid any frustration, you should always follow the 4 rules to planning:

1. Make the plan
2. Execute the plan
3. Expect the plan to go off the rails
4. And... Throw away the plan!

I've talked about making and executing plans long enough throughout the article.

Where it becomes more interesting is rule #3...

Expect the plan to go off the rails

Unfortunately, photography planning doesn't guarantee success.

Sometimes your plan fails

S*** happens.

Remember that time when you forgot to put an alarm and you missed the [Sunrise](#)?

Or when a mass of thick clouds covered the sky and you couldn't photograph the [Milky Way](#)?

Not to mention the day you got to an awesome location only to find out that it was completely crowded...

I know, I've been there too.

But when there's a will, there's a way.

If it was because of a planning mistake, try to be more thorough next time and double check everything.

If it was because of something out of your control, there's nothing you can do other than wait for the next opportunity.

In any case, the best attitude is to face it with a positive mood and with persistence. Keep trying and you'll make it!

Or you come up with a new idea

As I did with you in [section 5](#), I always recommend scouting the location in advance.

I've already mentioned the reasons why scouting is important.

You get to the location with an idea in mind – an idea you've thoroughly planned with [PhotoPills](#). You want to check that there won't be last minute surprises (e.g. restricted access to the location or there's construction work going on).

Fortunately, everything is fine. Now you can start working on your composition, looking for different angles and taking some test shots.

But... Wait a minute!

You suddenly discover a new point of view that changes everything. You couldn't have thought of this from home!

And what if...? Hmm... What if this is THE shot?

In a couple of minutes all your planning has vanished.

It's frustrating

I know.

It didn't work out as you expected.

But sometimes you just have to accept that the shot you wanted wasn't meant to be on that occasion and move on.

The worst thing you can do is give up.

The best thing is to... (keep reading).

Throw away the plan!

I know what you're thinking...

"Toni... Why plan if you are just going to throw away the plan?"

OK, you're right.

I should probably rephrase this to 'know when to throw away the plan'.

By 'throwing away' I don't mean 'forgetting absolutely everything you've been working on for the past few days, weeks or even months'!

I mean *adapting*.

In other words, keep what could work for this new idea and dismiss what couldn't.

Actually, you should see the fourth rule as being flexible.

So always keep a certain degree of flexibility. Having that flexibility allows you to take a step back or forward to focus on what counts – getting the best possible shot.

By being flexible you'll also be more creative, which means that you'll make good photos in any conditions... ;)

Section 27:

10 photography
planning tips



Nikon Z6 | 16mm | f/11 | 0.6s | ISO 100 | 6500K | ND 1.8 (6 stops) and soft GND 0.9 (3 stops) filters

Don't go to a location expecting that luck will be on your side. Because oftentimes, it won't.

You won't have the best light, the weather might be awful and you may not have time to work on your composition.

That's actually the best recipe for anger and frustration... XD

Instead, you should plan. Everything. To the last detail.

It's the only way to get the photo you're dreaming of.

Throughout this article I've explained you how to come out with amazing photography ideas ([section 2](#)), how to find ([section 3](#)) and scout ([section 23](#)) the perfect location, and how to plan your photos with [PhotoPills](#) (from [section 6](#) to [section 22](#)).

And to finish up, here are some practical tips to improve your planning workflow.

After that, it's just a matter of **"Plan & Pray"**! :P

Spend as much time as necessary (1)

Planning in any photography genre is absolutely essential, an often neglected aspect that makes the difference between any photo and THE photo.

That's why you should definitely spend as much time as necessary while doing your photography planning.

Sometimes it will take you a couple of minutes.

You have a very specific idea in mind and you know the location like the back of your hand. The only thing you need you to do is to open **PhotoPills** to find out the exact shooting spot and the shooting date and time.

Other times, it can take weeks, months or even years...

It doesn't matter! It will be time well spent as you'll gather all the information you need to make 99% sure that everything will be fine. That you will finally get the shot you've been dreaming of for so long.

Be thorough (2)

When planning a shot, I'm a big advocate of doing it to the last detail. It gives me confidence and I feel less stressed while on the field because I know that I thought of (almost) everything.

So if something goes wrong, I know what to do: I either have a plan B (or C), or I use my magic wand to improvise and make the most out of my creativity.

The reality is that every single decision you take during a photo shoot is a choice under a degree of uncertainty.

In practice what you end up doing is basing your choices on possible outcomes and best case predictions about where the future (**natural light**, weather, and other conditions) is going to go.

Thus, meticulous planning will definitely help you achieve your goal – capture a stunning shot.

It helps you to focus on the specific pieces of information that you need to know and on the tasks that you need to get done.

Be thorough and consider different scenarios. Identify a specific set of uncertainties, different realities of what might happen while you are in the field.

You'll feel more confident about which decision to make, and which strategy to choose depending on what you find at the location.

Plan carefully what you do, and whatever you do will turn out right.

Follow a workflow (3)

Let's start from the beginning...

What is a planning workflow?

A photography planning workflow is an end-to-end system of preparing everything to get an image, from idea to capture. It's based on a series of interconnected steps developed by a photographer (you!) to simplify and standardize her work.

And why should you follow one?

There are 2 keywords here: simplification and standardization.

A well-established workflow process helps you to:

- Simplify and speed up the process of finding out where and when to go.
- Stay organized.
- Improve your efficiency.
- Bring consistency to your work.

In this sense, I suggest you use a photoshoot planning template. That way you'll always know what you need to do. It will be like walking on an established path: just take one step after the other.

It doesn't mean that there's no room for spontaneity or improvisation ([section 8](#)). But having a detailed workflow makes things way easier.

One last thing.

You won't find a universal photography planning workflow. Every master has his own trick.

Know your limits (4)

As a photographer, you need to know your own boundaries, which can be defined as the lines you draw between yourself and your own expectations.

You have to determine what exactly is too far or too much for you in order to know how much you can achieve without falling into the trap of frustration.

Start by establishing how much photography you know and how many techniques you dominate or, at least, you feel comfortable putting into practice. I'm not only talking about fiddling with the settings, but also about what you need to do to get a certain effect on the final image – the famous "if this, then that".

Moreover, be honest with yourself about your physical fitness. This is particularly important if you plan to be shooting outdoors for a long time or the weather conditions are extreme. Leave yourself plenty of time to hike in and back out at a pace that's comfortable for you.

Being realistic doesn't mean avoiding challenges or refusing to make mistakes. Quite the opposite!

Force yourself to think out of the box and your creativity will explode.

But you need to find a balance between the tools you have (knowledge, conditions, timing) and the result you want to get (expectations, final image).

Like anything else in photography, setting boundaries takes practice.

However, it pays off.

Patience is your best ally (5)

Years ago I realized that most successful photographers have the ability to sit with a scene or subject for a considerable amount of time until the situation is right to get things just as they should be to get the picture perfect.

So I started imitating them. And guess what, it works.

Patience is important in most photography genres, especially in those in which you're likely not in control of the scene. You can decide your shooting spot and your shooting date, but often the scene evolves at its own pace, which is different from yours.

Naturally, nothing is guaranteed.

But I believe that one of the most important things you can learn as a photographer is to invest time. The more time you spend in the field, the more likely it is you're going to be shooting outdoors with great conditions.

Moreover, patience is not simply the ability to wait – it's how you behave while you're waiting.

Stop considering the days where the light is boring and the conditions aren't optimal as a failure.

Instead, take the time to explore and take note of possible compositions and perspectives. Look for interesting subjects. Become familiar with the place so that you're prepared when the light becomes better.

Because, if you're patient enough, conditions will be top-notch one day.

And you'll be there to capture the shot.

Don't give up (6)

Sometimes luck is in our favor, but I would not count on it. When planning a photography trip, it is a good idea to give yourself a few days to tackle your most desired shots. This will give you time to scout as well as increase your odds of getting really great light.

I consider myself a lucky person. I've had the chance to experience and photograph incredible landscapes and amazing scenes.

But that only happens once in a Blue Moon... The truth is that I experience inadequate light much more often than incredible light.

I'm sure you've been there too...

That's why persistence is key.

If you want a shot with unique **natural light** or any other special condition, there's a good chance that you will have to visit that location more than once.

And if something comes up and you don't get the shot, it's fine (**section 8**).

When your planning fails for whatever reason, keep trying.

Over. And over. And over again.

Persistence often pays off eventually. You'll undoubtedly have some bad experiences in the fields and return home with crappy images, but if you know you have the talent to get the

photo you're dreaming of, stick at it and the rewards will come.

Learn from your mistakes (7)

No matter what field you're in, you learn by repetition:

- Try something.
- Make a mistake.
- Figure out what the mistake was.
- Correct it.
- Repeat.

Mistakes are a good thing.

Making mistakes is a crucial component of the human process of learning. How could you expect to improve yourself if you never had any areas for improvement to even make?

All this applies to your photography planning, of course.

A good photographer is a good problem solver. Learn from your bad experiences. Then, become better by preparing for anything that could happen next time.

If you don't make mistakes, you're either not learning, or you're making mistakes and are too dumb to see it.

Try, fail, and learn from your mistakes.

Being a good photographer is as much about learning what not to do as it is learning what to do!

Use your creativity (8)

Most photographers feel that you are either born with a creative mind or not, rather than it being a tool that you can learn and practice, just like any other skill!

Learning the tools of your trade is undoubtedly valuable. Yes, you need to know how to transform the vision in your head into a photograph. And that's something that takes some sort of technical skill.

However, maybe spending a little bit of time nurturing your creativity wouldn't go missing every once in a while :)

Especially because when planning fails ([section 8](#)), being creative is crucial in finding the best solution to a problem.

You should always bring your own unique voice, perspective, and heart into your images, whether that is executing a vision you have in your head or just capturing a genuine moment as it occurs.

So experiment with new subjects, new locations, new light, new gear... And you'll always come up with something unique.

In addition to this, shoot with purpose and vision. Be conscious when choosing your gear, settings, light, perspective, and composition to capture your story.

To be creative, challenge yourself to think differently while always trying to reveal the unapparent. Your plans and photos will never be the same.

Visit the location more than once (9)

I believe in learning the soul of a place and, if you strive to do this, there's always new perspectives to discover. If you take the time to truly see and know a location, you'll find that it can be incredibly changeable.

Obviously, the easiest places to make return visits to are of course those close to home, but heading back to that far-off exotic destination is also rewarding.

So why should you go back to an iconic location or any other place you've already shot?

Conditions vary throughout time

First of all, you'll never find the same conditions.

- You can experience changing weather conditions going at different times of the day or the week. So one day might be sunny with no clouds and the next could be stormy, for example.
- Go to the location in different seasons and you can see variations in the vegetation, the [natural light](#) and, of course, the Sun/Moon/Milky Way position.
- When shooting seascapes don't forget to take the tides into account ([section 17](#)).

You become a better photographer

Then, you'd surely have improved as a photographer.

As time goes by you'll learn from your mistakes and you'll gain more experience by dominating new techniques.

With every shot you'll be getting a better photographer.

So the longer the gap between revisiting a photo location, the more your photography will have changed. And this will have a huge impact on your final image.

Don't neglect special occasions

And finally, you should always return to a location when there's something special going on.

It could be anything: fireworks, special urban lights (e.g. New York City 9/11 Tribute in Lights), a solar/lunar eclipse...

Safety first (10)

Outdoors photography can often take you to places that are rather remote or rugged.

When you're out in nature, it's important to take the appropriate safety precautions to prevent injury. And this is even more important as you go to more remote locations.

Sufficiently research and scout the area

While scouting the location, be sure to watch the ground and locate potential tripping hazards! Injuries happen when you least expect them.

So make sure you sweep the area visually. Make a mental note of dips, holes, edges, and so on that you could potentially walk into.

Alternatively, you can take photos of them with your smartphone. Write notes on these hazards on your smartphone or a notebook.

Put safety ahead of photography

Please, never put yourself in danger just for a picture.

Walking out on slippery rocks near a river or a waterfall is not worth the risk.

Heading out in solitude may be appealing, but going alone to a remote location can be dangerous. You don't want to find yourself in need of help and alone... :(

Don't do anything that will put your safety in jeopardy. There are plenty of great photo opportunities that don't require serious risk.

Section 28:

10 photographers that
master photography
planning



Nikon Z6 II | 18mm | f/20 | 90s | ISO 100 | 6000K | ND 1.8 (6 stops) and soft GND 0.9 (3 stops) filters | 4-photo panorama

One of the best ways to learn photography is by viewing (and analyzing) the photos of great photographers.

Their images are a constant source of inspiration and you can learn a lot from them (e.g. discover a new location, analyze the composition, understand the use of light). And it's free!

This is something that I do regularly.

I love seeing the work of my favorite visual creators. But I also like to discover amazing photographers that are new to me.

Among them, there is a list of photographers that are real masters of photography planning. The planning that goes into their images is designed to give them the best possible chance of walking away with a great image.

They spend as long as it takes to capture awesome shots.

So I thought it would be cool to share this list with you.

It's a very personal list but I would love to add your recommendations. If you know a master

of photography planning, just leave a comment at the end of this article.

Rachel Jones Ross

Rachel Jones Ross is an intrepid adventurer and night sky photographer.

She fell in love with the technical side of photography when she photographed the tail end of the Milky Way for the first time. She was hooked after that and spent all of her free time photographing the night sky.

That gradually evolved into more and more landscape photography, and into thoroughly planning most of her shots. You can learn Rachel's planning technique watching the following videos:

- [Night Sky Photography Class with Rachel Jones Ross.](#)
- [From Concept to Creation: Chasing a Bucket List Shot with Rachel Jones Ross.](#)

Chris Burkard

Chris Burkard is one of the world's most well-known adventure photographers. He travels to the most remote corners of the planet. He strives to capture stories that inspire people to reflect on their relationship with nature and is an advocate for the preservation of wild places.

For Chris, photography planning is one of the most important steps and can take years. Without properly preparing you can leave yourself open to missing opportunities to capture photos and that's how he's able to produce truly mind-blowing images.

To give an example, [this image of highliner Garrison Rowland and the Supermoon in the background at Joshua Tree National Park \(USA\)](#) proves his talent and persistence.

Erin Babnik

Award-winning wilderness photographer **Erin Babnik** travels worldwide to produce astonishing images and to teach photography workshops. The enjoyment of storytelling keeps her exploring, photographing, and dreaming in places where only her feet and a little imagination can take her.

For Erin, creating a pristine nature photograph requires a lot more planning and preparation than driving to a geotagged Instagram spot and hoping to capture something great.

You can learn Erin's approach to landscape photography watching this video: [Understanding Landscapes: Six Elements of Photographic Style with Erin Babnik](#).

Alyn Wallace

Alyn Wallace is something of a master when it comes to night sky photography. Labeling himself an astro, landscape, and timelapse photographer, Alyn captures otherworldly imagery at times while you are tucked up in bed.

Tons of planning go into his work. He spends a lot of time exploring remote and beautiful landscapes in the daytime, hunting for interesting foregrounds and stories to tell. Then, he works out when he needs to return to include the kind of night sky he wants to feature in the image.

Check Alyn's workflow watching:

- [Milky Way Photography Class with Alyn Wallace](#).
- [Milky Way Photography in Turkey with Alyn Wallace \(Part 1: Planning\)](#).

Rach Stewart

Rach Stewart is a landscape, travel and adventure photographer specializing in long exposure, which brings a special and unique quality to the images captured by her lens.

Her images are incredibly refined and thoughtfully planned. When researching photography ideas, she spends hours online weighing up where to go and when.

And, as you can see, the results speak for themselves...

Travis Burke

Travis Burke's diverse and creative approach to outdoor adventure photography stems from his own perspective on life. Whether it's highlining over a breathtaking canyon, free-diving in turquoise waters or capturing the Milky Way in remote locations, Travis is constantly pushing himself and the boundaries of his craft.

Burke's breathtaking pictures feature the unending beauty of the natural world. A trademark of his images is the human touch and the planning behind them.

Catherine Simard

Catherine Simard is a travel and landscape photographer. Her passion for the wilderness and outdoors has led her on many adventures while producing striking, creative, and artistic images.

She stands out through pushing her creativity, shooting original compositions, capturing never seen before locations and achieving a distinctive style through post-processing.

Creating her adventure-type and fantasy-like composite landscapes requires long and hard work involving lots of planning and editing – two tasks at which she clearly excels.

Joshua Cripps

Joshua Cripps is a former engineer who 12 years ago fell in love with photography and has been doing nature photoshoots ever since.

His ability and ingenuity when photographing landscapes results in incredible images whose storytelling and composition stand out from the rest. He's a big advocate of perfect timing, which also often entails perfect planning. Many of his best pictures were possible because a lot of care and planning went into it.

For example, his "Ring Of Fire" eclipse shot in the Dubai Desert taken at the end of 2019 went viral. It's an absolutely spectacular photograph that required a precise time in a particular location under specific climate conditions, all according to Josh's unique vision. We were lucky enough to have Josh on our YouTube channel to explain to us how he pulled it off!

- [Annular Solar Eclipse Photography Class with Joshua Cripps.](#)
- [7 Secrets of Outstanding Telephoto Landscapes with Josh Cripps.](#)

Isabella Tabacchi

Known for her dynamic landscape compositions, **Isabella Tabacchi** brings out exceptional colors and preserves the magic of the scenes before her. Her favorite elements are flowers, roots, tree branches, lines drawn by the wind in the snow, and cracks in the ice.

While sometimes the locations in the images are quite famous, she usually looks for new unknown spots researching online. In addition to this, she checks the direction of the light and plans when and where specific light conditions will appear.

Then, she usually visits the location some hours before golden hour where she walks around looking for specific elements on the ground to build a composition with.

You can learn more about her planning and her creative process watching this video: [How to Focus Stack for Tack Sharp Landscape Photos with Isabella Tabacchi](#).

Daniel Kordan

Formerly a quantum physicist and a mountain guide and always an explorer at heart, [Daniel Kordan](#), is a Russian photographer passionate about landscape photography.

He firmly believes that a landscape photographer's style is not only in the post-processing, but first of all, in the planning.

Each of his adventures is not just a tourist trip to a location. There's a lot of work behind the scenes: with planning, searching for fresh ideas, scouting... He plans his photography trips with very fine attention to every detail.

That's why the way he plans his travels and his shots reflect his style.

Section 29:

Planning is everything

It's fun to get really nerdy about a photo and plan everything out.

This way you avoid the risk of going back home without any good image. Or at least, you'll try your best to get the shot, instead of waiting to get lucky.

And what's also cool is that when you're actually shooting, you can do it as efficiently as possible.

Get a good night's sleep beforehand and wake up feeling prepared because you have a plan in place and you're not going to be scrambling to capture things... ;)

Planning is a craft that you need to hone over time.

So practice, put in place a system that will lead to capture better images, and get the most out of **PhotoPills**. It's the tool that will make your dreams come true.

And once you get that shoot, don't forget send it to the **PhotoPills Awards**, a contest that we organize at PhotoPills to reward the creativity of PhotoPillers like you and me.

Oh, one final thing.

If you have any questions or problems, you're not alone. I'm here to help you!

Leave your question or your suggestion in the comments section that you'll find at the end of this article and I'll answer you as soon as possible.

And remember that planning is essential in photography.

Some photos, without planning, are impossible!

So you know what to do...

Start planning your next shot! ;)

Antoni Cladera is a landscape photographer with commitment to the environment. Artist of the Spanish Confederation of Photography and member of the Spanish Association of Nature Photographers (**AEFONA**). He's part of the PhotoPills Team.

Special thanks to **Sandra Vallaura**, a great photographer and friend, for her tremendous help in making this article possible.

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