**Tripod Selection by David G Woolcock**

I have been taking photographs (snapshots) for the past thirty odd years but have only seriously taken the steps to improve my photography about five years ago. Gradually I have upgraded my kit as I learnt more much of it on the old suck it and see principle. I now do a lot of research before I buy anything now to avoid costly mistakes.

Never has this been more apparent than in my tripod selection as I have purchased and discarded or sold nearly ten tripods in the last ten years as they were not suitable for the purposes in which I use them. I never really studied what different sorts of tripods or tripod systems were available before and just purchased them based on price. My criteria did not include the size, weight and portability. I never gave much thought when I bought a $50 tripod then mounted $2,500 worth of gear to support it then expected to take professional grade landscape shots. At the other end of the scale there is no point in buying the most heaviest and expensive tripod & head if I am not prepared to cart it to where it is needed so you will end up on making some compromises.

For those of you that have a Live View feature on your cameras here is a simple test to check the stability of your current tripod. Extend the legs to their full height, mount the camera and the longest lens and set that to the longest focal length. Turn on Live View then tap the extreme end of the lens. You will be surprised by the amount of the oscillation in the screen. See how long it takes to go absolutely still. If it is a stable tripod this will not take long. However if it keeps bouncing around then I am afraid that the platform you have chosen will hinder you from taking stable shots. This is extremely important if you wish to do any macro or long exposure photography and will be exacerbated if it is windy. ***You need a solid tripod that's not going to move in the wind and on mildly unstable surfaces.***

Hopefully the following advice will help you find the perfect support system for your camera and lens combinations in the future. There are a multitude of brands out there so any article will never capture all of them and I do not have shares in any of these companies so if they are mentioned it is because I have purchased and used them. Before you begin your research do the following a) measure your eye height to the ground in cm b) measure from the base of your camera to the centre of the viewfinder and finally c) add these two numbers together. That figure will be base of what to start looking for. I am 5' 9" (175cm) and you can see my monopod & RRS 34L tripod are taller than me but my Vanguard AltaPro 283CT is not. The only reason I keep it is for macro work.

**Step 1 Tripod Height:**

First thing to look for is the height that the tripod will extend too. Perfect height is where you can look through the viewfinder without bending or stooping. This does not include the telescoping centre as these types of tripods should be avoided as stability is the main criteria here. There are tripods out there which allow for the centre section to extend then be twisted sideways to assist with macro postions (I have a Vangaurd AltaPro 283CT that does this). So my height to my eye level is 160 cm (5' 3" in the old scale) so the perfect tripod & head + camera would match or exceed that number. My camera (Canon 1DX) from its base to the view finder is 12cm, my ballhead system (RRS BH-55) is 9.5 cm and my main tripod (RRS 34L with leveling head) is 180.7 cm for a total of 202.2 cm (6' 7"). This well over my minimum height but I also do some shots of the stars and moon so I wanted to be able to set my camera pointed to the heavens and still not have to bend too much (I have very bad knees).

Next can I adjust the legs so I can splay them for use at low level for macro photography or to cope with uneven ground. Try and avoid those tripods which are braced as their legs cannot be spread out.

**Step 2 Separate Legs or All in One:**

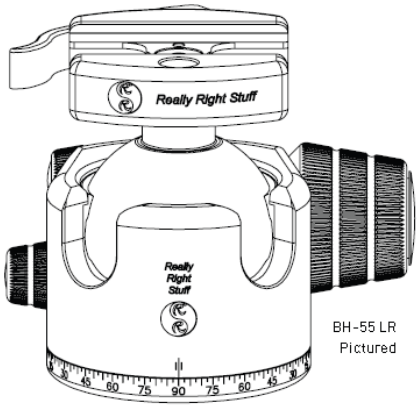
You need to decide am I going to purchase an all in one unit or will I buy separate legs and a head based system. If you opt for the former then just use the criteria above. If you opt for the latter then we will break this into two sections – Leg Selection followed Head Selection.

**Step 2a: Leg selection**:

Aluminum/Steel or Carbon Fibre. My preference is for Carbon Fibre as it is stronger and much lighter and the prices have come down quite substantially. Once you choice is made then look at the number of sections and again my preference is for less is best. No more than four sections so we keep the stability and strength. Thirdly, and this is just a personal preference, what sort of leg locks are on the tripod clip or rotate & lock types. My preference is for the rotate & lock type after having the flesh nipped around my fingers using the clip types over the years. Price range from $150 to over a $1000 dollars.

**Step 2b: Head Selection**:

Ballhead, Fluid Head (Video), Three Way Head & Pistol or Joystick Head. I have over the years owned all four types but have now settled on Ballhead. Again this is just a personal preference as the ballheads allow me the ultimate flexibility. Like all things there are good and bad ones but expect to pay around $120 for a reasonable unit up to and over $500 for an RRS BH-55. My second choice would be a Three Way Head but in the end I found having to tighten and loosen three knobs was taking too long. The one that you really need to test thoroughly if you opt for pistol grip is to load your heaviest camera and lens combination racked out to full focus length and see if the joystick can be locked without moving. My Manfrotto cannot support my lightest DSLR & a 70-200 without creeping on full lock so be aware. I don't shoot video so have no need for this type of head (Fluid Head).




**Step 3 Connector Types:**

Next we get into the preferences of the types of connectors to the head as this will also influence your

decision making. I have a range of lens and bodies which I need to mount on a tripod and head so many years ago I moved to an Arca Swiss style of interchangeable plates that can be mounted to the bottom of camera bodies and lens feet. There are many brands out there that use this style of plate and most are interchangeable (NOTE: Some are not so do your research). Brands such as RRS (Really Right Stuff), Kirkham, Wimberely, Manfrotto & Arca Swiss to name a few make a variety of lens plates and L Plates for cameras (L Plates are handy as you can mount your camera Vertically & Horizontally just by releasing and turning the camera sideways . If you only have one camera and lens you may not need to go this extreme as you will only need the connecting plate on the tripod head that you buy.

## Conclusion

The perfect tripod/head combination would weigh zero when you carry it and would have infinite mass once it is set up. It would also open and close itself automatically on command, and automatically level the head and set it to its neutral position. It would pick up the camera from your bag, mount the right lens on it, mount the camera on the head and aim it exactly where your brain is thinking the image is. You get the picture (pun intended).

Unfortunately, such a device does not exist, so we are left with a number of trade-offs.

My personal criteria for a tripod are based on my many years of experience. Your style of shooting and your equipment may be very different from mine, but I believe that the basic principles still apply. So, without further ado, here is my final list:

**1. It must be extremely solid and stable.**

**2. It should have no centre column**.

Centre columns invariably compromise stability and vibration resistance. They are truly awful when extended, and they are still detrimental even when there is no extension. I used to think that tripods with a centre column were fine as long as the centre column was not extended. Unless you have an incredibly unique circumstance such that

you absolutely have to have a centre column (think macro like the one in the picture) they are to be avoided at all costs.

**3. Legs should extend long enough to put the camera significantly higher than my head**

The reason for this is that I never want to find myself on a hill or in a river or on a rock formation with legs that are not long enough to safely position the camera perfectly level where I want it. Also, I occasionally find situations where shooting standing on a step stool makes for a much better image. Having a tall tripod (within reason) is a necessity for me.

**4. The tripod must fold small enough for convenient travel and field use**

Something around 25-27 inches (60-65 cm) is ideal. Slightly larger is probably still OK. However, if a tripod is much larger than that when folded, it becomes a real hassle for travel. It will no longer fit in a suitcase or a reasonably sized duffel bag, so chances are it has to go in its own separate case when flying. It also starts to become unwieldy inside vehicles and when you carry it in the field. The picture below is my macro kit

**5. The locks must be smooth and easy to operate**

Nothing is worse than locks that do not lock a leg positively, or locks that are hard to operate and get your hands and/or arms tired and achy when you work all day.

**6. The legs must be able to operate from multiple positions and angles**

This is an obvious necessity when working in uneven terrain.

**7. It must be light enough to carry for a whole day, yet solid enough to support a DSLR & your largest lens combination without vibration induced blur in the images**

**8. It must be extremely sturdy and well made in order to survive the rigors of field use9. The bottom of the legs should work under all kinds of surfaces and conditions, from carpets or fine floors indoors to mud, salt water, sand or rocks outdoors**

**10. It must be easy to clean and maintain**