

# TRIPODS & SUPPORTS

These handy items are the telephoto and low-light shooter's best friends

by Jack and Sue Drafaht

**M**ost good photographers don't get that way by luck. They understand their photo equipment and know how and when to put their tools to work. Most photo equipment supports the picture-taking capabilities of the camera itself, but the tripod literally supports the camera.

There are a variety of tripods and devices designed to support your camera. To understand why the purchase of a camera supporting device is an important decision, you need know the types available and the reasons for their use.

## BEAN BAGS

The first camera support device is called a bean bag but it is not necessarily filled with beans. In fact when you transport this bag to a location, it is usually empty. When you get to your shooting location, you then fill it with sand, beans, small gravel, or any item that will fill the bag and provide camera support. Generally, you lay the bag across a log, rock or rigid object and

the camera and lens nestle into the bag. These bags also come in handy if you already have a tripod and want extra weight at the base. You can hang the filled bag from the bottom of the tripod, or lay it carefully across the top of a long lens. The disadvantage to this system is locating a suitable substance to fill the bag, lack of pointing controls, and possible dust from the bag itself.

## CLAMPODS

The smallest device for supporting a camera is called a clampod. They come in dozens of shapes and sizes. Most have two major components, the clamp and the tripod head. The clamp itself is a large jaw that is clamped in place on a tree limb, table edge, car window, back of a chair, side of a tripod, or whatever will hold the camera stable. A small tripod head is attached to the top of the clamp and allows attachment of the camera. Once it is locked into place, the camera framing can then be fine-tuned using the tripod head movement controls. An optional screw component on some clampods allows the clampod to be screwed into a branch, wood fence, or any wood material.

## SHOULDER/CHEST PODS

The third group of camera supports rests on either your shoulder or your chest depending on what you prefer. The shoulder pod is much like a gunstock, with the camera in place of the gun barrel. You hold the shoulder pod as though you were holding a rifle, and a modified cable release runs from the camera down to where the rifle's trigger would be located. Most shoulder pods are used when shooting action or wildlife with very long telephoto lenses.

**A tripod is handy when making long exposures—it will hold the camera steady so that only the moving portions of the scene are blurred. But it can also do a lot more—see the text for more details.**

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**BENBO**

● Benbo tripods feature a unique "bent bolt" swivel joint for the legs, which allows them to be independently adjusted to any angle. In one quick move, a quick-lock lever

locks all three legs in place. A central column extends up, down and to the sides to change the camera position without otherwise moving the tripod.

**BOGEN**

● The Bogen line is diverse, with choices in every category. The Workhorse 3036 is a pro model that towers to 80¾ inches, but can be lowered to nearly ground level with

its variable-angle leg settings. The new 401 compact geared head offers precise geared movement in 3 directions. Designed for 35mm to medium format cameras, it weighs 3 lbs.

**CAMBRON**

● Cambron tripods and monopods are available in several sizes to fit most photographers' needs. Close-up photographers will appreciate the Duo-Micro-Just twin-rail fo-

cusing device, which mounts on the top of a tripod. Critical composition and focus can be achieved in precise, front-to-back or side-to-side measured movements.

**CULLMANN**

● The Cullmann line offers lightweight through heavy-duty tripods and monopods, as well as the unique Multipod. The Multipod consists of a monopod with two side

struts to steady the monopod against a vertical surface, such as a wall or your chest. The CU3430 tripod features a clever center column that is actually a removable monopod.

**DAVIS & SANFORD**

● Davis & Sanford has all the bases covered with a line of camera supports that includes lightweight and compact travel tripods, heavy-duty tripods for medium- or large-

format cameras, camera stands for studio work and monopods. They also have pan-style tripod heads, fluid pan heads, large-format heads and folding dollies.

**FOBA**

● Foba tripods and heads are primarily designed for larger, heavier cameras, such as a pro SLR or

medium- and large-format cameras. Foba also produces large, extremely sturdy studio stands.

**GITZO**

● Gitzo tripods and monopods are well known for their construction and sturdiness. They offer over 40 tripod choices and 13 monopods, as well as heads, lateral arms and

quick-releases. New to their line are the carbon-fiber Mountaineer tripods and monopods, which are 30% lighter while still maintaining 100% of their strength and stability.

**KALIMAR**

● Kalimar's tripods range from the Pocket Pod for compact and lightweight cameras to heavy-duty tripods with fluid pan heads for

video or still photography. Some feature a built-in spirit-level for leveling the camera and achieving straight horizon lines.

**KB SYSTEMS**

● If you like the aesthetic and structural aspects of wood tripods, you'll enjoy KB Systems tripods. Their legs are made out of ash,

black walnut, teak, mahogany or other handsome decorator woods. They have cast aluminum heads and metal fittings.

The chestpod uses a single tripod leg on the ground, and two mini legs that brace against your chest. These three legs form a type of tripod. The chestpod is not as stable as a normal tripod, but offers better camera support than nothing at all, and can be quite effective.

**MONOPODS**

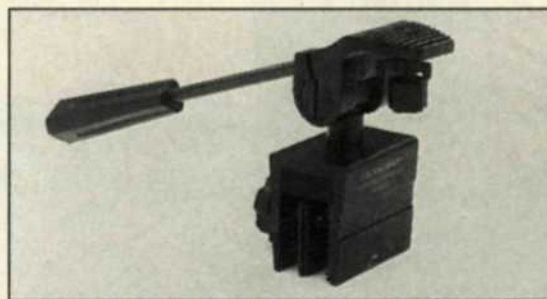
The monopod is a popular single leg camera support system. It is very portable, yet provides a stable platform for supporting the additional weight of a camera and long lens. The monopod usually comes with telescoping legs and a small camera head allowing minor framing adjustments. The monopod is also an ideal support device for photographing in those areas where tripods are not allowed. The nature photographer may find that it doubles as a great walking stick.

**TRIPODS**

The tripod is the best all around camera support device. It comes in dozens of sizes and configurations to match any budget or application. Since tripods come in so many variations, you first must analyze your shooting requirements before you make your purchase. As your camera format increases in size, so must the size of your tripod. Medium-format cameras need a larger tripod than 35mm, and a 4 x 5 camera needs an even larger tripod. This also applies to the size of the lenses you use with your camera system. A 15-pound telephoto lens and camera will definitely need more support than a 3-pound telephoto lens.

Another consideration in your tripod selection is the size and weight of your camera support. Generally, the bigger the tripod the better the support. If you do a lot of photography hiking the back country or traveling to exotic locations via planes, then the size and weight of the tripod will be a determining factor in your purchase.

Most tripods have from 2-5 leg sections that extend the height of the tripod from a couple of feet to well over your head. The center section of the



▲ Above: There are all sorts of clever camera-mounting devices on the market, such as this Celestron Car Window Mount. Others screw into wood, strap around trees or utilize C-clamps.



tripod can extend the camera another few feet in the air. Keep in mind that the more the tripod is extended from its base, the weaker it becomes.

When you are purchasing a tripod look at the quality of the legs. Check to see just how much they extend, and how they lock in place. The easier the legs are to extend and lock, the faster you can be ready for action. If you intend to use the tripod in marshy areas, look to see how long the bottom leg extends before the first joint. This will determine how deep into the water you can go before you are in deep trouble.

To keep the tripod level on a flat surface, all three legs must be extended equal amounts. Some tripods have independent leg action which offers adaptability in those tight shooting positions or unlevel ground.

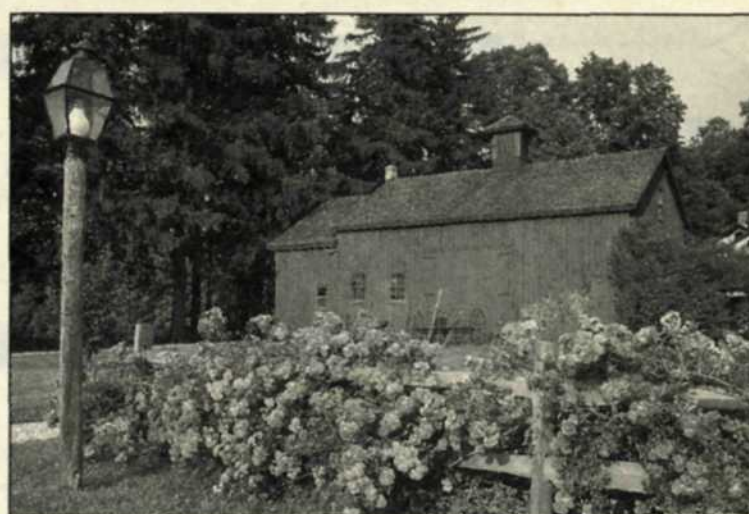
Tripods are made of materials from A to W (haven't seen a Z yet). Aluminum is used because it is light weight, yet sturdy. Wood is used because it is warmer on your hands in the cold weather, undoubtedly stable and has a historical charm.

### TRIPOD HEADS

Tripod heads are available in many styles depending on their intended use and your budget. They can be grouped into two basic types: pan/tilt heads and monoballs. The pan/tilt heads allow movement along two planes—up and down and from side to side. These controls usually have separate handles that lock the camera in position easily. Some of the more advanced fluid heads give very smooth moves throughout the panning motion. These more advanced tripod heads were originally designed for video cameras, but photographers found them the perfect choice for smooth panning action.



▲ **Above:** When it's too dark to handhold your camera, a camera support will keep it stationary so you can use as long a shutter speed as you wish.



► **Right:** Even in daylight you may need a slow shutter speed—such as when using a narrow aperture (f/22, for example) to get both the foreground and the background in focus at the same time.

The ball head gives full movement of the camera on the top of the tripod with one locking control. As the control is tightened down, the movement on the head has more resistance. The ball heads allow complete rotation of the camera in any direction. When the ball head control is completely tight-

ened down, the camera is locked in place. Ball heads usually have a rotating base for panning the camera through an action scene or for shooting panoramas.

### QUICK-RELEASE PLATES

If you find yourself constantly changing from hand holding the camera to tripod and back, you will probably need the use of a quick-release plate. Half of this device attaches to the top of the tripod, while the smaller piece attaches to the bottom of the camera. When you need to mount the camera on the tripod, you simply slide it on the quick release plate until it locks in place. To remove the camera, press the quick-release lever or screw and the camera comes off the tripod.



◀◀ **Far Left:** A fast shutter speed, such as 1/500, freezes the water as it falls.

◀ **Near Left:** A slow shutter speed blurs the water in a more aesthetically pleasing way. Had the camera been handheld, everything in this picture (including the rocks) would be blurred. Instead, a tripod held the camera still, so stationary objects appeared normal, and moving objects blurred.



**LINHOF**

● Linhof offers tripods for general use, as well as some to perform specialized tasks. If you need height, the Pro Giant model soars to 72 inches. Plus, an extra tripod thread

low on one leg, gives you the option of low-to-the-ground work. Their 2 Universal and 3 Profi ball heads offer 9 variations for 35mm to large format work.

**MAJESTIC**

● Majestic tripods are specialized units designed for heavy-duty cameras or film and video equipment. Many are mountable on accessory dollies to facilitate movement in the

studio. To give you an idea of their capacity, the smaller Majestic tripods can support up to 40 pounds of equipment. They also make pan heads, gearheads and sidearms.

**MOHAWK**

● Coast Manufacturing produces the Mohawk line of tripods. Their Fold-Away model is designed to be tucked in a camera bag or luggage, because it folds down to a flat

5x14-inch rectangle. The unique design allows it to be used as a 62-inch monopod or 56-inch tripod when fully extended. It includes a pan head and quick-release plate.

**PHOENIX**

● Phoenix distributes tripods with black anodized finishes. The new Wildcat tripod is ultra compact, designed for point-and-shoot cameras and small SLRs. It is less than 14"

long when collapsed and rises to 50" height. Like the other tripods in the line, it features a geared center column, leg braces and a fluid pan head with quick-release fitting.

**SLIK**

● Slik makes a varied line of tripods and accessories. The 3-AF Sport tripod has one of the more unique heads, featuring a ball head with a trigger-action pistol grip to

quickly and smoothly position your camera at any angle—great for action photography. The 300DX is a new pro level unit that is light and compact and can hold up to 11 lbs.

**TUNDRA TARGA**

● Tundra Targa offers various tripods for use with compact cameras to 35mm SLRs with telephoto

lenses. The products are designated 1-6 with 6 being the most heavy duty version.

**VELBON**

● Velbon tripods range from low-cost basic tripods to high-end heavy-duty professional models.

The Carmagne-series tripod and monopod have carbon fiber legs for strength and light weight.

**VIVITAR**

● Vivitar's new line of economical photo and video tripods feature geared center column for precise vertical control, removable quick-release platforms, non-marring

rubber feet and aluminum alloy construction. The smallest fold to 13 inches and weigh less than two pounds, including a pan head. The largest tripod extends to 67 inches.

**ZONE VI**

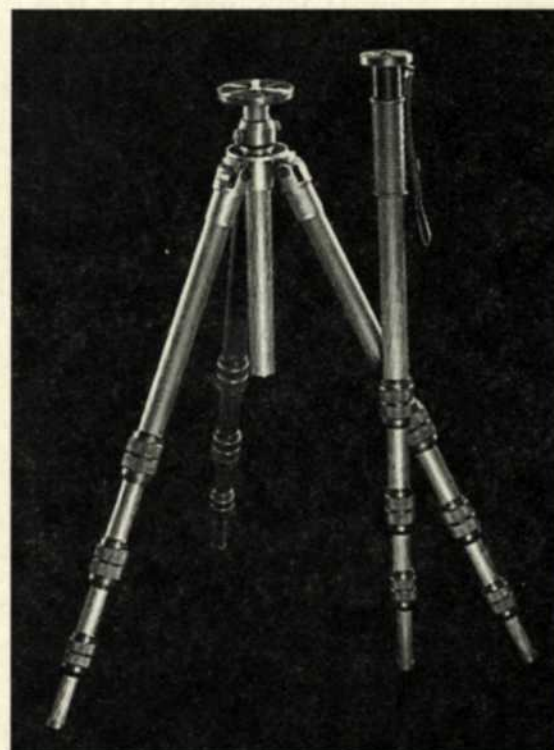
● Zone VI makes beautiful wood tripods from clear mountain ash. They are big and solid, designed to handle everything from large 35mm SLR cameras to 4x5 and

8x10 large-format view cameras. They feature oversized knobs, spiked feet and legs that can be spread out flat to place the camera as low as ground level.

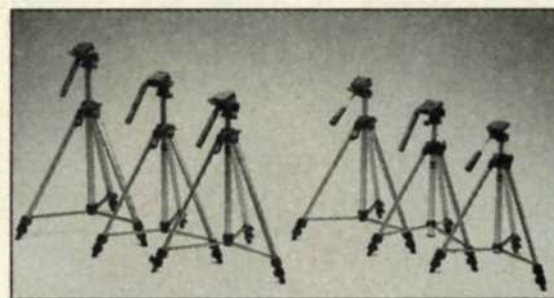
**CABLE RELEASES**

No tripod set up would be complete without a cable release of some kind. The act of pushing down the shutter manually creates the possibility of camera movement and voids the tripod's purpose. The high tech electronic cameras today generally will not accept a simple mechanical cable release. If you do need a cable release, camera manufacturers have a variety of hard wired and remote shutter releases. If you forget your cable release, or just haven't found the right one yet, you can always use the self-timer to delay the exposure.

Now that we have reviewed the types of support devices available for photography, let's take a look at what photographic situations would call for the use of these three-legged beasts.



▲ Above: The new Gitzo Mountaineer tripod and monopods offer the extreme strength and ultra-lightweight of the new carbon fiber technology. By building the legs out of this material, the tripod boasts 30% less weight than its aluminum counterparts, while still maintaining its strength.



▲ Above: Most manufacturers make a selection of tripods from light to heavy. The models in the line that are the largest, heaviest or have the fewest leg sections for the height (i.e.—they don't collapse into a very small size) are generally the most stable. Shown here is the Tundra Targa aluminum tripod line.



## LOW LIGHT

As the light level drops, so does the shutter speed, depth of field and overall image sharpness due to camera movement. One solution is to use faster film, but in many cases the light level is so low that the use of a tripod and slow film is preferred to the resulting grain of faster films.

We all think that we can hold the camera steady no matter what the conditions. Remember that when fatigue sets in, our strength and stability often fail us. A basic rule of thumb is that  $1/\text{focal length}$  of the lens is lowest shutter speed you should hand hold for normal shooting situations. For example,  $1/60$  is the slowest shutter speed you should hand hold a 60mm lens. That makes a 500mm mirror lens barely able to be hand held at  $1/500$ .

If you find yourself at the point where the shutter speed is slightly lower than the focal length, then you need to use at least one of the support methods. Although the bean bag, clampod, shoulder pod or monopod would be a consideration, the tripod is going to give you best results when you need camera support.

## LONG LENSES

Long lenses tend to be bulky, heavy, and difficult to retain accurate subject focus. The additional weight and size play havoc on your arms when holding the camera system, and eventually cause camera movement. As the focal length gets longer and the shutter speeds be-



▲ Above: Some photographers swear by the unusual bent-bolt joint design of Benbo tripods (shown here). The bent-bolt swivels to allow the legs to be independently adjusted to any angle—ideal for shooting on uneven ground.



▲ Above: Wood tripods have always held an elite lure for photo purist who believe they do not vibrate as much as metal tripods. Shown here is the Zone VI line, made from clear mountain ash, with oversized knobs and spiked feet.

come slower, then you must consider a sturdy support. The tripod is the choice for nature photographers who often remain in one place for some time. Sports photographers often opt for the monopod so they can keep the weight off their arms, but be able to move in seconds.

## HIGH-SPEED MOTION

Action photography usually requires the use of a steady support platform and the ability to pan with the subject. The gunstock, chestpod, monopod, and tripod, all allow the photographer to hold the camera system steady and pan the subject smoothly at the same time. The tripod is the only system that would allow repeatability.

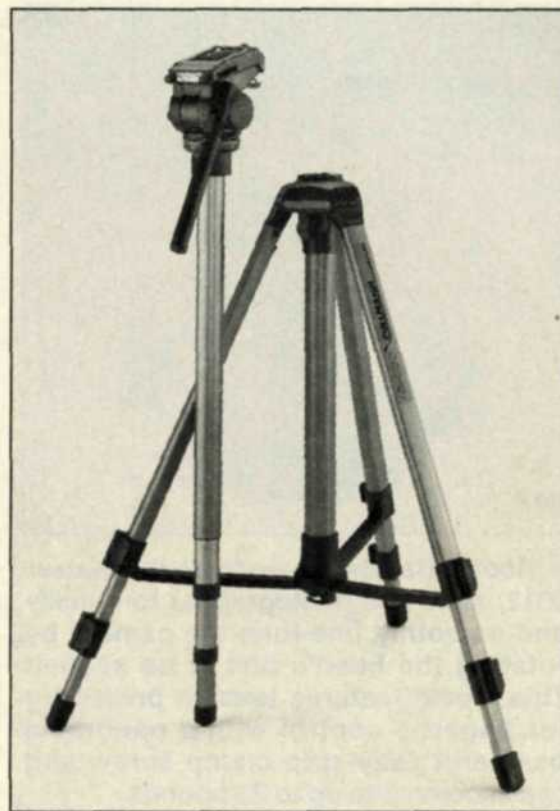
## PANORAMAS

Good panorama images require two things: a level horizon, and accurate image framing. This makes the tripod the only choice. Once the camera is mounted on a leveled tripod, the camera is panned back and forth to see that the horizon is level and that none of the important vertical elements are cut off. Some of the more sophisticated tripods have built-in levels and degree markers on the rotation part of the head.

## LONG EXPOSURES

The use of very long shutter speeds to create special effects such as blurred waterfalls, star trails, carnival rides, and lightning all require the use of a tripod. In these situations a cable release, additional weight on the tripod, or even a black card at the beginning of the exposure might be needed.

Another reason for long exposures may be the desire for extreme depth of field in a photo. As the f-stop is increased the shutter speed becomes



▲ Above: The monopod/tripod decision is made easier with the clever Cullmann CU3430 tripod. It's center column is actually a removable monopod.

longer, and a tripod is necessary. The result is an exceptional photo, but added effort is required.

## ZOOMING ON A TRIPOD

Once you learn how to effectively use camera support devices, a whole new world of special effects become



▲ Above: This is an example of a lightweight tripod with three way-pan head and leg braces. Other features of the Vivitar VPT-120 Video/Photo tripod are a crank-operated center column, a removable quick-release camera platform and a built-in circular bubble level. The unit is fitted with a carrying handle.





▲ Above: Ball heads, such as this Kaiser 6012, allow the photographer to quickly and smoothly fine-tune the camera by rotating the head's ball in its socket. This model features tension presetting for fingertip control with a panorama base and easy-grip clamp screw and can accommodate up to 22 pounds.

part of your photo exploration. One tripod trick is using a zoom lens at night or in low light. The camera and lens are focused on a subject, and then the lens is zoomed from its shortest focal length to its longest (or vice versa) while the



▲ Above: The unique Slik pistol-grip ball head allows quick and easy positioning of the camera by depressing the "trigger."

shutter is open. The resulting image shows an "explosion" effect. For best results, use exposure times of 1/2–2 seconds—shorter times don't give you time to zoom through the lens's entire range, and with longer times, you'll complete the zoom before the exposure is over, so you'll get an identifiable image of the subject along with the zoom streaks. (This isn't necessarily bad; just be aware of it.)

### PAINTING WITH LIGHT

Painting with light is another effect that can only be accomplished with the camera and tripod duo. The camera remains stationary and the light is moved throughout the scene while the shutter remains open. The longer the exposure, the smoother the lighting in the scene. You can light an entire house or other large subject using this technique (at night, of course), in a flattering or eerie manner—your choice, as you are the one moving the light. You can keep the light on as you move it, or turn it off while you move to each new spot. Plot out your lighting scheme in advance, and walk through the area before it gets dark, so you don't trip over anything as you move the light around the subject. Don't shine the light toward the camera lens or yourself (unless you want to appear in the picture), and wear dark clothes.

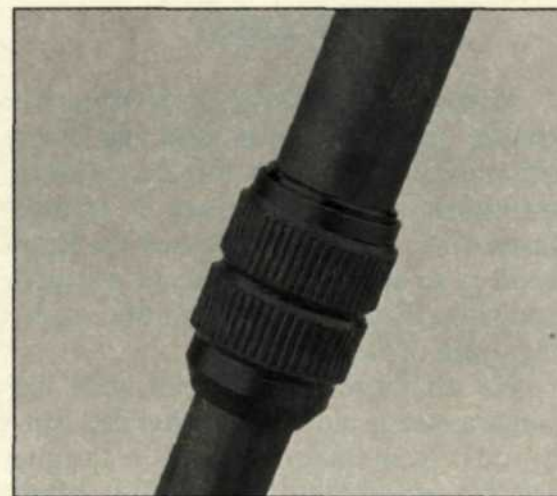
### REMOTE PHOTOGRAPHY

There will be some photographic situations where the photographer cannot be at the camera when it is fired. Group photos including the photographer will definitely require a tripod, a camera with a self-timer and a photographer in track shoes.

Reflections often force the photographer to move away from the camera to avoid photographing their reflection.



▲ Above: Although designed for film and video, fluid heads are preferred by many photographers for their repeatable pan and tilt controls. The Bogen 510 Pro Fluid Head can support up to 19 pounds.



▲ Above: Tripod legs come in sections (usually from three to five) that release and lock in a number of different ways. The Gitzo tripod uses threaded knobs that are turned to tighten. Others use clips and or screws.

The tripod can usually be placed so that it does not show, but this isn't always the case with the photographer.

Nature photographers may find they cannot be near the camera because they will scare their subjects away. Birds, for example, will eventually get used to a camera and tripod near their nesting area, but will rarely tolerate human presence there.

### STUDIO PHOTOGRAPHY

The studio photographer may spend hours setting up a shot and will need to process the film before moving to the next setup. The tripod insures the same camera angle, assuming that the tripod doesn't get kicked. The tripod also locks in your composition while shooting—it's easy to accidentally move the camera (and thus change that precise composition) while shooting with the camera hand held.

### IMPOSSIBLE ANGLES

Some specialized tripods and clamps give the photographer a creative edge in placing the camera at difficult angles. By putting a camera on a long pole, pictures can be taken from a high angle while the photographer remains on the ground triggering the camera with a remote.

Ground-level shots are possible by mounting the camera to the tripod head and inverting the center column under the tripod. This is especially useful when shooting low angle photos and the ground is wet. Some tripods permit you to completely spread the legs for low-angle shots. There are also mini-tripods for ground-level shooting.

As you can see, the world of camera support devices offers something for most any photo situation. Put camera supports to work for you and see how they help improve your pictures and creativity. □