



Essential Guide to Choosing Documentary Camera Support

Choosing a pan and tilt head

There are two crucial functions of a pan and tilt head: balance and drag. The combination of these can at best enable truly effortless and fully controlled movement whilst shooting. For more information about Vinten's Perfect Balance and LF and TF Drag please see www.vinten.com where there are dedicated sections on this technology.

Obviously if you are travelling frequently you want to use the lightest equipment possible, but it is important that your pan and tilt head can support every camera combination. Always consider the accessories and add-ons that you may have to use, including batteries, microphones and monitors. Then choose a head that can support the full weight range so that you are covered for every eventuality. Most pan and tilt head manufacturers will offer stepped counterbalance systems, but Vinten's infinitely adjustable Perfect Balance system will precisely balance the range specified in the Product pages.

Finally, if you expect to film in low-light situations at any time don't forget about Vinten's smallest invention: the illuminated levelling bubble! It's listed by Elizabeth Pollock [Blue Marble Productions] as a "cool feature" and it can be invaluable.

Choosing a tripod and spreader

Documentary filming often involves many varying locations, which suggests that the lightest equipment is the best. For this reason it is advisable to choose a carbon fibre rather than aluminium tripod. It is critical to remember, however, that the tripod and cases must be robust enough to take the knocks of the professional world – as well as the rigors of travel. Peter Money [Focal Point Television] notes about his equipment:



"The equipment can be set up and put away quickly and easily and the carbon fibre legs make the tripod system lightweight, so it's easy to carry around on location. The carrying bags which the tripods come with are also easy to transport and very tough - although not for this job, those bags have survived rough treatment in aircraft holds around the world!"

A key feature of quality tripods is torsional rigidity: when the legs are fully extended and clamped with its spreader attached, that the top moulding/casting resists any twist. This twist (created by the drag forces and wind buffeting) is called spring back or wind up and can be clearly seen in the viewfinder when you release the pan bar (picture springs back slightly).

It's essential that tripod legs have clearance in order for the leg tubes to move freely during set-up and breakdown. If these clearances are not precisely engineered they will also produce a "dead spot" known as backlash, which is noticeable when the direction of the camera pan movement is changed (the operator may feel the drag reduce and a positive "bump"). If spring back or backlash exists to any degree, it makes framing very difficult at the start and finish of a move, especially when using a long tight lens in adverse weather conditions.



If you are expecting to film in adverse weather conditions you should check that all fittings and clamps are designed for ease of use with gloved hands.



For any situation you should always use a robust spreader to fully stabilise your tripod. A mid-level spreader will add stiffness to the tripod whilst allowing for a variety of footprints and terrains, which is perfect for filming in a variety of locations. However it should be noted that whilst a mid-level spreader often seems to be the ideal solution it doesn't add as much stiffness to the tripod as a ground spreader, which can be used on level surfaces.

Whatever tripod and spreader you choose always check the basics:

- The legs do not deform or the clamps slip when the tripod is loaded with the pan and tilt head and the camera
- All components of your camera support equipment [head, tripod, spreader] fit snugly together so that there is no unwanted movement when framing

Always ensure you are supported

Support from the manufacturer is key for any camera operator, but when filming documentaries around the world it's advisable to choose a manufacturer with a global presence. No matter how careful you are some things (aeroplane holds, adverse weather, and animals, to name a few) are beyond your control and you never know when you might need help - be it maintenance manuals, service support or spare parts.

