(i) High-definition cameras

There is no doubt that high-definition video is tempting—the higher screen resolution is hard to dislike. But as mentioned, there are problems, particularly with models which do not offer a recording option with uncompressed audio. Generally, then, this camera type cannot be recommended. This situation will probably change, however: there is already at least one current semi-professional model, the 'JVC GY-HM100', which seriously addresses the audio question by recording uncompressed linear PCM audio alongside the MPEG2-based HD video. This would appear to be a fine camera for the field in every respect, though it is more expensive than the 'Sony HVR-A1P' mentioned above.

(ii) Standard-definition cameras

Given the typical problems of solid-state/hard-drive cameras (unconventional formats, lack of uncompressed audio), it is hard to recommend them on the grounds of convenience alone (i.e. not requiring the capturing process) since they provide no better video resolution than a standard tape-based machine. Since they are light, compact, and relatively inexpensive, however, a case can be made for such cameras as auxiliary or backup machines. As noted before, not every recording need be of top technical quality: sometimes having a camera/recorder to hand is the main thing.

p. 44

1.3.2.3 All-weather cameras

There is also a place for all-weather cameras which are water- and dust-proof and sometimes quite resistant to impact and extremes of temperature. We are not dealing with professional-quality models here but rather with consumer machines (solid-state type) packaged for use at the beach, in the snow, and so forth. They are a safer option for filming in wet conditions such as boat trips. We provided such a camera to speakers to do their own recordings when we were not present and could not help with the maintenance of the equipment in a tropical climate. Some of the community-made recordings we have received from this camera would have been unattainable by an outside researcher.

Such cameras are not particularly expensive, but there is a price to pay in reduced audio/video quality. Critically, they do not allow for external microphones and have rather weak internal ones. This makes them decidedly second-rate as audio recorders. To get the best possible sound the camera must be positioned as close to the speaker as possible (rather than being positioned at a distance and capturing the right frame by zooming in).

For even more challenging conditions, such as filming fishing or hunting activities, there are specialist cameras designed for extreme sports. An example is the 'GoPro HD HERO' range. These small and quite inexpensive cameras are waterproof to 60m and highly shockproof (they can be mounted to surfboards or crash helmets), yet shoot HD video with 48 kHz mono audio.

1.3.2.4 Still cameras

Many cameras designed to take still images can also function as video cameras. There are two broad categories: SLR cameras offering very good HD video in some format, and compact cameras with a lower quality (even if marketed as HD) video mode. For many reasons, only the SLR type can be recommended for primary recordings (e.g. SLRs tend to have better built-in microphones than compact cameras and some models even allow external microphones), but even then only with qualifications.

The main issues with video on SLR cameras are the limited duration of recording and the sound quality. Nevertheless there are some cameras with useful specifications. As an example, the 'Pentax K-7' apparently records up to 25 minutes (or 4 Gb file size) of HD video (720p variety, i.e. 1280 × 720 pixels) with sound. This