



“ Operational Imaging ”

Guidelines to a successful shoot



Timing
Local Conditions
People
Environmental & Social issues
Aerial imaging
Underground
Planning



“ Timing ”

1. Making the best out of the light

The word “Photography” is taken from the Greek words “Photo-graphis” essentially meaning “light recording”. It is essential that the shoot be structured in such a way that the greatest possible opportunity can be taken of the light in it’s various moods across the course of a day.



Dusk to Sunrise: The light at this time of the day is at it’s most dramatic no matter what the weather. Starting before the sun rises gives opportunity to shooting Artificially lit areas such as plant areas, and general views of an operation. Images at this time should include Surface operations, Plant and machinery, Panoramic images and landscapes.

Early Morning to Mid Morning: Again the low angle of the light at this time of day emphasizes features within the landscape and adds drama to images. The colour temperature of a shot can be dramatically enhanced at this time to create more mood in an image. Images at this time should include Surface operations, Plant and machinery, Panoramic images and landscapes as well as Environmental issues, social issues out doors and Environmental portraits.

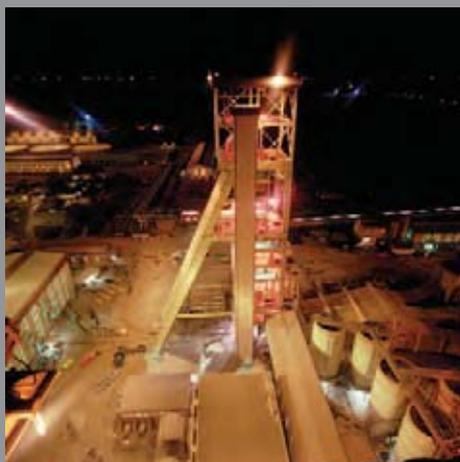


Mid morning to mid afternoon: Lighting at this time of the day is usually very flat and uninteresting. Advantage can be taken of this to capture images either indoors, underground, or in areas such as Schools, workshops, hospitals and training centers. Images at this time of the day would generally include, portraits, Training and underground issues



Mid Afternoon to Sunset: As with images shot during the early to mid morning, this time of the day brings with it a better quality of light once again. Similar issues can be tackled at this time, however the colour temperature tends to be warmer and hence images can be designed to take advantage of this

Sunset to Night: Night shots are very dramatic and work particularly well in showing activity in areas such as a bank area or pit operations. Any subject can be tackled at this time excepting issues such as environmental and social which lend themselves to other times of the day. In capturing broad landscapes or plant areas it is important to set up the camera before the sun goes down as sky detail is paramount in these panorama style images.



A typical Shooting Schedule: As a general rule, be it summer or Winter, anything outside should be shot when the sun is low and anything underground or inside should be shot when the sun is high. It is important to note that if people pictures are required then the following times should be co-ordinated with specific times such as when a shift arrives at the crush and so on.

05h00 to 07h00
Plant, Open Pit, ROM pad, Tailings dams, Panoramic images of the operation

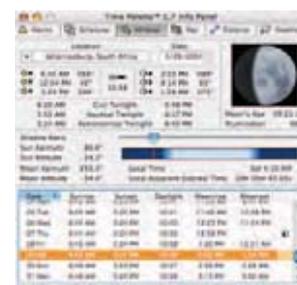
07h00 to 10h00
Above issues as well as Bank area, Environmental issues, Social Issues Environmental Portraits and Aerial images

10h00 to 15h00
Underground, Portraits, Hospitals, Training, Workshops, Smelter, Shaft sinking

15h00 to 18h00
Environmental issues, Social Issues Environmental Portraits, Aerial images, Agriculture, Water Issues and Tailings dams

17h30 to 18h30
Panoramas, plant, Bank areas, Landscapes

18h00 onwards
Plant, Open Pit, ROM pad, lamp room Underground



Different times of the year bring different lighting conditions. Before a schedule is drawn up it is a good idea to consult a decent sun position Almanac to better understand what you are up against. Naturally the weather influences these

“ Local Conditions ”

2. Taking it as it comes

Naturally, the weather and local conditions cannot be changed and often one has to pictorially make the best of what you are presented with. If possible, in planning an operational shoot, take into account the local conditions at that time of the year and plan ahead.



Exceptions to shooting at midday are densely forested regions. The middle part of the day is generally the only time to shoot successfully in these areas. The example shown above was shot in the Amazon, where the light was generally only usable during the middle of the day



2. Rainy and windy times of the year can make for exceptional images. However in general terms it hampers a shoot in which you are capturing a number of aspects of an operation. Operations in desert areas often have a windy season, during which it is difficult to capture a general feel of the place



3. Snow presents a variety of problems, and most importantly is best shot during the early hours of the morning and late afternoon. Of course this is also the coldest part of the day, so make coffee for the trip, I don't respond well to snow!



4. Very Overcast conditions are also a notable exception to the usual shooting schedule. The Middle of the day offers a soft even lighting, which although flat and without drama, is suitable for landscapes and outdoor imaging.

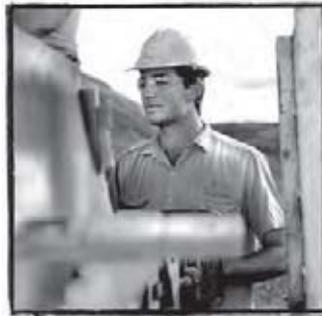
5. Bright sunlight at midday can be used effectively in some cases, particularly when the subject matter is not too vast or panoramic. However it is generally not ideal

6. Plant conditions vary considerably and while steam and smoke are desirable photographically, these conditions often give the wrong message. Smelters with a high electric field are totally unsuitable for digital photography, so please advise before hand!



“ People ” 3. Capturing employees at work

People form the core of any operation and capturing their involvement and dedication to the process is key to a successful shoot. Whether the subject is Forestry or Coal mining the subjects are never models, skilled in playing to the camera, so it is important to select the right people.



Often one does not have the luxury of choosing whom your model will be. In arranging a shoot there are really only three points when it comes to people.

The appropriate Personal Protection Equipment (PPE) must be worn by the sitter in every image.

The clothing should ideally display an element of Corporate branding and furthermore should conform to the corporate identity guidelines set out by the organization.

Clothing & PPE being worn by the person must be in good condition, and must be appropriate to what is being shot. It often adds to the shot if the overalls are covered in dust and grime, however a torn overall or a hard hat with a "cheerful" slogan on it is not desirable.

It is also important to have the appropriate people on hand when a shoot is planned. It is pointless shooting Geophysical issues without a geologist in action and so on.



“ Environmental & Social issues ”

4.

Capturing Non Core activities

Issues such as Employee training, Social Responsibility, Community Interaction and Environmental activities are increasingly important areas. The co-ordination of all parties concerned and their co-operation is key to successful imaging of these issues.



It may seem obvious, but more often than not the community involved in the photographic shoot is not consulted about the shoot. It is exceptionally important that they are aware of and give consent to a shoot of their activities. Often a shoot with a school has been arranged, where the school is closed for the holidays! Greater co-operation leads to better picture opportunities.

often sensitive issues are not recorded because of the unwanted exposure it gives to an individual. Sensitive issues need not be ignored as there is always a way of capturing a story or plight of an individual without showing their identity. This is often the case with AIDS reporting where terminal patients do not want their identity known.

Environmental images rely on proper research and planning. It is pointless looking for a flower (Which a Paper Company is Named After) in June, when it flowers in October and in a completely different part of the country. Similarly, to picture a beautifully clean river teeming with biodiversity, it must have water in it. Correct timing is essential in planning with nature to get good results.

Animals, including rare birds in particular, are things which may corporates are keen on saving. one must however place an emphasis on the word “rare” and understand that not only planning, but patience is required in achieving good results from any shoot involving animals.



“Aerial Images”

5. Shooting from the air

Aerial imaging is an effective means to clearly picture an installation as well as to create very graphic images and patterns from the air. It gives one the opportunity to give a completely different angle of view on a familiar subject.

When to Shoot; Select times of the year when visibility is good, Particularly during the Autumn months. Although the rainy season is good at times it tends to be unpredictable.

The best time to shoot during the day is early morning and late afternoon. The low angle of the sun emphasizes detail and features in the landscape. The notable exception to this is photography of Open pit excavations which need to be shot when the sun is a little higher in the sky.



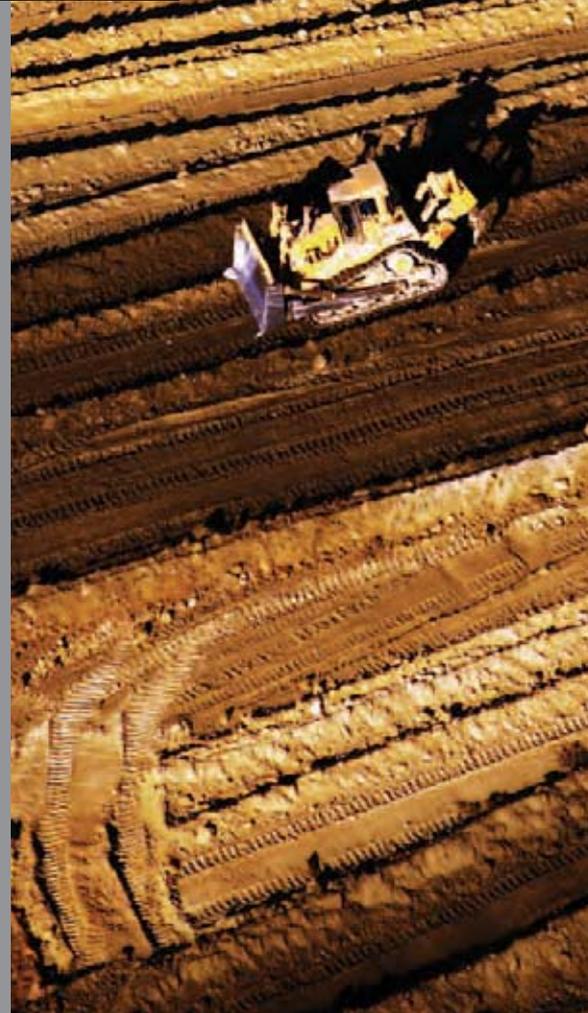
Aircraft types: Helicopters are naturally best for their ability to fly slowly and, basically, wherever you want. Their downside is their expense which can be minimized if the trip is shared.

Fixed-wing aircraft are a cheaper alternative to helicopters but fly higher and faster, keeping you, as a photographer, on your toes. Make sure your carrier is of the high-wing variety, preferably without the obstruction of struts or a protruding undercarriage.

Hot air balloons provide a more sedate and relaxed atmosphere. Of course, it's not so easy to double back and re-shoot in a balloon.

Trips on commercial domestic and international aircraft shouldn't be dismissed as potential photo opportunities, because some great shots can be accomplished through the scratched (double) Perspex you face when you request a window seat. Keep your fingers crossed though!

a microlight is probably the ideal aircraft to shoot from. Twin seater types offer complete freedom to view the landscape, and although they are not entirely vibration free they offer many more opportunities than fixed wing aircraft and helicopters.



“ Underground ”

A Different World

6.

Shooting Underground offers the opportunity to capture dramatic images. It also comes with a number of challenges which, provided there is correct planning of an underground visit, should not hamper the capturing of underground activities.



Most of the time, conditions underground are harsh and hamper the creative process. The equipment required to successfully light and capture images underground is very different to that used above ground, and varies depending on the area visited. A correct briefing is essential to ensure that the correct equipment is taken to the site being photographed.

Factors which influence the choice of equipment include the size of the area which need to be shot and the amount of existing lighting present at the site. The local conditions at the site, including the humidity level, amount of water, dust and air quality also have a great influence on what equipment is required. For large underground excavations it is often useful to have access to a 220 Volt power source but not essential.

High humidity levels have a great influence on the surface preparation of equipment. For these conditions it is advisable to allow for an extra 20 minutes of preparation immediately before entering the cage.

Like images of people shot above ground it is imperative that all people shot underground are wearing the correct PPE and are working in the correct manner. Similarly you should advise me well



before the time if you will be providing me with PPE or whether I should bring it to the shoot. In addition the the regular kit, it is often useful to have a chain safety belt available for images shot from the edge of shafts etc.

Moving from area to area or level to level also requires correct planning before the

visit commences to ensure that no time is wasted waiting for cages or access to restricted areas. Allow at least ¼ of an hour shooting time in each area to be photographed, excluding the time required to travel to the area. it is pointless travelling for an hour to an area only to spend 10 minutes shooting before rushing off the catch the cage to the surface.

Where it is possible, it is always a great help to have a couple of people available to help carry equipment, especially where the stope being visited is some distance from the shaft.

My lighting and flash equipment is certified for use in areas with methane gas levels, such as Gold and Coal mines. A copy of the SABS sealed flash certification is available on request.

