USE OF COLOUR

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AUTHOR'S OWN WORK

INTRODUCTION

The search for a direct colour-sensitive medium continued after black-and-white photography was brought to a workable point, satisfying the needs of art and commercial use for the time.

In 1891 Gabriel Lippman, professor of physics at Sarbonne, perfected his interference process (Newhall, 1982: 272). Edward Steichen wrote a letter to Alfred Steiglitz in 1908, telling him that "Professor Lippmann has shown me slides of still-life subjects by projection that was as perfect in colour as in an ordinary glass-positive in the rendering of the image in monochrome. The rendering of the slide tones was astonishing, and a slide made by one of the Lumière brothers, at a time when they were trying to make the process commercially possible, a slide of a girl in a plain dress on a brilliant sunlighted lawn was simply dazzling, and one would have to go to a good Renoid to find its equal in colour luminosity" (Newhall, 1982: 272).

Even though Lippman's process was not practical, two things between Steichen and Steiglitz became evident, namely the words "commercially possible" and "colour luminosity". This is important for me as photographer. The art of photography is in seeing and pre-visualizing your result. Colour is a commercial means to keep on commercialising it in a photograph, the photographer should exploit its possibilities.

Leopold Goldowsky junior and Leopold Mannes (researchers at the Eastman Company) became the first - if only by a few months - to produce a workable modern system of taking pictures in colour (Colour, 1976: 54). One of the strangest facts about colour photography is that, while a

method that was both simple and effective was not developed until 1935, yet fairly good pictures could be taken as early as 1868 (Colour, 1976: 54).

This convinces me that colour photography is a commercial process that could be used in an artistic way, and not an artistic process that could be used commercially, like in the case of black and white photography and painting.

1. MOTIVATION

To me as photographer, the solving of problems is the separation between good and better. Saunders (1994: 75) agrees that *"within imposed restrictions and within the surreal strategy, there was no conscious move to produce a particular style. The concepts always sought to push the basic idea to the limits in any direction"*.

This plus the fact that I enjoy saturated colour and warmer tones, urged me to use different colour-temperature light sources and selected lighting techniques to enhance colour, exploiting latitude and changing the colour of subjects by over or under exposure of certain areas of the subject, within the limits of lighting latitude.

Latitude is closely related to contrast, and contrast is closely related to saturation. The lower the ASA or ISO of film, the higher the contrast and the smaller the latitude. The added advantage is finer grain structure and more saturation of colours.

The critical point is reached when subjects are already contrasting, or when bracketing cannot be done due to long exposures, constant changing of light conditions or laboratories not controlling their chemical processes well enough, or making use of slow film with an ASA of less than 100 - especially unbeneficial slide material.

Therefore I would use any ASA film, as long as it satisfies my needs, the needs of my client, and as long as it does not complicate this already complex process even more.

2. DIFFERENT TECHNIQUES

Colour photography in essence relies on different techniques to supplement the effect of modern photography. In commercial photography, the photographer's main job is to use the correct lighting. Sometimes he is allowed to make use of his own lighting techniques, while at other times the client himself decides on even the smallest lighting detail. In such a case, the photographer has to satisfy the needs of the client.

The options left to a photographer when it comes to lighting, is his signature to a shot, since no two photographers lights a subject in the same way.

If one starts looking at the different techniques in creative lighting, there is always one aspect that does not vary. This is metering, not only of exposure, but also of colour temperature which is measured in degrees kelvin.

All photographs can be explained when it comes to colour by means of: colour, temperature of light and the use of these along with the correct exposure according to latitude.

The most often used form of this is low kelvin and high kelvin. Daylight film is balanced at 5 500° kelvin. Late afternoon or early morning light gives warmer tones because of their lower degrees kelvin. This is simmulated in a studio by the use of tungsten light in a photograph. Tungsten is usually used at a ratio of one to one and a half stops over exposed to the balanced light source. The balanced light source is flash. The intensity of the warm feeling also depends on the intensity of the tungsten, whether it has been used at full power or at lower power, which will cause a more yellowish colour.

In the same way a cold feeling can be created in a photograph. With daylight film, flash exposure will give normal colours, but kelvin temperature can be lifted by using a blue filter over the flash or lens. This provides a blue cast or cold feeling to the photograph which is measured in high-kelvin temperature.

Even this can be used to create effect. If you use blue and yellow light to a one to one ratio, the effect is normal colours of subject matter.

Effect is created when both warm and cold light are used in relation to one another so that balance is achieved on subject highlights. The shade and mid colours show colour preference to blue or yellow, depending on the amount of mixing of the two light sources that are allowed. If the two lights are balanced out, it will make the shot more saturated towards one or the other.

Flat lighting as achieved by soft balanced lighting, which makes a successful shot rely completely on composition and subject matter. If the subject is exposed in such a way that detailed shadows and highlights can be achieved, the photograph can be much more interesting. Add colour highlights with a difference within the latitude of the film, and immediately the viewer's eye is led through the photograph, making him look at it for a longer time and more intensively - thus - the photograph is successful.

Some of the different techniques available to the photographer is: soft or harsh light, different colour temperatures of light sources (for example tungsten, flash or filtered flash), the use of highlights and shadows, and mid-tone colour (actual colour of the subject).

Different techniques also means different materials. Different results can be achieved by using slide or negative material in different ways. Slide material colours are as a rule more saturated than negative material in straight-forward photography. Because of the high contrast of most slide materials, latitude is an added problem and can in most cases only vary two stops, and then only after a basic or standardised exposure is given to illuminate highlights on the subject. To obtain a correctly exposed slide, colours can be changed while shooting by lighting, or by using different reversal processes. I prefer not to use reversal techniques due to the unpredictability of results.

A more time-consuming but more controlable result can be achieved by using slide copy machines to enhance and combine colours and subjects. However, my specialisation is in lighting a subject and not really changing it. Therefore I will use reversal and slide copy machines only if suitable lighting is not possible or as a substitude to create effect.

With negative material, latitude is enhanced by the fact that the negative is not the final result. The final result is printed on photographic paper adding latitude.

Colours can also be varied more easily because it can be done while taking the photograph, by means of lighting, and in the darkroom by means of printing. Negative material really comes into its own when both creative lighting of subject and printing in the darkroom are used to double the effect. This means that the photographer takes the printing process one step further by working it into the lighting process, giving more latitude and more colour than on a regular colour wheel.

3. TO THE EXTREME

Knowledge of the material being used is a prerequisite when the photographer wants to try some new techniques.

The desire to do something different must also exist, otherwise the photographer will not succeed. It is also advisable to use your own exposure meter and to learn how to use it. Exposure meters are temperamental, and if it is not held in the correct way in relation to the camera and lights used, it will not give the correct reading, and the photographer's exposures will be incorrect.

It is also very easy to over expose a subject, and in doing so, both contrast and depth are lost.

I like to make a basic exposure on slide material illuminating the subject on the one side while shadowing the other side. I make this exposure one to one and a half stop under the normal aperture setting on the camera. This results in an under exposed negative with definite shadows. The exposed parts, even if it is done just partially, show the natural colour of the subject. It can be made to show the subject's correct colour by exposing it correctly. This still leaves the photographer with dark shadows that must be lit.

Any form of diret lighting can be used to fill in these shadowed areas. I usually expose for this, but to get a coloured highlight, I over expose certain areas by approximately one stop. Fill-in-light can be varied, coloured, softened or hardened without changing the exposure too drastically The shadows are open for your interpretation and choice of colour lighting.

Negative material can be used exactly in the same way to obtain the correct exposure, but any good photographer is able to expose correctly. The question to be asked is: how do you achieve something by exposing correctly and by making use of colour temperature or light to enhance colour?

4. COLOUR ENHANCEMENT BY LIGHTING

Just as different subjects have different colours, so does different light sources.

Saturation of film depends on the subject's colour, quality of the optics; kind of film; and printing paper you are using.

All colours can be made more saturated by enhancing it with a coloured light source of the same colour. This can be done on any photographic material, both slide and negative.

On negative material, the added advantage is that over exposed whites or colours can be burnt in with the other colours, making them more saturated. A technique often used is to over expose the foreground by blowing it out, and then printing the foreground, which results in more saturated background colours.

To do this, you must know how much your negative can be over-exposed before you start loosing detail due to over-exposure.

This technique can really be exploited if the foreground is coloured in the opposite colour than the background and then printed. The two techniques work best if they are combined, making the background colours extremely saturated.

Slide material does not have this added bonus of manipulation during the printing process. Thus, colours should be used as they appear. Because slide material is more saturated with higher contrast, this can be used to the photographer's advantage if subject lighting is controlled. The contrast can be used as latitude.

This is done by filtering light sources or using light with different colour spectrums other than daylight. The determining factor is the colour of the subject and the desired colour.

Film tends to be more receptive to red, green, blue and yellow, so it is not advisable to change these colours when they are dominant in a subject - rather enhance them.

This is done by complementing them with the same colour. The contrast of the film will assist you in your exposure, because you are supplementing the colour with exactly the same colour lighting. Even if you are over exposing, you will still have a cast of that colour in your highlights. Therefore blown-out areas are limited in colour rich subject matters, leaving you with the option of exposing up to two stops and still achieving saturation.

5. RECIPROCITY RULE OF FAILURE/SUCCESS

With modern film and emulsion improvements, reciprocity failure is less likely to occur. In my experience, most modern films can handle exposures of up to 1/8 000 of a second and up to four minutes, without changing in reciprocity.

In long exposures with negative material consisting of dye and not silver film structures, the ASA and tends to get slower the longer you expose. This has both advantages and disadvantages.

The advantage is that the quality improves. You can start comparing 35mm images with 6 x 7 medium format images after an exposure of fourty minutes. The longer the exposures by using low light conditions, the less error there is in over exposure, since the ASA is getting slower. The slower the ASA, the better the saturation.

This shows that the emulsion has actually changed into characteristics that can be used to an advantage.

The disadvantage is that metering becomes impossible, and different ways of exposure calculation should be investigated, like test exposure on different films, until success is obtained - one that gives constant reciprosity. Contrast also tends to enhance, because at the end of an exposure you may be working with as little as 12 ASA film. This does not affect the shadows that much, but highlights cannot be controlled at all.

PROBLEMS

The fact that highlights cannot be controlled complicates exposure where there is a radiating light source in the

picture. On slide material it will result in a colourless highlight that cannot be printed, since it is three stops or more over the correct exposure. On negative material, this radiating light affects highlights, creating a cast which must be printed out, resulting in desaturation of the other colours.

In low-light landscape photography, lighting conditions are constantly changing, which more often results in incorrect exposure more than the reciprosity rule. Exposure measurements should be taken regularly and adjusted to the ongoing time exposure. During sunset, exposure and kelvin temperature light will drop suddenly and more rapidly before it is absolutely dark, making the starting time of the exposure the most crucial element.

Another problem is light from the moon. If you photograph the moon on 100 ASA film, the exposure is f11 1/125second or f8 if it was a dusty day. Thus, the moon cannot be used if it is in the picture, except if you want a streek highlight due to the movement of the earth. If you are shooting away from a bright moon and the exposure is extremely long, it results in a green cast, making the landscape appear desaturated and resembling daylight with a green cast.

6. SATURATION PROCESS AND CONDITIONS

Saturation firstly depends on the subject and lighting to assist saturation.

If you light a red subject with a flash with a colour temperature of 5 500 kelvin, the result on any daylight film or slide material will be a red subject.

As a professional photographer, it is your obligation to obtain better results - something different. This can be applied for self-promotion in your portfolio or to satisfy your client in providing something out of the ordinary.

The use of colour to achieve saturation is a very effective way to make your photographs more interesting.

To achieve saturation, film that gives constant results should be used, and it is important for the photographer to be aware of and to use the limits of the film to his advantage.

Lighting should be done in such a way that the subject to be photographed is complemented. Before the photographer exposes, he must be aware of where the highlights or shadows should be, and he must also know the intensity of all his lights. The photographer's light sources and knowledge of their colour temperature forms the basis of a saturated exposure. Saturation cannot be achieved by using lights with one colour on subjects of opposing colours.

The subject can only be improved if illuminated by a light source of the same colour (as the subject).

On negative material, saturation depends on printing. The lighting of the subject should co-incide with the printing

that you have in mind for the subject. Landscapes with sunsets or sunrises have a certain colour temperature in the background. To emphasise these colours, you should start exposure as late as possible, allowing you time to work in the foreground with opposite colours, in order to emphasize background colour, not only in printing, but also as a means of composition.

7. COMPOSITION RULES VERSUS NO RULES

7.1 COLOUR AS MEANS OF COMPOSITION

When it comes to colour, I believe a new approach is necessary. So far in my own experience, I have found that colour is usually approached in the sense of something detached, namely a subject having a cast. In most cases this is viewed as negative, but there is a definite positive side to this if the photographer uses it in his favour.

Pictorial approach is subject to the basic truths concerning tone, saturation, light and shadow. If colour is also subject to the natural laws governing tone, saturation, light and shadow, which it unquestionably is, then the only pictorial approach to colour which can be of real value must incorporate these principles. In fact, to approach colour without compensating its relationship not only to light and shadow, but also to the effect of atmosphere in composition, affects every colour that we set down pictorially.

To do us any good, the study of colour must be closely allied to all other fundamentals of composition. It is so much a part of design as to be inseparable from them.

A colour may be beautiful to our esthetic sense, but unsuitable when placed within a picture. Pictorially, a colour is beautiful only because of its relationship to other colours, and such relationship must be understood. So to pick a colour from an average colour chart has little practical value for the odds, and it will thus be totally unrelated and pictorially false.

When the colour of any picture comes from a basic source of a few primaries, it automatically establishes harmony and a basic relationship of one primary to another.

In nature, colours are made up of variety, resulting in variations of warm and cold, or colours broken or blended together. The sky is not one blue, the ground not one green or brown or grey. The foliage in the distance is quite different in colour than that in the foreground. The charm of colour lies in warm and cool variation, in the greyed or muted colour along with the pure and brilliant. If you can put three reds together, they are more beautiful than one red, and this is possible by letting the red colour contribute to the warm and cold feelings within the same pictorial area. It is the same with every colour in the universe. Note how the colour varies in a flower, and how the colour is carried into the foliage and stem. Note the great variety of greens we see in the same subject outdoors.

Brilliance reaches a point of saturation beyond which there is no more. Too much colour is unsatisfying on its own, but balanced out with other colours and variations of the same colour, and it is made interesting.

8. CREATIVITY VERSUS TECHNIQUES

Creative ways to see the use of colour in photography helps to improve technique in photography.

A photo is made more interesting by composition, subject matter and lighting. These three subject matters are the challenge in every photo.

There is a recipe for technique and composition, but creativity is essential to create an interplay between the elements in a photograph.

Lighting shows how a subject has been creatively analised by the photographer, and in most cases, that is his only function in co-inciding with the other creative personal goals.

9 DISCUSSION OF OWN WORK

9.1 INDUSTRIAL ARCHITECTURAL LANDSCAPE

I decided to take this photograph after previous experimentation with slide film and long exposure. While shooting interior architecture earlier this year, planning a day-night interior/exterior architecture shot, I missed the saturated colour that sundown regularly offers with composing, while I was taking light readings and trying to eliminate highlights on glass and perspective control.

By the time I was ready to take a photograph of the interior, the exterior light was completely washed out and I was faced with what appeared to be unsaturated grey skies. I exposed for the interior and went outside to take a reading. I got a reading of f22, 8 minutes. I doubled this time to take care of reciprocity failure and doubled it again to take care of the quick fading of light. As it got darker, I could take only one slide exposure correctly and I was rewarded with an ice blue sky.

When I took this photograph, I reversed the above-mentioned process. I started out when it was dark. I got a meter reading of f45, 4 minutes. I underexposed by one stop shooting at f45, 2 minutes. I did this because with sunrise some light will still enter with later exposure. My second exposure was made for the sky, and the meter reading I obtained was f45, 8 minutes. I exposed at f45, 6 minutes, because it was getting steadily lighter.

The lights on the crane were not metered individually, and it burned throughout the first exposure giving a star form on my wide angle lens and a reflection of the

Fig. 9.1 INDUSTRIAL ARCHITECTURAL LANDSCAPE

9.2 SOFTSHELL ADVERTISING STILL-LIFE

9.2.1 PAINTBRUSHES

In this still-life composition, I tried to create the impression that the paintbrushes are lying on and dipping into the red paint in the top right-hand corner of the slide.

The colours of the paintbrushes were yellow, red and black, so I decided to use these colours in my composition and in my lighting.

I placed the brushes on a rusted piece of metal and moved my main light source in closely, in order to place the paint brushes on this light at an angle to the other brushes. On this light, the flash function was disregarded and I shot it only on tungsten. Half of the light was covered with a red gel. The combination of the gel, the yellow light source and the rusted background gave me the red colour and made it dominant in that section of the photograph.

My flash was used in a directional but soft way in order to prevent harsh shadows. All the shadows were filled in with the main tungsten light source reducing contrast. The flash was set on one and a half stops under a tungsten light source, and extra highlight was reflected back into the shot resulting in spot-tone highlights on certain brushes being white despite the warm feeling of the shot.

The exposure was made on f32, 15 seconds. Flash was used as basic means of exposure, and the reading of the flash was f16.5. No compensation was given for magnification.

I used a Sinar 4 x 5 camera with a 240 mm lens unfiltered with 100 ASA Agfa RS slide film, due to its true colour rendering.

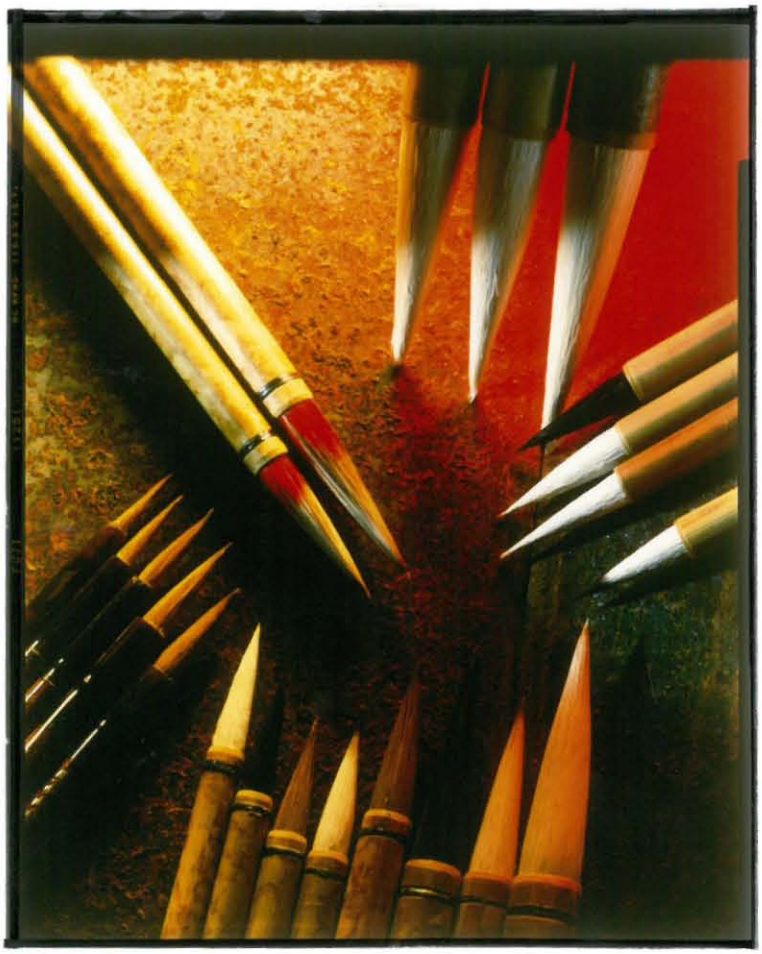

Fig. 9.2.1 PAINTBRUSHES

SOFTSHELL ADVERTISING STILL-LIFE

9.2.2 SOCKET-SET

In this exposure I used an old brake-drum as background for the tool-set. My composition was done around this. I tried to show some of the tools available, but not all of them.

My compostion was done using the main light source as guide. This light was placed to the side of the picture at an angle to give soft shadows on all the subjects. The modelling light was off during the exposure, and I used a flash.

I used another flash which I held in my hand, with a directional snoot set at a set power of f8 from the opposite side in this photograph. I was able to direct this light at shadows, by means of multiple flashes filtered red, resulting in yellow fill-in shadows. The flash was used low powered in order to make over flashing not too dominant or to prevent over lighting the subject.

My main flash was fired at f32 on time exposure, and the shadowed area was 3 stops below this reading. This resulted in shadows being too dark. One flash from the hand-held flash directed at the shadow corrected it and gave detail to the shadow. Another flash directed at the same shadow provided even more detail in these areas, and a third flash gave me the correct exposure at the shadowed area by using a colour filter.

All the shadows were filled using this technique. For the second and third series of flashes, the camera back was shifted slightly to view the three dimentional areas of the socket set better.

Excluding the main flashes, sixteen gelled yellow and red flashes were given and directed at the shadows by hand.

A Sinar 4 x 5 camera with a 300mm lens was opened up one stop to f22, to compensate for magnification. The lens was used unfiltered. Afga RS 100 ASA pro-slide film was used due to the true rendering of colour when using different colour sources of light.

Fig. 9.2.2 SOCKET-SET

SOFTSHELL ADVERTISING STILL-LIFE

9.2.3 POWER-SAW BLADE

With this shot, I tried to point out the strength of the saw blade in comparison to the weaker rusted metal chain and ratchet also seen in the picture. I also tried to give movement to the blade and ratchet by doing a multiple exposure.

The steel of the saw blade was lit by means of a masked softbox to give a streak of light; filtered lightblue to make it cold in comparison to the warm background. The exposure taken on the blade was f32, and this was also my basic exposure for the rest of the time while taking this photograph.

I used a studio light filtered red and yellow with a spot attachement to light the ratchet moving on the chain. The power of this flash was f8 for one flash, and by moving the rachet on the chain and flashing it in every position ten times from different positions, the even lighting was produced with an illusion of movement. I decided to use ten flashes instead of the correct sixteen, because it is difficult to flash accurately on every ratchet position in a dark studio. Thus, I made sure not to over expose the slide. By reflecting the flashes back into the shot, a sleeked effect was created on the background, and the chain had different coloured highlighted areas. The rachets were light masked each time, adding to the warm colour in contrast to the cold blade.

The exposure was made on f32 on time exposure. No magnification exposure correction was needed. The 300mm lens was used on a Sinar 4 x 5 camera. Agfa 100 ASA RS slide film was used in this exposure, giving me the correct colour that I flashed the subject with.

This is a very active way of taking still-life pictures, and the element of surprise is increased many times, which makes studio work interesting.

Fig. 9.2.3 POWER-SAW BLADE

9.3 LANDSCAPE

I saw this farmhouse with its geometric form outside the city. The sky was also very dramatic, and I stopped to take a photograph. However, I felt that it needed something in the foreground to make it more interesting.

Therefore I projected my own shadow into the landscape with the help of my car's lights on top setting and another tungsten lamp plugged into the battery socket.

I did not get a good photograph the first time, but returned two days later when there were more clouds in the sky, but I did not really want to use the clouds in the photograph. Therefore I decided to expose the sky at f22, 8 minutes after I obtained a meter reading of f22, 4 minutes, compensating for reciprocity failure and the quick failure of light after sundown. A dark cloud hung over the landscape during this exposure, and registered on the film as a dark patch looking like a giant devil. I hoped that it would look like that on the slide, but was pleasantly surprised when it came out like that.

I then waited until it became dark and made my second exposure, opening up to f2.8 and using my car's lights and tungsten light to light up the foreground. This section of land is approximately 200 square metres, and it took me 26 minutes to light it evenly. Meter readings could not be taken, so I calculated it, knowing that my tungsten light gives f5.6, 2 minutes on 20 metres, with 100 ASA film.

The exposure was done with a Mamyia 645 Pro camera, using a 45 mm unfiltered lens and using Fuji RDP II film, due to its good handling of reciprocity on long exposures and its availability.

Fig. 9.3 LANDSCAPE

9.4 FARMHOUSE LANDSCAPE

This was my first attempt at changing the colours of a landscape. The warm colours in the background and top parts of the photograph were given more punch by flashing the foreground with blue and green filters. Saturation was then achieved by printing out blue in the foreground. By doing this, blue was also printed out of the background and the top parts of the foreground, making the colours that match more saturated and warmer.

The top parts of the tree were also flashed. These flashes were done unfiltered, but by printing out the blue cast in the foreground, the warm colours were achieved.

After exposing for the background, I moved the camera slightly, causing the image to have a black outline on the detail in the foreground. This made the image appear sharper. I over-printed the image sligthly to make it more moody.

Exposure was made on f11 at 17 minutes, and I gave 21 flashes in the foreground with a flash with a guide number of 45 at full power. I used 100 ASA Agfa XRG negative film in my 35 mm Canon camera with a 28 mm lens.

Fig. 9.4 FARMHOUSE LANDSCAPE

9.5 RED CAR INTERIOR/EXTERIOR

I started this shoot after dark. The car was parked in a field of long grass. The car was cleaned, and all the windows were turned down.

I started my exposure inside the car. To make the seats of the car very saturated, my first flashes were gelled red. A total of 16 flashes were made inside the car. Only the last four flashes were unfiltered to give highlights on the seats. I did this to cut into the more saturated red areas, trying to make them look even more saturated.

The grass surrounding the car was lit with two tungsten video lights set at an angle of 45 degrees to the camera, and masked not to fall on the car interior. These lights were gelled yellow in order to make the grass look more golden. Exposure on this area was 15 minutes at f22, and then I moved the light to under the car to fill in the area closest to the car.

My flashes in the car were made on at f8. I used Agfa XRG 100 ASA film. My Canon 35 mm camera with a 20 mm lens were used unfiltered. The exposure lasted for 25 minutes. The interior was photographed at f8 with 16 flashes, of which 10 was filtered with a full-power flash with a guide number of 45.

Fig. 9.5 RED CAR INTERIOR/EXTERIOR

9.6 CHURCH INTERIOR

The original colour of this church was much more desaturated than it appears on the photograph, but I liked what I saw so much that I just had to photograph it.

I started lighting the floor first, by flashing it 16 times with a red filter. I flashed evenly from both sides to eliminate unwanted shadows. Then I flashed the Jesus statue's red robe to make it more saturated. This was done by giving 4 flashes using a red filter. After this was finished, I flashed the interior of the entire church 12 times with a blue gel.

I then went outside, and with a tungsten light I lit the windows of the church. This left me with the deeply coloured red and warm feeling of the glass window. The blue areas of the church remained blue, because it is equavalent to 5 500 kelvin light that I flashed the church interior with after I printed out the blue.

Exposure was made on f11 for 35 minutes in total darkness. I used Agfa XRG 100 ASA film, and my camera was used unfiltered, but all the additional light sources, except the candle and tungsten light, was filtered. The tungsten colour temperature was 3 400 kelvin. I used a Canon 35 mm camera with a 28 mm lens.

Fig. 9.6 CHURCH INTERIOR

9.7 SURREAL LANDSCAPE

Due to a full moon that was shining when I took the photograph, I had to cut down considerably on exposure time with this landscape in order to prevent the green cast of light from the moon. The exposure time was only four minutes on f5.6.

In this limited time, I had to light the landscape with 24 flashes from my hand-held flash with a guide number of 32.

I started flashing the foreground using a filter, giving 6 flashes from different positions. Then I flashed the tree on the right-hand side 14 times using a deep green filter. Right at the end of the exposure, I flashed a small part of the leaves at the top of the picture twice using a green filter and twice again using a yellow filter. I did this to obtain a lighter green colour to create an interesting effect.

The above-mentioned flashes gave me the correct exposure for the 100 ASA Agfa XRG film I was using. To saturate the sky slightly more, I exposed the foreground with 4 full-powered gelled yellow flashes, making these colours warm. In the darkroom I printed out these colours to give a cold feeling to the background by making the blue of the sky more saturated.

This exposure was done with a Canon 35mm camera with a 20 mm lens, in order to give me the maximum depth of field on f5.6.

Fig. 9.7 SURREAL LANDSCAPE

9.8 STILL-LIFE - FLOWER ON METAL HOOKS

With this still-life composition, I tried to do something different - something beyond the ordinary still-life flower compositions that we so often see.

The graphic form of the metal hooks lent itself well to be photographed, and the yellow colour of the flower with its twisted stem made me combine these elements.

I lit this entire photograph with a flash with a snoot, in order to throw the light exactly where I wanted it. I held this flash in my hands and flashed onto the subject from different angles on low power.

I flashed the flower twice with a yellow filter to give me f16. The stem of the flower was also flashed twice from different angles to eliminate unwanted shadows without using a filter. The metal hooks were flashed from an angle behind using a red filter to bring the colour to the foreground.

The backdrop I used was a green coloured piece of perspex that was placed out of focus and lit in such a way as to add to my composition.

This exposure was made on f16 with a Sinar 4 x 5 camera with Fuji RDP II film. No magnification exposure compensation was needed on the standard lens.

Fig. 9.8 STILL-LIFE FLOWER ON METAL HOOKS

9.9 RED PEPPER STILL-LIFE

With this exposure I tried to obtain the most saturation possible on the subject. Not only did I choose my subject in such a way, but the lighting was also chosen to exploit saturation.

The subject was lit with two flashlights from the sides with red gels, resulting in the strong red colour on the photograph. This left the inside of the red peppers black and unexposed by extending the snoot on the Elenchrome flashlight, and using it as modelling light and not as flash. Using a strong yellow filter, I was able to direct the light the way I wanted it at the inside of the red pepper.

The backdrop of green perspex that I used was out of focus and lighted unevenly with a spotlight to give a dimension of depth to the photograph.

Exposure was made on RDP II film with a Sinar 4 x 5 camera on f22, using a standard lens. No compensation magnification was needed. The exposure for tungsten was 3 seconds on f22.

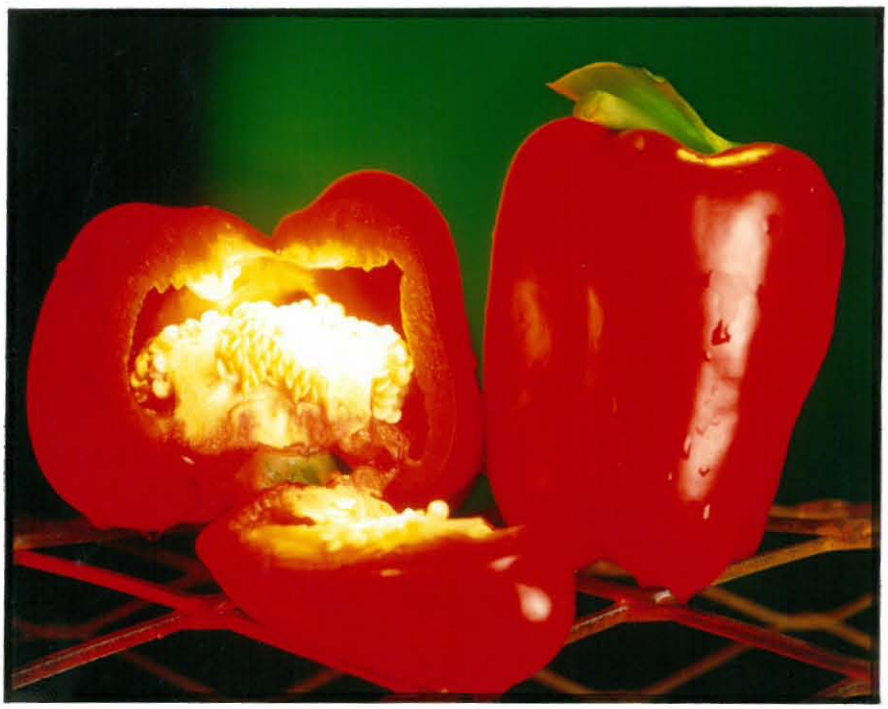

Fig. 10.9 RED PEPPER STILL-LIFE

9.10 THORN AND CHILLI STILL-LIFE

In colour photography, chillies are one of the subjects that lends itself best for interpretation by a photographer in both lighting and concept.

I chose to photograph the chillies on a backdrop of thorns and wood using a warm light of 3200° kelvin, one stop and a half over my balanced flash light source.

Tungsten light was reflected into the shot to form highlight areas on the chillies. I used a soft filter for half of the exposure time, resulting in highlighted areas to flare. A section of my tungsten light was covered with a red filter to add a red outline to the chillies in the top section of the photograph.

My flash exposure reading gave me f16, while the tungsten light reading was f22.5 for 15 seconds. Compensation for magnification was one stop, so I made my exposure on f16.5 for 15 seconds. For 7 seconds of the exposure, a soft filter was held over the lens to result in a flare in the highlighted areas.

Fig. 9.10 THORN AND CHILLI STILL-LIFE

9.11 HARBOUR LANDSCAPE

These two exposures were made 2 minutes apart from one another at sunset. The sky was covered in wind swept clouds, making them appear painted. The wind was making it impossible to keep the camera (4 x 5 Sinar) still in the exposure that lasted for 30 seconds at f16.

My camera was set up and I waited for the wind to stop while taking constant exposure readings. In the first shot, a sailor in white and a young girl entered the shot and started talking. The wind had stopped blowing. I started my exposure and flashed them twice just before the exposure was finished. My flash exposure was unmetered and uncalculated, because I did not plan on using it during this exposure.

The second exposure I made because of a boat that started moving into the picture. The sailor moved towards the boat, and I flashed him again with my flash on full power while standing approximately two metres away from him. This photograph is not very sharp because of the wind that started blowing during the exposure, but it is successful in combination with the one taken two minutes before it. I used 100 ASA Fuji RDP slide film in both these exposures.

Fig. 9.11.1 HARBOUR LANDSCAPE

Fig. 9.11.2 HARBOUR LANDSCAPE

9.12 INTERIOR/EXTERIOR

The day I took this photograph, the sky was a desaturated grey colour. Because I had such a strong colour in the foreground, I had to balance them out with colour equally saturated in the background or exterior.

I waited as long as possible before I started with the exposure. My interior reading was f22, 1 minute, and I fired my flashlight twice to give me a balanced exposure of f16. This made my tungsten light one stop over my flash exposure. The tungsten lights I mentioned here is house lights with a colour temperature of 2300° kelvin.

For my exterior exposure the meter reading was f22, 15 minutes, before I started with the exposure. Because of the fast fading afternoon light after sundown I increased this time by 30 minutes. I also opened my lens to f5.6 for the last 15 minutes of the exposure. All the unnatural lights in the background was unmetered and it burned through the entire exposure, giving the star effect on the wide angle lens. I took this photograph on Agfa RS 100 ASA professional film, with a Sinar 4 x 5 view camera and a 65 mm lens used unfiltered.

Fig. 9.12 INTERIOR/EXTERIOR

9.13 LANDSCAPE

In this landscape, the foreground was lit entirely with flashlight. I fired my hand-held flash twice for every two square metres of the foreground subject matter, standing 2 metres away from the subject to give me a reading of f8 in the foreground.

I also started this exposure after sundown, making use of the low-colour temperature light of the sky to give a deep blue colour to the sky.

The foreground colour was enhanced by making use of coloured gels to bring out the natural yellow and green colours of the plants. Red was added to make the plants stand out slightly from the background.

The time of the exposure was 25 minutes. During this time several cars drove passed on the road in the background, resulting in light streaks in the distance.

The exposure was made on 100 ASA Fuji RDP film. The camera setting was f8, and a Mamyia 645 was used with a 45 mm lens.

Fig. 9/13 LANDSCAPE

9.14 SURREAL POOL

The dolls used in this shot are used as life saving practice dummies in first-aid training.

I placed them in such a way in the composition that they looked as human as possible. They were lit with a deep red filter over my flash which was mixed with tungsten light falling on them, making them appear deep orange in colour.

The exposure was made in total darkness, and after flashing the foreground, all the pool lights were burned in to give some dimension to the photograph.

During the exposure, cranes were working on the construction of the stadium in the background, resulting in streaked light effect in the background.

A Canon 35 mm camera was used with Agfa XRG 100 ASA film and a 20 mm lens.

11. CONCLUSION

My experimentation with different colour results and techniques taught me a great deal about photographic colour material and applications.

I found that the combining of good colours in a photograph rendered more spectacular results.

I definitely intend to apply what I have learned about colour photography during the last two years in the different fields of visual art that I intend to pursue in future.

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