Profiling a profile.

- Task 1: Create black profile of face and some shoulder against pure white background (photo 1)

- Task 2: Create the reverse, white profile against black, do use same location, only change lights. (photo 2)

- Task 3: Create a straight on face which is underexposed by 2 stops against square white block of light against black background. (photo 3)

Workmethod:

- Establish as much space between profile/face and background as possible
- Use a long lens to minimize angle of view to minimize amount of background in view unless you want to light up a whole wall... ☺
- Use tripod for accuracy and ease of positioning lights/face

- Divide exercise in task and objective, analyze what needs to be done with lighting before proceeding

Task1

Black profile means black. Black means **no** light.
Therefore the task is lighting the wall. As a WHITE wall.
To evenly light the wall behind profile, set up 2 lights on and angle of 45 degrees. Use deep reflectors to create no spilling of light, no light may stray on towards the face.
Take an incident lightmeter reading of wall. In our case it was F32.
To make the wall lighter you have to overexpose it, as an incident lightmeter reading always gives you a reading for a midtone grey of 18% reflection.
One stop overexposure is 36% reflectance is lighter grey.
Two stops overexposure is 72% reflectance is a very light grey.
Three stops overexposure is an impossible 144% reflectance, it actually makes an almost white tone in reality.
Set your aperture on camera on F 8 – a solid 3 stop overexposure!

How do we know the face records as a black tone?

We take an incident meter reading of the face from camera position, carefully not to include any light from the background, hold meter about 20 cms from cheek. To record as black it has to have a lightmeter reading three stops **BELOW** the F4.5 aperture we use on camera. This sounds contradictory, we need an aperture of anything less then three stops below the F8 = F4!
(F4 is 3 stops smaller=below than F8.
It read actually 1 sec at F2, so that is a massive black!

The contrast range was ranging from F32 on the background to F2 on the profile, 8 stops of difference. Film and electronic capture can only cope with 6 stops difference to show a full range from black to white, anything outside that range records as blown out white or solid black.

PS
The shutterspeed is of no importance. We use flash in this case. The modelling light was not registering when we use a shutterspeed of 1/60 of a second or higher.

How do we know?

We measured this by recording a (incident) lightmeter reading of the white wall in ambient meter mode (records the tungsten light and not the flash). It read 4 seconds at F8. Unless you had your shutterspeed open for 12 (3x4) seconds it may influence the light falling on the white wall. So a shutterspeed of 1 second could still be used but why take chances – the profile may move....

Task 2:

A white profile means light falls on it.
A black background requires no light.
Assuming we continue in the same place as in photo 1, that first photo was taken with an existing white or black wall, meaning whatever colour it is or was, we do not want any light on it now, even a white wall will be turned black....when you have no light.
So we concentrate on the face!
Place model/background and camera in same position as task 1.
A light that is coming from any directional lightsource is suitable. Remember a Softbox will diffuse the light and spread it in all directions and it may fall onto the background. A deep reflector bowl with barndoors, or a gobo will do nicely. Block any stray light with black screens if you need to, see diagram2.

Once light is set up, positioned at an angle so it falls on the face front “nose area” and another light on the “ear side” it will form an even light on the face structure. Any spill light is blocked to fall on the wall by screens.

Measure with in a reflected lightmeter mode the amount of light that reflects from the face and hair. Hair reflects less then skin, so make the reading from the “hair side” the important one.

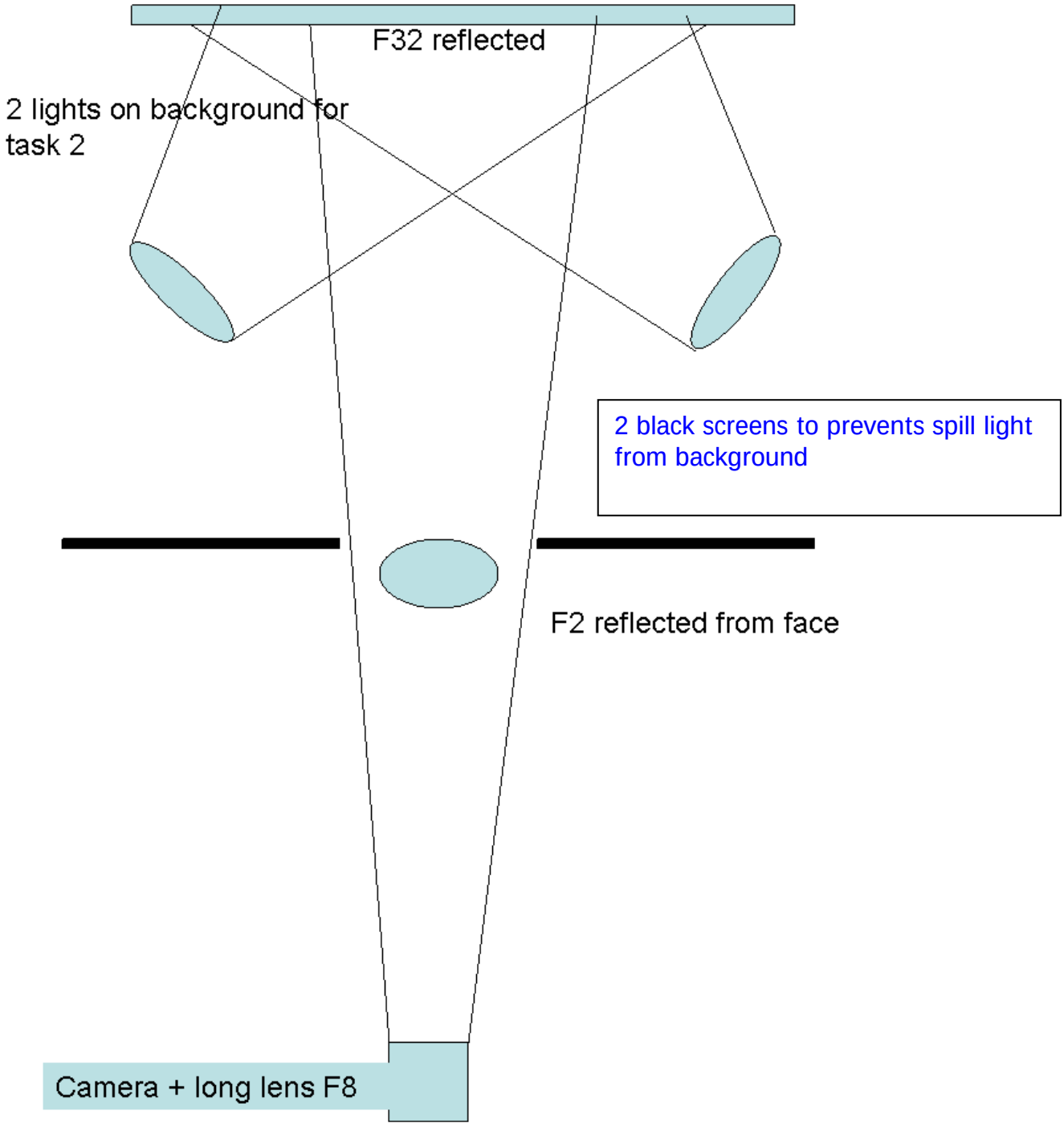
If it reads F 22 the face will de photographed as a mid grey - not a white face. To achieve a white face, over expose by 3 stops, F22 – F16 - F11 = F8 to set as an aperture opening on the lens.

To ascertain the wall behind will reproduce as black, take a reflected lightmeter reading of the wall at about 30 cms distance from the wall. This reading has to fall 3 stops below the aperture as set on the camera lens (F8= 18% reflectance).

One stop less light than F8 =F 5.6 = darker grey. (9% reflectance)
Two stops less light then F8 = F4 = much darker grey (4.5% reflectance)
Three stops light less then F8 = F2.8 is an almost black (2.2% reflectance)
If the lightmeter reading is F2 or lower you have a black background....

Easy, it is the reverse of the first exercise is it not? Now you may get a feel for that +3 and -3 exposure stuff...

See diagram next page for set up details:



Task 3:

A dark shaded face....
A black and white wall.

We have now two objects to be lit. To work out where the lights have to be, assume the same position for camera, subject and wall as in task 1 or 2, this time the face faces the camera.
With the camera and face in position, determine where the white block of the light has to go. Again, Robert does not care two hoots if it is a black or white or blue wall, we work with lights….
A gobo or focussing spot is the easiest way to achieve a squarish block of light on the wall, otherwise use a deep reflector and use the barndoors to make a square shape. The light source can be quite close close to the wall. Just make sure it is out of the camera view.
As in task 1 and 2, we still use the same long lens and the distances from camera to model and wall have not changed.

Now we measure the “square” light on the wall and over expose that by 3 stops! That overexposure reading is set on the camera, assume the relected light meter reading of the square is F64, a 3 stop over exposure is F (45-32-F22) =F22 as our working aperture.

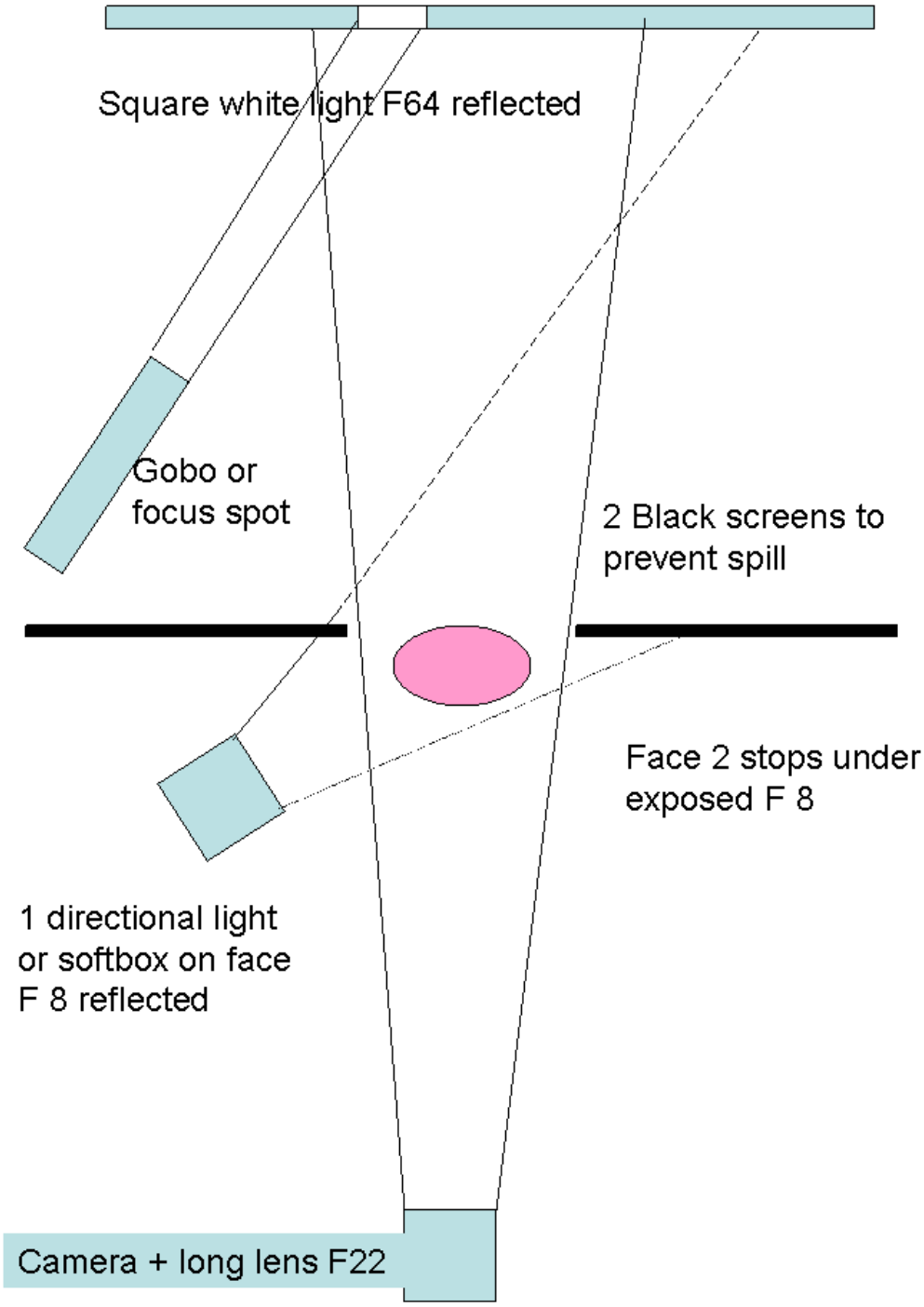
The light on the face is next. The brief requested a dark grey face for me that means a two stop under exposed face.
Use again a directional light (or a very small (20x20cms Softbox) to direct light on the face. Keep the angle at about 50 degrees away from the camera so there is little chance of any light falling onto the wall in the back. Perhaps use a “screen” or anything that is solid black to block the light going to the background.
Once your light is in the correct position, meter in the reflected light mode the part of the face lit by the light.

Now you have to think….

Working aperture is F22 (set on camera – see above)
A 2 stop underexposure means (F22-F16-F8) = F8.
Now adjust the light output to read F8 on the face, lower your output of the flash if it reads more then F8 or move the light further away from the face until you get the desired **reflected** light reading of F8 on the face.

As you use F22 on camera the face is 2 stops underexposed (F22 is a smaller hole then F8) and you will get the result as seen for task 3. See next page for diagram set up

These 3 exercises are purely a mindset to learn to control the light, consider angles and learn how light travels to get previsualised results.
Keep practising until this works for you.
I have used exclusively reflected light meter readings as that is the only way to give you an ACCURATE indication of the lightvalue of the object measured. Incident meter readings are not a valid work method to establish contrasts.



Hope you all got it, got no migraines, and try now to use this method for something that looks creative and pretty....

Send me the results, love to see what you have done.

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