IONIAN UNIVERSITY – DEPT. OF AUDIO & VISUAL ARTS

LABORATORY OF PHOTOGRAPHY

PROFESSIONAL PHOTOGRAPHY II

ASSIGNMENT 7 – PHOTOGRAPHING INTERIOR SPACES WITH MAIN NATURAL AND ADDITIONAL FILL-IN LIGHT

Photograph an interior space *during daylight* with either a digital or an analog camera. It is almost mandatory the use of a decent wide angle lens, possibly corrected for spherical aberration.

The scene may be lit only by use of natural light, if this is adequate for the picture's requirements. Indeed, in some cases natural light can be redirected in shadowy areas by use of white colour reflectors. If this is not possible, then lighting conditions may have to be improved in certain areas of the scene (as for example back surfaces of furniture) by use of artificial light. Large internal spaces are difficult to handle with regard to artificial fill-in lighting (too many light sources required). Fill-in artificial lights can consist of either Tungsten lamps (rated at 3200 K, which means they need to be converted to 5500 K[*]) or –preferably– flash light. In both cases the lights have to be redirected by reflectors (umbrellas or other). In some cases you may be able to use the walls as reflecting surfaces provided they're painted white (otherwise a color cast is going to alter the colour balance of the scene). The lights have to be placed at a height that resembles that of windows, and they have to be directed accordingly.

In any case an adequate Kelvin temperature has to be set to the digital sensor (or a suitable Kelvin temperature film has to be selected). Flash is rated at 5500 K while tungsten at 3200 K. Obviously there is no need for any K conversion when you want to produce b&w pictures.

Light intensity within the space is measured by use of incident light meter (or with a reflected light meter by taking measurements out of a gray card) from various points in the room in order to get an average reading. In any case you need to avoid directing the light meter towards the space's windows (you are interested at the internal elements of the space, not the windows' surfaces).

For what concerns the calculation of the desired intensity of fill-in lighting, place the light meter at about 1/3 of the distance between the camera and the farthest away wall (closer

to the camera) and measure the fill-in light intensity falling on the light meter. Continuous light reading is obtained through use of an incident light meter, but for flash light you need a flash meter. In the first case the light meter suggests a combination of *f*/T, in the second one it indicates only the adequate lens' aperture (shutter speed values are of no use for flash intensity calculation because of the extremely short duration of its light[**]). No matter what is the kind of additional lighting (continuous or flash) you usually need to set it at ½ or ¼ intensity compared to that of the ambient (natural) light (this way you get a more 'natural' feeling of the space). If you use flash you can control its exposure by altering the aperture value, instead of altering the flash's intensity (when doing that you obviously alter your shutter speed duration as well, in order to compensate for ambient light). If you use continuous light sources you can adjust for their optimum intensity by placing them nearer or farther away from the surfaces that need fill-in lighting.

In any interior shooting obtaining the largest possible depth of field is of utmost importance. To this respect you need to select an adequate working aperture combined with the use of hyper focal distance in order to achieve this goal.

Independently from the sort of light sources that are going to be used, it is important to expose correctly your digital archives (you don't want to proceed to any exaggerated recovering during editing). If you photograph with film (especially when using positive transparencies) you need to expose according to the light meter's suggestion plus over- and underexpose three or four times by ½ stop difference from the initial values.

You need to submit:

Two shots of the same framing, one without- and one with additional fill-in lighting, with the various trials of over- and under exposure in order to select the best picture.

If you use b&w 120 film you need to submit the proof sheet with all tests. If you shoot color slides you submit the entire film with all tests. When shooting digital archives you submit the two best shots (with/ without fill-in light) in jpeg format (no prints required).

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[*] by use of Kodak Wratten filters 80A or equivalent placed in front of each tungsten bulb

[**] you only need to know which shutter speed in your camera synchronizes with the flash