Multiple Flash Lighting for Wedding Candids

This article belongs completely to Ed Shapiro, a professional photographer, who contributed a lot to the art. It is based on the content of a topic of forum. I have to thank Ed for covering this topic. I could not find any place where Ed gathered and published his knowledge, so I decided to extend the audience of the forum where he posted this topic. So here it goes...

Multiple Flash Lighting for Wedding Candids - Tools and Methods.

Last year and the year before I used to write (long) technical articles and post them on Zuga, but have not done so lately. With so much information in the free lessons department, written by the likes of Monte, Gary and Joe Zeltsman, I hardly feel the need to write any more technical stuff - it's more than well covered by the founders of the site. In fact, come to think about it, I don't even know of it is politically correct (nice) to write unsolicited advice in article form, in that no one specifically requested my information in the form of a posted question on the boards. The reason I continued posting that sort of article is that it is fun (I love to talk shop about technical things), I want to upgrade my technical writing skills for future projects, and IF my information benefits even one fellow photographer - it makes me happy. All self indulgent reasons but- what the heck? Writing articles are oftentimes safer than joining existing threads that are about to turn in to a firefights - I hate the odor of burning flesh - especially my own. I usually base my topics on a compilation of questions, from the boards, that seemingly go unanswered or that I sincerely believe, have not been answered adequately. So until the moderators tell me to go fly a kite, here goes another one of my long winded, perhaps boring, but very factual diatribes. Hope you like it!

I have never shot a wedding with only one light on the camera. Ever since one could use a second flash head off one power pack, by the use of an extension cable, all my work, as a wedding photographer, was done with two or more light sources. When practical photo-electric tubes were introduced, for portable use) I was probably one of the first guys standing on line to purchase one. When solid state photo-electric cells were invented - I became a collector - testing all of them for reliability and distance. Radio slaves - I'm in heaven! Before we get into the actual lighting methods, I would like to discuss these radio slaves because the success of multiple lighting depends physically depends on reliable synchronization of the camera light and the remote unit or units in use. The best radios I have used to date are the Pocket Wizards. Prior to the Wizards most radio slaves were overpriced garage door openers with a little extra circuitry to accommodate electronic flash triggering. The latest Wizards have more rugged casings and battery compartments for reliability and longevity. The circuitry is far more sophisticated in terms of the radio frequencies on which the units operate and the benefits that those particular frequencies offer. The digital technology incorporated in the circuit design makes for more versatility and accuracy in channel selection and general performance. The radio frequencies (upper UHF) although unprotected by the FCC (DOI in Canada) are less likely to be affected by interference from other radio systems (emergency vehicles, remote control devices, and harmonics from other radio systems) as units working at lower frequencies in the VHF range. The higher UHF range unit's radio waves tend to bounce and bend around obstructions thus having less potential for misfires and/or erratic synchronization. To keep your radio slaves (regardless of brand name) working well, simple but regular maintenance incorporating the following suggestions will improve the reliability of your units. Firstly, make sure the batteries are fresh before a big assignment. The battery contacts should be shiny clean at all times - one of the most common reasons for poor performance is intermittent battery contact due to built up corrosion between the battery terminals and the contacts inside the battery compartment of the units. An ordinary pencil eraser or ink eraser will do the trick and if there is too much build up an emery board should get the job done. Secondly, do not exert excess strain on the mini-plugs, jacks and cables running from the radios to the cameras and lights. These parts, on all the units that I have seen, are the weakest points and invite brakeage and short circuits. The use of right-angle connectors (on the cords) will help a great deal in the prevention of damage and accidental disconnection while shooting. Using Velcro, elastic bands, or wire ties to create more strain relief and isolate the jacks from any direct pulling is also recommended. Many of transmitters have switches that enable the on-camera light to be shut off, triggering only the remote flash. I always have this switch disabled on the transmitter that I use for wedding photography - so that both units always fire. If that switch is accidentally left in the wrong position, all the flash shots on an entire wedding can be ruined because of not having your fill or base exposure light operating. The jacks and switches on most of today's radio slaves are grossly under-engineered in terms of the prices we pay for these units, so take care of those wimpy switches and fragile jacks. Theses weak components can suffice in a

studio situation but, what with the rigors of wedding photography or other types of location work, might not stand up as well.

Why multiple lighting?

One of the basic principles of fine photography is creating the illusion of three dimensionality on a two dimensional sheet of photographic paper by the effective rendition of light and shadow. The old masters painters called it CHAIROSCURO- light and shadow. One flash unit mounted on or above the camera does little to accomplish this effect but will however, provide enough illumination to expose the film properly and create a very basic but flat image. The addition of a second light from a position off the camera-subject axis, immediately begins to perk up the image. Knowing exactly where to place that second light, and there are many alternatives, will empower the photographer to control the rendition of texture, depth, modeling, background separation - all important components of the three dimensional illusion. That second light can also help in applying the principles of fine portraiture to one's wedding photography. The second light can also extend the range and angle of coverage of the camera light for wide angle photography and provide even lighting for such subjects as long receiving lines and dais tables. Photographs made with theses methods stand out above the rest and serve as good marketing tools to attract new business.

Anti Flash People

The anti flash sentiment is nothing new and was not started by wedding photojournalists. The height of the anti-flash era was in the fifties and sixties when many prominent photojournalists and art photographers deemed flash photography as flat and unrealistic. Existing light was considered the ultimate technique and all kinds of fast film and exotic pushing procedures came to the fore. Grain and 35mm cameras and film was king. Large format and flash photography was relegated to the commercial studios and portrait shops. It was ok for press photographers and wedding shooters but was far beneath the dignity of magazine photographers and photographic artists to attach a flash unit to their cameras. The publication of a book entitled "The family of Man", a volume of masterpiece images by the most prominent documentary photographers of those times, reaffirmed the uselessness of flash photography from an artistic point of view. I loved walking the streets of New York City doing all kinds of available light photography, making images in dark allies and developing the film in dynamite - "who needs your stinking shadow detail" - said I. But as an upstart wedding shooter in a traditional studio - hell bent on throwing away my heavy strobes and 4x5 cameras - my ideas didn't go over very well with the boss. I could clearly see things from his (the boss's) point of view. Yes, available light is wonderful and can have all the properties of three dimensionality, with all the light and shadow that nature can muster. Here's the hitch- all those nice highlights and shadows were not always in the right place, especially in indoor venues when it came to shooting weddings. A dark shadow obscuring the brides face and a strong highlight "burning out" her dress was not to cool in a ceremony shot where, of course, the couple could not be moved into better lighting. At least some flash fill was necessary to deliver a balanced image. At a small wedding in the country in an intimate setting, I could easily see doing the entire job with available light and maybe a touch of almost invisible flash fill would do the trick. Most of my wedding and social photography, in those days was in big city hotels with opulent ballrooms. The clients demanded detail - they expected to see every detail of their expensive affair in their photographs - from the embroidery in the brides gown to the gilding on the ballroom walls. Photographing large groups, giant head tables, mile long receiving lines and buffet tables were the order of the day - hardly feasible in miniature format shooting at f2.- so out came the big guns - big flash units and big cameras, Don't think for a moment that we were not expected to capture action, spontaneous expressions and animated images - and we did. We needed the action-stopping ability, power and reliability of flash to get the job done, and in most cases the same criteria exists today - some 40 years later. The challenge in the old days and today is to produce flash photographs of such quality that the appear perfectly natural as those made under good available light conditions. That is the theme of this article. This is not an attempt to put down available light photography but rather to illustrate how to imitate, augment or combine it with other methods when the demand arises. There are many photographers (including myself) who set up a complete "studio" at wedding to accommodate beautifully styled portrait images to be combined with the candid photographs in the wedding album. For the most part however, this article deals with covering all aspect of the wedding with 2 portable flash units and in some instances replicating studio effects.

Exposure Issues

One would think that adding that additional light will cause all kinds of exposure complications. My method is extremely simple and easy. I always expose for my on camera light to provide a base exposure with ample shadow detail. If technical difficulties arise and the second light does not fire, I still have an adequate image and will not loose the shot. For argument sake - say the camera light is at f11 for proper exposure. The second light is set at the same power but is closer to the subject (say f16). You instruct your lab to print for good detail in the highlights thereby obtaining your lighting ratio - the shadows will fall into place once the highlights are "printed down". For automatic or TTL systems, setting both units for the same f-stop will oftentimes work well, some users find that setting the remote unit one stop stronger than the camera light creates a more pronounced ratio. With these auto systems, testing is of the utmost importance. I know that the "set it and forget" system works well with Q-Flash, Metz, Norman, Lumadyne, and Vivitar Units - but test nonetheless.

If you are not reasonably conversant with the nomenclature of portrait lighting, at this point please study the free lessons (on ZUGA) which explore lighting forms, lighting ratios, fill light function and other areas that are prerequisite to fully understanding this part of the article. If you are familiar with theses concepts and simply want to master multiple lighting for your wedding work - read on. If you are not interested in formal portraiture, it is still a good idea to have some of this know-how in order to create natural looking lighting in your PJ work when there is simply inadequate not enough existing light for practical use. If you have to resort to flash for part of the job, it is nice to have those flash shots looking as authentic as the ones made without flash.

Equipment

Most portable flash units can be easily being adapted for slave operation. If you have a good flash unit, the purchase of a twin unit is a good plan - you can use it as a second unit or as a spare in the event of equipment failure in your on camera flash. Two units having the same characteristics as to color temperature, light output, flash duration and a familiar and compatible layout of function controls is the ideal set up. In my operation I prefer to use the big guns - in my case the Lumadine power supplies and the Q Flash heads. I need the power to work in large ballrooms and churches and provide enough flash power to facilitate smaller apertures for ample depth of field. If I wish to use less power to blend with existing light or decrease the depth of field, enabling selective focus, I can simply power down the unit. These larger flash heads have easily removable reflectors for instant bare bulb use. Some of my heads have built in modeling lights - handy in dim light and seeing your portrait lighting in some of your posed shots. These 200 watt/second blasters have enough oomph to accommodate bounce lighting or the use of certain light modifiers without having to work very wide apertures. The comparatively large reflectors yield a softer quality of light and usually enough flash coverage to accommodate the use of wide angle lenses without any serious edge falloff.

Methods

The nuts and bolts of this technique can be as simple or complex as you care to make it. Herein I will list a number of tried and true methods that do not require a lot of time and can be executed with little or no problems. Unless specified, all you will need is a second light and a remote triggering device as described in the paragraphs above. Your basic light is mounted 8-12 inches above the lens by means of an appropriate bracket. These are manufactured by Stroboframe, Jones, and others. A strongly made profession calibre bracket, made of metal rather than plastic is recommended for ease of operation, longevity and safety. As with single flash photography, subjects should not be placed too close to a wall to prevent casting distracting shadows behind the subjects. Even with the flash head mounted over the camera and having a second light in use, these shadows can appear. Besides that, if you maintain a good distance from the walls, you will enable yourself to use backlighting for some interesting results. By the way, wall shadows are more likely to become apparent on blank walls, however on draped, decorated or furnished walls theses shadows become less noticeable. With these standard procedures in place - here's the list:

#1. Simple 10-45 Degree Lighting.

The second light is placed in a medium high position at anywhere from 10 to 45 degrees off the camera subject axis- depending on the subject and in the case of group photographs, the population and arrangement of the group. Single subjects like the bride or groom alone, in small groups or "duos" with each other, individual parents or bridal party members (two people only) can benefit from a medium-high light placed about 30-40 degrees and slightly ahead of the camera. This simple method will give you more portrait-like modeling, will open up some of the background and will provide more depth of lighting for multi level group shots. With group poses the second light should be close to the camera (about 10 degrees) to avoid uneven lighting and the casting of shadows from one subject to another. Typical usages for this lighting are formal portraits, walking down the aisle shots, dancing couples, general candid work. Normal working ratios are 1:1.5 to 1:3. This method is basically simulated studio lighting as applied to candid photography.

#2. Back-Boom Lighting.

This lighting offers a very festive and exciting look. Although it might be considered unorthodox by traditional portraitists, it's one humdinger of a lighting to add depth and relief to any candid scene. The assistant controls the second light which is mounted atop a monopod. The light is placed about 135 degrees to off the camera subject axis. The flash head is aimed at the backs of the subjects or boomed in like a hair light. The light can be feathered slightly towards the subjects or the background for various effects. The camera light is providing the frontal exposure and the remote unit is providing a wonderful kicker/hair light/ rim light- where ever the pieces may fall. Care must be taken not to flare out the lens, especially with wide angle optics. This method can be applied to formal as well as candid photography and can act as a veil light, or kicker. In candid work it will create interesting highlights on people's faces, open up the background somewhat and really make the image pop off the page. This technique is quick and easy to execute. If the exposure setting on the remote light is the same as the camera light, the highlights will still punch through because of the high angle of incidence. When working with wide angle lenses, you might want to increase the light output of the remote light because you will require more distance to avoid flare.

#3. Background Lighting.

This is a simple and safe method especially if you are just getting started in multiple lighting. The effect is not as dramatic as some of the other effects described earlier in this article, but the results can be very pretty. Your camera light will furnish the main light and the second unit will light up the background giving the image more depth. The second flash is simply expanding the range of the camera light opening up the background and correcting the fall off that is typical of bad flash photography. In larger spaces, this method avoids the infamous black hole look. The second light is positioned off to the side and aimed at the background. All that you are doing here is fighting the inverse square law pertaining to the fall off of light. Also great for long receiving lines and head table photographed from oblique angles.

#4. Portrait Lighting.

This is a combination of all of the above, most of which are already described. The difference here is that we are trying to simulate by means of improvisation, specific studio lightings. The improvisational aspect is that you have to place the lights (shooting blind) without modeling lamps. If you have one of those deluxe exotic units with built in modeling lamps you can easily replicate studio lighting by visually observing the effect of the lighting on the subjects - if not you have to pre-visualize the lighting effect using practice and experience as your guide. There is no reason why you can't use a studio type unit with a soft box, umbrella and an ample modeling lamp, in conjunction with your portables lights to achieve a studio like effect, however the scope of this article deals mainly with simply adding a single unmodified unit to your existing outfit and shooting quickly and easily throughout a wedding assignment without being bogged down with too much gear. With this method the possibilities are limited only by your imagination and knowledge of portraiture. Beautiful front and back profiles can be created using the second light at 90 degrees. Since radio controlled triggering is wireless, that second light can be placed just about anywhere for some really dramatic effects. I like to frame my subjects in archways and having the main light in the other room beyond the arch in the rim light or 45 degree position. By reducing the camera light output I can create

a black arch - very dynamic composition. By simply placing my hand in front of the on the camera flash head and letting just some of the light out, I can easily, within seconds, create all kinds of dramatic lighting effects. I can get a shot of the bride and groom cutting the cake showing their faces in the 2/3s view. With the second light placed at about 110 degrees and feathered slightly toward the camera I get a nice veil light, modified butterfly light on the couple and super skim light on the cake (no burn out on the dress and the icing in the cake). For a more pronounced effect I place my fingers in front of the reflector and let out about half of the light by parting my fingers according to the effect I am looking for. I have also placed gelled heads in dormant fireplaces - the mood is amazing. At Bar Mitzvah preliminary sessions (in the synagogue on a non sabbatical day) I place a small remote unit in the Ark (the closure where the Torahs are kept and do a rim lighted profile of the Bar Mitzvah Boy or the Bas Mitzvah Girl holding a prayer book facing the Arc. A bare bulb fill from the on camera light – WOW - gangbusters! drama! - sale of large portrait! Placing the parents or grandparents in the background of such an image will bring tears to your clients eyes - you will have, in a way, visually interpreted the meaningfulness of the entire Bar Mitzvah celebration. Here is where your lighting really will set the mood in you photographs and where your skill and insight sets you apart from the rest and will elevate you to the status of an artist in the minds and hearts of your clients.

#5. Double Partial Bounce or Bare Bulb

If your heads have bare bulb capabilities simple remove the reflectors and place the flash tubes in the upright position. If your units do not have this function, tilt both units to the 45 degree position by means of the tilting the unit's built in tilting device or with an external tilting bracket. Aim the head so that some of the light hits the ceiling and some light hits the subjects. With manual exposure systems you need to open up two stops from your regular setting for both of these methods. In auto mode, you have to be certain that the unit's light receptor (electronic eye) remains facing the subject - tilting only the lamp housing. If the entire unit is tilted, including the eye - you will need to use manual mode and test in advance or meter the subjects before shooting. This method works wonders in smaller rooms with white ceilings. If natural light is entering the room through windows, door or patios or if lighted lamps or fixtures appear in the composition, adjust you shutter to accommodate the proper exposure for the existing light. This method works especially well in smaller light colored rooms - small church vestries, bride's dressing room etc. The lighting is very "smooth" and "open" - it looks as if you can walk into the room and walk around the subjects. Done properly - you would swear it's natural light. Both the bare bulb and partial bounce methods will give you catchlights in the eyes of the subject and amole shadow detail in the eye socket and the eyeballs. Straight up bounce is not recommended because it usually renders the orbital area of the face and the eyes very poorly. The ceiling height must be 12 or less feet. Don't try this in a grand ballroom or a cathedral - even smaller churches and synagogues have high ceilings where this system will not work. The light will go up but it ain't commin' down. By the way- the second unit can be placed across the room, equidistant from the subjects. Placing the remote unit so as to bounce of the corner of the room where the walls meet the ceiling will add more directionally to your lighting.

#6. The Perfect PJ Light for Low Light?

In today's world of high tech photographic equipment, there is probably no need to worry about flash fill ratios even when operating at very large apertures in that the camera's built in or dedicated flash unit will still be able to provide a natural looking ratio. I know that with one of my favorite old cameras, the Minolta X-700, the chip in it's electronic exposure control system is set up to deliver very natural results when working in low existing light conditions when the Minolta dedicated flash unit is connected to the camera. The system was also able to provide just the right amount of shutter drag to accommodate the situation. I can pull that off (without calculating) with my Q-Flash units with the TTL module connected to my Hasselblad EL. My question- does that capability exist in all the latest professional 35mm Nikons and Cannons which are in wide use today?- or when that little built in flash pops up, do you just get an automatic boring flash shot. With older more conventional gear, I experienced very good results when working in very low and contrast existing light situations with small flash units called "hoodwinkers". These units were converted small "squarish" units (about the size of a pack of cigarettes) produced by manufacturers like Braun and Vivitar. The electrolytic capacitor was removed from the unit and replaced with a much smaller capacitor or network of capacitors, thus producing just a "wink" of light. These units mounted on the metal lens hoods if Hasselblads. Nikons and others - Ergo "Hoodwinker". I home fashioned one with three low light outputs. The results were incredible - easily printable negatives even from the worst imaginable lighting conditions with out loosing the mood. There's a project for you! If you do not dabble in electronics and find the possibility of electrocution rather disconcerting, a good repair shop could perform the operation for you. Request settings of

approximately 6, 10 and 15 watt/seconds. You could do it with predetermined layers of white cloth or diffusion material a la Roscoe but I like the repeatability of electronic switching. A second winker can be used to augment or create highlights where the available light is very flat.

Just a word about shutter dragging

I always control the amount of existing light entering the lens by means of the shutter speed when doing flash photography. In most cases I use the slowest speed at which I can safely hand hold the camera and in some cases I will mount the camera on a tripod to accommodate a longer shutter drag. This enables the film to record more ambient light to add interest and detail to images made with electronic flash as the main source of light.

These are just some of the methods in creative flash techniques. Once you try some of theses suggestions, you will find most of them to be much easier to perform than to read about, nonetheless, it does require more effort and some hard work, but the rewards are many. Your photographs will become more tactile and realistic. Through fine lighting usage you can make clearer and/or more dramatic statements through your images. Better imagery will set you a cut above the run-of-the-mill photographers, give the competition a run for their money, add more value to your work in the marketplace and show up as a plus in your businesses, bottom line.

Thanks for reading- please post some questions or suggestions on this subject. I am currently testing out some of these methods on a digital camera- I need some pointers from digital users on the compatibility and practicability of using standard electronic flash equipment with digital cameras. The digital camera I a currently testing (top of the line Fuji) seems to have enormous light capture even in very dark places - does this preclude fill flash? Let me know. Thanks again.

Ed Shapiro

