

A while back I wanted to create a secular Christmas-like image that displayed all the warmth and magic of this seasonal celebration without stepping on the toes of any religion. With that in mind I selected to interpret the nursery rhyme 'Jack Be Nimble' (see Image 001) with a magical, mysterious aesthetic complete with pyro-technics. Using this image I would like to show you how I did it, with emphasis on lighting, metering (how to meter a small table-top set), and a little Photoshop compositing.

The trick to doing these one-light set-ups is to figure out where to put your single light so that it can do the most for you. In this case I wanted a heavy backlit look that would push all the shadows forward. This is the trick lighting artists use when trying to portray a night scene so that it still looks dark but you still see what's going on. With this in mind, I placed the light behind the set on the camera-left side (see Image 002 B). Lighting such small objects such as Jack with moody lighting is difficult with regular lighting modifiers because they are simply too large. Placing a light just off-camera at the back of the set, then tilting it so that the light spills over the top of the subjects, then placing tiny silver reflectors at the front of the set (see Image 003), allows you to light the subjects with appropriate-sized light modifiers since you can cut these to any size and shape. Pointing the light origin up allows the main volume of light to spill over the top of the subjects allowing only the darker edges of this light beam to actually strike the backs of the subject and props; this way you can more easily control the ratio between the backlighting and the frontal reflector lighting, otherwise the backlighting will always be way too strong compared to the frontal lighting.

To create this image, Jack was suspended by a magic-arm clamped to one of the legs of the barstool that serves as the main table-top surface for the set. This tall stool has a brocade, empty pillow cover draped over its top surface. The books and cage to the camera-right side of Jack also sit on this same barstool and help to hide much of the magic-arm. The second cage and pile of books sitting out of focus in the background are placed on a much lower foot stool. One of my wife's large scarves was taped to the wall behind the set to act as a background. Since Jack would dangle over a candle flame for quite some time, and since he didn't want his crotch fried, Jack requested that the candle be placed not directly underneath, but instead slightly in front of himself, closer to camera. When I asked, "Are not your trousers fire-retardant?" he politely pointed out that "we" no longer call it fire-retardant; political correctness mandates that we call it 'Fire-Impaired' and that no, they were not fireproof." Finding his explanation reasonable and because I felt that I should not be conversing with an inanimate object, I obliged. For more details on the set-up, see 'Set-up in Detail' and 'Camera Info'.

Creating magical lighting with just one light, as in this image of Jack, works better and much faster if you create your lighting (ratios) with the aid of a meter rather than doing it by trial and (lots of) error. A handheld meter is the tool of choice; however, temporarily removing your camera from its tripod and setting its internal light meter to spot-mode could work too. To find the best exposure for Jack and to set the lighting ratios accordingly, I pulled out my trusty Sekonic light-meter. However, I had to work a little differently compared to metering for something like a portrait because of the small size of the subject and the close proximity surrounding props. Generally speaking, hand-held meters are too large and bulky for accurate light readings on such small set-ups – I found it impossible to get the white dome of my meter anywhere near Jack's face. I have an attachment for my old Minolta IV meter that consists of a tiny white incident dome on the end of a slim goose-neck that then plugs into an auxiliary port on the meter via a cable for taking incident readings in tight spots. But even this solution is awkward and too large so I long ago scrapped it and the notion that I could get any type of accurate incident readings on tiny sets and opted for reading directly off the subject with a 1" spot reflective meter – my Sekonic LR-758DR meter is



1

not only an incident meter, but is also a 1" reflective spot-meter; this is very convenient for it allows me to handle any metering challenge with only one meter. There is, however, a downside to working with only reflective meter readings – it requires you to think – you need to interpret or 'zone' the readings. If you are not experienced at zoning you can place a small piece of a middle-grey card against the subject and take a spot meter reading off the grey card scrap – whatever it reads will be the exposure setting you need to correctly expose the tones directly behind the card (see Image 004). By the way, a scrap of white office paper would do the trick too, just remember to compensate by two f-stops since white paper is about two stops brighter than middle-grey – in other words, whatever the reflective meter readout displays, increase this exposure by two stops.

And finally a wee bit of Photoshop for improving the candle flame and to remove the magic-arm supporting Jack; I found that if I wanted a nice big juicy flame as we see in the final image, that it lit Jack too much, so in the main exposure I shot the flame when it was first lit so it wouldn't have time to build in size. A second exposure was taken once the flame had time to build. These two versions were stacked together into Photoshop's layer panel with the small flame version as the background layer (see Image 002 G) and the big flame version in a layer above (see Image 002 H). The

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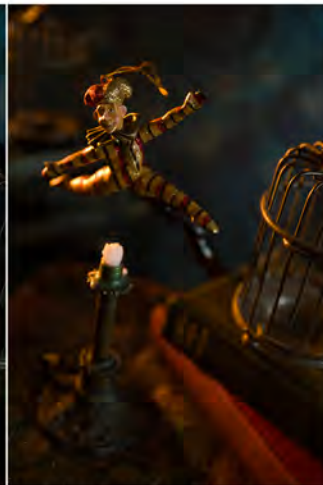


big flame version was hidden from view with a Hide-All layer mask (black layer mask) and then you just select parts of it; primarily the flame and its big halo were painted into view over the background layer using the Paint Brush tool and with white selected as the foreground colour. At the end of the shoot I shot a final frame where Jack and his magic-arm support system had been rotated to the left side of the frame (see Image 002 I). This shot gave me a version with the magic-arm overlapping a different area of the background. Now it was a simple matter to paint into the composite the non-magic-arm background once again using a Hide-All layer and a little more white 'paint'. Obviously registration from one image to the next is paramount and so a tripod was used. Once the composite was finished, I added some noise to the image to give it a grainy feel (see Image 001).

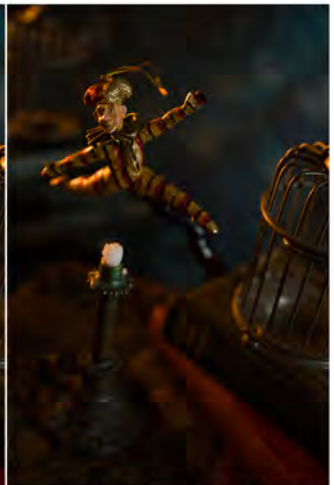
So there you have it, one light, many sources and a little Photoshop, but before I sign-off, I'd like to leave you with this; I was at an art gallery this past weekend and it struck me, as it often does with art, that it may be more important to have good art-speak than it is to have great art. So just in case, I thought, I better cover myself: What does this secular Yule-tide, politically correct image mean? Well, Jack may be playing with fire, but much more is going on here – the scene shows Jack fleeing the bonds of his past. The cage behind him representing those bonds or imprisonment, his gaze to the left symbolises the past (the right would symbolise the future), and the cage in front on our right signifies that we can never be truly free, not even carefree Jack with his fire-impaired pants. Really? Anyhow that's my art-speak and I'm sticking to it).



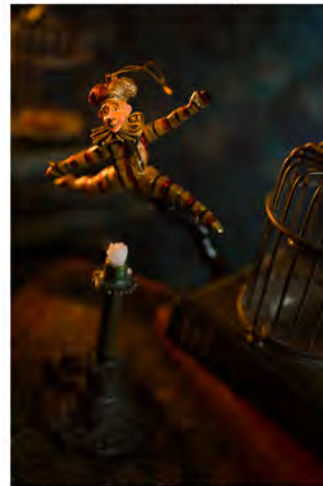
A: Ambient Only



B: Add Origin_Bk Lighting



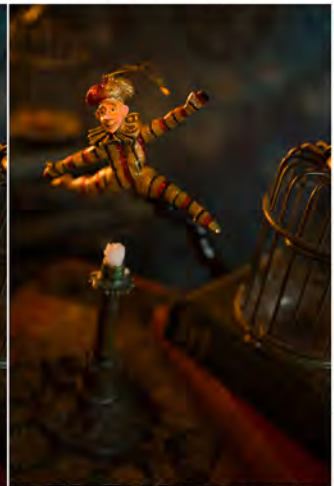
C: Add Backlight Gobo



D: Add Main Reflector



E: Add Fill Reflector



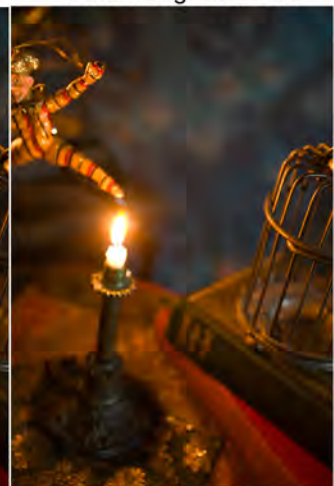
F: Add Bkgr Reflector



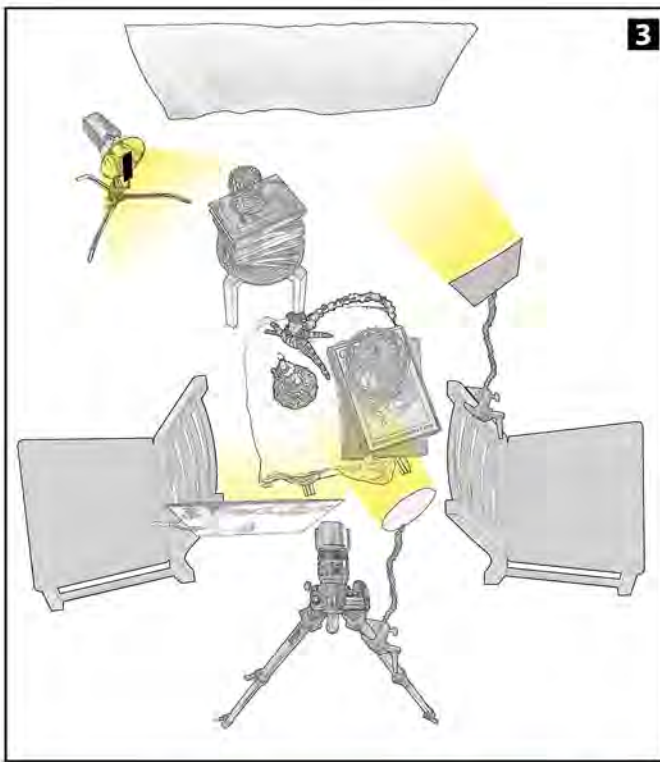
G: Add Candle Flame



H: Large Candle Flame



I: Move Jack



3

Set-up In Detail:

- Height of subject: 33" from floor to Jack's eyes.
- Tabletop surface height: 24" from floor to bar stool top.
- Ambient light: 178" inches from Jack on the camera-right side of the set was a large window, this window created side lighting on Jack and the props. An incident meter reading taken near Jack with the dome pointed at the window read f2 at 0.5 seconds, this reading equals one-stop darker than the camera's exposure setting (see Image 002 A).
- Light origin (strobe): a Lightrelin 1200 watt mono-bloc studio strobe on a floor stand was positioned 32" above the floor some 28" behind and to camera-left of Jack. It was set to 1/2 power and was tilted up at 3.7" to spill over the set. This delivered a volume of light that measured f 2.8 and 1/16th at the back of Jack (see Image 002 B).
- Main-source: a 5" diameter disk of silver foil-board (aluminium foil works up above and a little to the camera-right side of the set; it caught the light spilling over the top of the set from the Lightrelin studio strobe. This silver reflector sat 43" above the floor and was just 11" from Jack's camera-right eye. It was attached to a magic-arm which was clamped to the camera-right side of the tripod leg. To read this reflector's brightness on the subject, a small scrap from a grey-card was temporarily placed against Jack's face. A 1" spot reflective meter was used to take a reading off the grey-card. After adjusting the reflector, moving closer and further from the subject as well as bending the foil disk, I got it to read exactly where I wanted it - 1/2 a stop under the camera exposure setting (f2.0 and 1/16th). The ambient light, the fill reflector, and the candle flame added to this, pushing the exposure of Jack's face to a bit brighter than correct, just where I wanted it (see Image 002 D).
- Backlight Gobo: After the volume of light from the main-source reflector was metered, it was apparent that way too much light was striking the back of Jack relative to the amount striking his front from the main-source reflector. The resulting ratio put the light from this source at almost 1 stop brighter than the camera setting. Wanting to make it 1 and 1/2 stops darker, a strip of 1" x 5.5" black construction paper was positioned 4" in front of this strobe head to partially block light off the back of Jack. Careful placement of this gobo made it possible to not block any of the light spilling over the top of the set. This allowed me to reduce the backlighting without affecting the frontal main-lighting. With this go-between (gobo) in place, the light striking the back of Jack reads f2.0 and 1/16th (see Image 002 C).
- White fill-card reflector: a 15" by 17" white cardboard FedEx® envelope was clamped to the back of a chair to the camera-left side of the camera, 10" from Jack's face. It caught light spilling past Jack from the strobe and reflected it back onto the front of the set. It read f1 and 1/16th or 3 stops below the camera setting (see Image 002 E).
- Background Reflector: a 5" x 10" piece of silver foil-board was clamped to a chair positioned to the camera-right side of the camera. This reflector re-directed light spilling over the top of the set on to the blue scarf background behind Jack. This reflector sat 25" from the scarf background (see Image 002 F).



4

Camera Info:

- DSLR with full-frame sensor.
- Lens: 28–70mm set to 45mm
- Exposure: f2.8 @ 0.5 seconds, 100 ISO.
- Camera angle: 25° forward-down-tilt .
- Camera sensor distance to Jack's eyes 18".
- Camera height: 39" from floor to middle of imaging sensor.

Dave Montizambert lectures internationally on lighting, digital photography, and Adobe Photoshop. He is also a published author having written two books on lighting and digital photography (www.montizambert.com) plus numerous magazine articles on these topics in North America, Europe, Russia and Asia. Dave also creates Lighting and Photoshop tutorial DVDs for www.software-cinema.com and www.photoshopcafe.com. Dave is available for lectures and workshops in your area and can be reached through www.montizambert.com. Also check out Dave's free on-line lighting tutorial videos at www.montizambert.com then click on "Learn From Dave" and again on "!!!!!!!Free Stuff!!!!!!!" and his not-so-free new video on facial retouching using frequency separation, for sale this December.

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Part 34: Jack Be Nimble

