**ASSIGNMENT 5**

**GAGAN KAPILA-056-214425**

**HDR FUSION**

In image processing, computer graphics, and photography, exposure fusion is a technique for blending multiple exposures of the same scene (bracketing) into a single image. As in high dynamic range imaging (HDRI or just HDR), the goal is to capture a scene with a higher dynamic range than the camera is capable of capturing with a single exposure.

By using different exposure parameters on the same scene, a wider dynamic range can be represented and later merged into an image with better dynamic range. After correcting for small shifts that may inadvertently happen with hand-held devices, the full-image can be fused in two ways:

* A higher dynamic range raw image can be reassembled and tone-mapped like usual HDR images,or more commonly:
* A blended image can be directly produced without reconstructing a higher bit-depth.

the interface presents the preview area, the

images used (checked) in the generation of the preview and

a histogram. This mode preserves the full dynamic range of

the image.

To adjust the white point of the image, simply use the slider.

Adjustments information is saved in the HDR file and applied

each time the file is opened or used.

The term exposure fusion is now typically given to the automated process of combining multiple images into one using software. Prior to software automating this, photographers have been doing this for years, in both film terms and digital. In the digital sense, we could take two or more images, and splice in elements from each to combine them into one final image. The result many times would prevent areas from being overly blown out highlights or lost detail.

The real magic of exposure fusion is that the software is very quick at determining what are the best pieces from each image. You could do this yourself in Photoshop with a huge amount of time, but the entire process is automated using algorithms in the software and really speeds the process up. To a degree this is the same as exposure fusion, but at a much more basic scale. An example of this is given below in the further reading for the Luminous Landscape.

Exposure fusion can also be used to stack focus and achieve images that otherwise would not be possible due to a narrow depth of field. This can be handy in many instances and the real trick is that exposure fusion can usually calculate the optimal image on its own.

**HDR TONING**

We don’t always have a multi-exposure shot that allows us to

do a DHR merge. Photoshop works around this problem with

the help of HDR toning, which simulates the result of merging multiple images.

To do this, the software applies a tone curve reducing the

overall contrast of the image. The luminance of each pixel

is then altered evenly so that all data fits within the HDR

luminance range.

You’re probably aware of the fact that you’d need to shoot and process between 3 to 5 different exposures for optimum HDR result. These exposures are optimized by the systematic selection and combination of the correctly exposed sections from each exposure. In photography language, the processes are simply referred to as tone mapping and photo merging – collectively called High Dynamic Range Imaging (HDR or HDRI) technique.

Open the desired image you’d like to Tone Map

Step 2. Select the appropriate tool to begin: “Image => Adjustments => HDR Toning”

Step 3. I’d recommend that you use the Default preset. Simply fine-tune the settings of the “Default” until the image attains a suitable or desirable appearance.

Step 4. Adjust the slider settings to attain the desired appearance. Keeping the values low is one of the surest ways of reaching a natural-looking result. The result? A tone-mapped image.

Step 5. Save to your choice format.

Aurora HDR is the world’s most efficient “HDR” and “Map Toning” software. It’s enough easy to use, intuitive, fast and fantastic! One of the most beautiful features of this app is that it works as a standalone as well as a plugin to host applications like Photoshop, Lightroom, and others.

Installing Aurora HDR on your Photoshop is one the smartest ways to improve your HDR and Map Toning workflow all the time. Aurora is a product of the collaborative work between Mac’s photo app-giant, Macphun, and the world’s renowned HDR photographer, Trey Ratcliff, providing you with sophisticated HDR editing tools and detailed turorials.

Whether you’re using Aurora HDR as a standalone or plugin, you never have to worry about the technicalities often associated with using Photoshop for your workflow. Simply put, Aurora HDR is smart and excellent, and can be described as Photoshop’s HDR tone mapping redefined!