



PHOTO RETOUCHING WITH PHOTOSHOP



A Designer's Notebook



Demonstrated by leading French artists

GÉRARD NIEMETZKY

FRANÇOIS QUINIO

DOMINIQUE LEGRAND

THIBAUT GRANIER

ANTONY LEGRAND

POISSON ROUGE

ÉRIC MAHÉ

CYRIL BRUNEAU

VINCENT RISACHER

Translated by

MARIE-LAURE CLEC'H



Before the development of digital technologies, matte painting was a technique that was reserved for glass artists only. Today, Photoshop, which skillfully combines both retouching and photomontage techniques, occupies an essential place in the field.

studio 06

THIBAUT GRANIER

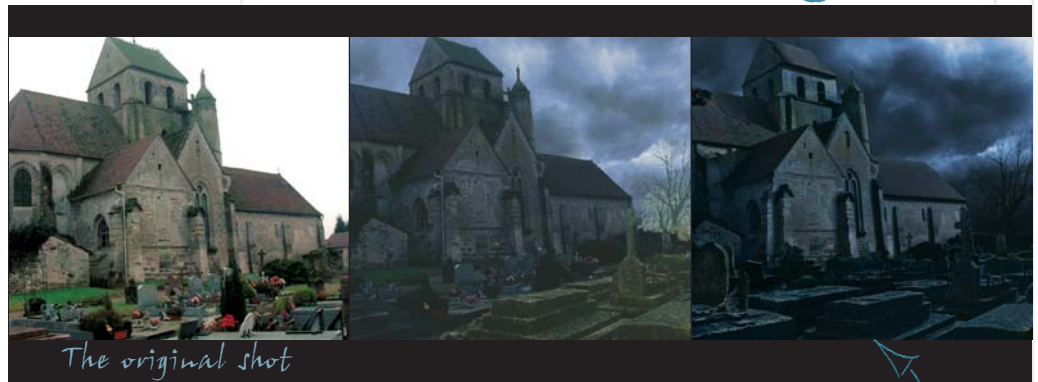
Hardware used

- Nikon FE2 and Coolpix 995 cameras
- Nikon objective 35-70 mm
- Portra Kodak film 160 NC
- Nikon LS 2000 scanner
- Mac G4, 450 MHz biprocessor, 1 GB of RAM

Software used

- Photoshop CS
- After Effects 5.5

Bloody
Mallory



The original shot

Final image

Among the many special effects techniques that are used in the film industry, *matte painting* is the cheapest solution. It is also the most commonly used when it is necessary to put in a decor that does not exist.

For Julien Tycoon's film *Bloody Mallory*, Mikros Image, a Parisian postproduction company, carried out special effects on over one hundred shots. I was entrusted with the creation of three matte paintings, one of which was to represent a night vision of an abandoned church, with a cemetery in the foreground.

The atmosphere had to be eerie and haunted . . .

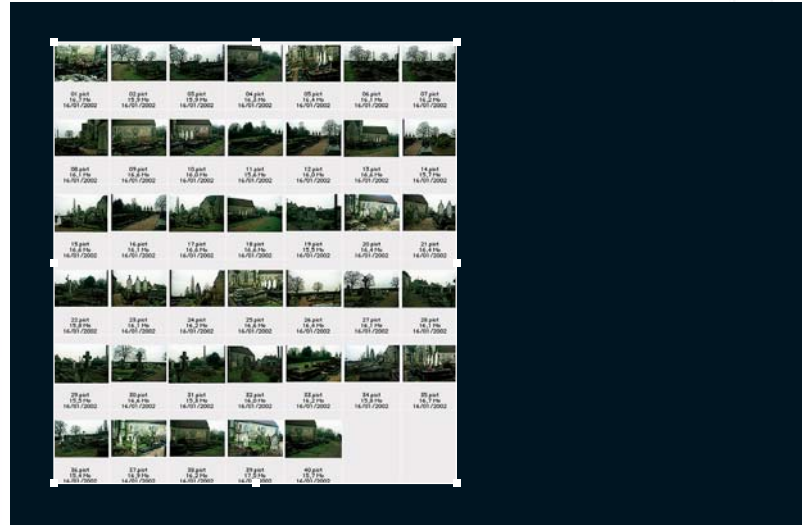
Beyond the difficulty of integrating the elements in relation to one another, the (credibility) of an image lies in the creation of coherent light effects.

S t a g e

The photograph

Thanks to the Internet picture library, we found the Church of Gouzangrez, in the Oise Valley. It caught our attention for two reasons. Its massive architecture met the producer's wishes and it had some badly damaged tombs—which corresponded perfectly with the "eerie" atmosphere that he was seeking.

The problem we faced was that the most interesting shot of the building covered the most recent part of the cemetery. It looked too "clean." It was thus necessary to photograph the tombs that were damaged separately, and then resort to a montage. Shots of the tombs were much more delicate to handle than those of the building. Indeed, right from the beginning, we had to keep in mind where each one would fit in the final montage. Their position and perspective were crucial. The fewer errors we would make during the shooting, the easier the montage would be.



The (weather matters a lot
in this kind of shooting.



If the majority of photographers express the subtlety of their talent thanks to the way they master lighting, it is much more difficult to assemble, in a realistic manner, images which do not have the same light directions. Since none of the tombs could be shot in the same ambient light, I resorted to a rather simple trick: the sky had to be overcast. Indeed, clouds serve as a huge light box which diffuses the sunshine and blends it. No shadows, no depths: it would be for us to recreate them whenever we needed them. ■



Night sky

Distress
roof

Replace houses
with tree line

Add
moon

Distress tombs,
or replace them

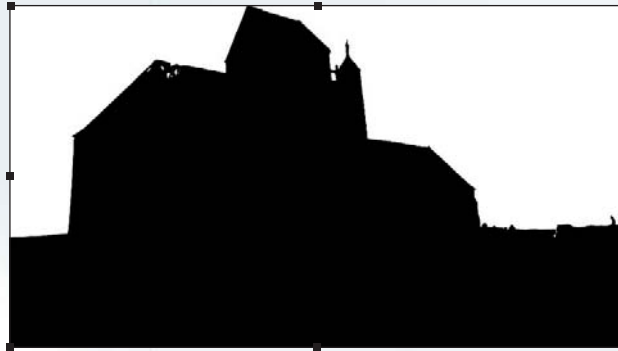
Stage 2

Creating the sky

Bloody Mallory was a fantastic action film inspired by low-budget films and mangas. As a consequence, some caricatures or inconsistencies were allowed, such as an extremely overcast and cloudy sky, which, nevertheless, was lit by a strong source of light.

The initial elements that were used to create the backdrop of the image consisted of two photographs of the sky that came from earlier shots. We placed the first photograph underneath a copy of the outlined church, in order to cover the entire horizon with clouds.

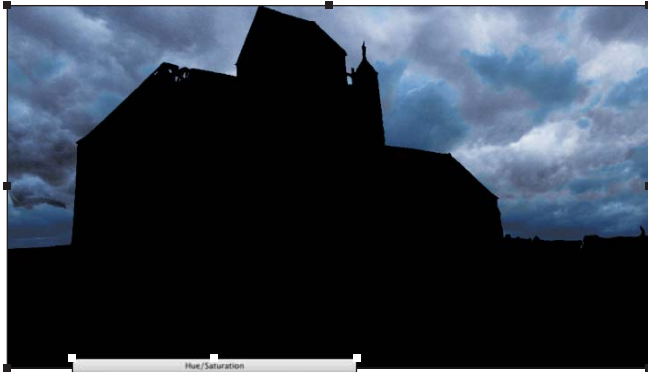
The second sky was interesting because of the clouds that were located in the top part of the frame. Once placed over the first sky, in Darken blend mode, it was possible to mix the clouds together and thus create a new sky, entirely covered with clouds.



The Darken mode enabled us to mix both images without having to resort to outlining which, considering the subject, would have been very difficult to perform properly.

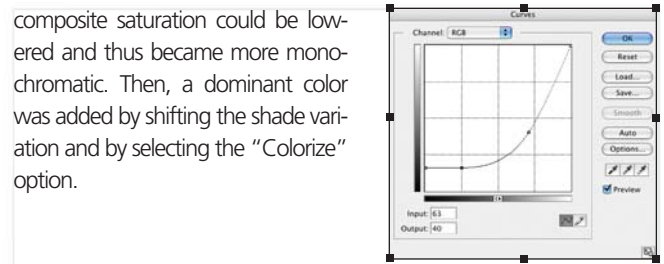
As for the two images of the sky, only the (clouds) were of any interest to us because of their low light.

Stage 2

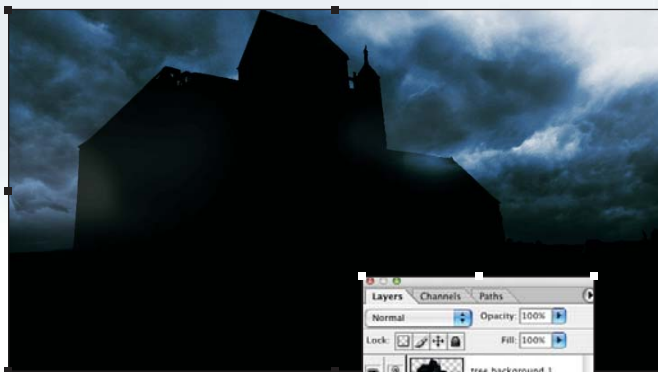


Since these two images were the result of two different shots, they had to be calibrated. A conventional calibration

would have necessitated the modification of one sky in order to harmonize it with the other. However, in this case, both had equivalent contrast ratios—only their chromas differed. Thanks to a Hue/Saturation calibration layer, the global



composite saturation could be lowered and thus became more monochromatic. Then, a dominant color was added by shifting the shade variation and by selecting the “Colorize” option.



Thanks to a second calibration layer in Curves mode, it was possible to increase the composite contrast by overwhelming the lowlights. However, the sky should not be black. That is why we lifted up the foot of the curve in order to increase the value of the lowlights and make them more luminous.

We proceeded the same way for the moonlight. Then, we added some bits and pieces of very bright clouds to the sky, according to the Overlay blend mode. ■

Stage 3



not a problem, since the image did not have too much of that to begin with.

We followed the same principle as when we calibrated the sky: a Hue/Saturation layer grouped with that of the church made it possible to lower the saturation of the church. However, we did not re-define its color, since it was important to keep the original colors relatively intact. That is why, this time, the dominant color was affected by a light opaque layer (50%) which contained some color taken from the sky. By the end of this stage, the church and sky definitely

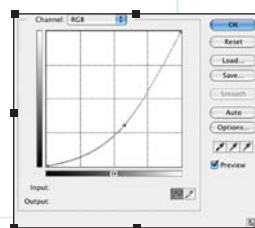
“American night” calibration

American night (often called “day-for-night”) consists of filming a daylight scene by under-exposing the image and by placing a blue filter in front of the lens. This is also widely used in digital special effects.

In order to under-expose the church, a calibration layer was created for each curve: a point was then selected in the middle of the layer and sharply lowered in order to make the image more dense. As a result, the slope of the curve increased in the highlights area and that gave them more contrast. That was



looked more homogeneous. Nevertheless, we kept all these adjustment layers as they were, so that they could be modified whenever the rendering would require it. ■



It was important to keep the original **colors** relatively present.

Stage 4

Making up the cemetery

The making up of the cemetery was a special phase. As we mentioned in Stage 1, numerous negatives were taken and they did not always have a similar exposure. Little by little, tomb after tomb, we selected the elements that we found interesting. We outlined them, calibrated them, and distorted them in the image foreground.

Photoshop's weakest point is layer distortion. The only major tool that could be used was the Transformation tool. Unfortunately, it offers very few possibilities when we compare it with the type of tools that come with After Effects, for example.



Throughout this process, we had to keep in mind that the image carried out with Photoshop was only the preparation of elements which were to be assembled and animated, using After Effects. Indeed, the sky was going to move and fog would be added between the tombs.



That is why each added element could never be dominated by the inferior layer of the church. ■

Stage 5

Shadows

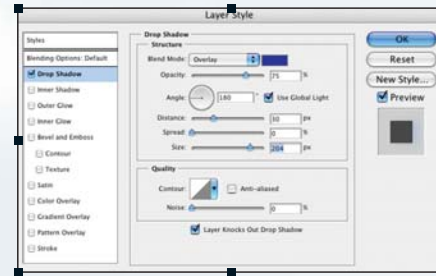
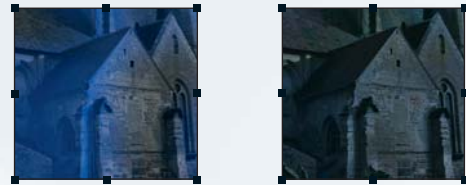
When we were taking care of the sky, we suggested the presence of a strong source of light (the moon) located in the top right corner of the frame. Consequently, we had to create the shadows that derived from that light and which would constitute the densest parts of the image.

When we duplicated the copy of the church and put it under Multiply blend mode, its density sharply increased. The values that had been reached corresponded to the levels that we wanted to attribute to the shadows. By adding a black mask

to the copied overlay, the latter disappeared entirely, revealing the original church underneath. It was in this mask that we were faced with the most delicate task: using white flats. Using either the lasso or the brush, we had to restore all the areas of the church that were not lit and that had been darkened by the various shadows that had been added to the shapes.



Once the same operation had been carried out on each layer of the tombs, we could start thinking about the final rendering of the decor.



Here is a trick: we applied colored effects to the masks of the shadows we had just obtained. For example, the shadow effect made it possible to create various color gradations (blue on the illustration) all around the shapes we had just outlined. We matched the colors we had just applied to those of the source (white) and shadows (generally blue). Now, if we selected the proper blend mode, it would be possible within a few, simple actions to give the shapes richer, yet irregular lighting effects without having to retouch the whole thing, step by step. The last image shows the result that we obtained. ■

The shadow mask

Stage 6

Final touch

It was essential to polish up the rendering and improve the integration of the various elements in order to obtain a perfect montage. For example, even if the linking up of these elements had been correctly calibrated, overly sharp outlines would show. Therefore, each mask had to be carefully checked and cleaned of any imperfections. Potential blurry effects, due to relative distances and depth of field, also had to be taken into account.



Let us not forget that other people were going to take over. This image had to undergo new modifications and it was not meant to be viewed on a computer screen, but in movie theaters.

In order for the special effects person to integrate the animation effects he was going to add using After Effects, it was basic to make our project as simple as possible. So we fused as many layers as we could and still ended up with more than 15! The special effects person could probably use the shadow masks: we saved them all in the stack of image layers.

Even when we believe that the *(decor finally represents*
an homogeneous universe,
the job is not quite done yet.

All we had to do now was to check that the images matched the output calibration profiles that are specific to the cinema. In the case of our church, which represented an extremely dark universe, the wrong set up could have disastrous consequences when viewing time came: the risk was that nobody would see anything . . . ■

