



Paradox Development Studio

Hol 4 - Portraits Style-guide

Matching the Art Style

One of the most important aspects of creating portraits for HoI4 is matching the art style of existing portraits in the game. This includes matching the level of detail, lighting style, cropping and coloring. Keep in mind that HoI4 portraits have a fairly realistic style with very slight stylization. These are the 2 most important guidelines to create a portrait that fits in the game:

1. Match the light: reference images will come with various degrees of quality and lighting styles. The artist is required to try as best as they can to match the general value structure of existing portraits, using realistic looking lighting with careful attention to highlights and blending shadows smoothly (use sharp shadows only where it makes sense realistically). Steps to adjust values will be provided later in the workflow section, do not underestimate that step!
- Level of detail: Even though these portraits seem small they are painted at double size to allow for a good detail level. Do not be afraid to use 1-2px size brushes for hair highlights, facial hair or detail in general. Do not leave in fuzzy or unfocused lines.



Level of detail too low, thick lines, too "cartoonish"



Desired level of detail



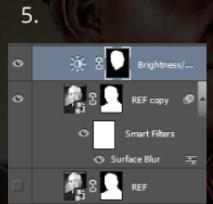
1.Unrealistic lighting. 2. Strange lighting and details out of focus.



Good highlight/shadow balance

Workflow : Setting up

- 1 A blank Photoshop document will be provided. Open it and rename it Portrait_Firstname_Familyname.psd (the names being the person you're making a paint over of).
- 2 Import the reference image as a Smart Object so you can resize without loss. Look at the existing Leader Portraits to determine how you should scale the photo, usually only upper chest and above, no hands. Try to match head size with existing portraits.
- 3 Create a layer mask on the image and mask out the background.
- 4 Use the Smudge tool to smooth out the grain in the photograph. Don't use a too big brush size, and smudge with small strokes. You want to keep the shadows and highlights to keep the facial structure. A HOI Smudge Brush will be provided.
- 5 Create a Brightness/Contrast or Levels adjustment layer to make sure the photograph is not too dark or too bright. You can mask the adjustment layer to leave out the parts you don't want to adjust.



Workflow : Grey scale paint over (face)

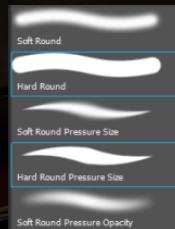
As shown in the blank document provided, the paint over is done in 2 stages, face and clothes. It is not necessary to paint everything in one layer but try to keep those 2 sections separated.

Click Window>Arrange>New window for [File Name] to open a second window for the portrait you are working on. Resize the window to the portrait's final size (usually 50%) and look at it frequently while painting to check that what you're painting looks good on the finished product.

- Have references up while you are working. Open the reference photo in a new window. Do the same for the portrait compilation provided.

Use Hard Round Brush for the majority of the portrait painting and Hard Round Pressure Size Brush for detailing and hair. Paint with 100% opacity and flow, and with Pressure for Opacity turned on. You can use the smudge tool if it's really needed, but try to do most blending by painting with the hard round brush.

- Pick values from the photo and adjust them with the brightness slider in the color picker window. Study the facial structure and simplify and accentuate the shapes of the face; i.e. the shadows and highlights while painting. Emphasize some highlights more than in the photo to create more contrast and make the picture interesting. Think of the style similar to Norman Rockwell. Blocks of hair can remain undefined, depending on the lighting, but make sure the hairline and highlights are sharp.



Accentuating shapes
and making them more defined



Adding appropriate highlights
and shadows if there is none or few

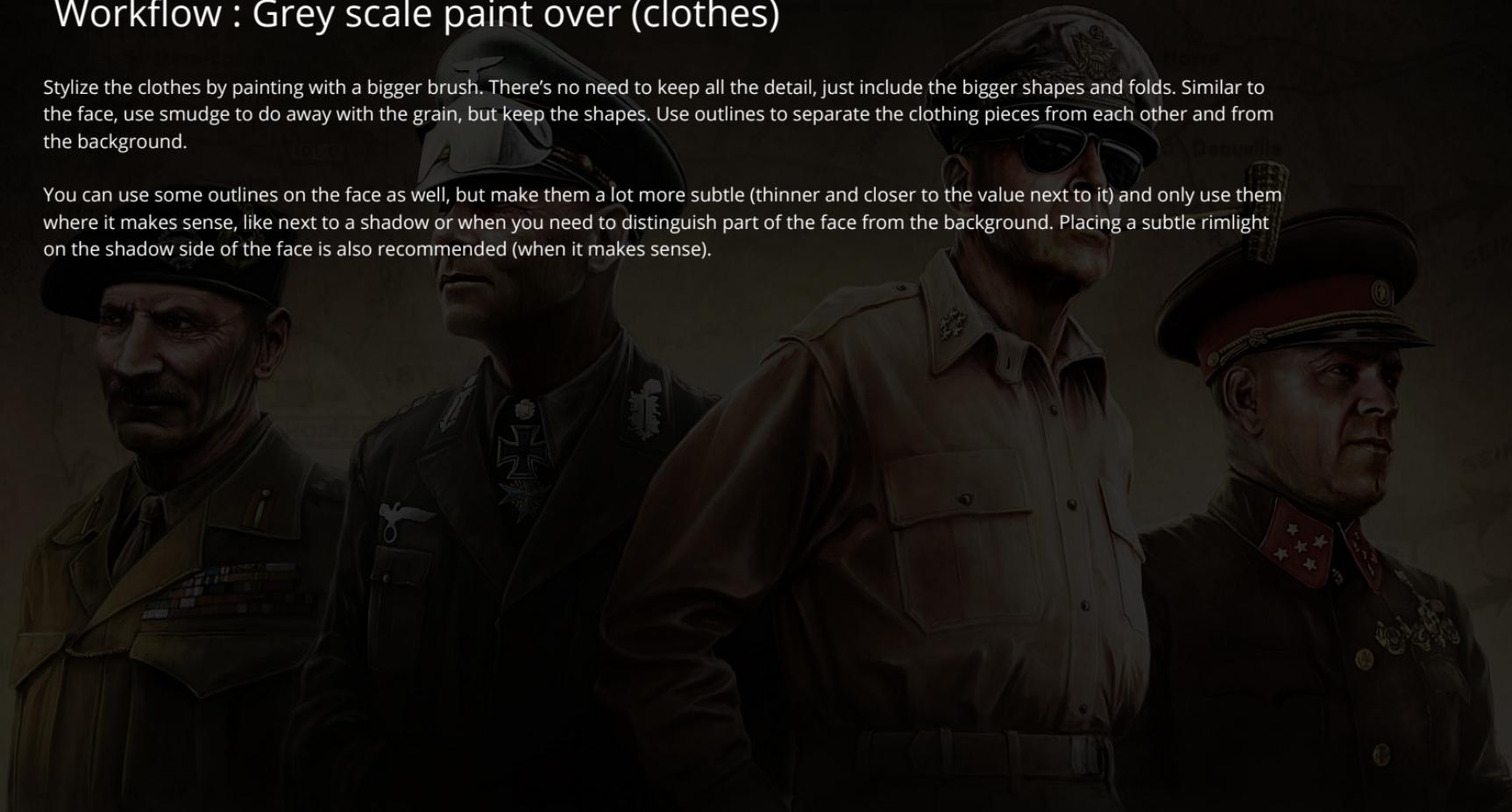


Define hairline and highlights

Workflow : Grey scale paint over (clothes)

Stylize the clothes by painting with a bigger brush. There's no need to keep all the detail, just include the bigger shapes and folds. Similar to the face, use smudge to do away with the grain, but keep the shapes. Use outlines to separate the clothing pieces from each other and from the background.

You can use some outlines on the face as well, but make them a lot more subtle (thinner and closer to the value next to it) and only use them where it makes sense, like next to a shadow or when you need to distinguish part of the face from the background. Placing a subtle rimlight on the shadow side of the face is also recommended (when it makes sense).



Workflow : Colorizing

Enable the color background by making the layer folder called "yellow" visible in the layer panel under "BG".

Apply color in the Color Mode layer. There is a palette with colors included in the template, where the three top left colours are skin colours used for European and Caucasian-American leaders. The first is the base color, the second is used for desaturated areas (shadows, the chin) and the third for areas that usually look more red (nose, lips, cheeks, inside the ears, corners of the eyes). The second should be used sparingly, while the third should be used more generously.

Use the Soft Round Brush when applying the second and third skin color.



You can also color pick from existing portraits for uniforms, decorations and other skin colors. Look for references online when unsure.

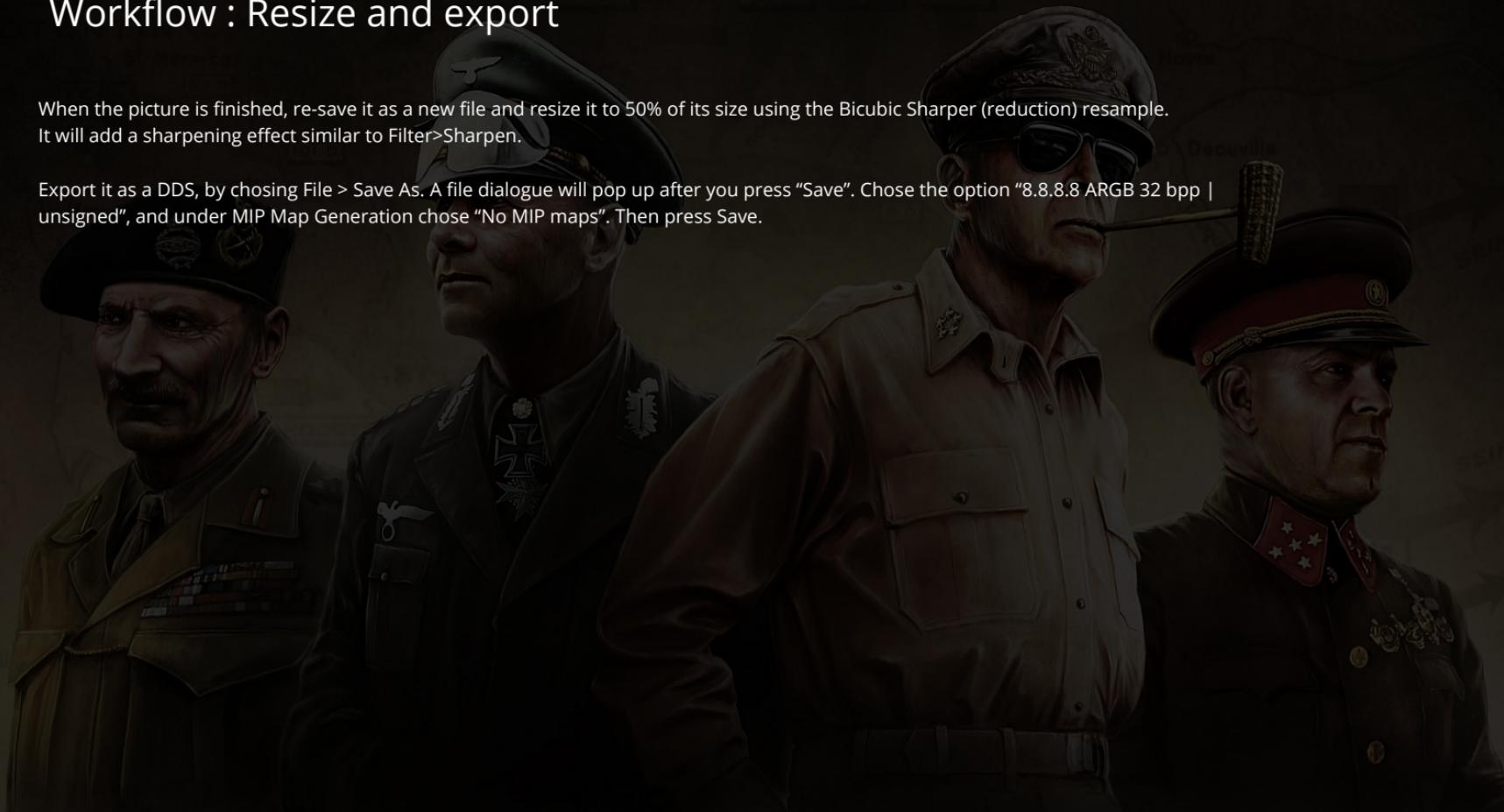
Sometimes you won't get a color you're satisfied with when working with a color layer. In that case, try an Overlay layer or Multiply layer.

After or while colorizing, make additional fixes to the gray scale paint over. Perhaps some elements need to be darkened to get the proper color, or extra highlights need to be added.

Workflow : Resize and export

When the picture is finished, re-save it as a new file and resize it to 50% of its size using the Bicubic Sharper (reduction) resample. It will add a sharpening effect similar to Filter>Sharpen.

Export it as a DDS, by choosing File > Save As. A file dialogue will pop up after you press "Save". Choose the option "8.8.8.8 ARGB 32 bpp | unsigned", and under MIP Map Generation choose "No MIP maps". Then press Save.



Process example



I cropped the picture first.



I straightened it and used the smudge tool to smooth out the grain. Losing a bit of detail is OK during this phase but do it carefully.



Adjusted values with a brightness/contrast layer.



Paint over phase. I tried to bring back the details I lost during the smoothing phase. I had the original photograph open and visible all the time as a reference for those details. I accentuated some highlights, defined the hairline and hair in general and pushed some facial features (like nose, eyes and cheeks).

I also fixed some lighting issues like smoothing the shadows in the chin and adding a shadow on the contour of the portrait to frame it better and focus the light a bit more on the eye area. I toned down the highlights in the ear.



Paint over phase 2. Looking at the 50% version of the portrait I noticed I made the cheekbone highlight too strong and it look weird. I went back to the 100% size version and smoothed that highlight away.



Paint over the clothes. I lightened up the suit and defined the shapes of the different pieces of clothing. Pushed the stripes in the suit to be more visible and reduced the detailing in the tie which I thought was too distracting.



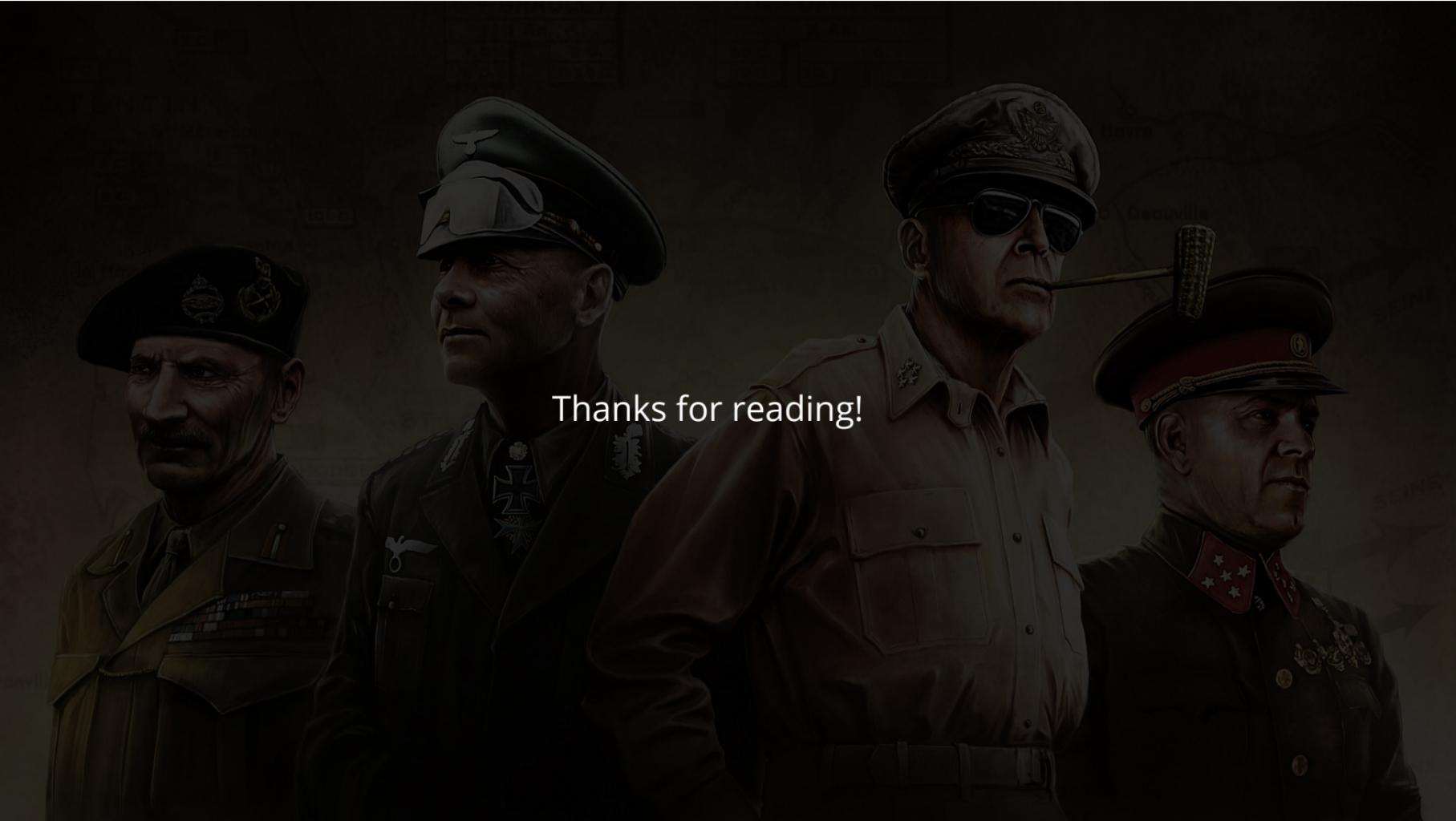
I used a layer with "Color" blending mode to colorize the portrait. I used the color provided in the Photoshop file on a layer named palette.



The final portrait is resized to half with a Bicubic Sharper resample.



Note how in this version a lot of detail has been lost in the process and the lighting looks less realistic. The highlights are too bright and they used a color that makes the skin look a bit too yellow. On the other hand, the detailing on the iris, the clean up of the hair contour and lightening up of some of the shadows works really well.



Thanks for reading!