

May 29th, 2024 - Character Colour Palette Analysis & Lighting Setup Planning

Character Assessment Piece: Countess - Model Colour Palette Analysis



Colour Palette Breakdown



Countess' colour scheme is moody and fairly concise, only consisting of three main colours - black, red and white. Her outfit is a latex material that is mostly black with red accents, and her hair is the same. She has red lipstick and red facepaint and pale white skin.

Colour Planning

Complementary

[Complementary colors](#) for this color, complementary colors are opposites on the color wheel.

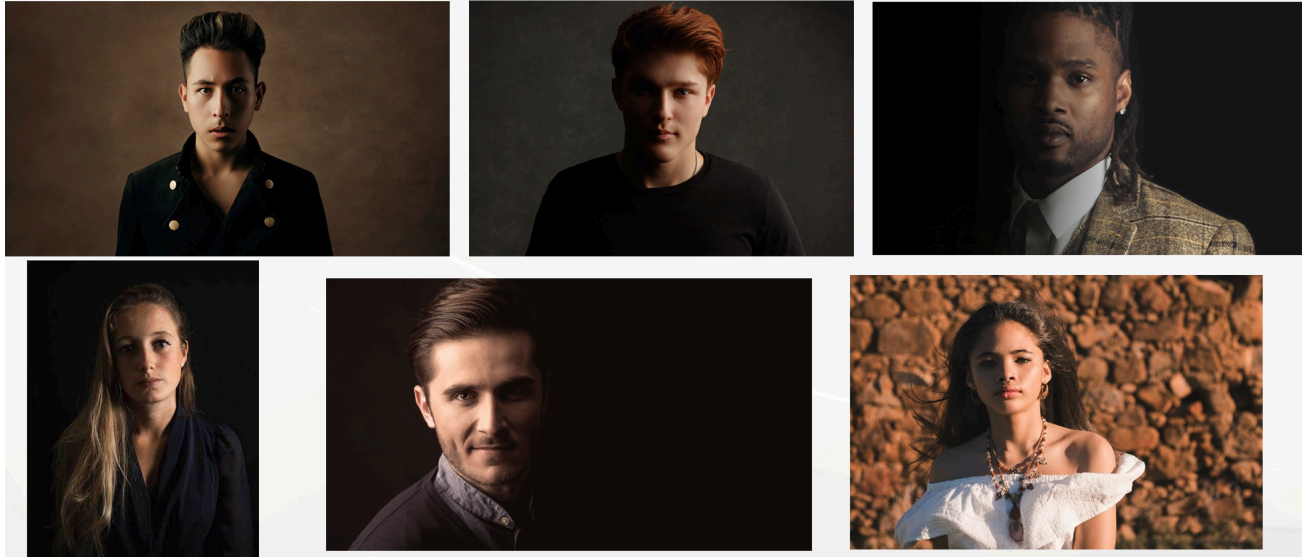


Now that I've looked at Countess' colour palette I can now plan what I want to do with my bounce lighting. Since the red of her design really pops against the neutral palette of black and white, I want to put the most attention into complementing the red. Since blue is a complementary colour, I will use that as the bounce lighting. I also think from a symbolism standpoint it works too, since blue is often associated with cold, and that vampires are undead which is what Countess draws inspiration from. Blue also symbolizes aloofness which can be seen in her serious facial expression. The contrast between the rest of the colour palette will also help to make the render look more visually interesting.

Character Assessment Piece: Countess - Lighting Setup Planning

The general theme I get from Countess' character design is moody, serious, mysterious and intimidating. When I did my character lighting task from week 4, I learned that split lighting uses shadows to create a dramatic effect and that the contrast between the light and dark side of the face conveys mysteriousness but also assertiveness and power. This theme is shown through Countess' pose and facial expression, it is intimidating and assertive as she has a serious expression wielding her two blades. I think this lighting setup is compatible with Countess, so it will be the lighting setup I decide to work with. I will want to set up a reflector to make the face shadowed but the details and features visible.

Lighting Setup References



May 31st, 2024 - Project Setup

The first thing I did was open up a blank Unreal scene. I made sure that my project settings were correct and then added in the base environmental light mixer lights just so I can see what I'm doing, and then I placed the model into the world. I then positioned the camera in a way I liked - I decided to go for a low angle shot originally, as this makes the character appear bigger, and gives a sense of intimidation and power. Once I set the camera into a position I liked, I then looked for a backdrop. I decided to go for a stone backdrop, as the neutral grey wouldn't stand out too much and doesn't detract from the character, and from a narrative perspective, vampires are often associated with castles (e.g. Dracula) so I thought it works from both a practical and thematic perspective. I then placed a post process volume into the project and set the metering mode to manual to give me precise control over the exposure in the scene. I also unticked apply physical camera exposure for efficient control over the exposure. I also played around with some poses, I decided to go for the one below because in the others, the blades are held downwards, and I want to get the blades in the shot without having to move the camera further down.

Default Lighting, Camera in Position



Default Lighting, Backdrop Implemented



Setting up the Split Lighting

The next thing I did was set up the split lighting. I achieved this by placing a low intensity spotlight angled to the left side of the face, leaving the other side of the face and body in the dark. This was too dark at this stage - to properly show off the textures of the model, the shadows need to be less intense. To make a start on fixing this, I added in a reflector on the right side of the model's body so that the bounced light would reduce the shadow slightly to make the left side still in shadow, but the features and some of the backdrop visible. This is still too dark but will be lit up more when the blue bounce light is introduced.


Split Lighting with no Reflector



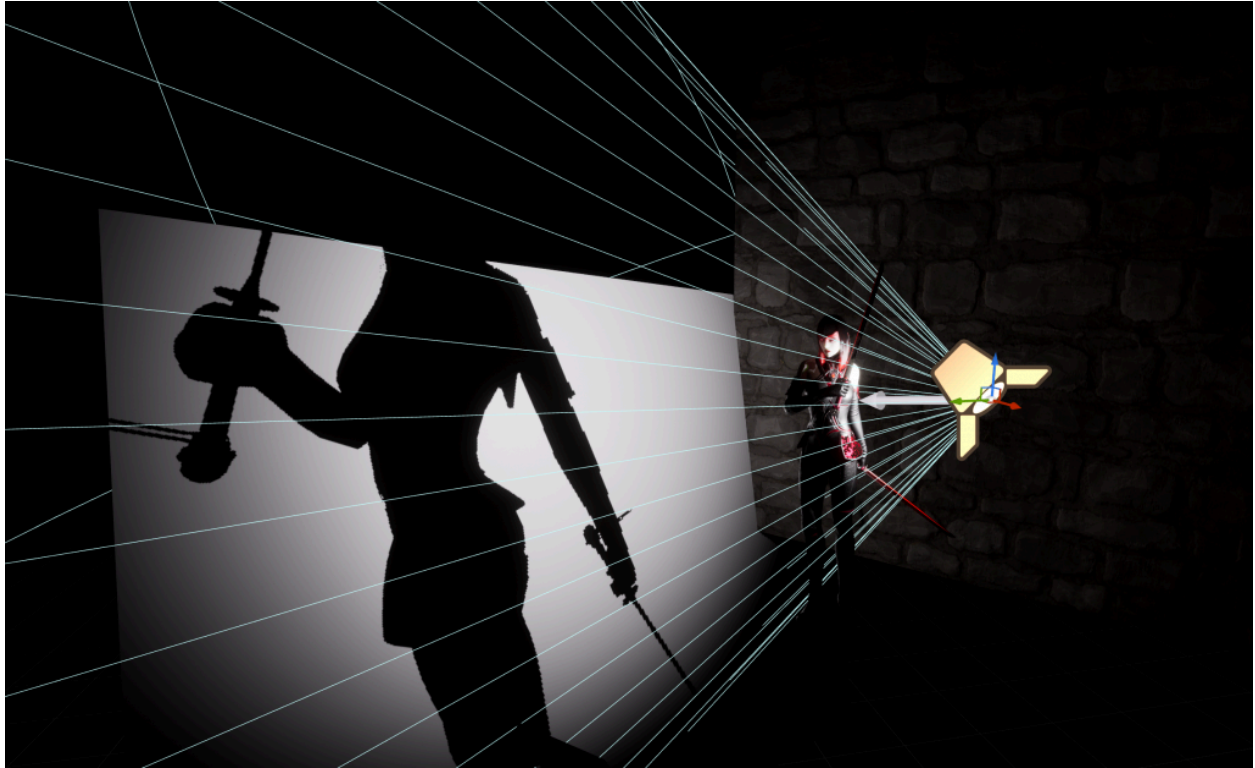
Split Lighting with Reflector



Key Light Settings

▼ Light	
Intensity	5.0 cd
Intensity Units	Candelas ▼
► Light Color	
Attenuation Radius	1000.0
Inner Cone Angle	0.0
Outer Cone Angle	36.83733
Source Radius	0.0
Soft Source Radius	0.0
Source Length	0.0
Use Temperature	<input type="checkbox"/>
Temperature	6500.0
Affects World	<input checked="" type="checkbox"/>
Cast Shadows	<input checked="" type="checkbox"/>
Indirect Lighting Intensity	1.0
Volumetric Scattering Intensity	1.0
► Advanced	

Spotlight #1 and Reflector Setup



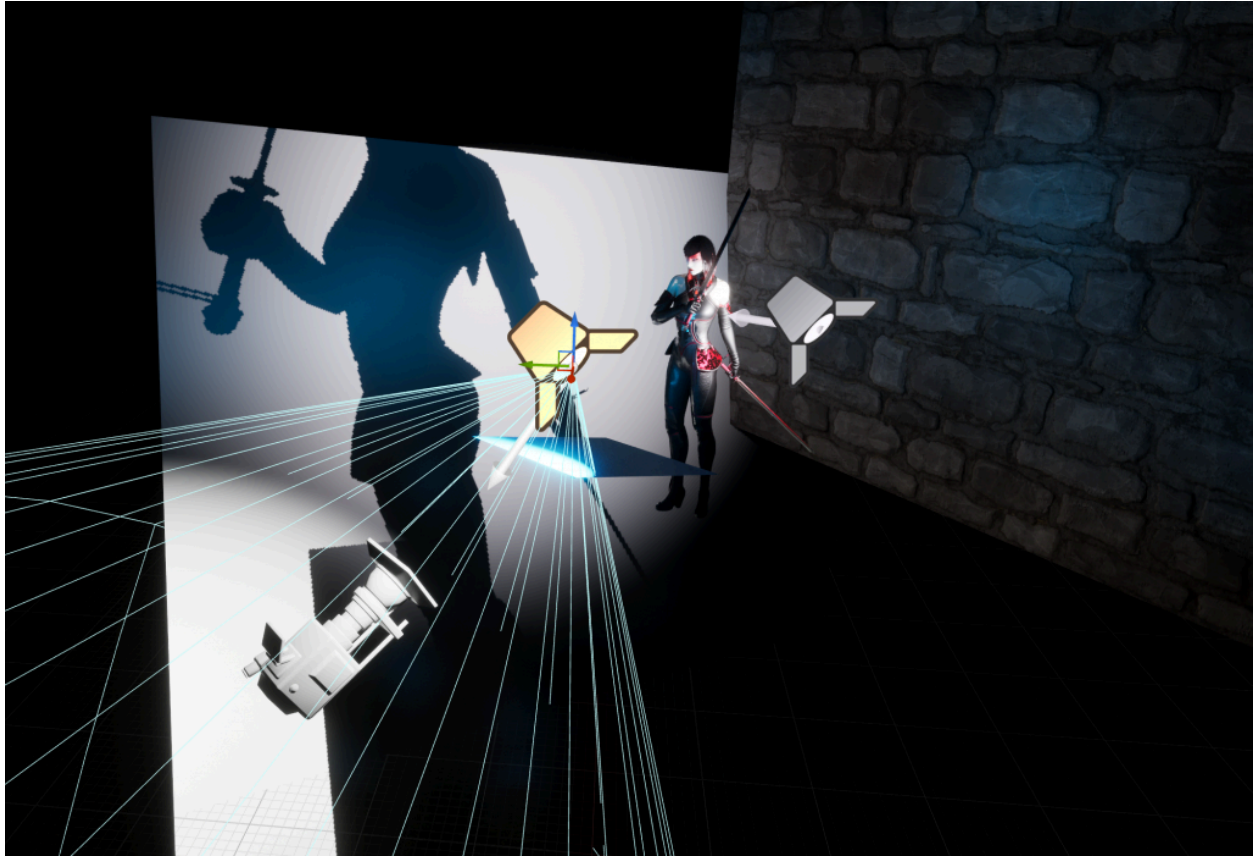
Setting up the Blue Bounce Light

Once this was done, I can now start to add in some colour to the scene. I made a simple material and applied it to a plane and set it at the lower legs angling upwards with another high intensity spotlight shining onto it. This bounce light lit the left side of the face a little more lit so that the features are in shadow but visible, and also gave a pop of light to the latex glove, showing off the material. It also illuminates the left side of the body, so now the whole of the model is visible within the scene. At this point, I was starting to get a good feel for what else I want to improve on and my goal of creating a moody, dramatic portrait shot is clearer.

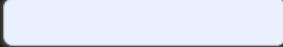
Screenshot with Blue Bounce Light Implemented



Bounce Light Setup



Bounce Light Spotlight Settings

▼ Light	
Intensity	60.0 cd
Intensity Units	Candelas ▼
▶ Light Color	
Attenuation Radius	1000.0
Inner Cone Angle	0.0
Outer Cone Angle	44.0
Source Radius	0.0
Soft Source Radius	0.0
Source Length	0.0
Use Temperature	<input type="checkbox"/>
Temperature	6500.0
Affects World	<input checked="" type="checkbox"/>
Cast Shadows	<input checked="" type="checkbox"/>
Indirect Lighting Intensity	1.0
Volumetric Scattering Intensity	1.0
▶ Advanced	

Backdrop Adjustments

The next thing I wanted to adjust is the backdrop. At this stage, the backdrop is too dark and blending in with the character, making the silhouette less defined. To fix this, I decided to go for a blue rect light and lean into the Purkinje effect and make it look like the scene is taking place at night time and the character's face could be being illuminated by a streetlight. I placed a

rect light behind the character and set it at 5 lux to give it a small amount of light to make the silhouette more distinguishable.




Backdrop With Rect Light



Backdrop Adjustment Setup



Backdrop Rect Light Settings

▼ Light	
Intensity	5.0 cd
Intensity Units	Candelas ▼
► Light Color	
Attenuation Radius	316.348389
Source Width	311.999878
Source Height	1000.0
Barn Door Angle	90.0
Barn Door Length	33.27177
Source Texture	<div>None</div> <div>None  </div>
Use Temperature	<input type="checkbox"/>
Temperature	6500.0
Affects World	<input checked="" type="checkbox"/>
Cast Shadows	<input checked="" type="checkbox"/>
Indirect Lighting Intensity	1.0
Volumetric Scattering Intensity	1.0
► Advanced	

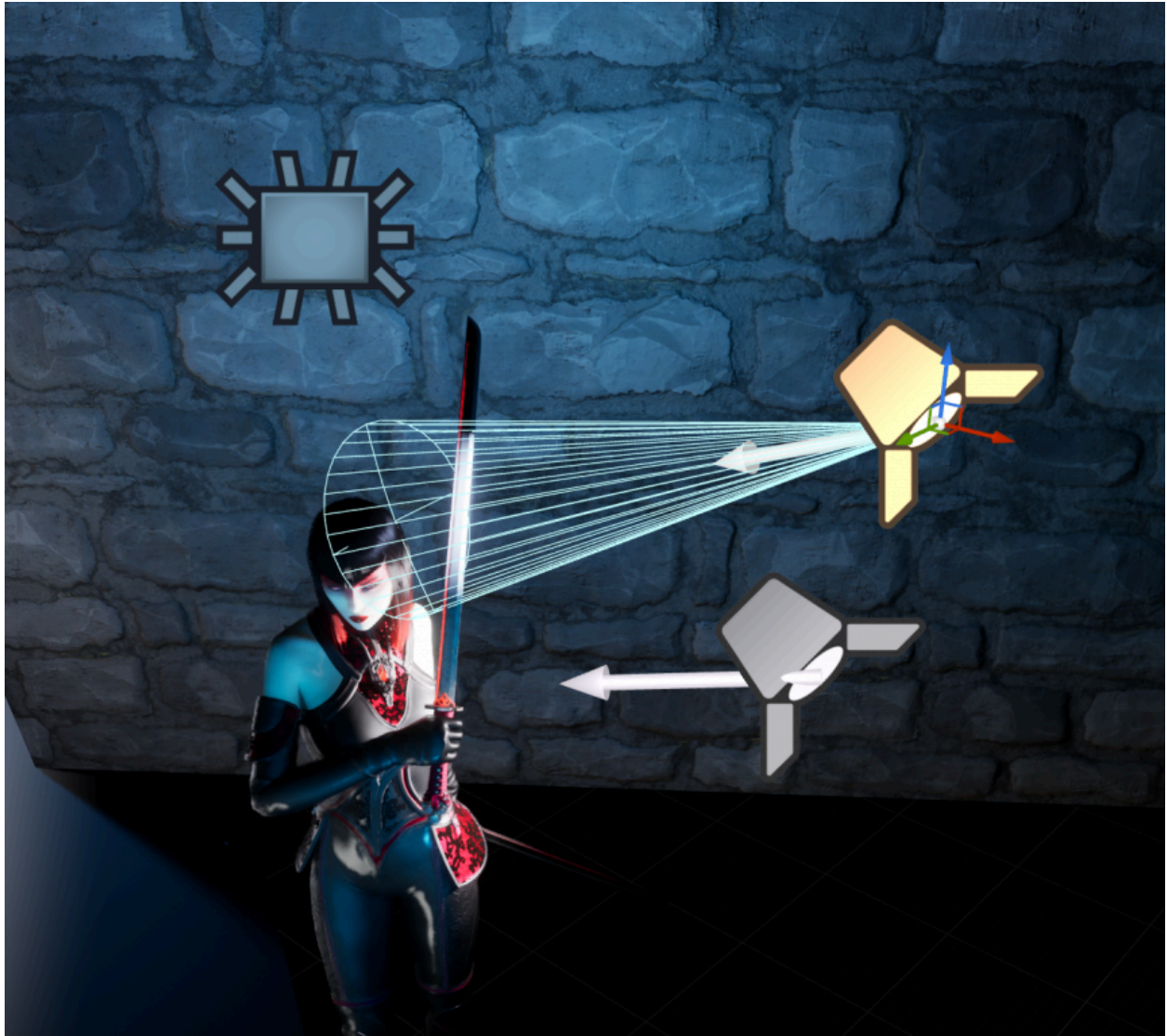
Adding Details

At this stage, I'm happy with the overall look and just want to make some adjustments to make the shot look more interesting. The first thing I did was add a glint of light to the blade to make it pop more. I did this by adding a high intensity spotlight at 60 lux and positioning it close to the blade. I also wanted to add a small highlight to the hair to make it stand out more, so I added

another spotlight at 5 lux, and placed it close to the top of her head to accentuate the silhouette.



Sword Lighting Setup



Sword Glint Spotlight Settings

▼ Light	
Intensity	160.0 cd
Intensity Units	Candelas ▼
► Light Color	<div></div>
Attenuation Radius	96.285973
Inner Cone Angle	0.0
Outer Cone Angle	18.696001
Source Radius	0.0
Soft Source Radius	0.0
Source Length	0.0
Use Temperature	<input checked="" type="checkbox"/>
Temperature	12000.0
Affects World	<input checked="" type="checkbox"/>
Cast Shadows	<input checked="" type="checkbox"/>
Indirect Lighting Intensity	1.0
Volumetric Scattering Intensity	1.0
► Advanced	

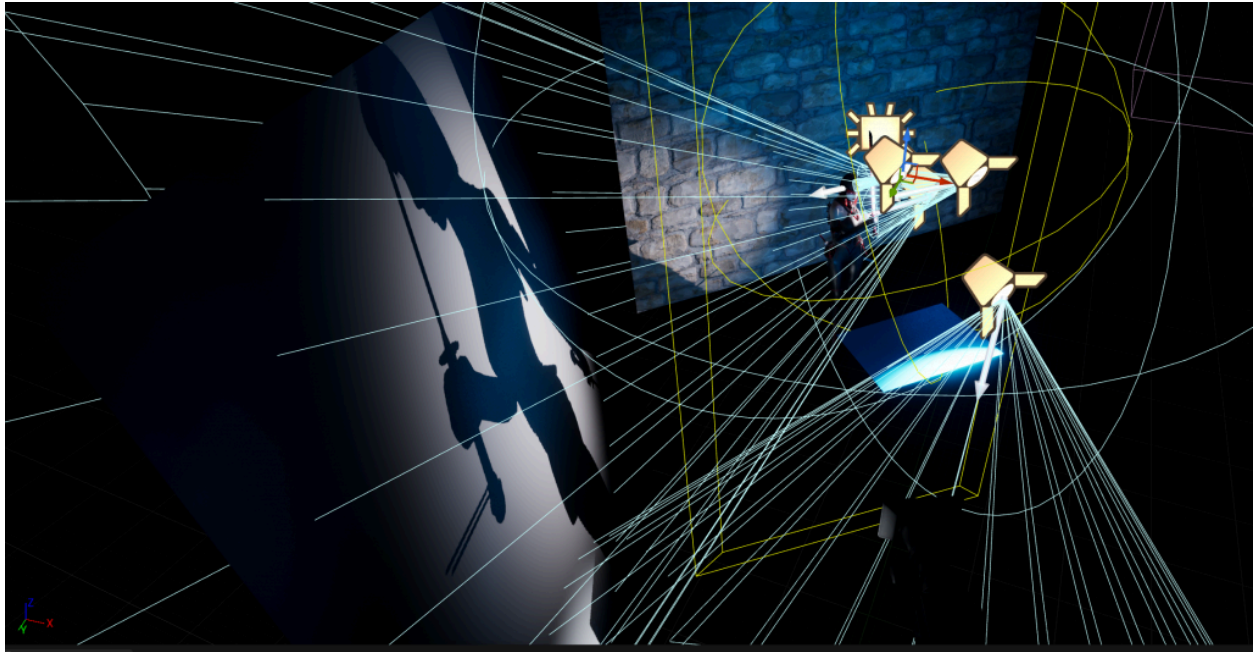
Hair Highlight Setup



Hair Highlight Spotlight Settings

▼ Light	
Intensity	2.886896 cd
Intensity Units	Candelas ▼
► Light Color	<div></div>
Attenuation Radius	40.0
Inner Cone Angle	0.0
Outer Cone Angle	7.741333
Source Radius	165.333313
Soft Source Radius	1.0
Source Length	0.0
Use Temperature	<input checked="" type="checkbox"/>
Temperature	12000.0
Affects World	<input checked="" type="checkbox"/>
Cast Shadows	<input checked="" type="checkbox"/>
Indirect Lighting Intensity	1.0
Volumetric Scattering Intensity	1.0
► Advanced	

Final Setup



Final Render

