



The
AMAZING
WORLD OF

GUMBALL

compositing guidelines

PART 1 - CHARACTERS

I - 2D characters

II - 3D characters

III - Specific environements

IV - Cast shadows

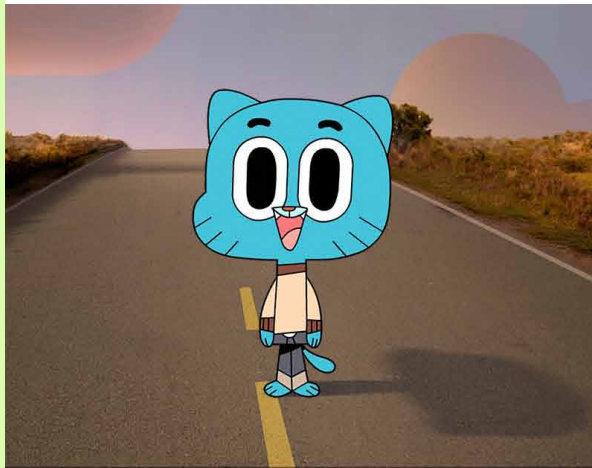
2D CHARACTERS

The goal is to connect the characters to their environment without altering our perception of their designed volume.

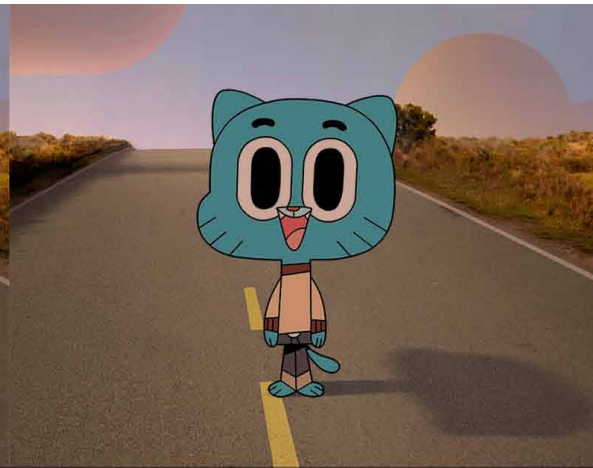
It's unfortunately very easy to give them a cardboard or cylindrical shape and we want to avoid it.

EXPOSURE

the characters are designed with pure white and vivid colours. To prevent them from glowing in the background, **we should lower their exposure to match the photo.** We found that the best looking exposure was **halfway between fully integrated and pure white.** It's easy to achieve using levels.



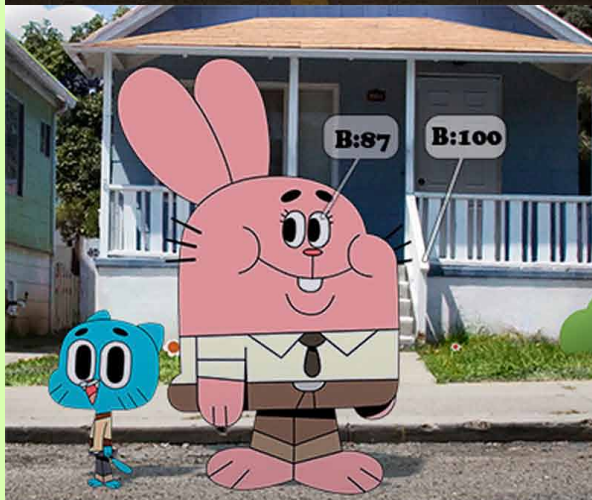
no integration



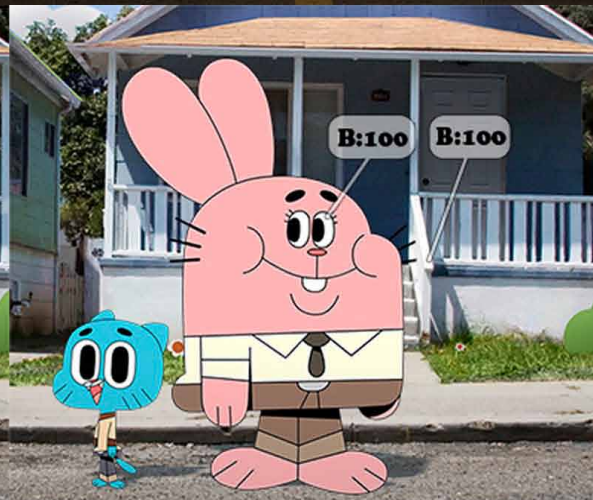
realistic



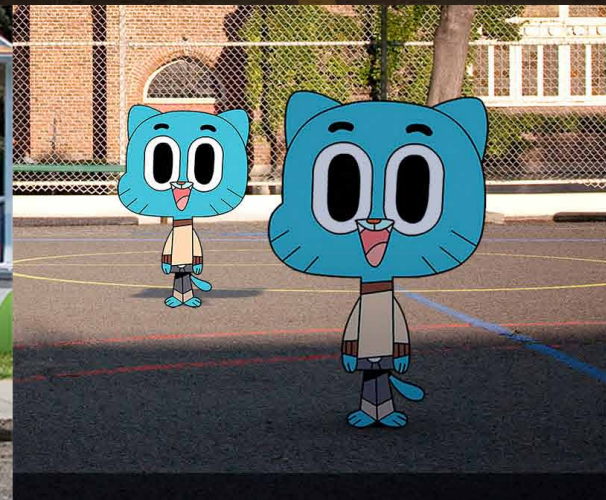
BEST



too dark



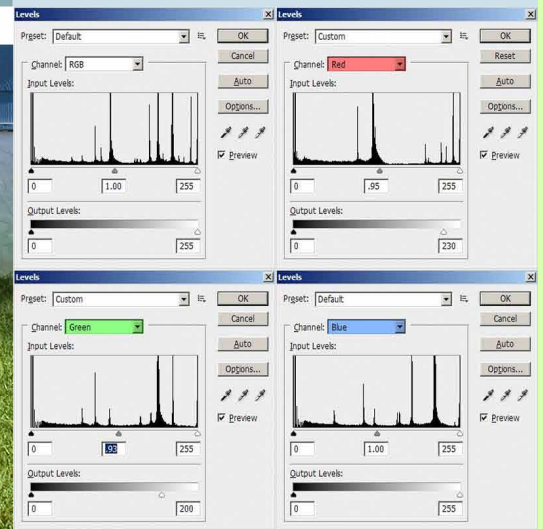
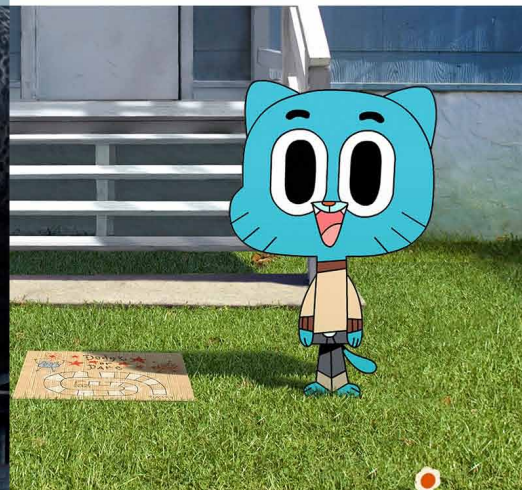
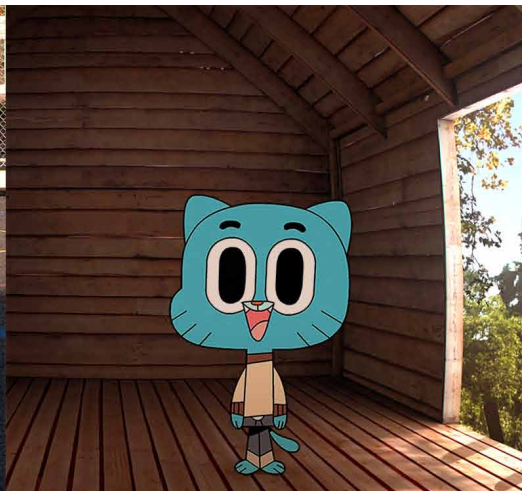
good



adapted

AMBIENT COLOUR

this colour will tint the characters depending on their environment. Its hue and saturation depend on the background and should be tweaked while observing both. It's easy to achieve this using the same levels as the exposure's, by lowering channel outputs and to a lesser extent changing individual channel gammas.



FEET GRADIENTS



This effect can help the contact of the character with the ground, but unfortunately also gives a cardboard panel look.

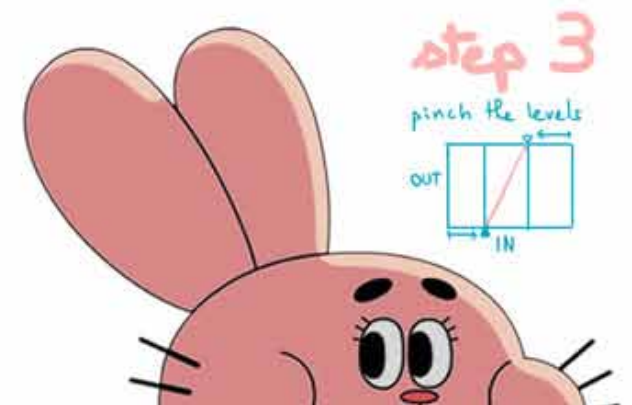
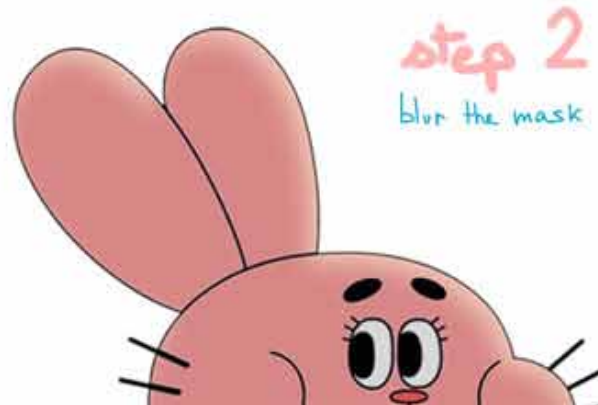
It shouldn't darken the character too much, and can be used to fake a colour bounce from the ground.

Under strong lighting like the sun, the gradient should not darken the feet of the characters.

RIM-LIGHTS

They should only be used if there is a **strong indication of a directional light** in the background. (Sun set, contre-jour). They should only affect the colour fills and **not the black outlines**. Sometimes they need to be partially cut because of nearby objects. **Rim-lights should never be soft** otherwise they take away from the graphic quality of the characters.

Additionally, to avoid unexpected details the rim-lights should always be rounded using a Gaussian blur then levels.



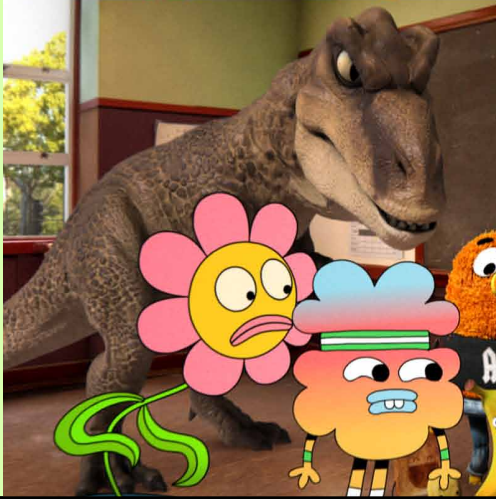
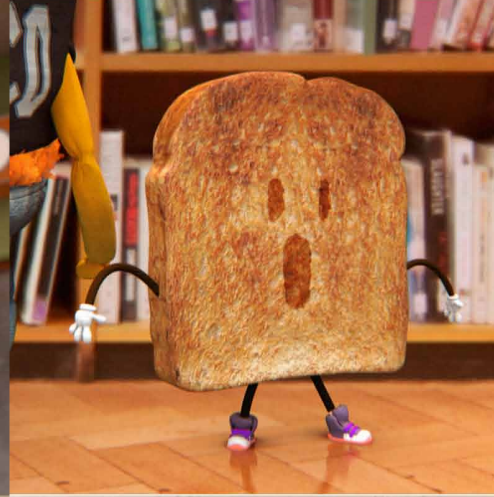
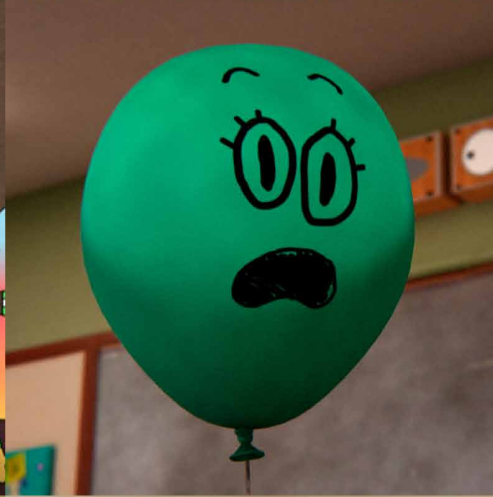
3D CHARACTERS

The goal is to integrate the characters realistically and create homogeneity between the renders. Unfortunately the process we are using does not guarantee a good continuity and this has to be corrected at the compositing stage.

We need to tweak the exposure, contrast, white temperature (ambient colour) and saturation of the characters to match their environment and the key character integration.

These tweaks can be achieved using levels as mentioned in the 2D characters section

targets



CHARACTER SPECIFIC ISSUES

Miss Simian

She renders with a constant neutral grey colour. **It's very important to adjust her white temperature** to her environment; otherwise we might perceive her as blue/orange.

Rocky

Rocky's orange colour changes drastically from shot to shot. **He needs to be adjusted to the key orange.** He also can come off as too bright and saturated, we need to tone him down so he doesn't drag all the attention in a shot.

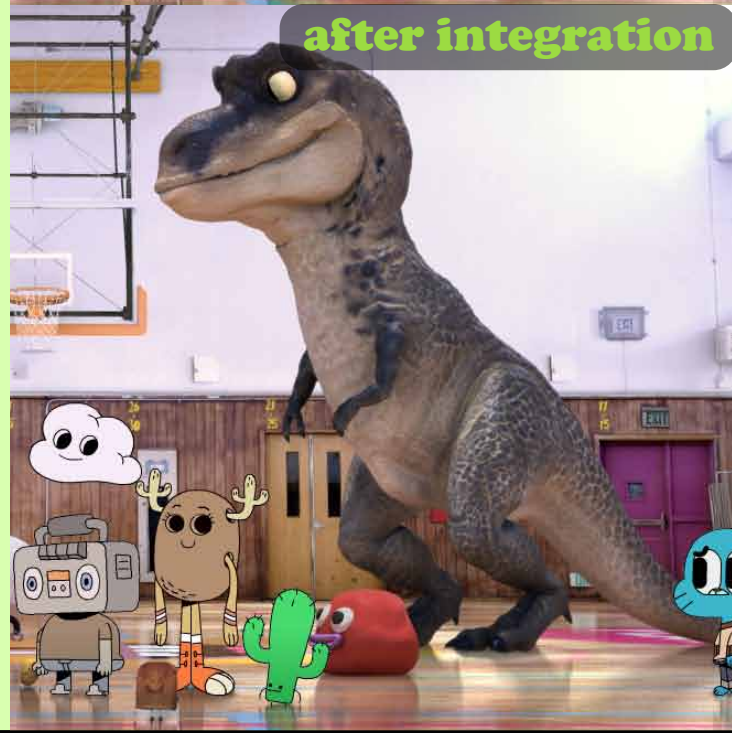
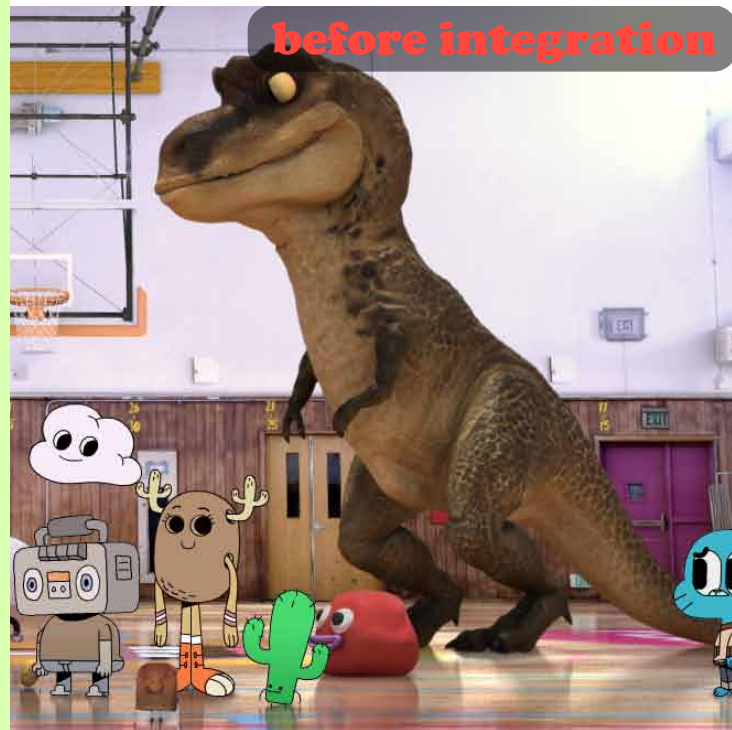
Tina

Tina's exposure and contrast change quite a lot from shot to shot; please keep an eye out for it. Tina looks best with a bluish sky reflection on her back outside, but this has to be avoided indoor.

Bobert & others

Bobert's eyes need reflections and gradient. Also keep an eye out for 3D animation rendered without animated flash faces (Anton, Idaho etc). Banana Joe and Allan sometimes burn from overexposure, please avoid.

INTEGRATION EXAMPLE



Effect Controls: TINA_BT_Y_[0001-0040].tif

TINA • TINA_BT_Y_[0001-0040].tif

fx **Levels (Individual Controls)** Reset About...

Channel: RGB

Histogram

increased exposure

RGB

- Input Black 500.0
- Input White 27370.9
- Gamma 1.15 — increased gamma
- Output Black 0.0
- Output White 32768.0

Red

- Red Input Black 0.0
- Red Input White 32768.0 — increased white gamma
- Red Gamma 0.87
- Red Output Black 0.0
- Red Output White 31354.5 — decreased red light

Green

- Green Input Black 0.0
- Green Input White 32768.0
- Green Gamma 0.97 — decreased green gamma
- Green Output Black 0.0
- Green Output White 32768.0

Blue

- Blue Input Black 0.0
- Blue Input White 26728.4 — added blue light
- Blue Gamma 1.10 — increased blue gamma
- Blue Output Black 0.0
- Blue Output White 32768.0

Alpha

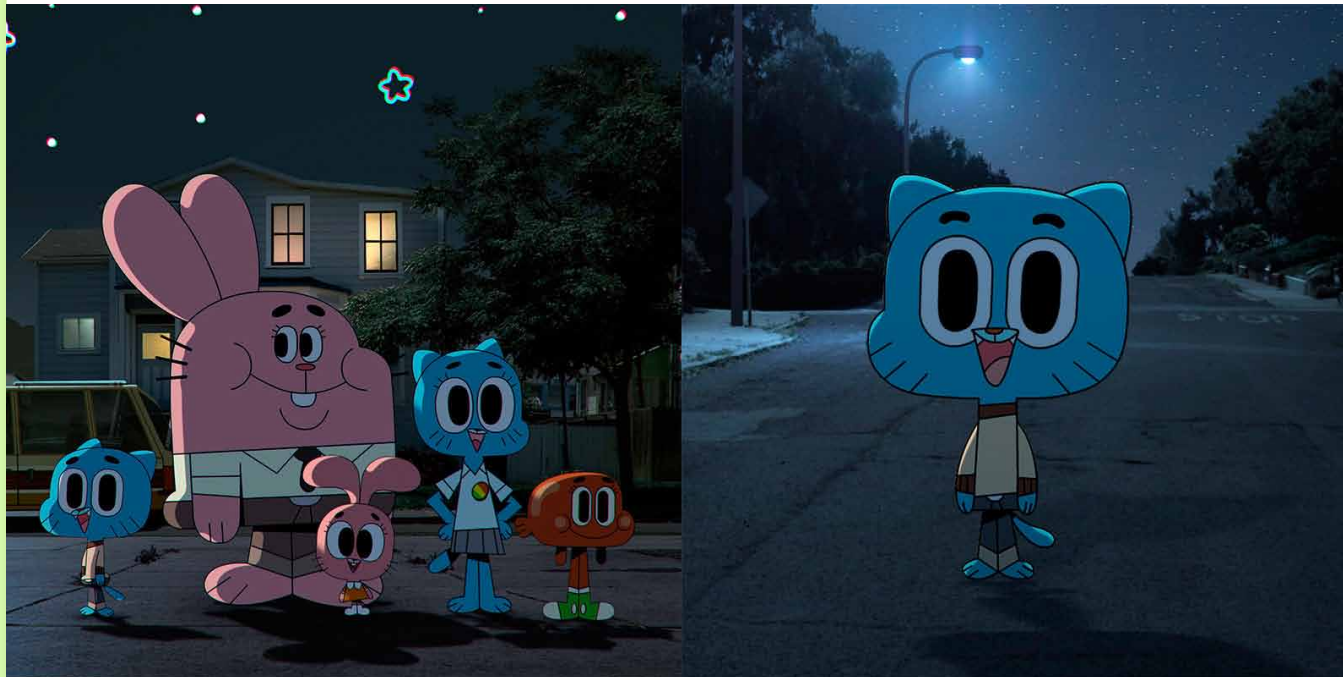
- Clip To Output Black Off for 32 bpc Color
- Clip To Output White Off for 32 bpc Color

Sometimes the renders do not match the background. They need to be adjusted to make sure the characters always look the same.

Specific Environments

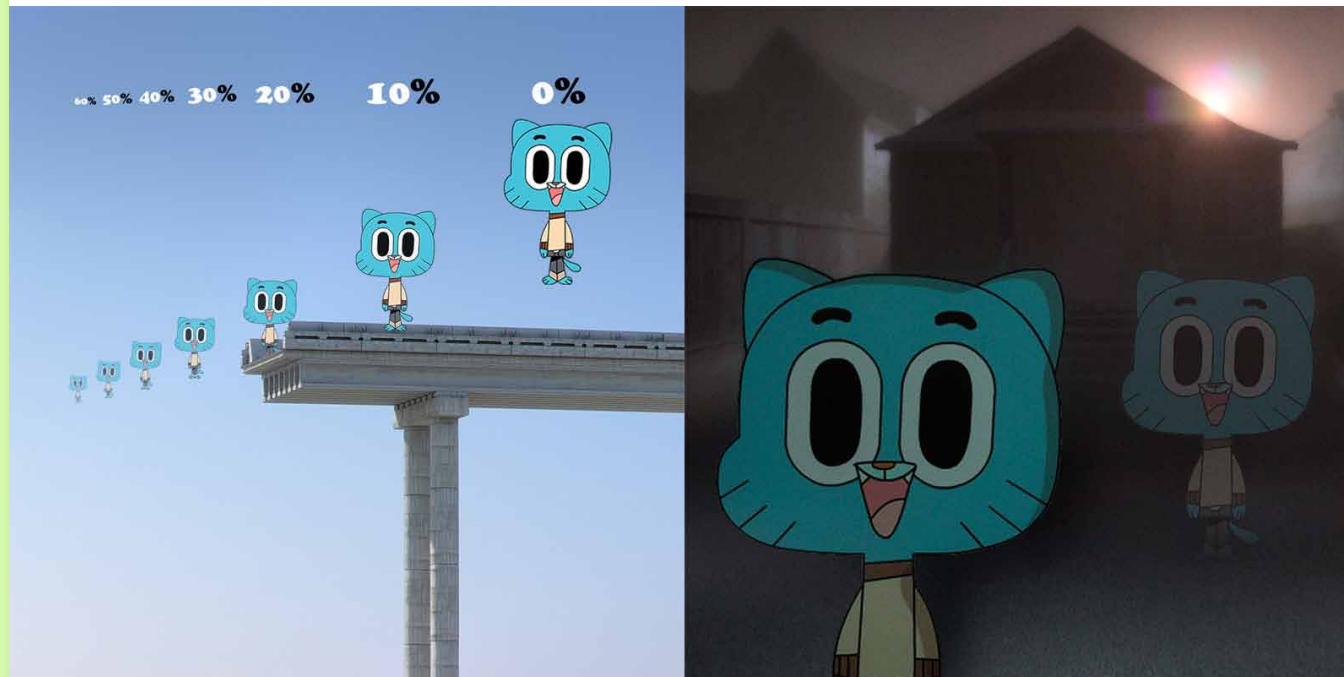
Night lighting

Before finding the good colour and brightness for the characters, you can lower the gamma of the characters to mimic a lowered exposure.



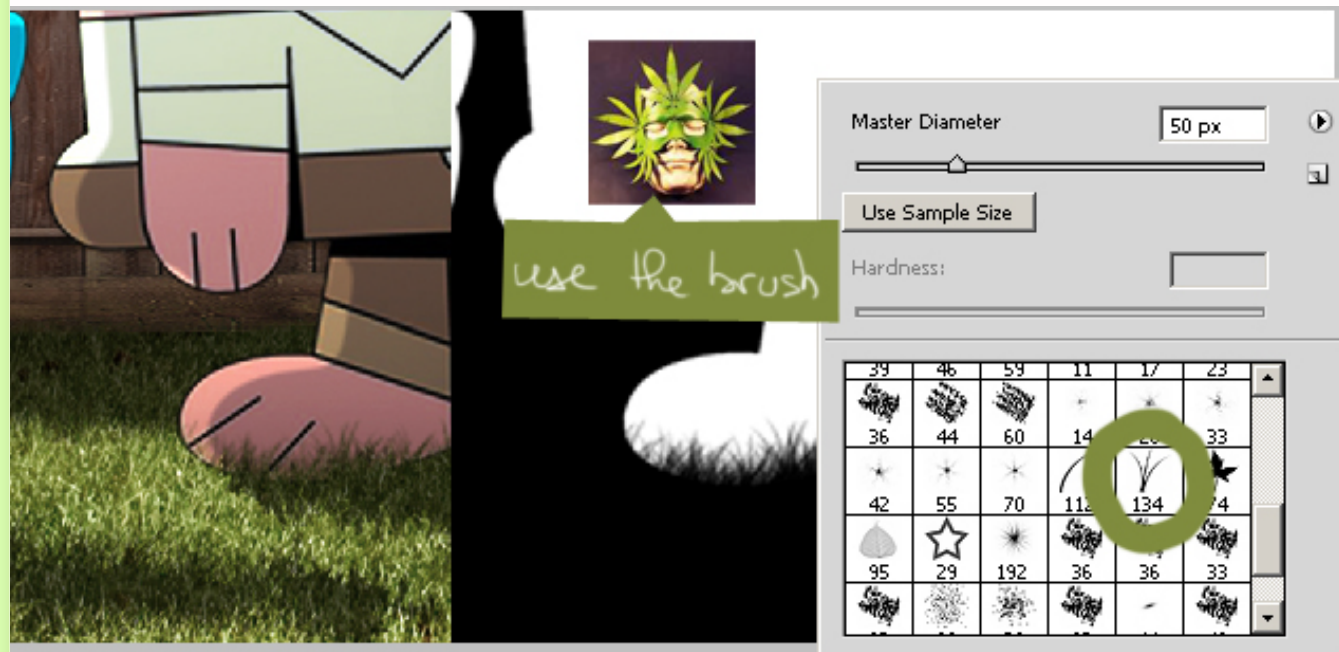
ATMOSPHERIC PERSPECTIVE AND FOG

To achieve this effect you can apply layer on top of the characters on normal mode with varying levels of opacity and the atmosphere's colour.



GRASS

The character's feet should be masked with a grass brush.



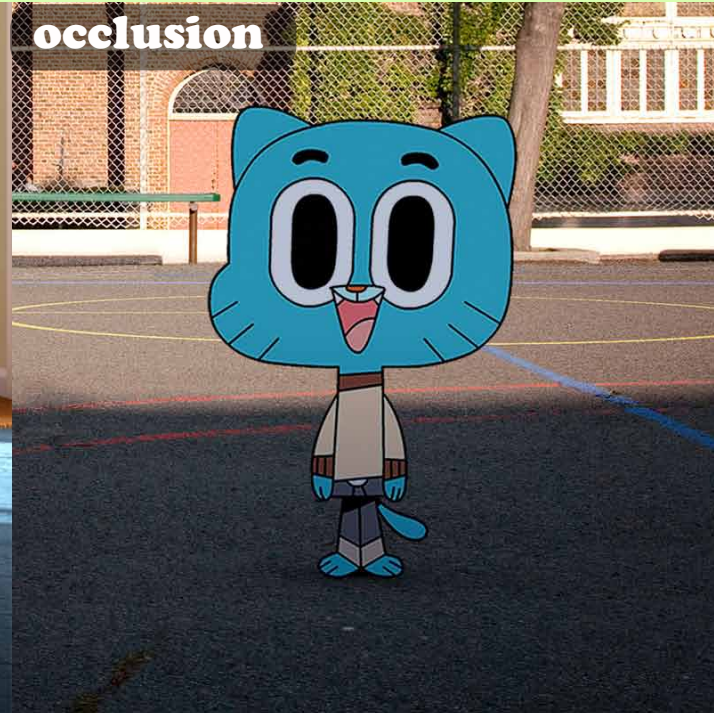
CAST SHADOWS & REFLECTIONS

- The shadows should be blurred just enough to mimic the shadows already present in the background. A simple trick is to use a horizontal blur to give and impression of perspective to a shadow.
- The gradient often found in shadows is in fact occlusion. It should be wider for large characters and tighter for thin characters.
- **The shadows should always be coloured by the environment ambient colour.**
- The shadows have to be distorted using displacement when on the grass.
- In case the only shadow is occlusion, it is important that the gradient is in perspective and exponential towards the centre. **It's often a very subtle shadow.**
- All characters should reflect on reflective grounds.

occlusion



occlusion



horizontal blur



reflections

