



# The Art of Firewatch

**Jane Ng**

Artist, Campo Santo

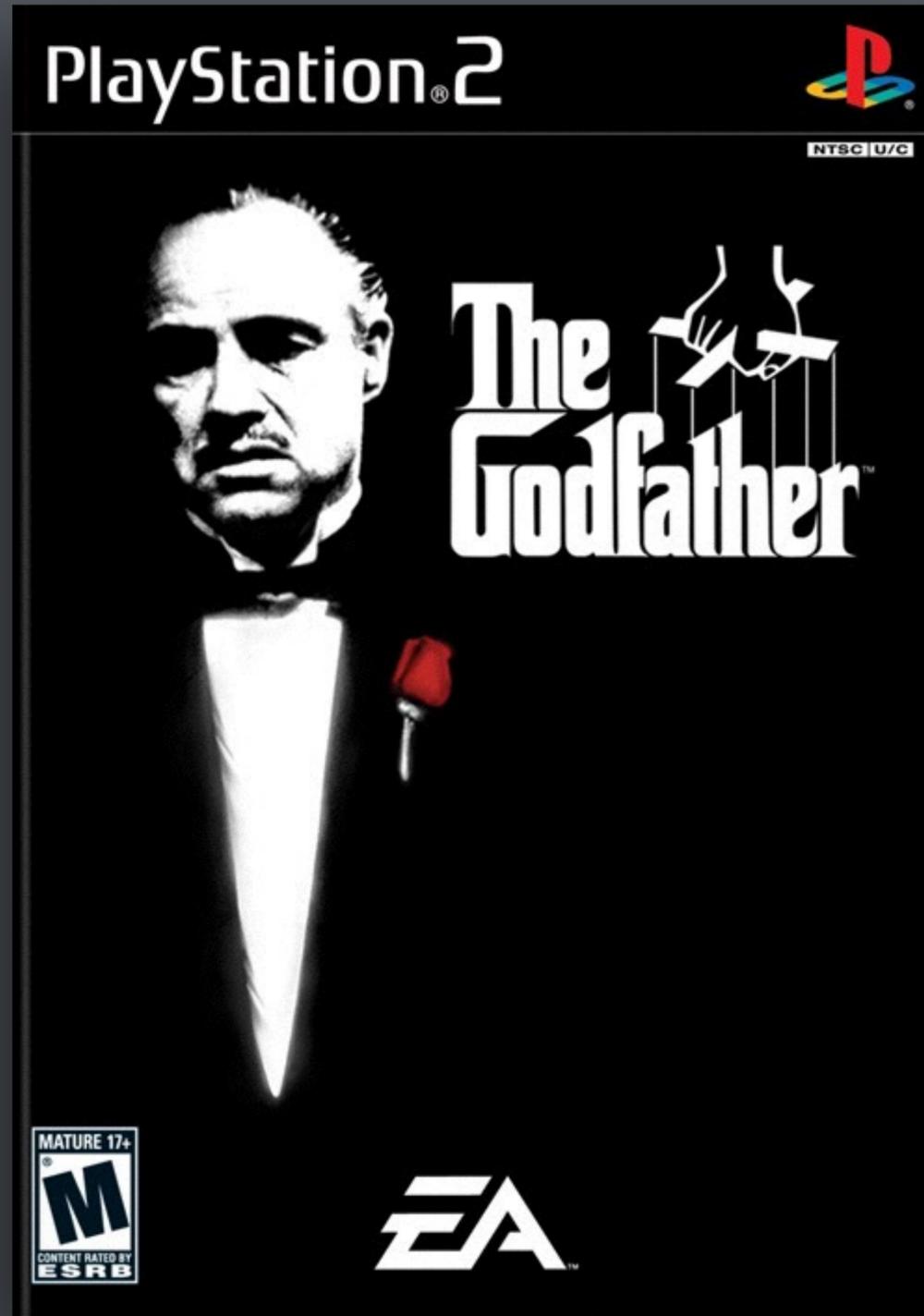
GAME DEVELOPERS CONFERENCE®

MOSCONE CENTER · SAN FRANCISCO, CA

MARCH 2-6, 2015 · EXPO: MARCH 4-6, 2015

# THE CAVE







THE ART OF  
**FIREWATCH**

• PEACE • SOLITUDE •  
THE GREAT OUTDOORS



**VOLUNTEER**

— AS A LOOKOUT —





This was the goal post we set for ourselves



Some early concept sketches



The premise of the story is known then







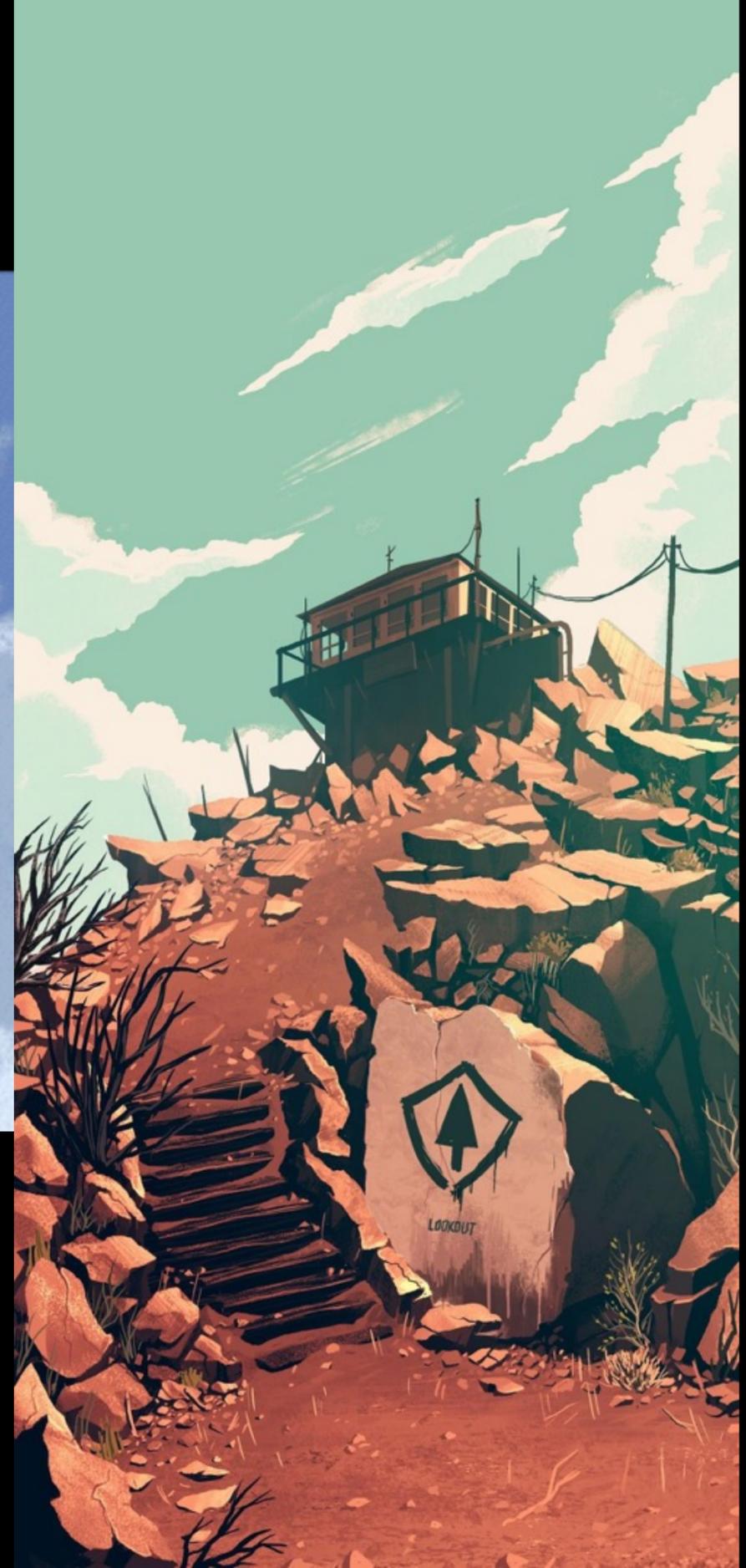


We know the story is about a fire lookout





Who talks to another lookout via radio



A detailed digital rendering of a forest. The scene is filled with tall, slender birch trees with characteristic white bark and dark horizontal lenticels. The ground is covered in dense, golden-yellow grasses that appear to be blowing in a light breeze. Sunlight filters through the canopy, creating dappled shadows on the forest floor. The overall atmosphere is bright and serene, suggesting a clear, sunny day. The text "Here is a video of the current state of the game" is overlaid in the center of the image in a clean, white, sans-serif font.

Here is a video of the current state of the game



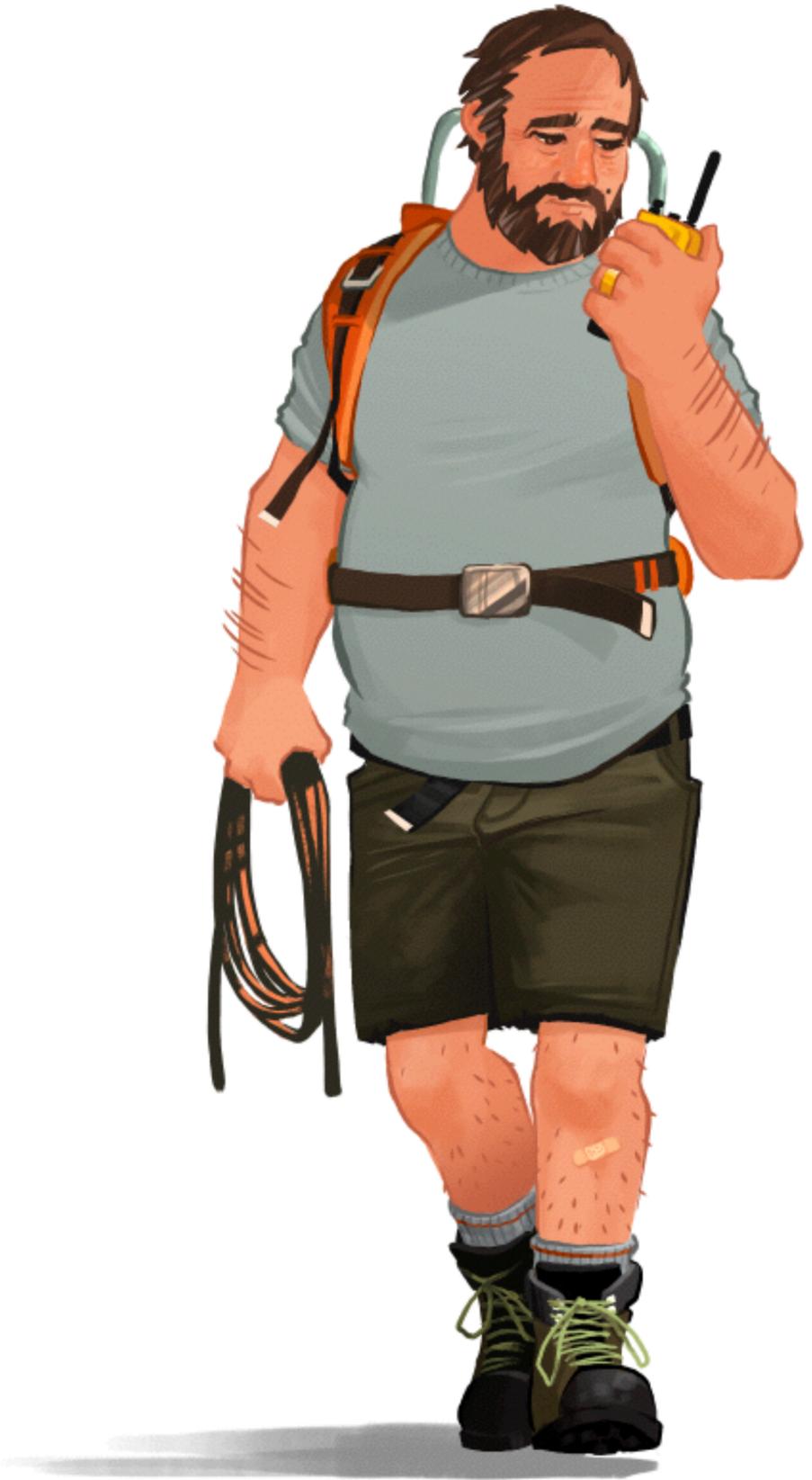
This talk is about how we made this game world  
with a small art team in the past 12 months



# What is Firewatch?

**Firewatch** is a mystery set in the Wyoming wilderness, where your only emotional lifeline is the person on the other end of a handheld radio.





You play as Henry,  
and you have full body  
awareness in the game







**The world can look stylized but must feel real**





**An immersive space supports an immersive narrative**



# CAMPO SANTO

**Jake Rodkin**

**James Benson**

**Jane Ng**

**Olly Moss**

**Paolo Surricchio**

**Chris Remo**

**Nels Anderson**

**Patrick Ewing**

**Sean Vanaman**

**Will Armstrong**

# CAMPO SANTO

**Jake Rodkin**

**User Interface, Greybox**

**James Benson**

**Animation**

**Jane Ng (me!)**

**3D - Environment Art**

**Olly Moss**

**2D - Concept, Production Design**

**Paolo Surricchio**

**Graphics Programmer**

# FIREWATCH

The background is a stylized illustration of a mountain landscape. In the center, a wooden fire tower stands on a hillside. The foreground is filled with a dense forest of evergreen trees. In the background, several mountain peaks are visible under a sky with a few birds flying. The color palette is dominated by warm tones of orange, red, and purple.

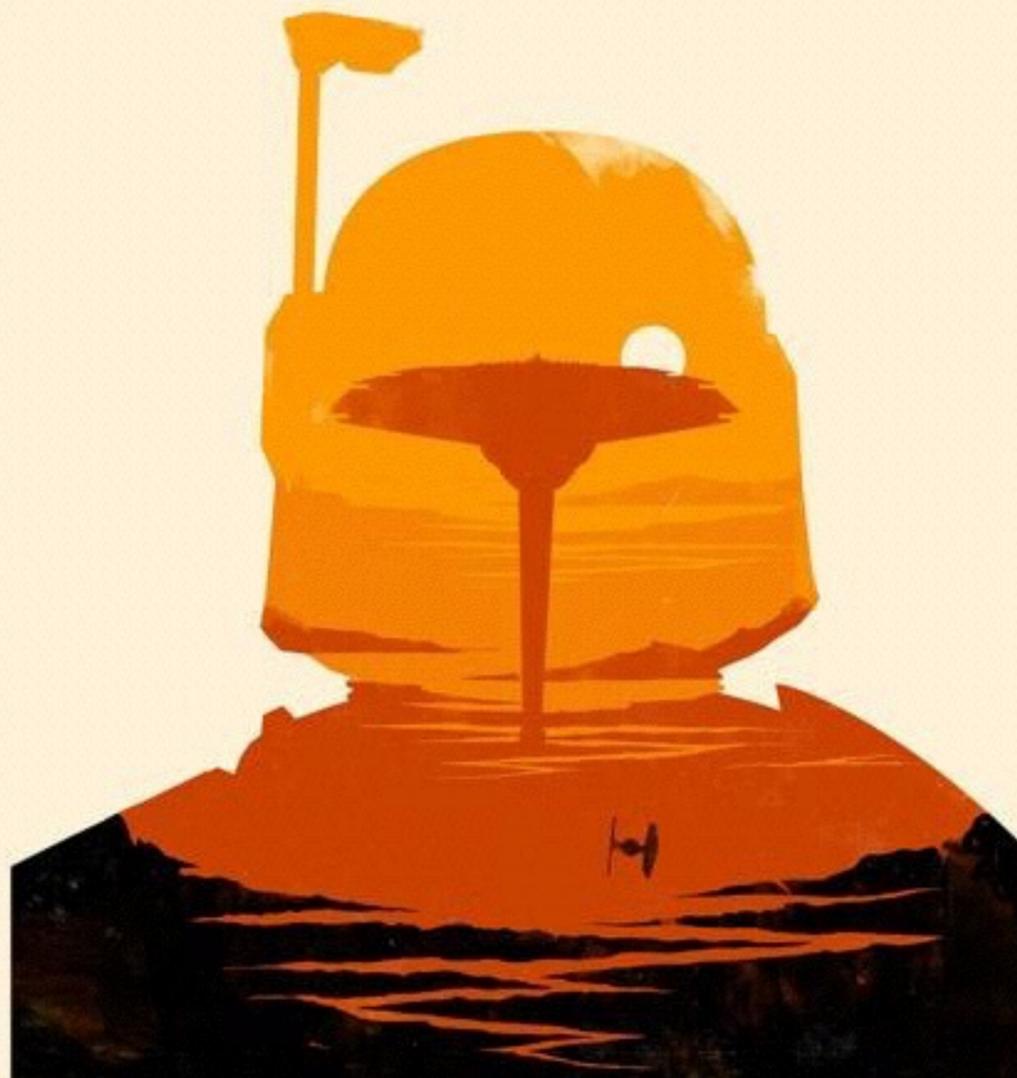
This is designed by Olly Moss





# STAR WARS

THE WIRTH CENTURY FOX PRESENTS A LUCASFILM PRODUCTION STAR WARS  
STARRING MARK HAMILL HARRISON FORD CARRIE FISHER PETER CUSING AND ALEC GUINNESS  
WRITTEN BY GEORGE LUCAS DIRECTED BY GARY KURTZ MUSIC BY JOHN WILLIAMS  
LUCASFILM PRESENTS A LUCASFILM PRODUCTION  
DOLBY DIGITAL



# STAR WARS THE EMPIRE STRIKES BACK

STARRING MARK HAMILL HARRISON FORD CARRIE FISHER JULY DEE WILLIAMS ANTHONY DANIELS  
DIRECTED BY IRVIN KERSHNER  
LUCASFILM PRESENTS A LUCASFILM PRODUCTION  
DOLBY DIGITAL



# STAR WARS RETURN OF THE JEDI

STARRING MARK HAMILL HARRISON FORD CARRIE FISHER JULY DEE WILLIAMS ANTHONY DANIELS  
DIRECTED BY GEORGE LUCAS  
LUCASFILM PRESENTS A LUCASFILM PRODUCTION  
DOLBY DIGITAL

From **John Landis**  
director of **Animal House**  
... a different kind of animal



FANTASTIC FEST  
AND MONDO PRESENTS

# AN AMERICAN WEREWOLF IN LONDON

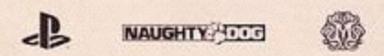
POLYGRAM PICTURES PRESENTS A LYCANTHROPE FILMS LIMITED PRODUCTION "AN AMERICAN WEREWOLF IN LONDON"  
STARRING DAVID NAUGHTON, JENNY AGUTTER, GRIFFIN DUNNE & JOHN WOODYNE  
ORIGINAL MUSIC BY ELMER BERNSTEIN, EDITOR PETER GUBER, EXECUTIVE PRODUCERS JIM PETERS & GEORGE FOLSEY, JR.  
WRITTEN BY JOHN LANDIS

PolyGram Pictures



## The LAST of US

Directed by **Bruce Straley and Neil Druckmann**  
Written by **Neil Druckmann** Original Score by **Gustavo Santaolalla**  
Created and Developed by **Naughty Dog**

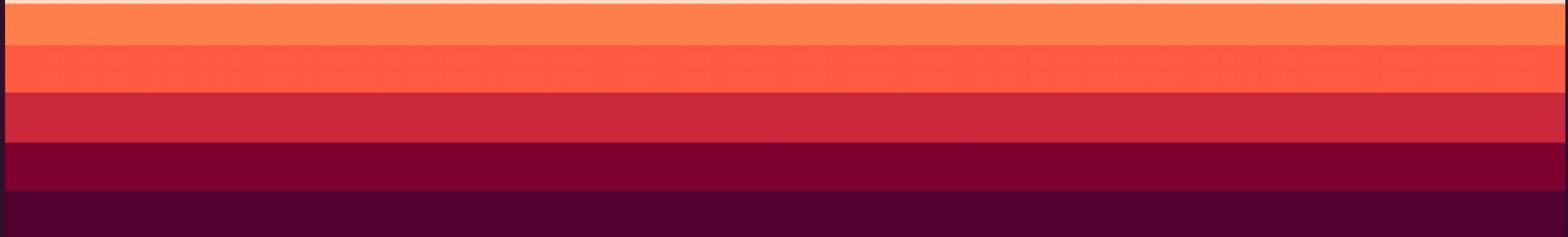


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**What is so striking about this image?**



# LAYERS OF COLORS





**STRONG SHAPES**





# NARRATIVE DETAILS



# LAYERS OF COLORS



# FIREWATCH



The biggest chunk of color is determined by the sky



Here is a video of our sky tool

vgSkyboxDebu

Choose an object to rotate the sun card and add

Rotation Reference Object:

Sun Data To Change:  SkyTest

Visualize Sky Color Only

Visualize Sun Only

Visualize Halo Only

Visualize Full Sky

Color

Colors



Sliders

H: 192

S: 217

V: 96

A: 128

Presets



Inspector

SkyTest

Shader: \_Shaders/ProceduralSky

[Sky Color] Top Color:

[Sky Color] Horizon Color:

[Sky Color] Bottom Color:

[Sky Color] Top Sky Col: 2.15

[Sky Color] Bottom Sky: 1.29

[Sun] Sun Color:

[Sun] Sun Intensity / Size: 0.27

[Sun] Sun Sharpness: 3.69

[Horizon Halo] Halo Color:

[Horizon Halo] Halo Intensity: 18.06

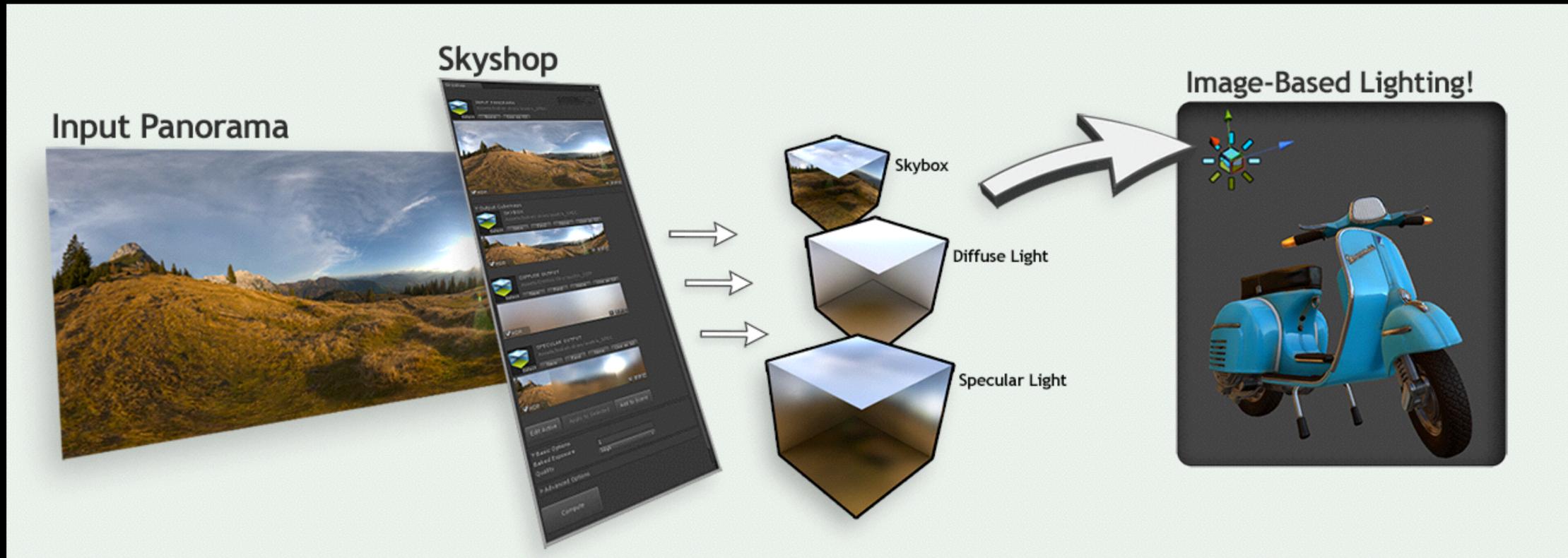
[Horizon Halo] Horizon Halo Exponent: 200

[Horizon Halo] Horizon L: 0.233

Sun Dir

X: 0.9229582 Y: -0.3843407 Z: 0.0207516 W: 0







**A dynamic lighting solution lets you change colors on the fly**





# HOT TIP #1

**Do buy a tool if it will save you time!**

Unity extensions we bought:

Playmaker

SECTR

Marmoset Skyshop

NGUI

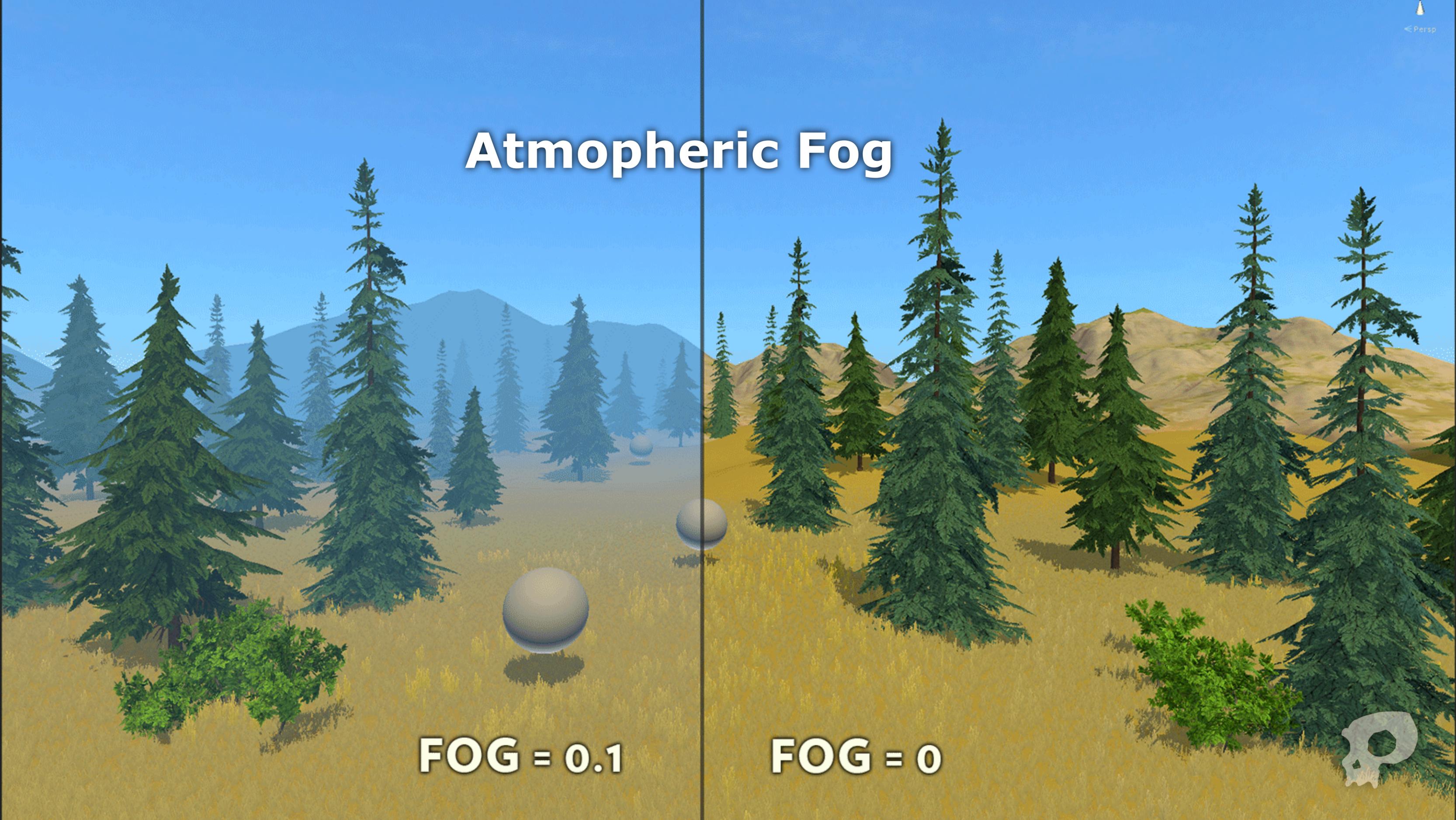
Amplify Color



**So we have sky color, what about those layers?**



# Atmopheric Fog



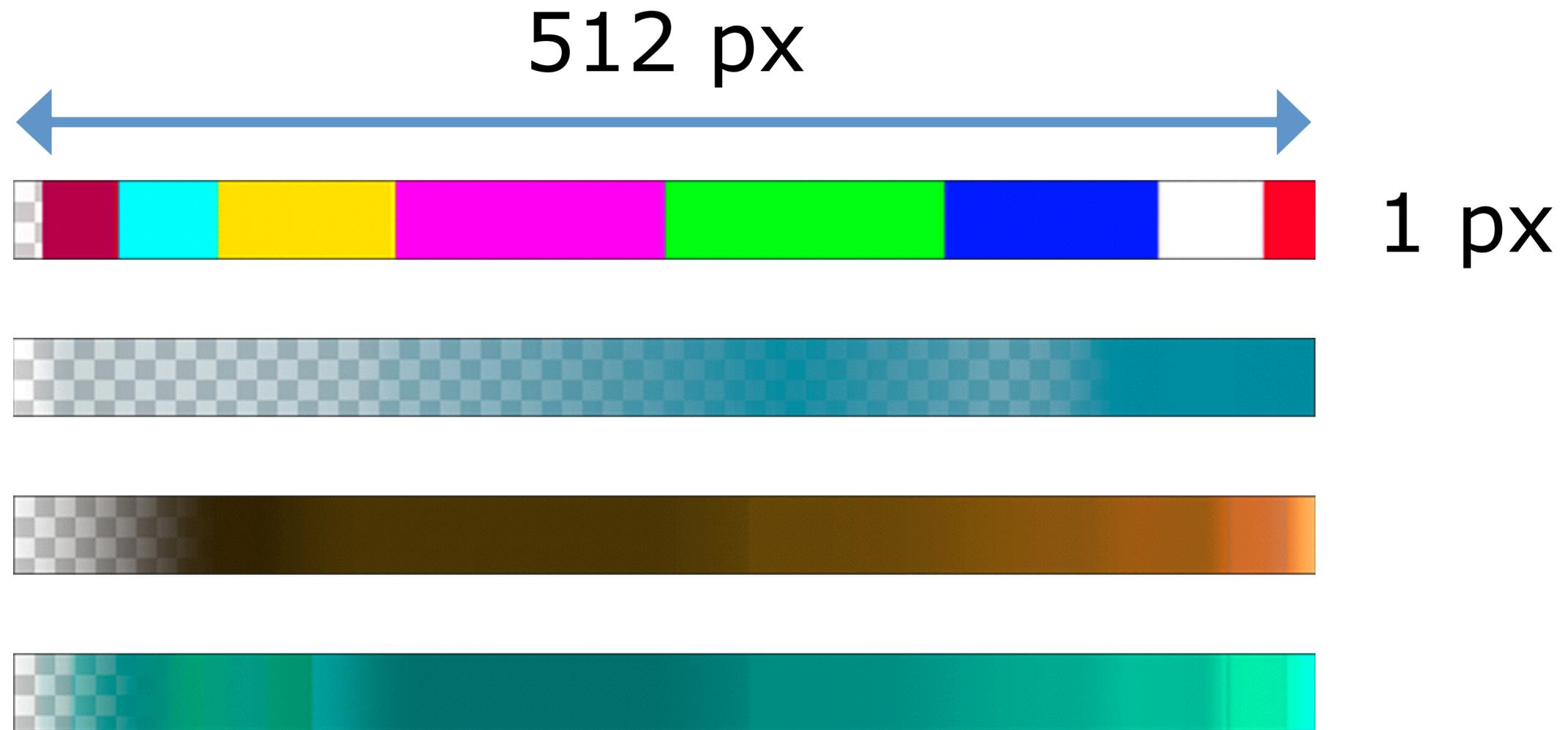
**FOG = 0.1**

**FOG = 0**



# Stylistic Fog

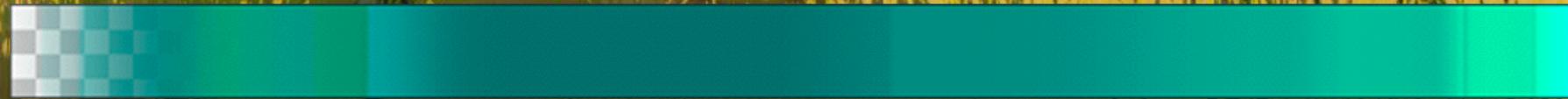
Additive blend post process image fx

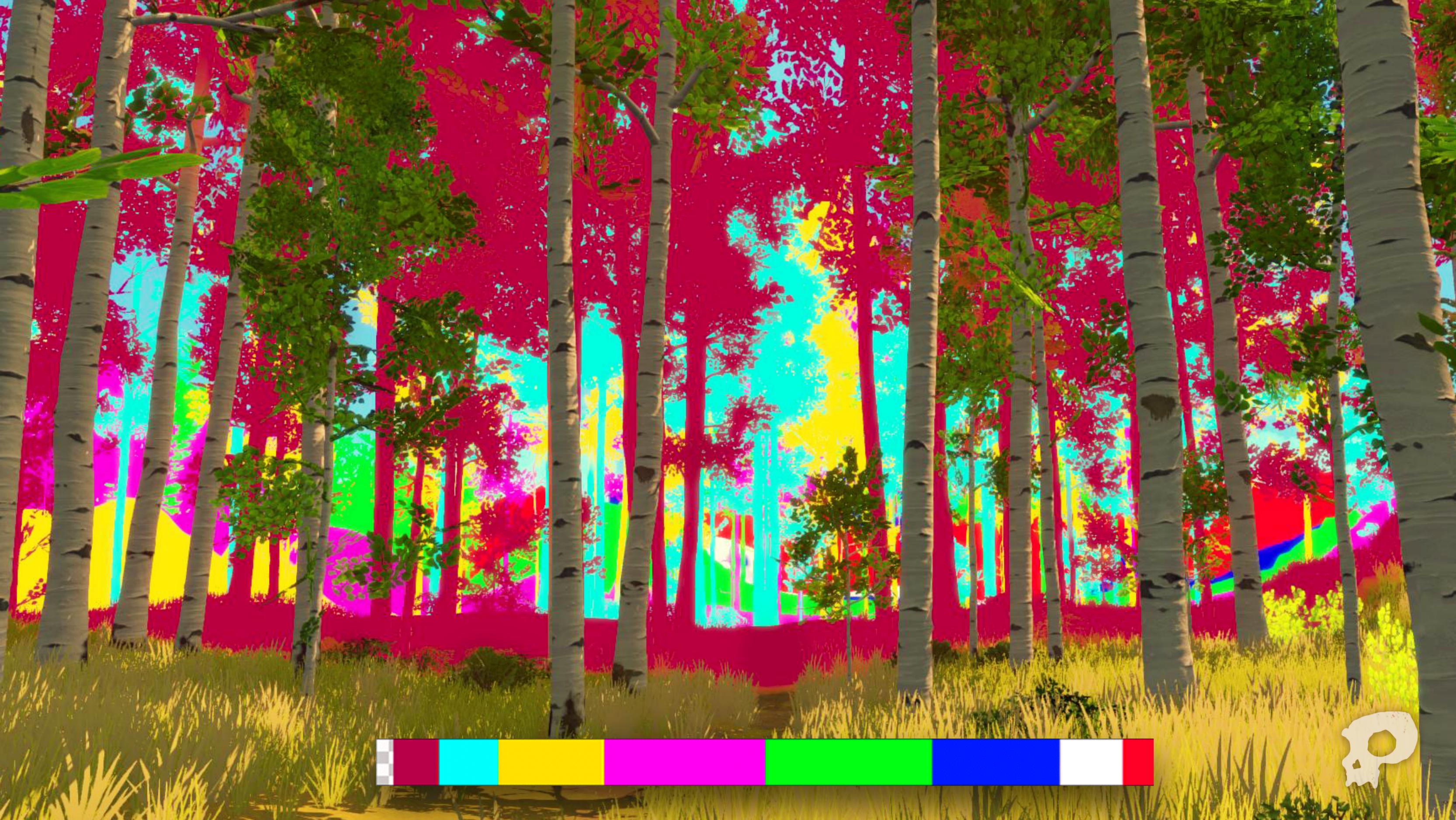


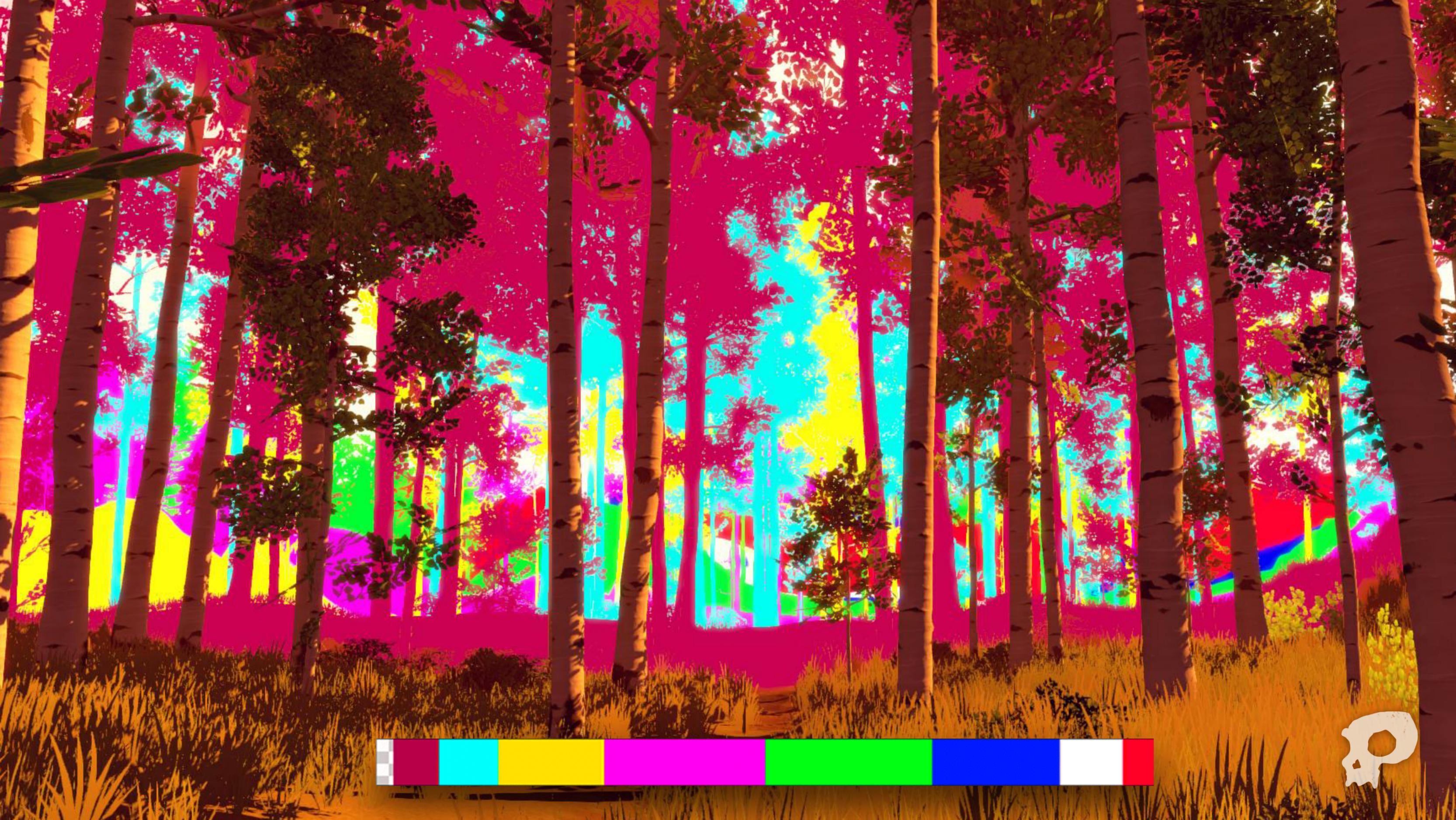


**No Fog**



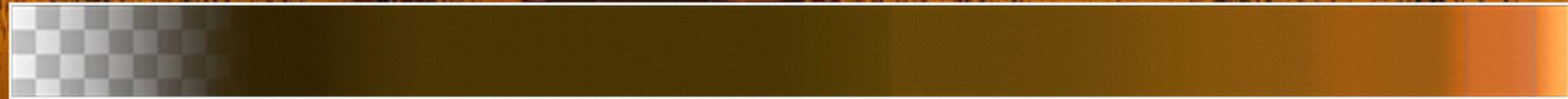


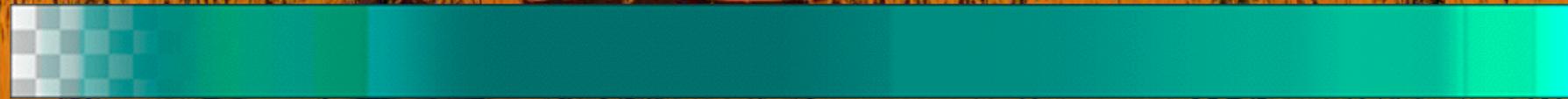


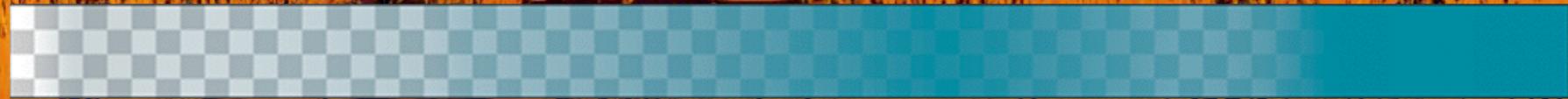
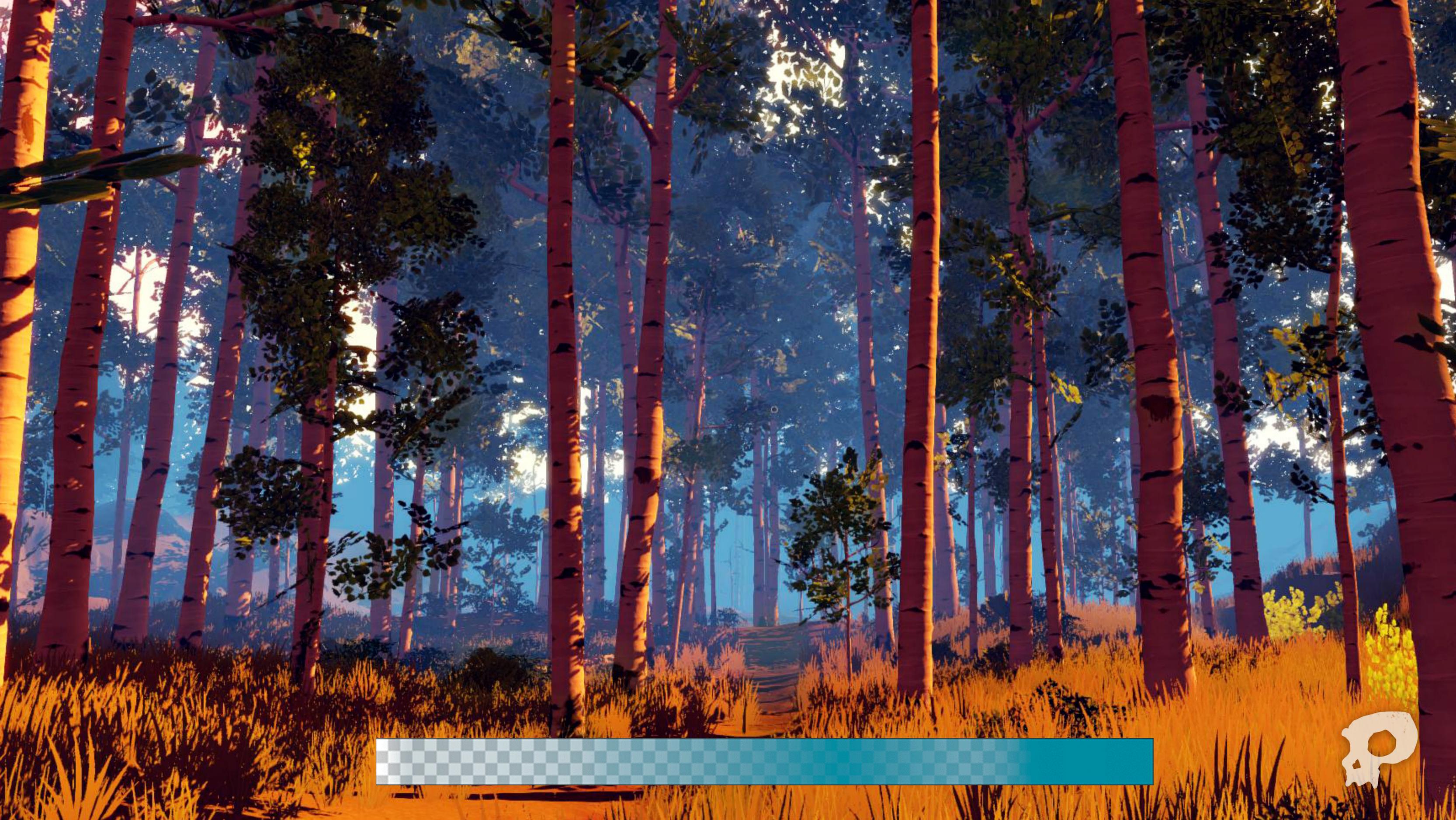


No Fog











## HOT TIP #2

**Develop your custom tools to the strength of your team and to minimize dependencies**

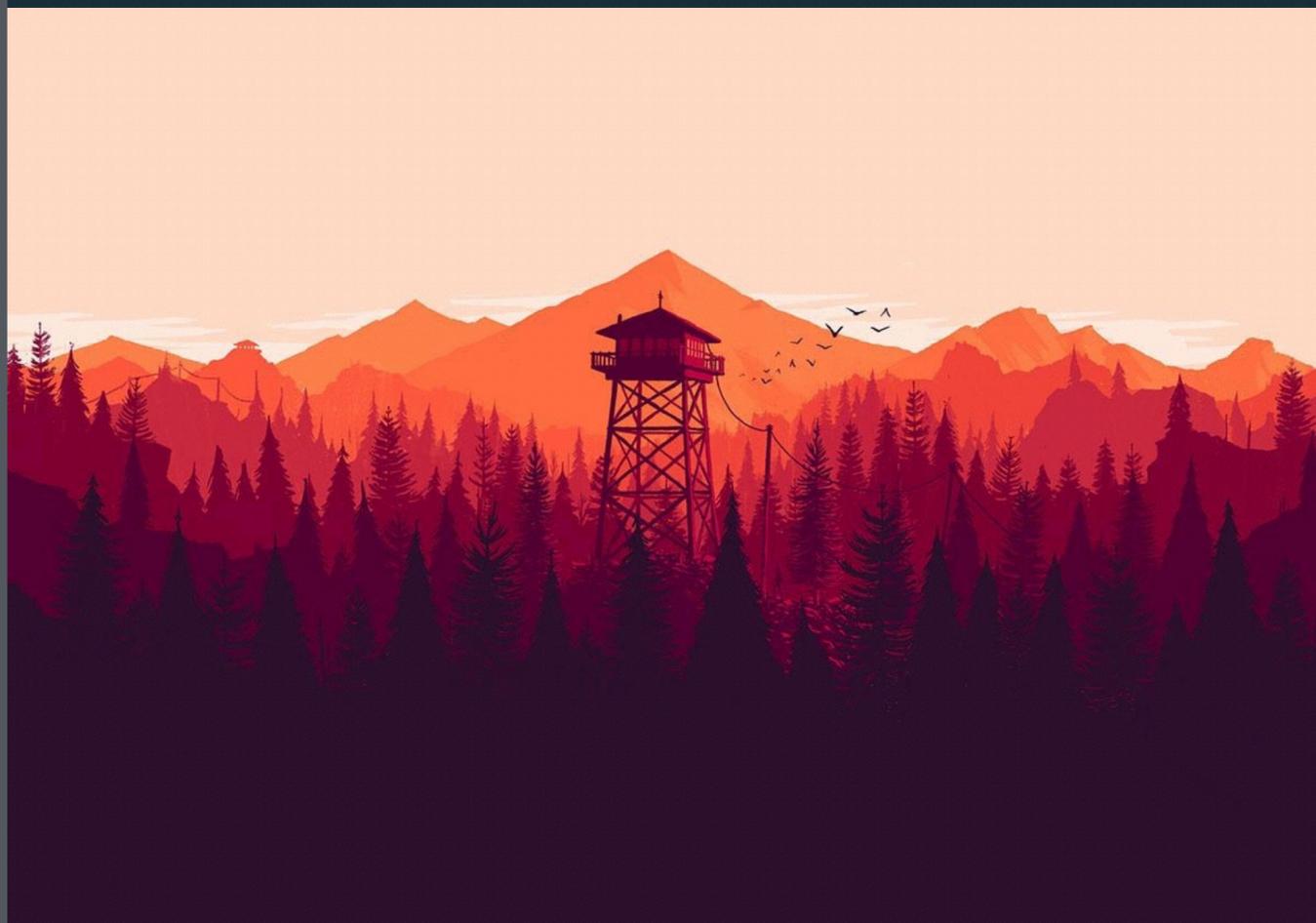
This is extra important if you have a distributed team across different time zones.



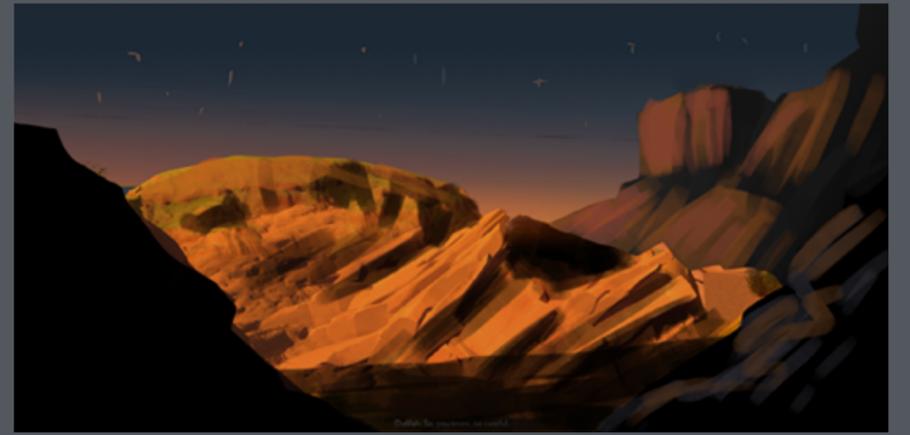


Color palette drives the mood of your scene













## HOT TIP #3

**Make sure you are happy with the overview of player experience before you go into full art production**

Making art once is not hard.

Having to rework finished assets is very costly

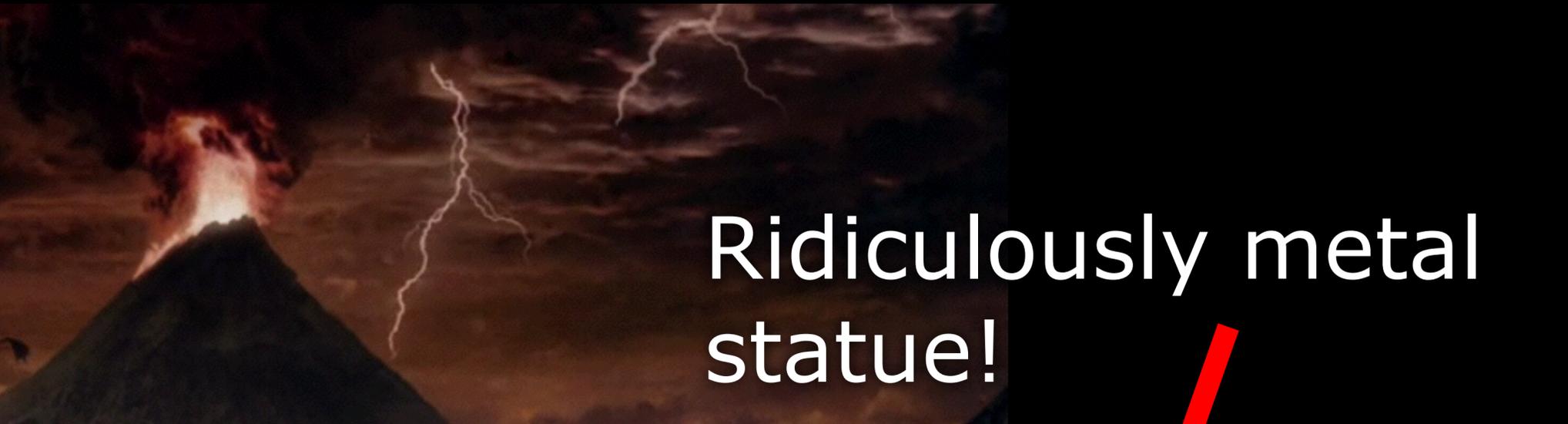




**STRONG SHAPES**



Crazy eye tower !



Ridiculously metal statue!



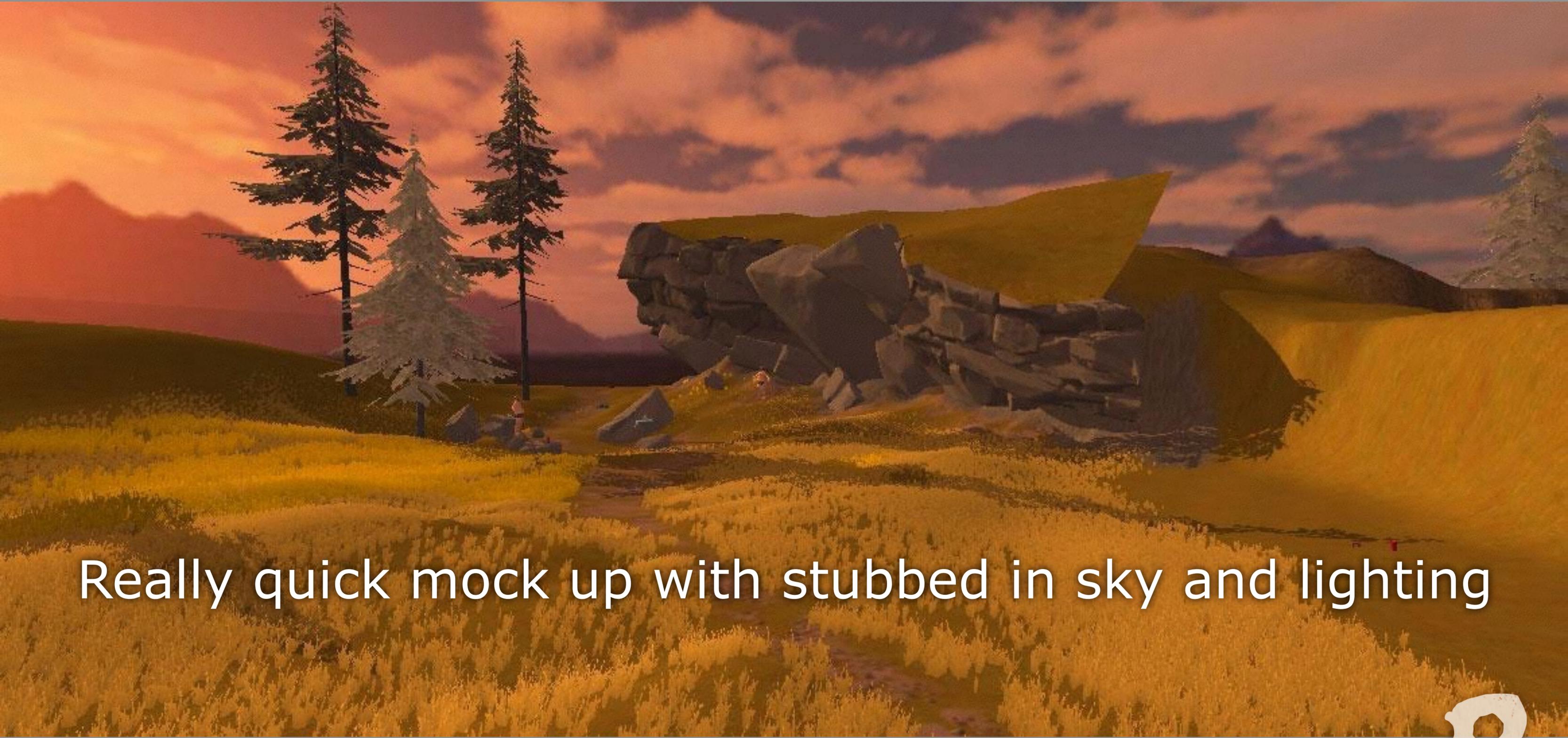
We only have trees and rocks





Land shape





Really quick mock up with stubbed in sky and lighting





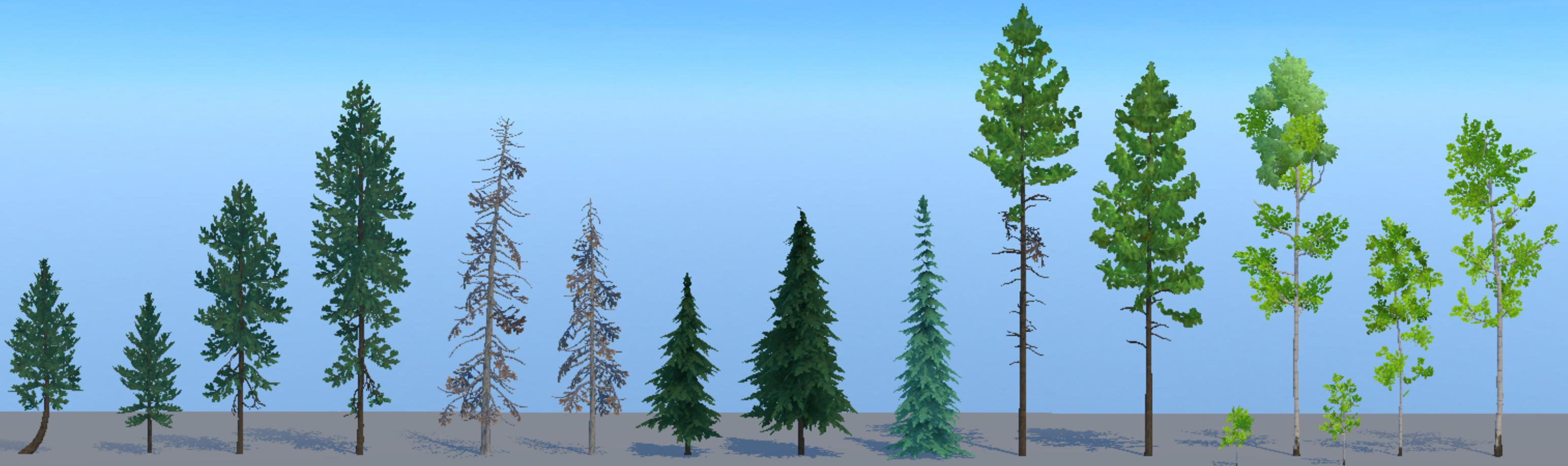
A paintover concept over screenshot



What is in game now



Our tree lineup. Focus is on silhouette



# SPRUCE!

- + Generally uniform shapes. Conical.
- + Younger smaller trees branches start closer to ground.

Higher, less needed branches point upward.

Small patches of brown, dead branches

More needed branches droop downward



Actual Silhouette



Reduced Detail LOD Stylisation





Alpha cutoff **0.75**

Alpha cutoff **0.5**

Alpha cutoff **0.15**





Alpha cutoff **0.75**



Alpha cutoff **0.5**



Alpha cutoff **0.15**





Stylistic fog + changing alpha cutoff / distance

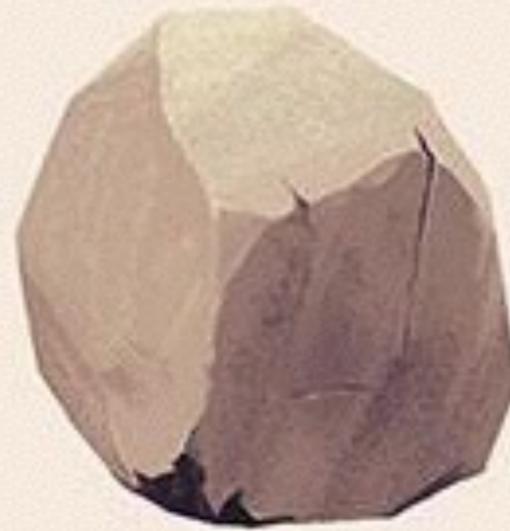




**Medium-Sized  
Normal Rocks**



**Layered  
Flat Rocks**



**Large Boulders**



**Grouped  
Slanted Rocks**

All rocks slanted at  
same angle

Large, smooth planes



**Small  
Slanted Rocks**

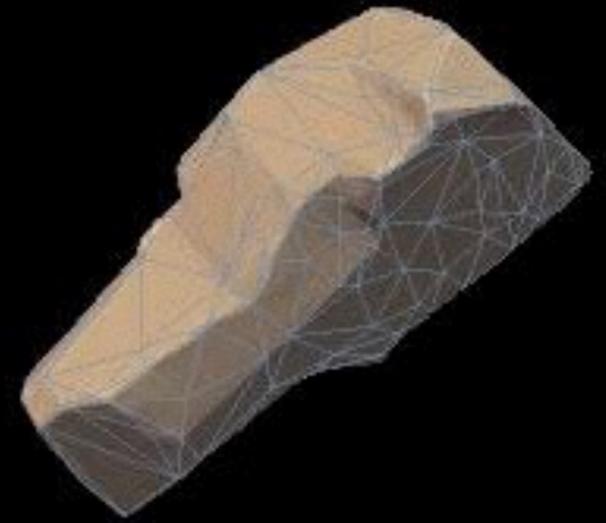
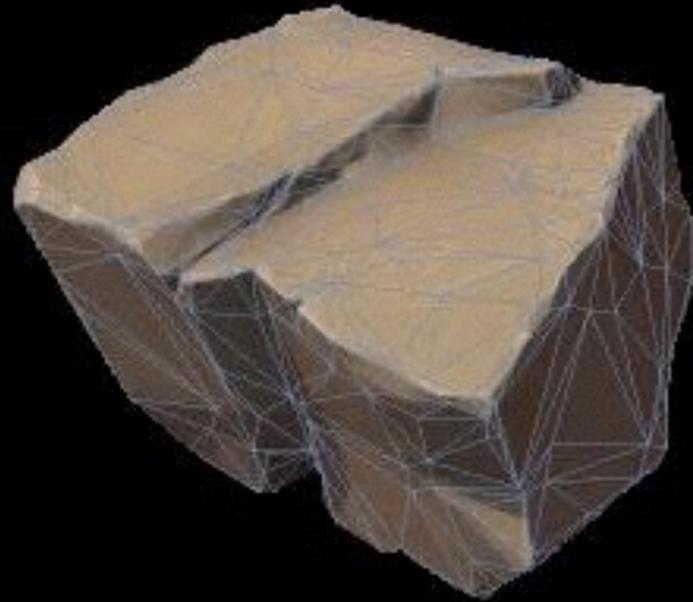
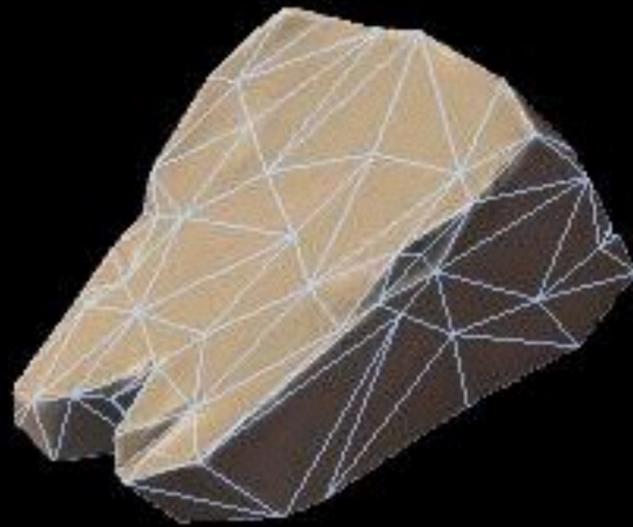
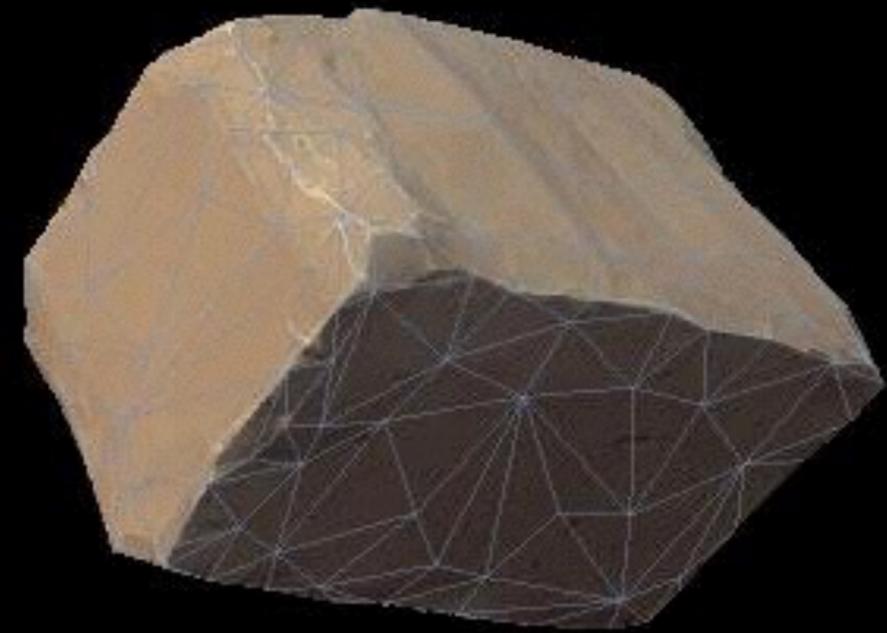
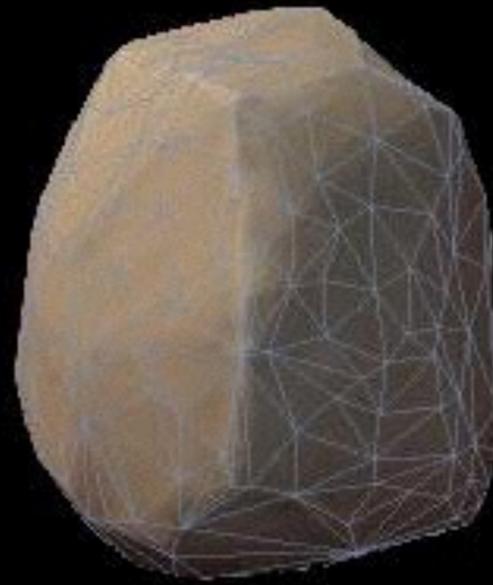
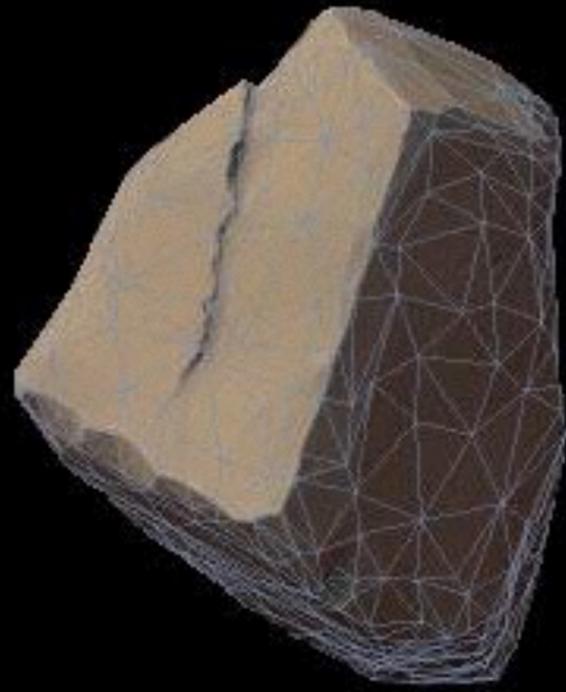
All rocks slanted at  
same angle

Large, smooth planes



**Pebbles**





Shapes Poking into negative space should be simple/sharp.



Dry  
Grass

Imagine parallel diagonal lines that the rocks/basic shape conform to

Tree  
Stump



Scene breakdown showing how  
rock modules were used





## HOT TIP #4

**Make a small number of modular assets that are versatile**

Fewer modular assets means less data to manage

Most of our rock diffuse textures are neutral grey.  
Easier to define different colors in the material.





# NARRATIVE DETAILS



Player build relationship with Delilah via conversations about various objects you see / examine. Good to have lots of texture detail & interest in those objects





(X)

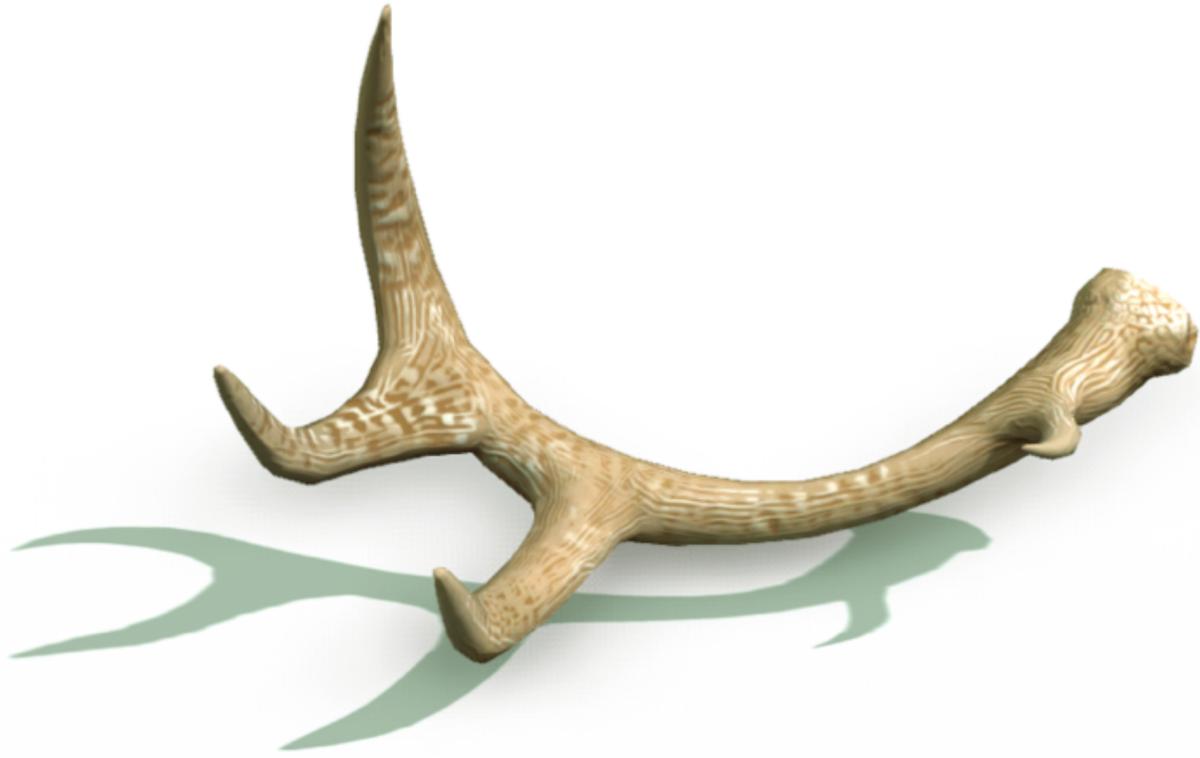
They left a bottle of whiskey.

RIGHTSTICK to rotate objects

TRIANGLE Keep Whiskey









# HOT TIP #5

## **Use style to your production advantage**

Prioritize and invest your production effort in assets that will give you the most payoff in terms of player experience.





**Embrace your limitations! Play to your strengths!**





THE ART OF  
FIREWATCH

Our development blog:  
<http://blog.camposanto.com/>

@thatjaneng

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