CHARLES BLANCHARD

RESUME & PORTFOLIO

Charles Blanchard is a multifacited artist and designer; founder of Super Systems Softworks, co-developer of Sky Rogue (PC, Xbox, Switch), Drift Stage (PC) - and director of numerous digital, print, and web projects.

Utilizing an array of techniques acquired over a decade of experience in the design and entertainment industry, in addition to over eight years of experience in game design and working in an interactive asset devlopment pipeline.

Charles demonstrates a broad range of abilities - focusing on grid system based process design, with an emphasis on high contrast color theory and optical pattern bias - resulting in inventive solutions adapted for optimized and production minded workflows.

From 2014 to 2020, the majority of his work focused on mechanical design, developing a highly experimental and detail intensive approach for “high-res” pixel art applications with the racing game “Drift Stage”. In addition to a combined effort over their college and early working career, proceeding until the present day - in producing the aerial combat game “Sky Rogue” and its related initiatives.

Charles highlights a working knowledge of multifple areas of discipline, in addition to contributions to numerous international market projects and regional properties - Charles offers a studied and varied academic background with output centric production methods. Experience with the methodology and technical limitations of pixel art production, taking both consumer and enthusiast expectations into account.

In addition to an education in art history, a catalogue of shipped products (digital and physical) lend Charles a familiarity with changing contemporary trends, market demands, a working knowledge of traditional fiction and literary themes, making for a uniquely qualified applicant.

2022 - 2023 EDITION. V1.6
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Charles Blanchard | Graphic Design / Creative Director

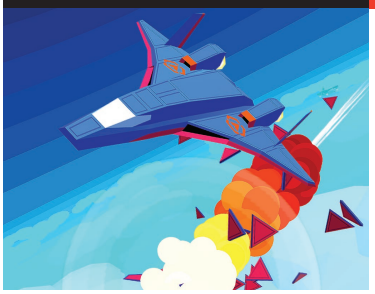
Highly skilled and detail oriented artist and designer with versatile skill set across multiple mediums; Eleven years freelance experience in web, digital, print and 3D design. Co-founder & CCO Super Systems LLC. Over a decade of independent experience. Multiple shipped, long-term; cross-platform projects.

WORK EXPERIENCE

2015 — PRESENT

Super Systems Softworks LLC
Founder, CEO, CCO.
Design Lead.
Media Marketing Direction.
Asset and Financial Management.
Merchandise production and design, Licensing.

2014 — 2021



Sky Rogue (PC, Xbox, Switch)
Design Contractor.
Art Direction, Creative Lead.
3D & 2D Asset Creation and Conception.
Mechanical Design.
Marketing.
Alpha Testing & Debug Phases.

2012 — 2017

Freelance Designer (Various studios, greater NYC area.)
Development of product packaging elements, in conjunction with promotional web presence.
Production based design & iteration over multiple quarters.
Cross organization dynamics managed via multiple forms of communication and file-sharing platforms.
(email, phone, meetings, dropbox, physical postage, on-site delivery.)

APPLICABLE SKILLS

3D & 2D Design | Typography | Print Media | Concept Design | 3D Modeling | Print Media | User Interface Theory | Vector Art | Industrial Design | 3D Printing | Web Design |

EDUCATION

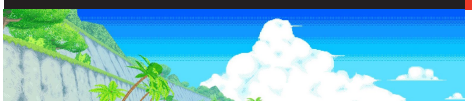
Associates in Applied Science | Communication Design | 2012 — 2014
Northampton Community College | Bethlehem, PA
GPA: 3.65
Deans list: 2012 — 2014
Phi Theta Kappa Honor Society 2014 - Present.

SOFTWARE PROFICIENCY

Adobe Illustrator 2020 | InDesign 2020 | Photoshop 2020 | After Effects 2020 | Maya | Blender | Marmoset Toolbox 4 | Autodesk 3D Studio Max |

MEDIA

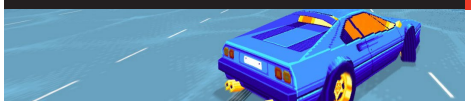
Rolling Stones



"How Games Are Resurrecting the Eighties, One Neon Sunset at a Time"
— Luke Winkie | September 6, 2016

http://www.rollingstone.com/culture/news/how-games-are-resurrecting-the-eighties-w438319

Red Bull



"Drift Stage: Retro Racing Nirvana"
— Jon Partridge | January 23, 2015

https://www.redbull.com/us-en/drift-stage-kickstarter-interview

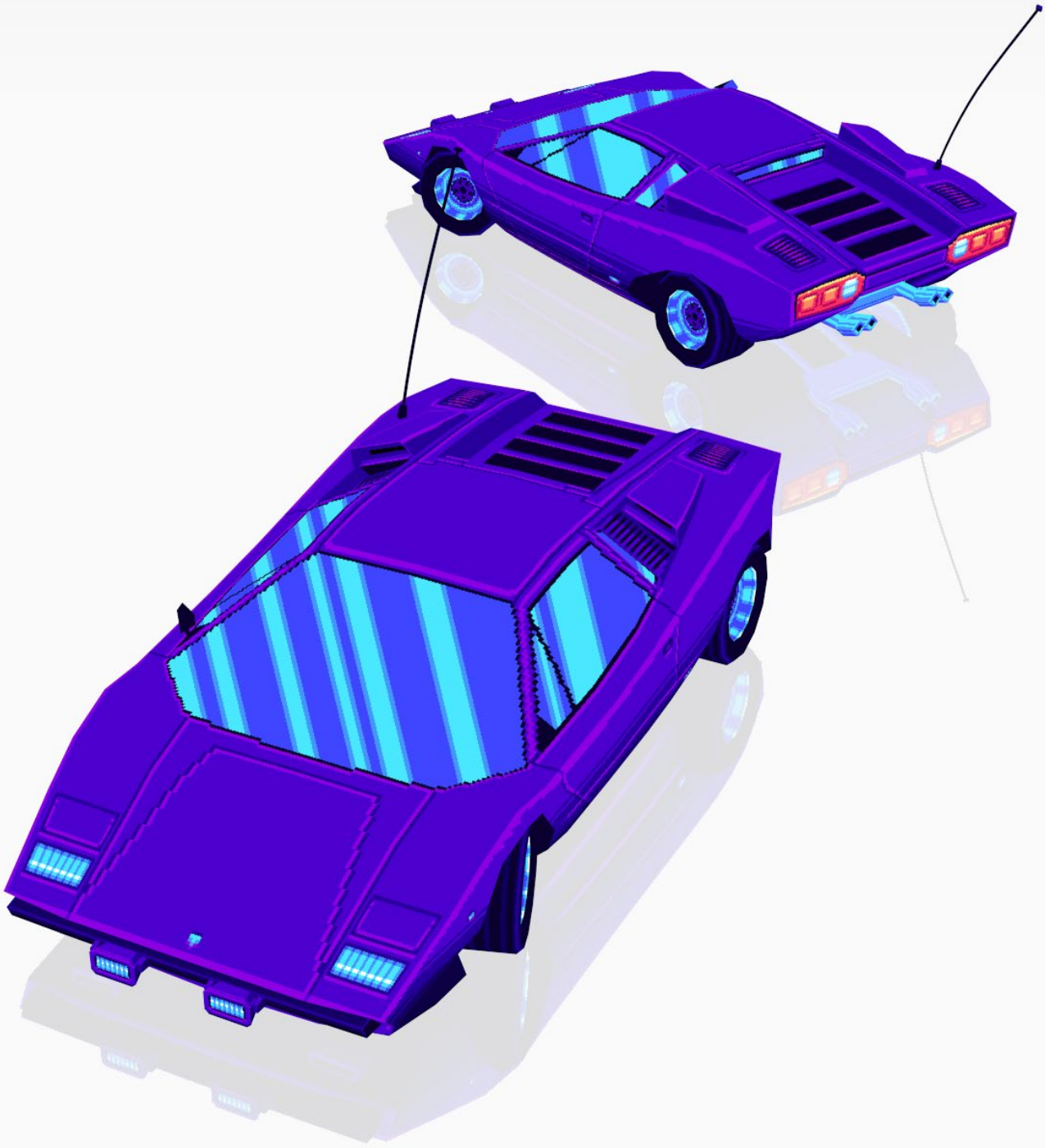
COURSE OF STUDIES:

- Drawing I.
- Drawing II.
- Principals of 2D Design and Color.
- Computer Graphics.
- Principals of 3D Design.
- Introduction to Web Design.
- Advanced Web Design.
- Digital Design and Typography I.
- Digital Design and Typography II.
- Web Animation.
- Package Design.
- Portfolio Workshop.

REFERENCE

Traci Anfuso-Young	**Director/Designer at TLA Design Studio** Adjunct Professor - Northampton Community College.
Michael Rajna	**Senior Director of Business Development & Licensing.** Konami Digital Entertainment, Inc.
Katie Schaffer	**Software Engineer II.** Microsoft Cloud Divison, KatieZone.biz Web Developer.
Alex Palomares	**Director of Business Management | Developer Relations.** Nintendo of America Inc.
Jaime Toth, PhD	**Adjunct Professor | Marketing Director.** University of Phoenix.
Richard Duck	**Developer Relations | Manager.** Nintendo of America Inc. Meta Platforms, Inc.
Daniel Williams	**Football Coach, Multi-Win District Champion.** Tamaqua Football League

3D Studio Max
Scanline Render
Raytraced Reflections.

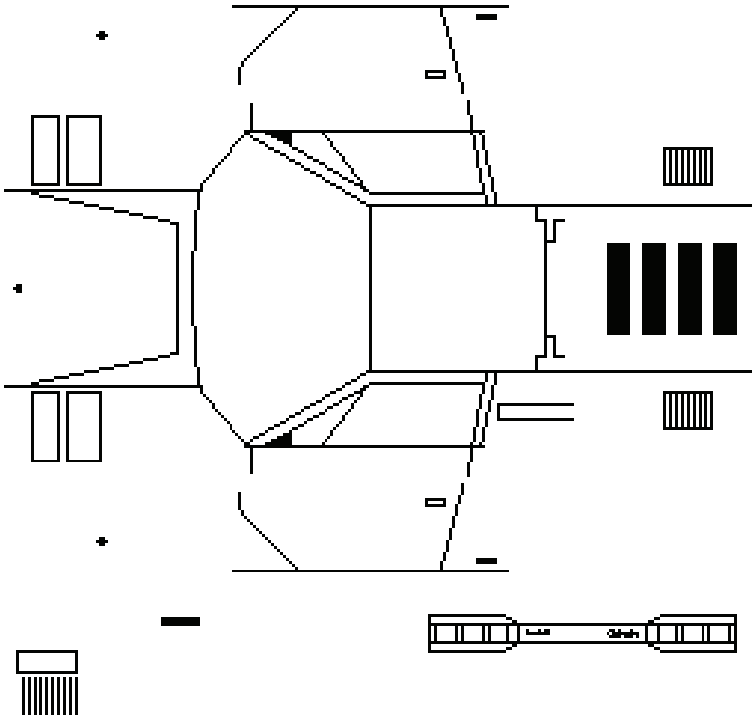


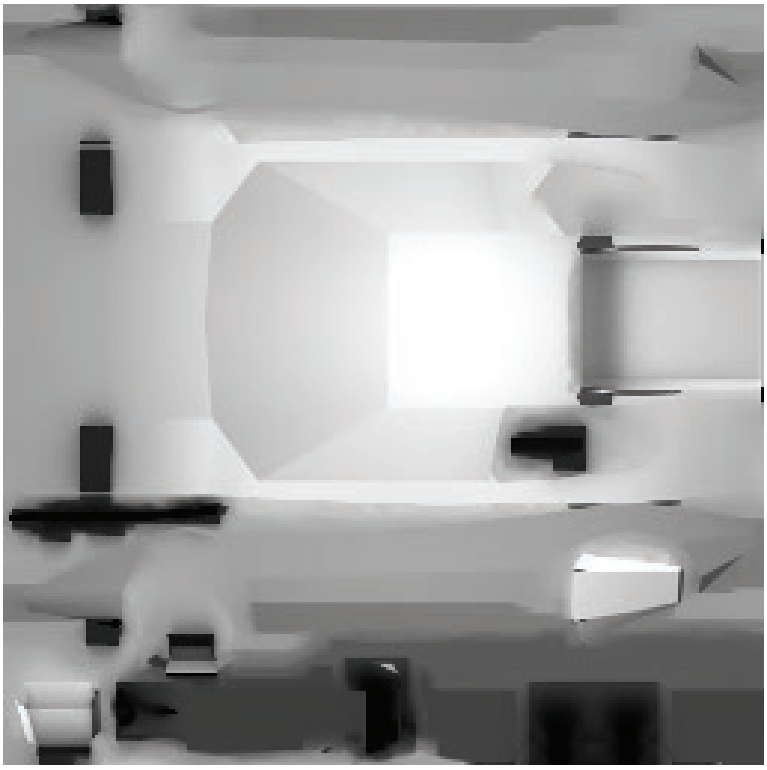
LP400 Sports Car | 1664 Triangles

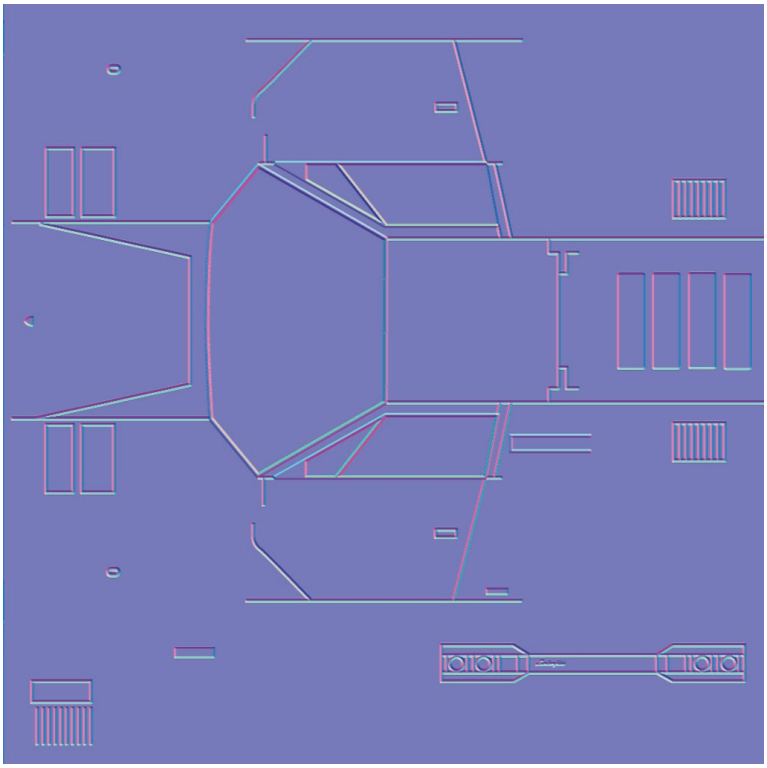
Brief:

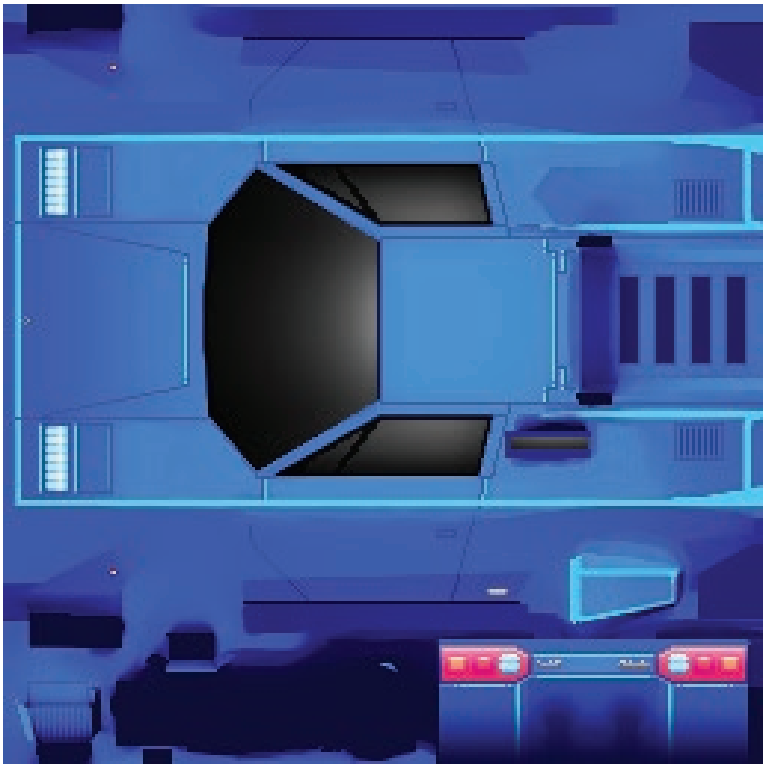
The car model shown above represents a design process that incorporates the high-fidelity and nostalgic qualities of pixel art with low-polygonal, highly optimized 3D models. Taking advantage of the inherit qualities of a fully-lit material with no texture filtering, this style offers minimal performance impact, allowing for high density asset popualtion in engine.

Reusing the same UV-mapping and base detail texture maps allows for a seamless and modular conversion to more contemporary art styles, using normal mapping and ambient occlusion to achieve different shading. The adaptability of this method allows for reusable assets given multiple art-directions or concepts that would normally require entirely new models and textures. Used in conjunction with shaders, this process yields detailed and efficent assets.









Texture Process | LP400 Sports Car

The approach taken in creating the maps for both variations of the “LP400” model, employ an iterative process, starting with an initial monochrome detail map, derivied from a single 256x diffuse map.

This map is then traced with a vector art program, allowing for a scalable template for conversion into normal maps, or as a base for the diffuse map.

Wireframe

Wheel detail showcasing normal mapped pattern derived from vector file.

256 x 256 normal maps, down-scaled from high resolution.

1024 x 1024 normal maps, baked from vector file.

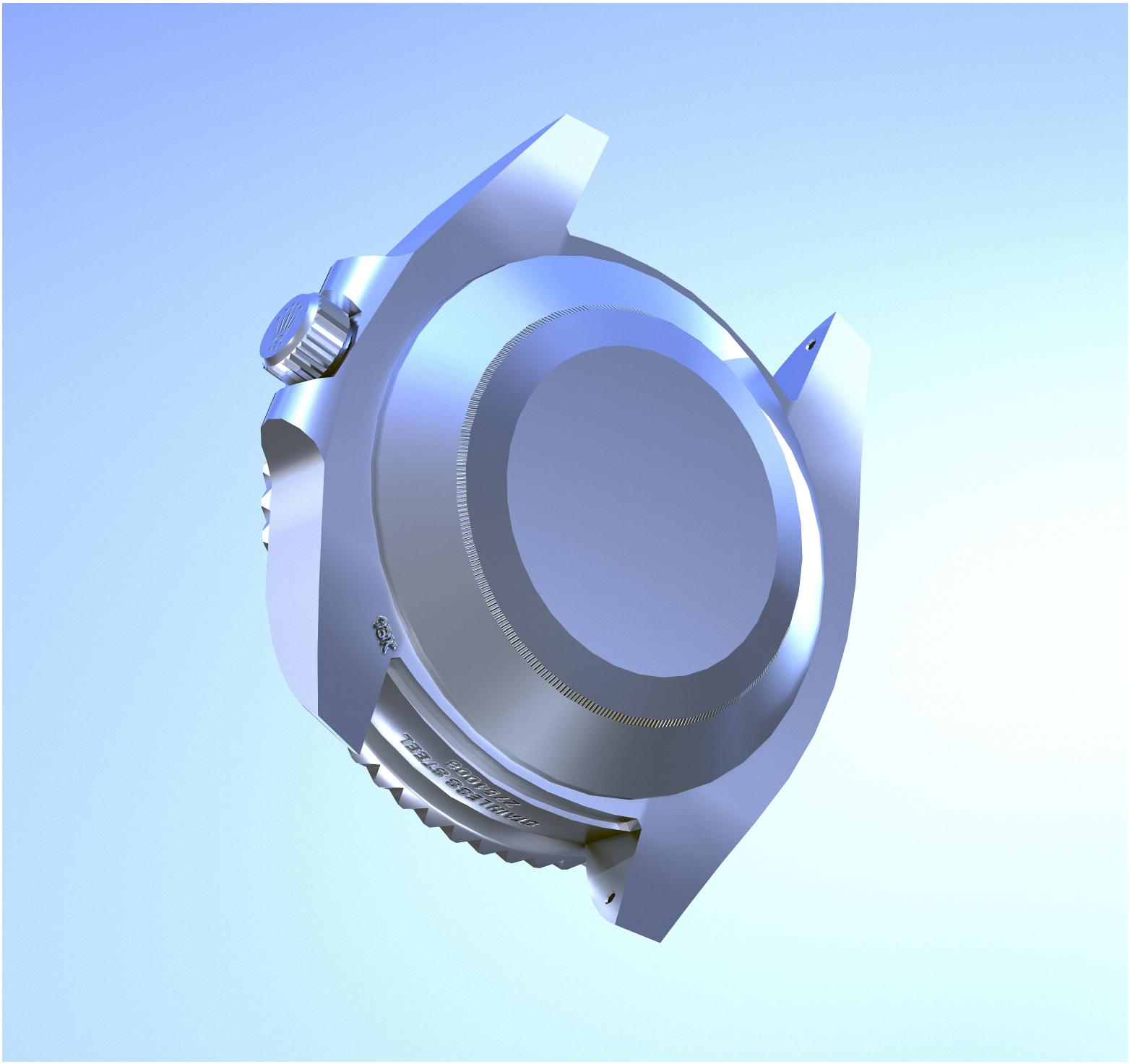
Comparison of 1024x and 256x normal mapping.

Dive Watch I 6560 Triangles

Brief:

This exercise demonstrates an efficent and adaptable modeling and texture solution that incorporates all of the nessesary facets required in contemporary rendering pipelines; reducing the overall complexity and dependance on specialized tools and proprietary software.

By utilizing the inherent qualities of modern shaders; I opted for modular, monochromatic texture maps - all based on scalable vector art. This allows for in-engine conversion to normal maps, in addition to highly portable conversion to any other required map. The end result allows for easily repacked or compressed texture files, leaving final color & surface properties to the engine - while still maintaining ease of creation and modification with image-editors.

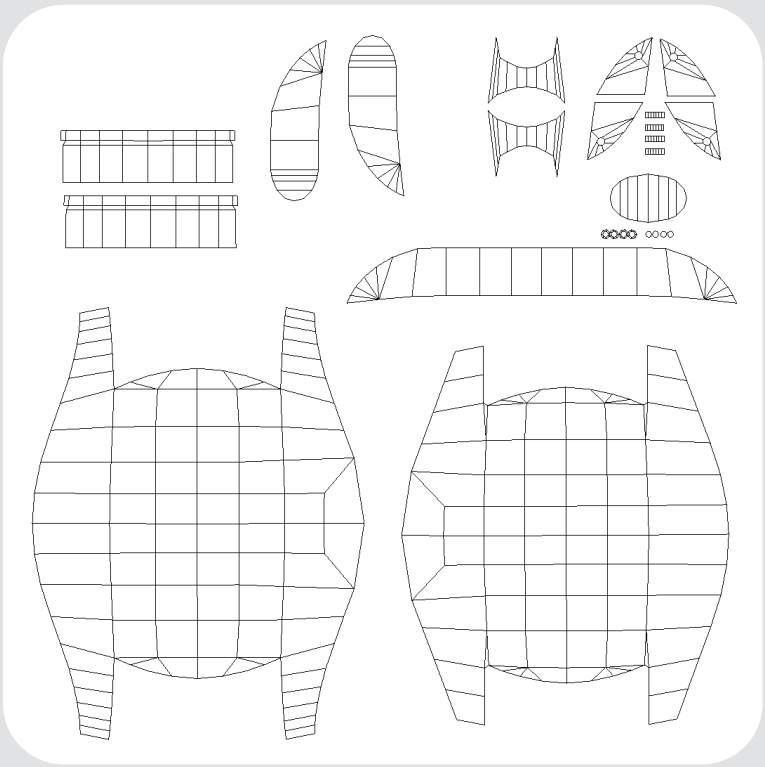


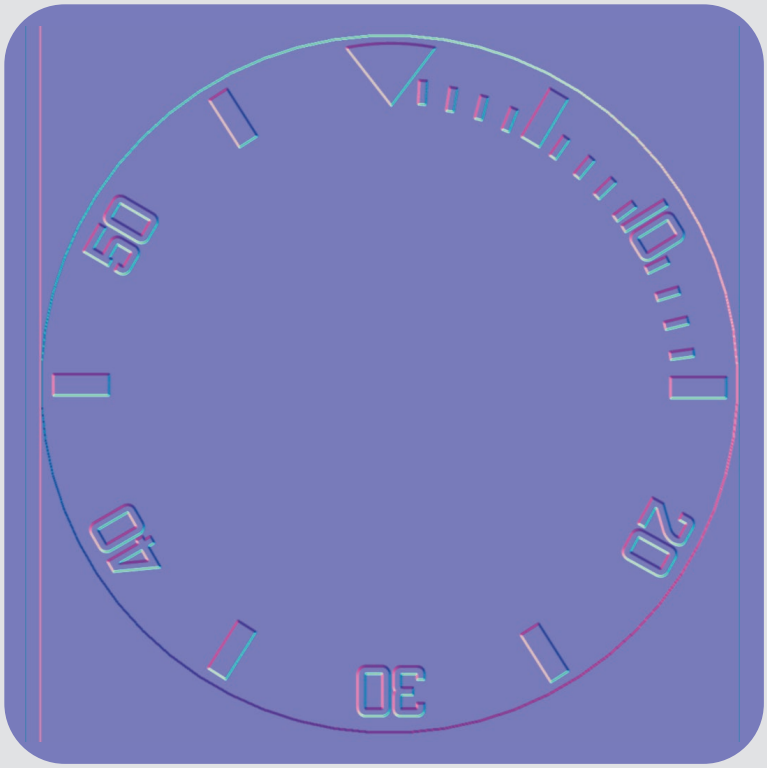
In regard to the geometry used on this project, a low poliginal base mesh was created, utilizing quads and easily subdiviable surfaces to allow for increased fidelity. This method also enables ease of modification of the basic case model - in order to create variations. Certain parts of the model, such as the bezel teeth - were made intentionally as simple as possible to showcase maximum optimization potential while still maintaining correct silhouetting and shape recognition.

Overall, the combined effect of highly optimized geometery, simple but detailed and effective material process, and a modular and portable workflow allow for high fidelity graphics in almost any rendering environment; irregardless of the type of shaders used, whether they be raytraced or a simple environemnt map.

Professional Dive Watch
Marmoset Toolbag 4
Raytraced at 512 Samples
6,560 Triangles

1000/ft=300m
SUPER ATIVE CHRONOMETER
OFFICIALLY CERTIFIED
SWISS
30





Texture Examples | Dive Watch

Material Process:

The examples, shown above - demonstrate the process of the initial UV unwrapping, baking of ambient occlusion, creation of diffuse maps, and final compsition; if applicable.

For the purposes of this model, multiple 1024x1024 texture maps were utilized. This method of mapping allows for the maximization of details, font clarity, and texel density for scalable optimization by reducing or increasing the maps exported size.

Viewport Wireframe

Wireframe | Viewport

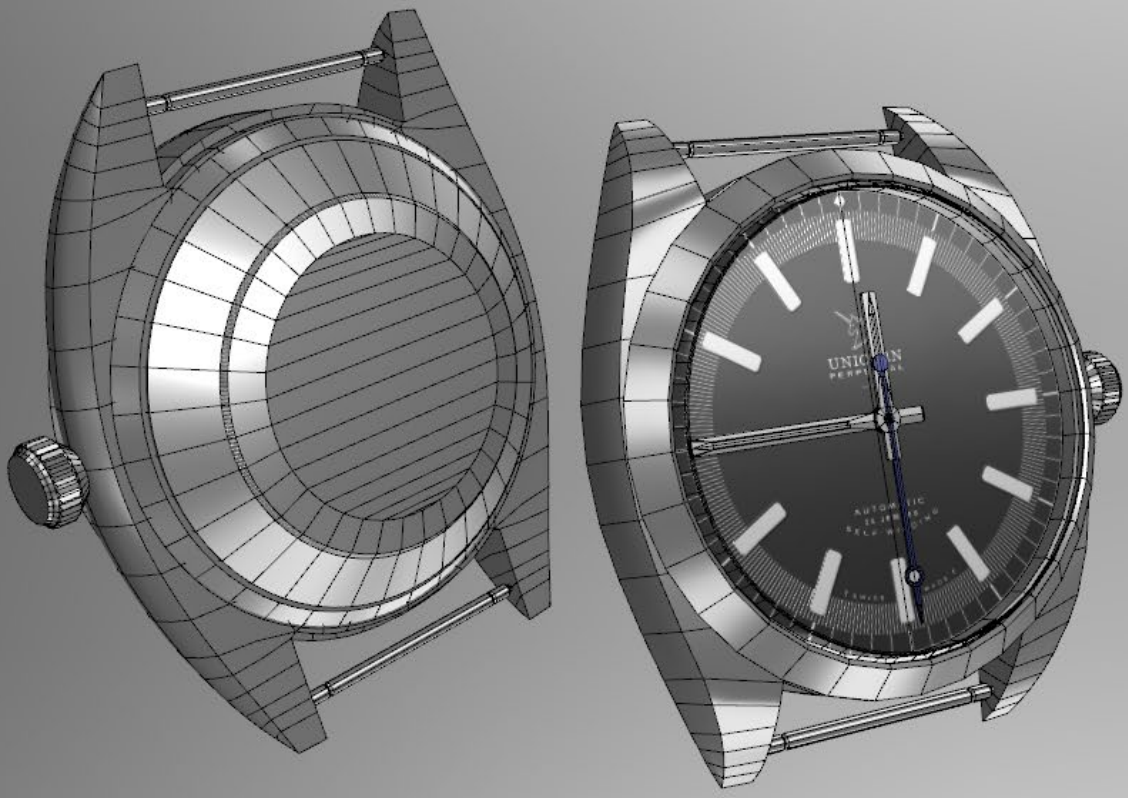
Thesis & Conclusion:

The initial goal of this project sought a highly portable and modular design process that yielded production quality, high detail assets with fewer dependacies on licenses and specialized software packages - all while mainting maximum compatibility and portability with modern work environments; including game engines and more exotic rendering suites. Overall, the desired effect is achivable on both high and low specification hardware; making this process extremely versitile accross mobile, web, and PC platforms.

Alternative Applications

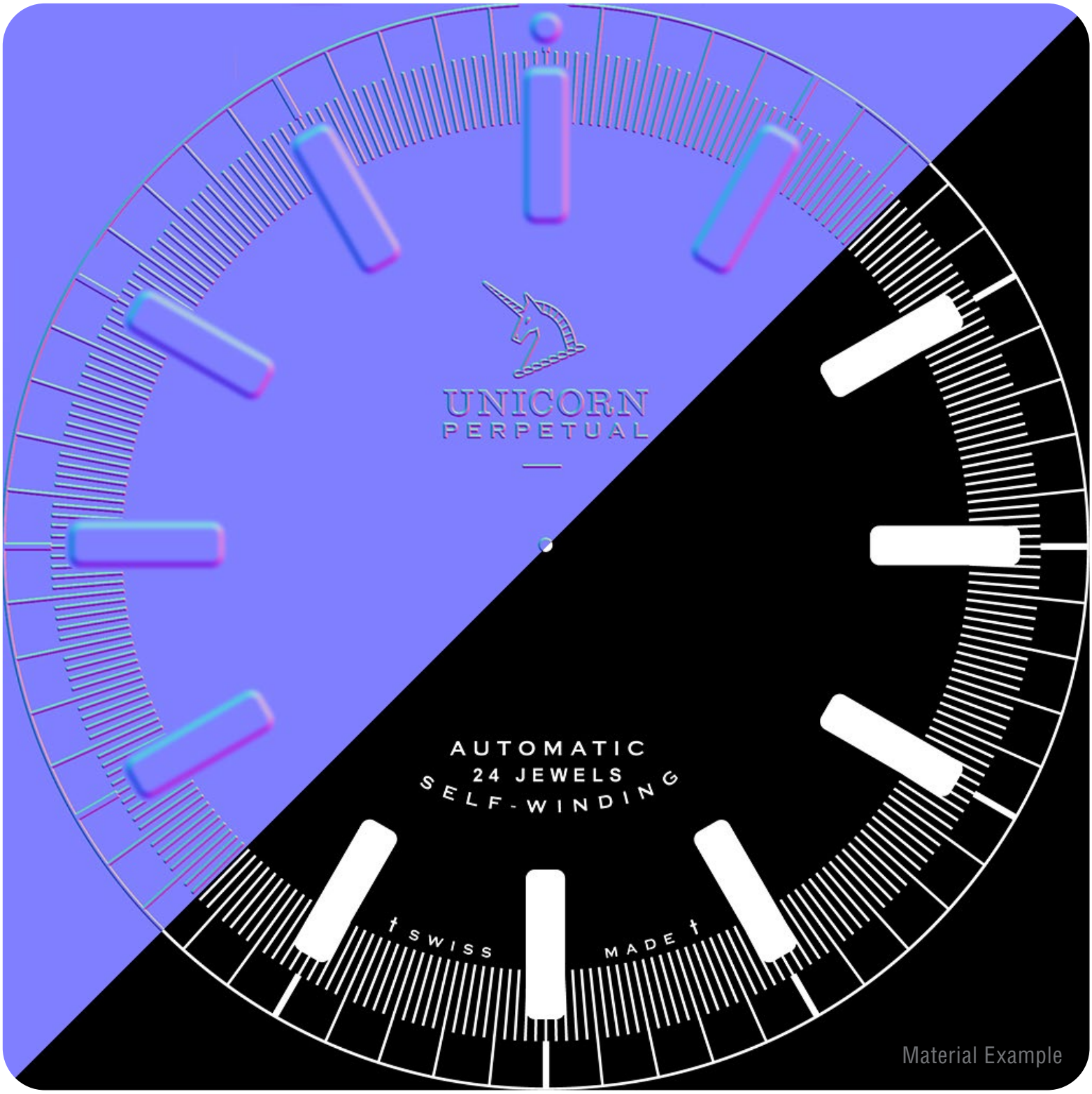
Variations applied to the base mesh and textures.

Gold Automatic Watch
Marmoset Toolbag 4
3,740 Triangles



Viewport Wireframe

Material Detail
1024x Normal Map + Diffuse

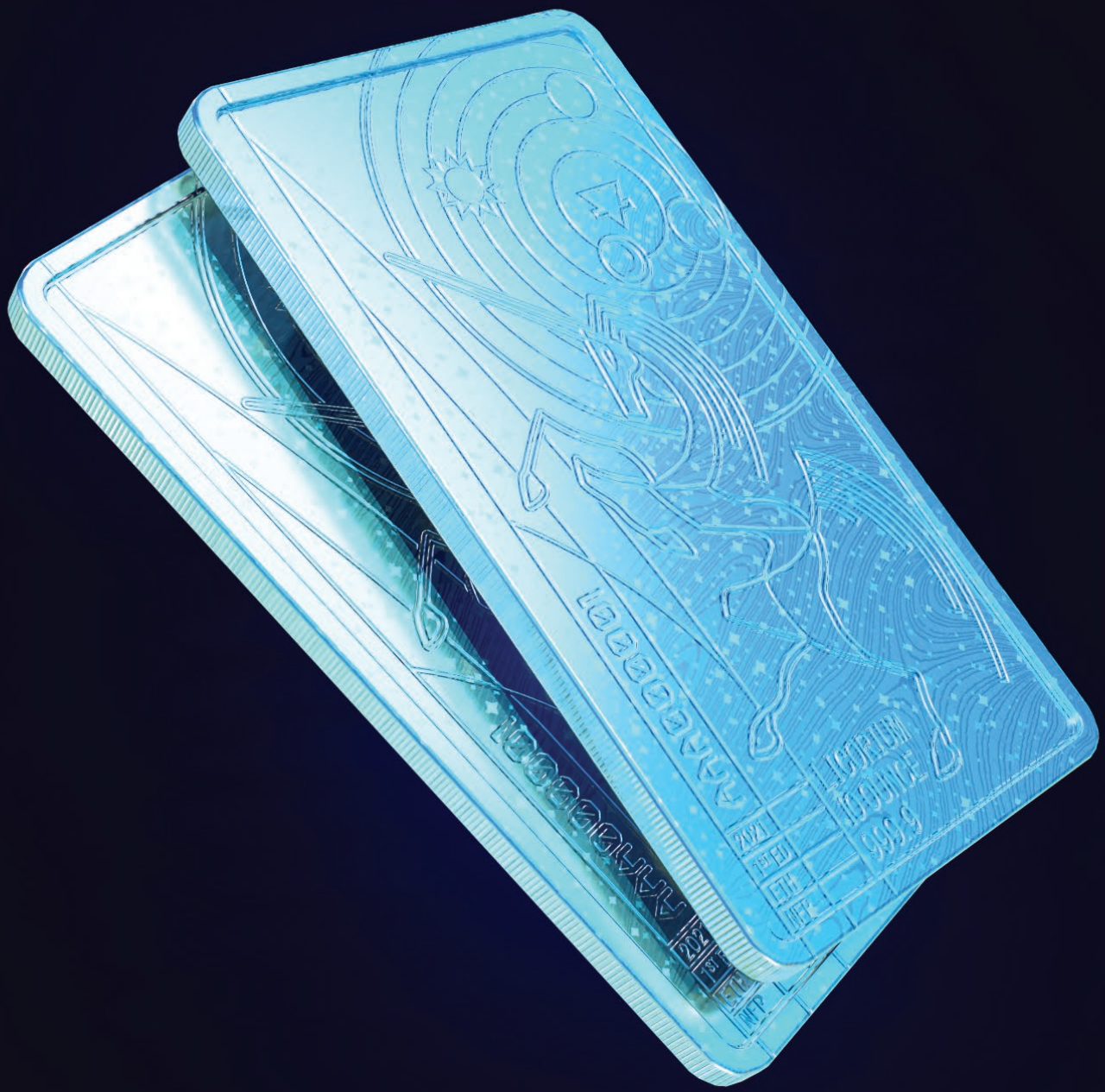


Alternative Process Observations.

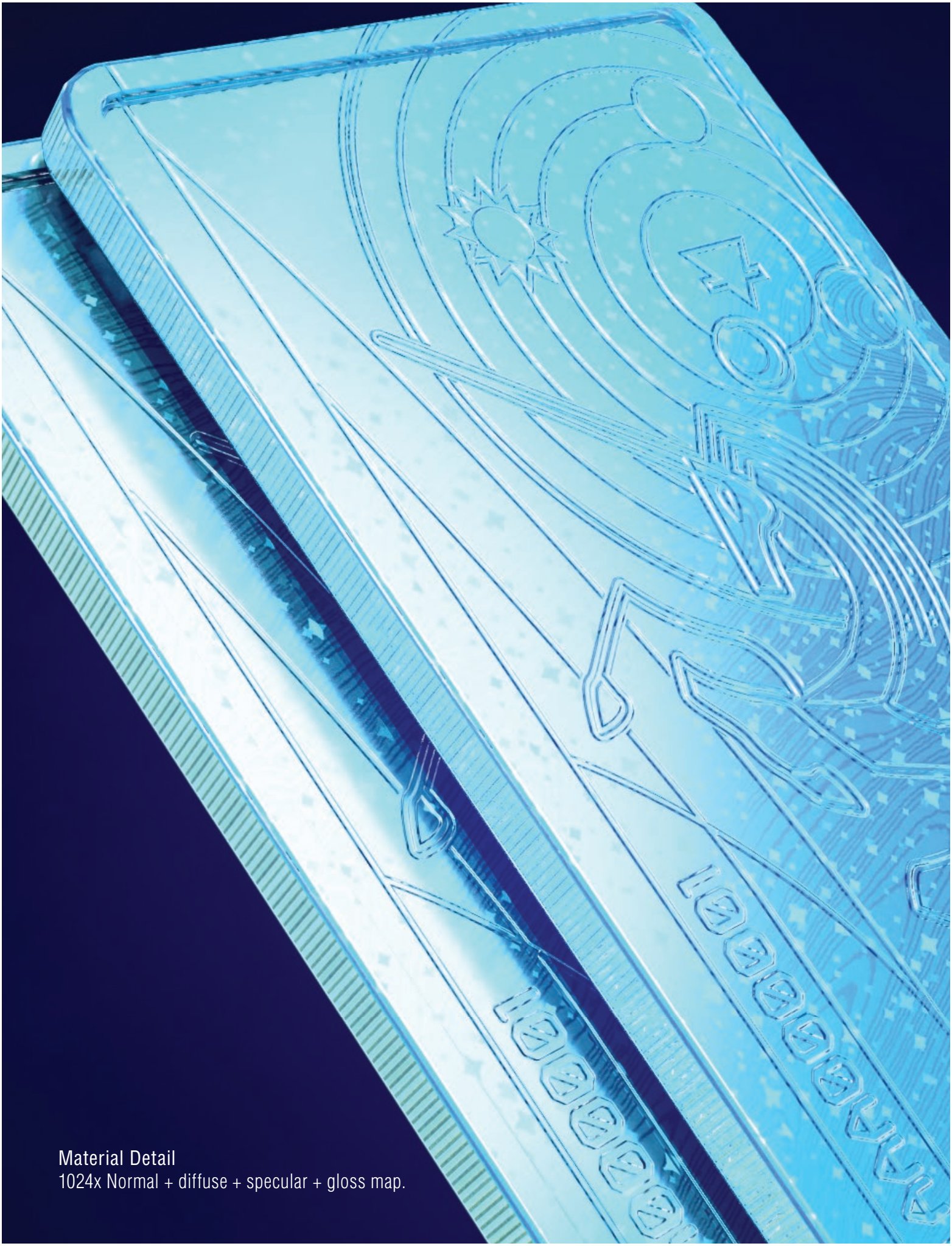
Application of post process otimizations resulted in a reduction of over half the triangles of the pervious dive watch model; due to the absense of detail geometry on the clock dial's face - and overall trianlge count reductions reflecting changes intrinsic to a simpler bezel design. This application relied on the conversion of a high detail vector file directly to a composited normal map.

Higher surface detail and precision can be employed when working with a 2D source file, outside of a typical modeling or rendering software pipeline.

Specular Applications



Material Detail
1024x Normal + diffuse + specular + gloss map.



Material Detail
1024x Normal + diffuse + specular + gloss map.

“Charizard” - 2017

High Poly Mesh.
3D Printable Model.
Marmoset Toolbag 4; 2017.

Drift Stage Vinyl Album, Vol. 2 - 2016

DRIFT
STYLE
45 RPM
SUPER
SYSTEMS

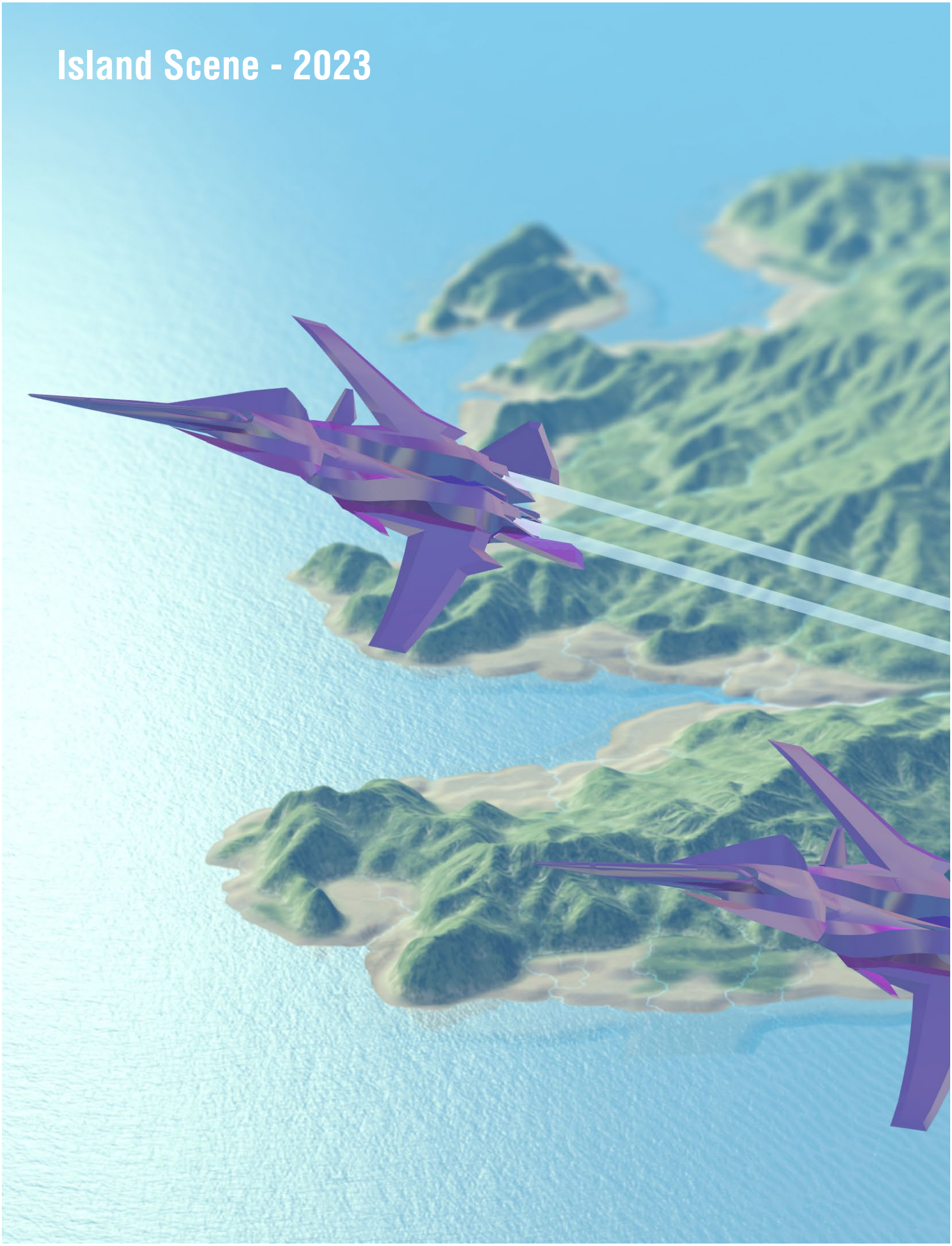
Drift Stage Vinyl Album, Vol. 1 - 2016

DRIFT
STAGE
45 RPM
SUPER
SYSTEMS

Drift Stage Logo, Vinyl Stick Sheet - 2016

DRIFT
STAGE
DRIFT
STAGE
OFFICIAL LOCO
HIGH GLOSS VINYL DECALS
FOR COMPETITION USE ONLY
CAREFULLY PEEL BACK DECAL OFF SHEET
AND APPLY TO A DRY, CLEAN SURFACE
DESIGNED AND
MANUFACTURED IN USA
-BY-
SUPER
SYSTEMS
© 2016 SUPER SYSTEMS SOFTWORKS

Island Scene - 2023



Nintendo Switch Joycon - 2017

Pixel Art

Charles has been producing pixel art of various specifications for over 20 years, starting at the age of eleven. Early reference came primarily from the study of 16 and 32 bit console and arcade games - eventually branching into an interest in hardware specific palettes; cullimating in high detail images at multiple resoultions.

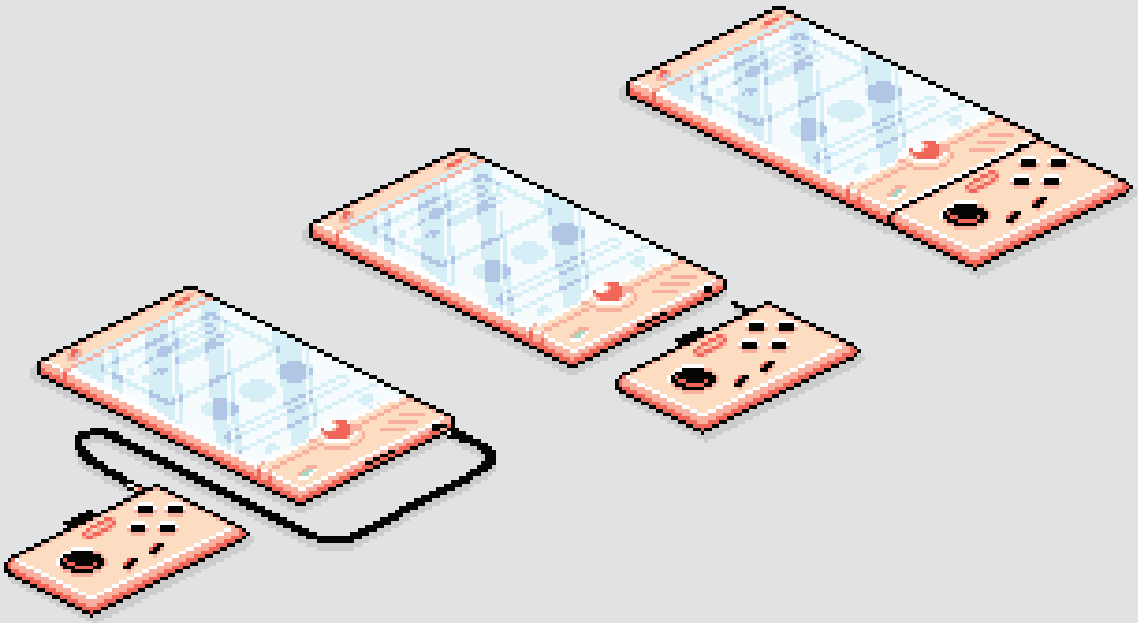
In addition, Charles has developed a number of original techniques in the application of hand-made pixel art to 3D models - specifically in the area of low-poliginal, unlit meshes. This same application allows for vivid greens and lush vegetation, as well as detailed and smooth solid surfaces designs.

2015

2014

2014

2017



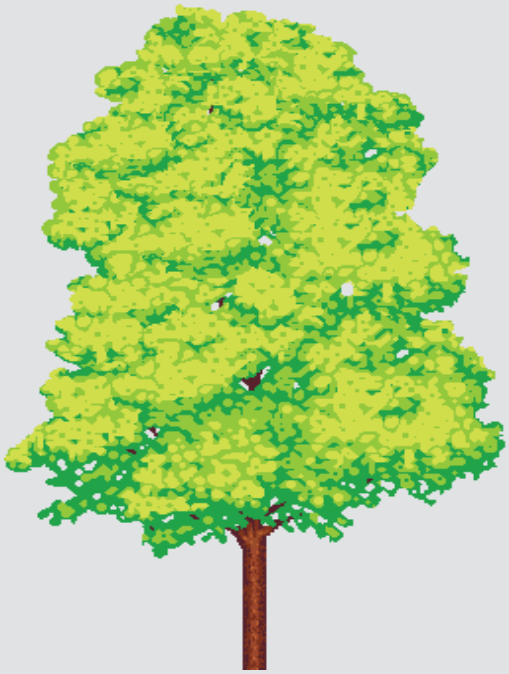
2011

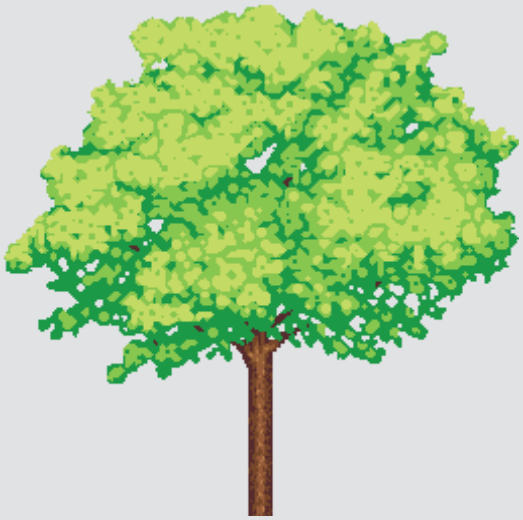
1

2

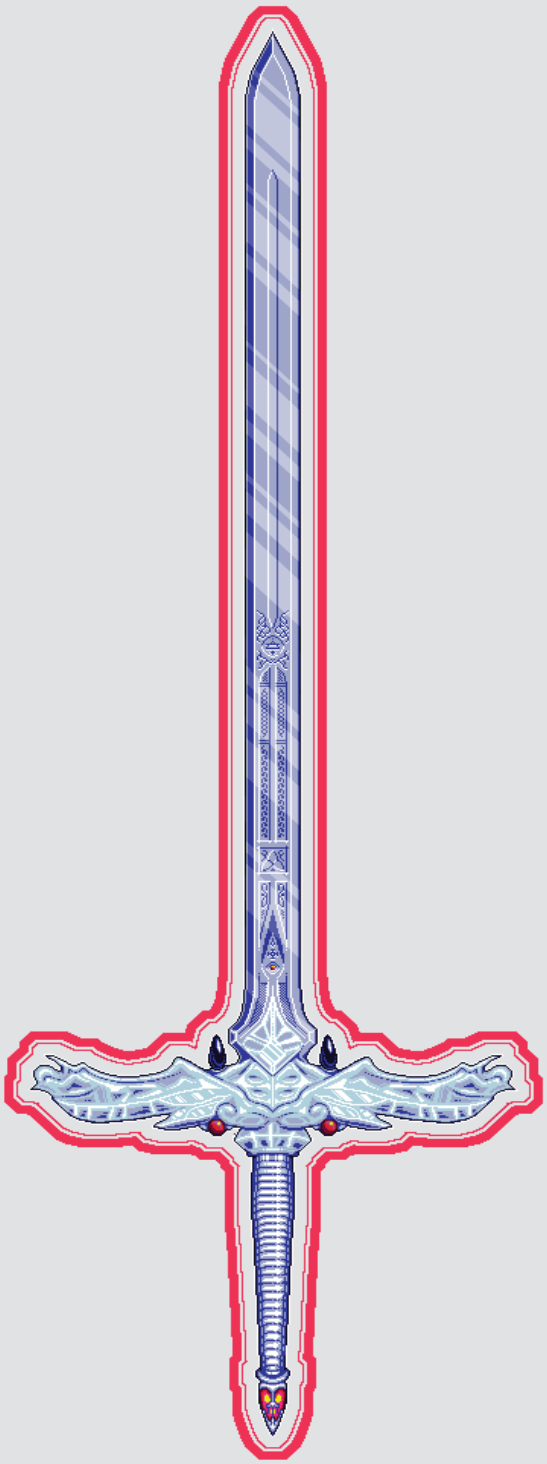
3

2017



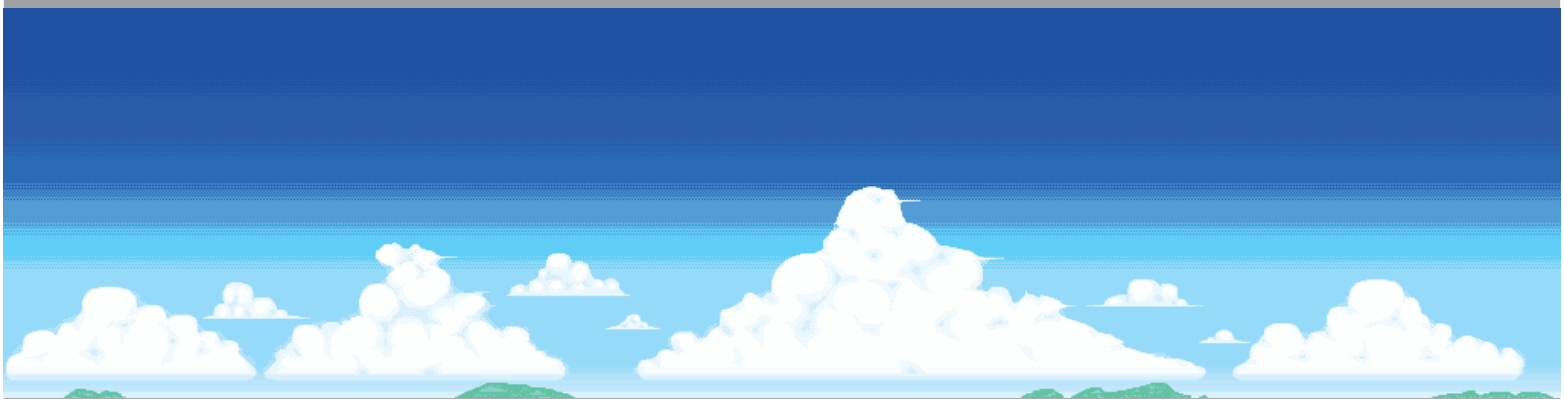


2022

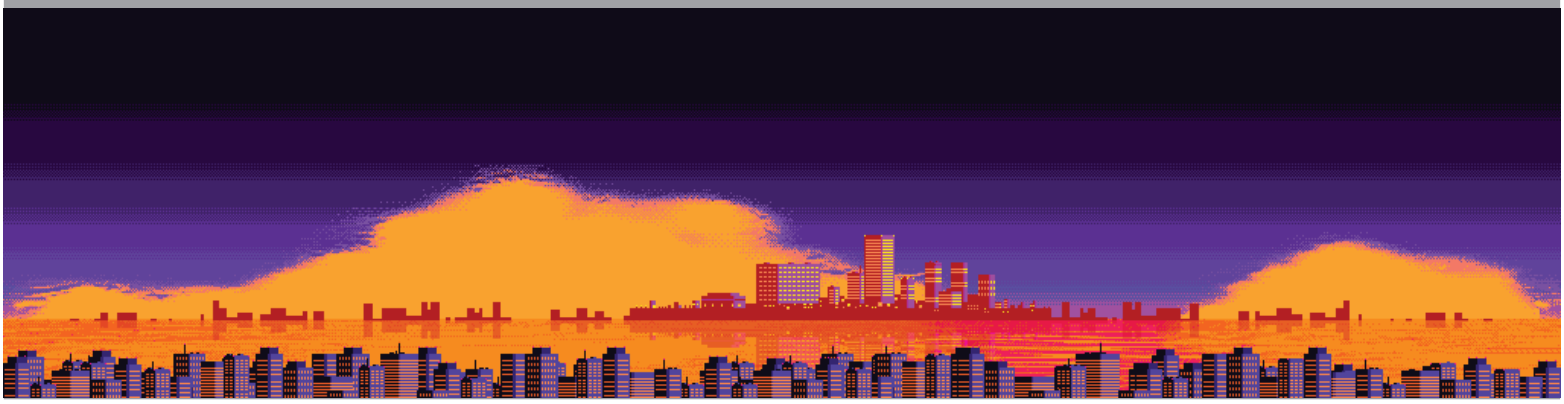


Parallex Scrolling Sky Boxes & 128x Tiling Maps — Drift Stage

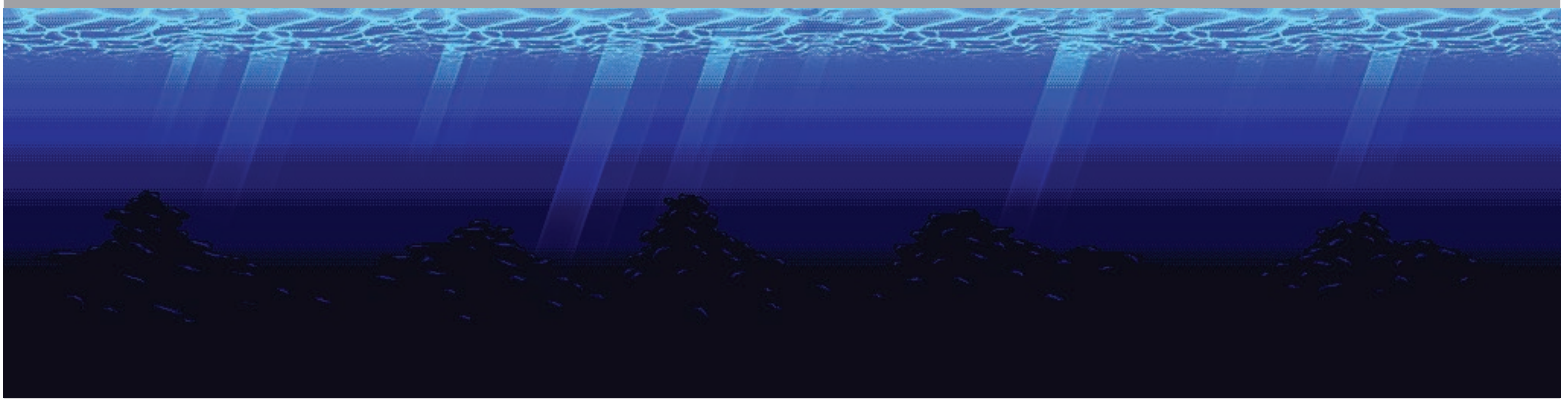
2012 / 1024 x 256



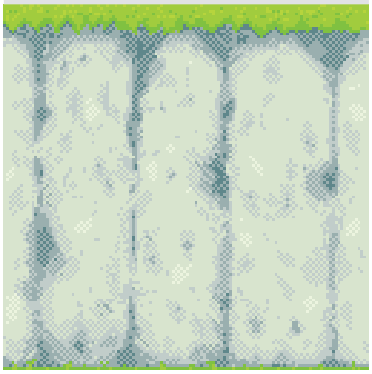
2017



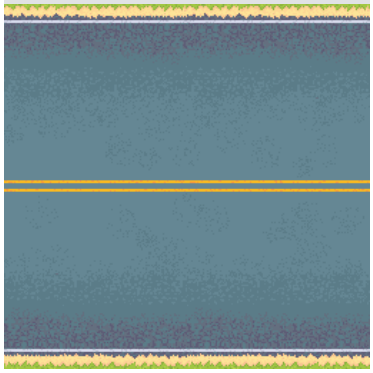
2018



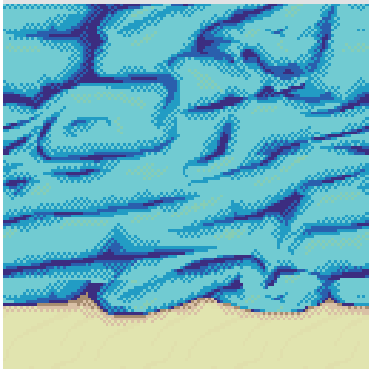
2016



2016



2017



2017

2018

2018

2018

2012

2018

2018

2014

2017

2017

2014

Concept Rendering — 2017

OCT 22'

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