



AN INTERACTIVE ARCHIVE

Lena Pang — Elements III | Project 2

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SECTION I

Project Definition

The Opportunity

The Porsche 911 has many, many, many variants.

So many that the terms can quickly become overwhelming and confusing. (What's a 992? Is that a 911? What's the difference between a Targa and a Cabriolet? What does 4S mean?)

There are some articles and videos that give general overviews of the generation, but nothing to provide a detailed, comprehensive, chronological comparison.

Enter: the Porsche 911, an interactive archive.

Setting the Scene

ENVIRONMENT

- Porsche museum
- interactive exhibits at car-themed experiences

DEVICE

- 6ft+ tall touchscreen to display cars at scale (inspired by photos at right)
- speakers, ideally in a surround sound setup for a more integrated experience

Goals

EDUCATE

- eliminate the barrier of entry by organizing the material to make it less overwhelming and intimidating
- create one cohesive chronology of all 911 variants, sub-variants, etc throughout time

INSPIRE

- embody the passion and creativity in the 60 years of Porsche 911 variants
- create a visceral experience through scale, interactivity, and sound

Use Cases

THE NEWBIE

- anyone new to the car scene, including children
- appeals to fascination and curiosity
- offer an easy-to-digest, intuitive overview of an iconic vehicle
- sound makes it more real/emotive

THE VETERAN

- anyone with knowledge or experience in the car scene (car enthusiasts, engineers, etc)
- appeals to passion/respect shared by most of the car community for one of the most awed cars in history
- beautiful illustrations to stare at, with the added bonus of thorough facts and more complex, detailed overlays/interactions
- car enthusiasts love the sound of engines

SECTION II

Research

Competitive Analysis: Porsche Museum

- located in Stuttgart, Germany
- features an **interactive touch wall** that allows visitors to explore through a collage of various Porsche models throughout history
- the **most innovative car museum**, as most others opt to feature static models of cars and/or car parts



Photos from the [Porsche Museum Website](#)

Competitive Analysis: 911 Video Chronologies

- lacking in visual intrigue and refinement
- a little hard to look at
- ultimately don't do justice in reflecting the true elegance and sophistication of Porsche
- interactivity (and the subsequent ability to freely and independently explore through different layers and factors) would take the educational experience to a whole new level



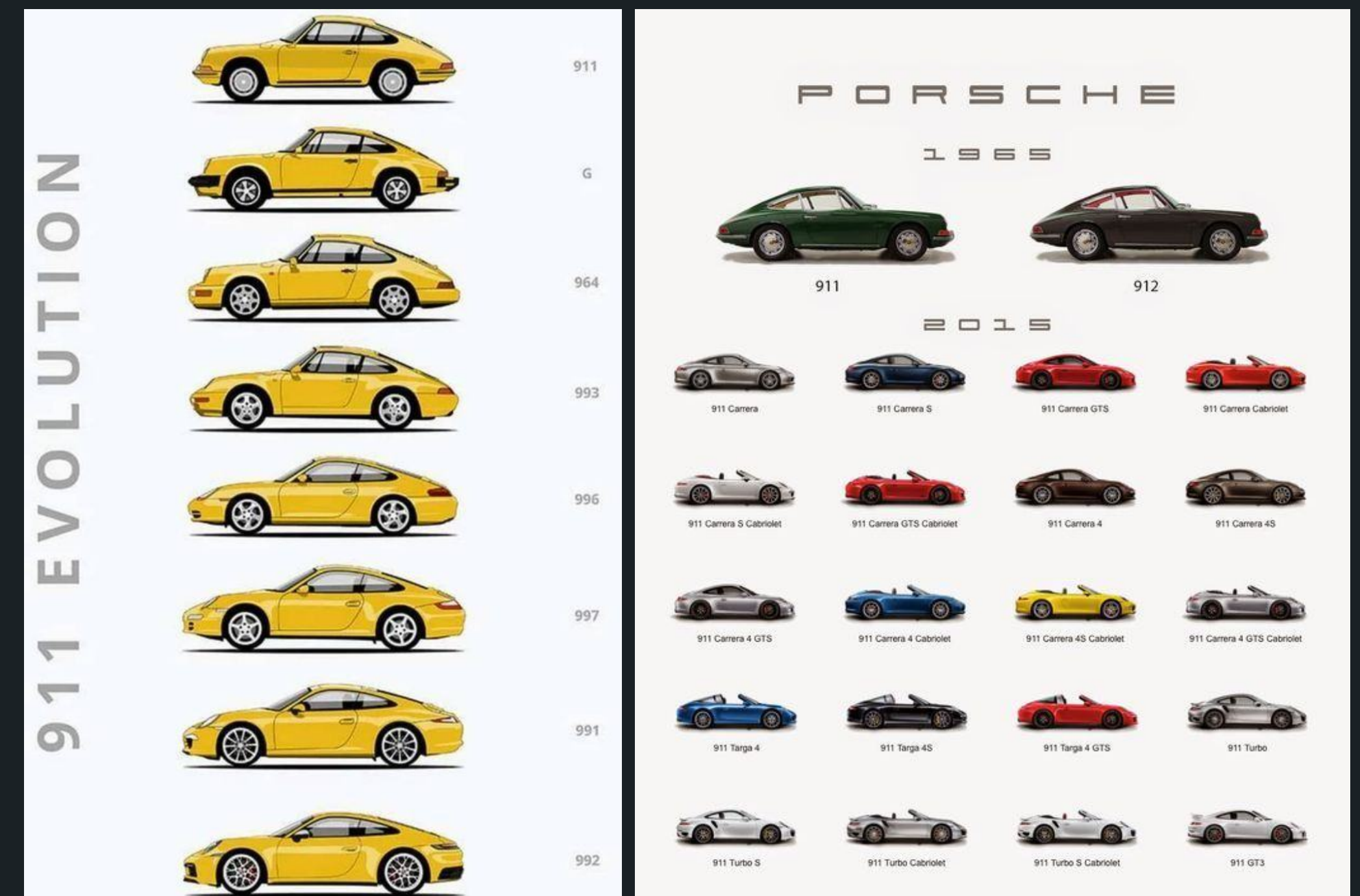
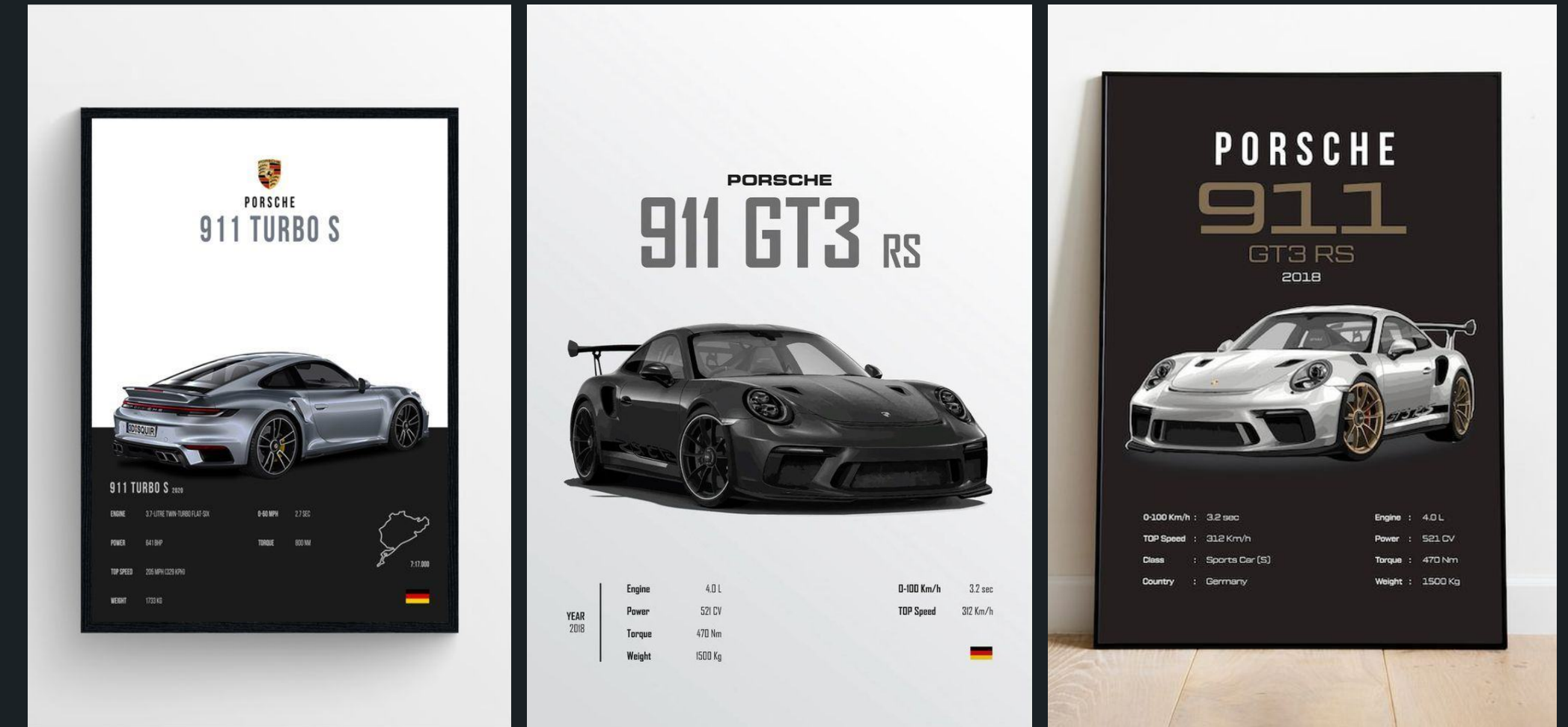
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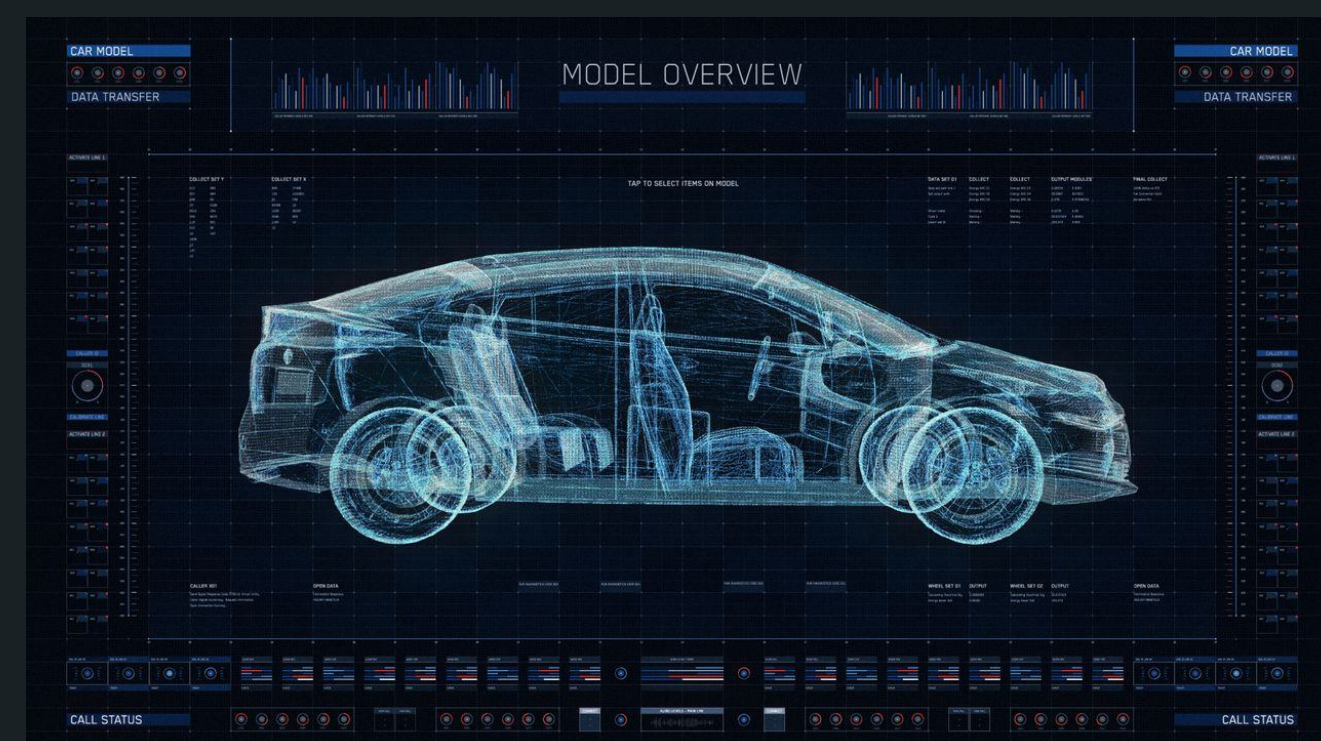
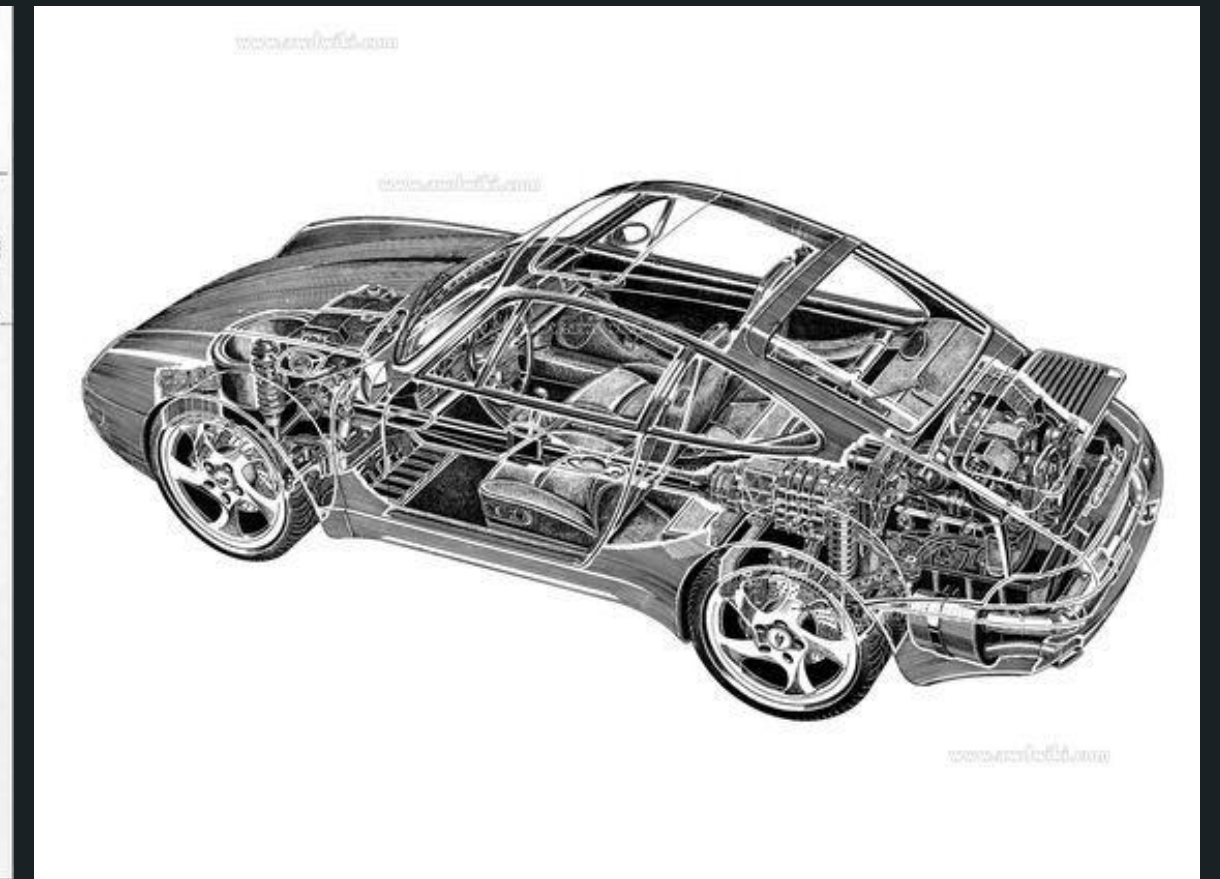
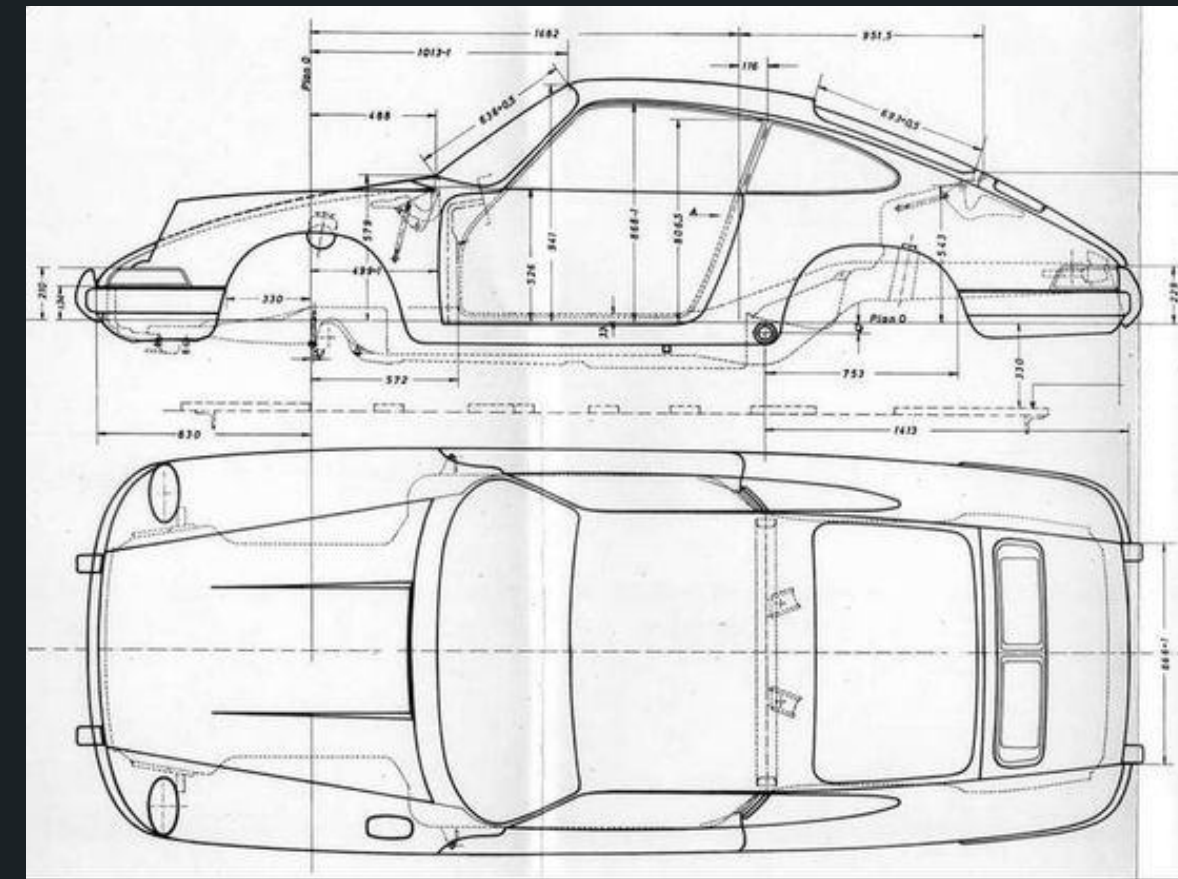
UI Trends: Car Facts & Evolution

- utilize negative space to make the car itself more visually impactful; has the potential to be made even more effective through interactivity and animation.
- most (static) evolutions show the variations side-by-side for easy comparison; could be a useful comparison to have in an interactive experience



UI Trends: Illustrations & Modeling

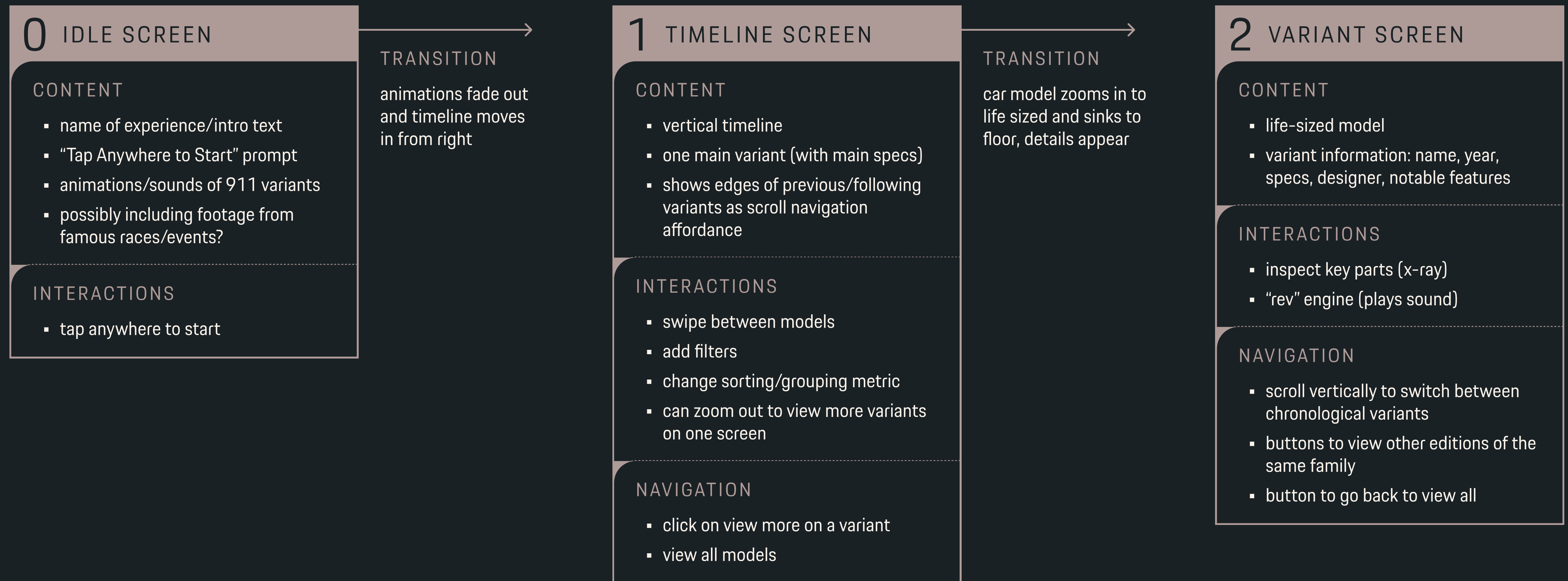
- shows the details and technicalities of a mechanical device
- older style: textured, rigid, detailed style reminiscent of blueprints/drafting
- modern style: 3D modeling/animating a see-through version of the device



SECTION III

Design Process

Prototype Flow



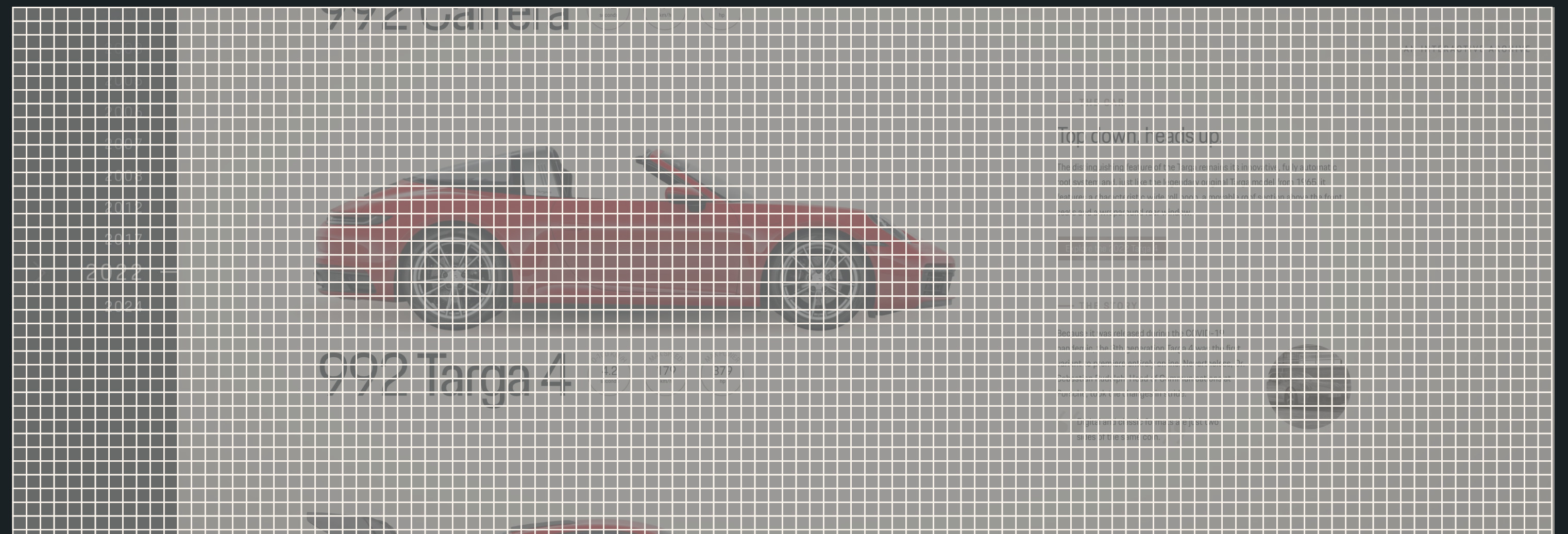
Base Grid

4 px base

- 16px grid shown
- 24px padding

VERTICAL SPACING

- vertically centered
- 24px text spacing
- 48px section spacing

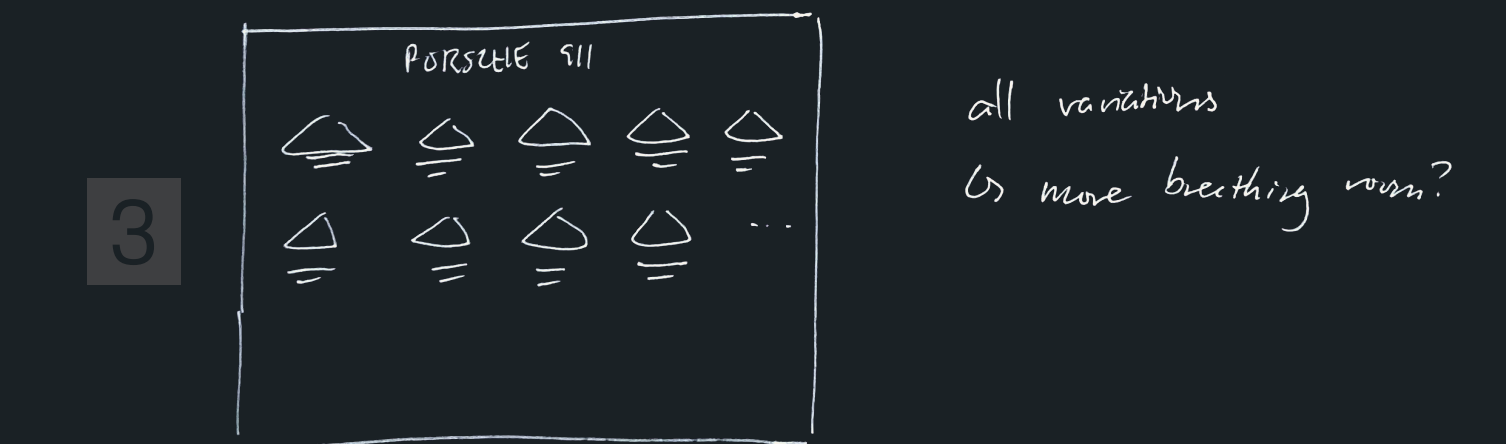
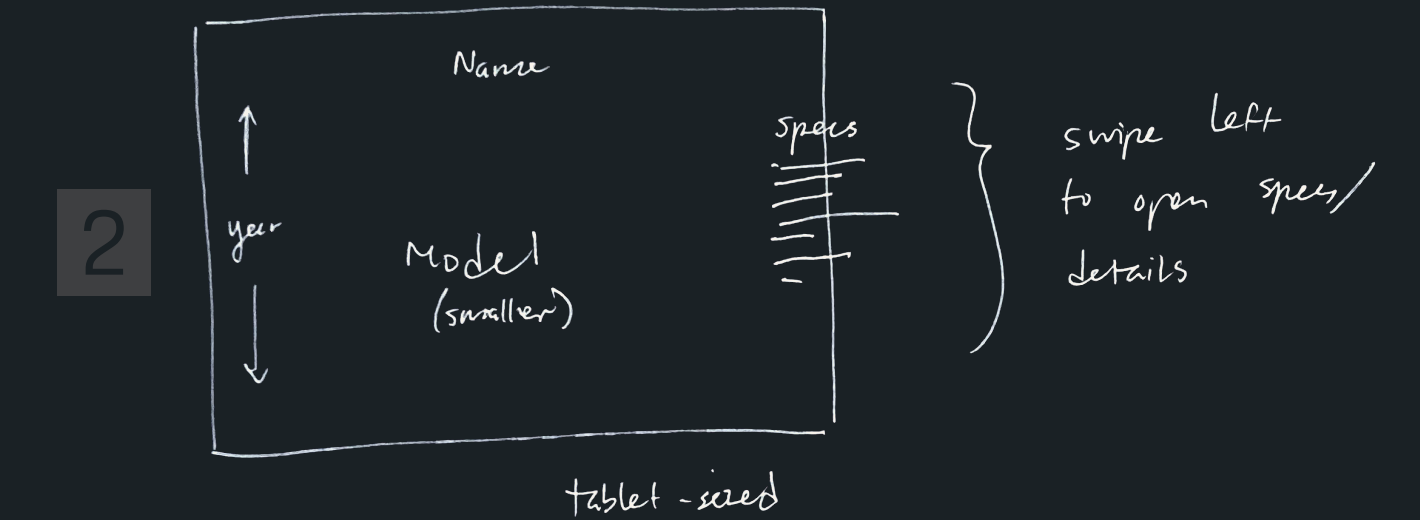
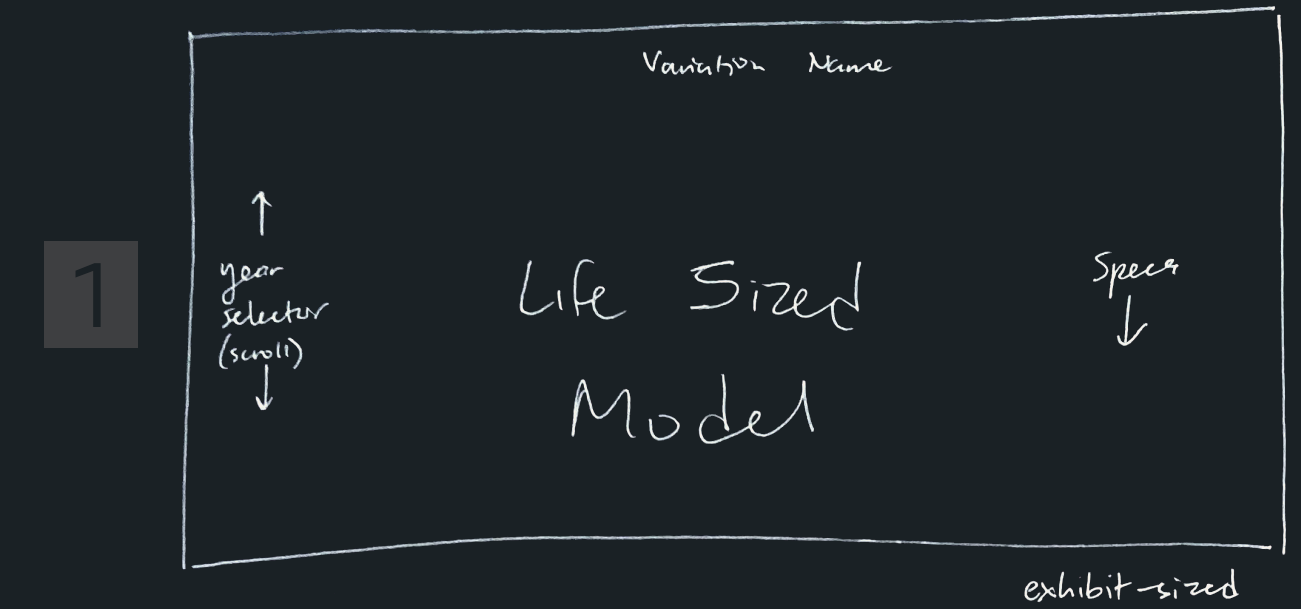
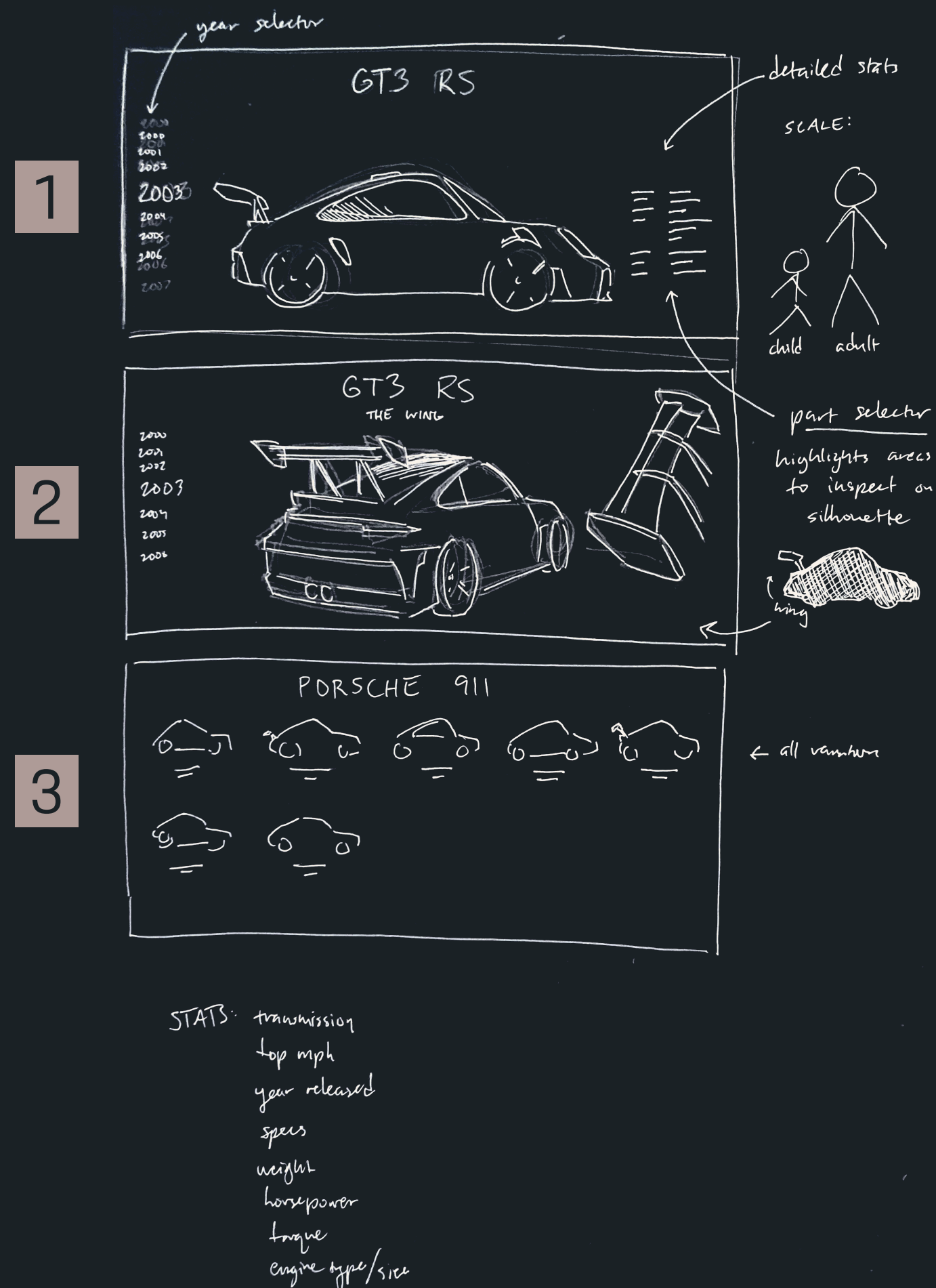


Sketches

1 - Variant Screen: has specs and a menu to "scroll through the years"

2 - Inspect: zoom in on one part, interactive 3D model

3 - Zoom Out: view more variants at one time (still chronological)

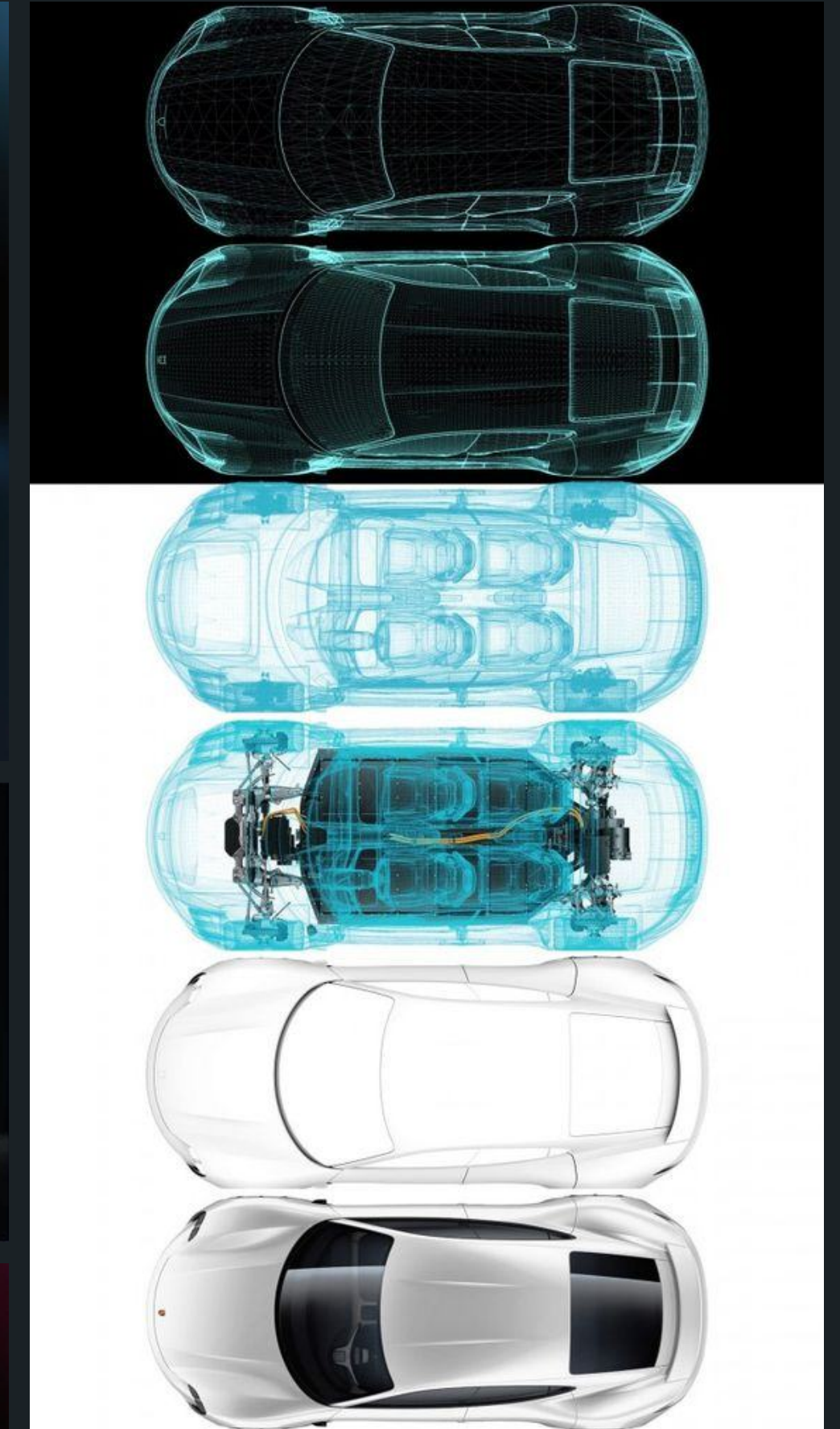
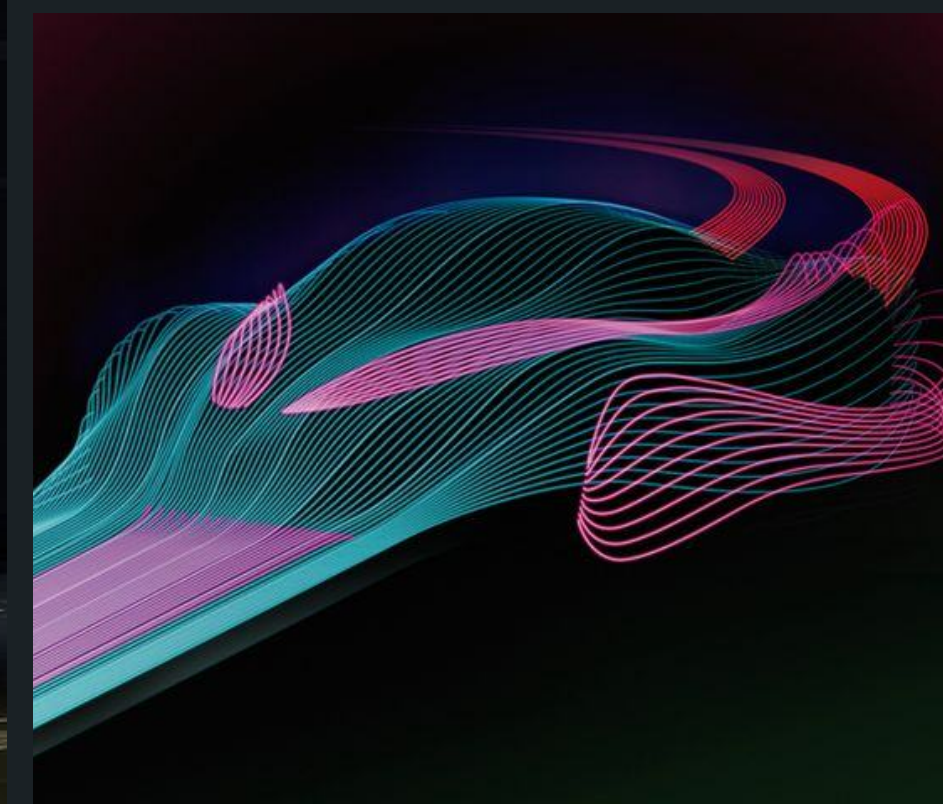


III - DESIGN PROCESS

Moodboard 1: Glow in the Dark

Clean, glowing contour lines against a dark background create dimension and depth, easily drawing the eye to the model.

keywords: sleek, hologram, futuristic

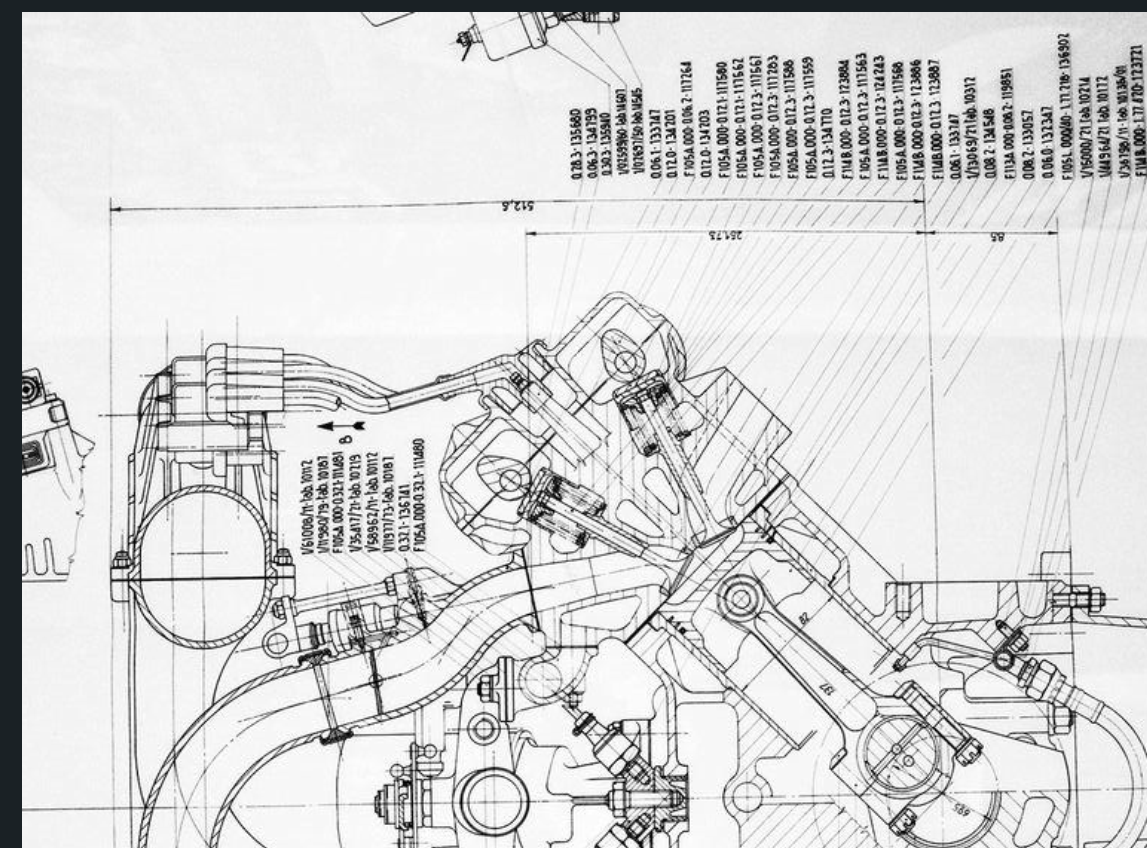
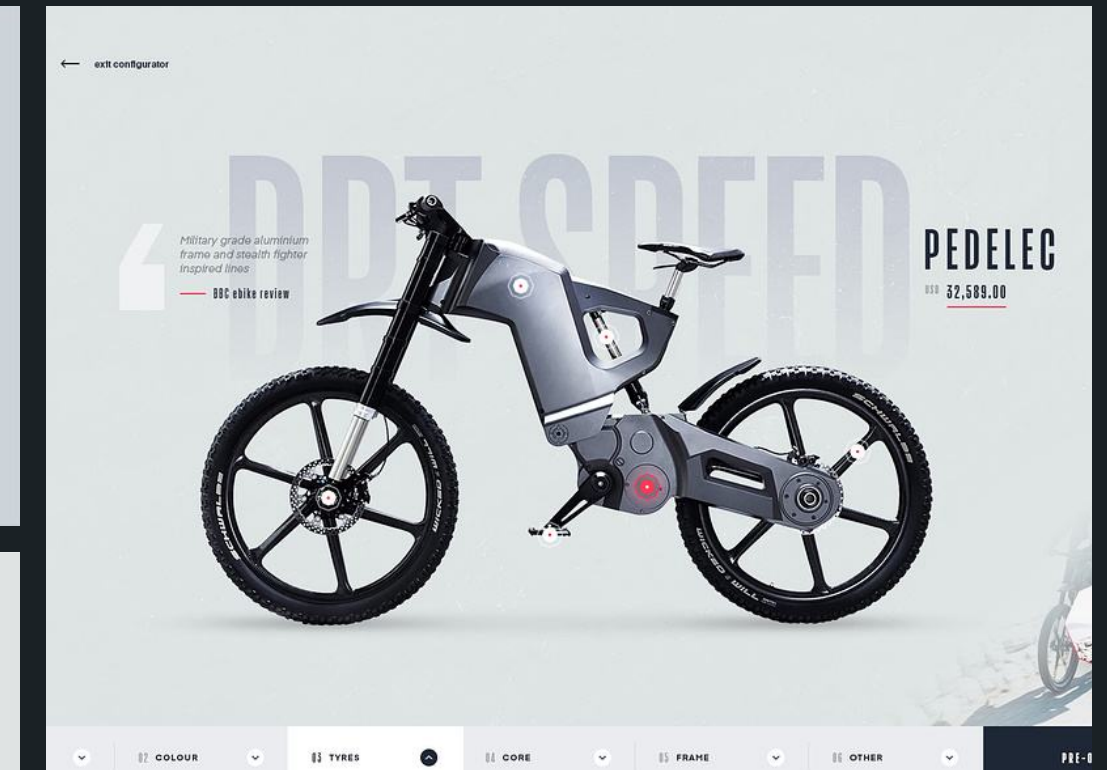
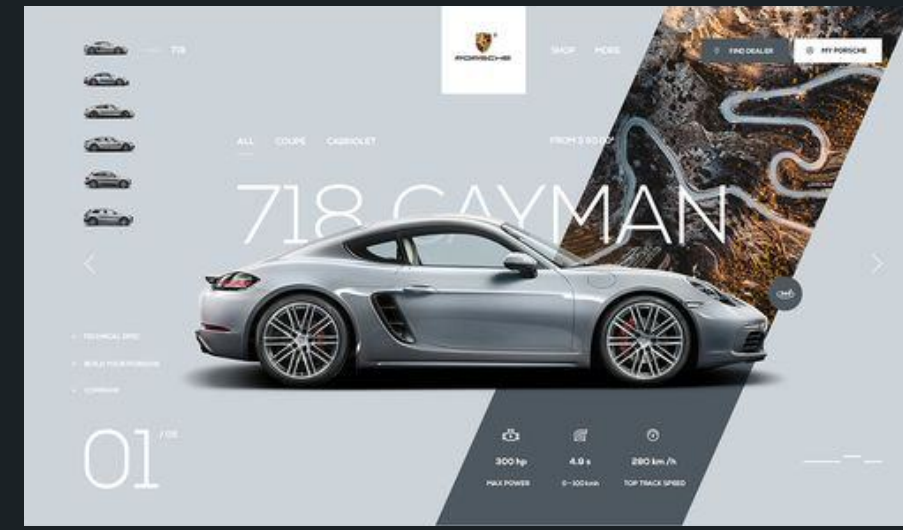
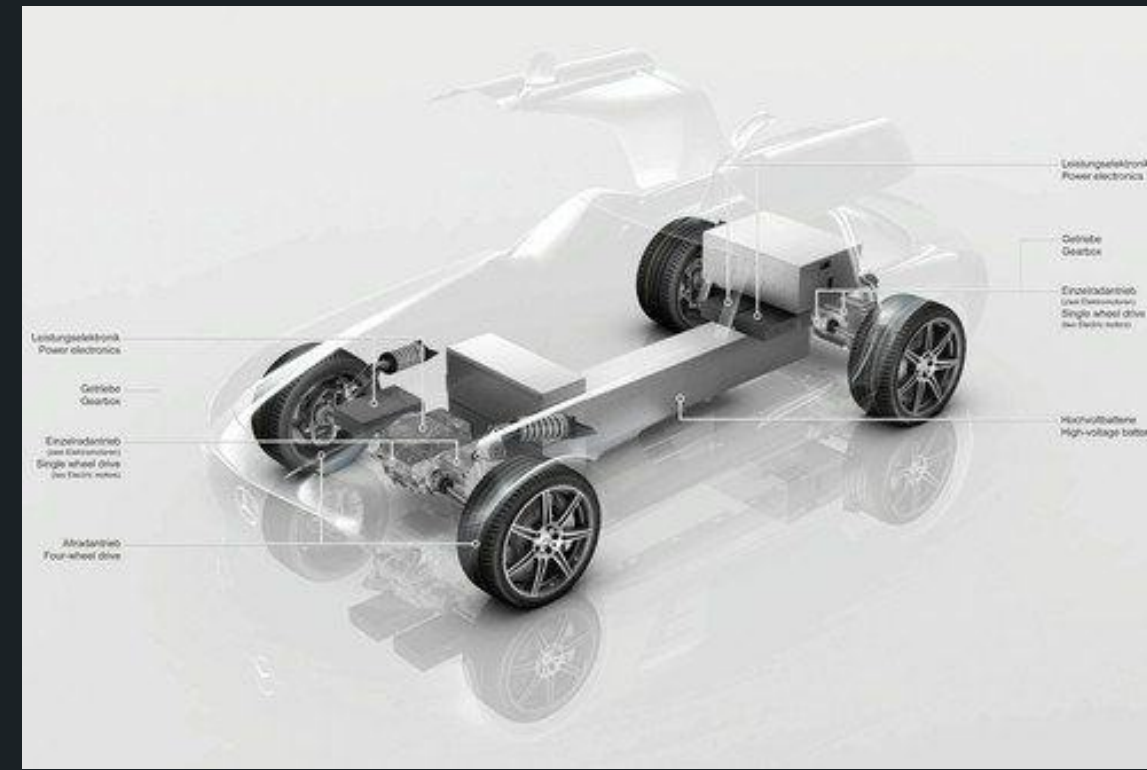


III - DESIGN PROCESS

Moodboard 2: Pen and Paper

Juxtaposing flat, blueprint-esque illustration against realistic 3D models creates visual intrigue in a negative space-heavy layout.

keywords: clean, light, minimalist



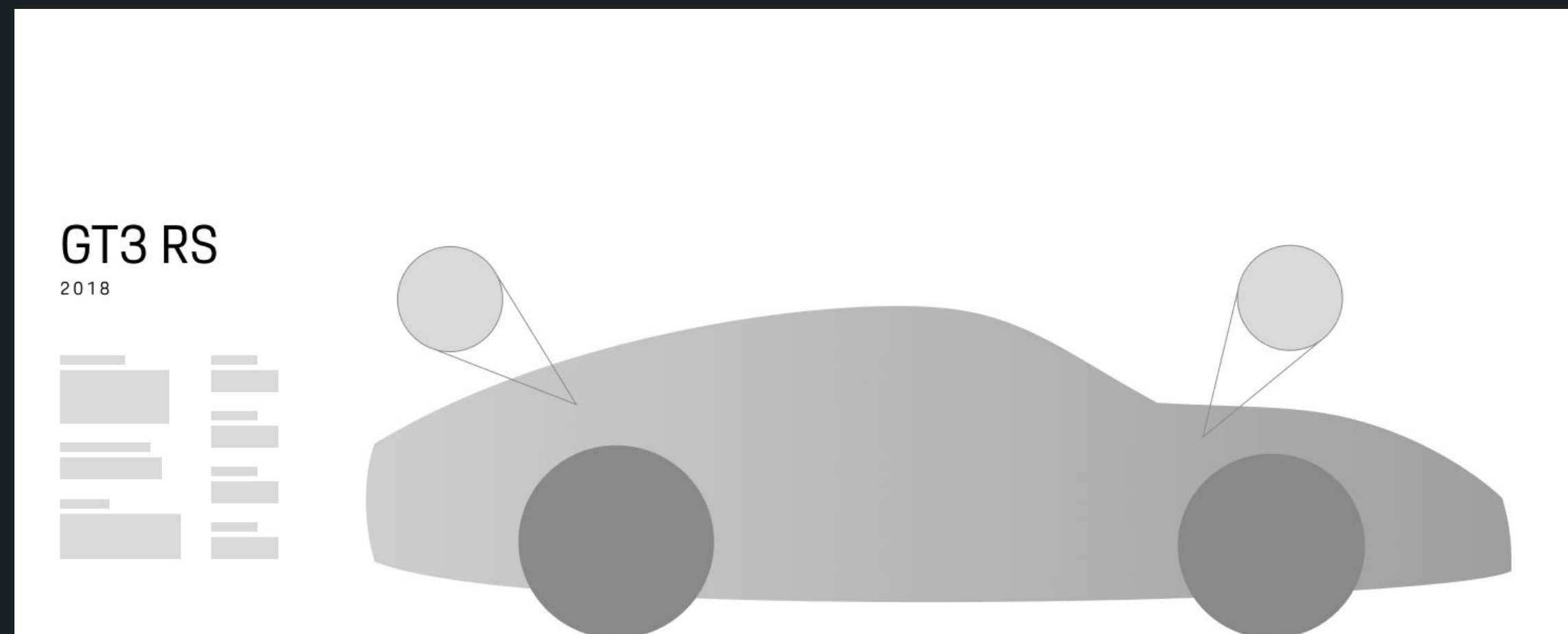
Wireframes 1/2



IDLE SCREEN: plays while not in use; animated to attract attention

VIEW ALL: view more variants at once in chronological format

Wireframes 2/2



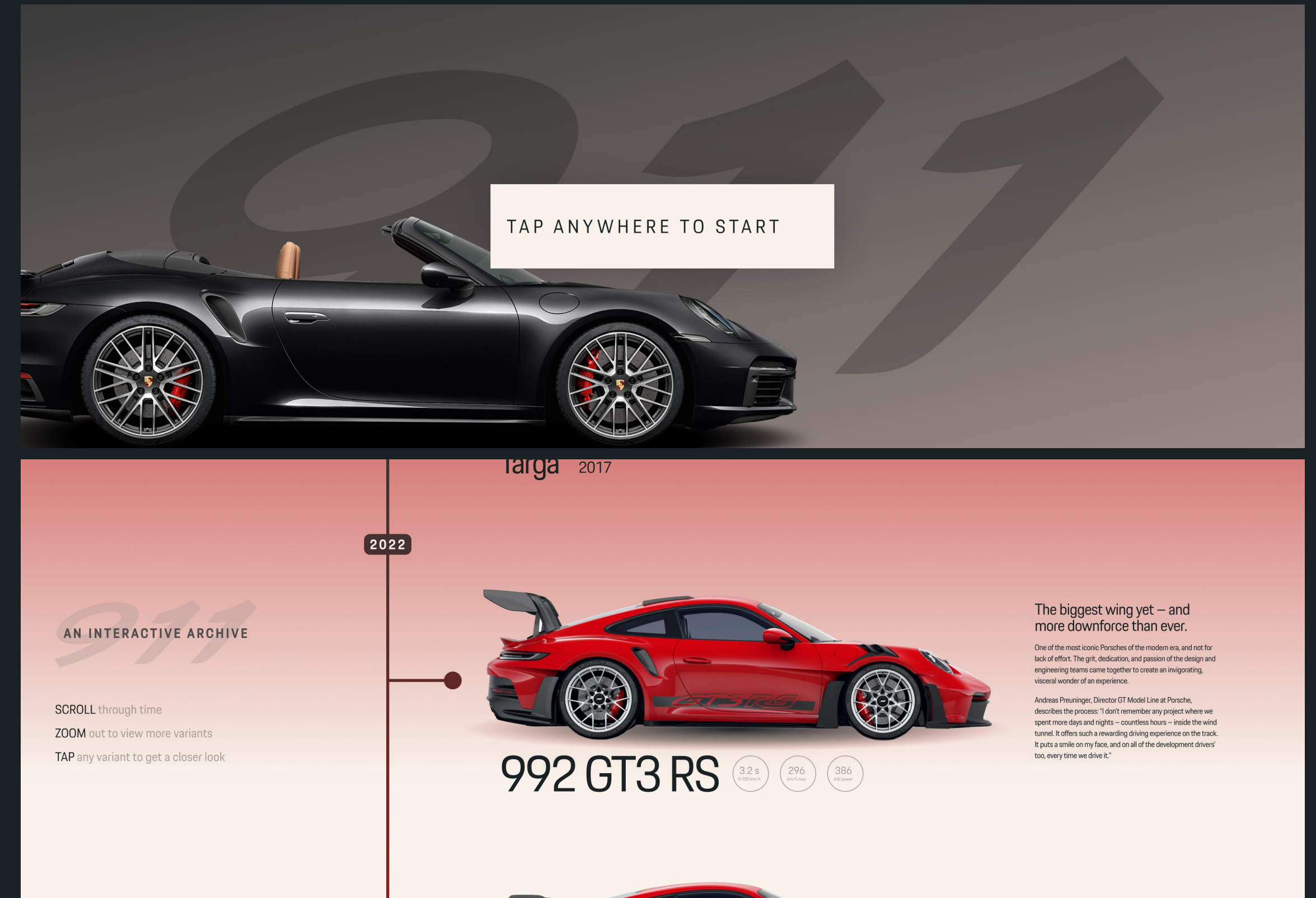
VARIANT SCREEN: shows stats and other information about the variant



INSPECT SCREEN: after clicking on a part, overlay appears (3D modeled)

Visual Composition 1 ^{1/2}

- generally very weak but a good start into designing a practical layout
- began implementing timeline feature
- unsure about navigation onboarding
- uninteresting story text layout (very blocky)



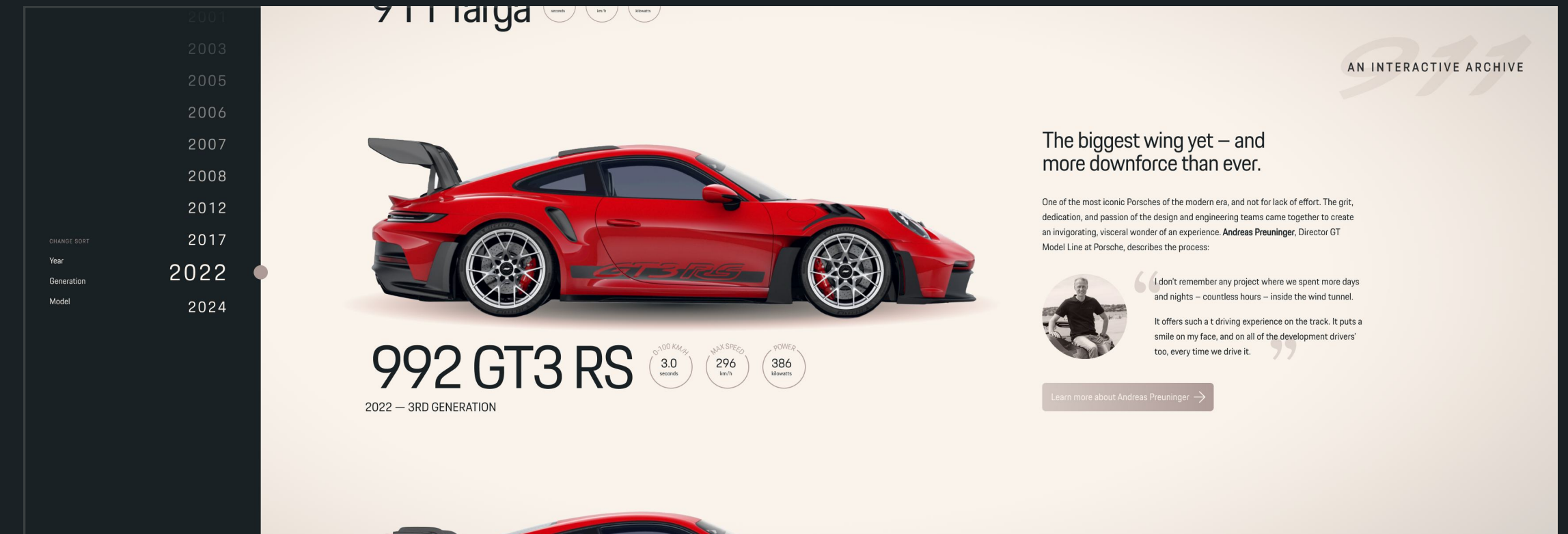
Visual Composition 1 2/2

- minimalist background emphasizes the car itself/creates a center of attention
- began developing mood dichotomy for variant screen and inspect screen through color and value contrast
- still had placeholders for stats



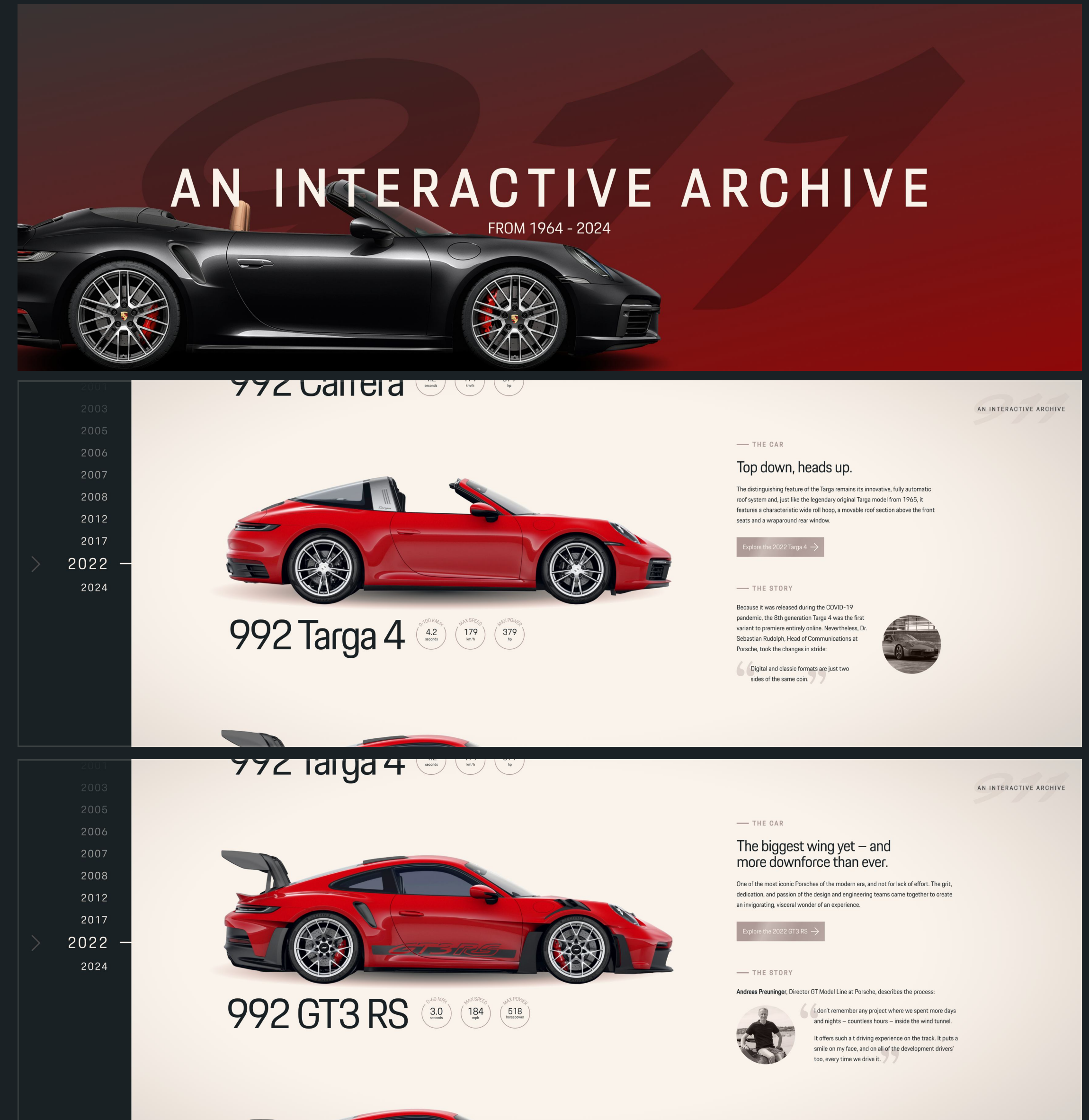
Visual Composition 2

- removed most of the red
- moved timeline and grouping selector to a distinct side menu
- added body copy and statistics on story and variant screens
- implemented first version of 3D model in the inspect screen (it was also at this point where I decide to descope and only use the 3D model on the inspect screen)



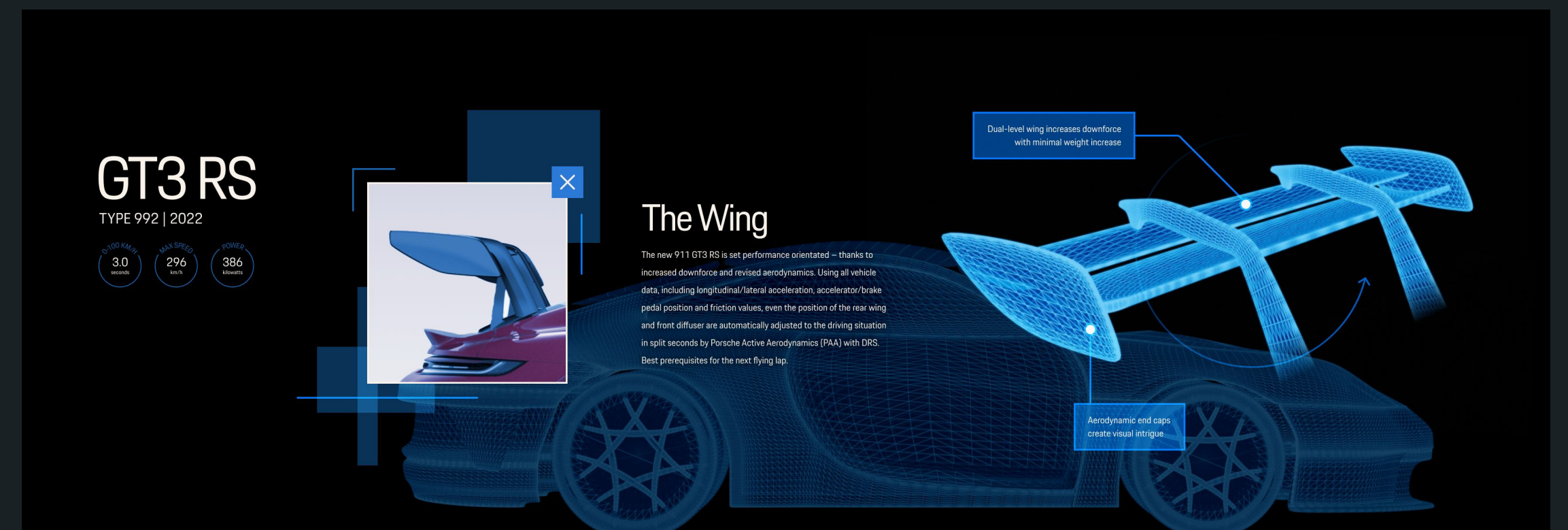
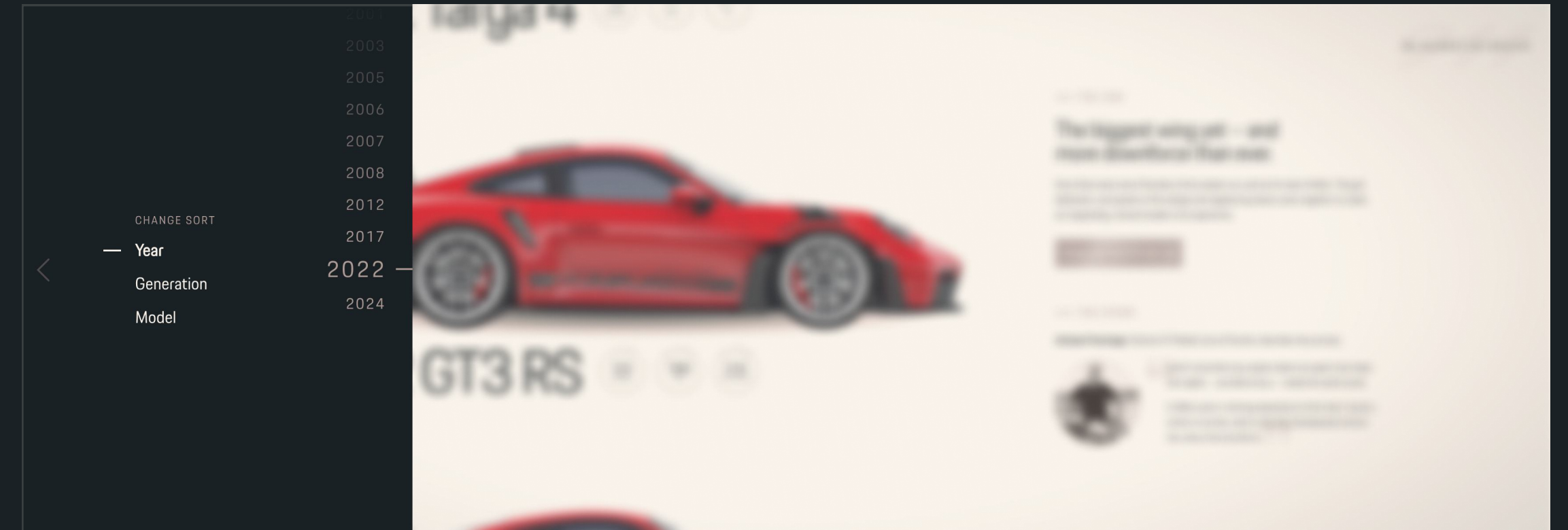
Visual Composition 3 ^{1/2}

- more descriptive idle screen
- revamped the menu: grouping selector is hidden by default, but can be accessed by swiping right on the menu
- separated story screen text into distinct sections: "The Car" and "The Body"
- created a secondary story screen



Visual Composition 3 2/2

- revamped menu: opened version
- implemented backwards navigation on variant screen
- implemented more complete 3D model in the inspect screen, added more visual elements for intrigue



SECTION IV

Final Design

Idle Screen




Story Screen 1

2001
2003
2005
2006
2007
2008
2012
2017
2022
2024

992 Carrera

4.2 seconds
179 km/h
379 hp



992 Targa 4

0-100 KM/H: 4.2 seconds
MAX SPEED: 179 km/h
MAX POWER: 379 hp

AN INTERACTIVE ARCHIVE

— THE CAR


Top down, heads up.

The distinguishing feature of the Targa remains its innovative, fully automatic roof system and, just like the legendary original Targa model from 1965, it features a characteristic wide roll hoop, a movable roof section above the front seats and a wraparound rear window.

Explore the 2022 Targa 4

— THE STORY

Because it was released during the COVID-19 pandemic, the 8th generation Targa 4 was the first variant to premiere entirely online. Nevertheless, Dr. Sebastian Rudolph, Head of Communications at Porsche, took the changes in stride:



“Digital and classic formats are just two sides of the same coin.”

Story Screen 2

2001
2003
2005
2006
2007
2008
2012
2017
2022
2024

992 Targa 4

3.0 seconds
177 km/h
377 hp

992 GT3 RS

0-60 MPH: 3.0 seconds
MAX SPEED: 184 mph
MAX POWER: 518 horsepower

AN INTERACTIVE ARCHIVE

— THE CAR

The biggest wing yet – and more downforce than ever.

One of the most iconic Porsches of the modern era, and not for lack of effort. The grit, dedication, and passion of the design and engineering teams came together to create an invigorating, visceral wonder of an experience.

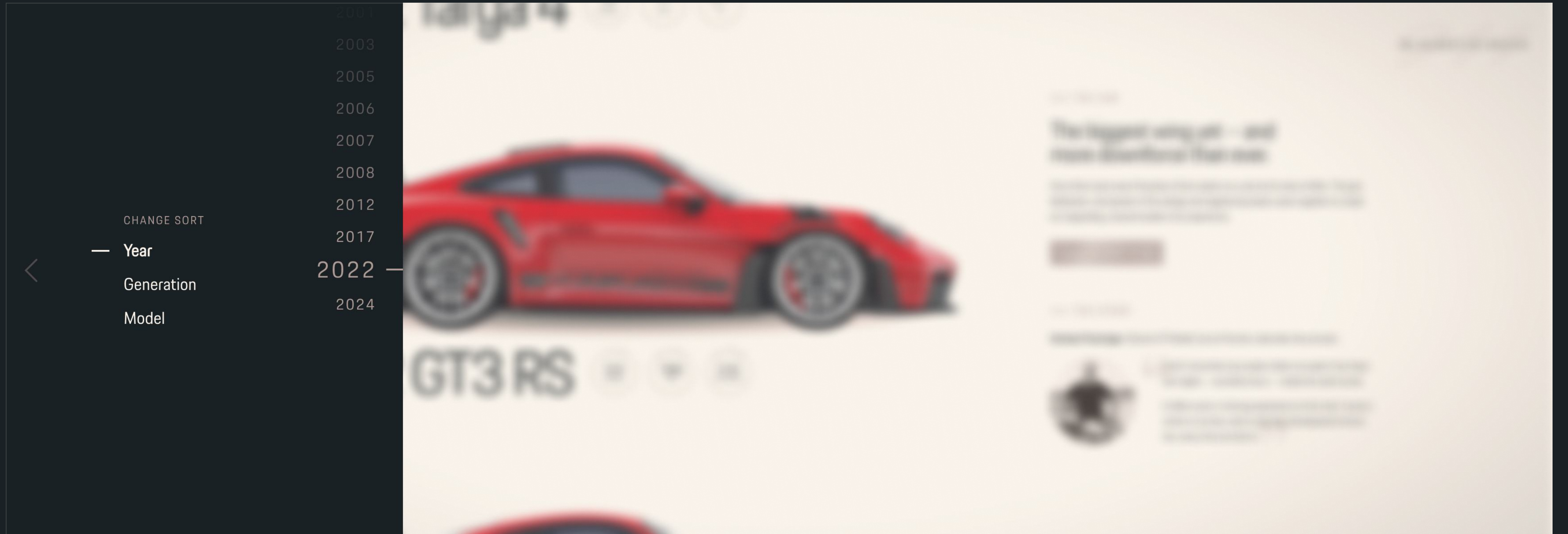
Explore the 2022 GT3 RS

— THE STORY

Andreas Preuninger, Director GT Model Line at Porsche, describes the process:

“I don't remember any project where we spent more days and nights – countless hours – inside the wind tunnel. It offers such a t driving experience on the track. It puts a smile on my face, and on all of the development drivers' too, every time we drive it.”

Menu



Variant Screen

GT3 RS

TYPE 992 | 2022



BORE	102.0 mm	HEIGHT	52.1"	WHEELBASE	96.7"
STROKE	81.5 mm	WIDTH	74.8"	LENGTH	180.0"

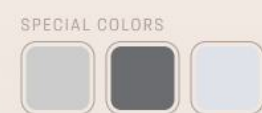
DISPLACEMENT
3,996 cc

MAX POWER
518 hp / 8,500 rpm

MAX ENGINE SPEED
9,000 rpm

MAX TORQUE
342 lb-ft / 6,300 rpm

MAX POWER PER LITER
129.5 hp/l



BACK TO VARIANTS

Inspect Screen

BACK TO 992 GT3 RS

GT3 RS

TYPE 992 | 2022

0-100 KM/H: 3.0 seconds
MAX SPEED: 296 km/h
POWER: 386 kilowatts

WING ✨

The Wing

The new 911 GT3 RS is set performance orientated – thanks to increased downforce and revised aerodynamics. Using all vehicle data, including longitudinal/lateral acceleration, accelerator/brake pedal position and friction values, even the position of the rear wing and front diffuser are automatically adjusted to the driving situation in split seconds by Porsche Active Aerodynamics (PAA) with DRS. Best prerequisites for the next flying lap.

Dual-level wing increases downforce with minimal weight increase

Aerodynamic end caps create visual intrigue



IV - FINAL DESIGN

Animated Prototype



Watch the animated prototype [here!](#)

SECTION V

Conclusion

Takeaways

3D modeling is a lot of work.

As such, this was one of my first large projects that, despite the affordable timeline, required heavy descoping. I had intended to 3D model every car that was featured, but the steep learning curve of Blender (a completely new software for me) forced a significant change in plans.

Still, I'm proud of the 3D that I did complete; especially, the material (with a thousand mix shaders) was a feat.

Resources

- all photos, videos, facts, quotes, and font are owned by Porsche
 - photos from Porsche car configurator
 - video 1, video 2, video 3
- 3D model is original (made with Blender)

Thanks for reading!